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1220	Co-operatives Act, 2005: Co-operatives to be struck from the register .....	42021	70
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1223	Broad-Based Black Economic Empowerment Act (53/2003): Codes of Good Practice on Broad Based Black Economic Empowerment.....	42021	73
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<b>Independent Communications Authority of South Africa/ Onafhanklike Kommunikasie-owerheid van Suid-Afrika</b>			
683	Electronic Communications Act (36/2005): Draft International Mobile Telecommunications (IMT) Road-map for consultation.....	42021	152
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684	Labour Relations Act, 1995: Metal and Engineering Industries Bargaining Council: Extension to Non-parties of the Pension Fund Collective Agreement .....	42021	337
685	Labour Relations Act, 1995: Metal and Engineering Industries Bargaining Council: Extension to Non-parties of the Provident Fund Collective Agreement .....	42021	365
686	Labour Relations Act, 1995: Bargaining Council for the Laundry, Cleaning and Dyeing Industry (KwaZulu-Natal): Extension of period of operation of the main collective agreement.....	42021	396
687	Labour Relations Act, 1995: Invitation to make representations: Dispute Resolution Levy and Registration of Employers Collective Agreement of the National Bargaining Council for the Wood and Paper Sector.....	42021	397
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688	Construction Industry Development Board Act (38/2000) (the Act): CIDB Best Practice Project Assessment Scheme: Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts, 25 October 2015 .....	42021	400
689	Construction Industry Development Board Act (38/2000): Standard for Health & Safety Plans and Auditing Requirements & Standard for Primary Health Assessments for Construction Works.....	42021	406
<b>Rural Development and Land Reform, Department of/ Landelike Ontwikkeling en Grondhervorming, Departement van</b>			
690	Restitution of Land Rights Act (22/1994): Lot 1 Albert Falls Township .....	42021	464

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691	Restitution of Land Rights Act (22/1994): Portion 28, of the farm Upper End of Langefontein No. 980 .....	42021	465
692	Restitution of Land Rights Act (22/1994): Portion 0 (remaining extent) of the farm Mount Verde No. 18081 .....	42021	467
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# Closing times for **ORDINARY WEEKLY** **2018** **GOVERNMENT GAZETTE**

*The closing time is 15:00 sharp on the following days:*

- **28 December 2017**, Thursday for the issue of Friday **05 January 2018**
- **05 January**, Friday for the issue of Friday **12 January 2018**
- **12 January**, Friday for the issue of Friday **19 January 2018**
- **19 January**, Friday for the issue of Friday **26 January 2018**
- **26 January**, Friday for the issue of Friday **02 February 2018**
- **02 February**, Friday for the issue of Friday **09 February 2018**
- **09 February**, Friday for the issue of Friday **16 February 2018**
- **16 February**, Friday for the issue of Friday **23 February 2018**
- **23 February**, Friday for the issue of Friday **02 March 2018**
- **02 March**, Friday for the issue of Friday **09 March 2018**
- **09 March**, Friday for the issue of Friday **16 March 2018**
- **15 March**, Thursday for the issue of Friday **23 March 2018**
- **22 March**, Thursday for the issue of Thursday **29 March 2018**
- **28 March**, Wednesday for the issue of Friday **06 April 2018**
- **06 April**, Friday for the issue of Friday **13 April 2018**
- **13 April**, Friday for the issue of Friday **20 April 2018**
- **19 April**, Thursday for the issue of Thursday **26 April 2018**
- **25 April**, Wednesday for the issue of Friday **04 May 2018**
- **04 May**, Friday for the issue of Friday **11 May 2018**
- **11 May**, Friday for the issue of Friday **18 May 2018**
- **18 May**, Friday for the issue of Friday **25 May 2018**
- **25 May**, Friday for the issue of Friday **01 June 2018**
- **01 June**, Friday for the issue of Friday **08 June 2018**
- **08 June**, Friday for the issue of Friday **15 June 2018**
- **15 June**, Friday for the issue of Friday **22 June 2018**
- **22 June**, Friday for the issue of Friday **29 June 2018**
- **29 June**, Friday for the issue of Friday **06 July 2018**
- **06 July**, Friday for the issue of Friday **13 July 2018**
- **13 July**, Friday for the issue of Friday **20 July 2018**
- **20 July**, Friday for the issue of Friday **27 July 2018**
- **27 July**, Friday for the issue of Friday **03 August 2018**
- **02 August**, Thursday for the issue of Friday **10 August 2018**
- **10 August**, Friday for the issue of Friday **17 August 2018**
- **17 August**, Friday for the issue of Friday **24 August 2018**
- **24 August**, Friday for the issue of Friday **31 August 2018**
- **31 August**, Friday for the issue of Friday **07 September 2018**
- **07 September**, Friday for the issue of Friday **14 September 2018**
- **14 September**, Friday for the issue of Friday **21 September 2018**
- **20 September**, Thursday for the issue of Friday **28 September 2018**
- **28 September**, Friday for the issue of Friday **05 October 2018**
- **05 October**, Friday for the issue of Friday **12 October 2018**
- **12 October**, Friday for the issue of Friday **19 October 2018**
- **19 October**, Friday for the issue of Friday **26 October 2018**
- **26 October**, Friday for the issue of Friday **02 November 2018**
- **02 November**, Friday for the issue of Friday **09 November 2018**
- **09 November**, Friday for the issue of Friday **16 November 2018**
- **16 November**, Friday for the issue of Friday **23 November 2018**
- **23 November**, Friday for the issue of Friday **30 November 2018**
- **30 November**, Friday for the issue of Friday **07 December 2018**
- **07 December**, Friday for the issue of Friday **14 December 2018**
- **13 December**, Thursday for the issue of Friday **21 December 2018**
- **19 December**, Wednesday for the issue of Friday **28 December 2018**

# LIST OF TARIFF RATES FOR PUBLICATION OF NOTICES

**COMMENCEMENT: 1 APRIL 2018**

## NATIONAL AND PROVINCIAL

Notice sizes for National, Provincial & Tender gazettes 1/4, 2/4, 3/4, 4/4 per page. Notices submitted will be charged at R1008.80 per full page, pro-rated based on the above categories.

Pricing for National, Provincial - Variable Priced Notices		
Notice Type	Page Space	New Price (R)
Ordinary National, Provincial	1/4 - Quarter Page	252.20
Ordinary National, Provincial	2/4 - Half Page	504.40
Ordinary National, Provincial	3/4 - Three Quarter Page	756.60
Ordinary National, Provincial	4/4 - Full Page	1008.80

## EXTRA-ORDINARY

All Extra-ordinary National and Provincial gazette notices are non-standard notices and attract a variable price based on the number of pages submitted.

The pricing structure for National and Provincial notices which are submitted as **Extra ordinary submissions** will be charged at **R3026.32** per page.

## GOVERNMENT PRINTING WORKS - BUSINESS RULES

The **Government Printing Works (GPW)** has established rules for submitting notices in line with its electronic notice processing system, which requires the use of electronic *Adobe* Forms. Please ensure that you adhere to these guidelines when completing and submitting your notice submission.

### CLOSING TIMES FOR ACCEPTANCE OF NOTICES

1. The *Government Gazette* and *Government Tender Bulletin* are weekly publications that are published on Fridays and the closing time for the acceptance of notices is strictly applied according to the scheduled time for each gazette.
2. Please refer to the Submission Notice Deadline schedule in the table below. This schedule is also published online on the Government Printing works website [www.gpwonline.co.za](http://www.gpwonline.co.za)

All re-submissions will be subject to the standard cut-off times.

**All notices received after the closing time will be rejected.**

Government Gazette Type	Publication Frequency	Publication Date	Submission Deadline	Cancellations Deadline
National Gazette	Weekly	Friday	Friday 15h00 for next Friday	Tuesday, 15h00 - 3 working days prior to publication
Regulation Gazette	Weekly	Friday	Friday 15h00 for next Friday	Tuesday, 15h00 - 3 working days prior to publication
Petrol Price Gazette	Monthly	Tuesday before 1st Wednesday of the month	One day before publication	1 working day prior to publication
Road Carrier Permits	Weekly	Friday	Thursday 15h00 for next Friday	3 working days prior to publication
Unclaimed Monies (Justice, Labour or Lawyers)	January / September 2 per year	Last Friday	One week before publication	3 working days prior to publication
Parliament (Acts, White Paper, Green Paper)	As required	Any day of the week	None	3 working days prior to publication
Manuals	Bi- Monthly	2nd and last Thursday of the month	One week before publication	3 working days prior to publication
State of Budget (National Treasury)	Monthly	30th or last Friday of the month	One week before publication	3 working days prior to publication
<i>Extraordinary Gazettes</i>	As required	Any day of the week	<i>Before 10h00 on publication date</i>	<i>Before 10h00 on publication date</i>
Legal Gazettes A, B and C	Weekly	Friday	One week before publication	Tuesday, 15h00 - 3 working days prior to publication
Tender Bulletin	Weekly	Friday	Friday 15h00 for next Friday	Tuesday, 15h00 - 3 working days prior to publication
Gauteng	Weekly	Wednesday	Two weeks before publication	3 days <b>after</b> submission deadline
Eastern Cape	Weekly	Monday	One week before publication	3 working days prior to publication
Northern Cape	Weekly	Monday	One week before publication	3 working days prior to publication
North West	Weekly	Tuesday	One week before publication	3 working days prior to publication
KwaZulu-Natal	Weekly	Thursday	One week before publication	3 working days prior to publication
Limpopo	Weekly	Friday	One week before publication	3 working days prior to publication
Mpumalanga	Weekly	Friday	One week before publication	3 working days prior to publication

## GOVERNMENT PRINTING WORKS - BUSINESS RULES

Government Gazette Type	Publication Frequency	Publication Date	Submission Deadline	Cancellations Deadline
Gauteng Liquor License Gazette	Monthly	Wednesday before the First Friday of the month	Two weeks before publication	3 working days <b>after</b> submission deadline
Northern Cape Liquor License Gazette	Monthly	First Friday of the month	Two weeks before publication	3 working days <b>after</b> submission deadline
National Liquor License Gazette	Monthly	First Friday of the month	Two weeks before publication	3 working days <b>after</b> submission deadline
Mpumalanga Liquor License Gazette	Bi-Monthly	Second & Fourth Friday	One week before publication	3 working days prior to publication

### EXTRAORDINARY GAZETTES

3. *Extraordinary Gazettes* can have only one publication date. If multiple publications of an *Extraordinary Gazette* are required, a separate Z95/Z95Prov *Adobe* Forms for each publication date must be submitted.

### NOTICE SUBMISSION PROCESS

4. Download the latest *Adobe* form, for the relevant notice to be placed, from the **Government Printing Works** website [www.gpwonline.co.za](http://www.gpwonline.co.za).
5. The *Adobe* form needs to be completed electronically using *Adobe Acrobat / Acrobat Reader*. Only electronically completed *Adobe* forms will be accepted. No printed, handwritten and/or scanned *Adobe* forms will be accepted.
6. The completed electronic *Adobe* form has to be submitted via email to [submit.egazette@gpw.gov.za](mailto:submit.egazette@gpw.gov.za). The form needs to be submitted in its original electronic *Adobe* format to enable the system to extract the completed information from the form for placement in the publication.
7. Every notice submitted **must** be accompanied by an official **GPW** quotation. This must be obtained from the *eGazette* Contact Centre.
8. Each notice submission should be sent as a single email. The email **must** contain **all documentation relating to a particular notice submission**.
  - 8.1. Each of the following documents must be attached to the email as a separate attachment:
    - 8.1.1. An electronically completed *Adobe* form, specific to the type of notice that is to be placed.
      - 8.1.1.1. For National *Government Gazette* or *Provincial Gazette* notices, the notices must be accompanied by an electronic Z95 or Z95Prov *Adobe* form
      - 8.1.1.2. The notice content (body copy) **MUST** be a separate attachment.
    - 8.1.2. A copy of the official **Government Printing Works** quotation you received for your notice. (*Please see Quotation section below for further details*)
    - 8.1.3. A valid and legible Proof of Payment / Purchase Order: **Government Printing Works** account customer must include a copy of their Purchase Order. **Non-Government Printing Works** account customer needs to submit the proof of payment for the notice
    - 8.1.4. Where separate notice content is applicable (Z95, Z95 Prov and TForm 3, it should **also** be attached as a separate attachment. (*Please see the Copy Section below, for the specifications*).
    - 8.1.5. Any additional notice information if applicable.

**GOVERNMENT PRINTING WORKS - BUSINESS RULES**

9. The electronic *Adobe* form will be taken as the primary source for the notice information to be published. Instructions that are on the email body or covering letter that contradicts the notice form content will not be considered. The information submitted on the electronic *Adobe* form will be published as-is.
10. To avoid duplicated publication of the same notice and double billing, Please submit your notice **ONLY ONCE**.
11. Notices brought to **GPW** by “walk-in” customers on electronic media can only be submitted in *Adobe* electronic form format. All “walk-in” customers with notices that are not on electronic *Adobe* forms will be routed to the Contact Centre where they will be assisted to complete the forms in the required format.
12. Should a customer submit a bulk submission of hard copy notices delivered by a messenger on behalf of any organisation e.g. newspaper publisher, the messenger will be referred back to the sender as the submission does not adhere to the submission rules.

**QUOTATIONS**

13. Quotations are valid until the next tariff change.
  - 13.1. **Take note:** **GPW's** annual tariff increase takes place on **1 April** therefore any quotations issued, accepted and submitted for publication up to **31 March** will keep the old tariff. For notices to be published from 1 April, a quotation must be obtained from **GPW** with the new tariffs. Where a tariff increase is implemented during the year, **GPW** endeavours to provide customers with 30 days' notice of such changes.
14. Each quotation has a unique number.
15. Form Content notices must be emailed to the *eGazette* Contact Centre for a quotation.
  - 15.1. The *Adobe* form supplied is uploaded by the Contact Centre Agent and the system automatically calculates the cost of your notice based on the layout/format of the content supplied.
  - 15.2. It is critical that these *Adobe* Forms are completed correctly and adhere to the guidelines as stipulated by **GPW**.
16. **APPLICABLE ONLY TO GPW ACCOUNT HOLDERS:**
  - 16.1. **GPW** Account Customers must provide a valid **GPW** account number to obtain a quotation.
  - 16.2. Accounts for **GPW** account customers **must** be active with sufficient credit to transact with **GPW** to submit notices.
    - 16.2.1. If you are unsure about or need to resolve the status of your account, please contact the **GPW** Finance Department prior to submitting your notices. (If the account status is not resolved prior to submission of your notice, the notice will be failed during the process).
17. **APPLICABLE ONLY TO CASH CUSTOMERS:**
  - 17.1. Cash customers doing **bulk payments** must use a **single email address** in order to use the **same proof of payment** for submitting multiple notices.
18. The responsibility lies with you, the customer, to ensure that the payment made for your notice(s) to be published is sufficient to cover the cost of the notice(s).
19. Each quotation will be associated with one proof of payment / purchase order / cash receipt.
  - 19.1. This means that **the quotation number can only be used once to make a payment.**

**GOVERNMENT PRINTING WORKS - BUSINESS RULES****COPY (SEPARATE NOTICE CONTENT DOCUMENT)**

20. Where the copy is part of a separate attachment document for Z95, Z95Prov and TForm03
- 20.1. Copy of notices must be supplied in a separate document and may not constitute part of any covering letter, purchase order, proof of payment or other attached documents.
- The content document should contain only one notice. (You may include the different translations of the same notice in the same document).
- 20.2. The notice should be set on an A4 page, with margins and fonts set as follows:
- Page size = A4 Portrait with page margins: Top = 40mm, LH/RH = 16mm, Bottom = 40mm;  
Use font size: Arial or Helvetica 10pt with 11pt line spacing;
- Page size = A4 Landscape with page margins: Top = 16mm, LH/RH = 40mm, Bottom = 16mm;  
Use font size: Arial or Helvetica 10pt with 11pt line spacing;

**CANCELLATIONS**

21. Cancellation of notice submissions are accepted by **GPW** according to the deadlines stated in the table above in point 2. Non-compliance to these deadlines will result in your request being failed. Please pay special attention to the different deadlines for each gazette. Please note that any notices cancelled after the cancellation deadline will be published and charged at full cost.
22. Requests for cancellation must be sent by the original sender of the notice and must be accompanied by the relevant notice reference number (N-) in the email body.

**AMENDMENTS TO NOTICES**

23. With effect from 01 October 2015, **GPW** will not longer accept amendments to notices. The cancellation process will need to be followed according to the deadline and a new notice submitted thereafter for the next available publication date.

**REJECTIONS**

24. All notices not meeting the submission rules will be rejected to the customer to be corrected and resubmitted. Assistance will be available through the Contact Centre should help be required when completing the forms. (012-748 6200 or email [info.egazette@gpw.gov.za](mailto:info.egazette@gpw.gov.za)). Reasons for rejections include the following:
- 24.1. Incorrectly completed forms and notices submitted in the wrong format, will be rejected.
- 24.2. Any notice submissions not on the correct *Adobe* electronic form, will be rejected.
- 24.3. Any notice submissions not accompanied by the proof of payment / purchase order will be rejected and the notice will not be processed.
- 24.4. Any submissions or re-submissions that miss the submission cut-off times will be rejected to the customer. The Notice needs to be re-submitted with a new publication date.

**GOVERNMENT PRINTING WORKS - BUSINESS RULES****APPROVAL OF NOTICES**

25. Any notices other than legal notices are subject to the approval of the Government Printer, who may refuse acceptance or further publication of any notice.
26. No amendments will be accepted in respect to separate notice content that was sent with a Z95 or Z95Prov notice submissions. The copy of notice in layout format (previously known as proof-out) is only provided where requested, for Advertiser to see the notice in final Gazette layout. Should they find that the information submitted was incorrect, they should request for a notice cancellation and resubmit the corrected notice, subject to standard submission deadlines. The cancellation is also subject to the stages in the publishing process, i.e. If cancellation is received when production (printing process) has commenced, then the notice cannot be cancelled.

**GOVERNMENT PRINTER INDEMNIFIED AGAINST LIABILITY**

27. The Government Printer will assume no liability in respect of—
  - 27.1. any delay in the publication of a notice or publication of such notice on any date other than that stipulated by the advertiser;
  - 27.2. erroneous classification of a notice, or the placement of such notice in any section or under any heading other than the section or heading stipulated by the advertiser;
  - 27.3. any editing, revision, omission, typographical errors or errors resulting from faint or indistinct copy.

**LIABILITY OF ADVERTISER**

28. Advertisers will be held liable for any compensation and costs arising from any action which may be instituted against the Government Printer in consequence of the publication of any notice.

**CUSTOMER INQUIRIES**

Many of our customers request immediate feedback/confirmation of notice placement in the gazette from our Contact Centre once they have submitted their notice – While **GPW** deems it one of their highest priorities and responsibilities to provide customers with this requested feedback and the best service at all times, we are only able to do so once we have started processing your notice submission.

**GPW** has a 2-working day turnaround time for processing notices received according to the business rules and deadline submissions.

Please keep this in mind when making inquiries about your notice submission at the Contact Centre.

29. Requests for information, quotations and inquiries must be sent to the Contact Centre **ONLY**.
30. Requests for Quotations (RFQs) should be received by the Contact Centre at least **2 working days** before the submission deadline for that specific publication.

## GOVERNMENT PRINTING WORKS - BUSINESS RULES

### PAYMENT OF COST

31. The Request for Quotation for placement of the notice should be sent to the Gazette Contact Centre as indicated above, prior to submission of notice for advertising.
32. Payment should then be made, or Purchase Order prepared based on the received quotation, prior to the submission of the notice for advertising as these documents i.e. proof of payment or Purchase order will be required as part of the notice submission, as indicated earlier.
33. Every proof of payment must have a valid **GPW** quotation number as a reference on the proof of payment document.
34. Where there is any doubt about the cost of publication of a notice, and in the case of copy, an enquiry, accompanied by the relevant copy, should be addressed to the Gazette Contact Centre, **Government Printing Works**, Private Bag X85, Pretoria, 0001 email: [info.egazette@gpw.gov.za](mailto:info.egazette@gpw.gov.za) before publication.
35. Overpayment resulting from miscalculation on the part of the advertiser of the cost of publication of a notice will not be refunded, unless the advertiser furnishes adequate reasons why such miscalculation occurred. In the event of underpayments, the difference will be recovered from the advertiser, and future notice(s) will not be published until such time as the full cost of such publication has been duly paid in cash or electronic funds transfer into the **Government Printing Works** banking account.
36. In the event of a notice being cancelled, a refund will be made only if no cost regarding the placing of the notice has been incurred by the **Government Printing Works**.
37. The **Government Printing Works** reserves the right to levy an additional charge in cases where notices, the cost of which has been calculated in accordance with the List of Fixed Tariff Rates, are subsequently found to be excessively lengthy or to contain overmuch or complicated tabulation.

### PROOF OF PUBLICATION

38. Copies of any of the *Government Gazette* or *Provincial Gazette* can be downloaded from the **Government Printing Works** website [www.gpwonline.co.za](http://www.gpwonline.co.za) free of charge, should a proof of publication be required.
39. Printed copies may be ordered from the Publications department at the ruling price. The **Government Printing Works** will assume no liability for any failure to post or for any delay in despatching of such *Government Gazette*(s)

## GOVERNMENT PRINTING WORKS CONTACT INFORMATION

**Physical Address:**
**Government Printing Works**

149 Bosman Street

Pretoria

**Postal Address:**

Private Bag X85

Pretoria

0001

**GPW Banking Details:**
**Bank:** ABSA Bosman Street

**Account No.:** 405 7114 016

**Branch Code:** 632-005

**For Gazette and Notice submissions:** Gazette Submissions:

**For queries and quotations, contact:** Gazette Contact Centre:

**E-mail:** [submit.egazette@gpw.gov.za](mailto:submit.egazette@gpw.gov.za)
**E-mail:** [info.egazette@gpw.gov.za](mailto:info.egazette@gpw.gov.za)
**Tel:** 012-748 6200

**Contact person for subscribers:** Mrs M. Toka:

**E-mail:** [subscriptions@gpw.gov.za](mailto:subscriptions@gpw.gov.za)
**Tel:** 012-748-6066 / 6060 / 6058

**Fax:** 012-323-9574

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**GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS**

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**DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES**

NO. 1213

09 NOVEMBER 2018

**FERTILIZER, FARM FEEDS, AGRICULTURAL REMEDIES AND STOCK REMEDIES ACT, 1947  
(ACT NO. 36 OF 1947)****PROPOSED AMENDMENT OF REGULATIONS RELATING TO FARM FEEDS**

I, Senzeni Zokwana, Minister of Agriculture, Forestry and Fisheries, acting under Section 23 of the Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947), hereby publish a notice to invite public comments on the proposed amendment to Farm Feeds Regulations.

The above-mentioned proposed amendment is accessible on DAFF website: [www.daff.gov.za](http://www.daff.gov.za) for public access at the following address route: Branch→ Agricultural Production, Health & Food Safety →Agriculture Inputs Control→ Gazette and notices→ press enter

Comments must be submitted in writing within 60 days of publication of this notice to:

Name: Jonathan Mudzunga  
Designation: Registrar: Act No. 36 of 1947  
Postal Address: Private Bag X 343, PRETORIA, 0001  
Physical Address: 20 Steve Biko Road, Arcadia, PRETORIA  
Tel.: (012) 319 7303  
Fax: (012) 319 7179  
E-Mail: [MalutaM@daff.gov.za](mailto:MalutaM@daff.gov.za)

**S. Zokwana,**  
**Minister of Agriculture, Forestry and Fisheries**

## DEPARTMENT OF HOME AFFAIRS

NO. 1214

09 NOVEMBER 2018

## ALTERATION OF FORENAMES IN TERMS OF SECTION 24 OF THE BIRTHS AND DEATHS REGISTRATION ACT, 1992 (ACT NO. 51 OF 1992)

The Director-General has authorized the following persons to assume the forename printed in *italics*:

1. Tebogo Tsholetsane - 991227 5336 086 - 4281 Unit D, Extension 6, TEMBA, 0407 - *Tebogo Elias*
2. Maria Mmalehuma Mmane - 891007 0446 085 - 50 Hugo Street, Saanolaagte, ZEERUST, 2865 - *Maria Mmasentle*
3. Breedt Breedt - 000318 5107 087 - Kareepoort Farm, MAKWASSIE, 2650 - *Zander*
4. Nombasa Lusiti - 950408 0527 080 - 271 Varsity Drive, Reservoir Hills, GREYVILLE, 4091 - *Nombasa Mbali Fathima*
5. Welliam Lebaea - 870225 5544 085 - 13048 Lehututu Street, KIMBERLEY, 8300 - *Thapelo William*
6. Presious Tenyeko Mthuki - 980919 0870 084 - 1561 Shexika Street, Zenzele, MOHLAKENG, 1759 - *Precious Tinyiko*
7. Sobi Zacharia Machel - 000404 5379 080 - 61217 Extension 15, Evanton West, SEBOLKENG, 1983 - *Tebello Sobi Zacharia*
8. Amphiwe Precious Poto - 000731 0640 086 - 17420 Extension 8, Soshanguve, PRETORIA, 0152 - *Aphiwe Precious*
9. Masepetele Merriam Mahlaba - 960422 0406 086 - 45 Van Boschotew Street, POLOKWANE, 0700 - *Keabetswe*
10. Jennifer Mbilwini Mhlanga - 000601 5473 082 - Muchipisi, MALAMULELE, 0952 - *Melvin Mbilwini*
11. Mampeli Alinah Mofokeng - 930114 0625 081 - 369 Zone 8, SEBOKENG, 1983 - *Katleho Alinah*
12. Masande Ndzakana - 940515 0808 089 - House No 2551, Boiketlong, SEBOKENG, 1983 - *Masande Thozeka*
13. Sikiso Silinda - 980220 5112 089 - 1565 Zone 4, Zonkizizwe, KATLEHONG, 1431 - *Sifiso*
14. Rellile Madigwe - 980608 0869 085 - Manavhela, P.O Box 597, VUWANI, 0952 - *Ramogohlo Reabilwe*
15. Tetelo Ngwashubisa Precious Ntsoane - 990612 0454 086 - 3645 Zone B, Mphahlele, LEBOWAKGOMO, 0737 - *Tetelo Precious Ramaite*
16. Vuyo Vennessa Banjatwa - 950110 0394 087 - 1010 Arcadia Street, Hatfield, PRETORIA, 0082 - *Vuyo Vanessa Alata*
17. Jeffrey Collin Olivier - 811121 5428 084 - 4 Anchovy Street, KIMBERLEY, 8300 - *Qasim*
18. Nthabiseng Khutela Mphela - 961130 0183 089 - 11854 Indlovu Street, Extension 14, VOSLOORUS, 1475 - *Nthabiseng Khutela Precious*
19. Sello Jonny Kganaka - 971016 5752 085 - Box 11, BOCHUM, 0790 - *Sontaga John*
20. Lebogang Catherine Latoya Mabaso - 970730 0628 089 - 526 Siyabuswa B, MDUTJANA, 0476 - *Lebogang Latoya*
21. Hifaniseleka Bethuel Mhantani - 960226 5579 080 - 9390 Extension 44, Greenside, POLOKWANE, 0699 - *Faniseleni Bethuel*
22. Doctor Moeng - 901001 5842 081 - Ga Mothipa, Driekop, MASHISHING, 1129 - *Doctor Madiseng*
23. Alfred Madabola Madumo - 690109 5738 087 - Stand 1114, Soshanguve East, SOSHANGUVE, 0152 - *Elijah*
24. Kamocelo Enalt Nogoli - 000511 5216 086 - 5172 Ikati Street, Extension 24, OLIVENHOUTBOSCH, 0175 - *Kamogelo*
25. Khutsafalo Gladys Seketlane - 850306 0492 084 - B 343, Obama Village, KURUMAN, 8460 - *Lemogang Gladys*
26. Phosa Ellie Sekele - 001127 5456 082 - Stand No 82, DOORNSPRUIT, 0759 - *Phosa Elijah*
27. Zwivhuya Nebulaudzi - 911211 0723 081 - 22 Grove Street, Fernadale, RANDBURG, 2194 - *Zwivhuya Mildred*
28. Aletta Josina De Kock - 760122 0034 084 - 1320 Ruiter Road, MOKOPANE, 0560 - *Alec José*
29. Serufe Lydia Pitse - 820219 0534 085 - 2127 Maudu Street, MAKAPANSTAD, 0404 - *Lydia Refilwe*
30. Sitelu Ngubane - 680506 5520 088 - 2104 Daffodil Road, Extension 25, Florida Road, ROODEPOORT, 1724 - *Bongimpilo Stanley*

31. Lebogang Seithlamo - 880513 0231 081 - 11425 Mtipastreet, Orlando West Extension, SOWETO, 1804 - *Lebogang Thulisile*
32. Mpuse Sannah Lephuthing - 870210 0265 084 - 6 Fegan Street, Sasolburg, VANDERBIJLPARK, 1947 - *Puseletso Sannah*
33. Cinishea Shankie Japhta - 000510 0218 089 - 340 Alacia Street, Rosedale, UITENHAGE, 6029 - *Linishea*
34. Nkosivile Bhumka - 991212 5925 088 -, MOUNT AYLIFF, 4735 - *Professor Nkosivile*
35. Xolani Phellimon Nyathela - 941008 5071 084 - 2195 J Section, Botshabelo, BLOEMFONTEIN, 9781 - *Xolani*
36. Matshokwane Annah Monyela - 900523 0500 084 - Aalwyn Crescent, Florapark, TZANEEN, 0850 - *Zoe Shoki Phenyio*
37. Koketso Mashadi Msiza - 900710 0389 085 - 6148 Section R, Seete Bosio Street, MAMELODI WEST, 0122 - *Paul Ghibash*
38. Sosah Jacobina Ledwaba - 930106 0149 088 - 5304 Mananya Street, Section P, MAMELODI WEST, 0122 - *Paul*
39. Zukile Nogqala - 890119 5626 081 - Peelton Location, KING WILLIAMS TOWN, 5600 - *Zukile Max Motif*
40. Busisiwe Fatema Goolam - 950215 0717 086 - 1589 Trenance Park, Phase 2 B, VERULAM, 4339 - *Fatema*
41. Tumeke Ntentema - 920507 0518 085 - 17629bart Street, Ezinyoka, PORT ELIZABETH, 6059 - *Tumeke Nosiphiwo*
42. Keletso Makua - 980909 5949 082 - 38 Icanti Street, Lotus Gardens, PRETORIA, 0025 - *Sedieletše Keletso*
43. Keletso Rakotsoane - 951123 5364 087 - 10 Mohube Street, Saulsville, PRETORIA, 0125 - *Keletso Muhammad*
44. Mmaphuthi Decican Makgabo - 980328 5203 087 - 13080 Miilo Street, Ivory Park, MIDRAND, 1685 - *Decican Maphuti*
45. Kyazzi Philane Ndadana - 990120 5756 083 - Emahawini, UMZIMKHULU, 3297 - *Kwazi Philane*
46. Emmelie Vengadajalam - 990104 0253 080 - Lot 17, Redcliff, VERULAM, 4340 - *Nasreen*
47. Bruecstin Lee-Roy Ruiters - 990201 5640 087 - 254 Kershout Weg, New Horizon, PLETTENBURG BAY, 6600 - *Bruceston Lee-Roy*
48. Freneck Dikeledi Nkgapele - 730928 0869 080 - Mohlatlareng, Naphuno, TZANEEN, 0857 - *Frenck Dikeledi Manthaka*
49. Pett Mhlongo - 971015 5835 080 - Mavele Location, TZANEEN, 0871 - *Pat*
50. Karabo Charity Ledwaba - 000830 5773 080 - Mathibela Village, Grooethoek, LEBOWAKGOMO, 0628 - *Karabo*
51. Funeka Mgosongo - 850122 0683 089 - Pumlo Area, LUSIKISIKI, 4820 - *Nokopi*
52. Sinovuyo Mjakuja - 810216 5775 087 - 31 Dullah Omar Street, Fiscantekraal, DURBANVILLE, 7550 - *Bulelani*
53. Xolela Monene - 901216 5516 085 - Stand No 1851, Siyathuthuka, BELFAST, 1102 - *Tshepo Xolela*
54. Hlobile Pelludice Masina - 930729 0365 089 - 343 Zembe Street, Extension 2, Vosloorus, BOKSBURG, 1475 - *Hlobile Pearl*
55. Wanri Ihlenfeldt - 910318 0088 083 - 5 Mint Street, Arcon Park, VEREENIGING, 1939 - *Wanri Smit*
56. Lethiba Maureen Maphupha - 890707 0920 085 - Stand No 150, Dikga Koreng, GROBLERSDAL, 0474 - *Lethiba Musa*
57. Malekoa Immaculate Ramabele - 800811 0450 082 - 11 7th Avenue, Melville, JOHANNESBURG, 2092 - *Seipone Malekoa*
58. Shandr –Jane Daniels - 960605 0222 087 - 57 Proteus Street, Ocean View, WYNBERG, 7975 - *Shandrè Jane*
59. Romain Sha - 950416 0341 089 - 31 Delta Palm, Palm View, DURBAN, 4068 – *Samara*
60. Tiego Mothapo - 871112 6004 088 - 23604 Leraga Street, Extension 4, MAMELODI, 0122 - *Refilwe Tiego Glen*
61. Moranang Valley Phahlamohlaka - 851221 5480 084 - Masehlaneng, Sekhukhune, JANE FURSE, 1124 - *Mokau Valley*
62. Patience Pooe - 750926 0561 082 - 1900 Block L, SOSHANGUVE, 0152 - *Grace Patience*
63. Pricilla Lesedi Mokoena - 890317 0633 082 - 153 James Road, Silverton, PRETORIA, 0184 - *Priscilla*

64. Mahlodi Patricia Sehata - 871009 0677 085 - 9847 Ivory Park, MIDRAND, 1685 - *Patricia*
65. Nodagithethe Daniso - 690515 0445 082 - Stand No 4 Julia Street, Highlands North, ALEXANDRA, 2990 - *Nodathini Felicia*
66. Malefu Mantsoe - 910929 1031 086 - Stand No 33, Fenwood, NEWCASTLE, 2940 - *Hope*
67. Thabo Mohlala - 980702 0775 085 - Bothashoek, BURGERSFORT, 1150 - *Thabo Sharon*
68. Innocentia Dikeledi Chigo - 910124 0911 088 - 4312 Block 5, MOLOTO, 1022 - *Innocentia Hunadi*
69. Tsotsopi Makosi - 750202 2456 089 - Hewu Village, WHITTLESEA, 6360 - *Tsotsopi Vuyiswa*
70. Xolani Victor Mokhomong - 890909 5354 084 - 1651 Makhale Street, Ratanda, HEIDELBERG, 1438 - *Xolani Victor Mpho*
71. Malefokana Monthati Maloko - 990718 5170 088 - 80 Vaalboskat Street, HESTEAPARK, 0182 - *Malefokana Ntelale Monthati*
72. Petrus Mosale Machubeng - 941113 5508 083 - 987 Block Dd, SOSHANGUVE, 0152 - *David Kgamedi*
73. Jessica Lexine Kelly Kotze - 990711 0340 087 - New Glasgow Road, Hazelmere , VERULAM, 4340 - *Saudah*
74. Khyle Ford - 951105 5041 088 - 19 Seventh Avenue, HAZENDAL, 7764 - *Abdu-Daiyaan*
75. Brad Samuels - 951212 5076 088 - 17 Lantana Way, Uitsig, RAVENSMEAD, 7490 - *Kauthar*
76. Ramir Ebrahim - 960106 5064 087 - 34th Rothesbay Road, West Beach, BLOUBERG, 7441 - *Aamir*
77. Mahlatse Rambau - 990830 5393 089 - 118 Ebony Park, Defferenbachia, MIDRAND, 1685 - *Aluwani Daniel Mahlatse*
78. Bhekizizwe Prince Shihlomulo - 990619 5152 086 - 154 Pula Straat, White City, JABAVU, 1868 - *Kagiso Prince*
79. Lawrence Mosiamiemang Leradile - 851220 5520 089 - 1317 Lopapeng Section, SETLAGOLE, 2773 - *Mosiamiemang*
80. Ntombizodwa Margaret Twala - 750609 0875 088 - 1933 Extension X, MABOPANE, 0196 - *Sophy Sibongile*
81. Selina Mathibela - 910716 0249 086 - 40 Dann Road, Glenmarais, KEMPTON PARK, 1619 - *Samukiwe Selina*
82. Lethabo Phineas Galane - 930922 5825 088 - 473/373 Difateng Section, TEMBISA, 1632 - *Lethabo Tshwane Setlakala*
83. Njanyana John Radebe - 770223 5331 083 - 15 Alberty Street, VANDERBIJL PARK, 1911 – *Njanyana John Mkhonto*
84. Mabothata Elizabeth Simango - 970217 0369 088 - 1656 Lapologa Street, CHRISTIANA, 2680 - *Noluthando Elizabeth*
85. Kim Kelly Viljoen - 970116 0402 081 - 23 Edna Court, Hoosain Park Street, Parkwood Estate, WYNBERG, 7941 - *Yasmin*
86. Keabetswe Ranamane - 991224 5345 084 - 797 Maropeng Section, MAKAPANSTAD, 0407 - *Keabetswe Kgwale*
87. Violet Ntjantja Motsieloa - 900306 0509 085 - 11995 Zone 7 A, SEBOKENG, 1983 - *Tshepiso Violet*
88. Gaebolae Ovelia Bosaman - 941217 0569 089 - D 52 Ncwelengwe, KURUMAN, 8460 - *Sive Ovelia*
89. Gibson Manyaka - 930404 5764 088 - Plot 6, Tarlton, MOGALE CITY, 1739 - *Kgaume Gibson*
90. Nthabiseng Mosai - 940427 0251 080 - 13391 Sommerspost, Zamdela, SASOLBURG, 1949 - *Nthabiseng Bianca*
91. Dennis Che-Yu Chou - 941201 5219 080 - 965 Marycole Street, ROODEPOORT, 1724 - *Ryan Che-Yu*
92. Siyabonga Wellblesed Motha - 990913 5236 084 - 48 Brietta Street, Ridgeway, JOHANNESBURG, 2091 - *Damian Wellblessed*
93. Jacobus Fortuin - 990419 5274 083 - 23 Safrann Street, KUILSRIVER, 7550 - *Duwayne*
94. Nkosephaya Eldine Songca - 471107 5407 088 - Mhlakulo Area, TSOLO, 5170 - *Nkosephayo Eldine*
95. Phokane Thato Bokaba - 971208 0350 086 - Stand 1853, Mahareng, NOKENG VILLAGE, 0432 - *Thato*
96. Lerato Kgotso Karedi - 801121 5521 088 - 2081 D Section, BOTSHABELO, 9781 - *Kgotso*
97. Sibabalwe Buso - 960116 0657 082 - 12 Hertzog Street, DESPATCH, 6220 - *Buhle Sibabalwe*

98. Malehlohonolo Confidence Mpele - 980925 0354 086 - 5664 Chris-Hani Street, Zamdela, SASOLBURG, 1949 - *Boitshepo*
99. Hupulang Lumphondo - 000916 5662 082 - Nkande Area, NQUTHU, 3135 - *Hulpulang Thabiso*
100. Nkoana Thobejane - 000229 5308 080 - Fortein, MASHISHING, 1120 - *Nkoana Bonolo*
101. Jaques Hendrik Pelser - 000508 5023 082 - 90 Dammann Street, GLENCOE, 2930 - *Jacques Hendrik*
102. Hloniphile Mdakane - 900520 0569 085 - 283 Christoffel Street, PRETORIA WEST, 0183 - *Prosper Hloniphile*
103. Lebo Zihle Mngomezulu - 001129 0806 089 - 8495 Extension 11, EMBALENHLE, 2285 - *Relebogile Zinhle*
104. Monique Andrews - 940530 0676 089 - 9 Summit Street, MITCHELLS PLAIN, 7785 - *Mareldia*
105. Lehlogonolo Mcnivien Maja - 000322 5955 081 - Makurung, GA MPHAAHLELE, 0736 - *Madimetja Lehlogonolo Jeffrey*
106. Phindile Forencia Mazibuko - 800602 0723 085 - Ezakheni Area, WASBANK, 2920 - *Phindile Florentia*
107. Zanele Jeaneth Mthombeni - 910515 0757 084 - F 610, OSIZWENI, 2952 - *Zanele Jeanet*
108. Lucy Mihlotini Mabaso - 790427 0541 085 - Stand No 1210, DWARSLOOP, 1281 - *Lucy Muhluri*
109. Maboyi Paulinah Ramotshwane - 900618 0311 084 - 18188 Frank Kitsa Street, BLOEMFONTEIN, 9323 - *Paballo Pauline Maboyi*
110. Godleni Happy Gama - 870101 0740 087 - Road D 1911, Ngonyameni, INGWAVUMA, 3968 - *Philile Happy*
111. Happy Motiacepula Machaka - 930102 0357 086 - Diawale, VAALBANK, 0449 - *Happy Mottalepula*
112. Xolile Faas - 770301 5638 085 - Room 1078, Cookhouse, ILINGE, 5330 - *Xolile Albert*
113. Mpumelelo Cingo - 851014 5541 082 - Dubanala, LUSIKISIKI, 4820 - *Mpumelelo China*
114. Nodekuthini Mavis Nyameli - 710606 1537 088 - Mkapusi Area, LADY FRERE, 5410 - *Nodekuthini Mavis Somila*
115. Mashudu Asher Muedi - 920404 6066 089 - 621 Esselen Park, TEMBISA, 1626 - *Brent*
116. Tihokammoni Cate Mahlangu - 770702 0703 081 - 814 Block W, SOSHANGUVE, 0152 - *Bontle Mmapula Cate*
117. Roxanne Chamé Peters-Crouch - 871219 0061 087 - 170 Sunderland Street, FACTRETON, 7405 - *Azrah*
118. Clifford Motseothata Molokwane - 790523 5455 089 - 36 West Street, KEMPTON PARK, 1619 - *Clifford*
119. Asam Mampane - 970921 0292 089 - 36 Govan Mbeki Street, LOTUS GARDENS, 0008 - *Boitumelo Mbalienhle*
120. Judas Makhubela - 910911 6145 087 - 80 Eagle Dawn Zeiss Road, Honeydew, ROODEPOORT, 2170 - *Ntsako Judah*
121. Bongumuzi Mbatha - 991117 5753 085 - Kwadenge Area, CATORIDGE, 3680 - *Bongumenzi*
122. Talenta Wisdom Mathebula - 870710 5885 083 - 117 Emerald Bolavard Street, GREENSTONE, 2196 - *Talenta Vutlhari*
123. Thuhoane Manuel Masemola - 920805 5821 086 - Masehlaneng, GA-PHAAHLA, 10640 - *Mokgobi Manuel*
124. Lilian Sibiya - 830527 0588 085 - Stand No 229, Homu 14 A, GIYANI, 0826 - *Lilian Ntsako*
125. Abeqnico Lebohang Nkwatsi - 900610 5239 089 - 36 Willow Drive, Acaciaville, LADYSMITH, 3370 - *Verse Lebohang*
126. Cornelius Kgangmpepe Mataboge - 851004 5645 082 - 875 Mmamogale Drive, MUNSIEVILLE, 1739 - *Cornelius Thabo*
127. Motswalabapedi Peter Maeyane - 750205 5643 082 - 9590 Markman Street, OLIVIENHOUTBOSCH, 0001 - *Mahlagaume Peter*
128. Amkele Mgengo - 001012 5742 089 - 142 Maphanga Street, KATLHEGONG, 1461 - *Samkelo*
129. Tshepiso Paula Mothibi - 000223 0490 084 - Moletjie, MMOTONG, 0742 - *Tshepiso Paulina*
130. Makhwenkwandile Mgcinemi - 000628 5786 080 - 2623 Thembisa, BURGERSDORP, 9744 - *Andile*

131. Elizabeth Sentsho - 001105 0342 085 - 245 Robalang Section, RAMOKOKSTAD, 0195 - *Kelebogile Elizabeth*
132. Ntheeletsang Veronica Bonyane - 990818 0517 083 - 1790 S, Mokhareng, TAUNG, 8584 - *Ntheeletsang Renolo Veronica*
133. Dennis Bopane Ramaloko - 970712 5521 089 - Ga-Madikana, BOCHUM, 0790 - *Lebogang Popa Dennis*
134. Huttani Mthimkhulu - 000831 5853 088 - Nzinga Location, EMPEDLE, 3227 - *Kgoetlang*
135. Thilivhali Godfrey Ndou - 811224 5167 080 - Stand No 675, Hamakhuvhu, VUTALI, 0971 - *Redeemer*
136. Rosslyn Dibakiso Mthembu - 891029 0369 083 - 15232 Extension 11, SOSHANGUVE, 0152 - *Rose Dibakiso*
137. Johana Sekhwela - 931221 5905 084 - Bolodedu South, RELELA VILLAGE, 0850 - *Johana Robert*
138. Phillistus Marupa Mphela - 971008 0600 088 - Standno 161, GA-MPHELA, 0773 - *Phillistus Bright*
139. Nicholas Tsharane Mpe - 980926 5541 081 - Stand No 692, GA-MOLEPO, 0700 - *Nicholas Boo*
140. Kgaogelo Mphahlele - 930629 5817 086 - Mamaolo, GA-MPHAHLELE, 0736 - *Kgaogelo Namedi*
141. Ramakgahlele Maggy Marobane - 940922 0727 089 - Moroke Village, BURGERSFORT, 1154 - *Modishi Maggy*
142. Mmanake Motheo Nyalungi - 891111 0744 083 - 10705 Ga-Molefane, MAPELA, 0610 - *Konyana Motheo*
143. Ayakha Langa - 000612 5605 086 - 67 Church Street, Chitwa Village, MT AYLIFF, 4735 - *Ayakha Baxolile*
144. Lawrence Ayanda Ngubane - 890620 5844 087 - 080152 Maphephetheni, INANDA, 4309 - *Ayanda*
145. Makhuvha Solomon Oral Ramuageli - 931018 5840 083 - 73 Albertina Sisulu Road, JOHANNESBURG, 2001 - *Ahmed Oral*
146. Heather Mamaitse Radebe - 840209 0258 088 - 378 /23 Waterbuck Street, Lehae Extension 1, LENASIA, 1829 - *Teboho Mamaitse*
147. Dhanasagree Naidoo - 891025 0229 087 - 31 Hallbridge Lane, PHOENIX, 4068 - *Devina*
148. Makhosi Jali - 880916 0739 088 - 7011 Nkosi Stand, OSIZWENI, 2952 - *Makhosi Pretty*
149. Justice Matsheka - 870526 5583 084 - 30988, Phola Village, MOTLHABENG, 2735 - *Itumeleng Justice*
150. Sasha Beukes - 890815 0067 086 - 71 Grasmere Street, CAPETOWN, 7764 - *Saadiqah*
151. Bajabhisile Mncwango - 960828 0811 085 - Thokoza Area, NONGOMA, 3950 - *Bajabhisile Nonkanyiso*
152. Minko Matentji - 860407 5689 084 - 01224 Hlalanekahle, Hlogotlou, MONSTERLUS, 1057 - *Motsoto Minko*
153. Kgositsile Jacob Seekoei - 771212 5956 089 - 834 Myane Road, Selosessa, THABANCHU, 9780 - *Babiky Jacob King*
154. Malleke Jules Ngoasheng - 830824 5677 082 - Malemeng Section, GA-MARISHANE, 1064 - *Shikoane Jules*
155. Dumisani Cube - 830325 5486 086 - Nkwezela Location, BULWER, 3227 - *Dumisani Sporo*
156. Masle Anne Keyser - 891215 0181 087 - 8 Pertunia Street, UPINGTON, 8801 - *Nasley-Ann*
157. Keamogetswe Motsepe - 000514 5562 087 - 8275 Phase 2, MORULA VIEW, 0190 - *Keamogetswe Kevin*
158. Malefu Gladys Thapong - 961120 0606 080 - 11768 Phase 5, BLOEMFONTEIN, 9323 - *Bohlokwa Gladys*
159. Lebogang Rungwane Makgopa - 930209 0671 083 - Mohlaletse, SEKHUKHUNE, 1124 - *Lebogang Lesibe*
160. Thembinkosi Petros Dikobo - 961114 5175 084 - 6100 Lusaka Section, Tumahole, PARYS, 9585 - *Thembinkosi*
161. Promise Gcinile Sithole - 900620 1141 080 - 040123 Milkyway Road, Dassenhoek, PINETOWN, 3600 - *Nomzamo Gcinile*
162. Mmanawa Jasmine Shanunu - 000223 0773 083 - 209 Mmotong, GA-MABOTJA, 5278 - *Lesego Fatima*
163. Thabiso Mathews Matupa - 901122 5683 083 - 7 Glasogle Street, KURUMAN, 8460 - *Thabiso Njabs Theemost*
164. Maleka Clemence Mpshe - 800222 5495 082 - Stand No 342, Moteti Mmotoaneng, MOTETI, 0491 - *Makgabo Maleka Clemence*

165. Ashley October - 900809 5209 080 - 68 Beniley Crescent, Beacon Valley, MITCHELLS PLAIN, 9785 - *Aziz*
166. Colleen Logan Samsondien - 900401 0257 080 - 59 Erie Court, Hanover Park, CAPE TOWN, 7780 - *Kauthar*
167. Althia Candice Fortuin - 900513 0239 080 - 29 Jerome Street, Acardia, PORT ELIZABETH, 6059 - *Alethia Candice*
168. Antonio Alistair Samuels - 900814 5258 087 - 14 D Grindel Crescent, LAVENDER HILLS, 7945 - *Abduraghmaan*
169. Ronaldo Wilfred Botha - 900522 5200 088 - 24 Gamet Crescent, STEENBERG, 7945 - *Riyaaaz*
170. Lorenzo Martin - 901128 5212 088 - 45 Oyster Catcher Road, PELICAN PARK, 7941 - *Nasief*
171. Saadiya Bux - 900821 0052 084 - 109 Plumbago, Westwood, WESTVILLE, 3629 - *Saadiya Mia*
172. Maseribane Mahlangu - 830326 1168 082 - Stand No 27, Moteti C, MOTETI, 0477 - *Maseribane Lebogang*
173. Nhlanhla Simangaliso Monatisa - 850515 5349 087 - 15845 Snake Park, KROONSTAD, 9499 - *Tebello Elias*
174. Kealeboga Guilty Phalane - 910602 0395 089 - 20534 Aa Section, LEROME, 0318 - *Kealeboga*
175. Sambulo Cele - 001223 5568 081 - Amatimatolo Area, GREYTOWN, 3250 - *Buyani Sambulo*
176. Gushwin Ashley Van Neel - 861211 5099 081 - 17 Calendula Street, PIKETBERG, 7320 - *Gurshwin Ashley Tommy*
177. Sitiwel Hlabishi Madika - 950831 5619 083 - P O Box 73, GA MARISHANE, 1064 - *Sidwell Mokiritlane*
178. Michelle Lee-Ann Vieira - 790314 0232 081 - 168 Wedgewood Green, Smith Street, BEDFORDVIEW, 2008 - *Michael Lee*
179. Anthena Melissa Isaacs - 871222 0228 086 - 31 Lukas Street, VALHALLA PARK, 7490 - *Taalayah*
180. Jeremiah Jonathan Van Biljon - 631222 5016 081 - 24 Staats Street, Ravensklip, BOKSBURG, 1459 - *Wayne Jonathan*
181. Dario José Pereira - 870410 5011 083 - 107 Madeline Street, Florida, ROODEPOORT, 1725 - *Naeem Dario Jose*
182. Cuzetta Jo-Ann Raubenheimer - 870618 0237 087 - 37 8th Avenue, ELSIES RIVER, 7490 - *Suzette Jo-Ann*
183. Sean Van Wyk - 660922 5667 080 - 455 Leiden Avenue, DELFT, 7100 - *Sean Karl*
184. Edward George Julius - 440322 5417 080 - 14 Erica Court, MANENBERG, 7769 - *Ebrahim*
185. Marlyn Simmons - 620718 0146 081 - , HANOVER PARK, 7780 - *Marawia*
186. Katriena Smith - 630921 0241 088 - 24 Josephus Crescent, PORTERVILLE, 6810 - *Cathy*
187. Madenea Samodien - 660917 0227 088 - 33 Noreen Court, HEIDEVELD, 7764 - *Marilyn*
188. Mark Julies - 640912 5074 085 - 23 Inkbloem Street, KALK STEENFONTEIN, 7785 - *Moegamat*
189. Sara Johanna Poonasaib - 660609 0049 089 - 06 Stasie Street, KEIMOES, 8860 - *Serona*
190. Max Naidu - 670712 5176 085 - 10 Gem Clay One, Clayfield, PHOENIX, 4068 - *Magandran Max*
191. Erica Narlis - 671105 0163 084 - 40 Victoria Avenue, HOUT BAY, 7806 - *Argyro*
192. Matswane Patrick Phala - 980209 5768 081 - Ga Makheru, JANE FURSE, 1085 - *Matsoshe Patrick*
193. Vijandra Rooplal - 690410 5112 087 - 253 Boundary Road, Northriding, RANDBURG, 2162 - *Vijen*
194. Ronnel Zabora Zabora - 710123 0278 086 - 11 Gemmell Place, DURBAN NORTH, 4051 - *Ronnel Elizabeth*
195. Obed Wata Phalane - 700801 5710 086 - Stand 41, Phalane Stand, Five Morgan, DENNILTON, 1030 - *Obed Percy Wata*
196. Dineshree Pillay - 971120 0281 080 - 65 Sandlewood Groove, West Cliff, CHATSWORTH, 4092 - *Dineshree Jamie-Li*
197. Thiloshnie Ruthlyn Chetty - 720122 0217 084 - 19 Cintrine Avenue, Arena Park, CHATSWORTH, 4092 - *Ruthlyn*

198. Adrian Sebastian Rockman Rockman - 730217 5046 088 - 30 Totius Street, Overbaakens, PORT ELIZABETH, 6070 - *Adrian Sebastian*
199. Charles Frank Olivier - 700703 5286 085 - 42 Amatola Crescent, HEIDVELD, 7764 - *Moegamad Cassiem*
200. Theodore Hendricks - 690331 5192 087 - 86 First Aveune, SHERWOODPARK, 7764 - *Taaria Theodore*
201. Magrieta Maria Lawens - 730602 0154 088 - 1th Avenue 223, Bersig, CALITZDORP, 6660 - *Rita Magrieta Maria*
202. Mmakutuma Jack Modiba - 001004 5646 089 - 1684 Leboeng Extension 5, TEMBISA, 1632 - *Siyabonga Jack*
203. Caroline Shadigolo Moshime - 000925 0094 084 - 5667 A Thamsan Street, Zone 5, DIEPKLOOF, 1862 - *Reneilwe Shadigolo Caroline*
204. Lillian Mokoena - 810607 0557 084 - 45 Corporal Street, Tasbet Park, Extension 3, WITBANK, 1040 - *Lillian Palesa*
205. Koleka Marionette Moraope - 810404 0515 084 - 2 Protea Tuine, Boswell Street, VANDERBIJLPARK, 1911 - *Koleka*
206. Mithavini Ruler Mahundla - 910804 0847 081 - 437 Shawela Block 23, GIYANI, 0826 - *Mithavini Rhulani*
207. Phumla Zandile Thwala - 931213 0397 086 - C2908, MADADENI, 2951 - *Zoe*
208. Priscillah Chauke - 950806 0707 083 - Block L, SOSHANGUVE, 0152 - *Jafta Talitha*
209. Terrentia Ruella Naidoo - 991204 0167 089 - 12 Bronze Street, EMPANGENI, 3880 - *Tia*
210. Nonkululeko Sikhosana - 920306 0891 083 - P4 Jwara Road, UMLAZI, 4066 - *Nonkululeko Nomonde Nonjabulo*
211. Masesi Lydia Radebe - 901111 0344 080 - Stand No 2042, Zone B, SESHEGO, 0699 - *Mbalenhle Lydia*
212. Masetlolela Glodia Mohale - 000908 0347 082 - 1737 H3 Section, BOTSHABELO, 9781 - *Lerato Glodia*
213. Buyaphi Lungisephi Ngobese - 900430 0655 084 - House No 2938, Sibiya Stand, Blaaubosch, OSIZWENI, 2952 - *Mabuyi Buyisiwe*
214. Kershnee Moodley - 950816 0235 084 - Mobeni Leceister Road, House 249, CHATSWORTH, 4092 - *Saffiya*
215. Steward Nhlapo - 771209 5486 083 - 1585 A Vilakazi Street, Emndeni South, KWAXUMA, 1868 - *Steward Makhosonke*
216. Nxabase Mthimkulu - 930329 0774 081 - 8804 Vilakazi Street, CHARPVILLE, 1928 - *Neo*
217. Sebina Mirriam Sebegu - 860624 0443 081 - 15059 Snake Park, Maokeng, KROONSTAD, 9499 - *Sebina Pontsho*
218. Siyabulela Andile Klaas - 750518 5825 081 - Tanga Area, BUTTERWORTH, 4960 - *Majolandile Siyabulela*
219. Asaf Mampuru - 820525 5695 089 - P O Box 230, STEELPOORT, 1133 - *Asaph Bauba*
220. Axole Tshoba - 991109 5613 088 - Thoweni, BUTTERWORTH, 4960 - *Chuma Axole*
221. Alisa Tsholofelo Malesa - 880615 0542 084 - 3171 Machidi Section, MATHIBESTAD, 0400 - *Alice Tsholofelo*
222. Nivanya Murugan - 920226 0191 088 - 18 Cairo Street, Nirvan, POLOKWANE, 0699 - *Nivanya Elisha*
223. Dipuo Florence Sekopelo - 910604 0300 085 - 450 Mampudi Street, Khutsong Township, CARLETONVILLE, 2499 - *Dipuo Faith*
224. Karabo Erence Leso - 890312 5738 085 - P O Box 70058, GA MAJA, 0719 - *Modikana Phineas*
225. Pardon Chavalala - 880920 5885 086 - 2930 A Zone 1, MEADOWLANDS, 1852 - *Miyelani Pardon*
226. Xolani Mbuyiseni Mbangi - 951212 5171 087 - 8609 Mabitsela Street, ORLANDO WEST, 1804 - *Xolanizithazakhe Mbuyiseni Zwelibanzi Ntsikayomzi*
227. Victor Mmapula Mogashoa - 910511 5664 086 - 915 Re Cooper Street, KIRKNEY, 0183 - *Victor Daniel*
228. Sarah Mamothomang Aphane - 930426 0581 084 - 3890 Section 1, EKANGALA, 1021 - *Boitumelo Melody*
229. Michel Jerrard Heynes - 800226 5206 084 - 578 Nicolaas Arends Avenue, BELLVILLE, 7530 - *Michele Jerreé*
230. Lindsey Mark September - 820123 5184 088 - 26 Snooker Close, MITCHELLSPLAIN, 7785 - *Junaid*

231. Hermanes De Koker - 750322 5192 083 - Oosterville, UPINGTON, 8801 - *Deeyone Hermanus*
232. Arnoldus Jacobus Spies - 600210 5052 088 - Sussensvale, MODIMOLE, 0480 - *Arno*
233. Mervyn Samuel Sampson - 600805 5086 083 - Factreton, CAPE TOWN, 7405 - *Mujahid*
234. Dudley Sylvester Tities - 921028 5263 089 - Wesbank, MALMESBURY, 7300 - *Moeneeb*
235. Nozigqibo Msindo - 961209 0450 084 - 1237 A White City, Tshabangu Drive, JABAVU, 1809 - *Nozigqibo Nokuthula*
236. Olwethu Michelle Mbiza - 981004 0715 081 - B-67 Bhaqola Street, MBEKWENI, 7620 - *Olwethu*
237. Tumiso Moletse Ralepelle - 000102 5750 082 - P O Box 2156, JANE FURSE, 1085 - *Ngwako Joseph*
238. Meshay Lee Wagner - 950408 0118 088 - 15 BeverlStreet, Athlone, CAPE TOWN, 7764 - *Aeysha*
239. Nomasomi Tyengwa - 960929 0934 081 - Bola Location, Mooiplaas, EAST LONDON, 5288 - *Asive*
240. Awande Asisipho Ntukuntezi - 990915 1049 080 - Bhetani Area, NTABANKULU, 4816 - *Anande Asisipho*
241. Makhentsa Sibusiso Mthembu - 950407 5274 086 - 379 Block 3, Thulani, DOORNKOP, 1874 - *Siyabonga Sibusiso*
242. Anna Nyalenda - 920712 0307 089 - 4390 Luruli Street, Tshiawelo, Extension 2, SOWETO, 1818 - *Tshiamo Nkele*
243. Cetyiwe Diuora Masake - 800714 0391 084 - 7688 Swanneville, Extension 5, RIETVALLE, 1754 - *Cetyiwe Debora*
244. Thapelo Strike Mlandu Mahlo - 931014 5559 088 - 636 Plaas Street, Claremont, PRETORIA, 0082 - *Thapelo Matthew*
245. Shopping Kwena Maremane - 980105 5479 085 - 6660 Sekwayo Street, MODIMOLLE, 0510 - *Shuping Kwena*
246. Derick Ntsoane - 910402 6036 088 - Ga Nchabeleng Village, LEFALANE, 0741 - *Khulwane Derrick*
247. Abdias Sermon Mathebula - 981121 5213 084 - 8584 Winnie Mandela, Zone 8, TEMBISA, 1632 - *Nhlamulo Sermon*
248. Mamelodi Holiday Kungwane - 980501 0070 087 - 203 Lesperance 177, Celliers Street, Mucklenuck, PRETORIA, 0002 - *Mamelodi Tshiamo Holly*
249. Desmond Johnny Morake - 920224 5193 084 - 1463 Phase 1, Phase 1, SHARPVILLE, 1928 - *Johnny Thamsanqa*
250. Bongokuhle Mnisi - 000625 0559 082 - Mzinonifam, STANDERTON, 2480 - *Bongokuhle Nonkululeko*
251. Matthews Lehlohonolo Lebone - 900219 5587 081 - 28342 Khahliso, KROONSTAD, 9499 - *Cleo*
252. Patience Mmakalisong Shai - 990217 0457 087 - 2293 Kanana Location, WEPENER, 9944 - *Patience Makadiseng*
253. Makobo Victor Rahlogo - 900101 5967 085 - Stand 2021, VERENA C, 0488 - *Mmuthi Victor*
254. Esther Sore Pitso - 891102 0553 087 - 6672 Rondebult, Extension 23, GERMISTON, 1401 - *Esther Success*
255. David Mhloyeng Mashigo - 770812 6035 089 - Stand No A130, Didimala, Matibidi, SABIE, 1274 - *David*
256. Sandra Mkonto - 951203 5522 080 - 172 Belfast Trust, MKHUHLU, 1246 - *Sandy*
257. Maria Lesego Maledu - 850127 0386 088 - Tsitsing Village, RUSTENBURG, 0300 - *Talitha Jafta*
258. Apelele Mazwana - 940830 5737 088 - 424 Thabo Mbeki Road, POTCHEFSTROOM, 2520 - *Apelele*
259. Kara Isabel De La Harpe - 950512 0010 086 - Farm Leeuwfontein, POTCHEFSTROOM, 2522 - *Kara Mia*
260. Dorcas Ndhlovu - 000128 0586 080 - 15979 Extension 12, SOSHANGUVE, 0152 - *Dorcas Amukelani*
261. Nkosiyezintombi Khanyi - 000104 0745 083 - Rastof Raru, UTRETCH, 2950 - *Nkosiyezintombi Andile Abigail*
262. Dinana Shongwe - 000806 0448 084 - 607 Block D, Mandela Village, HAMMANSKRAAL, 0400 - *Granny Nkosazana*
263. Kenalemang Mashoko - 920914 1122 083 - 983 F Police Station Section, GANYESA, 8313 - *Kenalemang Jeanett*

264. Mpai Albertina Banyane - 950418 0477 087 - 1893 Makhadla Street, ROCKLANDS, 9323 - *Mpai Destiny Angel*
265. Samuel Makhetha Ramolula - 910306 5192 083 - 1029 Phahameng, DAWETSDORP, 9940 - *Samuel Arphaxad*
266. Hluphekile Mercy Mashigo - 770621 0557 083 - Stand No 1025, Thembisa Trust, KABOKWENI, 1245 - *Mercy*
267. Nomangoza Sihoyiya - 830122 0449 080 - Katlehong Location, MOUNT FLETCHER, 4770 - *Nomangoza Nosisi*
268. Ashley Ian De Klerk - 980314 5121 081 - 3 Spesbona Street, Heypark, WORCESTER, 6850 - *Ashraf*
269. Netsoajhoa Mudau - 990208 0392 085 - Edwar-Baat-Jies, Exetension 8, ELDORADO PARK, 1811 - *Maria*
270. Sibusiso Musida - 981127 5332 089 - 28 Wolwespruit Sreet, SECUNDA, 2302 - *Sibusiso Rendani*
271. Pumy Mathari Sekgala - 920219 0392 087 - 1098 Hlalanikahle, Extension 2, EMALAHLENI, 1035 - *Pumy Ngwanammakopi*
272. Vuyiswa Mthembu - 000401 5191 085 - House 94 C, NAMAKGAL, 1391 - *Obed Vuyo*
273. Matome Maake - 000527 5578 085 - Thapane Village, BOLOBEDU, 0837 - *Matome Thabiso*
274. Boholo Ramoliki - 000416 0239 085 - 26 St Helena Street, VAALPARK, 1948 - *Bonolo Mosa*
275. Aqeela Hussey - 970827 0170 086 - 23 Empire Road, OTTERY, 7780 - *Amelia*
276. Bongeka Tobi - 880121 0445 089 - P185 Rolisuku Street, Site B, KHAYELITSHA, 7784 - *Michelle Bongeka*
277. Justin Jones - 900416 5817 084 - 69 Bontebok Street, Eastridge, MITCHELLS PLAIN, 7785 - *Junaid*
278. Khethangaphi Mchunu - 960101 1256 084 - Ntsele Area, LADYSMITH, 3370 - *Phethangani*
279. Zonke Mdokwe - 910401 0731 082 - Sophia Township, MOUNT FRERE, 5090 - *Zizopho*
280. Atlehang Tlou - 990320 0304 083 - 497 Ruikpeul Street, GLENWAY ESTATE, 0168 - *Atlehang Hyacinth*
281. Raeesa Kader - 930705 0700 087 - 3 Wantenaar, Secunda Villa, SECUNDA, 2302 - *Raeesa Raë*
282. Tshegofatjo Monareng - 000704 0607 082 - 1162 Tokologo, MHLUZI, 1055 - *Tshegofatso*
283. Thabiso Denzel Moses - 990321 5244 084 - 6 A Angus Close, Bedfordview, JOHANNESBURG, 2007 - *Denzel Thabiso*

## DEPARTMENT OF HOME AFFAIRS

NO. 1215

09 NOVEMBER 2018

## ALTERATION OF SURNAMES IN TERMS OF SECTION 26 OF THE BIRTHS AND DEATHS REGISTRATION ACT, 1992 (ACT NO. 51 OF 1992)

The Director-General has authorized the following persons to assume the surnames printed in *italics*:

1. Edward Themba Mokwena - 980412 5079 083 - 5406 Game Street, Extension 7, ALEXANDRA, 2090 - *Mavuso*
2. Leighton Féolin Jaryl Sass - 940327 5139 084 - 3rd Avenue 347, CALVINIA, 8190 - *Claasen*
3. Thabang Samuel Mashilo - 740429 5707 084 - 1257 Libangeni, MBIBANE, 0449 - *Matlala*
4. Maboku Abner Monyela - 740305 5440 084 - Stand No 90, Masealama Village, MAKWENG, 0725 - *Maponya*
5. Vincent Tommy Masedi - 741018 5661 083 - Bokgaga Village, NAPHUNO, 0850 - *Lepulana*
6. Thuto Daniel Hlako - 750615 5852 089 - A0030 Thabaleshoba, Rebone, MOKOPANE, 0619j - *Kgeswa*
7. Yamkela Lugongolo - 000206 5287 084 - 6646 Ngwilo Crescent, LOWER CROSSROADS, 7750 - *Sandla*
8. Bongani Amos Masonto - 870212 5810 088 - Stand No 675, TWEEFONTEIN, 1022 - *Jele*
9. Tshepang Joseph Hoff Modiba - 990612 5499 086 - Hebron New Stand, GA RANKUWA, 0208 - *Madiba*
10. Ntando Charity Amoako - 920217 0769 080 - 8 Rue La Park, Ganube, EAST LONDON, 5257 - *Nkungwana*
11. Phumlane Mahlangu - 950606 5523 083 - 721 Moloi Street, DELMAS, 2210 - *Mnguni*
12. Dimakatso Masehla - 991127 0631 087 - 60 Segoko Village, NDUTSHANA, 0472 - *Moema*
13. Nombulelo Tabita Eunice Mhlambi - 920910 0258 084 - 1002 Montintinyane Street, Mailula Park, Extension 3, VOSLOORUS, 1475 - *Motloung*
14. Ditshego Eliphus Mudau - 860324 5609 089 - P O Box 245, PAULUSWE ROAD, 0814 - *Mphelo*
15. Zwelithini Emmanuel Tembe - 970929 6505 081 - Mfihlweni, KWANGWANASE, 2523 - *Msweli*
16. Thembinkosi Charles Ntshumbu - 680623 5576 083 - 420 Dontsa Street, DUDUZA, 1496 - *Tyumbu*
17. Nonhlahla Luyanda Khoza - 000427 0673 082 - Mlalazi Reserve, ESHOWE, 3818 - *Nene*
18. Zakhele Sthandiwe Sosibo - 970403 5950 086 - Qulashe Location, UNDURBERG, 3257 - *Zondi*
19. Jabulani Locuniel Ndimande - 790523 5394 080 - P O Box 217, MBAZWANA, 3974 - *Nkuna*
20. Sifiso Prince Moloi - 900224 5273 088 - 1464 Nutcracker Road, Pasweville, SPRINGS, 1559 - *Lukhele*
21. Thabo Stephens Mphahlela - 000125 5697 086 - 1530 Maphotla, MDUTJHANA, 0472 - *Mahlangu*
22. Melvin James Nel - 920711 5070 080 - 1 Cicimare Close, LEPHALALE, 0555 - *Hazel*
23. Madimetja Kleinboy Moklapamatsi - 940824 6003 087 - 15077 Extension 76, POLOKWANE, 0699 - *Moloto*
24. Alexander Daniel Lumpp - 940707 5167 088 - 7 Golders Green Road, WOODSTOCK, 7925 - *Meyerkort*
25. Mogomotsi Gaowelwe - 810518 5502 084 - Setlopo Village, MAFIKENG, 2745 - *Tlape*
26. Tshepo Raymond Tshabalala - 951030 5309 089 - 809 Herby Mdingi Street, SOWETO, 1818 - *Mothiba*
27. Marekwa Exellent Mohlala - 980310 5607 087 - 6074 Extension 26, OLIEVENHOUTBOSCH, 0175 - *Matlou*
28. Caesar Hlaise - 001020 5198 087 - 1634 Mbazima Street, Etwatwa Extension 12, DAVEYTON, 1820 - *Vukeya*
29. Zacharia Thapelo Seakamela - 981129 5414 081 - P V 9707 Vergenoeg, ATTERIDGEVILLE, 0008 - *Lekgwara*
30. Josaya Sphiwe Manzini - 740322 5606 085 - Stand No 3524 Skhilla Location, MASHISHING, 1123 - *Nkosi*

31. Given Mncedisi Mokoena - 890426 5572 086 - 32 Cazania Crescent, Pine Ridge, EMALAHLENI, 1035 - *Ntavhaedzi*
32. Lesedi Matlotleng - 990710 0051 082 - E915 Bareki Section, MMAKAUNYANE, 0207 - *Ximba*
33. Mavis Phumzile Mokoena - 900801 0527 087 - 32 Gazania Crescent, Pine Ridge, EMALAHLENI, 1035 - *Ntavhaedzi*
34. Lesiba Patrick Monyamane - 870406 5286 089 - 356 Difateng Section, TEMBISA, 1632 - *Montja*
35. Sizwe Beswick Hlangane - 810807 5819 089 - 2676 Molahlegi Street, Vosloorus, BOKSBURG, 1475 - *Duda*
36. Mzuvele Lindokuhle Zulu - 950726 5473 087 - Ngudwini Area, MANDENI, 4490 - *Maphumulo*
37. Luciano Mlungisi Makhala - 991005 5364 088 - 18 Abelia Street, SWELLENDAM, 6740 - *Johnson*
38. Gosekoang Kasheshe - 981103 0401 088 - 2319 Extension 2, LICHTENBURG, 2740 - *Molelekedl*
39. Neo Patrick Monchonyane - 810425 5496 087 - 10772 Buxton, MORLIM, 8583 - *Kasienyane*
40. Tsholofelo Mantsha Maila - 800321 0458 085 - 4851 Selosecha Section, MAJANENG, 0428 - *Xaba*
41. Maropeng Jonas Kanye - 000423 5545 086 - House No 480, Thabeng Section, LEROME, 0497 - *Molelekeng*
42. Sibusiso Elphus Ntuli - 971201 5298 087 - 2376 Jama Street, VOSLOORUS, 1475 - *Nkosi*
43. Mbulelo Prince Jika - 890109 5295 086 - 13533 Tlhabanelo, KIMBERLEY, Matlhako - *Matlhako*
44. Zamo Selby Dladla - 790509 5837 087 - 408 Elwyn Court, Mahathmagaihadi Road, DURBAN, 4001 - *Magadla*
45. Shanaaz Shanaay Februarie - 981113 0162 085 - 108 Erika Street, WRENCHVILLE, 8468 - *Wilkinson*
46. Zandile Lizzy Sithole - 871207 0459 088 - 16 Mahogany Mela Street, Mount Moriah, PHOENIX, 4068 - *Hlongwane*
47. Mphumezi Simon Wine - 800819 5402 081 - 5 Sobuza Street, Kwanobuhle, UITENHAGE, 6242 - *Pram*
48. Palesa Rose Mthimkulu - 940529 0831 082 - 17091 Extension 9, ORANGE FARM, 1841 - *Moloi*
49. Nokuphiwa Magoso - 931105 0856 089 - Hluthankungu, DURBAN, 3306 - *Mchunu*
50. Sello Madidimalo Makgolo - 871229 5528 089 - House No 12 Dikgomong Section, RAMOKGOPA, 0891 - *Ramokhufi*
51. Maputle Gerald Mokwena - 830610 5962 081 - 263 Ga Ragopola, DRIEKOP, 1120 - *Maroga*
52. Sipumle Mtwa - 990219 5509 086 - Upper Ngqwana Area, MQANDULI, 5086 - *Nazo*
53. Jeremiah Thabiso Qwabe - 750706 5121 086 - 0220 Lesung Village, MOSENTHAL, 0300 - *Mosito*
54. Tebogo Moemisi - 970108 5730 087 - 5117 Waterval B, New Stands, SIYABUSWA, 0442 - *Mahlangu*
55. Refilwe Rampitkwane - 990219 0351 088 - House 10203, Tlapeng, MAFIKENG, 2745 - *Mafete*
56. Lesiba John Makhubela - 810310 5853 083 - 3 Tessa Place Northcliff, CRESTA, 2195 - *Mosethana*
57. Sicelo Theo Lukele - 950622 5087 086 - 224 Bjala Square, JOHANNESBURG, 2001 - *Ralehoma*
58. Lehlohonolo Nyembe - 930725 5608 085 - 8193 Lembede Street, Orlando West, SOWETO, 1804 - *Mosimane*
59. Matshidiso Elizabeth Rampitkwane - 910721 0521 088 - House 10203, Tlapeng, MAFIKENG, 2745 - *Mafete*
60. Vukile Mvuni - 840129 5353 082 - K 69415 Site B, KHAYELITSHA, 7784 - *Ndlela*
61. Lehlohonolo Mcevan Matsoake - 900904 5459 080 - 13393 Shakepark, KROONSTAD, 9499 - *Theletsane*
62. Sphiwe Radebe - 000228 5726 085 - 1323 Block G, SOSHANGUVE, 0152 - *Mahlangu*
63. Relebogile Bacela Raboroko - 971215 5400 089 - 2 Leonora Street, Brackenhurst, ALBERTON, 1448 - *Bacela*
64. Mbusokayise Ngubane - 950429 5242 087 - Nhlesi Area, TUGELA FERRY, 3010 - *Dumakude*

65. Moses Mlahlelwa Mtolo - 651002 5696 081 - Sandanezwe Location, DUNNYBROOK, 3237 - *Ndlovu*
66. Isaac Malinga - 760516 5749 085 - 29 Modisakeng Street, ATTERIDGEVILLE, 0008 - *Mogola*
67. Bongane Percy Nhlapo - 971017 5216 089 - 30983 Nganyama Street, TSAKANE, 1550 - *Madonsela*
68. Katlego Theophilos Mahlatshe - 960524 5858 086 - 40100 Phola Village, MAFIKENG, 2745 - *Nkosi*
69. Sandisiwe Mjuleneni - 880810 0518 081 - 6 Mntinganzi Street, Kwadwesi Extension, PORT ELIZABETH, 6201 - *Mali*
70. Monwabisi Phillip Cutshe - 830415 5351 081 - 07 Xuma Street, Kwanobuhle, UITENHAGE, 6248 - *Mahlahla*
71. Leonard Benedict Baloi - 000623 5206 080 - 14 G Leith Place, PHILLIP NELPARK, 0183 - *Makgopa*
72. Junia Dondisa Chabangu - 770122 0473 082 - P O Box 761, MAFEMANE, 1285 - *Shabangu*
73. Zweli Kenneth Shabangu - 931128 5728 087 - Stand No 1639, NEWTOWN, 1053 - *Nkosi*
74. Katlego Masilo - 991217 5240 081 - 7924 Extension 1, Khutsong Township, CARLTONVILLE, 2499 - *Mogagabe*
75. Thabang Mkansi - 990605 5228 083 - 14479 Ivaq, Phase 2, Zamdela, SASOBURG, 1685 - *Selepe*
76. Archie Edwin Finger - 991008 5352 087 - 3861 Takor Park, Zamodela, SASOLBURG, 1949 - *Mokoena*
77. Lena Khosi Seepamore - 000321 0556 084 - 7867 Extension 3, ORANGE FARM, 1841 - *Zwane*
78. Kgothatso Keitumetse Molopyane - 980312 0370 083 - 150 Block C, MABOPANE, 2190 - *Senatle*
79. Sanele Mnyandu - 000612 5178 084 - 1667 Dube Village, INANDA, 4309 - *Mathebula*
80. Phumlani Nkomo - 000614 5707 086 - 3885 Slumkhumbane, Infill, Mayville, DURBAN, 4001 - *Khumalo*
81. Releabetswe Surprise Maake - 961014 0456 085 - 1520 Grandcanyon Street, WESTERBERG, 0699 - *Kawa*
82. Keletjo Tlou Chokoe - 000518 0463 084 - 2454 Seshego, Zone 5, POLOKWANE, 0700 - *Masebe*
83. S'nethemba S'nenhlanhla Mkhize - 920728 0675 085 - A1785 Ntuzuma Township, KWAMASHU, 4360 - *Dladla*
84. Mpumelelo Gift Msweli - 910410 5069 083 - G217 Mbuso Road, Ntuzuma Township, DURBAN, 4359 - *Magwaza*
85. Siyanda Cele - 980130 5925 085 - 75 Rise Gate, South Gate, PHOENIX, 4068 - *Jali*
86. Sandile Mtshali - 820712 5782 089 - Ixopo Town, IXOPO, 3276 - *Mlambo*
87. Olebogeng Gaetsewe - 000110 5463 085 - Block H, Seding Village, KURUMAN, 8462 - *Setlhodi*
88. Richard Refiloe Tau - 900318 5215 089 - 18 Thibali Street, Sei, VANDERBIJLPARK, 1911 - *Dipeere*
89. Armand Stephanus Van Wyk - 960111 5029 080 - 19 Seenberg Street, BANKENVELD, 1035 - *Parsons*
90. Imanuel Mokone - 970911 5859 081 - 8050 Baker Street, EMALAHLENI, 1039 - *Madisa*
91. Tressure Mthokozisi Masombuka - 951008 5725 082 - Stand 1147, WITBANK, 1035 - *Nkosi*
92. Khutjisho Machele Phahla - 951005 0931 087 - Phahlamanoge, SEKHUKHUNE, 1124 - *Tladi*
93. Moses Moja Mthiyane - 710603 6111 084 - No 37 O R Tambo Street, Room 35, South Beach, DURBAN, 4001 - *Mkhize*
94. Nompilo Nkosingiphile Zinhle Mdamba - 991023 0233 083 - House No 3378, Section 3, MADADENI, 2951 - *Khumalo*
95. Avela Mzimvubu - 970722 5889 089 - 107 Joe Slovo, LAMONTVILLE, 4027 - *Sonqishe*
96. Khanyisani Sizwe Ntuli - 940726 5848 083 - Mfekayi Area, MTUBATUBA, 3935 - *Madondo*
97. Thandeka Sibongile Nkosi - 000518 0519 083 - House No 3219, Blaaubosch, OSIZWENI, 2952 - *Shabangu*
98. Thabiso Nkunkuma - 980911 5564 085 - 1864 Mathwebula Road, LAMONTVILLE, 4027 - *Xaba*

99. Tona Sinhle Brian Ndlovu - 000511 5616 087 - Stand No 30, MBONISWENI, 1245 - *Mogale*
100. Albert Mosuli Mabaleka - 810213 5673 081 - Stand 1919, KWAGGAFONTEIN A, 0458 - *Twala*
101. Busile Mkhize - 970104 0762 084 - Bonisani Area, EMPANGENI, 3880 - *Mpanza*
102. Ayoub Vermeulen - 900721 5224 086 - 26 Mitchells Way, EDGEMEAD, 7441 - *Isaacs*
103. Johan Serfontein - 900908 5093 088 - Coner Gerhard & Jean, CENTURION, 0157 - *Bouwer*
104. Sekuboto Leonard Mathelele - 930607 5713 083 - P O Box 318, GLENCOWIE, 1061 - *Molemane*
105. Abiner Sekwala Lekgothoane - 921031 5633 087 - Stand No 254, Unit G, MANKWENG, 0727 - *Mamabolo*
106. Sonty Malatji - 960721 5790 083 - Mogapeng, NAPHUNO, 0857 - *Mashapu*
107. Obakeng Godfrey Letshwithi - 790522 5580 086 - 1259 Newtown Section, BRITS, 0269 - *Kagisho*
108. Marceline Neldine Philander - 890922 0180 081 - 196 Opperman Street, Bridgton, IYTSGLIRB, 6625 - *Gertse*
109. Selelo Auriah Mokgobu - 831213 5567 080 - 484 Witten Village, BOSCHUM, 0790 - *Selapisa*
110. Mzobuyayo Emmanu Buthelezi - 840312 5674 083 - A 335 Umlazi Town Ship, UMLAZI, 4066 - *Zikalala*
111. Bongani Vernon Makhoba - 991113 5185 089 - 2708 Block B, New Eersterus, HAMMANSKRAAL, 0400 - *Mnguni*
112. Nzuzo Mlando Mlambo - 960214 5961 086 - Ezitendeni Area, WENEEN, 3325 - *Mvelase*
113. Linda Jaji - 790908 5314 081 - 15747 Extension 2, ORANGE FARM, 1841 - *Shezi*
114. Dorah Mamikie Siqana - 931218 0399 081 - 15861 Extension 15, EMBALENHLE, 2285 - *Mathebula*
115. Lwandile Tshiamo Oles Molaundzi - 950819 5274 082 - 3113 Rholisizwe Street, LOTUS GARDENS, 0008 - *Selamane*
116. Gidion Kagiso Madimabe - 860303 5563 082 - House No 60473, MABESKRAAL, 0313 - *Lebelwane*
117. Katlego Ramasodi - 960814 5506 086 - House No 20750, U U Section, LEROME SOUTH, 0497 - *Ramasodi-Mabuza*
118. Siphon Gift Cele - 820623 5311 086 - 4163 Mzimkhulu Street, TSAKANE, 1550 - *Tshabalala*
119. Sandile Sayidi Majoro - 830527 5590 086 - Amadiba Area, Dramini Location, BIZANA, 4800 - *Nokhwe*
120. Prudence Makgobane Makuwa - 880803 0432 080 - 811 Seme Street, Lynville, WITBANK, 1035 - *Mashego*
121. Xolani Mlangeni - 810903 5656 082 - 1010 B Zola North, B Mkazi Street, SOWETO, 1868 - *Jansen*
122. Charles Bafana Mlangeni - 770103 5500 087 - 1010 B Zola North, B Mkazi Street, SOWETO, 1868 - *Jansen*
123. Thabang Moselethe - 870327 5563 089 - 1150 Block N N, SOSHANGUVE, 0152 - *Mahlangu*
124. Lucky Lesego Jacobs - 850814 5735 084 - House No 161, Kempdon Village, KURUMAN, 8460 - *Monchusi*
125. Simo Wilson Dlamini - 891218 6072 086 - 690 Dlamini Street, PINETOWN, 3610 - *Sibisi*
126. Allie Davids - 890828 5180 085 - 81 Villiers Street, 81 Villiers Street, BRENDASDORP, 7280 - *Miller*
127. Pfarelo Martin Ramigo - 921213 5752 089 - 4633 Sipiwo Street, PALMRIDGE, 0993 - *Radzilani*
128. Sphiwe Dumisani Mnguni - 920827 5417 087 - 66 Alice Street, DURBAN, 4001 - *Phungula*
129. Sithembiso Phillip Kuboni - 891205 5960 080 - 1626 Kingdom Avenue, Newlands West, WESTRIDGE, 4037 - *Nzuza*
130. Silindile Noluthando Koza - 920506 0745 086 - Erf 4318/27 Loft Crescent, WYNBANK, 3610 - *Mnyawe*
131. Mosotho Stuurman Tshoma - 740611 5824 080 - 11952 Extension 7, MHLUZI, 1153 - *Mathibela*
132. Kabelo Colan Nkepeng - 890914 6094 085 - 345 Kome Section, HEUNINGVLEI, 8460 - *Baitsiwe*

133. Thato Azarius Shomolekae - 941109 5806 089 - Seloshesha Section, MOROKWENG, 8614 - *Baraganye*
134. Peacemaker Gorden Malgas - 930114 5199 082 - 494 King Street, Paballelo, UPINGTON, 8801 - *Bekebu*
135. Lesigo Thato Msimanga - 990419 5996 081 - 2164 Sec E, EKANGALA, 1021 - *Mosehla*
136. Lindokuhle Scorpion Sithole - 981110 5721 089 - M1263 Tumusho Road, KWAMASHU, 4360 - *Mpungose*
137. Matthews Nkosinathi Mahlangu - 870316 5416 083 - Stand No 957, TWEEFONTEIN E, 1030 - *Ramutla*
138. Zamokwakhe Phumlani Majola - 810730 5646 080 - Makhabeleni Area, KRANSKOP, 3268 - *Ngidi*
139. Lebogang Tshitlho - 800825 5307 089 - 94 Main Street, Marshalltown, JOHANNESBURG, 2001 - *Tolk*
140. Phillemon Mapet Mabuse - 730714 5494 086 - Stand No 832, Kwamagugu, NELSPRUIT, 0458 - *Mabena*
141. Thulare Collicent Mkamdabira - 950626 5803 087 - 593 Sekampaneng, HAMMANSKRAAL, 0400 - *Chauke*
142. Nonfefe Evidence Nzama - 920906 0142 088 - 5326 Extension 2, Khutsong Township, CARLETONVILLE, 2489 - *Hlophe*
143. Bongani Johannes Maphatse - 980418 5252 083 - 2294 Extension 4, Khutsong Location, CARLETONVILLE, 2499 - *Nhlapo*
144. Lokwone Reuben Mashanzhe - 750905 5880 085 - Stand No 227, TAAIBOS, 0718 - *Tshautshau*
145. Thembaletu Sibasa - 891102 5276 080 - 51675 Seweding, MAHIKENG, 2743 - *Mandubo*
146. Allison Samantha Manzana - 930721 0018 081 - 572 Kanna Road, EERSTERUST, 0022 - *Macfarlane*
147. Letlhogonolo Reabetswe Tshoke - 990719 5985 087 - 615 Block X, MABOPANE, 0190 - *Seconds*
148. Siboniseni Walter Mchunu - 840921 5500 088 - Ndongwana Reserve, EMPANGENI, 3880 - *Hlela*
149. Ofentse Benedict Poane - 840717 5555 084 - 83 B Unit 1, MOGWASE, 0314 - *Katane*
150. Otlafenya Ishmael Mosimanegape - 890115 5668 081 - P O Box 219, TLAKGAMENG, 8616 - *Moitlwe*
151. Thuso Molate - 790129 5492 088 - House No 341, Unit 1, MOGWASE, 0314 - *Mokgatle*
152. Mthobisi Nqubo-Enhle Mkhize - 980212 5682 088 - Ndukende Area, MAPHUMULO, 4470 - *Ngubane*
153. Realeboga Sedumedi - 000706 0314 080 - No 5298, Extension 38, MAHIKENG, 2745 - *Moreo*
154. Nkanyiso Radebe - 880621 5624 083 - 376 Bg Nicholson Road, Chesterville, DURBAN, 4091 - *Maphanga*
155. Mpho Austin Moloi - 990223 5715 081 - 122 Harankorane Village, MOKODUMELA, 9868 - *Ratikwane*
156. Kagiso Jerry Cumeni - 940216 5707 083 - E 301 Zinnaville, MAUMONG, 0301 - *Baloyi*
157. Tshogofatso Elsie Mlangeni - 000628 0929 081 - 1134 Block F, LETLHABILE, 0250 - *Rametsi*
158. Nkosinathi Mabena - 960105 5548 081 - 1488 Lithuli, KWAMHLANGA, 1022 - *Maseko*
159. Pelontle Bridgette Shomolekae - 970101 0933 087 - B 138 Secoshesha Section, MOLOKWENG, 8600 - *Baraganye*
160. Lungelo Nzama - 991117 0590 086 - 1678 France Location, GREYTOWN, 3250 - *Khumalo*
161. Elen Khangezile Ntombela - 770402 0920 088 - Emafusini, DANNHAUSER, 3080 - *Kunene*
162. Sibusiso Nelson Zikalala - 791103 5359 083 - Stand No 1806, PANKOP, 0414 - *Diphoko*
163. Ipeleng Majatladi - 000607 5636 081 - 4678 Extension 4, SOSHANGUVE, 0152 - *Hlaabye*
164. Andile Michael Ndlela - 811221 5388 088 - P 431 Pasadina Gardens, KWA MASHU, 4360 - *Madlala*
165. Frans Mampane - 751217 5707 089 - 7387 Extension 8, Mayfield, DAVEYTON, 1520 - *Hadebe*
166. Thozamile Tayfield Ngamu - 780126 5416 085 - 3235 Extension 5, Mayfield, DAVEYTON, 1520 - *Dladla*

167. Lufuno Mathaga - 990723 1223 089 - Mapate, THOHOYANDOU, 0950 - *Nesamvuni*
168. Agcobile Gophe - 910507 5774 081 - Platina CC, Room 6, NORTHAM, 0300 - *Venene*
169. Matome Khomotso Moreti - 910612 6071 089 - 293 Gaseian, MOLETJIE, 0709 - *Mphela*
170. Koketso Mmakwena Moredi - 940918 5798 083 - 293 Gasetail, MOLETJIE, 0709 - *Mphela*
171. Thomas Maswanganye - 780416 5886 084 - 152 Block Y, SOSHANGUVE, 0152 - *Hlatshwayo*
172. Sibusiso Mlungisi Mthembu - 980410 6347 087 - 432 Kwanele, KATLEHONG, 0182 - *Sibisi*
173. Mokgadi Sara Malatsi - 630523 0562 081 - 24 Carnarvon Street, BETRAMS, 2094 - *Kwinika*
174. Siphokazi Nzimande - 980630 0983 088 - 204 Gysbok Flat, 15 Orthman Road, Manor Willow Gardens, PIETERMARITZBURG, 3201 - *Ngidi*
175. Amanda Noxolo Ngubane - 960724 0397 086 - 609 Zuma Road, Kwa-Peta, PIETERMARITZBURG, 3200 - *Ntshiba*
176. Londeka Evidence Ngubo - 960528 0798 080 - 12 Lichen Road, CROSSMOOR, 4092 - *Ntshiza*
177. Zoleka Nomaswazi Colette Ngubo - 981228 0609 081 - 12 Lichen Road, CROSSMOOR, 4092 - *Ntshiza*
178. John Skhumba Mdhuli - 920226 5331 085 - 15263 Maphope Street, Extension 5 A, TSAKANE, 1550 - *Maluleke*
179. Phillimon Ntshimane Mathobela - 761010 5337 082 - Plot 1555, WINTERVELDT, 0198 - *Mathedimosa*
180. Maseiso Mvingi - 981115 0606 086 - 933 Zone 3, SEBOKENG, 1983 - *Mokoena*
181. Eric Jabu Mathebula - 830606 5613 088 - Stand No 1104, VERENA, 0458 - *Magamba*
182. Kabelo Vincent Mputle - 880918 5223 084 - 5317 Bulkombull Street, Extension 4, PROTEA GLEN, 1700 - *Letsoalo*
183. Brightman Mdiniso - 770823 5681 088 - Stand No 1176, MOFOLO SOUTH, 1800 - *Ndlovu*
184. Tlotlo Ernest Moleko - 871215 5163 084 - 77 The Arch, Sebenza Road, EDENVALE, 2500 - *Mooketsi*
185. Arnold Mboweni - 990707 5663 085 - Stand No 4, MHALA, 1365 - *Makwakwa*
186. Precious Nontobeko Xolile Msomi - 830404 0348 086 - 30248 Mvusane Reserver, UMBUMBULU, 4105 - *Mdluli*
187. Sbonelo Nduduzo Gwala - 000507 5271 089 - 259 Harare One, INCHANGA, 3670 - *Mbanda*
188. Mondli Cele - 000206 5460 087 - A 554, UMLAZI, 4044 - *Mkhize*
189. Thapelo Lesetya Meshoeu - 000117 5218 088 - Ga-Madiba, MASHASHANE, 0740 - *Madiba*
190. Nkanyiso Nkosikhona Mncube - 880918 5912 082 - Umfulamhle Location, UMZIMKULU, 3297 - *Radebe*
191. Sipho Benedict Mdhuli - 860323 5571 083 - Stand No 66, Mkhuhlu, HAZYVIEW, 1246 - *Matukane*
192. Michael Sweli Jele - 911027 5226 080 - 2146 Pamo Street, Extension 2, DELMAS, 2210 - *Hlotshana*
193. Mahlatsi Salamina Masimula - 991013 0452 080 - 990 Hani View, HAMMANSKRAAL, 0400 - *Chauke*
194. Thomas Junior Chijioke - 990629 5123 086 - 701 Avonal Court, Van Der Merwe & Edith Carwell, HILLBROW, 2001 - *Nkuna*
195. Nyameko Mdontswa - 991214 5921 083 - Sisulu Location, UMZIMKHULU, 3297 - *Zulu*
196. Thembeke Mzobe - 981005 0663 080 - 1573 Douglas Sunrise Road, Hambanathi, TONGAAT, 4400 - *Zungu*
197. Mthokozisi Nxumalo - 871218 5347 087 - 858 Nexle, Savannah Park, PINETOWN, 3610 - *Khoza*
198. Vanesa Lydia Nkwini - 820325 0771 088 - 557 Longtill, NAMAKGALE, 1391 - *Mashilane*
199. Akhona Ath'enkosi Yenana - 900420 5828 083 - 11 Ouklipmuur, 10 Silver, PRETORIA, 0183 - *Mngxaso*
200. Wamemang Maria Gaoetswe - 630309 0839 087 - Itireleng Section, Maruping, KURUMAN, 8460 - *Gaeemelwe*

201. Mduduzi Mthandeni Nhlapo - 930805 5070 088 - 3349 Zwane Street, Rockville, SOWETO, 1818 - *Ngcobo*
202. Busi Petrova Magdeline Msiza - 961010 0414 082 - Stand No 1612, Nyatlo Street, PRETORIA, 0198 - *Maleka*
203. Gideon Rantlharane Matjila - 790415 5562 081 - 7681/259 Phomolong, Extension 8, MODIMOLLE, 0510 - *Motsolakgetsi*
204. Busisiwe Matlou - 781123 0385 083 - 27 Wolwekop, Bondebult, GERMISTON, 1401 - *Mashego*
205. S'mangele Elias Mkhize - 960109 0797 081 - 401 Ogagwini Area, UMBUMBULU, 4105 - *Hlengwa*
206. Ntombi Precious Molebatsi - 930916 0625 089 - 1284 Oliphant Street, PROTEA GLEN, 1819 - *Ngwenya*
207. Olebogeng Joseph Ramotsei - 911202 5911 086 - 2470 Mogotsi Street, Tlhabane, RUSTENBURG9, 0300 - *Moselane*
208. Sindisiwe Angel Mtshali - 881204 0694 085 - House No 6, Arbor Park, NEWCASTLE, 2940 - *Africa*
209. Pearl Makofane - 971102 5424 089 - Taung Village, PRAKTISEER, 1150 - *Pako*
210. Mmatli David Marokane - 830918 5396 089 - 8313 Phomolong, Extension 9, MODIMOLLE, 0510 - *Matjila*
211. Mxolisi Mlotshwa - 980430 5126 084 - 1730 A Motsamai Street, Emndeni, SOWETO, 1868 - *Banca*
212. Abram Tebogo Shakung - 751108 5365 087 - 23 Makhambeni Street, ATTERIDGEVILLE, 0008 - *Kalena*
213. Hector Nkuna - 951118 5589 089 - Stand No 2283, TIYANI, 0930 - *Baloyi*
214. Ndivhuwo Mudzanani - 970820 5665 085 - Magidi, SIBASA, 0970 - *Mushome*
215. Tsakane Mathebula - 990918 5055 087 - Ga Matlala, POLOKWANE, 0746 - *Ramashilo*
216. Tsatsi-Lebe Simon Malokazi - 950113 5864 088 - 1728 Phahameng Location, BRANDFORT, 9410 - *Mpopetsi*
217. Kamogelo Sathekge - 991125 5780 081 - Stand No 1810, WATERVAL, 0960 - *Seshoki*
218. Simangalis Blessing Mongo - 851023 5570 082 - H 77 Ulamula Road, NTUZUMA, 4359 - *Zikhali*
219. Sifiso Kenneth Radebe - 750525 6262 081 - E 552 Ntuzuma, KWAMASHU, 4359 - *Mncube*
220. Simiso Doctor Shusha - 980802 5546 083 - 36 Grand Rapid, Russel, DURBAN, 4001 - *Duma*
221. Ookame Matthews Shupu - 790209 5428 082 - 2209 Ipopeng Kumba, KURUMAN, 8460 - *Mahumapelo*
222. Siyolo Gocina - 970802 5219 089 - 185 Mabandla Road, Kwa Nobuhle, UITENHAGE, 6242 - *Pekana*
223. Zanele Maleka - 950911 0471 084 - 90 Carbon Road, STEELPARK, 1930 - *Zwane*
224. Tumelo Vilakazi - 950622 5274 080 - 2710 4th Avenue, Mafatsane, EVATON, 1984 - *Nkopane*
225. Mbusiseni Tony Hlophe - 880123 5219 089 - 1262 Mokoena Street, ORLANDO EAST, 1804 - *Mthembu*
226. Moleboheng Ignatia Shabalala - 911030 0248 083 - 163 Mosu Street, Extension 3, CHIAWELO, 1818 - *Kgasago*
227. Nduduzo Makhoba - 971010 6342 087 - Mankenganeni Area, MANDENI, 4490 - *Dlamini*
228. Moraluki Lionel Masibi - 871109 5797 084 - 1648 Disaneng, MAFIKENG, 2745 - *Modisakgosi*
229. Lucky Sibongiseni Msomi - 860626 5366 084 - Malangeni Area, NDWENDWE, 4342 - *Khuzwayo*
230. Ntuthuko Hapiness Siyaca - 990427 0472 081 - 643 Lot 122148 Inanda, MTSHEBHENI, 4310 - *Qwabe*
231. Lungelwa Anita Makhabane - 940405 0401 087 - 4684 Midrand Village, CLAYVILLE WEST, 1666 - *Mshiywa*
232. Kagiso Masha - 880613 5472 084 - 44 Phethabile Street, LOTUS GARDENS, 0008 - *Msiza*
233. Nkosikhona Mokgethi - 000527 5245 081 - 1121 B Tshabangu Drive, SOWETO, 1868 - *Mazwi*
234. Thamson Phahlela - 970515 5637 080 - Mavambe, MALAMULELE, 0982 - *Hlungwane*

235. Twoboy Softlite Nyathi - 980803 5400 081 - 8051 Extension 24, MIDDELBURG, 1050 - *Mahlangu*
236. Tsediso Vincent Ramatsebe - 910919 5282 082 - 819 Koedoeberg, FAIRIE GLEN, 0082 - *Ngwenya*
237. Mbuti Willem Masombuka - 510824 5383 084 - 7184 Extension 4, MIDDELBURG, 1053 - *Mabona*
238. Lebogang Makhubela - 000507 0168 082 - 413 Jasmyn Street, SILVERTON, 0184 - *Mokoena*
239. Jacques Clifford Nicholas - 000407 5351 082 - Plaas Klippot, POSTMANSBURG, 8420 - *Van Der Linden*
240. Musawenkosi Eric Zuma - 730814 5725 081 - 0461 Africa Area, INANDA, 4310 - *Dlamini*
241. Sbongile Pretty Mbatha - 830916 0466 089 - Stand No 683, MSHUSHU TRUST, 1242 - *Mpangane*
242. Mantja Catherine Seleke - 990619 0803 089 - 10174 Extension 61, IKAGENG LOCATION, 2530 - *Busika*
243. Mfanafuthi Trustwell Tshwala - 870520 5363 084 - 11106 Mshengu Road, Area 38 Umgababa, UMGABABA, 416 - *Nkosi*
244. Noko Elias Manamela - 881228 5373 080 - Ga –Rammobola, MOLETJIE, 0700 - *Ntshana*
245. Malesela David Vuma - 890515 5640 081 - Stand No 20012, Ngwannamago, GA-MOTHIBA, 0700 - *Modiba*
246. Thabiso Phillip Vuma - 870818 5538 089 - Stand No 20012, Ngwannamago, GA-MOTHIBA, 0700 - *Modiba*
247. Kamogelo Sanele Twala - 980403 0500 082 - 2585 Nkonjana Street, THOKOZA, 1426 - *Molaba*
248. Nomathemba Lungelo Sithole - 980712 0753 081 - Esk No.133, Inverness, OSIZWENI, 2952 - *Ngwenya*
249. Thabo Enoch Lebusa - 921220 5606 082 - 968 Block Cv, MABOPANE, 0190 - *Mashigo*
250. Mabatho Delia Moela - 911105 0734 082 - 1127 Selane Street, Dukathole, GERMISTON, 1401 - *Masoega*
251. Enoch Bongane Vilankulu - 820215 5554 086 - 1339 Mashemong, Section 4, HAMMANSKRAAL, 0402 - *Khumalo*
252. Ntobeko Sabelo Ngidi - 970816 5227 082 - 521 Kwamakhutha, AMANZIMTOTI, 4126 - *Mayeza*
253. Ntokozi Langelihle Nduli - 850529 0687 086 - Flat 175 No 92, Glenova Road, Westcliff, CHATSWORH, 4092 - *Xulu*
254. Tshifhiwa Ephraim Mathuli - 960925 6103 085 - Stand No 617, Khubvi, MAKONDE, 0987 - *Nelukalo*
255. Sifiso Dumakude - 970829 5821 085 - Othulini Area, TUGELA FERRY, 3010 - *Mazeka*
256. Sicelo Dladla - 820707 5568 082 - Cc 2895, Cato Crest, MAYVILLE, 4023 - *Jada*
257. Luvuyo Molefe Christopher Liphuko - 960111 5125 086 - 24 Roux Avenue, KEMPTON PARK, 1619 - *Mabudafhasi*
258. Siyabonga Mazomba - 880708 5785 087 - 502 Umnonjaneni Section, TEMBISA, 1632 - *Mramba*
259. Beverly Nokuthula Thaoge - 840425 0699 085 - 697 Block F, West, SOSHANGUVE, 0152 - *Zondo*
260. Amanda Lerato Cumeni - 860416 0553 088 - E301 Maumong, Zinniaville Section, RUSTENBURG, 0300 - *Baloyi*
261. Sisanda Jessica Tswane - 000405 0224 080 - Ny-108-117, GUGULETHU, 7750 - *Klaas*
262. Frans Ramongene Nkoana - 820116 5786 084 - 12th Avenue, Alexandra Township, ALEXANDRA, 2090 - *Raseona*
263. Molelekeng Julia Mokwena - 930212 0313 086 - 5406 Game Street, Extension 7, ALEXANDRA, 2090 - *Mavuso*
264. Sharmin Nyoni Serutle - 900716 0742 082 - 1608 Khanya, SENAONE, 1818 - *Phasha*
265. Muzi Tumelo Mathato - 990405 5134 088 - 23588 Shiezaeza Street, MAMELODI EAST, 0122 - *Mtombeni*
266. Tshagofatso Kwena Pitja - 920412 5670 082 - 205 B Marabe Street, MADIBA PARK, 0795 - *Moloto*
267. Ntsokolo Jackson Gotyana - 990617 5771 087 - 5655 Monyakeng Location, WESSELSBRON, 9080 - *Moremi*
268. Makwena Mary Mashala - 930728 0555 087 - 1159 Zone 8, SESHEGO, 0742 - *Moloto*

269. Fortunate Mokwena - 980811 0565 089 - Praktiseer, TUBATSE, 1150 - *Masuku*
270. Siphosoxolo Mbuyela - 000108 5675 088 - 4223 Area 13, ALIWAL NORTH, 9750 - *Zothana*
271. Uwane Erick Mamyela - 750414 5839 084 - 17158 Thohoyandou Street, MAMELODI EAST, 0122 - *Motlhage*
272. Delani Jackson Mbuyisa - 950511 5718 081 - 6 H 17, Hellberg Farm, DANNHAUSER, 3135 - *Myeza*
273. Beryl Philile Dlamini - 840909 0894 085 - 1798 V.Q.Wembezi, ESTCOURT, 3310 - *Mkhize*
274. Noxolo Evidence Mkhize - 940104 0593 080 - F 328 Folweni Township, ISIPINGO, 4031 - *Khambule*
275. Thabane Maphumulo - 901226 5522 082 - Umfume Mission, UMKOMASI, 4170 - *Ngidi*
276. Thobekile Precious Mkhize - 900528 0654 088 - 328 Folweni Township, ISIPINGO, 4031 - *Khambue*
277. Precious Bhayla - 991114 0078 089 - Wembezi, ESTCOURT, 3310 - *Sikhakhane*
278. Slindokuhle Zwane - 990410 0868 086 - Kwandaba, ESTCOURT, 3310 - *Shabalala*
279. Sinenhlahla Ntobeko Khanyile - 991029 0560 086 - 22 Azalea Gardens, CATO MANOR, 4091 - *Radebe*
280. Njabulo Brian Madondo - 900427 6016 089 - Enseleni Area, GREYTON, 3250 - *Masikane*
281. Lerato Agnes Modime - 981212 0523 088 - 886 Ga-Modiba, MOKOPANE, 0600 - *Ledwaba*
282. Prince Manailane - 880413 5584 081 - Stand No 59, MAFEFE, 0738 - *Ratheko*
283. Zanele Thafeng - 980612 0189 080 - 1247 Makapane Stret, MAPETLA, 1818 - *Hlongwane*
284. Thabiso Notiki - 000206 5548 089 - Nkolonga Area, LADY FRERE, 5410 - *Laho*
285. Nompandolo Jessica Tsiane - 981227 0203 085 - 818 Block T, SOSHANGUVE, 0152 - *Jiyane*
286. Karabo Rafahlema - 990518 0318 082 - 1878 Legwale Street, SOWETO, 1868 - *Kekane*
287. Lerato Ayanda Nkosi - 980203 0235 089 - 10476 Magadulela Street, TSAKANE, 1550 - *Blennis*
288. Asande Busiswa Sibiya - 991115 5229 080 - 92 De Korte Street, BRAAINFONTEIN, 2001 - *Mthembu*
289. Matu Lucky Mokuoa - 911202 0316 083 - 428 Lembede Street, MOHLAKENG, 1759 - *Tlhapanne*
290. Andile Xelelo - 880706 5488 082 - C 818 A Amandla Street, KHAYELITSHA, 1184 - *Sipele*
291. Malose Clifford Qametsi - 000530 5551 086 - 2831 Section C, EKANGALA, 1021 - *Langa*
292. Sibusiso Mzwandile Xaba - 920619 5774 082 - Mabundeni Area, HLABISA, 3937 - *Nxumalo*
293. Ntombizonke Mkhulisi - 971202 0885 084 - Ngudwini Ward 15, UMZIMKHULU, 3297 - *Cwera*
294. Khulekani Mahlangu - 940422 5813 083 - Stand No 1841, VLAACKLAGTE, 0458 - *Mkoneni*
295. Nkanyiso Ntobeko Mtetwa - 000721 5812 087 - No 3 Ficusfen, Aquadene, RICHARDS BAY, 3900 - *Sithole*
296. Mokgadi Cathrine Maomela - 880129 0688 087 - 7360/30 Extension 3, SOSHANGUVE EAST, 0152 - *Makgatho*
297. Nhlamulo Excellent Mathonsi - 990515 5422 083 - 368 A, MAJEJE, 1220 - *Mabasa*
298. Mapitsane Ishmae Mmokela - 800608 5816 089 - Tshwelwaneng, SEKHUKHUNE, 1124 - *Leshaba*
299. Moses Thabang Sello - 980306 5955 088 - 256 Mandela Street, Scelo, MEYERTON, 1960 - *Nale*
300. Jacob Mashigo - 740131 5451 081 - 14446 Phiri Street, MAMELODI EAST, 0122 - *Ndinisa*
301. Nontethelelo Valentine Luthuli - 990207 0481 088 - St Faith Location, PORT SHEPSTONE, 4240 - *Madwe*
302. Lebogang Jaqualin Mokwana - 920601 0608 085 - 01 Saron Street, Riamar Park, BRONKHORSTSPRUIT, 1020 - *Ngoepe*

303. Mpho Madimetja Justice Mashabela - 870418 5389 086 - 3919 Gontse Street, NELLMAPIUS, 1057 - *Manaka*
304. Waitse Nicholas Gaobuse - 791221 5396 085 - 50065 Tshipo Street, Maje, MAHIKENG, 2745 - *Sidu*
305. Katlego Paul Tlhogonyane - 960909 5535 083 - 360 Phaloma Section, SESHIBITSWE, 2782 - *Segonyane*
306. Mpho Levis Ruele - 980906 5302 080 - 3059 Block C, MABOPANE, 0190 - *Tseke*
307. Mohau Stephen Sanyane - 931102 5424 088 - 347 Maukana West, RUSTENBURG, 0284 - *Phumo*
308. Nawaal Mohammed - 750828 0190 088 - 2 Bend Road Ottery, CAPE TOWN, 7800 - *Sadien*
309. Tumelo Martin Putini - 910608 5275 085 - 1158 Block Xx, SOSHANGUVE, 0152 - *Malebane*
310. Seipati Nhlapo - 920210 1024 084 - 5108 Extension 10, MOVHANGO, 1913 - *Mofokeng*
311. Thabang Sokoela - 990929 5359 080 - 790 Fry Street, MADUBADUBA, 0458 - *Tsokela*
312. Noxolo Emaqulate Madunsela - 980928 0848 081 - 1327 River Side, ELUKWATINI, 1197 - *Nkosi*
313. Mimi Michel Malapane - 970107 0588 086 - 12283 Hlunga Street, Extension 10, IVORY PARK, 1632 - *Raphala*
314. Thabo Calvin Letsoara - 870817 5846 088 - 5817 Zone 14, MELODING, 9430 - *Vilakazi*
315. Mxolisi Kevin Mahumane - 940809 5595 084 - 2727 Extension 9, BARBERTON, 1300 - *Moya*
316. Tinyiko Choma - 000221 0877 086 - Eenzaam, NEBO, 1059 - *Thokwane*
317. Mfundo Lesley Mkhulise - 870526 5519 088 - Mfukati, MTUBATUBA, 2735 - *Myeni*
318. Karel Hyser - 510314 5119 084 - 97 Gumtree Street, OUDTSHOORN, 6625 - *Hess*
319. Sida Sania Andrews - 490912 0127 087 - 5th Avenue, Belgravia Est, ATHLONE, 7764 - *Abdurahman*
320. Sonwabile Valele - 970429 5826 083 - 2860 Ofentse Street, Extension 4, NELLMAPIUS, 0162 - *Gaqa*
321. Enos Bhekisisa Kunene - 730315 6680 085 - 5573 Section 4, MADADENI, 2951 - *Cebekhulu*
322. Sydney Bongani Mabuza - 751202 5778 082 - Stand No 81, KABOKWENI, 1245 - *Colman*
323. Xolani Mohaula - 850915 5874 086 - 8906 Platinum Street, Extension 7, NELLMAPIUS, 0122 - *Mnisi*
324. Gertruida Maria De Villiers-Christie - 620217 0019 083 - Zoetmelksvallei Farm, LITCHENBURG, 2740 - *Christie*
325. Siviwe Emanuel Masibulele Qokomisa - 980221 5491 085 - David Ndawonde Street, UMZIMKHULU, 3297 - *Memela*
326. Musa Hendry Mbuli - 950512 5883 081 - Stand No 191, EKULINDENI, 1301 - *Kubeka*
327. Lebogang Malatji - 980123 0834 089 - 19 Kellisville, MASHISHING, 1120 - *Tshehla*
328. Trevor Ntshabeleng Mohlala - 980525 5562 087 - 10059 Matshokgweng, GA-MORABA, 1126 - *Malekane*
329. Katlego Jonathan Selamolela - 891228 5328 082 - 786 Block F, West, SOSHANGUVE, 0152 - *Pule*
330. Sinakhokonke Miya - 980310 5638 082 - 22 Bululu Road, MOLWENI, 3652 - *Mazibuko*
331. Bonga Cyril Mahlinza - 890228 6033 088 - 106481 Linda Road, DURBAN, 3607 - *Hlophe*
332. Lungisani Perfect Luthuli - 980515 5243 085 - Ithendele Road, MARRIANHILL, 3610 - *Khumalo*
333. Siyabonga Emmanuel Nxumalo - 980809 5529 084 - Annyville, DANNHAUSER, 3080 - *Makhoba*
334. Nkululeko Nondala - 000729 5103 084 - 782 Dlanga Mandla Street, JABULANI, 1868 - *Nhlapo*
335. Sboniso Senzo Sithole - 990511 5124 084 - Mphondi Area, Nqutu - *Buthlezi*
336. Miguel Richard Tresidder - 981026 5076 086 - 5 Flamingo Street, Florida Lake, ROODEPOORT, 1709 - *Tresidder- Angelo*

337. Cassius Amogelang Maphasana - 990602 5832 089 - 1318 Mvemve Street, Mailula Extension3, BOKSBURG, 1475 - *Morudi*
338. Sibahle Jane Thabede - 980226 0392 089 - Emthalume, PORT SHEPSTONE, 4220 - *Zuma*
339. Sphelele Julius Sokhela - 820317 5357 088 - A 1722 Mdluli Road, MPUMALANGA, 3700 - *Maseko*
340. Noluthando Ndlovu - 000902 0681 087 - D 1410 Mpumalang Town Ship, HAMMERSDALE, 3699 - *Mbhele*
341. Thamsanqa George Selwane - 920518 5414 089 - 1382 Hlalakahle Street, Chromeville, MHLUZI, 1050 - *Makwakwa*
342. Nkgomotsang Sethodi - 961008 0900 084 - Y 76 Itebogang Section, GANYESA, 8613 - *Motlakase*
343. Bongani Robson Mdhului - 910911 5845 083 - Stand No 66, MKHUHLU, 1246 - *Matukane*
344. Khutso Israel Monyai - 951012 5441 088 - 2239 Extension 5, RETHABISENG, 1026 - *Moditswe*
345. Tshepiso Charmane Ntlekoana - 930721 0374 088 - 697 Kabini Street, Extension 1, ZITHOBENI, 1020 - *Modise*
346. Moshe Moses Nkoana - 790120 5471 081 - Stand No 801, Ramalau Section, SEABE, 0417 - *Selwana*
347. Sbonelo Innocent Bhengu - 890303 5736 088 - 555 Malukazi, ISIPINGO, 4110 - *Mkize*
348. Kamogelo Thalagale - 950721 5160 081 - 22 Ekwater Avenue, POLOKWANE, 0699 - *Baloyi*
349. Tshepo Hamilton Phalane - 941126 5724 088 - 2035 Section H, EKANGALA, 1021 - *Kabini*
350. Refiloe Rhenolada Moledi - 950909 0410 086 - 122 Louis Trichardt, VANDERBIJLPARK, 1911 - *Cherane*
351. Thabiso Petrus Banjwa - 890127 5301 084 - 10495 Mazibuko Street, Phelindaba Location, BLOEMFONTEIN, 9323 - *Mothobi*
352. Mamoketu Sydney Thobejane - 850420 5553 087 - Stand No 1004, Nhlazatshe 6, ELUKWATINI, 1192 - *Nkosi*
353. Daniel Shimane Lefawane - 990507 5789 082 - 04 Wyk Street, SOLEKA, 0609 - *Molebatsi*
354. Freddy Thabang Mtswege - 780311 5947 087 - Stand No 1610, Marite Trust, HAZYVIEW, 1280 - *Ngomane*
355. Tumelo Innocent Letjane - 980529 5300 084 - 385 Bayizani, Ward 4, BUSHBUCKRIDGE, 1280 - *Mokoena*
356. Ben Mfanafikile Dlamini - 920426 5134 089 - 246 Indulamithi Street, Extension 2, Zone 14, EMALAHLENI, 1039 - *Mabena*
357. Sthembile Christina Mthembu - 801220 0434 089 - 11121 Extension 15, VOSMAN, 1039 - *Mokoena*
358. Mduduzi Ntuli - 850705 5309 088 - Portdunford Reserve, ESIKHAWINI, 3887 - *Zungu*
359. Request Keamogetse Moilwe - 990921 5685 085 - 2499 Slocha Section, MABESKRAAL, 0313 - *Bogatsu*
360. Mahase April Moalosi - 850110 5319 080 - New Stand 25520, Thabong, WELKOM, 9463 - *Matlosa*
361. Thateng Lizzy Hlehlethe - 930103 0055 084 - 826 Thabong, WELKOM, 9463 - *Ngake*
362. Mhlahli Kanyisa Mbusi - 991119 0210 087 - 15 Mtensemba Street, KWADWESI, 6201 - *Cwala*
363. Thando Baartman - 820117 5621 081 - Erf 226/227 Main Street, MOUNT FRERE, 5090 - *Qata*
364. Zanele Faith Peter - 990818 0491 081 - 9278 Caton Street, New Vale, QUEENSTOWN, 5320 - *Pikoko*
365. Given Moses Ngomane - 821001 5460 089 - 235 Chankie Street, MAMELODI WEST, 0122 - *Kgatle*
366. Andile Molokomme - 000504 5148 086 - 8662 Section 5, MADADENI, 2951 - *Nkosi*
367. Tertia Manaka - 920113 0583 086 - Af 130, ATTERIDGEVILLE, 0008 - *Matsetela*
368. Mpho Maluleka - 910908 5400 083 - 17601 Nkuna Street, MAMELODI EAST, 0122 - *Mathale*
369. Wandile Wilford Mbudi - 661218 5868 086 - 25 New Street, Dale View, KING WILLIAMS TOWN, 5600 - *Saliwa*
370. Ayanda Portia Mtshali - 970310 0797 083 - Nondweni Area, NQUTU, 3135 - *Africa*

371. Nomfundo Princess Mtshali - 980415 0698 088 - Nondweni Area, NQUTU, 3135 - *Africa*
372. Agreement Ntwanano Baloyi - 000329 0689 086 - Dan Village, TZANEEN, 0850 - *Shikwambane*
373. Hlulani Mahori - 000104 5822 085 - Manini Area, THOHOYANDOU, 0950 - *Baloyi*
374. Siphon Eric Pondo - 670126 5491 081 - Zone 4 No 9, LANGA, 7455 - *Zamela*
375. Sambulo Khulani Shange - 820828 6015 087 - 210 Harmony Road, MUIZENBERG, 7945 - *Xulu*
376. Lindokuhle Nhlakanopho Mbotho - 980609 5503 083 - Dumbe Location, EDUMBE, 3180 - *Shongwe*
377. Cyril Nhlanhla Mkhize - 770716 5567 085 - 40 Havelock Road, PIETERMARITZBURG, 3201 - *Zuma*
378. Wiseman Sizwe Zondi - 841125 5306 087 - 7279 Kwanyamazane, Slangspruit, PIETERMARITZBURG, 3201 - *Sithole*
379. Hlobisile Phukane - 960809 0694 085 - 4057 A Molongwane Street, Zone 3, Diepkloof, SOWETO, 1864 - *Shezi*
380. Thabiso Patrick Ndhlozi - 980729 5471 089 - 6212 Extension 6, Ivory Park, TEMBISA, 1693 - *Hlase*
381. Nkosingiphile Cypria Nkonyane - 940715 0856 084 - D 64 Kwa Ngema, PIET RETIEF, 2380 - *Msibi*
382. Xolani Jotham Mkhonto - 870515 5373 083 - 4216 Extension 4, Mzinoni, BETHAL, 2310 - *Mahlangu*
383. Sifiso Africa Nkosi - 840715 5614 083 - Stand No 27, Mareldene Estate, WITBANK, 1042 - *Mndawe*
384. Siphon Alex Nkwanyana - 000409 5698 082 - Dlamlenze Farm, PONGOLA, 2380 - *Nzima*
385. Olwethu Mila - 910817 5345 083 - Masingata Location, KING WILLIAMS TOWN, 5600 - *Ngwana*
386. Tahleho Xaba - 931228 5315 081 - 619 Silverton Street, REITZ, 9810 - *Mahlaba*
387. Mandla Khechane - 920308 5361 088 - 2637 Mase Street, Kwazakhele, PORT ELIZABETH, 6205 - *Swartbooi*
388. Mthetheleli Zwelimbashile - 780421 5716 083 - Bikane Area, WILLOWVALE, 5040 - *Dumaphi*
389. Athenkosi Baka - 960522 5779 088 - Skobeni Area, COFIMVABA, 5350 - *Shoco*
390. Karabo Maboe - 000512 5173 087 - 3513 Lilly Street, GRACELAND, 1984 - *Masisi*
391. Ntokozo Nkanyezi Xaba - 980202 5701 087 - 176 Majoram Avenue, Extension 23, Annlin, WONDERBOOM, 0187 - *Lamola*
392. Muzikayise Arnot Mashile - 991002 5291 080 - 233 Modise Street, THUSANANG, 1039 - *Maseko*
393. Jonas Thulane Madonsela - 890521 5322 084 - 561 Lekote Street, PHOLA, 2230 - *Makhanya*
394. Nontokoza Ennocentia Mgwenya - 890403 0085 083 - Stand No 1639, T.V TRUST, 1045 - *Lubisi*
395. Nkosinathi Simon Themba - 870818 5883 089 - Stand No 472, MAGOGENI, 1334 - *Thwala*
396. Andrew Songezaimba - 890703 5102 084 - Ny 63 G 62 No 1, GUGULETHU, 7750 - *Bam*
397. Alexander Lekola - 721126 5834 081 - 34244 Monwabe Street, Extension 6, MAMELODI EAST, 0122 - *Mdluli*
398. Papi Dimpho Sithole - 991112 5436 088 - 1191 Hlongwane Stand, WINTERVELDT, 0198 - *Rakgotho*
399. Bokang Masithule Xhayi - 971208 5597 087 - Solomzi Area, MOUNT FLETCHER, 4770 - *Moliko*
400. Bongani Madi - 980912 5311 089 - Stand No 715, Unit A, MONSTERLUS, 1059 - *Mahlangu*
401. Kgaogelo Maruping Mamba - 980902 5341 087 - 562 Mapodile Village, Steelpoort, SEKHUKHUNE, 1133 - *Maphalla*
402. Busisiwe Dlamini - 950205 0595 087 - 1750 Mkwai Street, THOKOZA, 1426 - *Tsoku*
403. Phenylo Ofentse Molefe - 000219 5220 088 - 4076/43 Luvuyo Road, Roodekop, GERMISTON, 1401 - *Moshoeshoe*
404. Pilato Manilane - 831129 5506 086 - Stand No 59, Dublin, MAFEFE, 0738 - *Ratheko*

405. Zandiswa Lilani - 960520 0388 087 - Feni Area, CENTANE, 4980 - *Zibi*
406. Andiswa Mzamo - 850914 0786 080 - 8919 road 31, Vietnam drive, PHILLIPI EAST, 7750 - *Mkuzangwe*
407. Thembi Motsamai – 800912 0492 080 – and a minor child - Lindiwe Oratile Motsamai – 100725 0235 086 - 5210 Mabule Street, Rocklands Location, BLOEMFONTEIN, 9323 - *Mokoena*
408. Mgobane Maswiti Ndayini – 740707 6402 080 – your wife – Phumzile Ncamsile Ndayini – 791101 1066 082 – and a minor child – Bongeka Banda – 091030 1295 085 - - Ngobozane Area, LUSIKISIKI, 4800 - *Maswiti*
409. Zwede Thomas Manganye – 690811 5629 089 – and your wife – Jane Morongwa Portia Manganye – 710507 0717 087 - 813/8 Lunit D, TEMBA, 0407 - *Matjila*
410. Moloko Judas Malema – 620815 5404 083 – and your wife Mapula Mortha Malema – 711113 0534 082 - P O Box 1614, BOCHUM, 0790 - *Sehapela*
411. Nolwazi Dlamini – 990910 0539 082 – and a minor child – Ayabong Dlamini – 171124 6274 089 - Nyangwini Location, UMTHWALUME, 4186 - *Khomo*
412. Masilo Simon Mosia - 730311 5620 081 – and your wife – Sibongile Maria Mosia – 840418 0794 089 - 3277 Voolbreeze, Duduza, NIGEL, 4196 - *Mofokeng*
413. Thabo Wilfull Sibanda - 760418 5469 089 – and your wife – Banyana Ruth Sibanda – 780530 0654 089 - 2347 Mabele Street, DOBSONVILLE, 1863 - *Motloba*
414. John Mandla Sibanyoni - 720204 5357 089 – your wife – Sabina cornell Sibanyoni – 790901 0518 087 – and a minor child – Kamogelo Shaun Sibanyoni – 110302 5865 081 - Stand No 4658, EKANGALA, 1061 - *Mokwana*
415. Kedumetse Lepedi - 930825 0769 088 – and a minor child – Isago Lepedi – 150910 0257 087 - A11 Chiefblock Section, GANYESA, 8613 - *Inno*
416. Maloko Rebecca Sekgobela - 870308 0444 087 – and a minor child – Koketso Sekgobela – 071206 1177 085 - 610 Winnie Mandela, TEMBISA, 1632 - *Makgopa*
417. Matshediso Ramaabele Sebapu - 810621 0857 089 – and three minor children – Succeed Phomelelo Sebapu – 161101 6071 089 – Mpho Gift Sebapu – 080515 5918 081 – Nekhesile Kelebogile Sebapu – 131217 1149 089 - P O Box 40, APEL, 0739 - *Thobejane*
418. Laolang Donald Kalamore - 810801 5982 088 – your wife – Sylvia Dineo Kalamore – 821105 0391 080 – and two minor children - Maipelo Happiness Kalamore – 040423 0752 085 – Maikutlo Kalamore – 120221 0095 080 - Magojaneng Village, KURUMAN, 8460 - *Mmereki*

## DEPARTMENT OF JUSTICE AND CONSTITUTIONAL DEVELOPMENT

NO. 1216

09 NOVEMBER 2018

## SMALL CLAIMS COURTS ACT, 1984 (ACT NO. 61 OF 1984)

ESTABLISHMENT OF A SMALL CLAIMS COURT FOR THE AREA OF  
NGWELEZANE

I, John Harold Jeffery, Deputy Minister of Justice and Constitutional Development, acting under the power delegated to me by the Minister of Justice and Correctional Services, under section 2 of the Small Claims Courts Act, 1984 (Act No. 61 of 1984), hereby -

- (a) establish a Small Claims Court for the adjudication of claims for the area of Ngwelezane, consisting of the district of Ngwelezane;
- (b) determine Ngwelezane to be the seat of the said Court; and
- (c) determine Ngwelezane to be the place in that area for the holding of sessions of the said Court.



MR. J.H. JEFFERY, MP  
DEPUTY MINISTER OF JUSTICE AND CONSTITUTIONAL DEVELOPMENT

## DEPARTMENT OF LABOUR

NO. 1217

09 NOVEMBER 2018

**REGULATION ON IOD/OD DOCUMENTS TO BE PROVIDED BY EMPLOYERS TO  
COMPENSATION FUND IN ADMINISTRATION OF CLAIMS ADJUDICATION  
PROCESSES AS PER SECTION 6A (b) AND 40(1) OF THE COIDA**

Under section 6A (b) and 40 (1) of the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993). I Vuyo Mafata, Compensation Commissioner, hereby publish the regulation on IOD/OD documents to be provided by employers to Compensation Fund in administration of the COIDA Act on claims adjudication processes as per section 38, 39 & 43 and 65 & 68 of COIDA. To inform all Employers and employees of the primary documents needed for the registration, adjudication and processing of IOD/OD claims which will improve the turn-around time and finalization of the claims as indicated in section 40(2) of the COIDA.

The regulation will take effect on the date of publication.



**VUYO MAFATA**

**COMPENSATION COMMISSIONER**

**DATE:** 06/09/2018

## **DEFINITION OF INJURY ON DUTY/OCCUPATIONAL DISEASE (IOD/OD)**

An unexpected occurrence, at a specific date, time and place and arising out of and in the course of the employee's employment, resulting in personal injury or death, or when an occupational disease is contracted due to exposure at the workplace.

### **1. Registration of a claim:**

The employer is responsible to register all accidents with the Compensation Fund within seven (7) days of receiving notice of the accident or 14 days in the case of an occupational disease. Section 38, 39 and 43 has reference to an IOD and Section 65 and 68 in the case of an OD claim.

All documents related to an IOD and OD should be kept safe and must be provided on request.

#### **1.1 Documents required for reporting an Injury on duty (IOD):**

- A duly completed Employer's Report on an Accident (W.Cl. 2) (Electronic or manual)
- Valid identity (Certified) information issued by the Department of Home Affairs (Including Foreigners) Identity document, driver's license, passport, birth certificate, work permit
- Relevant questionnaires related to the specific incident, if and where applicable. E.g. transport questionnaire, assault questionnaire

#### **1.2 Documents required for reporting an Occupational disease:**

- A duly completed Employer's Report on an Occupational Disease (W.Cl. 1) (Electronic or manual)
- Valid identity information issued by the Department of Home Affairs (Including Foreigners) Identity document, driver's license, passport, birth certificate, work permit
- Notice of an Accident and Claim for Compensation (W.Cl. 14) must be completed (more specifically in the case where the employee is not in the service of the employer anymore)
- Relevant questionnaires/report related to the specific condition, if and where applicable

### **2. Adjudication Process:**

The above information and reports are critical in the adjudication process (determining whether the injury or disease is related to work as per the definition of an Injury on Duty/Occupational Disease), the adjudication process will result to:

- Liability accepted (accept liability for the payment of compensation and medical expenses)
- Liability not accepted (where outstanding information/reports are required by CF) legal opinion with regards to timeframe refer to Section 40(2), (4) and (5)
- Repudiated (where the incident/condition is not work related)
- Under-investigation (where there are suspected misstatements of information) clear process and timeframe

## **2.1 Documents/reports required to adjudicate upon liability of a claim:**

### **2.1.1 Injury on duty (IOD):**

- First Medical Report (W.Cl. 4) or a valid medical report with a full clinical description by a medical practitioner registered in terms of the Health Professions Act and registered with the relevant medical association(s)
- For claims related to Post Traumatic Stress claims, a First Medical Report by a Psychiatrist (W.Cl. 303) is required
- Any other medical report or comments/information should be provided which can have an influence on the consideration of liability of a claim.
- In the case of Needle prick/exposure to blood injuries by health workers: Pathologist reports

### **2.1.2 Occupational disease (OD):**

- First Medical Report (W.Cl. 22) and/or valid medical report with a full clinical description by a medical practitioner registered in terms of the Health Professions Act and registered with the relevant medical health council including practice number.
- First Medical Report (W.Cl. 303) in the case of Post Traumatic Diseases claims by a Psychiatrist health council including practice number.
- Notice of an Accident and Claim for Compensation (W.Cl. 14) must be completed (Employee report to employer)
- Any other medical reports or comments/information should be provided which can have an influence on the consideration of liability of a claim.
- Work exposure reports
- Medical Report detailing the symptoms & clinical features
- Industrial History (W.Cl.110)
- Biopsy / Histology Results / Cytology Report where necessary
- Radiologist reports confirming a diagnosis, Chest X-Ray reports
- Lung Function tests in the case of a lung condition
- Laboratory Investigations confirming the diagnosis
- In the case of Noise Induce Hearing Loss:
  - Baseline audiograms, pre-employment report (Medical Services advice on adjudication) and exposure report.
  - Two diagnostic audiograms.
  - Ear, Nose and Throat Specialist Report (ENT) where necessary
- In the case of Repetitive Strain injuries:
  - A detailed description by the employer of the specific work that the employee does, including number of repetitious movements involved and force required in the movements, and time exposed to these and other factors predisposing to the development of WRULDs.

- A full medical report detailing symptoms and signs and a specific diagnosis, together with reports of any special investigations that support the diagnosis, together with detail of treatment administered and / or planned.

### **3. Benefits management:**

The adjudication process must have been completed and liability must have been accepted before the processing of any benefits commences.

In all cases where a benefit is payable, the Compensation Fund will require the banking details of the beneficiary. Please note that the documents submitted, must be original/certified documents, not older than three months.

Employers individually liable in terms of Section 84 (1) (a) of the Act are all National and Provincial spheres of government, local authorities and certain Municipalities which are exempted of paying annual assessments and do they not submit any banking details or that of their employees.

Banking details of all other employers are required and in the case where an employee is entitled to a benefit payable to them.

#### **3.1 Banking detail documents required:**

The following banking details are required by the beneficiary and must not be older than three months and must be the ORIGINAL documents:

- W.Ac. 33 in respect the banking details, by the beneficiary, duly completed, dated and signed
- Confirmation of proof of residence (Municipal account etc.).
- Copy of the first page of the bank statement's indicating the name of the bank account holder, address and bank account number or a letter by the bank confirming the details of the holder of the bank account.
- Recent certified copy of the beneficiary's ID document.

### **4. Medical aid:**

Section 73 (1) of the COID Act allows the medical service provider to administer treatment and stabilize the patient for a period up to a maximum of two years (twenty-four (24) months) and the service provider(s) must submit monthly Progress Medical Reports and the Final Medical Report as soon as the condition stabilizes.

All Provincial departments and Exempted Municipalities are responsible to pay for all medical bills claims where liability has been accepted by the Fund. Medical invoices must be processed in accordance to the tariffs as published in the relevant Government Gazettes. Add Public Service Act and SAP Act, Correction Service Act & Defence act

## **5. Re-opening of claims:**

In terms of Section 73(2) the case where further medical treatment after the condition became stabilized, is necessary and which will reduce the disablement of an employee, the claim may be re-opened upon receipt of a report from the treating doctor. Once authorization has been given, the Fund will pay medical expenses for the treatment and may pay further compensation.

## **6. Awarding a Claim and different types of benefits:**

Compensation is based on the earnings as at the time of the accident or date of diagnosis (including minimum and maximum earnings) as published in the relevant Government Gazette related to the specific date of accident and year.

### **6.1 Temporary Total Disablement (TTD and Temporary Partial Disablement (TPD) – performing light duty during period of recuperation:**

TTD is payable when an employee was booked off from 3 days by the treating doctor to recuperate from the injuries/condition in respect of the occupational diseases suffered at the time of the accident/diagnosis.

**PLEASE NOTE THAT EXEMPTED EMPLOYERS ARE EXCLUDED FROM PAYING TTD/TPD BENEFITS TO THEIR EMPLOYEE'S**

#### **6.1.1 Documents/information required for processing TTD/TPD benefits:**

- Pay slip of the employee's earnings as at the time of accident/diagnosis. In the case where the employee is earning allowances of a regular nature, these allowances should also be indicated – please refer to Section 63 of COIDA.
- Duly completed, dated and signed Resumption Report (W.Cl.6) by the employer indicating the period the employee was off duty as a result of the accident/occupational disease and the amount of advances paid during this period.
- In the case where the employee is not in the service of the employer anymore or where the employer is not claiming benefits on behalf of the employee, the employee needs to submit a duly completed, dated and attested Affidavit (W.Cl. 132) claiming compensation. This needs to be submitted on a monthly basis until the employee's condition stabilizes.
- Progress Medical Reports (W.Cl. 5P) indicating the treatment administered and period(s) the employee is unfit for work, including Operation reports, if applicable.
- As soon as the employee's condition stabilizes, a Final Medical Report (W.Cl. 5F) indicating the date on which the employee was fit to return to work or the date on which the employee's condition has stabilised, should be submitted.

- Where the employee is off duty for a prolonged period due to injury(ies) a Progress Medical Report (W.Cl.5) should be submitted on a monthly basis together with the Resumption Report (W.Cl. 6) until the employee's condition stabilizes.

## **6.2 Permanent Disablement: (PD)**

PD is payable when the employee has a permanent anatomical defect/and or impairment of function as a result of an accident/occupational disease. It can only be assessed when employee's condition has become stabilized and on the submission of a Final Medical Report or any other medical report confirming that the employee's condition stabilized.

A lump sum payment is payable when the PD is between 1% and 30% and when the PD % is higher than 30%, the employee will be entitled to the payment of a monthly pension, which will be paid until the date of death of such employee.

**PERMANENT DISABLEMENT (LUMP SUMS AS WELL AS MONTHLY PENSIONS) FOR EXEMPTED EMPLOYEE'S ARE BEING PAID THROUGH THE GPAA, COMPENSATION FUND ISSUES AN AWARD.**

### **6.2.1. Documents/information required for processing PD benefits:**

- Pay slip of the employee's earnings as at the time of accident/diagnosis. In the case where the employee is earning allowances of a regular nature, these allowances should also be indicated – please refer to Section 63 of COIDA.
- Final Medical Report (W.Cl. 5F)
- Additional reports such as Hand Report (W.Cl 31), Foot Report (W.Cl. 221) or an Eye Report (W.Cl.52)
- Occupational Therapist Report, duly completed, dated and signed by the therapist and confirmed by the treating doctor/specialist.
- Final Medical Report by the Psychiatrist (W.Cl. 304) for PTSD claims
- Final Medical Report (W.Cl.26) for Occupational Diseases
- Final Medical Report (W.Cl.26) with the most recent lung function tests, which includes pre- and post-administration of a bronchodilator, and medication prescribed.
- Two diagnostic audiograms for claims where the employee has suffered hearing loss

### **6.2.2 Calculation of PD lump sum**

PD is calculated on the earnings as at the time of the accident/death

### 6.3 Fatal Claims:

In the case where an employee dies as a result of an accident or their deaths are as a result of injuries that had been sustained from an IOD/OD, a pension becomes payable to the surviving spouse(s) and dependent children under the age of 18 at the time of death.

#### 6.3.1 The following documents are required to consider payment of compensation to the dependents of the deceased:

- Pay slip of the employee's earnings as at the time of accident/diagnosis. In the case where the employee is earning allowances of a regular nature, these allowances should also be indicated – please refer to Section 63 of COIDA.
- Death certificate indicating the cause of death or the Notice of death/post mortem citing the cause of death presumption of death from the Department of Home Affairs if the body could not be found
- Marriage certificate or Customary Union Certificate
- Un-abridged birth certificates of children under the age of 18 and in the case of disabled children, who can claim beyond the age of 18.
- Duly completed, dated and signed declaration by dependant Widow/widower/guardian (W.CL.32) attested by a Commissioner of Oaths,
- Notice of Accident and Claim for Compensation (W.CL.3/14), page one and two,
- Certified copy of the widow/widower's ID document,
- Specified Burial Expenses Account (W.Cl.46) with receipt(s) if paid.

### 6.4 Commutation of pensions:

In terms of Section 52/60 of the Act, the DG may direct the payment of a lump sum or a portion thereof upon receipt of an application by the pensioner. This forms part of the discretionary powers of the DG and the payment of such lump sum shall be subject to the control of the DG.

Commutation of the pension of a child may not be considered.

**COIDA BENEFITS DO NOT FORM PART OF A DECEASED'S ESTATE-SECTION 34.**



VUYO MAFATA

**COMPENSATION COMMISSIONER**

**DATE: 06/09/2018**

## DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM

NO. 1218

09 NOVEMBER 2018

**GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT NO. 22 OF 1994), AS AMENDED**

Notice is hereby given in terms of section 11(1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994) as amended, that a claim for restitution of land rights has been lodged on portion 6 (Remaining Extent) of the farm Kalkoven 299 LS in the Vhembe District, Limpopo Province. It must be noted that the claimed land is a currently used for agricultural purposes by private landowner.

Mr. Mabilia Lazarus Mosesi lodged a land claim on behalf of his family on the 31<sup>st</sup> of December 1998. The following table depicts the properties claimed by the above-mentioned family.

Farm Name	Portions	Current Owner	Title Deed Number	Extent in Hectares
Kalkoven 299 LS	6 (Remaining Extent)	Rensburg Gertruida Maria Jansen Van	T2338/1997	289.4160

The Regional Land Claims Commission for Limpopo is investigating the claim. Any party that has an interest in the above-mentioned properties is hereby invited to submit in writing within **90** days of publication of this notice, any comment, and/ or objection under reference number: KRP 1736.

**Office of the Regional Land Claims to:**

**Commissioner: Limpopo  
Private Bag x9552  
POLOKWANE  
0700**

**Submissions may also be delivered**

**First Floor, 96 Kagiso House  
Corner Rissik & Schoeman Streets  
POLOKWANE  
0700**

  
**MAPHUTHA HARRY LEBJANE  
REGIONAL LAND CLAIMS COMMISSIONER: LIMPOPO**

**DATE:** 2014/06/03

**SOUTH AFRICAN REVENUE SERVICE****NO. 1219****09 NOVEMBER 2018****INCOME TAX ACT, 1962****AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA AND THE GOVERNMENT OF THE TURKS AND CAICOS ISLANDS FOR THE EXCHANGE OF INFORMATION RELATING TO TAX MATTERS**

In terms of section 108(2) of the Income Tax Act, 1962 (Act No 58 of 1962), read in conjunction with section 231(4) of the Constitution of the Republic of South Africa, 1996 (Act No 108 of 1996), it is hereby notified that the Agreement for the exchange of information relating to tax matters set out in the Schedule to this Notice has been entered into with the Government of the Turks and Caicos Islands and has been approved by Parliament in terms of section 231(2) of the Constitution.

It is further notified in terms of Article 11 of the Agreement, that the date of entry into force is 21 September 2018.

## SCHEDULE

### AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA AND THE GOVERNMENT OF THE TURKS AND CAICOS ISLANDS FOR THE EXCHANGE OF INFORMATION RELATING TO TAX MATTERS

#### PREAMBLE

**WHEREAS** it is acknowledged that the Government of the Turks and Caicos Islands under the terms of its Entrustment from the United Kingdom has the right to negotiate and conclude a tax information exchange agreement with the Government of the Republic of South Africa;

**WHEREAS** the Government of the Turks and Caicos Islands and the Government of the Republic of South Africa ("the Parties") wish to enhance and facilitate the terms and conditions governing the exchange of information relating to taxes;

**DESIRING THEREFORE** the Parties in concluding the following Agreement which contains obligations on the part of the Parties only,

**HAVE AGREED AS FOLLOWS:**

#### ARTICLE 1

##### SCOPE OF THE AGREEMENT

The Parties through their competent authorities shall provide assistance through exchange of information that is foreseeably relevant to the administration and enforcement of the domestic laws of the Parties concerning the taxes covered by this Agreement, including information that is foreseeably relevant to the determination, assessment, enforcement or collection of tax with respect to persons subject to such taxes, or to the investigation of tax matters or the prosecution of criminal tax matters in relation to such persons. A requested Party is not obliged to provide information which is neither held by its authorities nor in the possession of or obtainable by persons who are within its territorial jurisdiction. The rights and safeguards secured to persons by the laws or administrative practice of the requested Party remain applicable. The requested Party shall use its best endeavours to ensure that the effective exchange of information is not unduly prevented or delayed.

**ARTICLE 2****TAXES COVERED**

1. This Agreement shall apply to the following taxes imposed by the Parties:
  - (a) in the case of the Turks and Caicos Islands:
    - (i) the stamp duty;
    - (ii) the hotel and restaurant tax;
    - (iii) the passenger tax;
    - (iv) the value added tax;
    - (v) the domestic financial services sales tax; and
    - (vi) the insurance premium sales tax;
  - (b) in the case of South Africa:
    - (i) the normal tax;
    - (ii) the dividends tax;
    - (iii) the withholding tax on interest;
    - (iv) the withholding tax on royalties;
    - (v) the tax on foreign entertainers and sportspersons; and
    - (vi) the value added tax.

2. This Agreement shall apply also to any identical taxes imposed after the date of signature of the Agreement in addition to or in place of the existing taxes, or any substantially similar taxes if the Parties so agree. The competent authority of each Party shall notify the other of substantial changes in laws which may affect the obligations of that Party pursuant to this Agreement.

**ARTICLE 3****GENERAL DEFINITIONS**

1. In this Agreement:
  - (a) the term "Turks and Caicos Islands" means the territory of the Turks and Caicos Islands and includes the territorial sea, areas within the maritime boundaries of the Turks and Caicos Islands and any area within which in accordance with international law the rights of the Turks and Caicos Islands with respect to its seabed and sub-soil of their natural resources may be exercised;
  - (b) the term "South Africa" means the Republic of South Africa and, when used in a geographical sense, includes the territorial sea thereof as well as any area outside the territorial sea, including the continental shelf, which has been or may hereafter be designated, under the laws of South Africa and in accordance with international law, as an area within which South Africa may exercise sovereign rights of jurisdiction;

- (c) the term “company” means any body corporate or any entity that is treated as a body corporate for tax purposes;
- (d) the term “competent authority” means:
  - (i) in the case of Turks and Caicos Islands, the Permanent Secretary in the Ministry of Finance or the Permanent Secretary’s authorised representative; and
  - (ii) in the case of South Africa, the Commissioner of the South African Revenue Service or an authorised representative of the Commissioner;
- (e) the term “criminal laws” means all criminal laws designated as such under domestic law, irrespective of whether such are contained in the tax laws, the criminal code or other statutes;
- (f) the term “criminal tax matters” means tax matters involving intentional conduct whether before or after the entry into force of this Agreement which is liable to prosecution under the criminal laws of the requesting Party;
- (g) the term “information” means any fact, statement, document or record in whatever form;
- (h) the term “information gathering measures” means laws and administrative or judicial procedures enabling a requested Party to obtain and provide the information requested;
- (i) the term “person” includes an individual, a company or any other body or group of persons;
- (j) the term “publicly traded company” means any company whose principal class of shares is listed on a recognised stock exchange provided its listed shares can be readily purchased or sold by the public. Shares can be purchased or sold “by the public” if the purchase or sale of shares is not implicitly or explicitly restricted to a limited group of investors;
- (k) the term “principal class of shares” means the class or classes of shares representing a majority of the voting power and value of the company;
- (l) the term “recognised stock exchange” means any stock exchange agreed upon by the competent authorities of the Parties;
- (m) the term “public collective investment scheme” means any scheme or fund, in which the purchase, sale or redemption of shares or other interests is not implicitly or explicitly restricted to a limited group of investors;
- (n) the term “requested Party” means the Party to this Agreement which is requested to provide or has provided information in response to a request;

- (o) the term “requesting Party” means the Party to this Agreement submitting a request for or having received information from the requested Party; and
- (p) the term “tax” means any tax covered by this Agreement.

2. As regards the application of this Agreement at any time by a Party, any term not defined therein shall, unless the context otherwise requires, have the meaning that it has at that time under the laws of that Party, any meaning under the applicable tax laws of that Party prevailing over a meaning given to the term under other laws of that Party.

## ARTICLE 4

### EXCHANGE OF INFORMATION UPON REQUEST

1. The competent authority of the requested Party shall provide upon request by the requesting Party information for the purposes referred to in Article 1. Such information shall be exchanged without regard to whether the requested Party needs such information for its own tax purposes or the conduct being investigated would constitute a crime under the laws of the requested Party if it had occurred in the territory of the requested Party. The competent authority of the requesting Party shall only make a request for information pursuant to this Article when it is unable to obtain the requested information by other means, except where recourse to such means would give rise to disproportionate difficulty.

2. If the information in the possession of the competent authority of the requested Party is not sufficient to enable it to comply with the request for information, the requested Party shall use the information gathering measures it considers relevant to provide the requesting Party with the information requested, notwithstanding that the requested Party may not need such information for its own tax purposes.

3. If specifically requested by the competent authority of the requesting Party, the competent authority of the requested Party shall provide information under this Article, to the extent allowable under its domestic laws, in the form of depositions of witnesses and authenticated copies of original records.

4. Each Party shall ensure that it has the authority, subject to the terms of Article 1, to obtain and provide, through its competent authority and upon request:

- (a) information held by banks, other financial institutions, and any person, including nominees and trustees, acting in an agency or fiduciary capacity;
- (b)
  - (i) information regarding the legal and beneficial ownership of companies, partnerships, foundations and other persons, including in the case of collective investment schemes, information on shares, units and other interests;
  - (ii) in the case of trusts, information on settlors, trustees and beneficiaries.

5. This Agreement does not create an obligation for a Party to obtain or provide ownership information with respect to publicly traded companies or public collective investment schemes, unless such information can be obtained without giving rise to disproportionate difficulties.

6. Any request for information shall be formulated with the greatest detail possible by specifying in writing:

- (a) the identity of the person under examination or investigation;
- (b) the period for which the information is requested;
- (c) the nature of the information requested and the form in which the requesting Party would prefer to receive it;
- (d) the tax purpose for which the information is sought;
- (e) the reasons for believing that the information requested is foreseeably relevant to tax administration and enforcement of the requesting Party, with respect to the person identified in subparagraph (a) of this paragraph;
- (f) reasonable grounds for believing that the information requested is present in the requested Party or is in the possession of or obtainable by a person within the jurisdiction of the requested Party;
- (g) to the extent known, the name and address of any person believed to be in possession or able to obtain the information requested;
- (h) a statement that the request is in conformity with the laws and administrative practices of the requesting Party, that if the requested information was within the jurisdiction of the requesting Party then the competent authority of the requesting Party would be able to obtain the information under the laws of the requesting Party or in the normal course of administrative practice and that it is in conformity with this Agreement;
- (i) a statement that the requesting Party has pursued all means available in its own territory to obtain the information, except where that would give rise to disproportionate difficulty.

7. The competent authority of the requested Party shall acknowledge receipt of the request to the competent authority of the requesting Party and shall use its best endeavours to forward the requested information to the requesting Party with the least possible delay.

## ARTICLE 5

### TAX EXAMINATIONS ABROAD

1. With reasonable notice, the requesting Party may request in writing that the requested Party allow representatives of the competent authority of the requesting Party to enter the territory of the requested Party, to the extent permitted under its domestic laws, to interview individuals and examine records with the prior written consent of the individuals or other persons concerned. The competent authority of the requesting Party shall notify the competent authority of the requested Party of the time and place of the intended meeting with the individuals concerned.

2. At the request of the competent authority of the requesting Party, the competent authority of the requested Party may permit representatives of the competent authority of the requesting Party to attend a tax examination in the territory of the requested Party to the extent allowable under its domestic laws.

3. If the request referred to in paragraph 2 is granted, the competent authority of the requested Party conducting the examination shall, as soon as possible, notify the competent authority of the requesting Party of the time and place of the examination, the authority or person authorised to carry out the examination and the procedures and conditions required by the requested Party for the conduct of the examination. All decisions regarding the conduct of the examination shall be made by the requested Party conducting the examination.

## ARTICLE 6

### POSSIBILITY OF DECLINING A REQUEST

1. The competent authority of the requested Party may decline to assist:

- (a) where the request is not made in conformity with this Agreement;
- (b) where the requesting Party has not pursued all means available in its own territory to obtain the information, except where recourse to such means would give rise to disproportionate difficulty; or
- (c) where the disclosure of the information requested would be contrary to public policy of the requested Party.

2. This Agreement shall not impose upon a requested Party any obligation to provide items subject to legal privilege, or any trade, business, industrial, commercial or professional secret or trade process, provided that information described in Article 4, paragraph 4, shall not by reason of that fact alone be treated as such a secret or trade process.

3. A request for information shall not be refused on the ground that the tax claim giving rise to the request is disputed.

4. The requested Party shall not be required to obtain and provide information which, if the requested information was within the jurisdiction of the requesting Party, the competent authority of the requesting Party would not be able to obtain under its laws or in the normal course of administrative practice.

5. The requested Party may decline a request for information if the information is requested by the requesting Party to administer or enforce a provision of the tax law of the requesting Party, or any requirement connected therewith, which discriminates against a national or citizen of the requested Party as compared with a national or citizen of the requesting Party in the same circumstances.

6. The requested Party may decline a request for information relating to a period more than six years prior to the tax period under consideration, unless such information is held in the territory of the requested Party or is in the possession or control of a person within the jurisdiction of the requested Party.

## **ARTICLE 7**

### **CONFIDENTIALITY**

1. All information provided and received by the competent authorities of the Parties shall be kept confidential.

2. Such information shall be disclosed only to persons or authorities (including courts and administrative bodies) concerned with the purposes specified in Article 1, and used by such persons or authorities only for such purposes, including the determination of any appeal. For these purposes, information may be disclosed in public court proceedings or in judicial decisions.

3. Such information may not be used for any purpose other than for the purposes stated in Article 1 without the express written consent of the competent authority of the requested Party.

4. Information provided to a requesting Party under this Agreement may not be disclosed to any other jurisdiction.

## **ARTICLE 8**

### **COSTS**

Incidence of costs incurred in providing assistance (including reasonable costs of third parties and external advisors in connection with litigation or otherwise) shall be agreed by the competent authorities of the Parties in accordance with a Memorandum of Understanding.

**ARTICLE 9****LEGISLATIVE REQUIREMENTS**

The Parties shall enact any legislation necessary to comply with, and give effect to, the terms of the Agreement.

**ARTICLE 10****MUTUAL AGREEMENT PROCEDURE**

1. Where difficulties or doubts arise between the Parties regarding the implementation or interpretation of this Agreement, the respective competent authorities shall use their best efforts to resolve the matter by mutual agreement.

2. In addition to the agreements referred to in paragraph 1, the competent authorities of the Parties may mutually agree on the procedures to be used under Articles 4, 5 and 8.

3. The competent authorities of the Parties may communicate with each other directly for purposes of reaching agreement under this Article.

4. The Parties shall agree on other forms of dispute resolution should this become necessary.

**ARTICLE 11****ENTRY INTO FORCE**

This Agreement shall enter into force 30 days after receipt of written notification by the latter Party of completion of all legal formalities required for entry into force. Upon the date of entry into force, it shall have effect:

- (a) for criminal tax matters on that date; and
- (b) for all other matters covered in Article 1 on that date, but only in respect of taxable periods beginning on or after that date or, where there is no taxable period, all charges to tax arising on or after that date.

**ARTICLE 12****TERMINATION**

1. This Agreement shall remain in force until terminated by either Party through diplomatic channels.

2. Either Party may terminate this Agreement by giving notice of termination in writing. Such termination shall become effective on the first day of the month following the expiration of a period of three months after the date of receipt of notice of termination by the other Party. All requests received up to the effective date of termination will be dealt with in accordance with the terms of this Agreement.

3. If the Agreement is terminated the Parties shall remain bound by the provisions of Article 7 with respect to any information obtained under this Agreement.

**IN WITNESS WHEREOF** the undersigned, being duly authorised by their respective Governments, have signed and sealed this Agreement in two originals in the English language, both texts being equally authentic.

**DONE** in duplicate this 27<sup>th</sup> day of May 2015.

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**FOR THE GOVERNMENT OF THE  
REPUBLIC OF SOUTH AFRICA**

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**FOR THE GOVERNMENT OF THE  
TURKS AND CAICOS ISLANDS**

**SUID-AFRIKAANSE INKOMSTEDIENS**

NO. 1219

09 NOVEMBER 2018

**INKOMSTEBELASTINGWET, 1962****OOREENKOMS TUSSEN DIE REGERING VAN DIE REPUBLIEK VAN SUID-AFRIKA EN DIE REGERING VAN DIE TURKS- EN CAICOS-EILANDE VIR DIE UITRUIL VAN INLIGTING MET BETREKKING TOT BELASTINGAANGELEENTHEDE**

Ingevolge artikel 108(2) van die Inkomstebelastingwet, 1962 (Wet No 58 van 1962), saamgelees met artikel 231(4) van die Grondwet van die Republiek van Suid-Afrika, 1996 (Wet No 108 van 1996), word hiermee kennis gegee dat die Ooreenkoms vir die uitruil van inligting met betrekking tot belastingaangeleenthede wat in die Bylae tot hierdie Kennisgewing vervat is, aangegaan is met die Regering van die Turks- en Caicos-Eilande en deur die Parlement goedgekeur is ingevolge artikel 231(2) van die Grondwet.

Daar word verder bekendgemaak dat ingevolge Artikel 11 van die Ooreenkoms, die datum van inwerkingtreding 21 September 2018 is.

**BYLAE****OOREENKOMS TUSSEN DIE REGERING VAN DIE REPUBLIEK VAN SUID-AFRIKA EN DIE REGERING VAN DIE TURKS- EN CAICOS-EILANDE VIR DIE UITRUIL VAN INLIGTING MET BETREKKING TOT BELASTINGAANGELEENTHEDE****AANHEF**

**AANGESIEN** daar erken word dat die Regering van die Turks- en Caicos-eilande ingevolge die bepalings van die Toevertrouing van die Verenigde Koninkryk die reg het om 'n ooreenkoms vir die uitruil van belastinginligting met die Regering van die Republiek van Suid-Afrika te beding en aan te gaan;

**AANGESIEN** die Regering van die Turks- en Caicos-eilande en die Regering van die Republiek van Suid-Afrika ("die Partye") die bepalings en voorwaardes wil verstewig en bevorder wat die uitruil van inligting betreffende belastings reël;

**DUS BEGERIG is** om die volgende Ooreenkoms aan te gaan wat verpligtinge vir slegs die Partye bevat,

**HET DIE PARTYE SOOS VOLG OOREENGEKOM:****ARTIKEL 1****BESTEK VAN OOREENKOMS**

Die Partye, deur hulle bevoegde owerhede, moet bystand verleen deur die uitruil van inligting wat voorsienbaar tersaaklik is vir die administrasie en afdwinging van die landsreg van die Partye rakende die belastings wat deur hierdie Ooreenkoms gedek word, insluitende inligting wat voorsienbaar tersaaklik is vir die vasstelling, aanslaan, afdwinging of invordering van belasting ten opsigte van persone wat aan sodanige belastings onderhewig is, of vir die ondersoek van belastingaangeleenthede of die vervolging van strafregtelike belastingaangeleenthede met betrekking tot sodanige persone. 'n Versoekte Party is nie verplig om inligting te verskaf wat nóg deur sy owerhede gehou word, nóg in die besit of verkrygbaar is van persone wat binne sy gebiedsjurisdiksie is nie. Die regte en beskerming van persone wat deur die reg of administratiewe praktyk van die versoekte Party aan persone verleen word, bly van toepassing. Die versoekte Party moet alles in sy vermoë doen om te verseker dat die doeltreffende uitruil van inligting nie ten onregte voorkom of uitgestel word nie.

**ARTIKEL 2****BELASTINGS GEDEK**

1. Hierdie Ooreenkoms is van toepassing op die volgende belastings wat deur die Partye opgelê word:

(a) in die geval van die Turks- en Caicos-eilande:

- (i) die seëlreg;
- (ii) die hotel- en restaurantbelasting;
- (iii) die passasiersbelasting;
- (iv) die belasting op toegevoegde waarde;
- (v) die verkoopsbelasting op binnelandse finansiële dienste; en
- (vi) die versekeringspremieverkoopsbelasting;

(b) in die geval van Suid-Afrika:

- (i) die normale belasting;
- (ii) die dividendbelasting;
- (iii) die terughoudingsbelasting op rente;
- (iv) die terughoudingsbelasting op tantième;
- (v) die belasting op buitelandse vermaaklikheidskunstenaars en sportpersone;
- (vi) die belasting op toegevoegde waarde.

2. Hierdie Ooreenkoms is ook van toepassing op enige identiese belastings wat na die datum van ondertekening van die Ooreenkoms bykomend tot of in die plek van bestaande belastings opgelê word, of enige weselik soortgelyke belastings indien die Partye daartoe instem. Elk van die bevoegde owerhede van die Partye moet die ander kennis gee van wesentlike veranderinge aan die reg wat die verpligtinge van daardie Party ingevolge hierdie Ooreenkoms kan raak.

**ARTIKEL 3****ALGEMENE WOORDOMSKRYWING**

1. In hierdie Ooreenkoms:

- (a) beteken die uitdrukking "Turks- en Caicos-eilande" die gebied van die Turks- en Caicos-eilande, en sluit dit in die territoriale waters, die gebiede binne die maritieme grense van die Turks- en Caicos-eilande, en enige gebied waarbinne die Turks- en Caicos-eilande, ooreenkomstig die volkereg, hul regte ten opsigte van hul seebedding en die ondergrond van hul natuurlike hulpbronne kan uitoefen;
- (b) beteken die uitdrukking "Suid-Afrika" die Republiek van Suid-Afrika en, wanneer dit in 'n geografiese verband gebruik word, ook die territoriale waters daarvan asook enige gebied buite die territoriale waters, met inbegrip van die vastelandsplat, wat ingevolge die reg van Suid-Afrika en ooreenkomstig die volkereg aangedui is of hierna aangedui word as 'n gebied waarbinne Suid-Afrika soewereine regte van jurisdiksie kan uitoefen;

- (c) beteken die uitdrukking "maatskappy" enige regspersoon of enige entiteit wat vir belastingdoeleindes as 'n regspersoon behandel word;
- (d) beteken die uitdrukking "bevoegde owerheid":
  - (i) in die geval van die Turks- en Caicos-eilande, die Permanente Sekretaris van die Ministerie van Finansies of die Permanente Sekretaris se gemagtigde verteenwoordiger; en
  - (ii) in die geval van Suid-Afrika, die Kommissaris van die Suid-Afrikaanse Inkomstediens of 'n gemagtigde verteenwoordiger van die Kommissaris;
- (e) beteken die uitdrukking "strafreg" alle strafregbepalings wat as sodanig aangewys is ingevolge die landsreg, ongeag of sodanige bepalinge in die belastingreg, die strafregkode of ander statute vervat is;
- (f) beteken die uitdrukking "strafregtelike belastingaangeleentede" belastingaangeleentede wat opsetlike gedrag behels, hetsy voor of na die inwerkingtreding van hierdie Ooreenkoms, wat ingevolge die strafreg van die versoekende Party aan vervolging onderhewig is;
- (g) beteken die uitdrukking "inligting" enige feit, verklaring, dokument of rekord in watter vorm ook al;
- (h) beteken die uitdrukking "inligtingversamelmaatreëls" die reg en administratiewe of regsprosedures wat 'n versoekte Party in staat stel om die verlangde inligting te bekom en te verskaf;
- (i) behels die uitdrukking "persoon" 'n individu, 'n maatskappy of enige ander liggaam van persone of groep persone;
- (j) beteken die uitdrukking "openbaar verhandelde maatskappy" enige maatskappy waarvan die hoofklas van aandele op 'n erkende aandelebeurs genoteer is, mits sy genoteerde aandele geredelik deur die publiek gekoop of verkoop kan word. Aandele kan "deur die publiek" gekoop of verkoop word indien die koop of verkoop van aandele nie implisiet of eksplisiet tot 'n beperkte groep beleggers beperk word nie;
- (k) beteken die uitdrukking "hoofklas van aandele" die klas of klasse van aandele wat 'n meerderheid van die stemkrag en waarde van die maatskappy verteenwoordig;
- (l) beteken die uitdrukking "erkende aandelebeurs" enige aandelebeurs waartoe die bevoegde owerhede van die Partye ooreengekom het;
- (m) beteken die uitdrukking "openbare kollektiewe beleggingskema" enige skema of fonds waarin die koop, verkoop of aflossing van aandele of ander belange nie implisiet of eksplisiet tot 'n beperkte groep beleggers beperk word nie;
- (n) beteken die uitdrukking "versoekte Party" die Party by hierdie Ooreenkoms wat versoek word om inligting te verskaf of wat inligting verskaf het in antwoord op 'n versoek;

- (o) beteken die uitdrukking "versoekende Party" die Party by hierdie Ooreenkoms wat 'n versoek om inligting indien of wat inligting van die versoekte Party ontvang het; en
- (p) beteken die uitdrukking "belasting" enige belasting gedek deur hierdie Ooreenkoms.

2. Betreffende die toepassing van hierdie Ooreenkoms te eniger tyd deur 'n Party, het 'n uitdrukking wat nie daarin omskryf is nie, tensy dit uit die samehang anders blyk, die betekenis wat dit op daardie tydstip ingevolge die reg van daardie Party het, en geniet enige betekenis ingevolge die toepaslike belastingreg van daardie Party voorrang bo 'n betekenis wat ingevolge ander wette van daardie Party aan die uitdrukking geheg word.

## ARTIKEL 4

### UITRUIL VAN INLIGTING OP VERSOEK

1. Die bevoegde owerheid van die versoekte Party moet op versoek van die versoekende Party inligting verskaf vir die doeleindes in Artikel 1 genoem. Sodanige inligting word uitgeruil sonder inagneming daarvan of die versoekte Party sodanige inligting vir sy eie belastingdoeleindes nodig het en of die gedrag wat ondersoek word ingevolge die reg van die versoekte Party 'n misdryf sou uitmaak indien dit in die gebied van die versoekte Party plaasgevind het. Die bevoegde owerheid van die versoekende Party mag 'n versoek om inligting ingevolge hierdie Artikel slegs rig wanneer hy nie in staat is om die verlangde inligting deur ander metodes te bekom nie, uitgesonderd waar toevlug tot sodanige metodes tot buitensporige probleme aanleiding sou gee.

2. Indien die inligting in besit van die bevoegde owerheid van die versoekte Party nie voldoende is om hom in staat te stel om aan die versoek om inligting te voldoen nie, gebruik die versoekte Party die inligtingversamelmaatreëls wat hy tersaaklik ag om die aangevraagde inligting aan die versoekende Party te verskaf, al het die versoekte Party sodanige inligting nie vir sy eie belastingdoeleindes nodig nie.

3. Indien spesifiek deur die bevoegde owerheid van die versoekende Party daartoe versoek, moet die bevoegde owerheid van die versoekte Party ingevolge hierdie Artikel, in soverre dit ingevolge sy landsreg toelaatbaar is, inligting verskaf in die vorm van verklarings van getuies en gewaarmerkte afskrifte van oorspronklike rekords.

4. Elke Party moet seker maak dat hy, behoudens die bepalinge van Artikel 1, die bevoegdheid het om, deur sy bevoegde owerheid en op versoek:

- (a) inligting te bekom en te verskaf wat gehou word deur banke, ander finansiële instellings en enige persoon, ook benoemdes en trustees, wat in 'n agentskaps- of fidusiële hoedanigheid optree;
- (b) (i) inligting te bekom en te verskaf betreffende die regs- en voordelige eienaarskap van maatskappye, vennootskappe, stigtings en ander persone, insluitende in die geval van kollektiewe beleggingskemas, inligting oor aandele, eenhede en ander belange;
- (ii) in die geval van trusts, inligting te bekom en te verskaf oor trustoprigters, trustees en begunstigdes.

5. Hierdie Ooreenkoms skep nie 'n verpligting vir 'n Party om inligting oor eienaarskap met betrekking tot openbaar verhandelde maatskappye of openbare kollektiewe beleggingskemas te bekom of te verskaf nie, tensy sodanige inligting bekom kan word sonder om tot buitensporige probleme aanleiding te gee.

6. Enige versoek om inligting moet so breedvoerig as moontlik geformuleer word deur die volgende skriftelik uiteen te sit:

- (a) die identiteit van die persoon wie se sake nagegaan of wat ondersoek word;
- (b) die tydperk waarvoor die inligting versoek word;
- (c) die aard van die inligting wat verlang word en die vorm waarin die versoekende Party verkies om die inligting te ontvang;
- (d) die belastingdoel waarvoor die inligting verlang word;
- (e) die redes waarom vermoed word dat die aangevraagde inligting voorsienbaar tersaaklik is vir die belastingadministrasie en -afdwinging van die versoekende Party, ten opsigte van die persoon wat in subparagraaf (a) van hierdie paragraaf geïdentifiseer is;
- (f) redelike gronde waarom vermoed word dat die aangevraagde inligting in die versoekte Party aanwesig is, of in besit of verkrygbaar is deur 'n persoon binne die jurisdiksie van die versoekte Party;
- (g) in soverre dit bekend is, die naam en adres van 'n persoon wat vermoedelik in besit is van die aangevraagde inligting of in staat is om sodanige inligting te bekom;
- (h) 'n verklaring dat die versoek in ooreenstemming is met die reg en administratiewe praktyke van die versoekende Party, dat indien die aangevraagde inligting binne die jurisdiksie van die versoekende Party was, die bevoegde owerheid van die versoekende Party in staat sou wees om die inligting te bekom ingevolge die reg van die versoekende Party of in die gewone loop van administratiewe praktyk en dat die versoek in ooreenstemming met hierdie Ooreenkoms is;
- (i) 'n verklaring dat die versoekende Party alle metodes in sy eie gebied tot sy beskikking nagevolg het om die inligting te bekom, uitgesonderd waar dit tot buitensporige probleme aanleiding sou gee.

7. Die bevoegde owerheid van die versoekte Party moet ontvangs van die versoek aan die bevoegde owerheid van die versoekende Party erken, en moet alles in sy vermoë doen om die verlangde inligting met die mins moontlike vertraging aan die versoekende Party te versend.

**ARTIKEL 5****BELASTINGONDERSOEKE IN DIE BUITELAND**

1. Die versoekende Party kan, met redelike kennisgewing, skriftelik versoek dat die versoekte Party verteenwoordigers van die bevoegde owerheid van die versoekende Party toelaat om die gebied van versoekte Party binne te gaan, in soverre dit ingevolge sy landsreg veroorloof is, om met individue onderhoude te voer en rekords na te gaan met die vooraf skriftelike toestemming van die betrokke individue of ander persone. Die bevoegde owerheid van die versoekende Party moet die bevoegde owerheid van versoekte Party in kennis stel van die tyd en plek van die voorgename vergadering met die betrokke individue.

2. Die bevoegde owerheid van die versoekte Party kan, op versoek van die bevoegde owerheid van die versoekende Party, verteenwoordigers van laasgenoemde Party toelaat om 'n belastingondersoek in die gebied van die versoekte Party by te woon, in soverre dit ingevolge sy landsreg veroorloof is.

3. Indien die versoek in paragraaf 2 bedoel toegestaan word, moet die bevoegde owerheid van die versoekte Party wat die ondersoek uitvoer, die bevoegde owerheid van die versoekende Party so gou moontlik in kennis stel van die tyd en plek van die ondersoek, die owerheid of persoon wat gemagtig is om die ondersoek uit te voer, en die prosedures en voorwaardes wat die versoekte Party vir die uitvoer van die ondersoek voorskryf. Alle besluite betreffende die uitvoer van die ondersoek word geneem deur die versoekte Party wat die ondersoek uitvoer.

**ARTIKEL 6****MOONTLIKHEID VAN WEIERING VAN 'N VERSOEK**

1. Die bevoegde owerheid van die versoekte Party kan weier om bystand te verleen:

- (a) wanneer die versoek nie in ooreenstemming met hierdie Ooreenkoms gerig is nie;
- (b) wanneer die versoekende Party nie al die metodes in sy eie gebied tot sy beskikking nagevolg het om die inligting te bekom nie, uitgesonderd waar toegang tot sodanige metodes tot buitensporige probleme aanleiding sou gee; of
- (c) waar die openbaarmaking van die verlangde inligting strydig sou wees met die openbare beleid van die versoekte Party.

2. Hierdie Ooreenkoms lê nie 'n verpligting op 'n versoekte Party om items onderhewig aan regsprivilegie of enige handels-, sake-, nywerheids-, kommersiële of beroepsgeheim of handelsproses te verskaf nie, met dien verstande dat inligting wat in Artikel 4, paragraaf 4, beskryf word, nie bloot omrede daardie feit as so 'n geheim of handelsproses gehanteer word nie.

3. 'n Versoek om inligting mag nie geweier word op grond daarvan dat die belastingeis wat tot die versoek aanleiding gegee het, betwis word nie.

4. Daar word nie van die versoekte Party vereis om inligting te bekom en te verskaf wat, sou die verlangde inligting binne die jurisdiksie van die versoekende Party wees, die bevoegde owerheid van die versoekende Party nie ingevolge sy reg of in die gewone verloop van administratiewe praktyk sou kon bekom nie.

5. Die versoekte Party kan 'n versoek om inligting weier indien die inligting deur die versoekende Party versoek word om 'n bepaling van die belastingreg van die versoekende Party, of enige vereiste wat daarmee verband hou, toe te pas of af te dwing wat diskrimineer teen 'n burger of onderdaan van die versoekte Party vergeleke met 'n burger of onderdaan van die versoekende Party in dieselfde omstandighede.

6. Die versoekte Party kan 'n versoek om inligting betreffende 'n tydperk van meer as ses jaar voor die aanhangige belastingtydperk weier, tensy daardie inligting in die gebied van die versoekte Party gehou word of in besit of onder beheer is van 'n persoon binne die jurisdiksie van die versoekte Party.

## **ARTIKEL 7**

### **VERTROULIKHEID**

1. Alle inligting wat deur die bevoegde owerhede van die Partye verskaf en ontvang word, moet vertroulik gehou word.

2. Sodanige inligting moet slegs openbaar gemaak word aan persone of owerhede (ook howe en administratiewe liggame) wat gemoeid is met die doeleindes in Artikel 1 vermeld, en moet deur sodanige persone of owerhede vir slegs sodanige doeleindes gebruik word, insluitende die bepaling van enige appèl. Inligting mag, vir hierdie doeleindes, in openbare hofverrigtinge of in geregtelike beslissings openbaar gemaak word.

3. Sodanige inligting mag nie sonder die uitdruklike skriftelike toestemming van die bevoegde owerheid van die versoekte Party vir enige ander doel as die doeleindes in Artikel 1 vermeld, gebruik word nie.

4. Inligting wat ingevolge hierdie Ooreenkoms aan 'n versoekende Party verskaf word, mag aan geen ander jurisdiksie openbaar gemaak word nie.

## **ARTIKEL 8**

### **KOSTE**

Die bevoegde owerhede van die Partye moet ooreenkomstig 'n Memorandum van Verstandhouding ooreenkom oor die verspreiding van koste wat aangegaan word by die verskaffing van bystand (ook die redelike koste van derde partye en eksterne raadgewers in verband met litigasie of andersins).

**ARTIKEL 9****WETGEWENDE VEREISTES**

Die Partye moet enige wetgewing wat nodig is uitvaardig om aan die bepalings van die Ooreenkoms te voldoen en daaraan uitvoering te gee.

**ARTIKEL 10****PROSEDURE VIR ONDERLINGE OOREENKOMS**

1. Waar probleme of twyfel tussen die Partye ontstaan betreffende die uitvoering of vertolking van die Ooreenkoms, moet die bevoegde owerhede alles in die werk stel om die aangeleentheid deur onderlinge ooreenkoms te besleg.
2. Bykomend tot die ooreenkomste in paragraaf 1 bedoel, kan die bevoegde owerhede van die Partye onderling ooreenkoms oor die prosedures wat ingevolge Artikel 4, 5 en 8 gebruik moet word.
3. Die bevoegde owerhede van die Partye kan regstreeks met mekaar kommunikeer vir doeleindes van die bereiking van 'n ooreenkoms ingevolge hierdie Artikel.
4. Die Kontrakterende Partye moet, indien nodig, oor ander vorme van geskilbeslegting ooreenkoms.

**ARTIKEL 11****INWERKINGTREDING**

Hierdie Ooreenkoms tree in werking 30 dae na ontvangs van skriftelike kennisgewing deur die laaste Party van afhandeling van alle regsformaliteite wat vir inwerkingtreding vereis word. Op die datum van inwerkingtreding is dit van toepassing:

- (a) op strafregtelike belastingaangeleenthede op daardie datum; en
- (b) op alle ander aangeleenthede wat op daardie datum in Artikel 1 gedek word, maar slegs ten opsigte van belasbare tydperke wat op of na daardie datum begin of, waar daar geen belasbare tydperk is nie, alle heffings op belasting wat op of na daardie datum ontstaan.

**ARTIKEL 12****BEËINDIGING**

1. Hierdie Ooreenkoms bly van krag totdat dit deur enige van die Partye beëindig word.
2. Enige Party kan hierdie Ooreenkoms beëindig deur skriftelik kennis van beëindiging te gee. Sodanige beëindiging word van krag op die eerste dag van die maand ná verstryking van 'n tydperk van drie maande na die datum van ontvangs van kennis van beëindiging deur die ander Party. Alle versoeke wat tot op die effektiewe datum van beëindiging ontvang is, moet ooreenkomstig die bepalings van hierdie Ooreenkoms gehanteer word.
3. Indien die Ooreenkoms beëindig word, bly die Partye gebind deur die bepalings van Artikel 7 ten opsigte van enige inligting wat kragtens hierdie Ooreenkoms bekom is.

**TEN BEWYSE WAARVAN** die ondergetekendes, behoorlik daartoe gemagtig deur hulle onderskeie Regerings, hierdie Ooreenkoms in twee oorspronklike eksemplare in die Engelse taal, waarvan albei tekste ewe outentiek is, onderteken en geseël het.

**GEDOEN** in tweevoud op hede die 27<sup>ste</sup> dag van Mei 2015.

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**VIR DIE REGERING VAN DIE  
REPUBLIEK VAN SUID-AFRIKA**

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**VIR DIE REGERING VAN DIE  
TURKS- EN CAICOS-EILANDE**

## DEPARTMENT OF TRADE AND INDUSTRY

NO. 1220

09 NOVEMBER 2018

**CO-OPERATIVES TO BE STRUCK FROM THE REGISTER**

1. **JBH SURVEYORS CO-OP LTD**
2. **ABIB CO-OP LTD**
3. **SEBEDISANANG MULTI-PURPOSE CO-OP LTD**
4. **LETSOHO MOHOMENG DIHWAI CO-OP LTD**
5. **LETLOTLO BOPHELO CO-OP LTD**
6. **ISSNI CLOTHING AND PROJECT CO-OP LTD**
7. **LENANILE SERVICES CO-OP LTD**
8. **LETHITHEMBA CO-OP LTD**
9. **MPHO S CHICKEN CENTRE CO-OP LTD**
10. **NGXWENGXE WARD 7 CITRUS PRIMARY AGRICULTURAL CO-OP LTD**
11. **WOMEN IN PROPERTY CO-OP LTD**

Notice is hereby given that the names of the abovementioned co-operatives will, after the expiration of sixty days from the date of this notice, be struck off the register in terms of the provisions of section 73(1) of the Co-operatives Act, 2005, and the co-operatives will be dissolved unless proof is furnished to the effect that the co-operatives are carrying on business or are in operation.

Any objections to this procedure, which interested persons may wish to raise, must together with the reasons therefore, be lodged with this office before the expiration of the period of sixty days.

**REGISTRAR OF CO-OPERATIVES**

Office of the Registrar of Co-operatives  
Dti Campus  
77 Meintjies Street  
**Pretoria**  
0002

Private Bag X237  
**Pretoria**  
0001

## DEPARTMENT OF TRADE AND INDUSTRY

NO. 1221

09 NOVEMBER 2018

**CO-OPERATIVES THAT HAVE BEEN REMOVED FROM THE REGISTER**

1. DOORNPAN CLEANING CO-OP LTD
2. UBUHLE HAIR DRESSING SALON CO-OP LTD
3. UNGIKHONA CO-OP LTD
4. EAGLES SECONDARY CO-OP LTD
5. JIKELELE CO-OP LTD
6. UNIFASA CO-OP LTD
7. SOPHUMELELA MULTI-PURPOSE CO-OP LTD
8. KGUTHALANG CO-OP LTD

Notice is hereby given that the names of the abovementioned co-operatives have been removed from the register in terms of the provisions of section 73(1) of the Co-operatives Act, 2005.

**REGISTRAR OF CO-OPERATIVES**

Office of the Registrar of Co-operatives  
Dti Campus  
77 Meintjies Street  
**Pretoria**  
0002

Private Bag X237  
**Pretoria**  
0001

## DEPARTMENT OF TRADE AND INDUSTRY

NO. 1222

09 NOVEMBER 2018

## COMPANIES AND INTELLECTUAL PROPERTY COMMISSION (CIPC)

Notice is hereby given in terms of and for purposes of the Acts mentioned in the Schedule below, that CIPC will be closed to the public from 10h00 on Friday 21 December 2018 to Tuesday 1 January 2019.

The CIPC Offices at –

- the Department of Trade and Industry Campus (77 Meintjies Street, Block F – Entfufukweni) in Sunnyside, Pretoria;
  - Shop Number 3, Norton Rose House, Riebeeck Street, Thibault Square, Cape Town;
  - Shop Number L3-09, Level 3, Sunnypark Shopping Centre, Cnr. Steve Biko & Robert Sobukwe Streets, Sunnyside, Pretoria;
  - Shop Number L5-03, Level 5, Sunnypark Shopping Centre, Cnr. Steve Biko & Robert Sobukwe Streets, Sunnyside, Pretoria;
  - Shop R02, 6 Hollard Street, Marshalltown; and
  - (CIPC officials) at Trade and Investment KwaZulu Natal (TIKZN) situated at 1 Arundel Close, Kingsmead Office Park, Kingsmead Boulevard, Stalwart Simelane Street in Durban,
- will re-open at 08h00 on Wednesday 2 January 2019.

The lodgment of documents and services of legal documents will be accepted on Thursday 20 December 2018 until 15h30.

The days from Friday 21 December 2018 to Tuesday 1 January 2019 will be regarded as *dies non* for purposes of the stated Acts.

CIPC offers different lodgement / filing methods for certain services to its customers. During this period, services processed by automated means will continue to be processed while those services which require back-office intervention / finalisation e.g. services which require scanned documents to be e-mailed to dedicated e-mail addresses, will only resume from Wednesday 2 January 2019.

Please also take note that with regard to name reservations, all reserved names which would have lapsed between Friday 21 December 2018 to Tuesday 1 January 2019, will now have their reservation dates moved forward to Wednesday 2 January 2019 and will, therefore, only elapse on that date.

## SCHEDULE

Trade Marks Act, 1993  
Patents Act, 1978  
Design Act, 1993  
Copyright Act, 1978  
Companies Act, 2008  
Close Corporations Act, 1984  
Co-operatives Act, 2005  
Registration of Copyright in Cinematograph Film Act, 1977

Kind regards.



Rory Voller  
Commissioner: CIPC

Date: ...19/12/2018

## DEPARTMENT OF TRADE AND INDUSTRY

NO. 1223

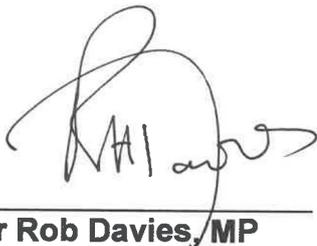
09 NOVEMBER 2018

## DEPARTMENT OF TRADE AND INDUSTRY

CODES OF GOOD PRACTICE ON BROAD BASED BLACK  
ECONOMIC EMPOWERMENT

I, Dr Rob Davies, Minister of Trade and Industry, hereby:

- (a) Issue the **Defence Sector Code** in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act, (Act No. 53 of 2003) as amended by B-BBEE Act 46 of 2013; and
- (b) Determine that these Codes come into effect on the date of this publication.



**Dr Rob Davies, MP**  
**Minister of Trade and Industry**  
2 October 2018

**BROAD - BASED BLACK ECONOMIC EMPOWERMENT DEFENCE  
SECTOR CODE OF GOOD PRACTICE IN TERMS OF SECTION 9 (1) OF  
THE BROAD - BASED BLACK ECONOMIC EMPOWERMENT ACT 53 OF  
2003 AS AMENDED BY ACT 46 OF 2013**

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## 1. PREAMBLE

Colonialist and apartheid policies and practices in South Africa excluded Black People from the economy and deprived them of equal educational opportunities and equal access to the economy of the country. This resulted in a myriad of socio-economic problems which have resulted in high levels of poverty and inequality, significant shortage of skills, the reliance of the economy on a small number of People and the continued exclusion of Black People from the South African economy, resulting in an economy that performs below its potential.

To help deal with the inherited problems, South Africa adopted a Constitution which aimed to establish a society based on democratic values, social justice and fundamental human rights, improve the quality of life of all citizens and free the potential of each person, build a united and democratic South Africa, able to take its rightful place as a sovereign state in the family of nations; and to promote the achievement of equality, legislative and other measures designed to protect or advance persons, or categories of persons, disadvantaged by unfair discrimination.

Section 9 of the Bill of Rights as set out in Chapter 2 of the Constitution states: ***“Equality includes the full and equal enjoyment of all rights and freedoms.”*** This right to equality includes the right of all South Africans to participate fully in the economy of the country. The Broad – Based Black Economic Empowerment Act no 53 of 2003 and the amended Codes of Good Practice seek to give effect to this right. The South African Defence Industry like other industries in South Africa is negatively affected by problems of the past and needs a framework which finds solutions that will address the negative impact of past racially skewed rule and development and which will grow the Defence Industry in order for it to make a sustainable and meaningful contribution to the economy. A strong economy in which all citizens have an equal opportunity to participate will contribute towards the strengthening of South Africa as a democratic developmental state. In this regard, the need for effective and significant economic transformation is essential. Such transformation must include access to economic opportunities and

productive resources for previously excluded groups, the promotion of local businesses and entrepreneurship, manufacture, the development of skills for a knowledge based economy and the development of innovative indigenous technology and Intellectual Property.

The Defence Sector Code aims, within the South African Defence Industry, to give effect to the constitutionally enshrined right to equality by addressing the effects of systemic past exclusion of Black people from participating in the economy, which remain firmly in place. VISION

A fully transformed, revitalized Defence Industry with effective and sustainable economic participation by Black people as employees, managers, entrepreneurs, industrialists, developers, and shareholders

## 2. MISSION

To create a framework for the meaningful and sustainable transformation and growth of the South African Defence Industry through ownership, management, skills development, and enterprise and supplier development programmes.

## 3. INTERPRETATIONS AND DEFINITIONS

- 3.1. "**The Act**" means the Broad - Based Black Economic Empowerment Act no 53 of 2003 as amended from time to time;
- 3.2. "**Armcor**" means the Armaments Corporation of South Africa Limited established by the Armaments Corporation of South Africa Act no 51 of 2003.
- 3.3. "**B-BBEE Enterprises**" means enterprises whose B-BBEE score, in terms of a sector scorecard which has been issued as a sector code of good practice or in terms of the DTI's Generic Scorecard, has been verified by an accredited B-BBEE verification agency or in the case of Exempt Micro Enterprises or Qualifying Small Enterprise that are at least 51% Black Owned, produced an affidavit verifying their status;

3.4. **"B-BBEE Facilitator Status"** means Organs of State or Public Entities or State-Owned Enterprises that have been designated as B-BBEE Facilitators by the Minister of Trade and Industry by notice in the Government Gazette. In calculating their Ownership score, Measured Entities must treat B-BBEE Facilitators as having rights of Ownership held –

- 3.4.1. 100% by Black people;
- 3.4.2. 40% by Black women;
- 3.4.3. 20% by Black Designated Groups;
- 3.4.4. without any acquisition of debts; and
- 3.4.5. without any third party rights;

3.5. **"Black Designated Groups"** means

- 3.5.1. Unemployed Black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution;
- 3.5.2. Black people who are youth as defined in the National Youth Commission Act of 1996;
- 3.5.3. Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act;
- 3.5.4. Black people living in rural and under developed areas;

- 3.6. **"Black Military Veterans"** means for the purpose of this Sector Code, any Black South African citizen who—
- 3.6.1. rendered military service to any of the Non-Statutory Military Organizations, which were involved in South Africa's Liberation War from 1960 to 1994;
  - 3.6.2. served in the Union Defence Force before 1961;
  - 3.6.3. became a member of the new South African National Defence Force after 1994; and
  - 3.6.4. has completed his or her military training and no longer performs military service, and has not been dishonorably discharged from that military organization or force, provided that this definition does not exclude any person referred to in paragraph 4.5.1 or 4.5.2 who could not complete his or her military training due to an injury sustained during military training or a disease contracted or associated with military training;
- 3.7. **"Black Owned Entity Company "** means a juristic person, having shareholding or similar members' interest, that is Black controlled, in which Black Participants enjoy a right to an Economic Interest that is at least 51% of the total such rights measured using the Flow Through Principle;
- 3.8. **"Black Controlled Entity"** means a juristic person, having shareholding or similar members interest, that is Black controlled, in which Black Participants enjoy a right to Exercisable Voting Rights that is at least 51% of the total such rights measured using the Flow Through Principle;
- 3.9. **"B-BBEE Recognition Level"** means the percentage B-BBEE Recognition Levels as determined:

- 3.9.1. for Entities that are neither Qualifying Small Enterprises nor Exempted Micro-Enterprises, using statement 000 of the Codes;
- 3.9.2. for Qualifying Small Enterprises, using statement 000 of the Codes; and
- 3.9.3. for Exempted Micro-Enterprises, the applicable deemed B-BBEE Recognition under statement 000 of the Codes;
- 3.10. **"Black People"** is a generic word which means Africans, Colored and Indians-
- 3.10.1. who are citizens of the Republic of South Africa by birth or descent; or
- 3.10.2. who became citizens of the Republic of South Africa by naturalization-
- before 27 April 1994; or
  - on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date
- 3.11. **"Broad-Based Black Economic Empowerment"** means the viable economic empowerment of all Black people, in particular women, workers, youth, people with disabilities, and people living in rural areas, through diverse but integrated socio-economic strategies that include, but are not limited to –
- 3.11.1. increasing the number of Black people that manage, own and control enterprises and productive assets;
- 3.11.2. facilitating ownership and management of enterprises and productive assets by communities, workers, co-operatives and other collective enterprises;
- 3.11.3. human resources and skills development;
- 3.11.4. achieving equitable representation in all occupational categories and levels in the workforce; and

- 3.11.5. Preferential procurement from enterprises that are owned or managed by Black people;
- 3.11.6. investment in enterprises that are owned or managed by Black people;
- 3.12. "**Broad-Based Ownership Scheme**" means an ownership scheme which meets the rules set out in Annex 100B of the Codes;
- 3.13. "**Charter Council**" means the Defence Sector Charter Council established in terms of paragraph 17 of this Sector Code;
- 3.14. "**Codes**" means the Codes of Good Practice as amended from time to time including all the statements issued under section 9 of the Act;
- 3.15. "**Defence Industrial Participation**" (**DIP**) means a government-initiated process whereby defence acquisitions and purchases are used as a leverage to oblige a foreign seller of Category 1 materiel to reciprocate defence-related business in South Africa on a reciprocal basis in order to advance military strategic and defence-related industrial participation imperatives;
- 3.16. "**51% Black Owned**" means an Entity in which:
- 3.16.1. Black people hold at least 51% of the exercisable voting rights as determined under Code series 100;
- 3.16.2. Black people hold at least 51% of the economic interest as determined under Code series 100;
- 3.16.3. has earned all the points for Net Value under statement 100;
- 3.17. "**51% Black Women Owned**" means an Entity in which:

- 3.17.1. Black women hold at least 51% of the exercisable voting rights as determined under Code series 100;
- 3.17.2. Black women hold at least 51% of the economic interest as determined under Code series 100; and
- 3.17.3. has earned all the points for Net Value under statement 100;
- 3.18. **“30% Black Women Owned”** means an Entity in which:
- 3.18.1. Black women hold more that 30% of the exercisable voting rights as determined under Code series 100;
- 3.18.2. Black people hold at least 30% of the economic interest as determined under Code series 100;
- 3.18.3. has earned all the points for Net Value under statement 100;
- 3.19. **“Defence Materiel”** means any materiel whether raw or processed, including equipment, facilities, weapons, munitions, pyrotechnics, systems and services used principally for military purposes;
- 3.20. **“DoD”** means the Department of Defence and Military Veterans;
- 3.21. **“DTI”** means the Department of Trade and Industry;
- 3.22. **“EAP”** means Economically Active Population as determined and published by Statistics South Africa. The operative EAP for the purposes of any calculation under the Codes will be the most recently published EAP;
- 3.23. **“Economic Interest”** means a claim against the Entity representing a return on ownership of the Entity, similar in nature to a dividend right, measured using the Flow-Through and where applicable, the Modified Flow-Through principles;

- 3.24. **"Elements"** means the measurable quantitative or qualitative elements of B-BBEE compliance in the Codes;
- 3.25. **"Empowering Supplier"** means subject to any Notices that may be issued by the DTI, within the context of B-BBEE, is a B-BBEE compliant entity, which is a good South African corporate citizen, comply with all material regulatory requirements of the country such as employment equity and taxation and should meet at least 3 (three) if it is a Large Enterprise or 1 (one) if it is a Qualifying Small Enterprise of the following criteria –
- 3.25.1. at least 25% of cost of sales excluding labour cost and depreciation must be procured from local producers or local suppliers in SA. For the service industry, labour costs are included but capped at 15%;
- 3.25.2. job creation – 50% of jobs created are for Black people provided that the number of Black employees since the immediate period prior verified B-BBEE measurement is maintained;
- 3.25.3. at least 25% transformation of raw material/beneficiation which include local manufacturing, production and/or assembly, and/or packaging;
- 3.25.4. skills transfer – at least spend 12 days per annum of productivity deployed in assisting Black Owned EMEs and QSEs to increase their operation or financial capacity;
- 3.25.5. labour costs – at least 85% of labour costs are paid to South African employees Entities in the service industry;

Exempted Micro Enterprises and Start-Ups are automatically recognized as Empowering Suppliers;

- 3.26. **“Entity”** means a legal entity or a natural or a juristic person conducting a business, trade or profession in the Republic of South Africa;
- 3.27. **“Enterprise Development Contributions”** means monetary or non-monetary contributions to Exempted Micro Enterprises or Qualifying Small Enterprises which are at least 51% Black Owned or at least 51% Black Women Owned with the objective of contributing to the development, sustainability and financial and operational independence of those beneficiaries;
- 3.28. **“Equity Equivalent Investment Programme”** means a public programme or scheme of any government department, provincial or local government in the Republic of South Africa or any other programme approved by the Minister of Trade and Industry as an Equity Equivalent Investment Programme;
- 3.29. **“Exempted Micro-Enterprise”** means an entity with an annual turnover of R5 million or less; ;
- 3.30. **“Flow-through Principle”** means as a general principle when measuring the rights of ownership of any category of Black People in a Measured Entity, only rights held by natural persons are relevant. If the rights of ownership of Black People pass through a juristic person then the rights of ownership of Black People in that juristic person is measurable. These principles apply through every tier of ownership in a multi-tiered chain of ownership until that chain ends with a natural Black person holding rights of ownership.
- 3.30.1. The method of applying the Flow Through Principle across one or more intervening juristic persons is as follows:
- 3.30.1.1. Multiply the percentage of the Participants’ rights in the juristic persons through which those rights pass, by the percentage rights of ownership of each of those juristic persons successively to the Measured Entity; and

3.30.1.2. The result of this calculation represents the percentage of rights of ownership held by the Participant.

3.31. "**Foreign Enterprise**" means an Entity that is incorporated outside the borders of South Africa whether or not it carries on business in South Africa

3.32. "**Fronting practice**" means a transaction, arrangement, or other act or conduct that directly or indirectly undermines or frustrates the achievement of the objectives of the Act or the implementation of any of the provisions of the Act, including but not limited to practices in connection with a B-BBEE initiative:

3.32.1. in terms of which black persons who are appointed to an enterprise are discouraged or inhibited from substantially participating in the core activities of that enterprise;

3.32.2. in terms of which the economic benefits received as a result of the broad-based black economic empowerment status of an enterprise do not flow to Black people in the ratio specified in the relevant legal documentation;

3.32.3. involving the conclusion of a legal relationship with a Black person for the purpose of that enterprise achieving a certain level of B-BBEE compliance without granting that black person the economic benefits that would reasonably be expected to be associated with the status or position held by that Black person; or involving the conclusion of an agreement with another enterprise in order to achieve or enhance B-BBEE status in circumstances in which -

3.32.3.1. there are significant limitations, whether implicit or explicit, on the identity of suppliers, service providers, clients or customers;

3.32.3.2. the maintenance of business operations is reasonably considered to be improbable, having regard to the resources

available;

3.32.3.3. the terms and conditions were not negotiated at arm's length and on a fair and reasonable basis;

3.33. "**Generic Scorecard**" means the balanced B-BBEE scorecard as contained in statement 000 of the Codes;

3.34. "**Global Practice**" means a globally and uniformly applied practice of a Multinational, restricting alienation of equity in or the sale of business in its regional operations. The practice must have existed before the promulgation of the Act;

3.35. "**Local Enterprise**" means an enterprise with 51% or more equity ownership by South African citizens, registered in the Republic of South Africa and paying tax to South African Revenue Service;

3.36. "**Large Enterprise**" means an entity that qualifies for measurement under the Generic Scorecard, with an annual turnover of more than R50 million;

3.37. "**Local content**" means that portion of the tender price which is not included in the imported content, provided that local manufacture does take place;

3.38. "**Management**" means

3.38.1. Executive management, which includes the Chief Executive Officer, Managing Director, Chief Financial Officer, Executive Directors and those managers who have a significant leadership role in the enterprise, have control over day to day operations, have decision-making powers and report directly to the Chief Executive Officer, Managing Director and/or the Board of Directors;

3.38.2. Senior management means an employee who is a member of the occupational category of "Senior Management" as determined using the

Employment Equity regulations, issued by the Department of Labour in terms of the Employment Equity Act 55 of 1998, as amended;

3.38.3. Middle management means an employee of the Measured Entity who is a member of the occupational category of "Middle Management" as determined using the Employment Equity regulations, issued by the Department of Labour in terms of the Employment Equity Act 55 of 1998, as amended; and

3.38.4. Junior management means an employee of the "Measured Entity" who is a member of the occupational category of "Junior Management" as determined using the Employment Equity regulations, issued by the Department of Labour in terms of the Employment Equity Act 55 of 1998, as amended; ;

3.39. "**Measured Entity**" means an Entity or Enterprise as well as an organ of state or public entity subject to measurement under the Codes;

3.40. "**Minister**" means the Minister of Trade and Industry;

3.41. "**Multinational Enterprise**" means a Measured Entity with a business in the Republic of South Africa and elsewhere which maintains its international headquarters outside the Republic; ;

3.42. "**National Development Plan**" "The National Development Plan (NDP) is an economic policy framework that aims to eliminate poverty and reduce inequality by 2030 through strategies that draw on the energies of its people, growing an inclusive economy, building capabilities, enhancing the capacity of the state, and promoting leadership and partnerships throughout society;

3.43. "**Net Profit after Tax**" means the operating profit of a Measured Entity after tax. It incorporates both profit / loss figures and abnormal items, but excludes

extraordinary items as determined by (International Financial Reporting Standards (IFRS));

- 3.44. "**NDIC**" means The National Defence Industry Council;
- 3.45. "**Non-Statutory Military Organisations**" means the Azanian People's Liberation Army (APLA), Azanian National Liberation Army (Azanla) and Umkhonto we Sizwe (Umkhonto);
- 3.46. "**Ownership**" means ownership of an Economic Interest in an enterprise;
- 3.47. "**Organs of State**" means: -
- 3.47.1. A national or provincial department as defined in the Public Finance Management Act no 1 of 1999;
  - 3.47.2. a municipality contemplated in the Constitution;
  - 3.47.3. a provincial legislature; and
  - 3.47.4. a constitutional institution listed in Schedule 1 of the Public Finance Management Act 1999 (Act no 1 of 1999);
- 3.48. "**Participant**" means a natural person holding rights of ownership in a Measured Entity;
- 3.49. "**Procurement**" means all expenditure for goods, products, equipment and services, including capital expenditure and excluding where the expenditure is on municipal rates and taxes or part of payroll as well as in the context of procurement in the SADI, the complete process of acquiring or obtaining personnel, matériel, services, or property from outside the Defence Force (by means authorized in pertinent directives) in support of operational requirements and includes negotiating, contracting and purchasing;

- 3.50. **"Qualifying Small Enterprise"** means an Entity that qualifies for measurement under the Qualifying Small Enterprise Scorecard with a turnover of R5 million or more but less than R50 million;
- 3.51. **"SADI"** means the South African Defence Industry which is a collective term for South African Defence Related Industries and means those Entities in the public and private sector, including commercial companies and business units of such Entities, which are directly or indirectly active in the design, research, development, manufacture and marketing of Defence Materiel;
- 3.52. **"Scarce Skills"** means skills requires in the SADI which shall contribute towards establishment or maintenance of Sovereign Capability;
- 3.53. **"SMME"** means small, medium and micro enterprises namely Exempted Micro Enterprises and Qualifying Small Enterprises;
- 3.54. **"Sovereign Capability"** means the ability to ensure, full national control, without reliance on any direct foreign assistance, of certain capabilities identified as vital to national security, including but not limited to, command and control, secure communications, aspects of precision-guided munitions, elements of electronic warfare, relevant algorithms and relevant software;
- 3.55. **"Stakeholders"** means Measured Entities, Organs of state, Public Entities, State-Owned Enterprises and suppliers who are involved in the SADI;
- 3.56. **"Start-Up Enterprise"** means a recently formed or incorporated Entity that has been in operation for less than 1 year. A start-up enterprise does not include any newly constituted enterprise which merely a continuation of a pre-existing enterprise;
- 3.57. **"Public Entity"** means an enterprise that is listed as a public entity in Schedule 2 or 3 of the Public Finance Management Act, 1999 (Act 1 of 1999);

- 3.58. **"Supplier"** means any supplier or service provider to a Measured Entity if any portion of the supply or service provision falls within the definition of Total Measured Procurement Spend;
- 3.59. **"Supplier Development Contributions"** means monetary or non-monetary contributions carried out for the benefit of value adding Suppliers to the Measured Entity that are Exempted Micro-Enterprises or Qualifying Small Enterprises which are at least 51% Black owned or at least 51% Black Women Owned, with the objective of contributing to the development, sustainability and financial and operational independence of such suppliers;
- 3.60. **"Strategic Enterprise"** means a public or private South African owned company which provides one or more of the capabilities identified as vital to national security and deemed sovereign;
- 3.61. **"Targeted-Procurement"** means a policy or programme of an Entity that targets a percentage of procurement exclusively for certain categories of enterprises.
- 3.62. **"Voting Right"** means a voting right attached to an Entity Instrument owned by or held for a participant measured using the Flow Through Principle or the Control Principle, provided that -
- 3.62.1. to the extent that the provisions of the Codes of Good Practice Issued by DTI on 11 October 2013 and as amended from time to time provide further definition as to the nature of voting rights in an enterprise other than a company having share capital, those provisions should be read in conjunction with this definition in relation to such enterprises; and
- 3.62.2. voting rights exercised on behalf of a Black participant, by another natural person who acts in a fiduciary capacity or in terms of specific mandate or proxy, shall be deemed to be exercised by that participant;

3.63. "**Weighting**" means the weightings applied to the various Elements in the Sector Code Scorecards;

#### 4. OBJECTIVES

4.1. The Objectives of the Defence Sector Code are to provide the SADI with a framework within which to implement B-BBEE and to give practical effect to national policy imperatives as set out in The National Development Plan, the Defence Industrial Participation Programme, the National Industrial Policy Framework, the Industrial Policy Action Plan, the Black Industrialists Policy and the South African Defence Review.2015

4.2. More specifically, the Defence Sector Code aims to achieve the following objectives:

4.2.1. to implement measures that will ensure the effective participation of Black people in the SADI and in the broader economy;

4.2.2. to encourage the participation of and growth of SMME's in the SADI;

4.2.3. to promote the growth of technical innovation within the SADI;

4.2.4. to promote the growth of the SADI as a profitable, sustainable industry;

4.2.5. to promote local manufacturing capability in the SADI for local and export purposes;

4.2.6. to advance the acquisition, retention and transfer of critical, technical and Scarce Skills in the SADI;

4.2.7. to protect South Africa's Sovereign Capability in the SADI;

4.2.8. to actively promote entrepreneurship especially among the Black Designated Groups;

4.2.9. to promote entrepreneurship and new enterprises in the SADI; and

4.2.10. to contribute to job creation.

## **5. CHALLENGES FACING THE SADI**

5.1. Declining local spending;

5.2. A South African economy that is growing at a slow rate;

5.3. The rising threat of socio-political instability as a result of economic exclusion, and income inequality;

5.4. The exclusion of Black Military Veterans from the economy;

5.5. The inability of South African businesses in the SADI to meaningfully expand into the rest of the African continent's defence industry;

5.6. Continued over-reliance of the SADI on monopolies, oligopolies and Foreign-Enterprises;

5.7. Lack of adequate protection and preferential access for local Defence manufacturers over international competition; and

5.8. Regulatory constraints.

## **COMMITMENT**

5.9. The Stakeholders acknowledge that the SADI is vital for the maintenance of South Africa's strategic capability and it plays a critical role in the country's economic growth, through manufacturing and technological innovation.

- 5.10.** The Stakeholders further acknowledge that B-BBEE is a business imperative which is essential for the sustainability and growth of the industry.
- 5.11.** The Stakeholders therefore commit themselves fully -
- 5.11.1. to implement the provisions of this Sector Code and the provisions of the Act in both substance and in form;
  - 5.11.2. to create an enabling environment for the proper implementation of the measures in this Sector Code;
  - 5.11.3. to display the highest degree of good faith in all matters relating to the implementation of the Defence Sector Code and neither do anything nor refrain from doing anything that has the effect either directly or indirectly of hampering the implementation of this Sector Code; and
  - 5.11.4. to comply fully with the provisions of the Act especially and without limitation to avoid practices that frustrate the implementation of the Act and Defence Sector Code including fronting.

## **6. APPLICATION**

- 6.1.** This Sector Code is legally binding on all Entities in the SADI, in its entirety, including national or provincial departments, Organs of State, Public Entities, private enterprises providing Defence materiel and/or any other supplies, products and services to the DoD or its agencies – whether they are procured from Local or Foreign Enterprises), as well as any role-player and stakeholder that might opt in.
- 6.2.** Notwithstanding any other Sector Code that the Entities in paragraph 8.1. may be subject to at the date of the gazetting of this Sector Code, such Entities shall be obliged, to be measured in terms of this Sector Code if they derive more than 50% (fifty per cent) of their annual turnover from the SADI.

## **7. KEY PRINCIPLES**

- 7.1.** The fundamental principle for measuring B-BBEE compliance is that substance takes precedence over legal form.
- 7.2.** In interpreting the provisions of this Sector Code, any reasonable interpretation consistent with the objectives of the Act as amended must take precedence.
- 7.3.** In the event of this Sector Code of Good Practice not providing specifically for a particular aspect relating to its applicability or any other related matter or in the event of a lack of clarity, such aspects or matters must be dealt with in accordance with the Codes as amended from time to time. In addition, the interpretation of the provisions of this Sector Code shall be made having regard to the Preamble, the Objectives, Key Principles and Commitments as the case may be.
- 7.4.** The basis for measuring B-BBEE initiatives under this Sector Code is the B-BBEE compliance of the Measured Entity at the date of Measurement.
- 7.5.** Any misrepresentation or attempt to misrepresent a Measured Entity's true B-BBEE status will be dealt with in accordance with the provisions as set out in the Act as amended, and they may lead to the disqualification of the entire scorecard of the Entities concerned.
- 7.6.** The optimization of local intellectual property, research and development, as well as manufacturing capacity must be encouraged.
- 7.7.** All measures taken in terms of this Sector Code shall be implemented in a manner that promotes local manufacturing and the stimulation of indigenous technology and products and must be underpinned by a firm commitment to promote South Africa, its interests and its economy.

## **8. PRIORITY ELEMENTS, SUB-MINIMUM AND DISCOUNTING PRINCIPLE**

**8.1. The Priority Elements are as follows –****8.1.1. OWNERSHIP**

The Sub-minimum requirement for Ownership is 40% of net value points.

**8.1.2. SKILLS DEVELOPMENT**

The sub-minimum requirement for Skills Development is 40% of the total weighting points for Skills Development.

**8.1.3. ENTERPRISE AND SUPPLIER DEVELOPMENT**

The sub-minimum requirement for Enterprise and Supplier Development is 40% for each of the three categories, within the Enterprise and Supplier Development element, namely Preferential Procurement; Supplier development and Enterprise development.

**8.2. COMPLIANCE WITH PRIORITY ELEMENTS**

8.2.1. A Large Enterprise is required to comply with all the Priority Elements.

8.2.2. A QSE is required to comply with Ownership as a compulsory element and either Skills Development or Enterprise and Supplier Development.

**8.3. DISCOUNTING PRINCIPLE EFFECT**

8.3.1. Non-compliance with the 40% sub-minimum requirements of any of the priority elements, as per paragraphs 10.2.1 and 10.2.2. above, will result in the following outcomes for both Large Enterprises and QSEs;

- 8.3.2. The actual points scored by the Measured Entity and the consequent level that the Measured Entity would have achieved were it not for non-compliance with 40% sub-minimum requirements will be recognized by the Verification Agency (“the Recognition Level”);
- 8.3.3. Notwithstanding the recognition in 10.3.2. above, the Measured Entity’s B-BBEE status level will be discounted by one level down until the next applicable verification period in which the Measured Entity can demonstrate compliance with the 40% sub-minimum requirements, at which point the Recorded Level will become the applicable ratings level for that Measured Entity in that verification period; and
- 8.3.4. The requirement to submit data to the Department of Labour under the Employment Equity Act 55 of 1998 is only applicable to ‘designated employers’ who employ 50 or more employees. However, for the purpose of measurement in terms of this Sector Code both Large Enterprises and QSEs that employ less than 50 employees are required to submit sufficient evidence for verification purposes.

## **9. ELIGIBILITY AS AN EXEMPTED MICRO-ENTERPRISE**

- 9.1. Any Enterprise with an annual Total Revenue of R5 Million or less qualifies as an Exempted Micro-Enterprise.
- 9.2. An Exempted Micro-Enterprise is deemed to have a B-BBEE Status of “Level Four Contributor” having a B-BBEE recognition level of 100%.
- 9.3. Enhanced B-BBEE recognition level for an Exempted Micro-Enterprise:-
  - 9.3.1. despite paragraph 11.2 an EME which is 100% Black Owned qualifies for elevation to “Level One Contribution” having a B-BBEE recognition level of 135%;

9.3.2. despite paragraph 11.2 and 11.3.1, an EME which is at least 51% Black owned qualifies for elevation to “Level Two Contributor” having a B-BBEE recognition level of 125%; and

9.3.3. despite paragraphs 11.2 and 11.3, an EME is allowed to be measured in terms of the QSE scorecard should they wish to maximize their points and move to a higher B-BBEE recognition level.

**9.4.** An EME is only required to obtain a sworn affidavit or Companies and Intellectual Property Commission (CIPC) issued certificate confirming the following –

9.4.1. annual total Revenue/Allocated Budget/Gross Receipts of R5 million or less; and

9.4.2. level of Black Ownership.

**9.5.** Any misrepresentation in terms of Paragraph 11.3 above constitutes a criminal offence as set out in the Act as amended from time to time.

## **10. ELIGIBILITY AS A QUALIFYING SMALL ENTERPRISE**

**10.1.** Any Measured Entity with Total Revenue of between R5 (five) million Rand R50 (fifty) million Rand qualifies as a QSE provided its qualification does not arise as a result of circumvention of the relevant Scorecard.

**10.2.** Entities that are QSEs must use the Qualifying Small Enterprises Scorecard in this Sector Code.

**10.3.** Enhanced B-BBEE recognition level for QSE -

10.3.1. A Qualifying Small Enterprise which is 100% Black owned qualifies for a Level One B-BBEE recognition;

10.3.2. Despite paragraph 12.2, a qualifying Small Enterprise which is at least 51% Black owned qualifies for a Level Two B-BBEE recognition level of 125%; and

10.3.3. Despite paragraph 12.2, a QSE that is at least 51% Black owned is only required to obtain a sworn affidavit or **CIPC issued certificate** on an annual basis, confirming the following –

10.3.3.1. Annual Total Revenue/Allocated Budget/Gross Receipts of R50 million or less; and

10.3.3.2. Level of Black Ownership.

**10.4.** Any misrepresentation in terms of paragraph 12.3 above constitutes a criminal offence as set out in the B-BBEE Act as amended.

**10.5.** Any matter concerning the application of the Qualifying Small Enterprise Scorecard that is not dealt with explicitly in this Sector Code must be dealt with in terms of Codes 100-500 of the Codes

## **11. START-UP ENTERPRISES**

**11.1.** A Start-Up Enterprise must be measured as an EME under this statement for the first year following its formation or incorporation. This provision applies regardless of the expected total revenue of the Start-up enterprise.

**11.2.** A Start-up Enterprise is deemed to have the qualifying B-BBEE status in accordance with the principles of paragraph 11 of this Sector Code.

**11.3.** In order to qualify as a Start-up Enterprise, the enterprise must provide an independent confirmation of its status.

**11.4.** Despite paragraphs 13.1 and 13.2, a Start-Up Enterprise must submit a QSE scorecard when tendering for any contract or seeking any other economic activity covered by Section 10 of the Act, with a value higher than R10 million but less than R50 million. For contracts or any other economic activity referred to in this clause 13.4, of R50 million or more they should submit a Defence Sector Scorecard. The preparation of such scorecards must use annualized data.

## 12. THE DEFENCE SECTOR SCORECARD

- 12.1.** The Ownership Element, measures effective ownership of Entities by Black people.
- 12.2.** The Management Control Element measures the effective control of Entities by Black people.
- 12.3.** The Skills Development Element measures the extent to which employers carry initiatives designed to develop the competencies of Black employees and Black people internally and externally.
- 12.4.** The Enterprise and Supplier Development Element, measures the extent to which Entities buy goods and services from Empowering Suppliers (preferably between level 1 and level 4 B-BBEE recognition levels.) This element also measures the extent to which Enterprises carry out supplier development and enterprise development initiatives intended to assist and accelerate the growth and sustainability of Black enterprises.
- 12.5.** The Socio-Economic Development and Sector Specific Contributions Element, measures the extent to which Entities carry out initiatives that contribute toward Socio-Economic Development or Sector Specific initiatives that promote access to the economy for Black people.
- 12.6.** The Localisation Element measures the extent to which Entities procure Defence Matériel from Local Enterprises that contribute to the development of manufacturing and new locally developed technology.
- 12.7.** Organs of State and State-Owned Enterprises shall be measured using the Specialised Defence Scorecard but shall otherwise comply with all the provisions of this Sector Code unless expressly excluded there from.

### THE DEFENCE SCORECARD

ELEMENT	WEIGHTING	SECTOR CODE REFERENCE
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Ownership	25 Points	Paragraph 16.1
Management Control	15 points	Paragraph 16.2
Skills Development	20 Points	Paragraph 16.3
Enterprise and Supplier Development	40 Points	Paragraph 16.4
Localisation	10 Points	Paragraph 16.5
Socio-Economic Development	5 Points	Paragraph 16.6
<b>TOTAL</b>	<b>115 Points</b>	

### 13. B-BBEE RECOGNITION LEVELS

Based on the overall performance of a Measured Entity using the Defence Sector Scorecard the Measured Entity will receive one of the following B-BBEE Status level with the corresponding B-BBEE recognition level.

B-BBEE Status	Qualification	B-BBEE recognition level
Level One Contributor	≥100 points on the Defence Sector Scorecard	135%
Level Two Contributor	≥95 but <100 points on the Defence Sector Scorecard	125%
Level Three Contributor	≥90 but <95 points on the Defence Sector Scorecard	110%
Level Four Contributor	≥80 but <90 points of the Defence Sector Scorecard	100%
Level Five Contributor	≥75 but <80 points on the Defence Sector Scorecard	80%

Level Six Contributor	≥70 but <75 points on the Defence Sector Scorecard	60%
Level Seven Contributor	≥55 but <70 points on the Defence Sector Scorecard	50%
Level Eight Contributor	≥40 but <55 points on the Defence Sector Scorecard	10%
Non-Compliant Contributor	<40 points on the Defence Sector Scorecard	0%

## 14. ELEMENTS OF THE DEFENCE SECTOR CODE: LARGE ENTITIES SCORECARD

### 14.1. OWNERSHIP

14.1.1. One of the most effective tools for effecting sustainable economic transformation and growth in the SADI is meaningful ownership by Black people of an Economic Interest in Enterprises. Stakeholders therefore commit to achieving the following ownership targets within a period of 3 (three) years from the date of the promulgation of this Sector Code –

14.1.1.1. a minimum target of 25% (twenty-five per cent) of Economic Interests held by Black people in Enterprises in the SADI in the first year after promulgation of this Sector Code, 30% (thirty per cent) in the second year and in the third year 35% (thirty-five per cent);

14.1.1.2. a minimum of 10% per cent of an Economic Interest held by Black women in Enterprises in the SADI in the first year and 15% in the second and third year; and

- 14.1.1.3. any ownership target, as with other elements of this Sector Code, shall include a minimum threshold for Black Designated Groups.
- 14.1.2. Black people who have an Economic Interest in an Enterprise must have exercisable Voting Rights and be entitled to receive economic benefits arising from such Economic Interest subject to any liabilities they may have incurred in the course of acquiring an economic interest.
- 14.1.3. All Measured Entities are bound by the ownership targets set out herein except where specifically exempted in this Sector Code.
- 14.1.4. Multinational Enterprises shall comply with the ownership element of the Sector Code unless they are subject to a global policy or practice prohibiting such enterprises from selling shares outside their country.
- 14.1.5. In the event paragraph 16.1.4 applies, the Multinational Enterprise shall-
- 14.1.5.1. produce satisfactory evidence of the such global policy or practice; and
- 14.1.5.2. evidence of an Equity Equivalent Programme approved by the Minister;
- 14.1.6. Black People holding rights of ownership in a Measured Entity through Employee Share Ownership Schemes may contribute a maximum of 40% of the total points on the ownership scorecard provided that such Employee Share Ownership Scheme meet the following qualification criteria –
- 14.1.6.1. the constitution of the scheme must define the participants and the proportion of their claim to receive distributions;
- 14.1.6.2. not less than 85% of the value of benefits allocated by the scheme must accrue to Black people;
- 14.1.6.3. not less than 50% of the fiduciaries of the Scheme must be Black people and at least 25% must be Black women;

- 14.1.6.4. participants may be named or referred to as a defined class of natural persons and their claim to receive distributions may be in fixed percentages or determined in terms of a formula and the fiduciaries of the scheme have no discretion in this regard;
- 14.1.6.5. the constitution of the Scheme and any other information affecting the scheme including such information of the Measured Entity that a shareholder in a company having shareholding would be entitled to be available on request to any participant in an official language in which that person is familiar;
- 14.1.6.6. the fiduciaries of the Scheme must present the financial reports of the scheme to participants yearly at an annual general meeting of the scheme;
- 14.1.6.7. the participants must take part in appointing at least 50% of the fiduciaries and must have a role in the management of the scheme similar to the role of a shareholder in a company having shareholding;
- 14.1.6.8. all accumulated Economic Interest in the scheme is payable to the participants at the earlier of a date specified in the constitution or on termination or winding up of the scheme;
- 14.1.6.9. no onerous or punitive measures exist in the constitution or management of the Scheme that in any manner whatsoever deprive the participants of any rights to the benefits of the scheme including when they cease to be employees of the Measured Entities;
- 14.1.6.10. the chairperson of the scheme must be independent; and
- 14.1.6.11. the Scheme should have representation on the board of directors of the Measured Entity;

- 14.1.7. Black Participants in a Trust holding rights of ownership in a Measured Entity may contribute a maximum of 40% of the total points on the Ownership Scorecard of the Measured Entity if the Trust meets the qualification criteria for Trusts set out in clauses 16.1.8 and 16.1.9 herein.
- 14.1.8. The qualification criteria for the recognition of Trusts are as follows: –
- 14.1.8.1. the trust deed must define the beneficiaries and the proportion of their entitlement to receive distributions;
  - 14.1.8.2. a written record of the names of the beneficiaries or the use of defined of natural person satisfies the requirement for identification;
  - 14.1.8.3. a written record or fixed percentage of entitlement or the use of a formula for calculation entitlement satisfies the need for defining proportion of benefit;
  - 14.1.8.4. the trustees must have no discretion of the above-mentioned terms;
  - 14.1.8.5. on winding-up or termination of the trust, all accumulated Economic Interest must be transferred to the beneficiaries or to an entity representing the interest of the participants or class of beneficiaries;
  - 14.1.8.6. the trust must have been established for legitimate commercial purposes which must be fully disclosed and its objects must reflect;
  - 14.1.8.7. the Trust must be entitled to nominate and appoint persons on the board of directors of the Measured Entity commensurate with its shareholding in such Measured Entity; and

- 14.1.8.8. the terms of the Trust do not directly or indirectly seek to circumvent the provisions of the Defence Sector Code and the Act.
- 14.1.9. The qualification criteria for the recognition of Family Trusts are as follows: –
- 14.1.9.1. the trust deed must define the beneficiaries and the proportion of their entitlement to receive distributions;
- 14.1.9.2. a written record of the names of the beneficiaries or the use of a defined class of natural persons satisfies the requirement of defining beneficiaries;
- 14.1.9.3. a use of a formula for calculating entitlement satisfies the need for defining proportion of benefit and only the trustee must have discretion on the above mentioned terms; and
- 14.1.9.4. on winding-up or termination of the trust, all accumulated Economic Interest must be transferred to the beneficiaries or to an entity representing the interest of the participants or class of beneficiaries.
- 14.1.10. The provisions relating to Trusts do not apply to any Trusts registered prior to the gazetting of the Defence Sector Code.
- 14.1.11. The decisions of Black owners of equity interests to sell, transfer, alienate or otherwise dispose of their Equity Interest in any Enterprise shall not affect the obligation of such Enterprise to at all times fully comply with the ownership targets in this Sector Code.
- 14.1.12. When determining ownership in a Measured Entity, ownership held by Organs of State or State-Owned Enterprises must be excluded.
- 14.1.13. Exclusion of Ownership held by the Organs of the State or State-Owned Enterprises is to be effected before any other Ownership discounting methods are to be applied.

- 14.1.14. In calculating the Ownership score, Measured Entities must apply the Exclusion Principle to any portion of their Ownership held by Organs of State or State-Owned Entities.
- 14.1.15. The provisions of clauses 16.1.8 to 16.1.10 shall not apply to Organs of State or State-Owned Entities that are B-BBEE Facilitators during the relevant period of measurement. Such exemption applies only to the Ownership Element and such Organs of State and Public Entities who are B-BBEE Facilitators must comply with all other provisions of this Sector Code.
- 14.1.16. Notwithstanding any other provision in this Sector Code, Organs of State and Public Entities may, taking into consideration the objectives of this Sector Code, introduce restrictions on or exclude Measured Entities from tendering or doing business with them if they do not comply with the ownership targets set out in paragraph 16.1.1 hereof.

#### **14.1.17 EQUITY EQUIVALENTS**

- 14.1.17.1 Examples of Equity Equivalents shall include, but not be limited to –
- 14.1.17.1.1. skills transfer programmes aimed at building the capacity of Black people to participate in the defence industry;
- 14.1.17.1.2. technology transfer programmes intended to increase the participation of Black people in the defence industry;
- 14.1.17.1.3. programmes that promote economic growth and employment creation through the development of technological innovation beyond the Multinational's core business activities;
- 14.1.17.1.4. supplier-development and any other interventions targeted at reducing the overreliance of the South African defence industry on Foreign Enterprises;

- 14.1.17.1.5. programmes in line with applicable programmes in South Africa that were initiated to increase the manufacturing capacity of the economy;
- 14.1.17.1.6. programmes of the defence industry that are in place to facilitate the skills and technology transfer to South African enterprises in general and black-owned enterprises in particular; and
- 14.1.17.1.7. programmes aimed at building the capacity of Black Designated Groups to participate meaningfully in the SADI value chain.

## OWNERSHIP SCORECARD

B-BBEE Element	Indicator	Description	Weighting Points	Compliance Target		
				Year 1	Year 2	Year 3
Ownership	1. Voting Rights	1.1. Exercisable Voting Rights in the Measured Entity in the hands of Black people	4	25%	30%	35%
		1.2. Exercisable Voting Rights in the Measured Entity in the hands of Black women	2	10%	15%	15%
	2. Economic Interest	2.1. Economic Interest in the Measured Entity to which Black people are entitled	4	25%	30%	35%
		2.2. Economic Interest in the Measured Entity to which Black women are entitled	2	10%	15%	15%

		Economic Interest of any of the following Black natural people in the Measured Entity		
		2.3.1. Black Military Veterans		
		2.3.2. Black people in Broad-based Ownership	4	3%
		2.3.3. Black New Entrants	1	2%
	3. Realisation Points	Net Value	8	
		<b>TOTAL</b>	<b>25 Points</b>	

## 14.2. MANAGEMENT CONTROL

14.2.1. The objective of Management Control is that Black people should be actively involved in making strategic decisions, proportionate to their Economic Interest in the board of directors of the Measured Entity and in the various levels of management. This means participation at the following levels –

14.2.1.1. Proportional representation at the non-executive and executive board level that is geared to give strategic direction to the Measured Entity, without restrictions that may be linked to the indebtedness of the shareholders they represent, even if this indebtedness arises out of financing the acquisition of the shareholding that necessitated their board participation; and

14.2.1.2. Executive management – including key strategic positions that could include Chief Executive Officer, Chief Operating Officer, and Chief Financial Officer among others, that is accompanied with the requisite executive powers to make decisions, including budget allocation and deployment,

staff appointment and such powers as are ordinarily exercised within corporations by persons occupying such positions.

14.2.2. These positions should not be subject to any restrictions that are out of the ordinary nor token positions specifically created for Black executives.

14.2.3. The gazetting of the Defence Sector Code shall not affect the obligation of a designated employer's obligation to comply with the Employment Equity Act and Regulations as amended from time to time.

#### 14.2.4. **BOARDS**

14.2.4.1. Large Measured Entities commit to achieve the following targets on their boards of directors –

14.2.4.1.1. 50% Black representation within the first year of the promulgation of the Sector Code increasing to 60% (sixty) per cent by the third anniversary of the promulgation; and

14.2.4.1.2. 25% Black female within the first year of the promulgation of the Sector Code increasing to 30% (thirty) per cent by the third anniversary of the promulgation and after the promulgation of the Sector Code.

#### 14.2.5. **EXECUTIVE MANAGEMENT**

14.2.5.1. Measured Entities commit to achieve the following targets –

14.2.5.1.1. 60% Black executive directors; and

14.2.5.1.2. 30% Black female executive directors.

14.2.6. The compliance target for senior, middle and junior management in the Management Control Scorecard are based on the national and regional demographic representation of Black people as defined in the Regulations of the Employment Equity Act no.55 of 1998 as amended from time to time.

14.2.7. In determining a Measured Entity's Score, the targets should be further broken down into specific criteria according to the different race sub - groups within the definition of Black in accordance with the Employment Equity Act on an equitable representation and weighted accordingly.

### MANAGEMENT CONTROL SCORECARD

B-BBEE Element	Indicator	Description	Weighting Points	Compliance Target	
				Year 1 - 2	Year 3
Management Control	1. Board Participation	1.1. Exercisable voting rights of Black board members as a percentage of all board members	2	50%	60%
		1.2. Exercisable voting rights of Black Military Veterans board members as a percentage of all board members	1	30%	30%
		1.3. Exercisable voting rights of Black female board members as a percentage of all board members	1	25%	30%
		1.4. Black Executive directors as a percentage of all executive directors	1	50%	60%

	1.5.	Black female Executive directors as a percentage of all executive directors	1	25%	30%
2. Other Executive Management	2.1.	Black Executive Management as a percentage of all executive management	2	60%	60%
	2.2.	Black female Executive Management as a percentage of all executive management	1	30%	30%
3. Senior Management	3.1.	Black employees in Senior Management as a percentage of all senior management	2	60%	60%
	3.2.	Black female employees in Senior Management	1	30%	30%
4. Middle Management	4.1.	Black employees in Middle Management as a percentage of all middle management	2	75%	80%
	4.2.	Black female employees in Middle Management as a percentage of all middle management	1	38%	40%
5. Junior Management	5.1.	Black employees in Junior Management as a	1	88%	90%

		percentage of all junior management			
		5.2. Black female employees in Junior Management as a percentage of all junior management	1	44%	45%
	6. Employees with disabilities	Black employees with disabilities as a percentage of all employees	2	2%	3%
		<b>TOTAL</b>	<b>15 points</b>		

### 14.3. SKILLS DEVELOPMENT

- 14.3.1. The shortage of technical and critical skills is one of the major challenges in the SADI which negatively impacts on the ability of the industry to grow. This shortage is a direct result of the historical exclusion of Black people from acquiring such skills. If the SADI is to play its vital role in the re-industrialization of the South African economy, structured and strategic interventions are needed for the acquiring of critical and Scarce Skills. Skills Development initiatives must focus on Scarce Skills including those related to the generation and development of new knowledge that could be deployed to increase the participation of black persons in the expansion and operation of Strategic Enterprises and retention of Sovereign Capabilities in the SADI.
- 14.3.2. Every Measured Entity therefore commits to spend **6% (six)** per cent of their annual payroll on skills development programmes for Black persons.
- 14.3.3. Measured Entities must not count the same Black persons under more than one category as contained in paragraphs 2.1, 2.2 and 2.3 of the Skills Development Scorecard respectively, for the purpose of skills development.

**SKILLS DEVELOPMENT SCORECARD**

<b>B-BBEE Element</b>	<b>Indicator</b>	<b>Description</b>	<b>Weighting Points</b>	<b>Compliance Target</b>
<b>Skills Development</b>	Skills Development Expenditure on any programme specified in the Learning Programme Matrix for Black people as a percentage of the Leivable Amount	1.1. Skills Development expenditure on Learning Programmes for Black people as a percentage of Leivable Amount	5	6%
		1.2. Skills Development Expenditure on Learning Programmes for Black employees with disabilities	2	0,3%
		1.3. Skills Development Expenditure on Learning Programmes for Black Military Veterans	3	1%
	2. Learnerships, Apprenticeships and Internships	2.1. Number of people from Black Designated Groups participating in Learnerships, Apprenticeships and Internships as a percentage of number of employees	3	3%
		2.2. Number of Black people participating in Learnerships, Apprenticeships and Internships as a percentage of number of employees	3	2.5%
		2.3. Number of Black unemployed people or students participating in Learnerships, Internships and Apprenticeships participating in training as	4	2.5 %

		a percentage of number of employees		
	3. Bonus Points	Number of previously unemployed Black people absorbed by the Entity at the end of the Learnerships, Internships and Apprenticeships programme	5	100%
		<b>TOTAL</b>	<b>20 Points</b>	

#### 14.4. ENTERPRISE AND SUPPLIER DEVELOPMENT

14.4.1. The South African government focus areas for B-BBEE in the next 10 years link it to key government economic development strategies such as the Defence Industry Strategy, Industrial Policy Action Plan (IPAP), the Defence Industrial Participation Programme (DIP), the National Industrial Participation Policy (NIP), the National Development Plan (NDP) and the Black Industrialist Policy. Key aspects of all these strategies are the promotion of entrepreneurship, focusing on businesses that result in job creation, expanding business horizons by venturing into new fields, operational excellence and risk taking. The Department of Trade and Industry's Black Industrialists Policy is also important in this regard. This emphasis is carried through to the Generic Scorecard in which Enterprise and Supplier Development is a priority element carrying the highest weighting. Most Black businesses are small and medium sized enterprises. Empowerment policies and practices should not only support Exempted Micro Enterprises and Qualifying Small Enterprises but also assist them to grow into Large Enterprises.

14.4.2. The SADI is in a unique position to stimulate this growth and create new businesses. Public Entities should take the lead in driving such changes. The promotion of local content and stimulation of local manufacturing is also to be encouraged through this Sector Code.

14.4.3. The aim of Enterprise and Supplier Development programmes is –

- 14.4.3.1. to strengthen local procurement in order to help build South Africa's industrial base in critical sectors of production and value adding manufacturing, which are largely labour-intensive industries;
- 14.4.3.2. to increase local procurement through capacity building achieved by incentivising appropriate local supplier development programmes by businesses supplying imported goods and services; and
- 14.4.3.3. to actively support procurement from Black Owned QSEs and EMEs by identifying opportunities to increase procurement from local suppliers in order to support employment creation.

14.4.4. Stakeholders therefore commit themselves to the following –

**14.4.4.1. ORGANS OF STATE AND PUBLIC ENTITIES**

14.4.4.1.1. Public Entities and Organs of State shall be entitled to implement targeted procurement for Black Owned Enterprises.

14.4.4.1.2. Public Entities shall be entitled to require that Measured Entities doing business with it, sub-contract a minimum of thirty (30) per cent of a contract to the following entities that are at least 51% Black owned –

- Exempted Micro Enterprises or Qualifying Small Enterprises owned by Black females;

- Exempted Micro Enterprises or Qualifying Small Enterprises owned by Black people;
- Exempted Micro Enterprises or Qualifying Small Enterprises owned by Black Military Veterans;
- Exempted Micro Enterprises or Qualifying Small Enterprises owned by Black youth; and
- Exempted Micro Enterprises or Qualifying Small Enterprises by black people with disabilities.

14.4.4.1.3. Any targeted procurement shall not exceed 30% (thirty) per cent of the total procurement budget of the Organ of State or the Public Entity implementing targeted procurement in the first year after the promulgation of the Defence Sector Code, 35% (thirty-five) per cent in the second year and 40% (forty) percent in the third year.

#### 14.4.4.2. PRIVATE SECTOR ENTERPRISES

14.4.4.2.1. Private sector enterprises must, in instances where it is feasible or where it is required, sub-contract not less than 30% (thirty percent) of any contract exceeding an amount of R30 million to –

- Exempted Micro - Enterprises or Qualifying Small Enterprises owned by Black females;
- Exempted Micro - Enterprises or Qualifying Small Enterprises owned by Black people; and
- Exempted Micro - Enterprises or Qualifying Small Enterprises owned by Black Military Veterans;

- Exempted Micro - Enterprises or Qualifying Small Enterprises owned by young Black people;

All stakeholders undertake to use as a guide, the non-exhaustive list of Enterprise Development and Supplier Development Contributions in Schedule 1 of this Sector Code to meet the Enterprise and Supplier Development targets.

#### **14.4.4.3 DEFENCE INDUSTRY ENTERPRISE AND SUPPLIER DEVELOPMENT FUND**

14.4.4.3.1 Stakeholders hereby agree to set up a Defence Industry Enterprise and Supplier Development Fund. Such a Fund will be approved by the DoD and **the dti** administered by the Charter Council which may outsource the management of the Fund to any entity with the requisite skills, experience and capacity subject to such entity complying with The Charter Council's directives and the aims and objectives of this Sector Code.

14.4.4.3.2 The Defence Industry Enterprise and Supplier Development Fund shall be utilised for Enterprise and Supplier Development Initiatives including the following:

- To fund Black owned entities in the SADI;
- To engage in initiatives that promote manufacturing in the SADI;

- To fund innovative Black owned technology entities within the SADI or whose products or services can be utilized by the SADI;
- To promote the development of intellectual property and exploitation in the SADI by and in collaboration with Black people;
- To promote and fund the development and transfer of Sovereign and Strategic capability and investing to ensure sustainability of such capabilities in the SADI; and
- Through funding and other measures support the growth of Black businesses within the SADI to compete internationally and promote exports.

14.4.4.3.3 The Charter Council shall determine the method of operation of the Enterprise and Supplier Development Fund and identify any additional Enterprise and Supplier Development Initiatives to be funded by it.

14.4.4.3.4 All funding by the Enterprise and Supplier Development Fund shall be by way of grants and related mechanisms.

14.4.4.3.5 The Charter Council shall ensure that costs for the administration and management of the Enterprise and Supplier Development Funds not exceed 3(three) per cent of the total income of the Fund in any financial year.

14.4.4.3.6 All Measured Entities with the exception of Exempted Micro Enterprises must contribute one

(1) per cent of their Net Profit After Tax (NPAT) to the Enterprise and Supplier Development Fund.

14.4.4.3.7 The Charter Council shall ensure that the Enterprise and Supplier Development Fund shall be established not later than 12 (twelve) months after the gazetting of this Sector Code.

14.4.4.3.8 Notwithstanding any provision to the contrary contained in this Sector Code, no stakeholder shall be required to contribute to the Enterprise and Supplier Development Fund in terms of clause 16.4.4.3.6 herein prior to the establishment of the Enterprise and Supplier Development Fund.

14.4.4.3.9 Notwithstanding any provision to the contrary contained in this Sector Code, in the period between the gazetting of this Sector Code and the establishment of the Enterprise and Supplier Development Fund, the annual value of Enterprise Development Contributions and Sector Specific Programmes made by the Measured Entity shall be 2% of NPAT. After the establishment of the Enterprise and Supplier Development Fund, paragraph 4 of the Enterprise and Supplier Development Scorecard dealing with contributions to the Enterprise and Supplier Development Fund, shall be applicable.

#### 14.4.4.4 FOREIGN ENTERPRISES

Foreign Enterprises shall place DIP contracts equivalent to seventy-five percent (75%) of the total DIP obligation with local (South African) B-BBEE compliant suppliers (Enterprises that are at least 25,1% owned by Black people and at least 25,1% controlled by Black people) while at least twenty-five percent (25%) of this value shall be placed with Enterprise and Supplier Development (ESD) beneficiaries.

### ENTERPRISE AND SUPPLIER DEVELOPMENT SCORECARD

B-BBEE Element	Indicator	Description	Weighting Points	Compliance Target
<b>Enterprise and Supplier Development</b>	1. Preferential procurement	1.1. B-BBEE Procurement Spend from all Empowering Suppliers based on the B-BBEE Procurement Recognition Levels as a percentage of Total Measured Procurement Spend.	5	80%
		1.2. B-BBEE Procurement Spend from all Empowering Suppliers that are Qualifying Small Enterprises based on the applicable BBEE	3	8%

		Procurement Recognition Levels as percentage of Total Measured Procurement Spend		
		1.3. B-B-BEE Procurement Spend from all Exempted Micro Enterprises based on the applicable BBEE Procurement Recognition Levels as a percentage of Total Measured Procurement Spend based on the Total Measured Procurement Spend	4	15%
		1.4. B-BBEE Procurement Spend from Empowering Suppliers that are at least 51% black owned based on the applicable BBEE Procurement Recognition Levels as a percentage of Total	9	40%

		Measured Procurement Spend		
		1.5. B-BBEE Procurement Spend from Empowering Suppliers that are at least 30% black women owned based on the applicable B-BBEE Procurement Recognition Levels as a percentage of Total Measured Procurement Spend	4	12%
	2. Bonus Points	B-BBEE Procurement Spend from Designated Group Suppliers that are at least 51% Black owned.	2	6%
	3. Supplier Development	Annual value of all Supplier Development Contributions made by the Measured Entity as a percentage of the target	6	1% NPAT
	4. Enterprise Development	Annual value of Enterprise Development Contributions and Sector Specific Programmes made	4	1% NPAT

		by the Measured Entity as a percentage of the target		
	5. Enterprise & Supplier Development Fund	Annual Contributions to the Enterprise and Supplier Development Fund	5	1% NPAT
	6. Bonus Points	6.1 Bonus point for graduation of one or more Enterprise Development beneficiaries to graduate to the Supplier Development level	1	
		6.2 Bonus point for creating one or more jobs directly as a result of Supplier Development and Enterprise Development initiatives by the Measured Entity.	1	
		6.3 Bonus points for discharging DIP obligations for benefit of South African Entities that are 25.1% Black owned and managed.	2	75%
		<b>TOTAL</b>	<b>40 Points</b>	

## 14.5 LOCALISATION

14.5.1 One of the most important mechanisms for growing a sustainable defence industry is the stimulation and expansion of South African enterprises and improving their global competitiveness.

14.5.2 Stakeholders therefore commit to –

14.5.2.1 procure at least 60% of Defence Matériel from Local Enterprises. In the event that this is not practically achievable, Measured Entities doing business with Organs of State and Public Entities must submit a written request for exemption to Armscor or the Department of Defence as may be applicable which may at their sole discretion exempt such Measured Entities from compliance with this provision. All Measured Entities that are granted an exemption must develop and implement an Enterprise and Supplier Development plan in addition to any other contributions in terms of the Enterprise and Supplier Scorecard in this Sector Code. Measured Entities that do not do business with Organs of State or Public Entities may request such exemption from the Department of Trade and Industry which may at its sole discretion exempt such Measured Entities from compliance with this provision. All Measured Entities that are granted an exemption must develop and implement an Enterprise and Supplier Development plan in addition to any other contributions in terms of the Enterprise and Supplier Scorecard in this Sector Code.

Any written request for exemption from compliance with procuring at least 60% of Defence Materiel from Local Enterprises by a Measured Entity must be accompanied by the following:

- verifiable evidence that there is no existing local production of such Defense Materiel;
- evidence that importing Defense Materiel will further promote value-added production within South Africa;

Any Enterprise and Supplier Development Plan exempted Measured Entities develop in terms of this paragraph, should include:

- Clear objectives
- Priority interventions
- Key performance indicators; and
- A concise implementation plan with clearly articulated annual milestones.

Measured Entities that are exempted in terms of this clause and are fully compliant with the Enterprise and Supplier Plan in terms of this clause are deemed to have complied with the relevant provision of the Localisation Scorecard and are therefore entitled to the 6 Weighting Points

14.5.2.2 provide support for and procurement from Local Enterprises that manufacture Defence Materiel in South Africa; and

14.5.2.3 provide support for Local Enterprises that introduce new locally developed technology that is not older than 24 (twenty-four) months in the SADI.

**LOCALISATION SCORECARD**

<b>BBBEE Element</b>	<b>Indicator</b>	<b>Description</b>	<b>Weighting Points</b>	<b>Compliance Target</b>
<b>Localisation</b>		1. Procurement of Defence Matériel produced and/or manufactured in South Africa by Local Enterprises	6	60%
		2. Procurement from Local Enterprises that introduced new locally developed technology in the SADI that is not older than 24 months.	2	60%
		3. Procurement of technologies that are developed in South Africa by Local Enterprises from intellectual property owned by such Local Enterprises or technologies that are developed in South Africa by Local Enterprises from intellectual property licensed thereto by Local or Foreign Enterprises.	2	60%

		<b>TOTAL</b>	<b>10 Points</b>	
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## 14.6 SOCIO-ECONOMIC DEVELOPMENT

- 14.6.1 Measured Entities receive recognition for any Socio-Economic Development Contributions that are quantifiable as a monetary value using a Standard Valuation Method.
- 14.6.2 Socio-Economic Development Contributions of any Measured Entity are recognizable annually.
- 14.6.3 No portion of the value of any Socio-Economic Development contribution that is payable to the beneficiary after the date of measurement can form part of any calculation under this statement.
- 14.6.4 Socio-Economic Development Contributions consist of monetary or non-monetary contributions actually initiated and implemented in favour of beneficiaries by a Measured Entity with the specific objective of facilitating income generating activities for targeted beneficiaries.
- 14.6.5 The full value of Socio-Economic Development Contributions made to beneficiaries is recognizable if at least 75% of the value directly benefits Black people
- 14.6.6 If less than 75% of the full value of Socio-Economic Development Contributions directly benefits Black people, the value of the contribution made multiplied by the percentage that benefits people is recognizable.
- 14.6.7 The following is a non-exhaustive list of Socio-Economic Development Contributions –

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- 14.6.7.1 grant Contributions to beneficiaries of Socio-Economic Development Contributions;
- 14.6.7.2 guarantees given or security provided for beneficiaries;
- 14.6.7.3 direct costs incurred by a Measured Entity in assisting beneficiaries;
- 14.6.7.4 overhead costs of a Measured Entity directly attributable to Socio Economic Development Contributions; developmental capital advanced to beneficiary communities;
- 14.6.7.5 preferential terms granted by a Measured Entity for its supply of goods or services to beneficiary communities;
- 14.6.7.6 payments made by the Measured Entity to third parties to perform socio-economic development on the Measured Entity's behalf;
- 14.6.7.7 subject to paragraph 16.6.7.6. the maintenance by the Measured Entity of a Socio-Economic development unit which focuses only on support of beneficiaries and beneficiary communities.
- 14.6.7.8 providing training or mentoring of beneficiary communities by a Measured Entity. (Such contributions are measurable by quantifying the cost of time (excluding travel or commuting time) spent by staff or management of the Measured Entity in carrying out such initiatives. A clear justification must support any claim costs incurred, commensurate with the seniority and expertise of the trainer; and

- 14.6.7.9 maintaining a socio-economic development unit by the Measured Entity. (only that portion of salaries and wage attributable to time spent by the staff in, and the other expenses related to, promoting and implementing socio-economic development constitute contributions.

### SOCIO-ECONOMIC DEVELOPMENT SCORECARD

Criteria	Weighting Points	Compliance Target
1. Annual Value of all Socio-Economic Contributions by the Measured Entity as a percentage of the target	3	0.5% NPAT
2. Annual Value of all Socio-Economic Contributions to Black Military /Veterans by the Measured Entity as a percentage of the target	2	0.5% NPAT
<b>TOTAL</b>	<b>5 Points</b>	

### 14.6.8 MEASUREMENT OF SOCIO-ECONOMIC DEVELOPMENT CONTRIBUTIONS

Socio- Economic Development Contributions are measured using the formula in the Benefit Factor Matrix set out below.

### BENEFIT FACTOR MATRIX

Qualifying Contribution type	Contribution Amount	Benefit Factor
<b>Grant and Related Contributions</b>		
Grant Contribution	Full Grant Amount	100%

Direct Cost incurred in supporting socio-economic development, sector specific initiative or Qualifying Socio-Economic Development Contributions	Verifiable Cost (including both monetary and non-monetary)	100%
Discounts in addition to normal business practice supporting socio-economic development, sector specific initiative or Qualifying Socio-Economic Development Contributions	Discount Amount (in addition to normal business discount)	100%
Overhead Costs incurred in supporting socio-economic development , sector specific initiative or Qualifying Socio-Economic Contributions	Verifiable Cost (including both monetary and non-monetary)	80%
<b>Contributions made in the form of human resource capacity</b>		
Professionals services rendered at no cost supporting socio-economic development, sector specific initiatives or Qualifying Socio-Economic Development Contributions	Commercial hourly rate of professional	80%
Professional Services rendered at a discount supporting socio-economic development, sector specific initiatives or Qualifying Socio-Economic Development Contributions	Value of discount based on commercial hourly rate of professional	80%
Time of employees of Measured Entity productively deployed in assisting beneficiaries and supporting socio-economic development, sector specific or Qualifying Socio-Economic Development Contributions	Monthly Salary divided by 160	80%

## DEFENCE SECTOR SCORECARD FOR ORGANS OF STATE, PUBLIC ENTITIES AND NOT FOR PROFIT COMPANIES

### 15.1 SPECIALISED SCORECARD

ELEMENT	WEIGHTING	CODE SERIES REFERENCE
Management Control	20 points	200
Skills development	25 points	300
Enterprise and Supplier Development	50 points	400
Socio-Economic Development	5 points	500
Localisation	10 points	Paragraph 14.5 of this Code
<b>TOTAL</b>	<b>110 Points</b>	

### 15.2 MANAGEMENT CONTROL SPECIALISED SCORECARD

Measurement Category and Criteria	Weighting Points	Compliance targets		
		Year 1	Year 2	Year 3
Board Participation				
Exercisable voting rights of black board members as a percentage of all board members	2	50%	60%	70%
Exercisable voting rights of black female board members as a percentage of all board members	1	25%	30%	40%
Black Executive Directors as a percentage of all executive directors	2	50%	60%	70%
Black female Executive directors as a percentage of all executive directors	1	25%	30%	40%
Other Executive Management				

Black executive management as a percentage of all executive management	2	60%	65%	70%
Black female executive management as a percentage of all executive management	1	30%	40%	40%
<b>Senior Management</b>				
Black employees in senior management as a percentage of all senior management	2	60%	65%	70%
Black female employees in senior management as a percentage of all senior management	1	30%	40%	40%
<b>Middle Management</b>				
Black employees in middle management as a percentage of all middle management	2	75%	80%	85%
Black female employees in senior management as a percentage of all middle management	1	38%	40%	45%
<b>Junior Management</b>				
Black employees in junior management as a percentage of all junior management	2	88%	90%	90%
Black female employees in junior management as a percentage of all junior management	1	44%	50%	55%
<b>Employees with Disabilities</b>				
Black employees with disabilities as a percentage of all employees	2	2%	3%	5%
<b>TOTAL</b>	<b>20 Points</b>			

### 15.3 SKILLS DEVELOPMENT SPECIALISED SCORECARD

Category	Skills Development Element	Weighting points	Compliance Target		
			Year1	Year2	Year3
Skills Development Expenditure on any programme specified in the Learning Programme Matrix for Black people as a percentage of the Leivable Amount					
Skills Development Expenditure on Learning Programmes specified in the Learning Programme Matrix for Black people as a percentage of Leivable Amount		7	6%	6%	6%
Skills Development Expenditure on Learning Programmes specified in the Learning Programme Matrix for black employees with disabilities as a percentage of Leivable Amount		3	0.3%	0.3%	0.3%
Skills Development Expenditure on Learning Programmes for Black Military Veterans		2	2%	2%	3%

Learnerships, apprenticeships and internships				
Number of Black people participating in learnerships, apprenticeships and internships as a percentage of total employees	6	2.5%	2.5%	2.5%
Number of Black unemployed people or students participating in training specified in the learning programme matrix as a percentage of number of employees.	7	2.5%	2.5%	2.5%
<b>Bonus Points</b>				
Number of Black people absorbed by the Measured Entity and Industry at the end of the learnership/apprenticeship or internship programme	5	100%	100%	100%
<b>TOTAL</b>	<b>25 Points</b>			

## 15.4 ENTERPRISE AND SUPPLIER DEVELOPMENT SPECIALISED SCORECARD

Criteria	Weighting points	Compliance targets		
		Year1	Year2	Year3
<b>PREFERENTIAL PROCUREMENT</b>				
B-BBEE Procurement Spend from all Empowering Suppliers				

based on the B-BBEE Procurement Recognition Level as a percentage of Total Measured Procurement Spend	5	80%	80%	85%
B-BBEE Procurement Spend from all Empowering Suppliers that are Qualifying Small Enterprises based on the applicable B-BBEE Procurement Recognition Levels as a percentage of Total Measured Procurement Spend	4	15%	15%	20%
B-BBEE Procurement Spend from all Exempted Micro-Enterprise based on the applicable B-BBEE procurement Recognition Levels as a percentage of Total Measured Procurement Spend	5	15%	15%	20%
B-BBEE Procurement Spend from Empowering Suppliers that are at least 51% Black owned based on the applicable B-BBEE Procurement Recognition Levels as a percentage of Total Measured Procurement Spend	11	40%	40%	45%
B-BBEE Procurement Spend from Empowering Suppliers that are at least 30% black women owned based on the applicable B-BBEE Procurement Recognition Levels as a percentage of Total Measured Procurement Spend	5	12%	12%	12%
Bonus Points				
B-BBEE Procurement Spend from Designated				

Group Suppliers that are at least 51% black owned	2	2%	2%	2%
<b>SUPPLIER DEVELOPMENT</b>				
Annual value of all Supplier Development Contribution made by the Measured Entity as a percentage target	15	2% of Net Profit After Tax (NPAT) or 0,2% Annual Revenue/Allocated budget/ Gross receipts/Discretion al spend	2% of Net Profit After Tax (NPAT) or 0,2% Annual Revenue/Gross receipts/Discretion al spend	2% of Net Profit After Tax (NPAT) or 0,2% Annual Revenue/Gross receipts/Discretion al spend
<b>ENTERPRISE DEVELOPMENT</b>				
Annual value of Enterprise Development Contributions and Sector Programmes made by Measured Entity as a percentage of the target	5	1% of NPAT or 0.1% Annual revenue/Allocated budget/ Gross receipts/ Discretion al spend	1% of NPAT or 0.1% Annual revenue/Allocated budget/ Gross receipts/ Discretion al spend	1% of NPAT or 0.1% Annual revenue/Allocated budget/ Gross receipts/ Discretion al spend
Bonus Points				
Bonus point for graduation of one or more Enterprise Development beneficiaries to graduate to the Supplier Development level.	1			
Bonus point for creating one or more jobs directly as a result of Supplier Development and Enterprise Development initiatives by the Measured Entity	1			
<b>TOTAL</b>	<b>50 Points</b>			

## 15.5 SOCIO-ECONOMIC DEVELOPMENT SPECIALISED SCORECARD

	Weighting Points	Compliance Target

		Year 1	Year2	Year3
Annual value of all Socio-Economic Development contributions by the Measured Entity as a percentage of the target	5	1% of NPAT OR 0,1% Annual Revenue/ Allocated budget/ Gross receipts/ Discretionary spend	1% of NPAT OR 0,1% Annual Revenue/ Allocated budget/ Gross receipts/ Discretionary spend	1% of NPAT OR 0,1% Annual Revenue/ Allocated budget/ Gross receipts/ Discretionary spend
<b>TOTAL</b>	<b>5 Points</b>			

## 15.6 LOCALISATION SPECIALISED SCORECARD

B-BBEE Element	Description	Weighting Points	Compliance Target		
			Year 1	Year 2	Year 3
<b>Localisation</b>	Procurement of Defence Matériel produced and/or manufactured in South Africa by Local Enterprises	6	60%	60%	60%
	Procurement from local enterprises that introduce new locally developed technology in the SADI that is not older than 24 months.	2	60%	60%	60%
	Procurement of technologies that are developed in South Africa by Local Enterprises from intellectual property owned by such Local Enterprises or technologies that are developed in South Africa by Local Enterprises from intellectual property licensed thereto by Local or Foreign Enterprises.	2	60%	60%	60%
	<b>TOTAL</b>	<b>10 points</b>			

## 16. ELEMENTS OF THE DEFENCE SECTOR CODE: THE QUALIFYING SMALL ENTERPRISES DEFENCE SCORECARD

### 16.1 QSE SCORECARD

The following table represents and contains the Elements of the scorecard and the weighting for each element:

<b>ELEMENT</b>	<b>WEIGHTING</b>
Ownership	25 points
Management Control	15 points
Skills Development	25 points
Enterprise and Supplier Development	30 points
Localisation	10 points
Socio-Economic Development	5 points
<b>TOTAL</b>	<b>110 Points</b>

The Weighting in respect of any elements in the scorecard represents the maximum number of points possible for each of the criteria

Any matter concerning the application of the QSE Scorecard that is not dealt with explicitly in this Sector code must be dealt with in terms of the Codes.

## 16.2 THE QUALIFYING SMALL ENTERPRISES OWNERSHIP SCORECARD

Category and Ownership Indicator	Weighting Points	Compliance Table		
		Year 1	Year 2	Year3
<b>Voting rights</b>				
Exercisable Voting Rights in the Enterprise in the hands of Black people	5	25%	30%	35%
Exercisable Voting Rights in the Enterprise in the hands black women	2	10%	15%	15%
<b>Economic Interest</b>				
Economic Interest of Black people in the Enterprise	5	25%	30%	35%
Economic Interest of black women in the Enterprise	2	10%	15%	15%
New Entrants or Black Designated Groups	3	2%	3%	5%
<b>Realisation Points</b>				
<b>Net Value</b>	<b>8</b>	<b>Refer to Annexure 100 (E) of the Generic Scorecard</b>		
<b>TOTAL</b>	<b>25 Points</b>			

### 16.3 THE QUALIFYING SMALL ENTERPRISE MANAGEMENT CONTROL SCORECARD

Criteria	Weighting points	Compliance Target		
		Year1	Year2	Year3
<b>Executive Management</b>				
Black representation at Executive Management	5	50%	50%	60%
Black female representation at Executive Management	2	25%	25%	30%
<b>Senior, Middle and Junior Management</b>				
Black representation at Senior , Middle and Junior Management	6	60%	60%	70%
Black female representation at Senior, Middle and Junior Management	2	30%	30%	30%
<b>TOTAL</b>	<b>15 Points</b>			

## 16.4 THE QUALIFYING SMALL ENTERPRISE SKILLS DEVELOPMENT SCORECARD

Skills Development Element	Weighting points	Compliance Target		
		Year 1	Year2	Year3
Skills development expenditure on learning programs specified in the learning programme matrix for Black people as a percentage of leviabale amount	16	3%	3%	4%
Skills development expenditure on learning programmes specified in the learning programme matrix for Black females as a percentage of leviabale amount	10	1%	1%	2%
Skills development expenditure on learning programmes specified in the learning programme matrix for Black people with disabilities as a percentage of leviabale amount.	4	0.15%	0.15%	0.30%
Bonus Points				
Number of Black people absorbed by the measured entity and industry at the end of the learning	5	100%	100%	100%
<b>TOTAL</b>	<b>30 Points</b>			

## 16.5 THE QUALIFYING SMALL ENTERPRISE AND SUPPLIER DEVELOPMENT SCORECARD

Criteria	Weighting points	Compliance targets		
		Year 1	Year 2	Year 3
<b>Preferential Procurement</b>				
B-BBEE Procurement Spend from all Empowering Suppliers based on the B-BBEE Recognition Levels as a percentage of Total Procurement Spend	15	60%	60%	70%
B-BBEE Procurement Spend from Empowering Suppliers that are at least 51% black owned based applicable B-BBEE Procurement Recognition Levels as a percentage of Total Measured Procurement	4	15%	20%	30%
<b>Bonus Points</b>				
B-BBEE Procurement Spend from Designated Group suppliers that are at least 51% black owned based on the B-BBEE Recognition Level	1	1%	1%	1%
<b>Supplier Development</b>				
Annual value of all Supplier Development Contributions made by the Measured Entity as a percentage of the target.	4	1% of Net Profit After Tax		
<b>Enterprise development</b>				
Annual value of Enterprise Development Contribution and Sector Specific Programmes made by the Measured Entity as a percentage of the target	4	1%NPAT		

Annual Contributions to the Enterprise and Development Fund	3	1% NPAT		
<b>Bonus Points</b>				
Bonus point for graduation of one or more Enterprise Development beneficiaries to graduate to the Supplier Development level	1			
Bonus point for creating one or more jobs directly as a result of Supplier Development and Enterprise Development initiatives by the Measured Entity	1			
<b>TOTAL</b>	<b>30 Points</b>			

#### 16.6 THE QUALIFYING SMALL ENTERPRISE LOCALISATION SCORECARD

B-BBEE Element	Indicator	Description	Weighting Points	Compliance Target
<b>Localisation</b>		Defence Matériel products and services manufactured by procured from local enterprises	6	60%
		Procurement from local enterprises that introduce new locally developed technology in the SADI that is not older than 24 months	2	60%
		Procurement of technologies that are developed in South Africa by Local Enterprises from intellectual property owned by such Local Enterprises or technologies that are developed in South Africa by Local Enterprises from intellectual property licensed thereto by Local or Foreign Enterprises.	2	60%

	<b>TOTAL</b>	<b>10 Points</b>	
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## 16.7 THE QUALIFYING SMALL ENTERPRISE SOCIO-ECONOMIC DEVELOPMENT SCORECARD

Criteria	Weighting Points	Compliance Target		
		Year 1	Year 2	Year 3
Annual value of all Socio-Economic Development Contributions and Qualifying Socio-Economic Development Contributions made by the Measured Entity as a percentage of the target	5	1% NPAT	1 % NPAT	1 % NPAT
<b>TOTAL</b>	<b>5 Points</b>			

## 17 DEFENCE SECTOR CHARTER COUNCIL

17.1. A Charter Council shall be established to oversee and monitor the implementation of this Sector Code. The Charter Council shall be a representative body comprising of stakeholders in the SADI and shall comprise of not less than 5 members.

17.2. The Minister of Defence shall appoint the Charter Council after consulting with SADI Stakeholders.

17.3. The functions of the Charter Council shall include –

17.3.1. monitoring compliance with this Sector Code and reporting to Minister of Defence;

17.3.2. providing guidance, clarification, support and assistance with interpretation of this Sector Code;

17.3.3. liaising with all government departments, agencies and other relevant

Stakeholders for the purpose of facilitating the implementation of this Sector Code and promote the SADI's interests;

17.3.4. compiling an annual report on overall progress by the SADI with the Defence Sector Code and submitting such report to any relevant stakeholders including the Minister, the Minister of Defence, the B-BBEE Commission and NDIC;

17.3.5. issuing implementation guidelines; and

17.3.6. initiating and supervising any revisions to this Sector Code.

17.4. The Charter Council shall have executive authority and shall be supported by administrative staff.

## **18. MONITORING AND EVALUATION**

18.1. In order to ensure compliance with this Sector Code, all Measured Entities shall annually provide a report to the Charter Council. The report must contain a scorecard audited by an accredited verification agency where applicable and a detailed report on progress with complying with the provisions of this Sector Code.

18.2. The first annual report shall be filed not later than the first anniversary of the promulgation of this Sector Code. The date for subsequent annual reports shall be determined by the Charter Council.

## **19. REVIEW OF THE SECTOR CODE**

This Sector Code may be reviewed in order to align it with any amendment to the Act or Generic Scorecard or after the expiry of the 3<sup>rd</sup> anniversary of the promulgation of this Sector Code or as when necessary.

## **20. EFFECTIVE DATE**

The Sector Code shall come into effect on the date of Gazette.

## SCHEDULE 1

### 1. LEGITIMATE ENTERPRISE AND SUPPLIER DEVELOPMENT CONTRIBUTIONS

1.1. The following is a non-exhaustive list of Enterprise Development and Supplier Development Contributions –

- 1.1.1. investment in beneficiary Entities;
- 1.1.2. loans made to beneficiary Entities; - guarantees given or security provided on behalf beneficiaries; credit facilities made available to beneficiary Entities grant Contributions to beneficiary Entities; direct costs incurred by a measured Entity in assisting and hastening development of beneficiary Entities; overhead costs of a Measured Entity directly attributable to Enterprise Development and Supplier Development Contributions preferential credit terms granted by a Measured Entity to beneficiary Entities;
- 1.1.3. preferential terms granted by a Measured Entity in respect of its supply of goods to beneficiary Entities;
- 1.1.4. contributions made to beneficiary to settling service costs relating to the supply of goods or services to beneficiary Entities;
- 1.1.5. discounts given to beneficiary Entities in relation to the acquisition and maintenance costs associated with the grant to those beneficiary Entities of franchise, license, Agency, distribution or other similar business rights;
- 1.1.6. the creation or development of capacity and expertise for beneficiary Entities needed to manufacture or produce goods or services previously not manufactured, produces or provided in the Republic of South Africa is provide for in Government's economic growth and local supplier development policies and initiatives ; facilitating access to credit for beneficiary Entities without access to similar credit facilities through

- traditional means owing to a lack of credit history, high-risk or lack of collateral;
- 1.1.7. provision of training or mentoring by suitably qualified Entities or individuals to beneficiary Entities which will assist the beneficiary Entities to increase their operational or financial capacity;
  - 1.1.8. the maintenance by the Measured Entity of an Enterprise Development and Supplier Development unit which focuses exclusively on support of beneficiary Entities or candidate beneficiary Entities;
  - 1.1.9. provision of preferential credit facilities to a beneficiary by a Measured entity may constitute an Enterprise Development and Supplier Development Contribution. Examples of such contributions include without limitation;
  - 1.1.10. provision of finance to beneficiary Entities at lower than commercial rates of interest relaxed security requirement or absence of security requirements for beneficiary Entities unable to provide security for loans; and settlement of accounts with beneficiary Entities over a shorter period of time in relation to the Measured Entity's normal payment period, provided the shorter period is no longer than 15 days.
  - 1.1.11. providing training or mentoring to beneficiary communities by a Measured Entity. Such contributions are measurable by quantifying the cost of time (excluding travel or commuting time) spent by staff or management of the Measured Entity in carrying out such initiatives. A clear justification, commensurate with the seniority and expertise of the trainer or mentor, must support any claim for time costs incurred). By the Measured Entity. (only that portion of salaries and wages attributable to time spent by the staff in, and the other expenses related to. Promoting or implementing Enterprise Development and Supplier Development constitute contributions; or
  - 1.1.12. payments made by the Measured Entity to suitably qualified and experienced third parties to perform Enterprise Development and Supplier Development on the Measured Entity' behalf.

## 2. MONETARY AND NON-MONETARY CONTRIBUTIONS

- 2.1. Subject always to the definitions of qualifying Enterprise Development and Supplier Development Contributions, the following monetary/non-monetary contributions will, without limitation, be considered –
- 2.1.1. the provision of seed or development capital;
  - 2.1.2. contributions made towards the settlement of the cost of services relating to the operational or financial capacity and/or efficiency levels of a Qualifying Enterprise Development and Supplier Development Beneficiary including, without limitation;
  - 2.1.3. professional and consulting services;
  - 2.1.4. licensing and/or registration fees;
  - 2.1.5. industry specific levies and/or other such fees;
  - 2.1.6. IT services;
  - 2.1.7. creation or development of capacity and expertise for Beneficiary Entities to manufacture or produce goods and/or services previously not manufactured, produced or provided in the Republic of South Africa;
  - 2.1.8. facilitation of access to credit for Beneficiary Entities unable to access similar credit facilities through traditional means owing to a lack of credit history, high risk and/or lack of collateral;
  - 2.1.9. provision of training and/or mentoring to Beneficiary Entities which will assist the Beneficiary Entities to increase their operational and/or financial capacity; and
  - 2.1.10. the maintenance by the Measured Entity of an Enterprise Development and Supplier Development unit which focuses exclusively on support of Beneficiary Entities or candidate Beneficiary Entities or candidate beneficiary Entities.

- 2.2. The creation and/or development of the capacity of Beneficiary Entities which will enable them to manufacture and produce goods and/or provide services previously not available in the Republic of South Africa, may constitute a Qualifying Enterprise development and Supplier Development contribution, and will be measured as the rand value of monetary contributions made as well as investments into, loans made to or guarantees given for a Beneficiary Entity.
- 2.3. Provision of preferential credit facilities to a beneficiary Entity by a Measured Entity may constitute a Qualifying Enterprise Development and Supplier Development Contribution. Examples of such contributions include without limitation—
- 2.3.1. provision of finance to Beneficiary Entities at rates of interest below the applicable rate. Such contributions will be measured as the value of the differential between the actual interest rate provided to the Beneficiary Entity and the applicable rate;
- 2.3.2. relaxed security requirements or absence of security requirements for Beneficiary Entities unable to provide security for loans. Such contributions shall be measured as being 3% (three percent) of any positive differential between the initial capital value of the loan and the value of security taken; and
- 2.3.3. settlement of accounts with Beneficiary Entities over a shorter period of time in relation to the Measured Entity's normal payment period, provided that the shorter period is no longer than 15 days. Preferential payment terms which extend beyond 15 days will not qualify as Qualifying Enterprise Development and Supplier Development Contributions. Provision of training and/or mentoring to a Beneficiary Entity by a Measured Entity may constitute a Qualifying Enterprise Development and Supplier Development Contribution. Such contributions will be measured by quantifying the cost of time spent by their staff or management of the Measured Entity in carrying out such initiatives. Any travel or commuting time may not be included in this cost. Furthermore, a clear justification must be supplied with respect to the calculation of such time costs incurred, commensurate with the level of

seniority and expertise of the trainer or mentor. Common forms of such contribution include without limitation –

2.3.3.1. professional and consulting services;

2.3.3.2. IT services; and

2.3.3.3. any other services which help to increase the entity's financial and/or operational capacity and which have not also been accounted for under skills development. The maintenance of an Enterprise Development and Supplier Development unit by the Measured Entity may constitute a Qualifying Enterprise Development and Supplier Development Contribution. Common examples of such contributions include without limitation the salaries and wages of staff and other expenses involves in the operation of such Enterprise Development and Supplier Development unit. Notwithstanding the foregoing, only that portion of salaries and wages which relate to time spent by the staff in the other expenses related to the promotion and implementation of Enterprise Development and Supplier Development in respect of Beneficiary Entities or candidate Beneficiary Entities should be taken into consideration under Enterprise Development and Supplier Development contributions.

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**GENERAL NOTICES • ALGEMENE KENNISGEWINGS**

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**INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA****NOTICE 683 OF 2018****PURSUANT TO SECTION 4 (1) OF THE ELECTRONIC COMMUNICATIONS ACT 2005,  
(ACT NO. 36 OF 2005)****HEREBY ISSUES A NOTICE REGARDING THE DRAFT IMT ROAD MAP FOR  
CONSULTATION.**

1. The Independent Communications Authority of South Africa ("the Authority"), hereby publishes **the Draft International Mobile Telecommunications (IMT) Roadmap for consultation** in terms of section 2 and 4, read with sections 30, 31(4), and 33 of the Electronic Communications Act (Act No. 36 of 2005).
2. Interested persons are hereby invited to submit written representations, including an electronic version of the representation in Microsoft Word, of their views on the Draft IMT Roadmap by no later than 16h00 on Friday, 18 January 2019.
3. Persons making representations are further invited to indicate whether they are requesting an opportunity to make oral representations, which will not exceed one hour. The public hearings will be held from the 24 to 25 January 2019.

5. Written representations or enquiries may be directed to:

The Independent Communications Authority of South Africa (the Authority)

350 Witch-Hazel Avenue,  
Eco Point Office Park,

Eco Park,  
Centurion,  
Gauteng.

**Attention:**

Mr Manyapelolo Richard Makgotlho

e-mail: [rmakgotlho@icasa.org.za](mailto:rmakgotlho@icasa.org.za)

6. All written representations submitted to the Authority pursuant to this notice shall be made available for inspection by interested persons from 15th of January 2018 at the ICASA Library or website and copies of such representations and documents will be obtainable on payment of a fee.

Where persons making representations require that their representation, or part thereof, be treated confidentially, then an application in terms of section 4D of the ICASA Act, 2000 (Act No. 13 of 2000) must be lodged with the Authority. Such an application must be submitted simultaneously with the representation on the draft regulations and plan. Respondents are requested to separate any confidential material into a clearly marked confidential annexure. If, however, the request for confidentiality is refused, the person making the request will be allowed to withdraw the representation or document in question. The guidelines for confidentiality request are contained in Government Gazette Number 41839 (Notice 849 of 2018).



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**RUBBEN MOHLALOGA**  
**CHAIRPERSON**



# DRAFT IMT ROADMAP 2018

## NOVEMBER 2018

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## 1 About

This document aims to share the findings of the Independent Communications Authority of South Africa (hereafter referred to as “The Authority”) with regards to the roadmap for radio frequency spectrum for International Mobile Telecommunications (IMT).

IMT is as named in ITU-R Resolution 56-1. IMT is the root name and encompasses IMT 2000 (including enhancement) and IMT Advanced (including enhancement).

This document builds on the “draft Frequency Migration Plan” published in Gazette 41854 on August 24th, 2018. The roadmap hereby published by the Authority identifies the bands for IMT deployment and also identifies the migration of a number of current licensees out of (or within) bands identified for IMT services. For bands where costs and benefits of the migration were not straightforward, the Authority conducted feasibility studies to determine the appropriateness of migration, details of which can be found in the appendix to this document.

The Authority’s primary objectives are to ensure spectrum efficiency, universal availability of broadband services as well as a vibrant and competitive telecommunications industry and promote investments.

Subsequently we now need to define a new vision for South Africa that is in line with the international and ITU trends. It is worthwhile to look at RECOMMENDATION ITU-R M.2083-0. This document describe the IMT Vision – Framework and overall objectives of the future development of IMT for 2020 and beyond

This Recommendation defines the framework and overall objectives of the future development of International Mobile Telecommunications (IMT) for 2020 and beyond in light of the roles that IMT could play to better serve the needs of the networked society, for both developed and developing countries, in the future. In this Recommendation, the framework of the future development of IMT for 2020 and beyond, including a broad variety of capabilities associated with envisaged usage scenarios is described in detail. Furthermore, this Recommendation addresses the objectives of the future development of IMT for 2020 and beyond, which includes further enhancement of existing IMT and the development of IMT-2020. It should be noted that this Recommendation is defined considering the development of IMT to date based on Recommendation ITU-R M.1645.

## 2 Executive Summary

### 2.1 Purpose of the IMT Roadmap

The growing demand for mobile broadband in South Africa indicates a need for more mobile broadband bandwidth capacity in general. At the same time, many rural areas do not have access to mobile bandwidth indicating a need for a universal mobile broadband coverage, a need best served by deploying lower frequencies that propagate further.

The International Telecommunication Union (ITU) has identified frequency bands that could be used for International Mobile Telecommunications (IMT), which is mainly intended for mobile broadband. The Radio Frequency Migration Plan 2013 further identified which of these IMT bands (between 450 and 3600 MHz) could be so deployed in South Africa based on the National Radio Frequency Plan (NRFP) 2013 for South Africa. The eventual assignment to IMT is made through a Radio Frequency Spectrum Assignment Plan (RFSAP). The following IMT Radio Frequency Spectrum Assignment Plans (Final) were published:

- Government Gazette No 38640 Notice 270 of 2015 – 450 to 470 MHz (Final)
- Government Gazette No 38640 Notice 271 of 2015 – 703 to 733 MHz and 758 to 788 MHz (Final)
- Government Gazette No 38640 Notice 272 of 2015 – 733 to 758 MHz (Final)
- Government Gazette No 38640 Notice 273 of 2015 – 791 to 821 MHz and 732 to 762 MHz (Final)
- Government Gazette No 38640 Notice 275 of 2015 – 880 to 915 MHz and 925 to 960 MHz (Final)
- Government Gazette No 38640 Notice 276 of 2015 – 2300 to 2400 MHz (Final)
- Government Gazette No 38640 Notice 277 of 2015 – 2500 to 2570 MHz and 2620 to 2690 MHz (Final)
- Government Gazette No 38640 Notice 278 of 2015 – 3400 to 3600 MHz (Final)

The Radio Frequency Migration Plan 2013 has since been replaced by the draft Frequency Migration Plan 2018 and the National Radio Frequency Plan (NRFP) 2013 has been replaced by National Radio Frequency Plan (NRFP) 2018. A key driver for the deployment of IMT bands is the need to ensure that mobile broadband plays its role in meeting the objectives of 'broadband for all' which is encapsulated in the targets of SA Connect published in 2013. A key part of this policy/ document concerns the deployment of the 700 MHz and 800 MHz digital dividend bands that is still being occupied by analogue and digital terrestrial television (DTT). ICASA has taken all steps in their jurisdiction by publishing the Final Radio Frequency Spectrum Assignment Plans to implement IMT in Digital Dividend I and II.

*“The efficient assignment and subsequent use of high demand spectrum to meet this demand is vital and the cost of making this spectrum available is vital and the cost of not doing so is high.”*

The Department of Communications have appointed a team to prioritise DTT implementation in order to release the 700 and 800 MHz spectrum for IMT.

Although IMT essentially means all mobile telecommunications, there is currently a strong focus on Long Term Evolution (LTE) and this is reflected in the document. Where it is necessary to give emphasis to IMT for LTE, the document refers to *broadband* IMT.

For an increasing number of South African consumers and businesses, mobile connectivity is now an everyday necessity. Our desire to get online wherever we are – and at ever-faster speeds – has helped fuel an explosion in mobile data.

IMT2020 is the next generation of mobile technologies and is being designed to provide greater capacity for wireless networks, offer greater reliability, and deliver extremely fast data speeds, enabling innovative new services across different industry sectors.

The first wave of commercial products is expected to be available in 2020. However, initial pre-commercial deployments are already expected to start from 2018.

**Mobile operators have expressed their concerns regarding the availability of IMT2020 spectrum for testing and implementation in South Africa.**

It is worthwhile to look at RECOMMENDATION ITU-R M.2083-0. This document describe the IMT Vision – Framework and overall objectives of the future development of IMT for 2020 and beyond. South Africa need to look in detail into this recommendation of which a copy is included in Appendix H to this document.

**RESOLUTION 238 (WRC-15)**

The following bands, which are already allocated to mobile, will be studied with a view to an IMT-2020 identification: •

- 24.25 – 27.5 GHz •
- 37 – 40.5 GHz •
- 42.5 – 43.5 GHz •
- 45.5 – 47 GHz •
- 47.2 – 50.2 GHz •
- 50.4 – 52.6 GHz •
- 66 – 76 GHz •
- 81 – 86 GHz

The following bands will also be studied, although they do not currently have global mobile allocations: •

- 31.8 – 33.4 GHz •
- 40.5 – 42.5 GHz •
- 47 - 47.2 GHz

### **What services and applications will IMT2020 support?**

IMT2020 technologies are under development, and are likely to include both an evolution of existing and new radio technologies. Potential IMT2020 services and applications can be grouped into three different classes:

- **Enhanced Mobile Broadband.** Together with an evolution of the services already provided by 4G, 5G is expected to provide faster and more reliable mobile broadband, offering a richer experience to consumers;
- **Massive Machine Type Communications.** The Internet-of-Things (IoT) – where gadgets and devices wirelessly connect to the internet and each other – is happening on existing networks. Its technology is being used in everything from smart homes to wearables. IMT2020 should help the evolution of IoT services and applications and improve interaction between different platforms. Possible future applications could include real-time health monitoring of patients; optimisation of street lighting to suit the weather or traffic; environmental monitoring and smart agriculture. Data security and privacy issues will need to be considered given huge amounts of data could be transferred over a public network; and
- **Ultra-Reliable and Low Latency Communications.** IMT2020 networks are being designed to be more reliable and have very low latencies (network delays). This could make them suitable for applications such as connected and driverless cars (cars would use the technology to communicate with each other, other road users and even the road infrastructure), and smart manufacturing (potentially connecting all the various machines involved in the different phases of a production chain). These different services have different requirements in terms of speed, coverage and reliability, which will demand different network solutions (the evolution of existing network and potentially new networks) and different deployment models (including many small cells), an appropriate network infrastructure (which will include both fibre and wireless connectivity to the core network) and access to different spectrum bands.

The conditions for the use of the bands for IMT will be specified in the appropriate Radio Frequency Spectrum Assignment Plans (RFSAPs).

The assignment of IMT frequencies will generally be made through an Invitation to Apply (ITA) in line with Regulation 7 of the Radio Frequency Spectrum Regulations 2011. This process will detail the actual mechanism of assignment (including market-based mechanisms, etc.).

### **Overview**

This IMT Roadmap summarises the ITU perspective on IMT, the Southern African Development Community (SADC) perspective on IMT, the SA Connect targets and the related issue of Universal Service (US) and obligations.

As mentioned before the following IMT Radio Frequency Spectrum Assignment Plans (Final) were published:

- Government Gazette No 38640 Notice 270 of 2015 – 450 to 470 MHz (Final)
- Government Gazette No 38640 Notice 271 of 2015 – 703 to 733 MHz and 758 to 788 MHz (Final)
- Government Gazette No 38640 Notice 272 of 2015 – 733 to 758 MHz (Final)
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- Government Gazette No 38640 Notice 276 of 2015 – 2300 to 2400 MHz (Final)
- Government Gazette No 38640 Notice 277 of 2015 – 2500 to 2570 MHz and 2620 to 2690 MHz (Final)
- Government Gazette No 38640 Notice 278 of 2015 – 3400 to 3600 MHz (Final)

The IMT 850 band is still under discussion in South Africa. On 01 September 2017, in Government Gazette 41082 (Notice 684 of 2017) published the Second draft Radio Frequency Spectrum Assignment Plan for the frequency band 825 to 830 MHz and 870 to 875 MHz for public consultation. The public hearings were held from 06 to 07 September 2018 at the Authority's head office in Block C Auditorium, Pinmil Farm, Sandton.

The IMT Roadmap also gives indicative timelines for the deployment of IMT spectrum to support the targets set by the South Africa Connect (SA Connect) broadband initiative for 2016 and 2020 in terms of ensuring widespread area coverage and adequate bandwidth capacity. It is anticipated that additional spectrum for IMT can be assigned in the short term, however this does not obviate the need for using existing spectrum more efficiently and for operators to 'densify' their networks. The requirement for IMT2020 spectrum places an additional demand for spectrum and therefore additional IMT Spectrum need to be identified. Such spectrum will have to be investigated with a feasibility study to determine the impact of refarming, cost of migration, equipment lifetime and the national need for such frequency spectrum.

Furthermore, the IMT roadmap lists options and recommendations for the deployment of bands designated for IMT usage, potential migration scenarios and timelines, as well as assignments with minimum requirements for coverage and capacity obligations for existing and new bands.

Previously a total bandwidth of 460 MHz was used for IMT in South Africa, mostly for Universal Mobile Telecommunications System (UMTS) and Global System for Mobile Communications (GSM), with LTE deployment. This IMT Roadmap 2014 envisages that an additional 2×133 MHz paired spectrum and 290 MHz unpaired spectrum will be made

available over a given schedule. The most important additional key IMT bands for both coverage (especially rural coverage) and capacity are the IMT700 and IMT800 bands. Unfortunately the IMT700 and IMT800 are still not available for use in South Africa.

## 3 International Telecommunication Union (ITU) and IMT

### 3.1 What is IMT?<sup>1</sup>

According to the ITU, International Mobile Telecommunications (IMT) systems are mobile systems that provide access to a wide range of telecommunication services including advanced mobile services, supported by mobile and fixed networks, which are increasingly packet-based. Key features of IMT include:

- a high degree of commonality of functionality worldwide while retaining the flexibility to support a wide range of services and applications in a cost efficient manner;
- compatibility of services within IMT and with fixed networks;
- capability of interworking with other radio access systems;
- high-quality mobile services;
- user equipment suitable for worldwide use;
- user-friendly applications, services and equipment;
- worldwide roaming capability; and
- enhanced peak data rates to support advanced services and applications.

Over the past 25 years, the ITU has developed the IMT system framework of standards for mobile telephony and continues to lead international efforts involving governments and industry players to produce the next generation of standards for global mobile communications.

The term 'IMT' should be the root name that encompasses both IMT-2000 and IMT-Advanced collectively.

#### 3.1.1 IMT 2000

IMT-2000 (International Mobile Telecommunications 2000) is a term coined by the global cellular community to produce a globally-co-ordinated definition of 3G mobile technologies. IMT-2000 networks have been widely deployed since 2000.

According to the ITU, IMT-2000 systems are third generation (3G) mobile systems, which provide access to a wide range of telecommunications services, supported by the fixed telecommunication networks (e.g. PSTN/ISDN/Internet Protocol (IP)), as well as to other services which are specific to mobile users.

The specifications for the initial releases of IMT-2000 are defined in Recommendation ITU R M.1457. The term 'IMT-2000' should also encompass its enhancements and future developments.

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<sup>1</sup> from Recommendation ITU-R M.1645

### 3.1.2 IMT Advanced

The term 'IMT-Advanced' refers to systems, system components and related aspects that include new radio interfaces supporting new capabilities of systems beyond IMT-2000.

ITU has now specified standards for IMT-Advanced. IMT-Advanced provides next-generation global wireless broadband communications using a wide range of packet-based telecommunication services supported by mobile and fixed networks.

It is anticipated that IMT-Advanced will use radio-frequency spectrum much more efficiently making higher data transfers possible on less bandwidth in order to enable mobile networks to face the dramatic increase in data traffic that is expected in the coming years.

IMT-Advanced systems support low to high mobility applications and a wide range of data rates in accordance with user and service demands in multiple-user environments. IMT-Advanced also has capabilities for high quality multimedia applications within a wide range of services and platforms, providing a significant improvement in performance and quality of service.

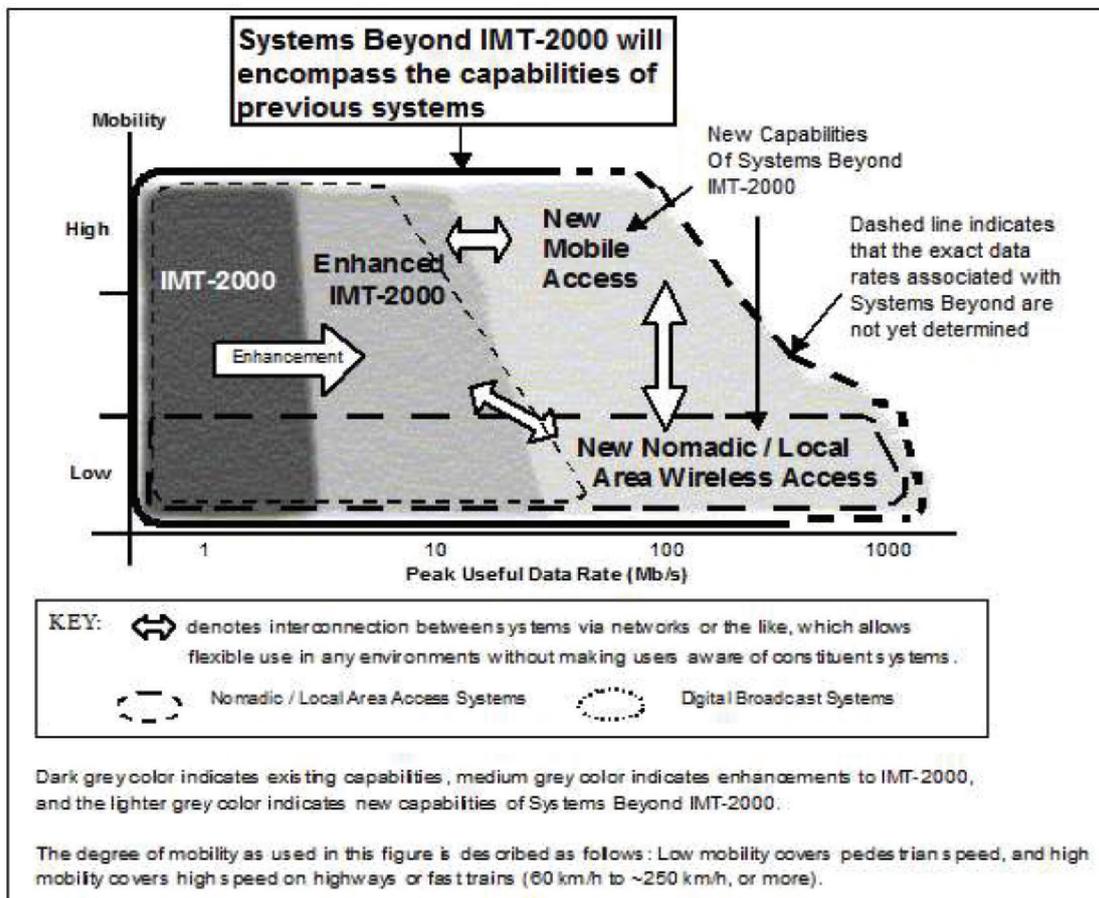


Figure 1: IMT Systems now and in the future (Source: ITU)

### 3.1.3 IMT 2020 Background

#### 3.1.3.1 IMT evolution

International Mobile Telecommunications-2000 (IMT-2000) systems provided access to a wide range of telecommunication services, supported by the fixed telecommunication networks (e.g. PSTN/ISDN/IP), and to other services which are specific to mobile users.

Resolution ITU-R 56-2 clarifies the relationship between the terms “IMT-2000” and “IMT-Advanced” and assigns a name to those systems, system components, and related aspects that include new radio interface(s) that support the new capabilities “IMT for 2020 and beyond”: IMT-2020. Resolution ITU-R 56 resolves that the term IMT-2000 encompasses also its enhancements and future developments and the term “IMT-Advanced” encompasses its enhancements and future developments. The term “IMT” is the root name that encompasses IMT-2000, IMT-Advanced, and IMT-2020 collectively.

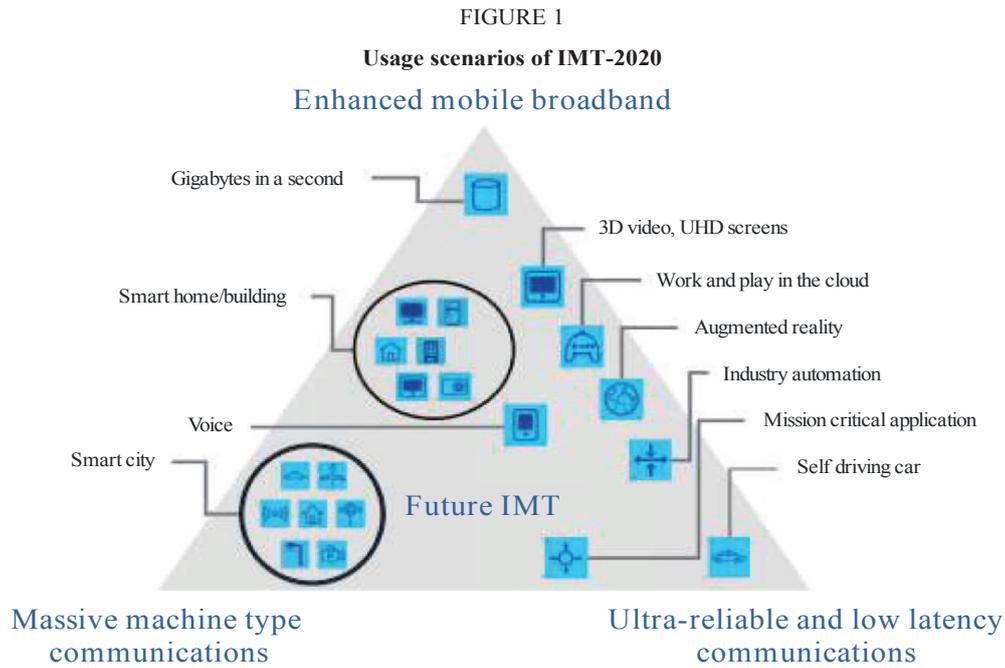
To meet the ever increasing demand for wireless communication (e.g. increased no. of users, higher data rates, video or gaming services which require increased quality of service, etc.), IMT has been, and continues to be, enhanced.

#### 3.1.3.2 Consumer demands

Consumer demands will shape the future development of IMT. In the future, it is foreseen that new demands, such as more traffic volume, many more devices with diverse service requirements, better quality of user experience (QoE) and better affordability by further reducing costs, etc., will require an increasing number of innovative solutions. In addition, technological advancement and the corresponding user needs will promote innovation and accelerate the delivery of advanced communication applications to consumers. Recommendation ITU-R M.2083 “IMT Vision – Framework and overall objectives of the future development of IMT for 2020 and beyond” describes these potential user and application trends, growth in traffic, technological trends and spectrum implications. Also Reports ITU-R M.2370 “IMT Traffic estimates for the years 2020 to 2030” and ITU-R M.2376 “Technical feasibility of IMT in bands above 6 GHz” detail these expected trends and phenomena for IMT-2020.

IMT-2020 systems will encompass a large number of different features. Depending on the circumstances and the different needs in different countries, future IMT systems should be designed in a modular manner so that not all features have to be implemented in all networks.

In order to fulfil these varied demands, IMT-2020 is envisaged to expand and support diverse usage scenarios and applications that will continue beyond the current IMT. Furthermore, a broad variety of capabilities would be tightly coupled with these intended different usage scenarios and applications for IMT-2020. Figure 1 illustrates some examples of envisioned usage scenarios for IMT-2020 identified in Recommendation ITU-R M.2083.



### 3.1.3.3 Capabilities of IMT-2020

IMT-2020 systems are mobile systems that include the new capabilities of IMT that go beyond those of IMT-Advanced. IMT-2020 systems support low to high mobility applications and a wide range of data rates in accordance with user and service demands in multiple user environments. IMT-2020 also has capabilities for high quality multimedia applications within a wide range of services and platforms, providing a significant improvement in performance and quality of service.

A broad variety of capabilities, tightly coupled with intended usage scenarios and applications for IMT-2020 is envisioned. Different usage scenarios along with the current and future trends will result in a great diversity/variety of requirements. The key design principles are flexibility and diversity to serve many different use cases and scenarios, for which the capabilities of IMT-2020, described in the following paragraphs, will have different relevance and applicability. In addition, the constraints on network energy consumption and the spectrum resource will need to be considered.

As indicated in Recommendation ITU-R M.2083, the following eight parameters are considered to be key capabilities of IMT-2020:

#### **Peak data rate**

Maximum achievable data rate under ideal conditions per user/device (in Gbit/s).

#### **User experienced data rate**

Achievable data rate that is available ubiquitously<sup>2</sup> across the coverage area to a mobile user/device (in Mbit/s or Gbit/s).

**Latency**

The contribution by the radio network to the time from when the source sends a packet to when the destination receives it (in ms).

**Mobility**

Maximum speed at which a defined QoS and seamless transfer between radio nodes which may belong to different layers and/or radio access technologies (multi-layer/-RAT) can be achieved (in km/h).

**Connection density**

Total number of connected and/or accessible devices per unit area (per km<sup>2</sup>).

**Energy efficiency**

Energy efficiency has two aspects:

- on the network side, energy efficiency refers to the quantity of information bits transmitted to/ received from users, per unit of energy consumption of the radio access network (RAN) (in bit/Joule);
- on the device side, energy efficiency refers to quantity of information bits per unit of energy consumption of the communication module (in bit/Joule).

**Spectrum efficiency**

Average data throughput per unit of spectrum resource and per cell<sup>3</sup> (bit/s/Hz).

**Area traffic capacity**

Total traffic throughput served per geographic area (in Mbit/s/m<sup>2</sup>).

IMT-2020 is expected to provide a user experience matching, as far as possible, fixed networks. The enhancement will be realized by increased peak and user experienced data rate, enhanced spectrum efficiency, reduced latency and enhanced mobility support.

In addition to the conventional human-to-human or human-to-machine communication, IMT-2020 will realize the Internet of Things by connecting a vast range of smart appliances, machines and other objects without human intervention.

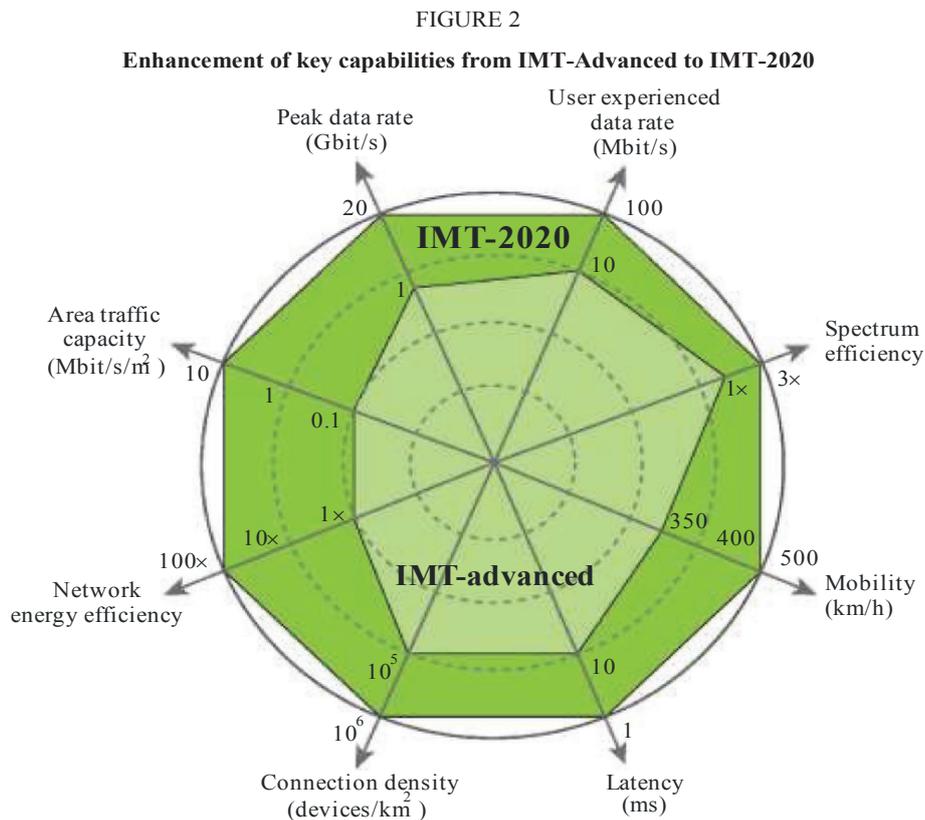
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<sup>2</sup> The term “ubiquitous” is related to the considered target coverage area and is not intended to relate to an entire region or country.

<sup>3</sup> The radio coverage area over which a mobile terminal can maintain a connection with one or more units of radio equipment located within that area. For an individual base station, this is the radio coverage area of the base station or of a subsystem (e.g. sector antenna).

IMT-2020 should be able to provide these capabilities without undue burden on energy consumption, network equipment cost and deployment cost to make future IMT sustainable and affordable.

The key capabilities of IMT-2020 are shown in Fig. 2 (from Recommendation ITU-R M.2083), compared with those of IMT-Advanced.



M.2083-03

The values in the Figure above are targets for research and investigation for IMT-2020 and may be further developed in other ITU-R Recommendations, and may be revised in the light of future studies.

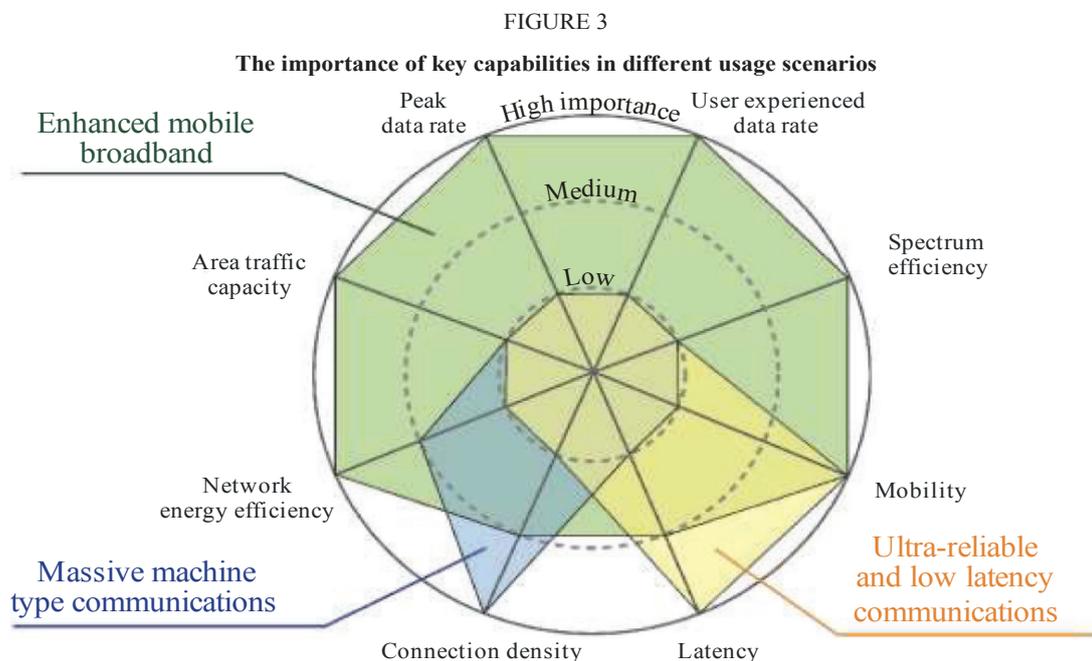
As anticipated above, whilst all key capabilities may to some extent be important for most use cases, the relevance of certain key capabilities may be significantly different, depending on the use cases/scenario. The importance of each key capability for the usage scenarios *enhanced Mobile Broadband*, *ultra-reliable and low latency communication* and *massive machine-type communication* is illustrated in Fig. 3. This is done using an indicative scaling in three steps as “high”, “medium” and “low”.

In the enhanced Mobile Broadband scenario, user experienced data rate, area traffic capacity, peak data rate, mobility, energy efficiency and spectrum efficiency all have high importance, but mobility and the user experienced data rate would not have equal importance simultaneously in all use cases. For example, in hotspots, a higher user

experienced data rate, but a lower mobility, would be required than in wide area coverage case.

In some ultra-reliable and low latency communications scenarios, low latency is of highest importance, e.g. in order to enable the safety critical applications. Examples include traffic safety, traffic efficiency, smart grid, e-health, wireless industry automation, augmented reality, remote tactile control and tele-protection. Such capability would be required in some high mobility cases as well, e.g., in transportation safety, while, e.g. high data rates could be less important.

In the massive machine type communication scenario, high connection density is needed to support tremendous number of devices in the network that e.g. may transmit only occasionally, at low bit rate and with zero/very low mobility. A low cost device with long operational lifetime is vital for this usage scenario.



M.2083-04

Other capabilities may be also required for IMT-2020, which would make future IMT more flexible, reliable, and secure when providing diverse services in the intended usage scenarios:

### **Spectrum and bandwidth flexibility**

Spectrum and bandwidth flexibility refers to the flexibility of the system design to handle different scenarios, and in particular to the capability to operate at different frequency ranges, including higher frequencies and wider channel bandwidths than today.

### **Reliability**

Reliability relates to the capability to provide a given service with a very high level of availability.

### **Resilience**

Resilience is the ability of the network to continue operating correctly during and after a natural or man-made disturbance, such as the loss of mains power.

### **Security and privacy**

Security and privacy refers to several areas such as encryption and integrity protection of user data and signalling, as well as end user privacy preventing unauthorized user tracking, and protection of network against hacking, fraud, denial of service, man in the middle attacks, etc.

### **Operational lifetime**

Operational life time refers to operation time per stored energy capacity. This is particularly important for machine-type devices requiring a very long battery life (e.g. more than 10 years) whose regular maintenance is difficult due to physical or economic reasons.

These capabilities enable IMT-2020 to address evolving user needs. The capabilities of IMT-2020 systems are being continuously enhanced in line with user trends and technology developments.

#### **3.1.3.4 Relationship between existing IMT and IMT-2020**

As indicated in Section 3 above, in order to support emerging new scenarios and applications for 2020 and beyond, it is foreseen that development of IMT-2020 will be required to offer enhanced capabilities. The minimum technical requirements (and corresponding evaluation criteria) to be defined by ITU-R based on these capabilities for IMT-2020 could potentially be met by adding enhancements to existing IMT, incorporating new technology components and functionalities, and/or the development of new radio interface technologies.

Furthermore, IMT-2020 will interwork with and complement existing IMT and its enhancements.

#### **3.1.3.5 Framework of IMT-2020**

The framework and objectives including overall timeframes for the future development of IMT for 2020 and beyond are described in some detail in Recommendation ITU-R M.2083.

### 3.2 Bands designated for IMT

IMT systems support low to high mobility applications and a wide range of data rates in accordance with user and service demands in multiple user environments. IMT also has capabilities for high quality multimedia applications within a wide range of services and platforms, providing a significant improvement in performance and quality of service.

The features of IMT enable it to address evolving user needs as the capabilities of IMT systems are being continuously enhanced in line with user trends and technology developments. IMT will operate in the worldwide bands identified in the ITU Radio Regulations (RR).

The table below describes the ITU definition of IMT bands which were mostly addressed by the publication of the Final Radio Frequency Spectrum Assignment Plans.

Band (MHz)	Frequency band	BW <sup>Note1</sup>	RR FN	Channel Plan	WRC Resolution/s
450	450-470 MHz	<20 MHz	5.286AA	(Note 2)	224 (Rev. WRC-12)
700	694-790 MHz	<96 MHz	5.312A	(Note 3)	232 (WRC-12) and 224 (WRC-12)
800	791-821 MHz // 832-862 MHz	2×30 MHz	5.317A	M.1036 (A3) (Note 3)	224 (Rev. WRC-12) and 749 (Rev. WRC-12)
850	824-849 MHz // 869-894 MHz	<2×8 MHz (Note 4)	5.317A	M.1036 (A1)	224 (Rev. WRC-12) and 749 (Rev. WRC-12)
900	880-915 MHz // 925-960 MHz	2×35 MHz	5.317A	M.1036 (A2)	224 (Rev. WRC-12) and 749 (Rev. WRC-12)
1800	1710-1785 MHz // 1805-1880 MHz	2×75 MHz	5.384A	M.1036 (B2)	223 (Rev. WRC-12)
2100	1920-1980 MHz // 2110-2170 MHz	2×60 MHz	5.388	M.1036 (B1)	212 (Rev. WRC-07) and 223 (Rev. WRC-12)
2100 (TDD)	1900-1920 MHz, 2010-2025 MHz	35 MHz (Note 5)	5.388	M.1036 (B1)	212 (Rev. WRC-07) and 223 (Rev. WRC-12)
2300	2300-2400 MHz	100 MHz	5.384A	M.1036 (E1)	223 (Rev. WRC-12) (Note 6)
2600	2500-2690 MHz	2×70 MHz 50 MHz	5.384A	M.1036 (C1)	223 (Rev. WRC-12) (Note 7)
3500	3400-3600 MHz	2×80 MHz (Note 8)	5.430A	M.1036 (F2)	NA

**Table 1: ITU definition of IMT bands**

Table 1 lists all possible IMT frequency bands identified by the ITU, relevant ITU Radio Regulation footnote as well as the applicable ITU-R channel plan. The notes are taken from the (South African) National Radio Frequency Plan 2013 (NRFP-13).

**Note 1:** This column indicates the amount of IMT assignable spectrum; guard bands, centre gaps, etc. are therefore excluded.

**Note 2:** Use of this band will be subject to a feasibility study. Issues to be addressed will include the existing usage, the various channel plan options described in ITU-R M.1036 (section 1) for the band 450-470 MHz, the availability of spectrum in this band, as well as the availability of IMT equipment.

**Note 3:** The World Radiocommunication Conference 2007 (WRC-07) allocated the band 790-862 MHz to all mobile (except aeronautical mobile services) on a primary basis in many countries in ITU Region 1 and designated it for IMT (see 5.316A, 5.316B and 5.317A). WRC-12 resolved to allocate the frequency band 694-790 MHz in ITU Region 1 to the mobile, except aeronautical mobile, service on a co-primary basis with other services to which this band is allocated on a primary basis and to identify it for IMT and ensure that the allocation is effective immediately after WRC-15 (see 5.312A and ITU Resolution 232 (WRC-12)). WRC-15 will specify the technical and regulatory conditions applicable to the mobile service after taking into account ITU-R studies.

Replanning of the broadcasting spectrum to accommodate digital television within the band 470-694 MHz is underway. The band 694-862 MHz will be subject to the outcome of WRC-15 and used exclusively for IMT (mobile services), and planning for this use of the band will be concurrent to the planning of the migration of the broadcasting services. It is intended that the process for the assignment of the band 694-862 MHz for mobile services will take place prior to the end of the dual illumination period. Migration of the broadcasting services from this band will be addressed in accordance with the Terrestrial Broadcast Frequency Plan 2013 (TBFP-13).

Suitable channel plans for the 700 MHz frequency band for IMT systems are being developed by ITU-R WP 5D. The amount of assignable spectrum in this band will depend on the outcome of this exercise. It is important to note that the 700 MHz channel plan adopted in the APT Region (A5) overlaps the 800 MHz channel plan adopted in Europe and Africa (A3).

**Note 4(i):** Whereas the Southern African Development Community (SADC), including South Africa, adopted the 2×30 MHz channel plan in the 800 MHz band (A3), this plan is under review considering the adoption at WRC-12 of the 700 MHz band for IMT (see also Note 3 above).

**Note 4(ii):** Although the international 850 MHz band (also known as CDMA-2000 or GSM850 band plan) has 2×25 MHz total bandwidth, the limited assignable spectrum in South Africa is a result of this band overlapping the GSM 900 MHz band and more importantly due to the use of analogue broadcasting in the UHF band. In South Africa, the use of the 800 MHz band will take precedence over the use of the 850 MHz band; no new assignments will therefore be made according to the 850 MHz channel plan.

**Note 5:** Although the band 1885-1900 MHz is also designated for IMT, the band 1880-1900 MHz is used extensively for Digital Enhanced Telecommunications (DECT) cordless telephone systems. Sharing between IMT and DECT cordless telephones is problematic.

The band 1900-1920 MHz could be used for IMT in future; it is currently used for Fixed Wireless Access (FWA) systems.

**Note 6:** In South Africa, the 2.3 GHz band is allocated to mobile service on a primary basis and is identified for IMT. This band is part of the 2.4 GHz band (2300-2500 MHz) used for FWA systems.

**Note 7:** The 2.6 GHz band (2500-2690 MHz) is available for IMT in accordance with ITU-R Recommendation M.1036 (C1). This channel plan allows for 2×70 MHz (paired) and 50 MHz (unpaired) spectrum.

**Note 8:** The 3.5 GHz band is currently used for FWA systems in South Africa, in particular WiMAX. The channel configuration is based on 2×100 MHz plan with no guard bands or centre gap (Tx-Rx = 100 MHz). When using this band for IMT systems, a new channelling plan is required. ITU-R Recommendation M.1036 (section 6) recommends two options namely: F1 (unpaired, 3400-3600 MHz); and F2 (3410-3490 MHz paired with 3510-3590 MHz). Considering that the current SA plan using Tx-Rx of 100 MHz, option F2 is recommended for SA. Refarming of current licensees may be required to align with this option.

The following IMT bands were assigned by the publications of the Final Radio Frequency Spectrum Assignment Plans.

- IMT 450
- IMT 700
- IMT 800
- IMT 900
- IMT 2300
- IMT 2600
- IMT 3500

The IMT 850 band's is still under discussion and the 2<sup>nd</sup> Draft Radio Frequency Spectrum Assignment Plan was published

The decision on IMT 1800 and IMT 2100 bands has been delayed until a decision and guidance has been given by the ITU.

### 3.3 Issues for WRC 19

ITU Study Group 5D have been working on the following frequency band for IMT use and implementation.

The following bands, which are already allocated to mobile, will be studied with a view to an IMT-2020 identification: •

- 24.25 – 27.5 GHz •
- 37 – 40.5 GHz •

- 42.5 – 43.5 GHz •
- 45.5 – 47 GHz •
- 47.2 – 50.2 GHz •
- 50.4 – 52.6 GHz •
- 66 – 76 GHz •
- 81 – 86 GHz

The following bands will also be studied, although they do not currently have global mobile allocations: •

- 31.8 – 33.4 GHz •
- 40.5 – 42.5 GHz •
- 47 - 47.2 GHz

The above frequency studies are extracted from the ITU resolution below:

#### **RESOLUTION 238 (WRC-15)**

Studies on frequency-related matters for International Mobile Telecommunications identification including possible additional allocations to the mobile services on a primary basis in portion(s) of the frequency range between 24.25 and 86 GHz for the future development of International Mobile Telecommunications for 2020 and beyond

The World Radiocommunication Conference (Geneva, 2015), considering

- a) that International Mobile Telecommunications (IMT) is intended to provide telecommunication services on a worldwide scale, regardless of location and type of network or terminal;
- b) that IMT systems have contributed to global economic and social development;
- c) that IMT systems are now being evolved to provide diverse usage scenarios and applications such as enhanced mobile broadband, massive machine-type communications and ultra-reliable and low-latency communications;
- d) that ultra-low latency and very high bit rate applications of IMT will require larger contiguous blocks of spectrum than those available in frequency bands that are currently identified for use by administrations wishing to implement IMT;
- e) that it may be suitable to examine higher frequency bands for these larger blocks of spectrum;
- f) that there is a need to continually take advantage of technological developments in order to increase the efficient use of spectrum and facilitate spectrum access;

- g) that the properties of higher frequency bands, such as shorter wavelength, would better enable the use of advanced antenna systems including MIMO and beam-forming techniques in supporting enhanced broadband;
- h) that ITU-T has initiated the study of network standardization for IMT for 2020 and beyond;
- i) that adequate and timely availability of spectrum and supporting regulatory provisions is essential to realize the objectives in Recommendation ITU-R M.2083;
- j) that harmonized worldwide bands and harmonized frequency arrangements for IMT are highly desirable in order to achieve global roaming and the benefits of economies of scale;
- k) that identification of frequency bands allocated to mobile service for IMT may change the sharing situation regarding applications of services to which the frequency band is already allocated, and may require additional regulatory actions;
- l) the need to protect existing services and to allow for their continued development when considering frequency bands for possible additional allocations to any service, noting
- a) that Resolution ITU-R 65 addresses the principles for the process of development of IMT for 2020 and beyond, and that Question ITU-R 77-7/5 considers the needs of developing countries in the development and implementation of IMT;
- b) that Question ITU-R 229/5 seeks to address the further development of IMT;
- c) that IMT encompasses both IMT-2000, IMT-Advanced, and IMT-2020 collectively, as described in Resolution ITU-R 56-2;
- d) Recommendation ITU-R M.2083, on the framework and objectives of the future development of IMT for 2020 and beyond;
- e) that Report ITU-R M.2320 addresses future technology trends of terrestrial IMT systems;
- f) Report ITU-R M.2376, on technical feasibility of IMT in the frequency bands above 6 GHz;
- g) that Report ITU-R M.2370 analyses trends impacting future IMT traffic growth beyond the year 2020 and estimates global traffic demands for the period 2020 to 2030;
- h) that there are ongoing studies within ITU-R on the propagation characteristics for mobile systems in higher frequency bands;
- i) the relevance of provisions in Nos. 5.340, 5.516B, 5.547 and 5.553, which may need to be taken into account in studies;
- j) that the FSS allocation in the frequency band 24.65-25.25 GHz was made by WRC-12, recognizing
- a) that there is a lead time between the allocation of frequency bands by world radiocommunication conferences and the deployment of systems in those bands, and that timely availability of wide and contiguous blocks of spectrum is therefore important to support the development of IMT;

b) that frequency bands allocated to passive services on an exclusive basis are not suitable for an allocation to the mobile service;

c) that any identification of frequency bands for IMT should take into account the use of the bands by other services and the evolving needs of these services;

d) that there should be no additional regulatory or technical constraints imposed to services to which the band is currently allocated on a primary basis, resolves to invite ITU-R

1) to conduct and complete in time for WRC-19 the appropriate studies to determine the spectrum needs for the terrestrial component of IMT in the frequency range between 24.25 GHz and 86 GHz, taking into account: – technical and operational characteristics of terrestrial IMT systems that would operate in this frequency range, including the evolution of IMT through advances in technology and spectrally efficient techniques; – the deployment scenarios envisaged for IMT-2020 systems and the related requirements of high data traffic such as in dense urban areas and/or in peak times; – the needs of developing countries; – the time-frame in which spectrum would be needed;

2) to conduct and complete in time for WRC-19 the appropriate sharing and compatibility studies<sup>1</sup>, taking into account the protection of services to which the band is allocated on a primary basis, for the frequency bands:

- 24.25-27.5 GHz
- 37-40.5 GHz,
- 42.5-43.5 GHz,
- 45.5-47 GHz,
- 47.2-50.2 GHz,
- 50.4-52.6 GHz,
- 66-76 GHz and
- 81-86 GHz,

which have allocations to the mobile service on a primary basis; and –

- 31.8-33.4 GHz,
- 40.5-42.5 GHz and
- 47-47.2 GHz,

this may require additional allocations to the mobile service on a primary basis, further resolves

1) to invite CPM19-1 to define the date by which technical and operational characteristics needed for sharing and compatibility studies are to be available, to ensure that studies referred to in

resolves to invite ITU-R can be completed in time for consideration at WRC-19;

2) to invite WRC-19 to consider, based on the results of the above studies, additional spectrum allocations to the mobile service on a primary basis and to consider identification of frequency bands for the terrestrial component of IMT; the bands to be considered being limited to part or all of the bands listed in resolves to invite ITU-R 2, invites administrations to participate actively in these studies by submitting contributions to ITU-R.

1) Including studies with respect to services in adjacent bands, as appropriate.

2) When conducting studies in the band 24.5-27.5 GHz, to take into account the need to ensure the protection of existing earth stations and the deployment of future receiving earth stations under the EESS (space-to-Earth) and SRS (space-to-Earth) allocation in the frequency band 25.5-27 GHz.

## 4 SADC

The Southern African Development Community (SADC) Frequency Allocation Plan (FAP) creates a framework for harmonisation across SADC on the use of the radio frequency spectrum. Countries included in the SADC FAP are Angola, Botswana, Democratic Republic of the Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

The SADC FAP states “Whereas harmonisation is important, this could however take place on various levels namely allocation level, (e.g. mobile service), application level (e.g. cellular mobile) or on technology level (e.g. LTE or mobile WiMAX). Although the ITU spectrum harmonisation is generally limited to the first level, (i.e. radio communication services) it does occasionally also endeavour to harmonise certain applications. A noteworthy example is where a band is ‘identified’ for a specific application such as IMT. Although such identification does not establish any priority in the Radio Regulations, nor does it exclude the use of the particular frequency band for any other application within the same or other allocations, it does signal to the market the potential of harmonising the particular frequency band for the specified application. Within this application various technologies could then be deployed.”

The 2010 SADC FAP was developed taking into account international best practice in the development of Frequency Band Plans and considering the needs of the SADC Members.

ITU Region 1 allocations and footnotes	SADC common allocation/s and relevant ITU footnotes	SADC proposed common sub-allocations / utilisation	Additional information
<b>450-455 MHz</b> FIXED MOBILE 5.286AA 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E	<b>450-455 MHz</b> FIXED MOBILE 5.286AA 5.286 5.286A	Fixed links (PTP) IMT (450-470 MHz) , PMR and/or PAMR	This band is currently used for a variety of fixed and mobile systems in the various SADC.  This band is also identified for IMT (Res. 224 applies)
<b>455-456 MHz</b> FIXED MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 5.286E	<b>455-456 MHz</b> FIXED MOBILE 5.286AA 5.209 5.286A		
<b>456-459 MHz</b> FIXED MOBILE 5.286AA 5.271 5.287 5.288	<b>456-459 MHz</b> FIXED MOBILE 5.286AA 5.287		
<b>459-460 MHz</b> FIXED	<b>459-460 MHz</b> FIXED		

MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 5.286E	MOBILE 5.286AA 5.209 5.286A		
<b>460-470 MHz</b> FIXED MOBILE 5.286AA Meteorological satellite (space to Earth) 5.287 5.288 5.289 5.290	<b>460-470 MHz</b> FIXED MOBILE 5.286AA Meteorological satellite (space to Earth) 5.287 5.289		
<b>470-790 MHz</b> BROADCASTING  5.149 5.291A 5.294 5.296 5.300 5.304 5.306 5.311A 5.312 5.312A	<b>694-790MHz</b> BROADCASTING MOBILE except aeronautical mobile service 5.312A SADC 12 5.311A	MOBILE (IMT)	WRC 12 allocated the band to Mobile except aeronautical mobile on a co-primary basis with Broadcasting (WRC-12 Res 232 refers). The band was also identified for IMT. The mobile allocation is effective from 2015, immediately after WRC 15 and shall be subject to technical and regulatory conditions to be stipulated by WRC 15. SADC plans to implement IMT in the band immediately after WRC 15
<b>790-862 MHz</b> MOBILE except aeronautical mobile 5.316B 5.317A <b>BROADCASTING</b> 5.312 5.314 5.315 5.316	<b>790-862 MHz</b> MOBILE except aeronautical mobile 5.316B 5.317A BROADCASTING 5.314 5.315 5.316 5.316A 5.319	MOBILE (IMT)	Band IV/V analogue television to migrate to digital television according to SADC time lines. WRC-07 allocated this band to mobile except aeronautical mobile service and identified it for IMT. This band should be made available for IMT as soon as possible after the migration of analogue television to digital. This band needs to be harmonised in SADC for IMT; channelling plan to be developed for SADC region. Fixed links operating in this band will have to be migrated in order to accommodate IMT.
<b>862-890 MHz</b> FIXED MOBILE except aeronautical mobile	<b>862-890 MHz</b> MOBILE except aeronautical mobile 5.317A	862-876 MHz IMT	The use of this band for IMT in the future to be investigated as part of the development of harmonised IMT channelling arrangements.

<p>5.317A</p> <p>BROADCASTING 5.322</p> <p>5.319 5.323 5.316A</p> <p>5.319</p>	<p>SADC14</p>	<p>876-880 MHz</p> <p>IMT</p> <p>PMR and/or PAMR</p>	<p>This band is paired with 921-925 MHz</p> <p>The use of this band for IMT in the future to be investigated as part of the development of harmonised IMT channelling arrangement.</p>
<p><b>890-942 MHz</b></p> <p>FIXED</p> <p>MOBILE except aeronautical mobile 5.317A</p> <p>BROADCASTING 5.322</p> <p>Radiolocation 5.323</p>	<p><b>890-942 MHz</b></p> <p>MOBILE except aeronautical mobile 5.317A</p>	<p>880-915 MHz</p> <p>IMT</p> <p>915-921 MHz</p> <p>PMR and/or PMR</p> <p>921-925 MHz</p> <p>IMT</p> <p>PMR and/or PAMR</p> <p>925-960 MHz</p> <p>IMT</p>	<p>Paired with 925-960 MHz</p> <p>Paired with 876-880 MHz.</p> <p>Paired with 880-915 MHz</p>
<p><b>942-960 MHz</b></p> <p>FIXED</p> <p>MOBILE except aeronautical mobile 5.317A</p> <p>BROADCASTING 5.322</p> <p>5.323</p>	<p><b>942-960 MHz</b></p> <p>MOBILE except aeronautical mobile 5.317A</p> <p>5.322</p>		
<p><b>1700-1710 MHz</b></p> <p>FIXED</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p> <p>5.289 5.341</p>	<p><b>1700-1710 MHz</b></p> <p>FIXED</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p> <p>5.289 5.341</p>	<p>Fixed links (single frequency)</p>	
<p><b>1710-1930 MHz</b></p> <p>FIXED</p> <p>MOBILE 5.384A 5.388A 5.388B</p> <p>5.149 5.341 5.385 5.386 5.387 5.388</p>	<p><b>1710-1930 MHz</b></p> <p>FIXED</p> <p>MOBILE 5.384A 5.388A 5.388B</p> <p>5.149 5.341 5.385 5.388</p>	<p>1710-1785 MHz IMT</p> <p>1785-1805 MHz BFWA</p> <p>1805-1880 MHz IMT</p> <p>1880-1900 MHz FWA</p> <p>Cordless telephone</p> <p>1900-1920 MHz FWA IMT (terrestrial)</p>	<p>IMT</p> <p>Paired with 1710-1785 MHz.</p>

<b>1930-1979 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>1930-1979 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	1920-1980 MHz IMT (terrestrial)	Paired with 2170-2200MHz The development of satellites for IMT services to be monitored
<b>1970-1980 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>1970-1980 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388		
<b>2010-2025 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>2010-2025 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	IMT terrestrial (2010- 2025 MHz )	TDD
<b>2110-2120 MHz</b> FIXED MOBILE 5.388A5.388B SPACE RESEARCH (deep space) (Earth-to- space) 5.388	<b>2110-2120 MHz</b> MOBILE 5.388A5.388B SPACE RESEARCH (deep space) (Earth-to- space) 5.388	IMT (terrestrial) (2110-2170 MHz)	Paired with 1920-1980 MHz
<b>2120-2160 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>2120-2160 MHz</b> MOBILE 5.388A 5.388B 5.388		
<b>2160-2170 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>2160-2170 MHz</b> MOBILE 5.388A 5.388B 5.388		
<b>2170-2200 MHz</b> FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A 5.388 5.389A 5.389F	<b>2170-2200 MHz</b> MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A 5.388 5.389A 5.389F	IMT (satellite) (2170- 2200 MHz)	Paired with 1980-2010 MHz The development of satellites for IMT services to be monitored.
<b>2 200-2 290 MHz</b> SPACE OPERATION (space-to-Earth) (space- to-space) EARTH EXPLORATION – SATELLITE (space-to- Earth) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space- to-space) 5.392	<b>2 200-2 290 MHz</b> SPACE OPERATION (space-to-Earth) (space- to-space) EARTH EXPLORATION – SATELLITE (space-to- Earth) (space-to-space) FIXED SPACE RESEARCH (space-to-Earth) (space- to-space) 5.392	Fixed links (2025- 2110 MHz paired with 2200- 2285 MHz)	Radio Frequency channel arrangement according to ITU-RF. 1098.
		BFWA (2 285-2 300 MHz)	
<b>2290-2300 MHz</b>	FIXED	BFWA (2285-2300 MHz)	

<p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>SPACE RESEARCH (deep space) (space-to-Earth)</p>	<p>MOBILE except aeronautical mobile</p> <p>SPACE RESEARCH (deep space) (space-to-Earth)</p>		
<p><b>2300-2450</b></p> <p>FIXED</p> <p>MOBILE 5.384A</p> <p>Amateur Radiolocation 5.150 5.282 5.395</p>	<p><b>2300-2450</b></p> <p>FIXED</p> <p>MOBILE 5.384A</p> <p>Amateur Radiolocation 5.150 5.282</p>	<p>2300-2400 MHz</p> <p>Fixed PTP/PTMP links</p> <p>IMT (TDD)</p> <p>BFWA</p>	<p>Fixed paired with 2400-2500 MHz.</p> <p>This band has been identified for IMT.</p>
<p><b>2500-2520 MHz</b></p> <p>FIXED 5.410</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>5.405 5.412</p>	<p><b>2500-2520 MHz</b></p> <p>FIXED</p> <p>MOBILE except aeronautical mobile 5.384A</p>	<p>BFWA (2500-2690 MHz) IMT (2500-2690 MHz)</p>	<p>The band 2500-2690 MHz is currently used mainly for BFWA. This band is also allocated to the mobile service and identified for IMT. This band needs to be harmonised in SADC for the IMT channelling plan to be developed.</p>
<p><b>2520-2655 MHz</b></p> <p>FIXED 5.410</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>BROADCASTING-SATELLITE 5.4135.416</p> <p>5.339 5.405 5.412 5.417C 5.417D 5.418B 5.418C</p>	<p><b>2520-2655 MHz</b></p> <p>FIXED</p> <p>MOBILE except aeronautical mobile 5.384A 5.339</p>		
<p><b>2655-2670 MHz</b></p> <p>FIXED 5.410</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>BROADCASTING-SATELLITE 5.208B 5.413 5.416 Earth exploration-satellite (passive)</p> <p>Radio astronomy Space research (passive)</p> <p>5.149 5.412</p>	<p><b>2655-2670 MHz</b></p> <p>FIXED</p> <p>MOBILE except aeronautical mobile 5.384A 5.149 5.412</p>		
<p><b>2670-2690 MHz</b></p> <p>FIXED 5.410</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>Earth exploration-satellite</p>	<p><b>2670-2690 MHz</b></p> <p>FIXED</p> <p>MOBILE except aeronautical mobile 5.384A</p> <p>5.149 5.412</p>		

(passive) Radio astronomy Space research (passive) 5.149 5.412			
<b>3400-3600 MHz</b> FIXED FIXED-SATELLITE (space- to-Earth) Mobile 5.430A Radiolocation 5.431	<b>3400-3600 MHz</b> FIXED MOBILE except aeronautical mobile 5.430A SADC16	BFWA IMT (3400-3600 MHz)	The band 3 400-3 600 MHz is currently used mainly for BFWA. From 17 Nov 2010 this band is also allocated to the mobile service on a primary basis and should be used for IMT in line with WRC-07 decisions.  Because of the expected high usage of BFWA and/or IMT applications in this band, satellite services should be accommodated above  3 600 MHz. This band needs to be harmonised in SADC for the IMT channelling plan to be developed.

Table 2: Table showing SADC Frequency Allocations for IMT Bands

## 5 South Africa

### 5.1 The Electronic Communications Act

A review of the Electronic Communications Act of 2005 contained in the Government Gazette No. 28743, No. 36 of 2005, as well the Electronic Communications Amendment Act of 2014 contained in Government Gazette No. 37536, Act No. 1 of 2014 which together regulate electronic communications in the Republic of South Africa was carried out and the following sections were found to be of particular relevance.

#### 5.1.1 Chapter 1: Introductory provisions

##### *Object of Act*

2. *The primary object of this Act is to provide for the regulation of electronic communications in the Republic in the public interest and for that purpose to:*

- (a) promote and facilitate the convergence of telecommunications, broadcasting, information technologies and other services contemplated in this Act;*
- (b) promote and facilitate the development of interoperable and interconnected electronic networks, ensure the provision of the services contemplated in the Act and to create a technologically-neutral licensing framework;*
- (c) promote the universal provision of electronic communications networks and electronic communications services and connectivity for all;*
- (e) ensure efficient use of the radio frequency spectrum;*
- (f) ensure the provision of a variety of quality electronic communications services at reasonable prices; and*
- (h) promote stability in the ICT sector.*

#### 5.1.2 Chapter 2: Policy and regulations

##### *Ministerial policy and policy directions*

3. *The Minister may make policies on national matters applicable to the ICT sector, consistent with the objectives of this Act and of the relevant legislation in relation to:*

- (a) the radio frequency spectrum;*
- (b) the universal service and access policy; and*
- (c) the Republic's obligations and undertakings under bilateral, multilateral or international treaties and conventions, including technical standards and frequency matters.*

### 5.1.3 Chapter 5: Radio frequency spectrum

#### *Control of radio frequency spectrum*

30 (1) *In carrying out its functions under this Act and the related legislation, the Authority controls, plans, administers and manages the use and licensing of the radio frequency spectrum except as provided for in section 34.*

(2) *In controlling, planning, administering, managing, licensing and assigning the use of the radio frequency spectrum, the Authority must:*

*(a) comply with the applicable standards and requirements of the ITU and its Radio Regulations, as agreed to or adopted by the Republic as well as with the national radio frequency plan contemplated in section 34;*

*(b) take into account modes of transmission and efficient utilisation of the radio frequency spectrum, including allowing shared use of radio frequency spectrum when interference can be eliminated or reduced to acceptable levels as determined by the Authority;*

*(c) give high priority to applications for radio frequency spectrum where the applicant proposes to utilise digital electronic communications facilities for the provision of broadcasting services, electronic communications services, electronic communications network services, and other services licensed in terms of this Act or provided in terms of a licence exemption;*

*(d) plan for the conversion of analogue uses of the radio frequency spectrum to digital, including the migration to digital broadcasting in the Authority's preparation and modification of the radio frequency spectrum plan; and*

*(e) give due regard to the radio frequency spectrum allocated to security services.*

## 5.2 The Frequency Migration Regulations and Plan 2018

### 5.2.1 Principles governing frequency migration

#### 5.2.1.1 Identification of bands which are subject to frequency migration

Bands are identified for radio frequency migration according to the following hierarchy:

- First Level – where the ITU radio regulations / decisions of a World Radio Conference (WRC) require a change in national allocation that will require existing users to be migrated;
- Second Level - where a Regional Radio Conference (RRC) requires a change in national allocation that necessitates existing users to be migrated;
- Third Level – where the SADC FAP requires a change in national allocation that necessitates existing users to be migrated; and
- Fourth Level – a decision is made to change the use of a frequency band at national level and this requires the migration of existing users.

## Process

The process of frequency migration is carried out in a manner consistent with the radio frequency spectrum regulations and the generic process is described in the Frequency Migration Regulation (FMR) 2013.

The key processes are described in the Radio Frequency Spectrum Regulations (RFSR) 2011, and are as follows:

- Preparation of a RFSAP for the particular band or bands; and
- Amendment of a Radio Frequency Spectrum Licence where necessary.

When it has been established that migration is required, then the critical issue is to determine the time frame in a manner consistent with sound radio frequency spectrum management.

In some cases, it is necessary to carry out a feasibility study on the band in question. This is illustrated in the process flow indicated below.

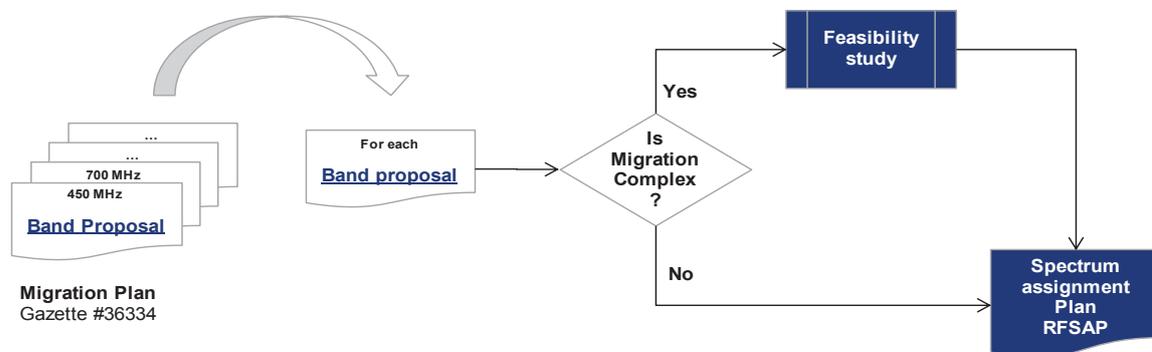


Figure 2: Process for developing an RFSAP

The requirement for a feasibility study is usually, but not necessarily, indicated in the FMP. Where the results of feasibility study indicate a change in the usage of the band in question, a RFSAP will be carried out.

The RFSAP will be subject to a consultation process.

The Frequency Migration Plan does not necessarily identify the destination bands for out-migrating users or uses because the appropriate destination band will vary from user to user, depending on the specific requirements of the user. The spectrum pricing regime is intended to facilitate this process and guide users to the 'optimal' choice.

## Time frame for migration

In principle, the Authority can migrate a user to another location as part of sound radio frequency spectrum management. However, an appropriate time frame should be applied as a matter of standard practice.

In determining the time frame, the following factors are taken into account:

- the duration of the spectrum licence;
- the time frame to migrate existing customers (end-users);

- the economic life of the equipment installed; and
- adequate forward planning.

The forward-looking time frame for a process of spectrum migration is within 5 years from the moment of publication of this FMP unless the Authority states otherwise in a Notice.

### 5.3 South Africa Connect

‘South Africa Connect: Creating Opportunities, Ensuring Inclusion’ which is South Africa’s Broadband Policy was brought into effect in November 2013 by the Department of Communications (DoC). The policy aims to create a seamless information infrastructure, which is accessible to and affordable for South Africans.

The overall goal is to achieve a universal average download speed of 100 Mbps by 2030. The 2020 vision for broadband is to provide 100% of South Africans with broadband services at 2.5% or less of the population’s average monthly income<sup>4</sup>.

The objectives of the National Broadband Policy (NBP) are:

- *affordable broadband available nationally to meet the diverse needs of public and private users, both formal and informal, consumers and citizens;*
- *policy and regulatory conditions that enable public and private sector players to invest and also contribute;*
- *public sector delivery, including e-government services, underpinned by the aggregation of broadband needs;*
- *that all public institutions at the national, provincial and municipal level should benefit from broadband connectivity and this should be extended to the communities they serve;*
- *to establish a framework such that public and private enterprises, formal and informal, are able to fully exploit the efficiencies offered by ubiquitous broadband and its potential for innovation;*
- *the development of a strong national skills base so that South Africa can perform as a proficient, globally-competitive and knowledgeable economy;*
- *a vibrant, creative software industry which produces content and applications which are relevant and meet the needs of the diverse users in the country; and*
- *a literate and skilled society that can effectively access services and content, including public information and public services.*

The Broadband Policy proposed certain targets and timeframes for access to broadband in South Africa.

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<sup>4</sup> 2.5% of average monthly income is approximately R368.28, calculated from an average monthly income of R14731 for all formal and non-agricultural industries. Source: Statistics South Africa: Quarterly Employment Statistics (QES) March 2014

Target	Penetration Measure	Baseline (2013)	By 2016	By 2020	By 2030
Broadband access in Mbps user experience	% of population	33.7% internet access	50% at 5 Mbps	90% at 5Mbps 50% at 100Mbps	100% at 10 Mbps 80% at 100 Mbps
Schools	% schools	25% connected	50% at 10 Mbps	100% at 10Mbps 80% at 100 Mbps	100% at 1Gbps
Health facilities	% of health facilities	13% connected	50% at 10Mbps	100% at 10Mbps 80% at 100Mbps	100% at 1Gbps
Government facilities	% of Government offices		50% at 5Mbps	100% at 10Mbps	100% at 100Mbps

**Table 3: National Broadband Policy Targets**

The issues to be addressed when meeting the current targets are currently low penetration, high prices, and poor quality of service. The broadband Policy requires the Authority to monitor and evaluate set targets and comply with quality of service standards on an ongoing basis and report on them annually. The review of such targets falls within the domain of the Minister.

In Chapter 9 of the Broadband Policy, a gap analysis indicates a number of areas where there is a shortfall between the current status of the broadband ecosystem and the set targets. One of these areas is market structure and regulatory regime and on this issue, the policy states:

*Despite the horizontal licensing regime introduced by the Electronic Communications Act of 2005, the market remains structured around vertically integrated incumbents, who have multiple licences, but continue to compete downstream with multiple service providers. This creates anti-competitive incentives in the market and requires a resource-intensive regulatory regime, where the regulator is constantly required to adjust the behaviour of the incumbents. The wholesale open access regime will also address the structural constraints in the market arising from the dominance of a number of vertically integrated operators. Re-structuring the market to enable greater wholesale access to networks by service providers will go a long way to creating a more competitive services sector, which is likely to enhance quality and drive down prices.*

In terms of the gap in infrastructure reach, the broadband policy highlights that:

*The real gap is in the last-mile local loop infrastructure. In high demand metropolitan areas there is considerable duplication of infrastructure, but outside these areas, ADSL is limited. The delay in releasing spectrum and the cost of building out high-speed, next generation networks to low demand areas, means that the substitution of mobile broadband for ADSL is not as prevalent as it is in metropolitan areas.*

In terms of spectrum, the Broadband Policy identifies the following gap:

*With the increasing reliance on mobile or wireless communications, there is more demand than ever for radio spectrum – the invisible wavelengths or frequencies by which services such as broadcasting and mobile communications can be transmitted.*

*Policy and regulatory bottlenecks associated with spectrum assignment, together with delays in the migration of land analogue broadcasting to digital, have meant that service innovation, increased competition, potential job opportunities and tax revenues have not been realised. The efficient assignment and subsequent use of high demand spectrum to meet this demand is vital and the cost of making this spectrum available is vital and the cost of not doing so is high.*

In terms of Access networks, a gap related to spectrum was also identified and is noted below:

*Extending broadband access is dependent on allocation of high demand spectrum.*

Digital future is also another solution to closing identified gaps and aims to:

*Enable sharing and co-operation on open access network builds and operations through ensuring economies of scale, reducing risk and guaranteeing returns.*

The current status of broadband infrastructure networks with respect to spectrum is outlined in South Africa's Broadband Policy as shown below:

*Spectrum is a scarce but non-depleting resource that has to be managed efficiently in order to optimise its potential to provide broadband access. This is especially pertinent given the dominance of mobile access in South Africa. Fixed wireless access also requires spectrum and represents an alternative to fixed-line networks to provide high capacity broadband especially in rural areas.*

*The immediate priorities with respect to spectrum are:*

- *identification of unused spectrum and its reassignment;*
- *the removal of bottlenecks preventing migration of terrestrial broadcasters from analogue to digital in order to realise the digital dividend;*
- *the re-allocation and assignment of broadband spectrum, taking into consideration job creation, small business development, national empowerment and the promotion of NDP goals;*

- *approval of spectrum-sharing between spectrum licensees and across services by the Authority in support of efficient use of spectrum and where it does not impact negatively on competition;*
- *the enabling of dynamic spectrum allocation; and*
- *ensuring sufficient spectrum for extensive Wi-Fi and other public access technologies and services.*

*It is Government's objective to ensure that access to broadband for all is attained. Therefore, licensing of broadband spectrum should contribute to the realisation of the following public interest policy objectives:*

- *The achievement of universal access to broadband;*
- *Effective and efficient use of high demand spectrum;*
- *Adoption of open access principles;*
- *Safeguard the spectrum commons and spectrum required for public access technologies and services; and*
- *The promotion of broader national development goals of job creation, the development of small and medium-sized businesses and South African-owned and controlled companies, and the broad-based economic empowerment of historically-disadvantaged persons.*

*If required, as part of the strategy to meet national broadband requirements, sufficient spectrum will be set aside for the creation of a national Wireless Open Access Network (WOAN).*

Important policy decisions stemming from the Broadband Policy which affect spectrum are identified and listed below:

Issue	Action
Spectrum delay in allocating broadband spectrum,	ICASA to engage with the New Ministry
Appointment of a Broadband Council	The Minister of Communications appointed a Broadband Council to advise on the implementation of policy and emerging policy issues.

**Table 4: Policy decisions from the broadband policy**

The broadband policy also proposes a roadmap for public and private investment in the next generation broadband network. Part of this roadmap deals with a wireless broadband open access network and is highlighted below:

*The speed of deployment of a wireless network is a fundamental consideration to meet the immediate challenge of meeting the targets of this policy. The Ministerial policy directive will consider as a priority how best to ensure that the release of high demand spectrum fulfils these policy objectives and specifically*

*how best the application of open access principles to the assignment of broadband spectrum will be achieved. The outcome should:*

- *maximize the efficiency with which spectrum is used and minimize the costs of deployment of wireless broadband capacity with national coverage;*
- *provide a neutral, non-discriminatory platform or effectively-regulated, competing platforms providing wholesale access on which competition can take place between multiple service providers at the retail level; and*
- *pool and share existing network assets.*

*Enabling conditions for a national wireless network in the high demand bands are:*

- *access to a portfolio of spectrum that includes adequate and sufficient capacity to be able to provide both capacity and coverage efficiently and economically from dense urban to rural areas;*
- *use of existing facilities wherever possible (e.g. base station locations, fibre links for backhaul and long distance connectivity) to minimize its costs through infrastructure sharing;*
- *cost-based, non-discriminatory access regime for service providers, allowing them to compete fairly in the market and recoup their investments; and*
- *spectrum allocation that is apportioned to ensure the viability of possible new entrants in a fair, competitive environment, whilst encouraging competition and taking account of the broader interests of existing licence holders.*

*Key success factor:*

- *In an environment in which the level of Government's direct financial contributions are constrained, attracting enough investment to deploy the network/s and the use or sharing of existing facilities to minimize the deployment costs;*
- *Realistic coverage targets so the costs do not balloon out of control relative to any conceivable revenue stream;*
- *Pricing incentives to attract users;*
- *Support from the highest levels of Government;*
- *Long term financial horizon for return on investment; and*
- *Assignment of adequate spectrum to ensure the viability of new entrants while advancing industry competitiveness in infrastructure provision.*

#### **5.4 RECOMMENDATION ITU-R M.2083-0.**

This document describe the IMT Vision – Framework and overall objectives of the future development of IMT for 2020 and beyond. South Africa need to look in detail into this recommendation of which a copy is included in Appendix H to this document. **Global Trends for IMT**

## 5.5 Global assignment objectives for IMT

In planning the implementation of IMT, the following objectives are desirable to:

- ensure that frequency arrangements for the implementation of IMT have longevity, yet allow for the evolution of technology;
- facilitate the deployment of IMT, subject to market considerations and facilitate the development and growth of IMT;
- minimise the impact on other systems and services within, and adjacent to, the bands identified for IMT;
- facilitate worldwide roaming of IMT terminals;
- integrate the terrestrial and satellite components of IMT efficiently;
- optimise the efficiency of spectrum utilisation within the bands identified for IMT;
- enable the possibility of competition;
- facilitate the deployment and use of IMT, including fixed and other special applications in developing countries and in sparsely-populated areas;
- accommodate various types of traffic and traffic mixes;
- facilitate the continuing worldwide development of equipment standards;
- facilitate access to services globally within the framework of IMT;
- minimise terminal costs, size and power consumption, where appropriate and consistent with other requirements;
- facilitate the evolution of pre-IMT-2000 systems to any of the IMT terrestrial radio interfaces and to facilitate the ongoing evolution of the IMT systems themselves;
- afford flexibility to administrations, as the identification of several bands for IMT allows administrations to choose the best band or parts of bands for their circumstances;
- facilitate determination, at a national level, of how much spectrum to make available for IMT from within the identified bands;
- facilitate determination of the timing of availability and use of the bands identified for IMT, in order to meet particular user demand and other national considerations;
- facilitate development of transition plans tailored to the evolution of existing systems;
- have the ability, for the identified bands based on national utilisation plans, to be used by all services having allocations in those bands.

The following guiding principles have been applied in determining frequency arrangements:

- harmonisation;
- technical considerations; and
- spectrum efficiency.

## **5.6 IMT and Long Term Evolution (LTE)**

The number of IMT frequency bands has increased significantly in the last several years with the progress of the ITU's IMT spectrum planning.

The potential IMT technologies are LTE, LTE-advanced and WiMAX, with a clear trend towards LTE both from the point of view of the available ecosystem and the choices made by operators.

## **5.7 LTE - paired and unpaired spectrum (FDD and TDD)**

### **5.7.1 FDD and TDD trends**

In the past, the majority of bands were assigned to FDD, with limited TDD spectrum in between the FDD assigned sub-bands or in higher ranges. Recently, the amount of spectrum assigned for TDD has increased, however, on the whole, there is still a gap between TDD and FDD, and there is still relatively little spectrum for TDD in lower frequency bands.

A key requirement for the future is for chipsets and terminals to support multi-band frequencies to meet the requirements of global frequency distribution. At the same time, to achieve economies of scale and global roaming, it will also be required for terminals to support multi-mode, especially LTE FDD and TDD. The technologies for LTE TDD multi-mode, multi-band Smart phones and multi-band LTE TDD dongles and CPEs are maturing and increasingly becoming commercially available.

The majority of assigned spectrum is paired FDD leading to the establishment of a complete and end-to-end industry chain involving widespread participation of global industries and highly matured products including system equipment, chipsets, user devices and test instruments. Currently 288 FDD networks are in commercial operation worldwide, (as compared with 36 TDD networks, although both are steadily increasing).

However, LTE TDD is already a mainstream technology supported by a well-established and fast-growing ecosystem. The number of operators deploying commercial LTE TDD systems, or engaged in trials and studies, is steadily increasing. For example, China Mobile is building the world's largest LTE TDD network.

While a large amount of low and medium frequency spectrum (generally suitable for wide coverage) has been allocated for FDD, the same cannot be said for TDD. There is a general trend for higher downlink provision; therefore the high downlink capacity densities which can be achieved by the larger downlink bandwidth available via TDD bandwidth, favour schemes at higher frequencies resulting in lower coverage cell areas and a consequent larger number of sites. This is the reason why 100 MHz bandwidth in 2300 MHz and 200 MHz bandwidth in 3400-3600 MHz has been allocated to TDD.

The LTE TDD terminal has evolved from a data-only terminal to a mobile terminal. It is expected that during 2014, LTE TDD smart phones will be available commercially on a large scale.

### 5.7.2 Flexible spectrum utilisation

Unpaired spectrum is much easier to release than paired spectrum. This benefit is becoming increasingly important as the globally available supply of spectrum falls, meaning the process of releasing new spectrum can be greatly accelerated by designating it as unpaired TDD.

Capacity benefits of unpaired spectrum are realised in the size of available TDD spectrum bands often allocated in large blocks. From a capacity perspective, this is an advantage over the typical 2×10 MHz configuration found in paired FDD spectrum. The current LTE bandwidth limit is 20 MHz and most equipment could spread power of ~80 W over ~40 MHz bandwidth depending on the frequency range. Therefore, 40 MHz assignments per operator might be cost-efficient, but this would be hard to assign in multi-operator environments. Therefore, it might be advantageous to have one wholesale operator or active Radio Access Network (RAN) sharing involving a number of mobile network operators in TDD spectrum.

In addition, the unpaired TDD spectrum band should not be fragmented with FDD spectrum due to the requirement of a guard band of ~5 MHz between the bands, which is generally taken from the TDD spectrum. Instead of guard bands, the boundary ranges might be used indoors only due to higher penetration losses. Special spectrum assignments for TDD could be used within the duplex gap larger than 15 MHz.

### 5.7.3 High spectral efficiency for adaptive uplink /downlink configuration

The asymmetric nature of TDD brings a number of advantages. One key advantage of this is the flexibility it allows in the adjustment of the downlink and uplink resource ratios. Commonly employed, downlink-to-uplink ratios are 8:1, 3:1, 2:2 and 1:3 and the heavily downlink-oriented configuration fits perfectly with current user behaviour, where streaming and downloads take up a high proportion of downlink resources.

Cisco predicts a dramatic increase in the downlink-centric applications. Based on this prediction, the downlink-centric application will generate more than 90% of the mobile traffic in 2017. Therefore, unpaired spectrum is best suited for the user behaviour of the mobile broadband era.

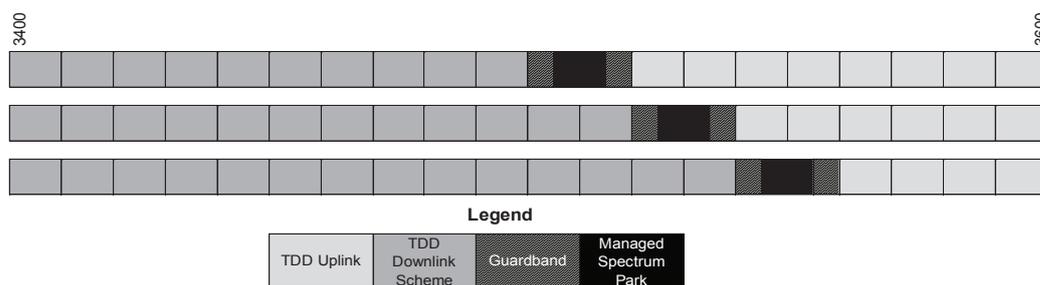
Unpaired LTE is also optimally suited to cover future M2M and 'Internet of Things' demands which will be predominantly uplink-oriented. Also, video uploads from closed-circuit television (CCTV) result in a higher uplink bandwidth capacity requirement which have to be taken into account in specialised schemes.

Due to desensitisation of receivers in case of transmission into neighbouring bands, it is not possible to have different unpaired spectrum configuration schemes in the same band (without guard bands - which are spectrum-inefficient). Therefore, it is expected to have different bands for uplink-oriented and downlink-oriented configurations, e.g., the 450 MHz band, 700 MHz band, 2100 MHz band or 2600 MHz band with reduced bandwidths of maximum 40 MHz for uplink while the 2300 MHz band and 3500 MHz band have 100-200 MHz bandwidths for downlink. In the 3400-3600 MHz bands, there is also a possible differentiation in two sub-bands which might be separated by a 5 MHz guard band.

In South Africa, the Authority is evaluating the concept of managed spectrum parks, which as a whole have to cater for protection with neighbour bands. Three potential solutions exist depending on uplink and downlink requirements within the 3400-3600 MHz band. The downlink schemes suffer from reduced uplink cell coverage required for reverse control channel communications; therefore, downlink should be placed in the lower parts of this band while the uplink schemes are placed in the upper parts of the band. In general, higher demand can be foreseen for downlink; therefore, the spectrum also favours downlink schemes, e.g., 140 MHz for downlink vs. 40 MHz for uplink. Some part of the spectrum might only be used indoors or, with reduced transmission powers, to protect the other unpaired TDD schemes. The minimum guard band of 5 MHz is increased (just as an example) to 20 MHz for any managed spectrum park concept usage (noting that the ultimate location of the guard band would be determined in the event managed spectrum parks are introduced<sup>5</sup>).

The IMT3500 band decision for downlink or uplink configurations could be done later based on the traffic expectations at that time. The Authority intends to assign special uplink or downlink configurations to minimize guard bands. The operators might decide on their individual business cases.

The Block Edge Masks might be investigated in order to allow unsynchronized usage or to minimize the need for guard bands. The managed spectrum park concept should be decided later as well.



**Figure 3: Potential unpaired LTE assignments in 3400-3600 MHz**

*According to downlink or uplink schemes; potential managed spectrum park realisation in the guard band*

**5.7.4 Deployment issues**

One advantage of unpaired over paired spectrum has been that operators have historically been able to pay less for paired spectrum than unpaired spectrum (although this is changing).

<sup>5</sup> Note that beyond the example given here, managed spectrum parks could also be introduced in TDD bands within 2100 MHz.

However, to cover the same area with the same uplink performance, the TDD systems in downlink-oriented configurations need more sites than FDD because the limiting terminal power and the reduced transmission time decrease the coverage in uplink. Therefore, in TDD, a higher number of antennas are used in higher bands for diversity gains or multiple-input and multiple-output (MIMO) usage to compensate uplink performance deficits.

Or to put it another way, for a lower band such as the 450 MHz band good propagation conditions together with uplink-oriented configuration schemes are quite beneficial, so no higher order MIMO or beamforming is needed. In higher bands, such as the 3500 MHz band with poor propagation and downlink-oriented configuration, the cell sizes decrease significantly. Higher order beamforming / MIMO would be more needed, especially due to reduced antenna dimension size. In higher bands, the reduced cell size is generally not an issue, because deployments will be more capacity-oriented and capacity density is higher.

### 5.7.5 Interference suppression

Thanks to uplink and downlink channel reciprocity (ensured by the fact that the same portion of spectrum is used in both link directions); TDD technology has unique co-ordination abilities, such as beamforming, which improves system performance by utilising channel-state information to achieve transmit-array gain. Results show that, across the 3GPP standard in Release 8~10, single-layer, dual-layer and multi-user beamforming can generate a cell throughput gain of 15%. Adoption of beamforming and Coordinated Multi-Points (CoMP), called 'Co-ordinated beamforming' (CBF), can further enhance network performance because interference is mitigated between inter-eNodeBs.

### 5.8 Future system requirements for IMT / LTE & IMT2020 networks

According to the 3GPP, in LTE-Advanced, the focus is on higher capacity. The motivation for further developing LTE towards LTE-Advanced is to provide higher bit-rates in a cost-efficient manner and, fulfil the requirements set by the ITU for IMT Advanced as shown below:

- Increased peak data rate, downlink 3 Gbps, uplink 1.5 Gbps;
- Higher spectral efficiency, from a maximum of 16 bps/Hz in Release 8 (R8) to 30 bps/Hz in Release 10 (R10);
- Increased number of simultaneously-active subscribers;
- Improved performance at cell edges, e.g. for downlink 2x2 MIMO > 2.40 bps/Hz/cell; and
- Enabled Carrier Aggregation (CA), enhanced use of multi-antenna techniques and support for Relay Nodes (RN).

As LTE-Advanced continues to evolve, new CA configurations are added and new features are introduced in upcoming releases of the 3GPP specifications, such as Coordinated Multi Point (CoMP) introduced in Release 11 (R11).

The main reason for introducing CoMP is to improve network performance at cell edges.

IMT2020 standards are not yet finalised and the most advanced services are still in the pre-commercial phase. In fact, we probably won't see any commercial IMT2020 services before at least 2020, so it's impossible to say definitively what speeds will be reachable.

However, they will be significantly ahead of what's currently available with 4G. A minimum expectation for commercial IMT2020 services is for them to be tens of times faster than 4G, which would make even current broadband speeds look sluggish in comparison.

And while the exact speeds are yet to be finalised, early tests are already achieving remarkable results and these give us a good idea of what we can expect when [IMT2020](#) finally launches.

#### DOWNLOAD SPEEDS

The Next Generation Mobile Networks alliance states that for something to be considered IMT2020 it must offer data rates of several tens of megabits per second to tens of thousands of users simultaneously, while a minimum of 1 gigabit per second should be offered to tens of workers on the same office floor.

That's all a little vague, but the signs are promising. Some estimates put download speeds at up to **1000 times faster than 4G**, potentially exceeding 10Gbps. That would enable you to download an entire HD film in less than a second.

Network Type	Download Speeds
3G Network	384Kbps
4G Network	100Mbps
IMT2020 Network	1-10Gbps (theoretical)

Some sources, such as The Korea Times, even reckon IMT2020 networks will be capable of transmitting data at up to 20Gbps. To put that in context, while LTE-A can theoretically achieve speeds of around 300Mbps, you're not likely to get more than around 42Mbps in reality and standard 4G has real world speeds of just around 14Mbps.

Nokia's thoughts are similarly ambitious, with the company suggesting that you'll be able to stream 8K video in 3D over IMT2020.

Some estimates are more conservative though, but even the most conservative estimates put it at several dozen times faster than 4G.

Already IMT2020 trials are taking place, with Verizon in the US for example showing that its technology can achieve download speeds of 30-50 times faster than 4G. That would enable you to download a full movie in around 15 seconds, versus around 6 minutes on 4G.

The IMT2020 Innovation Centre has achieved even higher speeds in test environments, of around 1 terabit per second (1Tbps). That's roughly 65,000 times faster than typical 4G speeds and would enable you to download a file around 100 times larger than a full movie in just 3 seconds.

However, that's unlikely to be replicated in the real world. Indeed, in an actual-use environment (rather than a specially built test site), DOCOMO has recorded speeds in excess of 2Gbps, which is still extremely impressive. Closer to home, EE has begun trialling IMT2020 speeds of 1Gbps.

Ofcom for its part sees IMT2020 as achieving real world speeds of between 10 and 50Gbps, which is insanely fast whichever end of the scale it ends up at. In short, it's clear that it will leave 4G in its dust.

#### UPLOAD SPEEDS

Estimates of upload speeds are so far vaguer than those for IMT2020 download speeds, but the consensus is that you'll be able to upload data at many gigabits per second, possibly up to 10Gbps.

The exact upload speed will of course be tied to the download speed though and whatever download speed is offered uploads will be slower, likely coming in at no more than half the download speed.

#### LATENCY TIME

Network Type	Milliseconds (ms)
3G Network	120ms (actual)
4G Network	45ms (actual)
IMT2020 Network	1ms (theoretical)

Latency is how long it takes the network to respond to a request, which could be you trying to play a song or video or load a website for example. It has to respond before it even starts loading, which can lead to minor but perceptible lag and is especially problematic for online games, as each input has a new response time.

Over 3G those response times are typically around 120 milliseconds and on 4G they're less than half that at between roughly 15 and 60 milliseconds. The theory is that on IMT2020 response times will drop to just 1 millisecond, which will be completely imperceptible.

That will help with all the things we use data for now, but more than that it's necessary for new mobile data uses, such as self-driving cars, which need to respond to inputs and changes in situation immediately.

That will help with all the things we use data for now, but more than that it's necessary for new mobile data uses, such as self-driving cars, which need to respond to inputs and changes in situation immediately.

## 6 Forecasts for South Africa

### 6.1 Forecasts of overall IMT demand

In Report ITU-R M.2290-0 (12/2013) future spectrum requirements are estimated for terrestrial IMT. From this report it is clear that the growth in mobile traffic is expected to increase over the next few years. In order to reflect the increasing traffic demand, new, updated market attributes for the lower user density and higher user density settings are provided.

In ‘Report ITU-R M.2078-0 (2006), Estimated spectrum bandwidth requirements for the future development of IMT-2000 and IMT-Advanced’, the new traffic volumes for the spectrum requirement estimations in 2020 are derived by considering traffic growth ratios from the market studies presented in ‘Report ITU-R M.2243-0 (2011) Assessment of the global mobile broadband deployments and forecasts for International Mobile Telecommunications’. The report relies on several mobile traffic forecasts beyond 2010, provided by different organisations. Most of these forecasts consider mobile traffic in the years 2011-2015, while only one makes projections for the year 2020, anticipating a 33-fold traffic growth ratio in 2020 compared with 2010.

It should be noted that the 2nd-order polynomial function estimates conservative traffic growth, while the 3rd and 4th-order polynomial functions provide more aggressive growth corresponding to approximately 40 to 170-fold and 80 to 240-fold growth ratios, respectively.

The spectrum requirements are distributed and calculated for Radio Access Technology Group 1 (RATG 1) (i.e. pre-IMT, IMT-2000 and its enhancements) and RATG 2 (i.e. IMT-Advanced) for the year 2020.

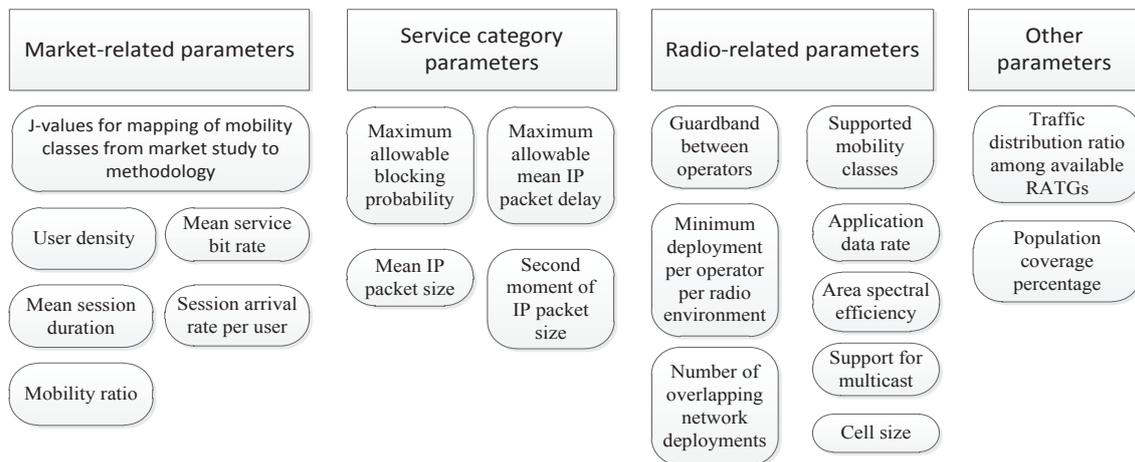


Figure 4: Input parameter overview for IMT spectrum demand estimation

The use of two market settings, lower and higher user density settings, allows for modelling of the differences in markets between different countries. The two settings will

result in two final spectrum requirements for IMT systems and the needs of the different countries could lie between these two extremes.

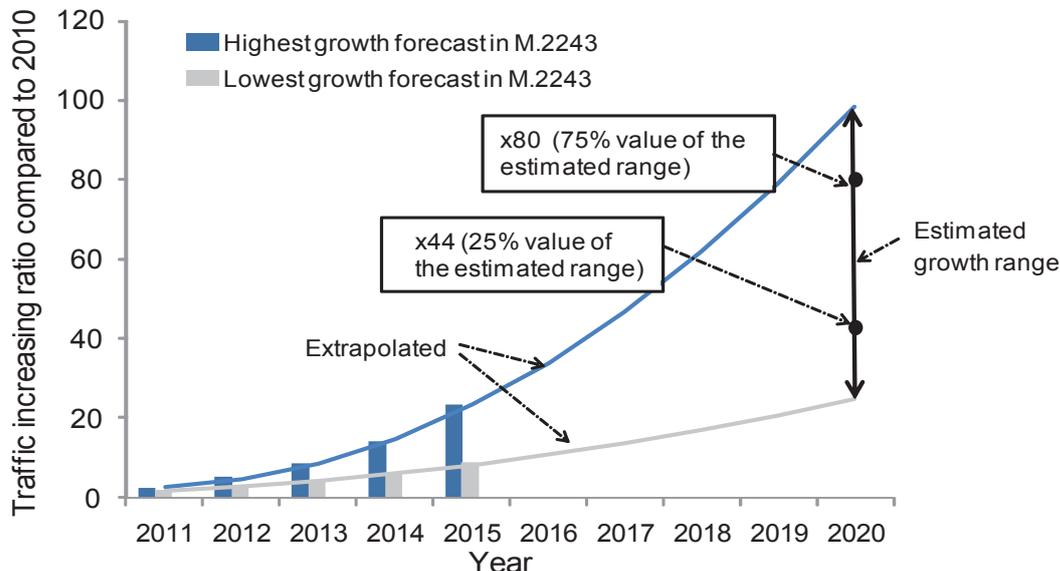


Figure 5: Mobile traffic forecasts toward 2020 by extrapolation (Source: ITU)

Table 5 depicts the Radio Parameters for RATG 1 (pre-IMT2000, IMT2000) whilst Table 6: Radio parameters for RATG 2 (IMT advanced)

In Table 7 the spectral efficiency parameters for RATG1 and RATG 2 (IMT-Advanced) are shown, indicating spectral densities, which generate the capabilities of the networks. Based on these (and further parameters) the overall spectrum demand is estimated and provided in Table 8.

The spectrum efficiency values are to be used only for spectrum requirement estimations given in 'Recommendation ITU-R M.1768-1 (04/13) 'Methodology for calculation of spectrum requirements for the terrestrial component of International Mobile Telecommunications'. These values are based on a full buffer traffic model in accordance with 'Report ITU-R M.2135-1 (2009) Guidelines for evaluation of radio interface technologies for IMT-Advanced'. In practice, such spectrum efficiency values are unlikely to be achieved due to the random nature of traffic, errors caused by radio channel conditions or packet losses. This means, if too high capacity assumptions are used, this will lead to lower spectrum demands. On the contrary, not all applications need 20 Mbps. Therefore, the results given in Table 8 should be used as a general indication of how much spectrum is needed, even if it might be in 2025 instead of 2020.

Parameters	Macro cell	Micro cell	Pico cell	Hot spot
Application data rate (Mbps)	20	40	40	40
Supported mobility classes	Stationary/ pedestrian, low, high	Stationary/ pedestrian, low	Stationary/ pedestrian	Stationary/ pedestrian
Guard band between operators (MHz)	0			
Minimum deployment per operator per radio environment (MHz)	20	20	20	20
Granularity of deployment per operator per radio environment (MHz)	20	20	20	20
Support for multicast	Yes			
Number of overlapping network deployment	1			

Table 5: Radio parameters for RATG 1 (pre-IMT2000, IMT2000):

Parameters	Macro cell	Micro cell	Pico cell	Hot spot
Application data rate (Mbps)	50	100	1 000	1 000
Supported mobility classes	Stationary/ pedestrian, low, high	Stationary/ pedestrian, low	Stationary/ pedestrian	Stationary/ pedestrian
Guard band between operators (MHz)	0			
Support for multicast	Yes			
Minimum deployment per operator per radio environment (MHz)	20	20	120	120
Granularity of deployment per operator per radio environment (MHz)	20	20	20	20
Number of overlapping network deployment	1			

Table 6: Radio parameters for RATG 2 (IMT advanced)

RATG1: Unicast area spectral efficiency (bit/s/Hz/cell)				
Tele density	Radio environments			
	Macro cell	Micro cell	Pico cell	Hot spot
Dense urban	2	4	4	4
Suburban	2	4	4	4
Rural	2	4	4	4

RATG2: Unicast area spectral efficiency (bit/s/Hz/cell)				
Tele density	Radio environments			
	Macro cell	Micro cell	Pico cell	Hot spot
Dense urban	4	5	5	7.3
Suburban	4	5	5	7.3
Rural	4	5	5	7.3
Dense urban	4	5	5	7.3

Table 7: Spectral efficiency parameters for RATG1 and RATG 2 (IMT advanced)

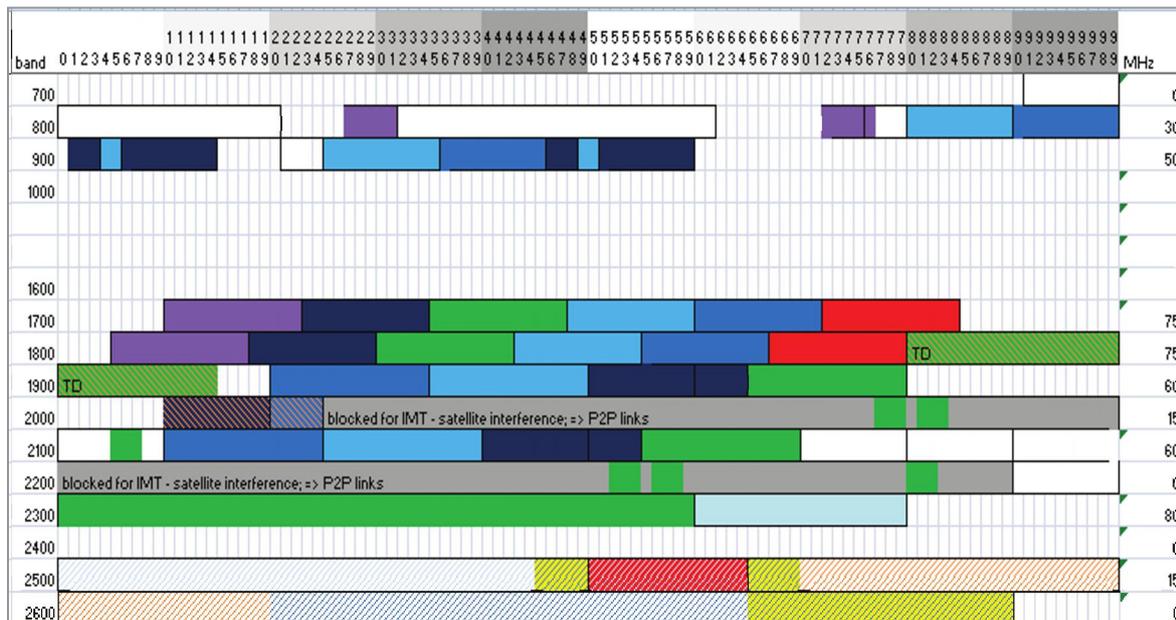
	Total spectrum requirements for RATG 1	Total spectrum requirements for RATG 2	Total spectrum requirements RATGs 1 and 2
Lower user density settings	440 MHz	900 MHz	1 340 MHz
Higher user density settings	540 MHz	1 420 MHz	1 960 MHz

**Table 8: Total spectrum requirements for both RATG 1 (pre-IMT2000, IMT2000) and RATG 2 (IMT advanced) in the year 2020**

In South Africa, 380 MHz are currently used for IMT (including UMTS and LTE) and 80 MHz for GSM. In 2020, more than 1011-1036 MHz could be used for IMT (incl. GSM) depending on the decisions on 700-800 MHz band usage.

This overview includes additional spectrum of 120 MHz in the 694-862 MHz band, 190 MHz in the 2500-2690 MHz band and 200 MHz in the 3400-3600 MHz band. The potential assignments that could be made in the short term within the years 2015-2020 provide for more than the current spectrum usage (510 MHz > 380 MHz) for a traffic ~5 times than today (Figure 5).

Further spectrum beyond 3600 MHz was not considered herein, but might be available for IMT (3600-4200 MHz) or Wi-Fi applications (e.g. within 5100-5900 MHz). As a result, potential gaps between the assumptions within Table 8 could be closed from 2020 onwards with this additional spectrum.



**Figure 6: Current South Africa IMT assignments summarised in Table 9**

IMT spectrum (incl GSM)																	
MHz	400	700	800	900	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	3400	3500	sum
2014	0	0	30	50	75	75	60	15	60	0	80	0	15	0	0	0	<b>460</b>
2020	15	87	69	50	75	75	60	15	60	0	100	15	100	90	100	100	<b>1011</b>

**Table 9: South Africa IMT spectrum assignments**

These figures should not be taken into account in the evaluation of special spectrum use or prioritisation of different bands. 10-15 MHz in 450-470 MHz band does not give sufficient capacity compared to the overall amount of spectrum, but it has enormous benefits in terms of coverage and therefore reduces the level of required capital investment compared to the (rural) rollout of 10-15 MHz in 2600 MHz or 3500 MHz bands. For the SA Connect targets, the 450-470 MHz spectrum may be essential in order to cover a greater population in rural and commercially, less attractive areas. Compared with the 450 MHz band, 55-85% more sites are needed in 700 MHz, and even more in higher bands. It is of no value to compare the deployment costs of a 3500 MHz network in the same rural areas with a 450 MHz network because this scenario is unrealistic. If, in rural areas, the demands increase steadily, (with higher smart phone penetration for example), operators could reuse the existing 450 MHz sites for 700-3500 MHz cells and add some hotspot sites. The coverage improvement reduces with larger separation of the coverage areas, consequently in the case of largely separated populations, each location may need its own base station independent from the band - such deployments would be quite expensive.

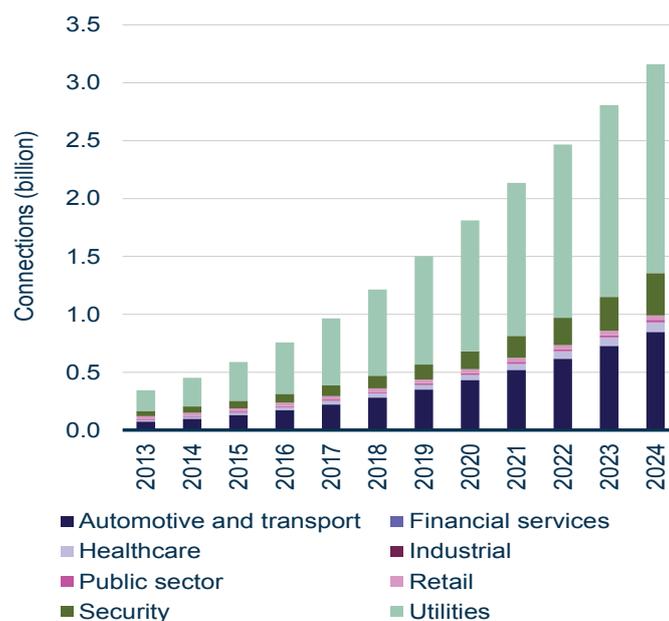
### 6.1.1 Forecast of overall M2M demand

Operators are investing in new digital services, such as the 'Internet of Things' (IoT) and M2M, in order to compensate for declining revenue from traditional services. M2M represents a relatively small opportunity in terms of revenue, but one that is growing significantly and which opens up a multitude of new applications and services. Operators have been particularly interested in servicing the demand for M2M solutions and this market is growing.

Connectivity is pivotal, but subject to intense competition. Connectivity underpins M2M and IoT services but it is subject to competition from a large number of players providing fixed and mobile connectivity as well as a growing number of short-range technologies. Operators have recognised this trend and some are positioning themselves in other key areas of the value chain in order to provide an end-to-end service to customers.

- Potential M2M solutions:
- Utilities - metering applications especially in the energy sector;
- Security - alarm and sensor applications;
- Government: surveillance, police and fire fighter response;
- Healthcare - monitoring applications;
- Automotive and transport - connected car applications, fleet tracking;
- Industrial - monitoring applications; and

- Retail - Point-of-Sale (PoS) terminals  
According to one research forecast report<sup>6</sup>, the future worldwide development of M2M application might look like the following:
- At the end of 2013, there were approximately 0.3 billion M2M device connections worldwide
- It is forecast that there will be an increase to 3.4 billion device connections by 2024, indicating a CAGR of 28% over the 10-year period;
- Utilities is both the biggest and the fastest-growing sector in terms of M2M connections; it will account for 59% of all M2M device connections by 2024
- The second fastest growing sector is the automotive and transport sector; and by 2024, overall M2M device connections from this sector are expected to be 26% of the overall device connections
- Security sector solutions are expected to make up 10% of overall M2M device connections by 2024
- The remaining 5% of M2M device connections in 2024 will be accounted for by the healthcare, industrial, retail, financial services and public sectors



**Figure 7: M2M device connections by sector, worldwide, 2013–2024**

(Source: Analysis Mason, 2014)

<sup>6</sup> Analysys Mason Research Forecast Report – ‘M2M device connections and revenue: worldwide forecast 2014–2024’ July 2014 – updated from the draft IMT Roadmap based on feedback

## 6.2 IMT Demand for South Africa

The demand for high-speed Internet capabilities, such as those offered by IMT, is growing in South Africa. The targets for download speed outlined in the National Broadband Policy are also a factor that will drive up the demand for IMT.

One area of growth is in the uptake of devices with LTE capabilities. According to the Ovum Small and Medium Enterprise (SME) Insights Survey conducted early in 2013, 51% of South African SMEs provide smart phones to their employees, while 62% supply tablet devices. Regular or feature phones accounted for 31% of responses and dongles or laptops with integrated cellular connectivity accounting for 23%.

Evidently, South African SMEs see the whole range of mobile communications services as important to their businesses but place a particular value on high-end devices.

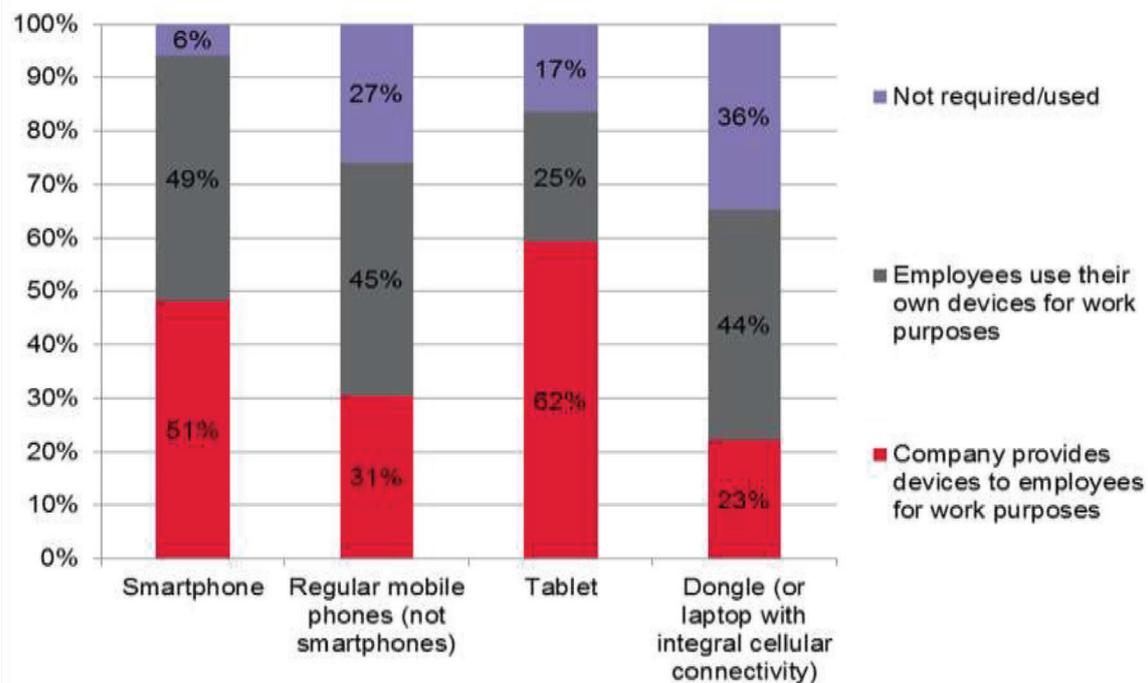


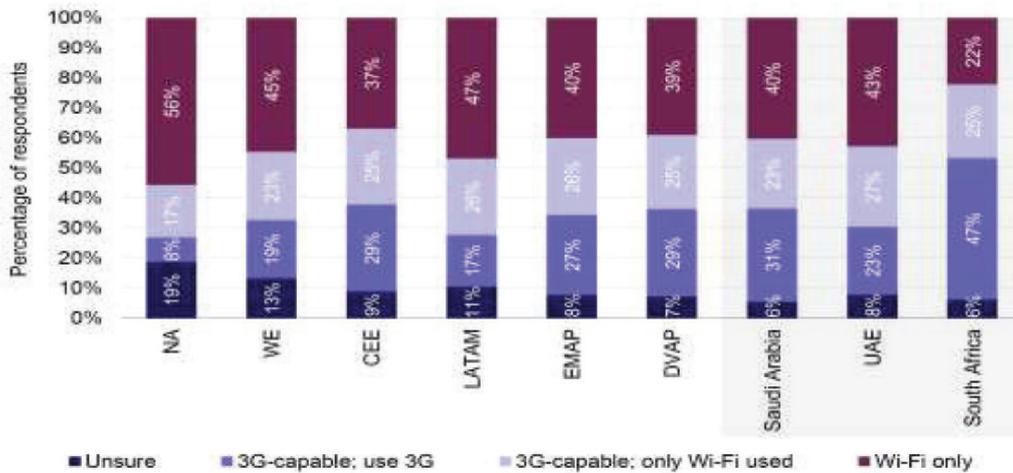
Figure 8: South Africans favour tablets and smart phones

(Source: Ovum)

In a comment article by Analysys Mason (Tablet Survey highlights South Africa's demand for Tablet Cellular connectivity and the impact of 18-24 year old users), South Africa has been proven to be a particularly 'high-mobility' market for tablet users.

According to the survey, only 34% of tablet users in this market use tablets exclusively at home, compared with the 66% who use them partially or exclusively out of the home, while on the move.

Results from the survey also show that the number of tablet users connecting to the cellular network directly from their tablets is already relatively high in South Africa, compared with other countries they surveyed worldwide. Some 47% of South African respondents had a 3G/4G-connectable tablet and used it on the cellular network.



1 Question: "Is your tablet 3G/4G compatible, or is it only able to support Wi-Fi connectivity?" Key: CEE = Central and Eastern Europe; DVAP = Developed Asia-Pacific; EMAP = Emerging Asia-Pacific; LATAM = Latin America; NA = North America; WE = Western Europe.

**Figure 9: Tablet respondents by type of connectivity enabled on their device, by country in MEA and by region**

(Source: Analysys Mason)

A South African telecoms market report by Analysys Mason indicates over 11 million smart phone connections and over 4 million mobile broadband subscribers by the 3<sup>rd</sup> quarter of 2013. This growth in subscribers coincides with a commercial launch of LTE by mobile network operators between late 2012 and early 2013, which again shows the demand for LTE and IMT services is growing.

		2009	2010	2011	2012	September 2013
<b>Mobile</b>	<b>Mobile subscribers (active SIMs)</b>	46 861 000	49 475 000	59 015 000	66 610 000	69 272 000
	Mobile penetration (percentage of population)	91.6 %	95.7 %	113.1 %	126.7 %	131.0 %
	Prepaid subscribers as a percentage of mobile subscribers	83.2 %	81.5 %	82.1 %	82.7 %	82.2 %
	3G subscribers as a percentage of mobile subscribers	10.7 %	14.8 %	20.0 %	25.6 %	28.9 %
	Mobile broadband subscribers (mid and large screen)	1 272 000	2 053 000	2 743 000	3 589 000	4 170 000

Number of smartphone connections	2 049 000	3 345 000	5 969 000	9 138 000	11 184 000
<b>Mobile ARPU (ZAR per month)</b>	146.43	150.61	140.98	126.58	110.46
USD per month	17.66	20.67	19.61	15.52	13.54
<b>Mobile MoU (minutes per month)</b>	64	71	77	74	73

**Table 10: Telecoms KPIs, South Africa, 2009-3Q 2013**

*(Source: Analysys Mason, Economist Intelligence Unit for nominal GDP per capita, 2014)*

ICASA has released its latest State of the ICT Sector in South Africa report, detailing the trends in the country's mobile data sector.

ICASA is responsible for the collection of statistics to monitor and report on the progress of ICT in the country, and monitors aspects such as smartphone adoption and mobile data usage.

"The questionnaires used to collect the relevant information were customised for the three sectors that ICASA regulates, namely telecommunications, broadcasting and postal," said ICASA.

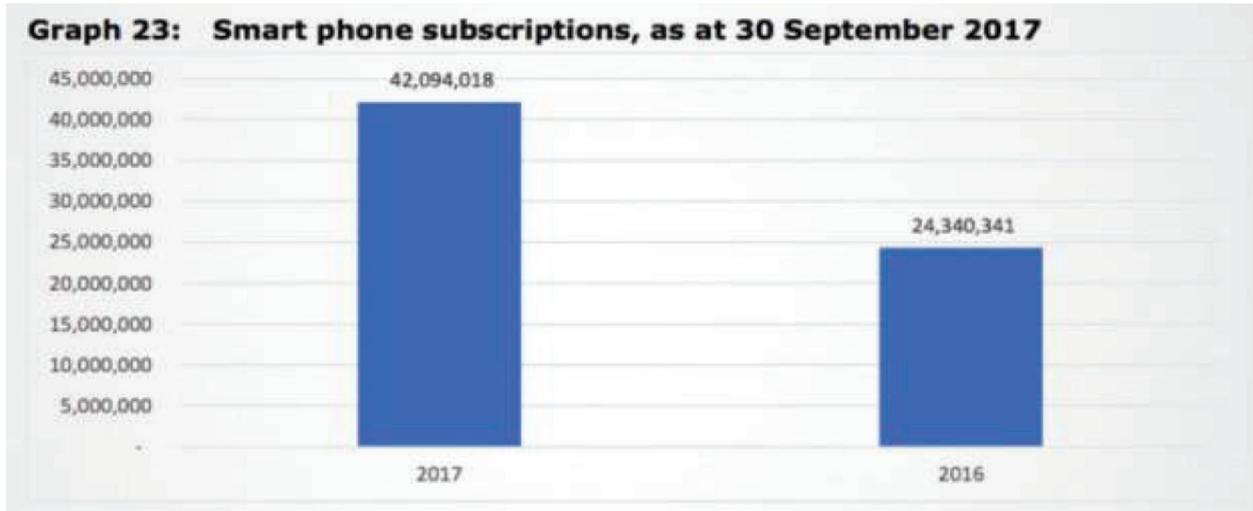
Responses were received from 84 Electronic Communication Services and Electronic Communication Network Services licensees, which was "a significant increase of 82.61%" compared to the previous reporting period.

The report showed that mobile data usage and smartphone adoption are on the rise in South Africa, with a big jump in both categories from 2016 to 2017 – measured at 30 September 2017.

### **Smartphone subscriptions**

ICASA defined a smartphone as a mobile phone with advanced features, Wi-Fi connectivity, web browsing capabilities, a high-resolution touchscreen display, and the ability to use apps.

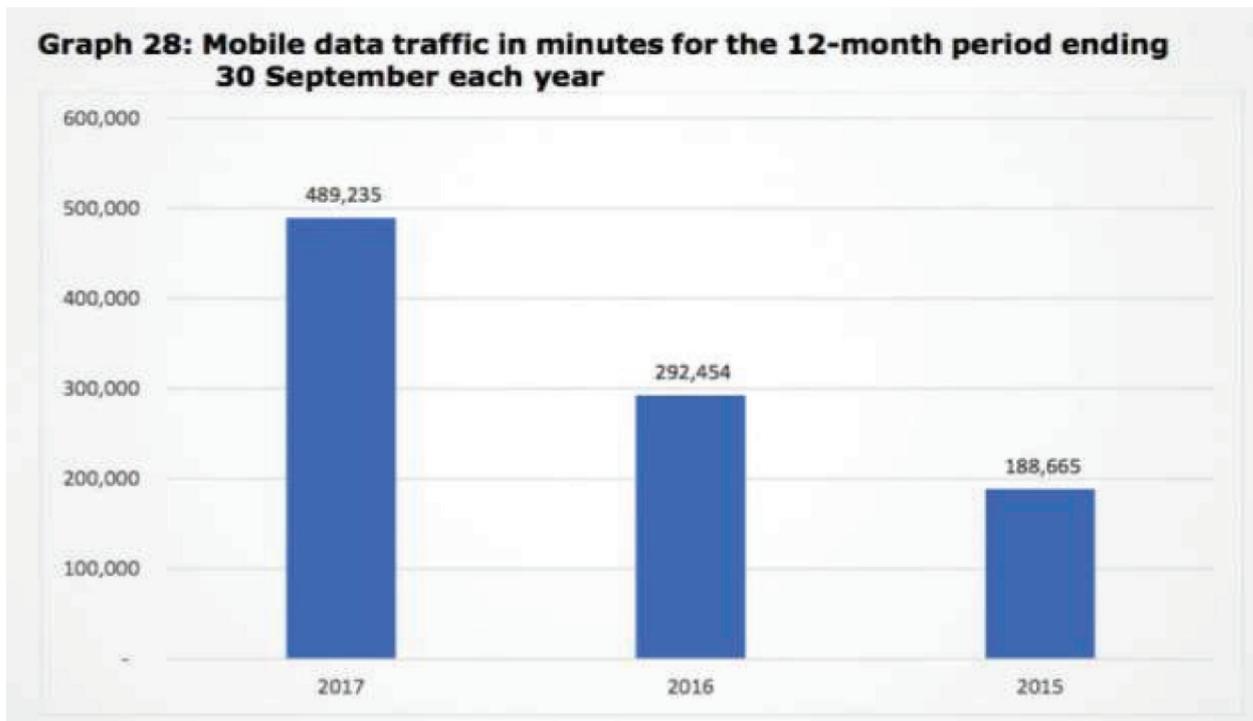
Its data shows that smartphone subscriptions increased by 72.9% from 2016 to 2017, as detailed in the graph below.



### Mobile data traffic

Mobile data traffic also experienced a sharp increase, increasing by 67.3% from 2016 to 2017.

Over the past three years, mobile data traffic increased by 61.0% in South Africa, said ICASA.

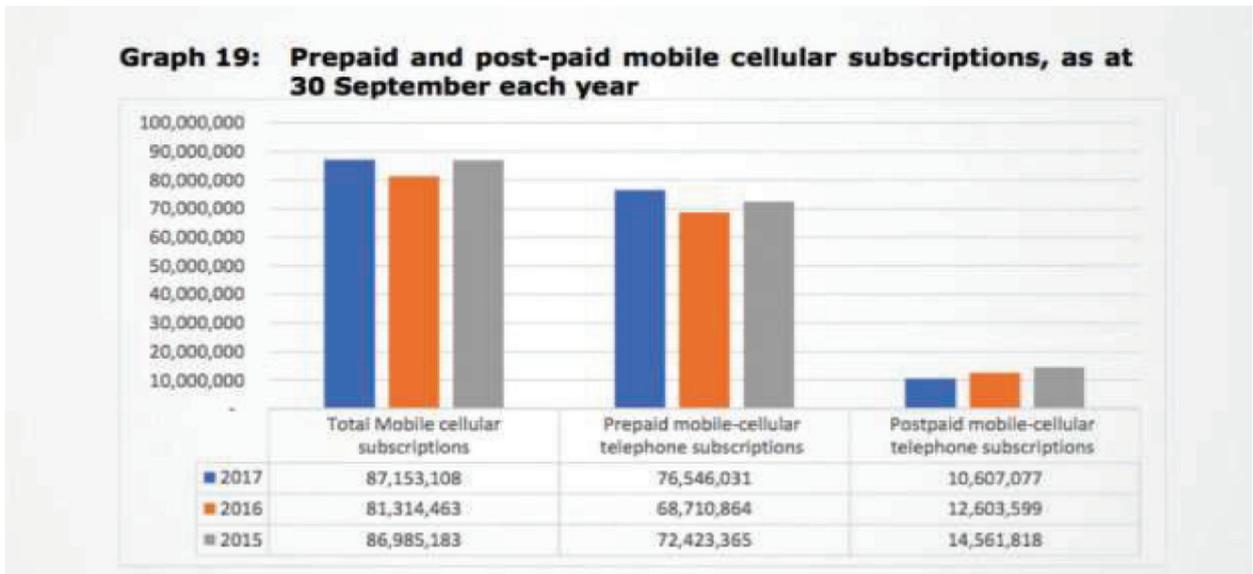


### Cellular subscriptions

Cellular subscriptions in the country were relatively flat overall, reaching just over 87 million as at 30 September 2017.

What is interesting to note is the steady decline in local post-paid mobile users over the past three years.

ICASA added that certain mobile networks count a user as someone who has not deactivated their SIM in a 90-day period – hence the subscriber number being higher than the country’s population.



## 7 IMT Roadmap

The objective of this section is to present the Authority's proposals with regard to radio spectrum plans for broadband services in specific bands.

First, we describe the importance of aligning with IMT in South Africa. Next, we identify the IMT bands targeted in this radio spectrum roadmap. Lastly, we lay out the proposed roadmap for each of the IMT bands considered.

The proposed roadmap for each band is structured to provide useful background information, the options under consideration and, in some cases, the Authority's proposal for the band. For the 450-470 MHz and 876-960 MHz bands, the Authority provides additional feasibility studies for the migrations in the band.

### 7.1 The IMT framework

IMT is the established framework for international alignment of specifications related to mobile technologies. This section presents the IMT specifications used as a basis for the spectrum roadmap and presents the bands considered currently in South Africa.

#### 7.1.1 What is IMT?

In this section, we provide a formal definition of IMT and focus on the most relevant aspect for the roadmap: frequency bands.

According to the ITU, IMT systems are *"mobile systems that provide access to a wide range of telecommunication services including advanced mobile services, supported by mobile and fixed networks, which are increasingly packet-based."*

Further, the ITU states that the key features of "IMT-compliant" technologies include:

- a high degree of commonality of functionality worldwide while retaining the flexibility to support a wide range of services and applications in a cost-efficient manner;
- compatibility of services within IMT and with fixed networks;
- capability of interworking with other radio access systems;
- high-quality, mobile services;
- user equipment suitable for worldwide use;
- user-friendly applications, services and equipment;
- worldwide roaming capability; and
- enhanced peak data rates to support advanced services and applications.

For the purposes of this report, it is assumed that stakeholders are aware that IMT specifications provide guidance on:

- the specifications that compliant technologies must meet in terms of data rate and mobility; and

- the spectrum bands targeted by the IMT specifications for the deployment of IMT-compatible technologies

The latest IMT specifications are IMT-2000 and IMT-Advanced. IMT-2000 defined the capabilities for so-called 'Third Generation' (3G) mobile communications technology. IMT-Advanced promises the next generation mobile network with high data rates, seamless connectivity and mobile communication within heterogeneous networks.

### **7.1.2 The rationale for alignment with IMT in South Africa**

The primary objective of IMT specifications is to provide a basis for harmonisation worldwide and reduce ecosystem fragmentation in several ways:

- In terms of the technological capability, IMT specifications provide a basis for standards development for systems, such as IEEE and 3GPP, to ensure that the technologies meet those requirements. In South Africa, the IMT specifications provide the Authority and the industry with benchmarks regarding the capabilities to be expected from upcoming technologies
- In terms of radio spectrum, IMT specifications provide a predictable basis on which to build a roadmap for the introduction of next-generation technologies. IMT specifications support the Authority in making radio spectrum available in a timely manner for the industry in South Africa.

South Africa stands to gain from adhering to a globally harmonised framework in the following areas:

- Economies of scale for standardised products (terminals and network equipment);
- Interoperability in the form of easy roaming and smooth, cross-border co-ordination;
- Predictability and stability for the mobile communications industry.

It is important to note that the adoption of IMT need not result unconditionally in the displacement of other existing uses of spectrum. In certain cases, radio spectrum sharing with other technologies is feasible. However, it is in South Africa's interest to adopt IMT specifications fully, wherever feasible, and to manage the IMT radio spectrum bands. In any case, the Authority performs feasibility studies in cases where the benefits of allocating spectrum exclusively to IMT services are not straightforward.

South Africa stands to gain from adhering to a globally harmonised framework for radio spectrum usage as is the case with the IMT framework. Spectrum harmonisation ensures:

- economies of scale for standardised products;
- smoother cross-border co-ordination; and
- easy roaming within the region where harmonisation is implemented.

In South Africa, it is important to align with IMT specifications in order to take advantage of worldwide standards, technologies and services.

In general, it is desirable to assign long-term IMT bands, so operators, network solution vendors and terminal manufactures have sufficient time to exploit synergies in harmonised

designs. Globally harmonised frequency arrangements in the bands identified for IMT will reduce the overall cost of IMT networks and terminals by providing economies of scale, and facilitating deployment and cross-border co-ordination, roaming, etc.

### 7.1.3 IMT bands previously identified

The following bands have been identified before by the ITU for use by IMT-compatible standards in the Radio Regulations (RR) "Edition of 2012".<sup>7</sup>

In the rest of this document, IMT designations of spectrum bands are used interchangeably with the actual frequency ranges. For instance, IMT450 refers to the frequency band extending from 450 MHz to 470 MHz.

IMT bands		Paired configuration (FDD)	Unpaired configuration (TDD)
IMT Designation	IMT Range		
IMT450	450-470 MHz	2×5 MHz	15 MHz
IMT700	694-790 (or 806) MHz	2×45 MHz or 2×30 MHz + 2×3 MHz	
IMT750	733-758 MHz		22 MHz (option 3 with 2×6 MHz guard bands) 25 MHz (option 2 with 2×5 MHz guard bands)
IMT800	791-862 MHz	2×30 MHz (reverse uplink-downlink)	
IMT850	825-830// 870-875 MHz <sup>8</sup>	2×5 MHz	
IMT900	880-960 MHz	2×35 MHz	
GSM900-R	876-880// 921-925 MHz	2×4 MHz GSM-R	
IMT1800	1710-1880 MHz	2×75 MHz	
IMT2100	1920-2170 MHz	2×60 MHz	
IMT2300	2300-2400 MHz		100 MHz
IMT2600	2500-2690 MHz	2×70 MHz	50 MHz including 2×5 MHz guard bands
IMT3500	3400-3600 MHz		200 MHz <sup>9</sup>
<b>All IMT</b>		<b>2×355 MHz</b>	<b>370 MHz</b>

Table 11: IMT roadmap: (summary)

These bands will be discussed in more detail in the following sections.

The figure below gives an overview of spectrum usage in South Africa in 2025:

\_\_\_\_\_

<sup>7</sup> <http://www.itu.int/pub/R-REG-RR-2012>.

<sup>8</sup> Adjusted to allow coexistence with GSM-R (with no guard band to SRD's)

<sup>9</sup> This may include maximum 20 MHz for a 'managed spectrum park'

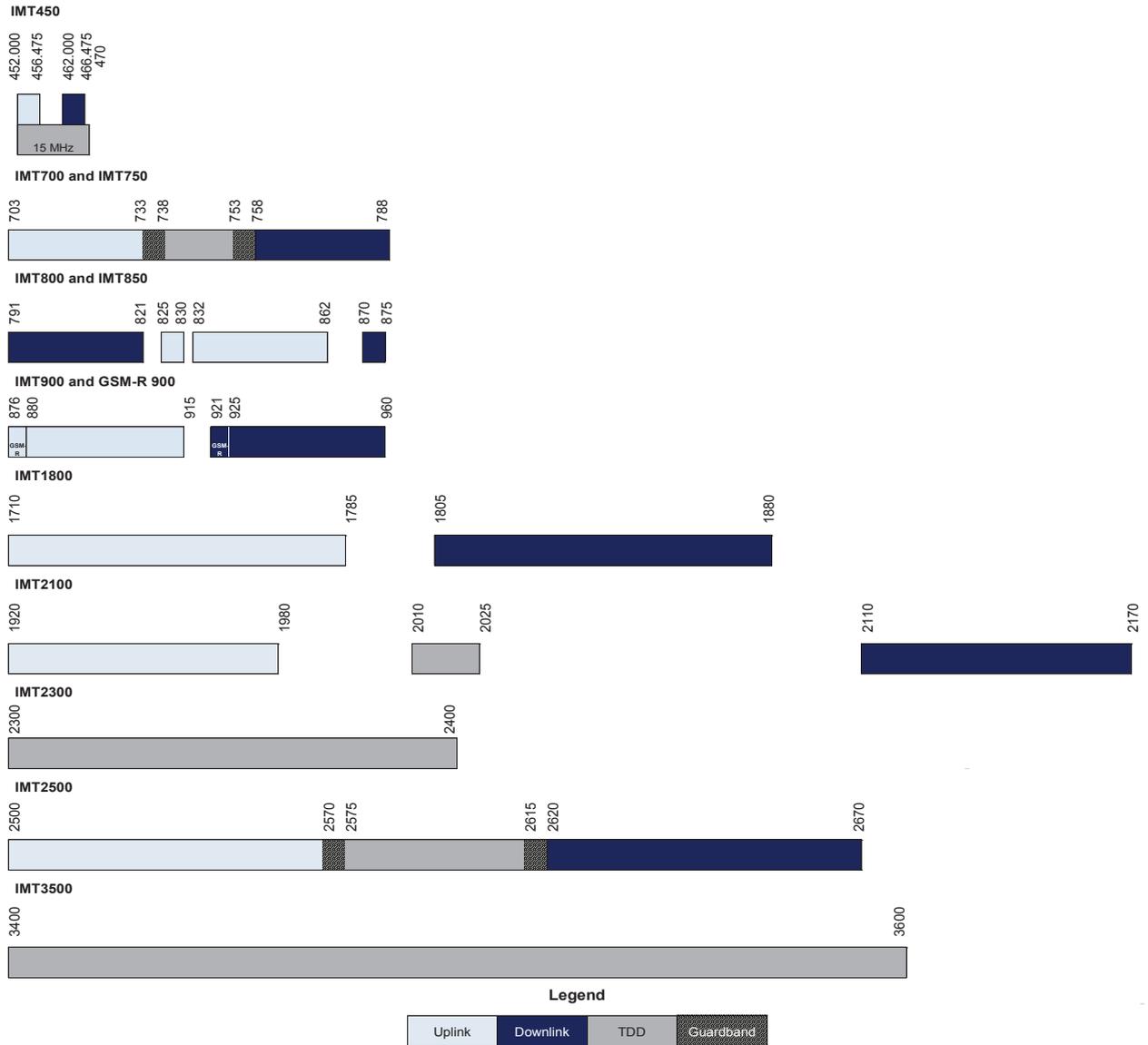


Figure 10: IMT spectrum overview within South Africa in 2025

## 7.2 Guard bands

In order to define the possibilities of any co-existing scenario of IMT with existing technologies and applications, the minimum required guard bands and potential other intelligent interference suppression options have to be investigated properly.

The following summary is based on results of the European Conference of Postal and Telecommunications Administrations (CEPT) Report 41; “Compatibility between LTE and WiMAX operating within the bands 880-915 MHz / 925-960 MHz and 1710-1785 MHz / 1805-1880 MHz (900/1800 MHz bands) and systems operating in adjacent bands”.

- Introducing LTE and WiMAX to the 900 and 1800 MHz bands should not cause any additional impact on adjacent services. In general, there is no need of an additional

guard band between LTE/WiMAX 900 and GSM-R whatever the channelisation or bandwidth considered for LTE/ WiMAX 900. ECC Report 096 concludes that a carrier separation of 2.8 MHz or more between the UMTS carrier and the nearest GSM-R carrier is sufficient. For LTE/ WiMAX 900, the frequency separation between the nearest GSM-R channel centre frequency and LTE/WiMAX channel edge should be at least 300 kHz.

- The LTE/WiMAX user equipment (UE) transmitting power is relatively limited. By considering that the minimum coupling loss (MCL) between the user equipment and E-GSM-R base station is relatively large compared with the MCL between LTE/WiMAX base station and GSM-R train-mounted mobile stations, and since the user equipment is moving, the interference from LTE/WiMAX user equipment to E-GSM-R mobile stations should not lead to harmful interference. The same holds for PMR/PAMR mobile stations.
- The worst interference case is that from E-GSM-R base station to LTE/WiMAX base station. The utilisation of interference mitigation techniques should be assessed in order to protect the LTE/WiMAX 900 base stations efficiently.
- The interference from Public Mobile Radio (PMR)/Public Access Mobile Radio (PAMR) (CDMA PAMR, Terrestrial Trunked Radio (TETRA)) base stations operating at frequencies above 915 MHz will cause receiver desensitisation of LTE/WiMAX 900 base stations operating below 915 MHz. In order to protect LTE/WiMAX900 base stations, the use of interference-mitigation techniques is necessary:
  - Reduced PMR/PAMR BS transmission power;
  - Spatial separation by co-ordination between operators;
  - External filters applied to the PMR/PAMR base stations; and
  - Sufficient guard band between the 900 MHz mobile allocation and the first PMR/PAMR channel in use. *ECC041 assumed >2 MHz separation between GSM-uplink and CDMA-downlink.*
- It is more likely that a combination of these interference-mitigation techniques should be used in order to ensure the compatibility of LTE/WiMAX 900 operating below 915 MHz and PMR/PAMR (CDMA PAMR, TETRA) operating above 915 MHz.
- LTE/WiMAX base stations to Digital Enhanced Cordless Communications (DECT) base stations / mobile stations: It can be concluded that the interference created by the LTE/WiMAX1800 system would be similar to the interference created by GSM1800. No guard band is therefore required between LTE/WiMAX 1800 and DECT allocations, provided that DECT is able to properly detect interference on the closest DECT carriers.
- The results in ITU-R M.2110 (Table 12 ) indicate that co-existence between CDMA450 base stations and the various fixed and mobile service base stations may be a challenge even with the use of significant filtering to provide the required attenuation. While the separation distance between the two systems is significantly reduced, if a filter at the CDMA450 base station receiver can provide at least 60-70 dB rejection of

the unwanted emissions, the value of the separation distance may be significant to permit co-existence in a few cases. Other possible mitigation measures are available that could be used to decrease the possibility of harmful interference even further, such as the use of guard bands and/or disabling of one or more CDMA450 carriers.

- The same holds for BS to MS interference suppression of 60-80 dB or guard band.

Fixed and mobile systems	CDMA450 base station	
	Separation distance	Separation distance/ filtering
FM	21.45 km	1 km / 60 dB
TETRA	25.6 km	1 km / 60 dB
NMT	49.14 km	1 km / 70 dB
Trunked land mobile systems – analogue FM	43.14 km	1 km / 70 dB
Trunked land mobile systems – digital/C4FM	38.6 km	1 km / 70 dB
Trunked land mobile systems – digital/ BPSK / QPSK/ 8-PSK/ 16-QAM	112 km	3 km / 70 dB

**Table 12: ITU-R M2110: CDMA separation distances (BS-BS case) in 450-470MHz**

- The results of broadcasting systems with CDMA450 (**Table 13**) indicate that broadcasting base stations and CDMA450 base / mobile stations can successfully operate in adjacent spectrum, if the unwanted and spurious emissions from the broadcasting base stations can be reduced. Reducing the unwanted emissions by 60 dB will enable successful sharing between the broadcasting base stations and the CDMA450 base/mobile stations.

Broadcasting system typical transmit power	CDMA450 base station		CDMA450 mobile station	
	Distance	Distance/filtering	Distance	Distance/filtering
2 kW ERP	43.7 km	< 1 km/ 60 dB	20.3 km	< 1 km/ 40 dB
15 kW ERP	59.8 km	1.2 km/ 60 dB	31 km	< 1 km/ 60 dB
1 MW ERP	92 km	3.9 km/ 60 dB	49.9 km	<1 km/ 60 dB

**Table 13: Results of study of interference of broadcasting systems with CDMA 450**

- As seen in Figure 11, in the US-700 MHz band, the guard bands between the narrowband voice system and the broadband LTE system are chosen at 1 MHz each. There was no detailed interference evaluation found so far, therefore, it may be a regulatory definition with special safety margin, which might be reduced with time/experience. Due to improved propagation effects in 450 MHz relative to 700 MHz, any guard band in 700 MHz would have to be larger in 450 MHz. So, 1 MHz guard band is also used in 450 MHz until actual studies may prove lower margins.

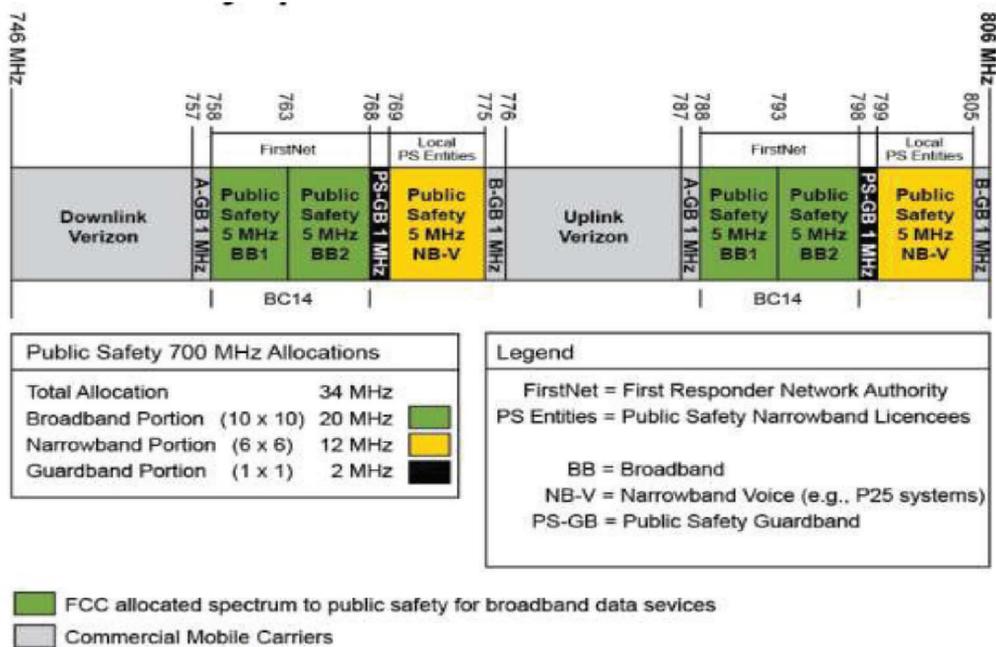


Figure 11: Public safety spectrum allocation in US-700MHz band

Based on the results above, general guard band values can be applied to other bands, which should be considered in the IMT roadmap channelling exercise:

- Guard band between GSM and LTE or UMTS: >300 kHz; and
- Guard band between TETRA, CDMA or other narrowband systems to LTE or UMTS: >1 MHz.

Conclusions

- The Authority’s decision is for Neotel’s assignment to be adjusted to 825-830 MHz paired with 870-875 MHz.
  - The Authority will take the necessary measures to ensure coexistence between CDMA850 and GSM-R, i.e. amend assignments as appropriate and ensure coordination.
- The long term solution is for Neotel to cease using this band for CDMA.
  - Consideration 2 and Consideration 3 indicate a long term solution when CDMA850 has ceased and an (LTE) IMT850 band is deployed. With migration from deployed GSM-R to LTE-R, consideration needs to be made of an intermediate step of 2x3 MHz LTE first to ensure dual illumination and 2x5 MHz LTE in the final step. Further coexistence with GSM-R with about 4 MHz guard band still has to be investigated, but is not expected herein.

*LTE R Considerations*

*In the long term, one future usage of the IMT850-band could be LTE-R with 2×5 MHz along the current GSM-R coverage and beyond. Equipment installed for GSM-R could be prolonged by transferring it to LTE-R (notably when unified SingleRAN equipment has been deployed). Potential coexistence scenarios with GSM-R could be developed and investigated, e.g. 2×1 MHz GSM-R might remain for operational critical voice based services, while the broadband services to the trains would be handled via LTE850.*

*IMT850 for LTE-R would be more favourable than the GSM-R band because of the existing ecosystem for IMT850, while LTE within current GSM-R bands would face the problem that there is less than 2×5 MHz bandwidth and a probable lack of terminals. IMT850 could be implemented in most commercially available terminals which would be an advantage for IMT850 relative to IMT450 until the availability of IMT450-terminals builds up.*

*IMT450 could also be used for LTE-broadband services along the lines to serve customer demands via Wi-Fi-connectivity within the trains. The existing antennas might be reused as IMT450-terminal-antennas.*

*This option could be of relevance to the railway operators.*

### 7.3 1700-2290 MHz band

The key proposals in this band include an extension of the IMT-2100 band, the migration of fixed links into the band and the introduction of fixed broadband where feasible.

First, the various positions of the regulatory or standards bodies such as the ITU, CRASA and the Authority are presented. Next, the action items of the FMP initiated by the Authority are restated. Finally, the Authority presents its proposals for various sub-bands in the 1700-2290 MHz band.

#### 7.3.1 ITU Position on 1700-2290 MHz

According to ITU Recommendation ITU-R M.1036-4 (03/2012), the recommended frequency arrangements for implementation of IMT in the band 1710-2200 MHz are summarised in Table 14.

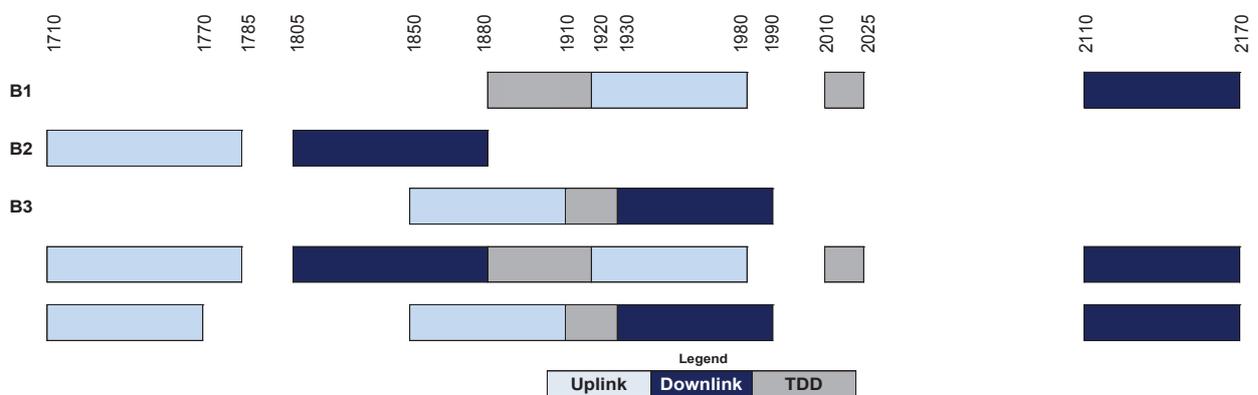


Figure 12: Frequency arrangements in the 1710-2200 MHz band

Frequency arrangements	Paired arrangements				Unpaired arrangements (e.g. for TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
B1	1 920-1 980	130	2 110-2 170	190	1 880-1 920; 2 010-2 025
B2	1 710-1 785	20	1 805-1 880	95	None
B3	1 850-1 910	20	1 930-1 990	80	1 910-1 930
B4 harmonised with B1 and B2)	1 710-1 785 1 920-1 980	20 130	1 805-1 880 2 110-2 170	95 190	1 880-1 920; 2 010-2 025
B5 (harmonised with B3 and parts of B1 and B2)	1 850-1 910 1 710-1 770	20 340	1 930-1 990 2 110-2 170	80 400	1 910-1 930

Table 14: Frequency arrangements in the band 1710-2200 MHz

*NOTE 1 – In the band 1710-2025 MHz and 2110-2200 MHz, three frequency arrangements (B1, B2 and B3) are already deployed by public mobile cellular systems including IMT. Based on these three arrangements, different combinations of arrangements are recommended as described in B4 and B5. The B1 arrangement and the B2 arrangement are fully complementary, whereas the B3 arrangement partly overlaps with the B1 and B2 arrangements.*

*For administrations having implemented the B1 arrangement, the B4 option enables optimisation of the use of spectrum for paired IMT operation.*

*For administrations having implemented the B3 arrangement, the B1 option can be combined with the B2 arrangement. B5 is therefore recommended to optimise the use of the spectrum: B5 enables the use of spectrum to be maximised for IMT in administrations where B3 is implemented and where the band 1770-1850 MHz is not available in the initial phase of deployment of IMT in this frequency band.*

*NOTE 2 – TDD may be introduced in unpaired bands and also under certain conditions in the uplink bands of paired frequency arrangements and/or in the centre gap between paired bands.*

*NOTE 3 – If selectable/variable duplex technology is implemented within terminals as the most efficient way to manage different frequency arrangements, the fact that neighbouring administrations could select B5 will have no impact on the complexity of the terminal. Further studies are necessary.*

### 7.3.2 SADC Position on 1700-2290 MHz

The SADC Frequency Allocation Plan (Table 15) proposes that the 1700-2290 MHz be allocated to Fixed Links (single frequency), IMT, IMT (Terrestrial), IMT (Satellite), FWA and BFWA.

The 1700-2290 MHz band is currently used for a fixed, mobile, mobile-satellite, meteorological-satellite and space operation systems in various SADC countries.

The SADC FAP recognises that frequency channelisation of several key frequency bands must be developed and preferably harmonised throughout the SADC region. The frequency bands used for IMT, Broadband Fixed Wireless Access (BFWA), PtP microwave systems, etc. will be considered. Channelling plans will be added to the SADC band plan in future.

ITU Region 1 allocations and footnotes	SADC common allocation/s and relevant ITU footnotes	SADC proposed common sub-allocations / utilisation	Additional information
<b>1 700-1 710 MHz</b> FIXED METEOROLOGICAL– SATELLITE (space-to-Earth) MOBILE except	<b>1 700-1 710 MHz</b> FIXED METEOROLOGICAL– SATELLITE (space-to-Earth) MOBILE except	Fixed links (single frequency)	

aeronautical mobile 5.289 5.341	aeronautical mobile 5.289 5.341		
<b>1 710-1 930 MHz</b> FIXED MOBILE 5.384A 5.388A 5.388B 5.149 5.341 5.385 5.386 5.387 5.388	<b>1710 – 1930 MHz</b> FIXED MOBILE 5.384A 5.388A 5.388B 5.149 5.341 5.385 5.388	1 710-1 785 MHz IMT	IMT
		1785-1805 MHz BFWA	
		1 805-1 880 MHz IMT	Paired with 1710-1785 MHz.
		1 880-1 900 MHz FWA Cordless telephone	
		1 900-1 920 MHz FWA IMT (terrestrial)	
<b>1930 – 1979 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>1930 – 1979 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	1920-1980 MHz IMT (terrestrial)	Paired with 2170 – 2200MHz The development of satellites for IMT services to be monitored
<b>1970 – 1980 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>1970 – 1980 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388		
<b>2 010-2 025 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>2 010-2 025 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	IMT terrestrial (2010 – 2025 MHz )	TDD
<b>2110 – 2120 MHz</b> FIXED MOBILE 5.388A5.388B SPACE RESEARCH (deep space) (Earth-to- space) 5.388	<b>2110 – 2120 MHz</b> MOBILE 5.388A5.388B SPACE RESEARCH (deep space) (Earth-to- space) 5.388	IMT (terrestrial) (2110- 2170 MHz)	Paired with 1920-1980 MHz
<b>2120 – 2160 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>2120 – 2160 MHz</b> MOBILE 5.388A 5.388B 5.388		
<b>2160 – 2170 MHz</b> FIXED MOBILE 5.388A 5.388B 5.388	<b>2160 – 2170 MHz</b> MOBILE 5.388A 5.388B 5.388		
<b>2 170-2 200 MHz</b> FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A	<b>2 170-2 200 MHz</b> MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A 5.388 5.389A 5.389F	IMT (satellite) (2170- 2200 MHz)	Paired with 1980-2010 MHz The development of satellites for IMT services to be monitored.

5.388 5.389A 5.389F			
<b>2 200-2 290 MHz</b> SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION – SATELLITE (space-to-Earth) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space-to-space) 5.392	<b>2 200-2 290 MHz</b> SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION – SATELLITE (space-to-Earth) (space-to-space) FIXED SPACE RESEARCH (space-to-Earth) (space-to-space) 5.392	Fixed links (2025-2110 MHz paired with 2200-2285 MHz)  BFWA (2 285-2 300 MHz)	Radio Frequency channel arrangement according to ITU-RF. 1098.

Table 15: SADC Frequency Allocation Plan 1700-2290 MHz

*Footnotes:*

5.384 *Additional allocation: in India, Indonesia and Japan, the band 1700-1710 MHz is also allocated to the space research service (space to Earth) on a primary basis. (WRC-97).*

5.384A *The bands, or portions of the bands, 1710-1885 MHz, 2300-2400 MHz and 2500-2690 MHz, are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution 223 (Rev.WRC-07). This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-07)*

5.385 *Additional allocation: the band 1718.8-1722.2 MHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. (WRC-2000)*

5.386 *Additional allocation: the band 1750-1850 MHz is also allocated to the space operation (Earth-to-space) and space research (Earth-to-space) services in Region 2, in Australia, Guam, India, Indonesia and Japan on a primary basis, subject to agreement obtained under No.9.21, having particular regard to troposcatter systems. (WRC-03)*

5.387 *Additional allocation: in Belarus, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan and Turkmenistan, the band 1770-1790 MHz is also allocated to the meteorological-satellite service on a primary basis, subject to agreement obtained under No.9.21. (WRC-12)*

5.388A *In Regions 1 and 3, the bands 1885-1980 MHz, 2010-2025 MHz and 2110-2170 MHz and in Region 2, the bands 1885-1980 MHz and 2110-2160 MHz may be used by high altitude platform stations as base stations to provide International Mobile Telecommunications (IMT), in accordance with Resolution 221 (Rev.WRC-07). Their use by IMT applications using high altitude platform stations as base stations does not*

*preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations.(WRC-12)*

*5.388B In Algeria, Saudi Arabia, Bahrain, Benin, Burkina Faso, Cameroon, Comoros, Côte d'Ivoire, China, Cuba, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Gabon, Ghana, India, Iran (Islamic Republic of), Israel, Jordan, Kenya, Kuwait, Libya, Mali, Morocco, Mauritania, Nigeria, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, Senegal, Singapore, Sudan, South Sudan, Tanzania, Chad, Togo, Tunisia, Yemen, Zambia and Zimbabwe, for the purpose of protecting fixed and mobile services, including IMT mobile stations, in their territories from co-channel interference, a high altitude platform station (HAPS) operating as an IMT base station in neighbouring countries, in the bands referred to in No. 5.388A, shall not exceed a co-channel power flux-density of  $-127 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  at the Earth's surface outside a country's borders unless explicit agreement of the affected administration is provided at the time of the notification of HAPS.(WRC-12)*

*5.389A The use of the bands 1980-2010 MHz and 2170-2200 MHz by the mobile-satellite service is subject to coordination under No. 9.11A and to the provisions of Resolution 716 (Rev.WRC-2000)<sup>10</sup>.(WRC-07)*

*5.389B The use of the band 1980-1990 MHz by the mobile-satellite service shall not cause harmful interference to or constrain the development of the fixed and mobile services in Argentina, Brazil, Canada, Chile, Ecuador, the United States, Honduras, Jamaica, Mexico, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela.*

*5.389C The use of the bands 2010-2025 MHz and 2160-2170 MHz in Region 2 by the mobile-satellite service is subject to co-ordination under No.9.11A and to the provisions of Resolution 716 (Rev.WRC-2000)<sup>11</sup>.(WRC-07)*

*5.389E The use of the bands 2010-2025 MHz and 2160-2170 MHz by the mobile-satellite service in Region 2 shall not cause harmful interference to or constrain the development of the fixed and mobile services in Regions 1 and 3.*

*5.389F In Algeria, Benin, Cape Verde, Egypt, Iran (Islamic Republic of), Mali, Syrian Arab Republic and Tunisia, the use of the bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobile-satellite service shall neither cause harmful interference to the fixed and mobile services, nor hamper the development of those services prior to 1 January 2005, nor shall the former service request protection from the latter services. (WRC-2000)*

*5.391 In making assignments to the mobile service in the bands 2025-2110 MHz and 2200-2290 MHz, administrations shall not introduce high-density mobile systems, as described in Recommendation ITU-R SA.1154, and shall take that*

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<sup>10</sup> Note by the Secretariat: This Resolution was revised by WRC-12.

<sup>11</sup> *Ibid.*

*Recommendation into account for the introduction of any other type of mobile system. (WRC-97)*

5.392 *Administrations are urged to take all practicable measures to ensure that space-to-space transmissions between two or more non-geostationary satellites, in the space research, space operations and Earth exploration-satellite services in the bands 2025-2110 MHz and 2200-2290 MHz, shall not impose any constraints on Earth-to-space, space-to-Earth and other space-to-space transmissions of those services and in those bands between geostationary and non-geostationary satellites.*

### 7.3.3 Radio Frequency Migration Plan for 1700-2290 MHz

With the 1700-2290 MHz band, the objectives of the Radio Frequency Migration Plan are to:

- Retain existing allocations for fixed links and migrate in fixed links from other bands; and
- If co-existence between broadband wireless access and point-to-point services is not possible, then BFWA could be implemented in areas where PtP links are absent.

The table below is the summary of the Authority's Frequency Migration Plan as it relates to the 2025 – 2110 paired with 2200 – 2285 MHz.

Frequency Band (MHz)	Allocation in NRFP 2013 (Applications)	Proposed Utilisation/ Applications	Notes on migration/ usage
2025 – 2110 paired with 2200 – 2285	FIXED (Fixed links)	Fixed Links (DF) BFWA (New ICASA proposal)	Develop RFSAP with consideration to Utilisation of fixed links. Migration of fixed links (DF) from other bands Potential to allocate for BFWA – but only where there is no interference problem with PTP links

**Table 16: SA Frequency Migration Plan 2015-2285 MHz**

CRASA's preferred channel arrangement for the 2 GHz band (2025-2110 MHz paired with 2200-2285 MHz) is the same as the one in Annexure 1 to ITU-R Recommendation F.1098. The 2 GHz band has technical and economic advantages for low capacity digital systems including, for example, provisioning of fixed links operating over long distances. The RF channel arrangement in Annexure 1 of Recommendation ITU-R F.1098 provides for 6 return channels of 14 MHz each. These channels can be further sub-divided into channels of 7 MHz, 3.5 MHz or 1.75 MHz, depending on the system capacity requirements. The centre frequencies for RF channels in the 2 GHz band based on channels of 14 MHz are indicated in the table below.

The proposed RF channel centre frequencies for the 2 GHz band (using 14 MHz channels) are:

<b>Channel no.</b>	<b>Centre frequency</b>	<b>Channel no.</b>	<b>Centre frequency</b>
<b>1</b>	2032.5 MHz	<b>1'</b>	2207.5 MHz
<b>2</b>	2046.5 MHz	<b>2'</b>	2221.5 MHz
<b>3</b>	2060.5 MHz	<b>3'</b>	2235.5 MHz
<b>4</b>	2074.5 MHz	<b>4'</b>	2249.5 MHz
<b>5</b>	2088.5 MHz	<b>5'</b>	2263.5 MHz
<b>6</b>	2102.5 MHz	<b>6'</b>	2277.5 MHz

**Table 17: CRASA channelling plan for 2025-2290 MHz**

### 7.3.4 Current usage of the 1700-2290 MHz band in South Africa

The table below summarizes the current assignments in the 1700-2290 MHz band.

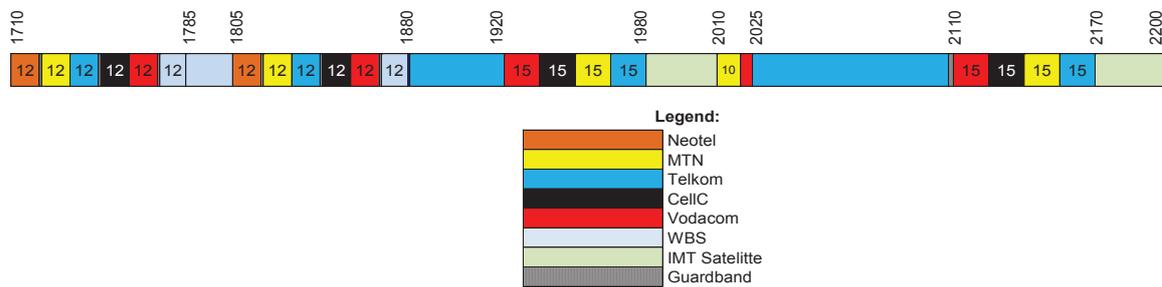


Figure 13: Current assignments with 1700-2200 MHz

#### 7.3.4.1 Usage of paired IMT spectrum in the 1700-2290 MHz band

In South Africa, the IMT1800 FDD spectrum is used for GSM1800 for 2×75 MHz from 1710-1880 MHz for 6 operators with each having 2×12 MHz. There are also 4 operators who already have UMTS 2100 FDD spectrum of 2×15 MHz each.

#### 7.3.4.2 Usage of unpaired IMT spectrum in the 1700-2290 MHz band

The TDD bands 2010-2025 are currently assigned to MTN (10 MHz) and Vodacom (5 MHz). The neighbouring band 2025-2100 MHz is sparsely used by PtP-links.

The TDD band from 1880-1920 MHz is in use by Telkom, SAPS and SANDF, e.g. for DECT-systems and fixed links. The guard band of 5 MHz from 1915-1920 MHz is free.

#### 7.3.5 Proposal for extension of IMT2100

IMT2100 may be delayed due to reduced availability of terminals. Depending on the traffic requirements for GSM per operator and the increased IMT data demands due to higher IMT-terminal penetration, the opportunity to migrate to broadband IMT (i.e. LTE) may be possible in one or two steps, for example, 2×5 MHz. At later stages, Universal Mobile Telecommunications System (UMTS) will also be migrated to broadband IMT.

The IMT2100 band currently consists of 2×60 MHz of spectrum in 1920-1980 MHz paired with 2110-2170 MHz. The Authority proposes to extend this band by 2x30 MHz at the top end of the current IMT2100 band. This band is currently foreseen as IMT-satellite. The consolidated IMT2100 band would therefore be 1920-2010 MHz paired with 2110-2200 MHz (see figure below).

This extension of the IMT2100 band would push the paired portion of IMT2100 right against the unpaired portion of the band that extends from 2010 MHz to 2025 MHz. A guard band of 5 MHz is typically required between adjacent paired and unpaired IMT bands. Therefore, the first 5 MHz of the 10 MHz assigned to MTN from 2010 MHz to 2015 MHz could be used as a guard band. The band 2015-2025 MHz could remain usable for IMT TDD, but might be reassigned to 10 MHz for one user. MTN and Vodacom might be willing to change unused TDD spectrum for new FDD spectrum. These new TDD bands from 1885-1915 MHz plus guard bands and 2015-2025 MHz might be assigned to a TDD wholesale operator/consortium.

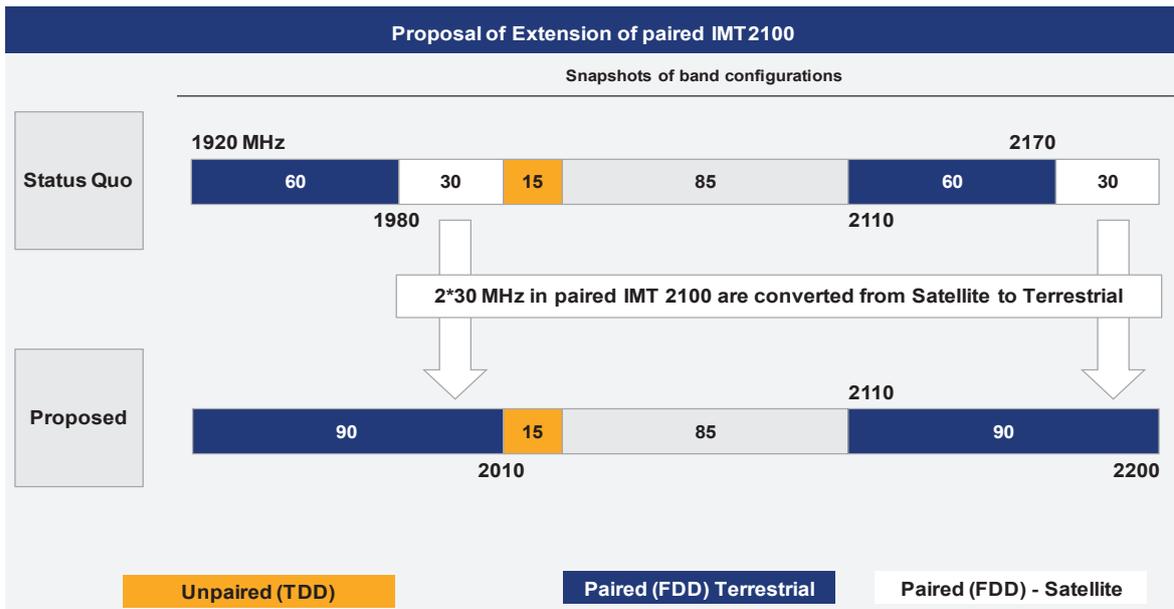


Figure 14: Proposal of Extension of paired IMT2100

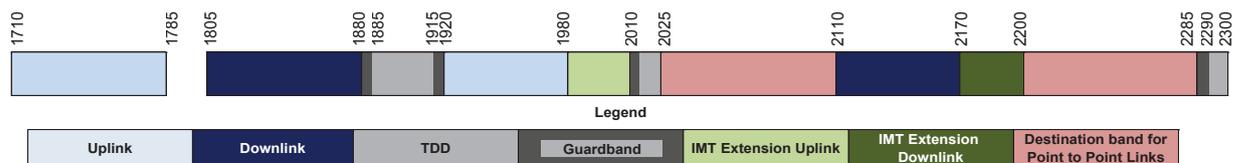


Figure 15: IMT2100-extensions proposal

The 2025-2110 and 2200-2285 bands are not usable for (high-density) IMT-services, so the Authority proposes to use this band for PtP link destination band migrated from lower bands.

2285 – 2290 MHz could be used for a 5 MHz guard band.

The 2290-2300 MHz band is currently unused in South Africa. According to the Frequency Migration Plan an RFSAP should be developed to consider BFWA or BWA. An evaluation may be carried out as to whether IMT-TDD equipment could be developed or tuned to extend IMT-2300 starting from 2290-2400 MHz. In general, the potential interference mitigation measures, between point to point and IMT-TDD at 2025 MHz and at 2285 MHz as well as to IMT FDD at 2110 MHz, have to be considered.

The suggestions concerning 1980-2110 // 2170-2200 MHz are tentative as these bands are not yet identified for terrestrial IMT at international level (and therefore there is no ecosystem). However, these bands might be identified for IMT in the future because of the attractive location near GSM/IMT1800 and UMTS/IMT2100. Digital equipment is

already available (SRAN-concept<sup>12</sup>) and radio equipment, filters and antennas need adaptations.

### **7.3.6 Conclusions**

The response to the consultation on 2290-2300 MHz indicated that while it could be useful to consider the band for IMT, such consideration is not supported at this stage and should wait for a decision at an international level.

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<sup>12</sup> SRAN; single radio access network with separation of RF and digital baseband (BB) offers the use of standardised digital equipment independent from frequency bands. RF-units have to be adapted to specific bands with filters, etc.

## 7.4 IMT2020 Frequencies for Consideration

The following frequency information are extracted from the National Radio Frequency Plan (NRFP) 2018

### 7.4.1 1.427-1.518 GHz

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<p><b>1 427-1 429 MHz</b></p> <p>SPACE OPERATION (Earth-to-space) FIXED</p> <p>MOBILE except mobile aeronautical <b>5.341A</b></p> <p>5.338A 5.341</p>	<p><b>1 427-1 429 MHz</b></p> <p>SPACE OPERATION (Earth-to-space) FIXED NF14</p> <p>MOBILE except mobile aeronautical <b>5.341A</b></p> <p>5.338A 5.341</p>	<p><b>1 427-1 452 MHz</b></p> <p><b>Fixed</b> links (duplex)</p>	<p>Paired with 1 375 – 1 400 MHz <b>In</b> accordance with Recommendation ITU-R F.1242</p> <p>ITU Res. 223 (Rev.WRC-15)</p>
<p><b>1 429-1 452 MHz</b></p> <p>FIXED</p> <p>MOBILE except mobile aeronautical 5.341A</p> <p>5.338A 5.341 5.342</p>	<p><b>1 429-1 452 MHz</b></p> <p>FIXED</p> <p>MOBILE except mobile aeronautical 5.341A</p> <p>5.338A 5.341</p>	<p>1 427-1 452 MHz</p> <p>Fixed links (duplex)</p>	<p>Paired with 1 375 – 1 400 MHz) In accordance with Recommendation ITU-R F.1242</p>
<p><b>1 452-1 492 MHz</b></p> <p>FIXED</p> <p>MOBILE except mobile aeronautical 5.346</p> <p>BROADCASTING</p> <p>BROADCASTING-SATELLITE 5.208B</p>	<p><b>1 452-1 492 MHz</b></p> <p>FIXED NF14</p> <p>MOBILE except mobile aeronautical 5.346</p> <p>BROADCASTING</p> <p>BROADCASTING-SATELLITE 5.208B</p>	<p>)</p>	<p><b>studies called for Resolution 761 (WRC-15)</b> on the “Compatibility of International Mobile Telecommunications and broadcasting-satellite service and take appropriate regulatory and technical studies, with a view to ensuring the compatibility of IMT and BSS (sound) are undertaken within the ITU-R</p>

5.341 5.342 5.345	5.341 5.345 NF12		ITU-R Res. 223 (Rev.WRC-15)  ITU-R Res. 223 (Rev.WRC-15)
1 492-1 518 MHz  FIXED  MOBILE except aeronautical mobile 5.341A	1 492-1 518 MHz  FIXED  MOBILE except aeronautical mobile 5.341A	Fixed Links (1 492 – 1 517 MHz)  Single Frequency Links (1 517 – 1 525 MHz)	Paired with 1 350 – 1 375 MHz In accordance with Recommendation ITU-R F.1242  ITU-R Res. 223 (Rev.WRC-15) (Sharing and Compatibility Studies called for by Resolution 223 (Rev. WRC-15) are underway within the ITU-R)
5.341 5.342	5.341		

7.4.2 3.3 – 3.6 GHz

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
3 300-3 400 MHz  RADIOLOCATION  5.149 5.429 5.429A 5.429B 5.430	3 300-3 400 MHz  RADIOLOCATION  5.149 5.429A 5.429B	Government Services IMT Res. 223 (Rev.WRC-15)	.  Subject to outcome of the sharing and compatibility studies called for by Resolution 223 (WRC-15) currently underway within the ITU-R, there might be a need to migrate Radars out of this band. This will be addressed through an update of the migration plan.

<p><b>3 400-3 600 MHz</b></p> <p>FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 5.430A</p> <p>Radiolocation</p> <p>5.431</p>	<p><b>3 400-3 600 MHz</b></p> <p>FIXED</p> <p>MOBILE 5.430A NF9</p>	<p><b>IMT3500 TDD (3400 – 3600 MHz)</b></p>	<p><b>International Mobile Telecommunication Roadmap (GG No.38213) 14 November 2014. Radio Frequency Assignment Plan (GG N. 38640) as amended 30 March 2015. Recommendation ITU-R M.1036 The band 3400 -3600 MHz is also used for BFWA in some SADC countries</b></p>
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#### 7.4.3 24.25-27.5 GHz

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<p><b>24.25-24.45 GHz</b></p> <p>FIXED</p>	<p><b>24.25-24.45 GHz</b></p> <p>FIXED</p>		<p><b>Temporary fixed links for ENG/OB</b></p>
<p><b>24.45-24.65 GHz</b></p> <p>FIXED</p> <p>INTER-SATELLITE</p>	<p><b>24.45-24.65 GHz</b></p> <p>FIXED NF14</p>	<p><b>Fixed Links (26 GHz) (24.5 – 26.5 GHz)</b></p> <p><b>Fixed links - 26 GHz (24.5-26.5 GHz)</b></p> <p><b>BFWA (24.5- 26.5 GHz)</b></p>	<p><b>Channelling plan for 26 GHz band in accordance with ITU-R Rec. F.748 Annex 1.</b></p>
<p><b>24.65-24.75 GHz</b></p> <p>FIXED</p>	<p><b>24.65-24.75 GHz</b></p> <p>FIXED NF14</p>	<p><b>Fixed Links (26 GHz) (24.5 – 26.5 GHz)</b></p>	<p><b>Channelling plan for 26 GHz band in accordance with ITU-R Rec. F.748 Annex 1.</b></p>

FIXED-SATELLITE (Earth-to-space) 5.532B		<b>Fixed links - 26 GHz (24.5-26.5 GHz)</b>	
INTER-SATELLITE		<b>BFWA (24.5-26.5 GHz)</b>	
<b>24.75-25.25 GHz</b>	<b>24.75-25.25 GHz</b>		
FIXED	FIXED NF14	<b>Fixed Links (26 GHz) (24.5 – 26.5 GHz)</b>	<b>Channelling plan for 26 GHz band in accordance with ITU-R Rec. F.748 Annex 1.</b>
FIXED-SATELLITE (Earth-to-space) 5.532B	FIXED-SATELLITE (Earth-to-space) 5.532B	<b>Fixed links - 26 GHz (24.5-26.5 GHz)</b> <b>BFWA (24.5-26.5 GHz)</b>	
<b>25.25-25.5 GHz</b>	<b>25.25-25.5 GHz</b>		
FIXED	FIXED NF14	<b>Fixed Links (26 GHz) (24.5 – 26.5 GHz)</b>	<b>Channelling plan for 26 GHz band in accordance with ITU-R Rec. F.748 Annex 1.</b>
INTER-SATELLITE 5.536 MOBILE Standard frequency and time signal-satellite (Earth-to-space)		BFWA (24.5-26.5 GHz)	
<b>25.5-27 GHz</b>	<b>25.5-27 GHz</b>		
EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536B	EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536B	<b>National Polar-Orbiting Operational Environment Satellite System (NPOESS)</b>	<b>Channelling plan for 26 GHz band in accordance with ITU-R Rec. F.748 Annex 1.</b>
FIXED	FIXED NF14	<b>Fixed Links (26 GHz) (24.5 – 26.5 GHz)</b> BFWA (24.5-26.5 GHz)	
INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (space-to-Earth) 5.536C Standard frequency and time signal-satellite (Earth-to-space)			

5.536A	5.536A		
<b>27-27.5 GHz</b>  FIXED INTER-SATELLITE 5.536 MOBILE	<b>27-27.5 GHz</b>  FIXED		

## 7.4.4 37-40.5 GHz

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<p><b>37-37.5 GHz</b></p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>SPACE RESEARCH (space-to-Earth)</p> <p>5.547</p>	<p><b>37-37.5 GHz</b></p> <p>FIXED NF14</p> <p>SPACE RESEARCH (space-to-Earth)</p> <p>5.547</p>	<p><b>Fixed Links (38 GHz) (37.0 – 39.5 GHz)</b></p>	
<p><b>37.5-38 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE except aeronautical mobile</p> <p>SPACE RESEARCH (space-to-Earth)</p> <p>Earth exploration-satellite (space-to-Earth)</p> <p>5.547</p>	<p><b>37.5-38 GHz</b></p> <p>FIXED NF14</p> <p>SPACE RESEARCH (space-to-Earth)</p> <p>Earth exploration-satellite (space-to-Earth)</p> <p>5.547</p>	<p><b>Fixed Links (38 GHz) (37.0 – 39.5 GHz)</b></p>	<p><b>The band 37-40 GHz is identified for HDFS; Res.75 applies.</b></p> <p><b>Channelling plan for 38 GHz band in accordance with ITU Rec. F.749 Annex 1.</b></p>
<p><b>38-39.5 GHz</b></p>	<p><b>38-39.5 GHz</b></p>		

<p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE Earth exploration- satellite (space-to- Earth)</p> <p>5.547</p>	<p>FIXED NF14</p> <p>Earth exploration- satellite (space-to- Earth)</p> <p>5.547</p>	<p><b>Fixed Links (38 GHz) (37.0 – 39.5 GHz)</b></p>	<p><b>Channelling plan for 38 GHz band in accordance with ITU Rec. F.749 Annex 1.</b></p> <p><b>The band 37-40 GHz is identified for HDFSS; Res.75 applies.</b></p>
<p><b>39.5-40 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.516B</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>Earth exploration- satellite (space-to- Earth)</p> <p>5.547</p>	<p><b>39.5-40 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.516B</p> <p>Earth exploration- satellite (space-to- Earth)</p> <p>5.547</p>		<p><b>The band 37-40 GHz is identified for HDFSS; Res.75 applies.</b></p> <p><b>The band 39.5-40 GHz is identified for HDFSS; Res.143 applies.</b></p>
<p><b>40-40.5 GHz</b></p> <p>EARTH EXPLORATION-SATELLITE (Earth-to-space)</p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.516B</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth)</p>	<p><b>40-40.5 GHz</b></p> <p>EARTH EXPLORATION-SATELLITE (Earth-to-space)</p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.516B</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth)</p>	<p><b>Government Services</b></p>	<p><b>The band 40-40.5 GHz is identified for HDFSS; Res.143 applies.</b></p>

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SPACE RESEARCH (Earth-to-space) Earth exploration- satellite (space-to- Earth)	SPACE RESEARCH (Earth-to- space) Earth exploration- satellite (space-to- Earth)		
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**7.4.5 42.5-43.5 GHz**

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<b>42.5-43.5 GHz</b>  FIXED  FIXED-SATELLITE (Earth-to-space) 5.552  MOBILE except aeronautical mobile  RADIO ASTRONOMY  5.149 5.547 5.551H	<b>42.5-43.5 GHz</b>  FIXED NF14  FIXED-SATELLITE (Earth-to-space) 5.552  MOBILE except aeronautical mobile  RADIO ASTRONOMY  5.149 5.547 5.551H	          <b>Government Services (43.5-45.5 GHz)</b>	          <b>BFWA or MWS (40.5-43.5 GHz).</b>  <b>The band 40.5-43.5 GHz is identified for HDFS; Res.75 applies.</b>

**7.4.6 45.5-47 GHz**

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<b>43.5-47 GHz</b>  MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE  5.554	<b>43.5-47 GHz</b>  MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE  5.554		

## 7.4.7 47.2-50.2 GHz

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<p><b>47.2-47.5 GHz</b></p> <p>FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE</p> <p>5.552A</p>	<p><b>47.2-47.5 GHz</b></p> <p>FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE</p> <p>5.552A</p>		
<p><b>47.5-47.9 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A MOBILE</p>	<p><b>47.5-47.9 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A MOBILE</p>	<p><b>The band 47.5-47.9 GHz is identified for HDFSS; Res.143 applies.</b></p>	
<p><b>47.9-48.2 GHz</b></p> <p>FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE</p> <p>5.552A</p>	<p><b>47.9-48.2 GHz</b></p> <p>FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE</p> <p>5.552A</p>		
<p><b>48.2-48.54 GHz</b></p> <p>FIXED</p>	<p><b>48.2-48.54 GHz</b></p> <p>FIXED</p>		

<p>FIXED-SATELLITE</p> <p>(Earth-to-space) 5.552</p> <p>(space-to-Earth) 5.516B</p> <p>5.554A 5.555B</p> <p>MOBILE</p>	<p>FIXED-SATELLITE</p> <p>(Earth-to-space) 5.552</p> <p>(space-to-Earth) 5.516B</p> <p>5.554A 5.555B</p> <p>MOBILE</p>		<p><b>The band 48.2-48.54 GHz is identified for HDFSS; Res.143 applies.</b></p>
<p><b>48.54-49.44 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE</p> <p>(Earth-to-space) 5.552</p> <p>MOBILE</p> <p>5.149 5.340 5.555</p>	<p><b>48.54-49.44 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE</p> <p>(Earth-to-space) 5.552</p> <p>MOBILE</p> <p>5.149 5.340 5.555</p>		
<p><b>49.44-50.2 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE</p> <p>(Earth-to-space) 5.338A 5.552</p> <p>(space-to-Earth) 5.516B</p> <p>5.554A 5.555B</p> <p>MOBILE</p>	<p><b>49.44-50.2 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE</p> <p>(Earth-to-space) 5.338A 5.552</p> <p>(space-to-Earth) 5.516B</p> <p>5.554A 5.555B</p> <p>MOBILE</p>		<p><b>The band 49.44-50.2 GHz is identified for HDFSS; Res.143 applies.</b></p>

**7.4.8 50.4-52.6 GHz**

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<b>50.4-51.4 GHz</b>  FIXED  FIXED-SATELLITE (Earth-to-space) 5.338A  MOBILE Mobile-satellite (Earth-to-space)	<b>50.4-51.4 GHz</b>  FIXED  FIXED-SATELLITE (Earth-to-space) 5.338A  MOBILE Mobile-satellite (Earth-to-space)		
<b>51.4-52.6 GHz</b>  FIXED 5.338A MOBILE  5.547 5.556	<b>51.4-52.6 GHz</b>  FIXED 5.338A MOBILE  5.547 5.556		<b>The band 51.4-52.6 GHz is identified for HDFS; Res.75 applies.</b>

## 7.4.9 66-76 GHz

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<p><b>66-71 GHz</b></p> <p>INTER-SATELLITE MOBILE 5.553 5.558</p> <p>MOBILE-SATELLITE</p> <p>RADIONAVIGATION</p> <p>RADIONAVIGATION-SATELLITE</p> <p>5.554</p>	<p><b>66-71 GHz</b></p> <p>INTER-SATELLITE MOBILE 5.553 5.558</p> <p>MOBILE-SATELLITE</p> <p>RADIONAVIGATION</p> <p>RADIONAVIGATION-SATELLITE</p> <p>5.554</p>		
<p><b>71-74 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth)</p>	<p><b>71-74 GHz</b></p> <p>FIXED NF14</p> <p>FIXED-SATELLITE (space-to-Earth)</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth)</p>	<p><b>Fixed Links (80 GHz) (71 – 76 GHz)</b></p> <p><b>Government use</b></p> <p><b>Fixed links (71-76 GHz)</b></p>	<p><b>Paired with 81 – 86 GHz.</b></p> <p><b>Radio Frequency Spectrum Regulations Amendments (Government Gazette Number 40436, 22 November 2016)</b></p>
<p><b>74-76 GHz</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth)</p>	<p><b>74-76 GHz</b></p> <p>FIXED NF14</p> <p>FIXED-SATELLITE (space-to-Earth)</p>	<p><b>Fixed Links (80 GHz) (71 – 76 GHz)</b></p>	<p><b>Paired with 81 – 86 GHz.</b></p>

MOBILE	MOBILE		<b>Radio Frequency Spectrum Regulations Amendments (Government Gazette Number 40436, 22 November 2016)</b>
BROADCASTING BROADCASTING-SATELLITE	BROADCASTING BROADCASTING-SATELLITE		
Space research (space-to-Earth)	Space research (space-to-Earth)		
5.561	5.561		

#### 7.4.10 81-86 GHz

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<b>81-84 GHz</b>	<b>81-84 GHz</b>		
FIXED 5.338A	FIXED 5.338A NF14	<b>Fixed Links (80 GHz) (81 –86 GHz)</b>	<b>Paired with 71 – 76 GHz.</b>
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		
MOBILE	MOBILE		
MOBILE-SATELLITE (Earth-to-space)	MOBILE-SATELLITE (Earth-to-space)		<b>Radio Frequency Spectrum Regulations Amendments (Government Gazette Number 40436, 22 November 2016)</b>
RADIO ASTRONOMY	RADIO ASTRONOMY		
Space research (space-to-Earth)	Space research (space-to-Earth)		
5.149 5.561A	5.149 5.561A		
<b>84-86 GHz</b>	<b>84-86 GHz</b>		

FIXED 5.338A	FIXED 5.338A NF14	<b>Fixed Links (80 GHz) (81 –86 GHz)</b>	<b>Radio Frequency Spectrum Regulations Amendments (Government Gazette Number 40436, 22 November 2016)</b>
FIXED-SATELLITE (Earth-to-space) 5.561B MOBILE RADIO ASTRONOMY	FIXED-SATELLITE (Earth-to-space) 5.561B MOBILE RADIO ASTRONOMY		
5.149	5.149		

which have allocations to the mobile service on a primary basis; and –

#### 7.4.11 31.8-33.4 GHz

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<b>31.8-32 GHz</b>  FIXED 5.547A  RADIONAVIGATION  SPACE RESEARCH (deep space) (space-to-Earth)  5.547 5.548	<b>31.8-32 GHz</b>  FIXED 5.547A NF14  RADIONAVIGATION  5.547 5.548	<b>HDFS (31.8 – 33.4 GHz)</b>	Channelling plan for 32 GHz band in accordance with ITU-R Rec. F.1520 Annex 1.  The band 31.8-33.4 GHz is identified for HDFS; Res.75 applies.
<b>32-32.3 GHz</b>	<b>32-32.3 GHz</b>		

FIXED 5.547A  RADIONAVIGATION  SPACE RESEARCH (deep space) (space-to-Earth)  5.547 5.548	FIXED 5.547A NF14  RADIONAVIGATION  SPACE RESEARCH (deep space) (space-to-Earth)  5.547 5.548	<b>HDFS (31.8 – 33.4 GHz)</b>	<b>Channelling plan for 32 GHz band in accordance with ITU-R Rec. F.1520 Annex 1.</b>  <b>The band 31.8-33.4 GHz is identified for HDFS; Res.75 applies.</b>
<b>32.3-33 GHz</b>  FIXED 5.547A  INTER-SATELLITE  RADIONAVIGATION  5.547 5.548	<b>32.3-33 GHz</b>  FIXED 5.547A NF14  INTER-SATELLITE  RADIONAVIGATION  5.547 5.548	<b>HDFS (31.8 – 33.4 GHz)</b>	<b>Channelling plan for 32 GHz band in accordance with ITU-R Rec. F.1520 Annex 1.</b>  <b>The band 31.8-33.4 GHz is identified for HDFS; Res.75 applies.</b>
<b>33-33.4 GHz</b>  FIXED 5.547A  RADIONAVIGATION  5.547	<b>33-33.4 GHz</b>  FIXED 5.547A NF14  RADIONAVIGATION  5.547	<b>HDFS (31.8 – 33.4 GHz)</b>	<b>Channelling plan for 32 GHz band in accordance with ITU-R Rec. F.1520 Annex 1.</b>  <b>The band 31.8-33.4 GHz is identified for HDFS; Res.75 applies.</b>

## 7.4.12 40.5-42.5 GHz

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	Notes and Comments
<p><b>40.5-41 GHz</b></p> <p>FIXED  <b>FIXED-SATELLITE (space-to-Earth)</b>            BROADCASTING            BROADCASTING-SATELLITE</p> <p>Mobile</p> <p>5.547</p>	<p><b>40.5-41 GHz</b></p> <p>FIXED NF14  <b>FIXED-SATELLITE (space-to-Earth)</b>            BROADCASTING            BROADCASTING-SATELLITE</p> <p>Mobile</p> <p>5.547</p>		<p><b>BFWA or MWS (40.5-43.5 GHz).</b></p> <p><b>The band 40.5-43.5 GHz is identified for HDFS; Res.75 applies.</b></p>
<p><b>41-42.5 GHz</b></p> <p>FIXED            FIXED-SATELLITE (space-to-Earth)            BROADCASTING            BROADCASTING-SATELLITE</p> <p>Mobile</p> <p>5.547 5.551F 5.551H            5.551I</p>	<p><b>41-42.5 GHz</b></p> <p>FIXED NF14            FIXED-SATELLITE (space-to-Earth)            BROADCASTING            BROADCASTING-SATELLITE</p> <p>Mobile</p> <p>5.547 5.551F 5.551H            5.551I</p>		<p><b>BFWA or MWS (40.5-43.5 GHz).</b></p> <p><b>The band 40.5-43.5 GHz is identified for HDFS; Res.75 applies.</b></p>

**7.4.13 47-47.2 GHz**

<b>ITU Region 1 allocations and footnotes</b>	<b>South African allocations and footnotes</b>	<b>Typical Applications</b>	<b>Notes and Comments</b>
<b>47-47.2 GHz</b>  AMATEUR AMATEUR- SATELLITE	<b>47-47.2 GHz</b>  AMATEUR AMATEUR- SATELLITE	<b>Amateur</b>  <b>Amateur</b> <b>satellite</b>	

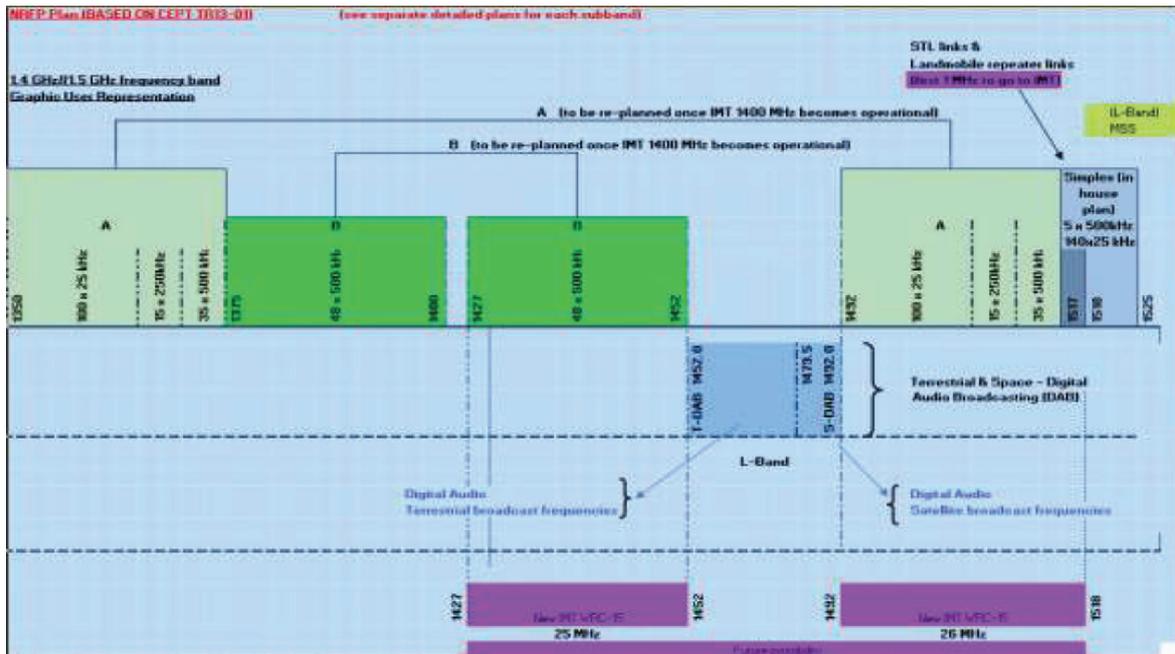
This may require additional allocations to the mobile service on a primary basis.

### 7.5 IMT2020 Proposed actions for identified IMT Frequency bands

The sub-sections below provide more information regarding the status and frequency usage in South Africa for the bands identified for IMT2020 implementation.

#### 7.5.1 1.427-1.518 GHz

The picture included below provide information on the band allocations for this band.



The licensees in this band include Telkom, ESKOM, TRANSNET, SAPS, SANDF, Ekurhuleni and National Research Foundation. There are also provision for Terrestrial Digital Audio Broadcasting as well as Satellite Digital Audio Broadcasting. There are currently no licenses issued and operational in this part of the spectrum in South Africa.

More information on the Channel plans and licensee information can be obtained in Appendix B to this document.

A study need to be performed to determine if changes are required to rearrange the band usage

### 7.5.2 3.3 – 3.6 GHz

The following studies are currently being undertaken for the stipulated bands

#### Nigeria, South Africa Zimbabwe & Kenya proposed frequency arrangement for the band 3300-3600 MHz

##### Introduction

The band 3300-3400 MHz is allocated to the Mobile, except aeronautical Service, through various footnotes, and is Identified for IMT in forty-five (45) countries. The identification for IMT was made under the condition that such IMT systems shall not cause interference nor claim protection from the then incumbent primary services of the band. The countries that are on the IMT Identification footnotes cut across the three regions of the ITU, with thirty-three (33) of the countries being in Africa (R1), six (6) in the Americas (R2) and six (6) in Asia (R3). Considering the interest expressed by Administrations, across all the three regions, for this band to be used for IMT, based on its ability to provide the needed capacity for the deployment of IMT services, and considering the band's adjacency to the near-globally harmonised 3400-3600 MHz band, there scope in giving consideration to a channelling arrangement for a contiguous band covering the range 3300-3600 MHz.

##### Proposal

It is hereby proposed that, within the ongoing revision of Recommendation ITU-R. M. 1036, consideration be given to an unpaired (TDD) arrangement covering the range 3300-3600 MHz, as depicted in Table 1 below.

It is further proposed that this option be considered in the compatibility studies called upon by Resolution 223 (Rev WRC-15).

Frequency arrangements	Paired arrangements				Un-paired arrangements (e.g. for TDD) (MHz)
	Mobile station transmitter (MHz)	Centre gap (MHz)	Base station transmitter (MHz)	Duplex separation (MHz)	
F6					3300-3600

MHz	3 300	3 600
F4	TDD	
	3 300	3 600

## **Out of block emissions for IMT Base Stations at 3300-3400 MHz in the context of radar systems operating below 3300 MHz**

### **Introduction and background**

The frequency band 3 100-3 300 MHz is allocated, in all three Regions, to the radiolocation service on a primary basis, and earth exploration and space research on a secondary basis.

The frequency band 3 300-3 400 MHz is allocated in all three Regions to the radiolocation service on a primary basis, and in Region 2 and Region 3 is also allocated to the fixed, mobile and amateur service on a secondary basis.

The 3300 – 3400 MHz band was identified for IMT at WRC-15 by a number of countries. Resolution **223 (WRC-15)** calls for compatibility studies to assess the feasibility of:

- co-channel sharing between IMT and Radiolocation systems (including land, maritime and airborne radars) operating in the band 3300 - 3400 MHz; and
- adjacent band sharing between IMT operating in the 3300 – 3400 GHz band and Radiolocation systems deployed in the 3100 – 3300 GHz band.

### **Proposal**

This contribution presents in its attachment a study on the impact of aggregated macro BSs into land based radars B, D and I operating in an adjacent channel. The study assumes that the BS uses beamforming antennas. The results show the probability that the interference from the IMT network exceeds the -6 dB I/N threshold, for a range of values of OOB emissions from at the IMT BSs.

The study shows that for a 1% to 10% exceedance probability, the maximum permitted out of block emissions at the BSs should be in the range -44...-50 dBm/MHz.

The signing Administrations propose that WP5D takes account of the material presented in this contribution as part of its process of revising the working document in consideration of the introduction of 5G IMT systems to 3300-3400 MHz.

## In band coexistence and compatibility studies between IMT-Advanced systems in 3 300-3 400 MHz USING AAS and Radiolocation systems in 3 100-3 400 MHz

### Introduction and background

The frequency band 3 100-3 300 MHz is allocated, in all three Regions, to the radiolocation service on a primary basis, and earth exploration and space research on a secondary basis.

The frequency band 3 300-3 400 MHz is allocated in all three Regions to the radiolocation service on a primary basis, and in Region 2 and Region 3 is also allocated to the fixed, mobile and amateur service on a secondary basis.

The 3300 – 3400 MHz band was identified for IMT at WRC-15 by a number of countries. Resolution **223 (WRC-15)** calls for compatibility studies to assess the feasibility of:

- co-channel sharing between IMT and Radiolocation systems (including land, maritime and airborne radars) operating in the band 3300 - 3400 MHz; and
- adjacent band sharing between IMT operating in the 3300 – 3400 GHz band and Radiolocation systems deployed in the 3100 – 3300 GHz band.

### Proposal

This contribution presents in its attachment a study on the impact of a single macro and micro urban BS into a type D maritime radar operating co-channel. The study is based on a simple MCL analysis, but it assumes that the BS uses beamforming antennas which are modelled statistically. The results show the likelihood that the interference from the BS exceeds the -6 dB I/N threshold, for 20 km, 50 km and 100 km separation distances between the BS and the radar, and for the tropical and equatorial locations agreed by WP5D.

This study shows that compatibility between IMT with AAS and ship based radars is possible. The table below summarises the results.

Probability that the interference from BS into radar is below the – 6dB I/N criterion

	Separation distance (km)	Equatorial P=10%	Equatorial P=20%	Tropical P=10%	Tropical P=20%
Urban Macro	20	58%	58%	58%	58%
	50	80%	80%	80%	93%
	100	86%	93%	93%	98%
Urban Micro	20	92%	92%	92%	92%
	50	95%	95%	95%	99%

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The signing administrations propose that the Study in the Attachment is incorporated to the draft report on radar & IMT coexistence in the 3300-3400 MHz

### 7.5.3 24.25-27.5 GHz

This band is currently being utilised and the following entities are licensed in this band:

- Telkom
- Transnet
- Dark Fibre
- MTN
- Vodacom
- Liquid Telecoms (Neotel)
- Multisource (WBS)

Part of the band is also considered for Metro Fibre in Gauteng.

More information on the current licence assignments can be viewed in Appendix C to this document. Study to be performed into the detail current usage of the band and the availability for IMT2020 applications.

### 7.5.4 31.8-33.4 GHz

No licensees are recorded i.e. no licenses have been issued in this band and no channel plans have been developed. It is recommended that a Frequency Spectrum Assignment Plan is developed for this band. There are currently no intention to perform a study before the Frequency Spectrum Assignment Plan is developed.

### 7.5.5 37-40.5 GHz

This band is currently being utilised and there are existing channel plans with spacing or channel width of 3.5 MHz, 7 MHz, 14 MHz and 28 MHz. This band is setup in accordance with ITU-R F.749-1. The Block and Ad Hoc users in this band include the following entities:

- Breedenet
- Comsol Networks
- Cell-C

- Digital Mobile Networks
- Dim Dat
- Drs Bloch Partners Inc.
- Eskom
- Faircape Communications T/A Faircom
- I-Gen
- Infogro
- Infovan
- Internet Solutions
- MTN
- Multisource
- Liquid Telecoms (Neotel)
- Network Embedded Technologies
- Overstrand Municipality
- Rosewell Trading
- SAPS
- Scan RF
- Screamer Communications
- Sentech
- Sishen
- Telkom
- Tenet
- Transnet
- Tswane University of Technology
- Vodacom

It is possible that some of these licensees are not licensed anymore.

The existing channel plans are available in Appendix D to this document.

Study to be performed into the detail current usage of the band and the availability for IMT2020 applications.

**7.5.6 40.5-42.5 GHz**

This band is currently being utilised and there are existing channel plans with spacing or channel width of 7 MHz, 14 MHz, 28 MHz, 56 MHz and 112 MHz. There are no records available from ICASA on licensees in this frequency band.

The existing channel plans are available in Appendix E to this document.

Study to be performed into the detail current usage of the band and the availability for IMT2020 applications.

**7.5.7 45.5-47 GHz**

No licensees are recorded i.e. no licenses have been issued in this band and no channel plans have been developed

It is recommended that that a Frequency Spectrum Assignment Plan is developed for this band. There are currently no intention to perform a study before the Frequency Spectrum Assignment Plan is developed.

**7.5.8 47-47.2 GHz**

No licensees are recorded i.e. no licenses have been issued in this band and no channel plans have been developed

It is recommended that that a Frequency Spectrum Assignment Plan is developed for this band. There are currently no intention to perform a study before the Frequency Spectrum Assignment Plan is developed.

**7.5.9 47.2-50.2 GHz**

No licensees are recorded i.e. no licenses have been issued in this band and no channel plans have been developed

It is recommended that that a Frequency Spectrum Assignment Plan is developed for this band. There are currently no intention to perform a study before the Frequency Spectrum Assignment Plan is developed.

**7.5.10 50.4-52.6 GHz**

No licensees are recorded i.e. no licenses have been issued in this band and no channel Plans have been developed

It is recommended that that a Frequency Spectrum Assignment plan is developed for this band. There are currently no intention to perform a study before the Frequency Spectrum Assignment Plan is developed.

#### **7.5.11 57.0 – 66 GHz**

No licensees are recorded, and no channel plans have been developed. The V-Band has been Gazetted in Government Gazette 40436 dated 22 November 2016 Notice 781 of 2016.

It is recommended that a Frequency Spectrum Assignment plan is developed for this band. There is currently no intention to perform a study before the Frequency Spectrum Assignment Plan is developed.

#### **7.5.12 66-76 GHz (E-Band)**

No licensees are recorded i.e. no licenses have been issued in this band 66 to 71 GHz and no channel plans have been developed. License information and Channel plans are available for the Band 71 to 76 GHz. This frequency band is paired with 81 to 86 GHz.

See Appendix F for more information. FDD systems are deployed with channel spacing of 250 MHz. Find more information on the self-coordinated Block of frequencies in the E-Band and the ICASA-coordinated Block in Appendix G to this document. See Government Gazette 40815 dated 28 April 2017 Notice 317 of 2017. The entities self-coordinated in this band include:

- Vodacom
- MTN
- Sonic Computers
- EOH
- Fusion Wireless
- Liquid Telecommunications
- Francois Theron Photography
- Others not self-coordinated

It is recommended that a Frequency Spectrum Assignment plan is developed for the band 66 to 71 GHz. Also see Government Gazette 40436 dated 22 November 2016 Notice 781 of 2016.

Study to be performed into the detail current usage of the band and the availability for IMT2020 applications.

#### **7.5.13 81-86 GHz (E-Band)**

The band 81 to 86 GHz is paired with 71 to 76 GHz. See Government Gazette 40815 dated 28 April 2017 Notice 317 of 2017. Find more information on the self-coordinated

Block of frequencies in the E-Band and the ICASA-coordinated Block in Appendix G to this document.

The entities self-coordinated in this band include:

- Vodacom
- MTN
- Sonic Computers
- EOH
- Fusion Wireless
- Liquid Telecommunications
- Francois Theron Photography
- Others not self-coordinated

Also see Government Gazette 40436 dated 22 November 2016 Notice 781 of 2016.

Study to be performed into the detail current usage of the band and the availability for IMT2020 applications.

## 8 IMT Roadmap: Time Frame

### 8.1 Time frame overview

The following was a draft indicative timeline for the deployment of IMT bands and the associated migration timelines, mainly for the 450-470 MHz band. There are some essential conditions for this current draft time plan:

1. The SAPS will finish migration in time and free up their current spectrum by the end of 2014;
2. The broadcasters will complete the DTT process with Analogue Switch Off by mid-2015;
3. Transnet will embark the modernisation from analogue to digital systems;
4. Potential co-existence and other trials for the 450-470 MHz band will be completed by the end of 2016 to enable a decision to be made concerning the options for co-existence; and
5. An overall migration timeframe of 8 years up to 2022 for the 450-470 MHz band is expected to give all players sufficient time for migration.

### 8.2 Calendar of expected activities by year

YEAR	Activities foreseen to take place and deadlines foreseen to occur within the Calendar Year
2014	<ul style="list-style-type: none"> <li>• 380-400 MHz band has already been assigned as PPDR usage band with TETRA as one technological option.</li> <li>• SAPS have already started migration out of 406-420 MHz to TETRA in the 380-387//390-397 MHz band.</li> <li>• The remaining 2x3 MHz in the 380-400 MHz band is available for use by emergency, security, and airport services.</li> <li>• Process of assignment of 700, 800 and 2600 FDD IMT-spectrum starts.</li> </ul>
2015	<ul style="list-style-type: none"> <li>• As per ITU Resolutions 224 WRC07 and 232 WRC12, the DTT process is completed within 470-694 MHz and Analogue Switch Off (ASO) takes place by mid-2015.</li> <li>• Preparation of co-existence trials for 450-470 MHz.</li> <li>• Implementation / rollout of new IMT spectrum (700, 800 and 2600 MHz) starts after ASO.</li> <li>• SAPS finalises network migration frees up spectrum in 406-410//416-420 MHz and 413-416//423-426 MHz. <ul style="list-style-type: none"> <li>• The 406-410//416-420 MHz, 410-413//420-423 MHz and 413-416//423-426 MHz bands free for use for TETRA or PMR networks and services – coordinated by the Authority.</li> </ul> </li> </ul>

2016	<ul style="list-style-type: none"> <li>• Coexistence trials with respect to the 450-470 MHz band will be carried out during 2016 in urban and rural areas. To evaluate guard bands to broadcast channel 21 and TETRA-like narrowband systems (In concordance with potential IMT450-vendors and Transnet).</li> <li>• The 406-410//416-420 MHz and 413-416//423-426 MHz bands potentially deployed as Migration destination bands for TETRA or PMR networks and services,</li> <li>• Other licensees of 450-470 MHz band start migration to: <ul style="list-style-type: none"> <li>• 403-406 MHz (unpaired);</li> <li>• 426-430 MHz (unpaired); or</li> <li>• 440-450<sup>13</sup>MHz bands (paired or unpaired); and</li> <li>• In case of PPDR-use - also to 387-390//397-400 MHz</li> </ul> </li> </ul> <p>migration completed by 2022 (max 7 years).</p> <ul style="list-style-type: none"> <li>• Fixed links (e.g. Telkom) potentially migrated to 2025-2110 MHz band and/or 2200 – 2285 MHz band.</li> <li>• Migration should start in rural areas to clear spectrum for new IMT450 licensees: <ul style="list-style-type: none"> <li>• Phase 1 target: &gt;80% of rural-used licenses is cleared for IMT450 end of 2018 (3 years);</li> <li>• Phase 2: 80% of urban used licenses is cleared for IMT450 end of 2022 (7 years); and</li> <li>• Phase 3: 100% of 450-470 MHz is cleared by end of 2024 (9 years).</li> </ul> </li> </ul>
2017	<p>Depending on co-existence trial results<sup>14</sup>:</p> <ul style="list-style-type: none"> <li>• <b>Co-existence possible:</b> Transnet, SAA or other licensees start migration in co-existence bands within 450-470 MHz, fine tuning of potential splitters, etc.</li> <li>• <b>Migration required:</b> Transnet, SAA and others start migration of operation-relevant services into new destination bands, e.g. TETRA in 410-413//420-423 MHz with spectrum efficient use - target maximum 5 years of migration plus 2 years of dual illumination. <ul style="list-style-type: none"> <li>• Transnet may also opt to migrate to GSM-R<sup>15</sup></li> </ul> </li> </ul>
2018	<ul style="list-style-type: none"> <li>• Present</li> <li>• Potential 2<sup>nd</sup> assignment of TDD IMT spectrum (i.e. IMT750, IMT2600 and IMT3500).</li> <li>• IMT450 licensee starts rollout in 450-470 MHz band in agreed areas (e.g. rural first followed by</li> </ul>

<sup>13</sup> It might be necessary to also clear the 449-450 MHz band to increase IMT-spectrum.

<sup>14</sup> The licensees are at liberty to migrate out of 450-470 MHz earlier, independently from the results of the co-existence trials.

<sup>15</sup> In addition, possibly later to LTE-R in the IMT850 band. It can be anticipated that Transnet (and more probably PRASA) would use a TETRA network for operation and mission critical services and use LTE-R for broadband services. Much of the GSM-R equipment can be reused for LTE-R.

	urban) according to migration Phase 1 where there is no interference to Transnet or other licensees (e.g. reduced power levels); existing licensees remain prioritised.
2020-2022	<ul style="list-style-type: none"> <li>• Target of SA Connect broadband initiative in South Africa is achieved: (ref IMT coverage and capacity obligations in Chapter 0).</li> <li>• Transnet completes migration (deployment) and continues dual illumination phase (in line with Transnet's option 3)</li> </ul>
2024	<ul style="list-style-type: none"> <li>• All licensees have finished spectrum migration or service migration to new operations and shut down all systems in the IMT450 band.</li> <li>• IMT450 licensee reached coverage license obligations.</li> </ul>

### 8.3 Timelines IMT 2020 and beyond

In planning for the development of IMT-2020 as well as future enhancement of the existing IMT, it is important to consider the timelines associated with their realization, which depend on a number of factors:

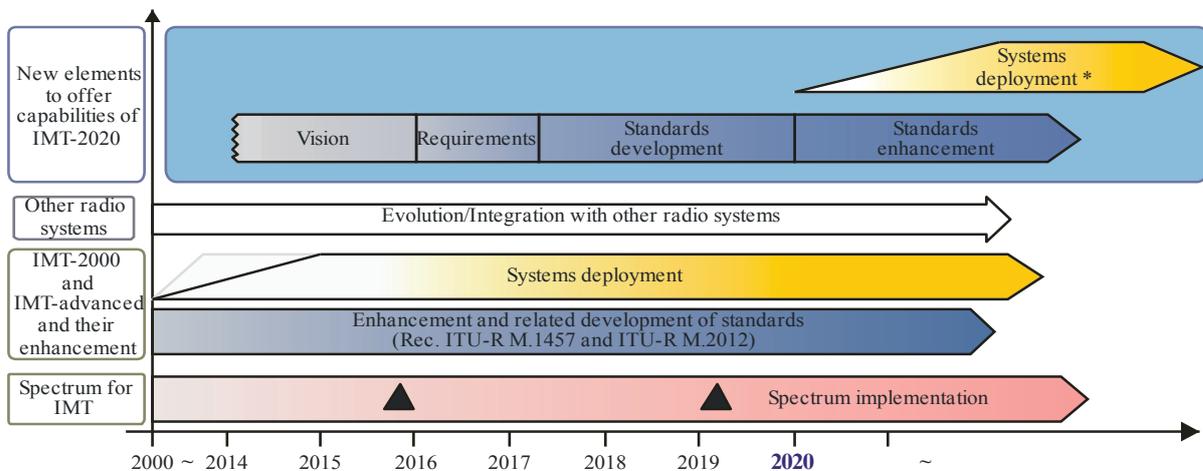
- user trends, requirements and user demand;
- technical capabilities and technology development;
- standards development and their enhancement;
- spectrum matters;
- regulatory considerations;
- system deployment.

All of these factors are interrelated. The first five have been and will continue to be addressed within ITU. System development and deployment relates to the practical aspects of deploying new networks, taking into account the need to minimize additional infrastructure investment and to allow time for customer adoption of the services of a new system. ITU will complete its work for standardization of IMT-2020 no later than the year 2020 to support IMT-2020 deployment by ITU members expected from the year 2020 onwards.

The timelines associated with these different factors are depicted in Fig. 5. When discussing the phases and timelines for IMT-2020, it is important to specify the time at which the standards are completed, when spectrum would be available, and when deployment may start.

FIGURE 5

## Phase and expected timelines for IMT-2020



The sloped dotted lines in systems deployment indicate that the exact starting point cannot yet be fixed.

▲ : Possible spectrum identification at WRC-15 and WRC-19

\* : Systems to satisfy the technical performance requirements of IMT-2020 could be developed before year 2020 in some countries.  
 : Possible deployment around the year 2020 in some countries (including trial systems)

M.2083-05

### 8.3.1 Medium term

In the medium-term (up to about the year 2020) it is envisaged that the future development of IMT-2000 and IMT-Advanced will progress with the ongoing enhancement of the capabilities of the initial deployments, as demanded by the marketplace in addressing user needs and allowed by the status of technical developments. This phase will be dominated by the growth in traffic within the existing IMT spectrum, and the development of IMT-2000 and IMT-Advanced during this time will be distinguished by incremental or evolutionary changes to the existing IMT-2000 and IMT-Advanced radio interface specifications (i.e. Recommendations ITU-R M.1457 for IMT-2000 and ITU-R M.2012 for IMT-Advanced, respectively).

It is envisaged that the bands identified by WRCs will be made available for IMT within this timeframe subject to user demand and other consideration.

### 8.3.2 Long term

The long term (beginning around the year 2020) is associated with the potential introduction of IMT-2020 which could be deployed around the year 2020 in some countries. It is envisaged that IMT-2020 will add enhanced capabilities described in § 5, and they may need additional frequency bands in which to operate.

### 8.4 Workplan, timeline, process and deliverables for the future development of IMT

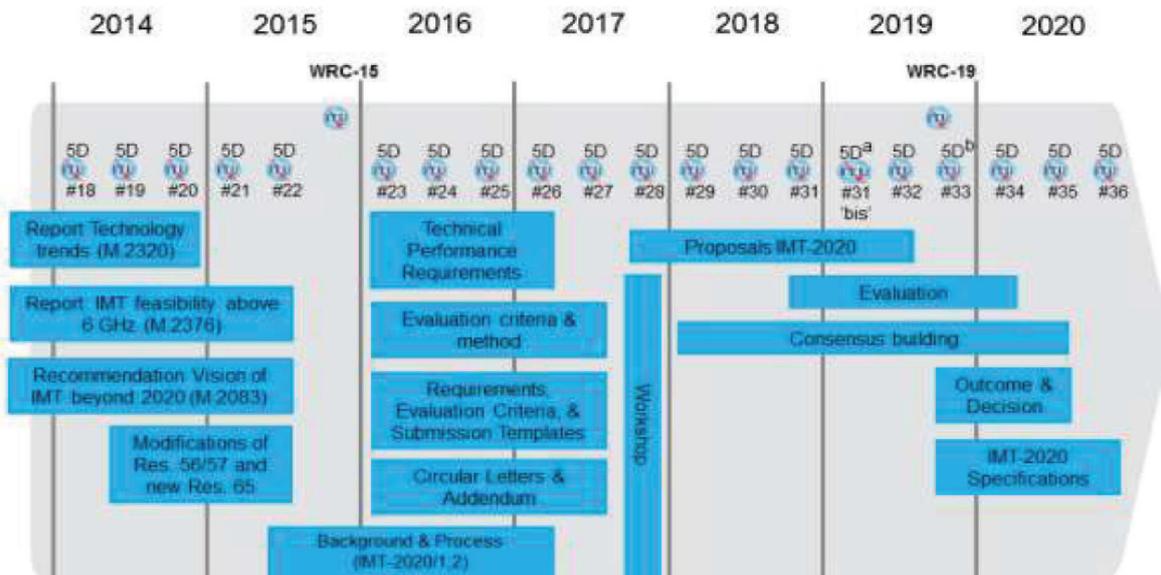
Working Party 5D has developed a work plan, timeline, process and required deliverables for the future development of IMT, necessary to provide by 2020 timeframe, the expected ITU-R outcome of evolved IMT in support of the next generation of mobile broadband communications systems beyond IMT-Advanced.

Circular Letter(s) are expected to be issued at the appropriate time(s) to announce the invitation to submit formal proposals and other relevant information.

It has been agreed that the well-known process and deliverable formats utilized for both IMT-2000 and IMT-Advanced should be utilized also for IMT-2020 and considered as a “model” for the IMT-2020 deliverables to leverage on the prior work. In WP 5D #20 the process and related deliverables was agreed as shown in Figure 1 and Table 1.

Dates has been decided for RA-19 (21-25 October 2019) and WRC-19 (28 October – 22 November 2019). The WP 5D #32 (July) is the main meeting for year 2019. The WP 5D #33 is to be held in December with a focus on the evaluation process (WG Technology Aspects). If needed there is an opportunity for expert meeting to focus on preparation towards WRC-19 (WG General Aspects and WG Spectrum Aspects) prior to the WP 5D #32 (July).

## Detailed Timeline & Process For IMT-2020 in ITU-R



(a) – five day meeting, (b) – focus meeting on Evaluation (Technology)  
 Note: While not expected to change, details may be adjusted if warranted.

TABLE 11

1 While not expected to change, details may be adjusted if warranted.

Anticipated IMT-2020 related deliverables Item	Proposed IMT-2020 related deliverable	Aspect to be addressed in proposed deliverable	Work start timing	Document completion in WP 5D	IMT-Advanced model document	Responsible WG (and SWG)
1	Doc. IMT-2020/001 IMT-2020 Background"	Background on IMT-2020	Meeting #22 (June 2015)	Meeting #24 (June 2016)	Document IMT-ADV/1 "Background on IMT-Advanced"	WG GEN (SWG CL)
2	Doc. IMT-2020/002 IMT-2020 Process"	The Submission and evaluation process and consensus building for IMT-2020 as well as the "timeline" for IMT-2020	Meeting #22 (June 2015)	Meeting #24 (June 2016)	Document IMT-ADV/2 "Submission and evaluation process and consensus building"	WG TECH (SWG COORD)
3	Draft new Report ITU-R M.[IMT-2020. TECH PERF REQ]	General Technical Performance Requirements expected of a technology to satisfy IMT-2020	Meeting #23 (February 2016)	Meeting #26 (February 2017)	Report ITU-R M.2134 "Requirements related to technical performance for IMT-Advanced radio interface(s)"	WG TECH (SWG RADIO)
4	Draft new Report ITU-R M.[IMT-2020. EVAL]	Evaluation Criteria and Evaluation Methods for IMT-2020 technologies	Meeting #23 (February 2016)	Meeting #27 (June 2017)	Report ITU-R M.2135 "Guidelines for evaluation of radio interface technologies for IMT-Advanced"	WG TECH (SWG EVAL)
5	Draft new Report ITU-R M.[IMT-2020. SUBMISSION]	Specific Requirements of the candidate technology related to submissions, the evaluation criteria and submission templates	Meeting #23 (February 2016)	Meeting #27 (June 2017)	Report ITU-R M.2133 "Requirements, evaluation criteria and submission templates for the development of IMT-Advanced"	WG TECH (SWG COORD)

6	<p><b>Circular Letter IMT-2020</b></p>	<p>The official ITU-R announcement of the IMT-2020 process and the invitation for candidate technology submissions</p>	<p>Meeting #23 (February 2016)</p>	<p>Meeting #36 (October 2020)</p>	<p>Circular Letter 5/LCCE/2 and Addenda <i>“Invitation for submission of proposals for candidate radio interface technologies for the terrestrial components of the radio interface(s) for IMT-Advanced and invitation to participate in their subsequent evaluation”</i> For example, Documents IMT-ADV/4 thru IMT-ADV/9 <i>“Acknowledgement of candidate submission from ..... under step 3 of the IMT-Advanced process (..... technology)”</i></p>	<p>WG GEN (SWG CL)</p>
7	<p><b>Doc. IMT-2020/YYYY Input Submissions Summary</b></p>	<p>Capturing in ITU-R documentation the inputs documents and the initial view of suitability as a valid submission</p>	<p>Meeting #28 (October 2017)</p>	<p>Meeting #32 (July 2019)</p>	<p>WG TECH (SWG COORD)</p>	

## 9 IMT Spectrum and Universal Service Obligations

### 9.1 Objectives of SA Connect

The South Africa Connect broadband policy targets were defined as indicated in Table 18 below:

Target	Penetration measure	Baseline (2013)	By 2016	By 2020	By 2030
Broadband access in Mbps user experience	% of population	33.7% internet access	50% at 5 Mbps	90 % at 5Mbps 50% at 100 Mbps	100% at 10 Mbps 80% at 100 Mbps
Schools	% schools	25% connected	50% at 10 Mbps	100% at 10 Mbps 80% at 100 Mbps	100% at 1 Gbps
Health facilities	% of health facilities	13% connected	50% at 10 Mbps	100% at 10 Mbps 80% at 100 Mbps	100% at 1 Gbps
Government facilities	% of government offices		50% at 5 Mbps	100% at 10 Mbps	100% at 100 Mbps

**Table 18: SA Connect Targets**

Mobile broadband is the critical resource for the provision of broadband for all in South Africa due to the superior roll-out pace possible with wireless and limited reach of fixed access networks with future fibre to the building / home infrastructure unlikely to extend much beyond affluent high-density neighbourhoods in the core urban areas.

### 9.2 Broadband challenge in South Africa

Access to broadband is a necessary condition of economic development in the modern economy. Although attention has been paid to the economic benefits of broadband as calculated by the World Bank, it is probably more accurate to note the converse, that an area that does not have broadband will suffer relative economic decline.

The broadband challenge in all countries is to overcome the specific problems associated with geography and the distribution of population and the manner in which the economic viability of broadband rollout varies from area to area due to the significant differences in financial outlay required and differences in the level of demand (or ability to pay).

A general rule of telecommunications is that, by virtue of geography, it is generally true that the highest revenue customers are the cheapest and easiest to serve as business,

and the rich tend to cluster. The main providers of broadband in South Africa are the mobile customers and it is probably true to say that the mobile providers are fast approaching the point where the economic customers have been captured. In the GSM rollout, a key driver was the need to demonstrate market share and competitive coverage.

Therefore, even when lower frequencies are made available, providers generally consider that rural, underserved areas are uneconomic for the provision of service as income levels are considered to be low. A lack of broadband in a rural area means that those inhabitants will be excluded from participating in the digital economy, exacerbating the disadvantages they have inherited by virtue of their physical address.

In South Africa, the landscape is dominated by a hierarchy of metropolitan areas, with one dominant metropolitan area (Gauteng), three second tier metropolitan areas (Cape Town, Durban and the smaller Port Elizabeth) and then a hierarchy of cities serving sub-regions. The rest of the country is then characterised by two types of economic landscape:

- Areas of low population density characterised by commercial farming areas which towards the west become semi-arid and virtually unpopulated; and
- Areas of relatively high population density characterised by near-subsistence farming with an evenly-dispersed, fairly high density population.

#### **The priority underserved areas**

The map of population density (Figure 16) illustrates this pattern very clearly and equally illustrates the broadband challenge. There are areas of high population density in the north east of the Eastern Cape, substantial areas of Kwa-Zulu Natal and Limpopo and the east of Mpumalanga province which are clearly rural and it is these areas that are generally underserved. As a rough estimate, probably over 80% of the population that is underserved occupies less than 10% of the country's land. The population in these areas is fairly dispersed and it can be contended that it is in these areas that the 700 MHz and 800 MHz bands and potentially the 450-470 MHz band will be required to meet universal service targets<sup>16</sup>. The importance of these bands is that they allow coverage of far wider areas using existing base stations and reducing the number of additional base stations (and subsequently reducing the major cost element).

The licensees assigned to these bands should be subject to strict and enforced coverage targets<sup>17</sup>.

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<sup>16</sup> The Northern Cape and similar areas also provide challenges for coverage, but here the population tends to be more clustered and the problem is more one of backhaul than the frequency used for access.

<sup>17</sup> The value of the digital dividend frequencies to operators probably does lie in the capacity that is made available in areas that already have existing coverage. The value to the nation lies in the potential universal coverage that these bands can provide and the assignment and licensing process should reflect this.

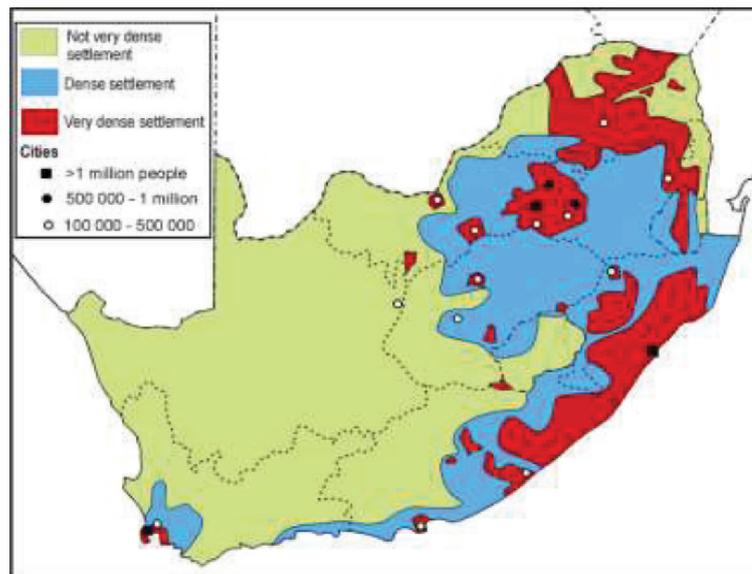


Figure 16: Population densities in South Africa

### 9.3 Considerations for assignment

#### 9.3.1 To link or not to link frequency bands

The Authority has been considering linking low frequencies with high frequencies (for example the 800 MHz band with the 2.6 GHz band). The argument is that this will allow the 2.6 GHz band to be used to provide capacity for 'hotspots' where more capacity is required.

The issue to be considered is what the potential outcomes are if lower frequencies are not linked to higher frequencies:

- A licensee who only has assignments in the lower frequencies may find that the frequencies become congested and capacity cannot be increased in the urban areas which the operator is relying on to make a profit to offset investments; and
- A licensee who only has an assignment in higher bands (such as 2600 MHz or higher) and is not compelled to provide universal service due to the propagation challenges of the band, can simply focus on the urban 'hotspots' (large and small) which generate revenue and by doing so potentially undermine the financial viability of the universal service provider.

These cases are somewhat hypothetical, but do illustrate the issues that need to be considered in effective assignment.

#### 9.3.2 Individual Assignment or Wholesale

The issue of whether the 700 and 800 MHz bands (or even 450-470 MHz band) should be assigned on an individual basis or on a wholesale, open-access basis is beyond the

scope of the present document, however whatever the option that is chosen, obligations should be imposed on the licensee.

#### 9.4 Assignment: Obligations for Licensees

This section illustrates some indicative minimum obligations for licensees of IMT bands in order to achieve universal service targets. However, the details will be aligned with the Broadband policy and contained in the relevant ITA.

Coverage and capacity obligation per IMT band in South Africa:

- 450-470 MHz
  - Coverage obligations for licensee by end of 2025 (mobile terminals assumed):
    - All areas with at least 100 inhabitants to be covered indoor (with indoor penetration assumption of 10 dB) with minimum user data rate of 150 kbps uplink and 300 kbps downlink;
    - All main roads (national and provincial routes) in-car (equal to at least 10 dB penetration assumption) and metropolitan railways<sup>18</sup>(equal to at least 20 dB penetration assumption in carriage).
    - All smaller settlements with less than 100 inhabitants (and more than 20 inhabitants) to be covered outdoor with minimum user data rate of 150 kbps uplink and 300 kbps downlink;
    - Special areas of interest such as tourism areas to be covered outdoor with minimum user data rate in 150 kbps uplink and 300 kbps downlink; and
    - The outdoor obligations could be met by using fixed mobile stations with external high gain antennas and Wi-Fi service distribution. This coverage has to be assigned separately in coverage maps.
  - FDD and TDD: Capacity obligation of minimum uplink and downlink user data rate of 100 kbps for 90% of active users in the cell in the busy hour.
- 700 MHz or 800 MHz (different assignments of 2×5 MHz)
  - Coverage obligations for licensees by end of 2020 (mobile terminals assumed):
    - All centres with at least 1000 inhabitants to be covered indoor (with indoor penetration assumption of 15 dB) with minimum user data rate of 150 kbps uplink and 500 kbps downlink.
  - Capacity obligation of minimum uplink user data rate of 100 kbps for 90% of active users in the cell in the busy hour.
  - Capacity obligation of minimum downlink user data rate of 300 kbps for 90% of active users in the cell in the busy hour.
- 850 MHz (2×5 MHz currently assigned to Neotel, now used for CDMA)

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<sup>18</sup> Transnet (and PRASA) may reuse their existing 450 band antennas to improve in-train broadband coverage via Wi-Fi connectivity for smart terminals.

- Coverage obligations to be defined pending resolution of interference situation with GSM-R.
  - Capacity obligation of minimum uplink user data rate of 100 kbps for 90% of active users in the cell in the busy hour.
  - Capacity obligation of minimum downlink user data rate of 300 kbps for 90% of active users in the cell in the busy hour.
  - Capacity obligations must also be met by current licensees.
- 2300-2400 MHz (different lots of 20 MHz)
    - *Note that 60 MHz are assigned to Telkom and 20 MHz to SMMT, so only 20 MHz is available for new assignments.*
    - TDD: Capacity obligation of minimum uplink and downlink user data rate of 500 kbps for 90% of active users in the cell in the busy hour.
    - Capacity obligations must also be guaranteed by current licensees.
  - 2500-2570 MHz paired with 2620-2690 MHz (different lots of 2×5 MHz) and one TDD licensee for 50 MHz
    - FDD: Capacity obligation of minimum uplink user data rate of 500 kbps for 90% of users in the cell in the busy hour.
    - FDD: Capacity obligation of minimum downlink user data rate of 500 kbps for 90% of active users in the cell in the busy hour.
    - TDD: Capacity obligation of minimum uplink and downlink user data rate of 500 kbps for 90% of active users in the cell in the busy hour.
  - 3400-3600 MHz (different lots of 20 MHz)
    - TDD: Capacity obligation of minimum uplink and downlink user data rate of 500 kbps for 90% of active users in the cell uplink and downlink busy hour.

The minimum service requirements are based on minimum user data rates of current 2G and 3G networks and are intentionally kept low in order to achieve agreement to harmonise minimum service requirements for all bands for all cells. Existing assignments must use these minimum user data rates otherwise there is the risk that operators might implement traffic shifting mechanisms to downgrade users to bands without minimum service requirement obligations. These service requirements will also hold for future assignments in, e.g. 1700-2300 MHz bands.

The minimum service requirements are differentiated with lower requirements in coverage bands below 1 GHz and higher requirements for capacity bands higher than 1 GHz. Therefore, the operators still have the possibility of quality-driven traffic management, while still ensuring a minimum performance in all bands and focusing on higher data rates in higher bands with higher capacity density. This also improves spectral efficiency due to more efficient usage of resources in higher bands.

## 10 Considerations Arising out of IMT Roadmap 2014 & 2018

### 10.1 Considerations IMT Bands for implementation 2014 Roadmap

This process is still ongoing and joins up with the IMT Roadmap 2018. Within this IMT roadmap, the following important recommendations will be highlighted:

#### 450 - 470 band

- The IMT450 band may prove essential for cost-efficient rural coverage for the SA Connect initiative. Potential deployments in IMT700 or IMT800 bands would increase radio access network deployment costs significantly by 55-85% dependent on the target areas and services.
- IMT450 TDD uplink would only slightly reduce coverage and remains the opportunity for uplink-favourable IMT implementation. IMT450 TDD downlink would reduce coverage gain significantly and is not recommended.
- IMT450 has an advantage for IMT TDD due to improved uplink schemes and high uplink demands due to M2M applications. There is the potential for spectrum pairing with higher TDD spectrum bands.
- The IMT450 band might also be attractive to PPDR-supporting services in addition to the SAPS network. 2×5 MHz FDD would be appropriate in this case. TDD is not suggested for PPDR due to reduced coverage characteristics.
- The 450-470 MHz band should be used exclusively for IMT. Potential co-existence scenarios could be deployed dependent on satisfactory trial results:
  - Therefore, the 450-470 MHz band should be used for IMT, for basic broadband coverage in rural areas and potential future services like M2M and connected car application. Both demands will evolve over the following years with the availability of new IMT networks and the availability of devices; and
  - Migration should start as soon as possible dependent on the spectrum vacated by SAPS as one of the targeted destination bands 406-430 MHz,

#### 700 and 800 bands

- IMT700 and IMT800 offer 2×63 MHz (for both ITU Region 1 and ITU Region 3).
- Option 2 and Option 3 (ITU Region 1) offer in addition 10-15 MHz TDD spectrum and are therefore more spectrum-efficient if the TDD band is used;
  - potential channelisation of IMT750 will be decided at WRC-15 and based on WP5D recommendation.

- Option 1 (ITU Region 3) offers a larger ecosystem currently, but ITU Region 3 equipment could also be used in ITU Region 1, at least within the 30 MHz international roaming band.
- In addition, Option 1 (ITU Region 3) would offer 2×10 MHz instead of 2×5 MHz in IMT850 **only if there is no implementation of GSM-R**, but this is not the case for South Africa. Therefore, in this context, the Option 2 and 3 (ITU Region 1) solutions are more advantageous.

#### CDMA and GSM-R

- Neotel's assignment in IMT850 is now 827-832 // 872-877 MHz and overlapping to the GSM-R assignment from 876-880MHz // 921-925 MHz. Neotel has to ensure the migration to 825-830 // 870-875 MHz, which is 1 MHz next to the GSM-R band; therefore the IMT850 licensees need to implement interference mitigation measures (e.g. filters) in areas with GSM-R sites.
- GSM-R is currently deployed by PRASA and it is expected that GSM-R will also have a long term usage. The next possible migration step might be from GSM-R in 877.695-880//921-925 MHz to LTE-R in IMT850 band. GSM-R investment might be optimised in the case of proper usage of SRAN equipment and further upgrades to LTE.

#### 900 band

- The IMT900 migration from GSM to LTE should be possible in 2×5 MHz steps immediately. The additional demands of broadband IMT require spectrum harmonisation to allow licensees to have contiguous assignments. Consolidation will not be initiated until all operators have aligned to Phase 2 (Scenario 3) in order to carry out a one-step migration towards full IMT-usage with 2×5 MHz bands.
- Current guard bands have to be reduced between the operators on mutual agreement to improve spectral efficiency.

#### 1800 and 2100 bands

- Potential migrations of GSM1800 or UMTS2100 bands to broadband IMT1800 or IMT2100 are possible and should be allowed based on operators capacity needs.
- IMT2100 extensions of TDD and FDD spectrum still need to be discussed and agreed at ITU level.

#### 2300 band

- The IMT2300 band is almost fully used. The only free spectrum of 20 MHz could be assigned to WBS to facilitate the clearance of 2550-2565 MHz, which would require new equipment and antennas. There might be a temporary solution for WBS to move their services to 2585-2600 MHz until the new IMT-TDD licensee would need the new spectrum.
  - The 2400-2500 MHz band should be used for ISM applications and DECT-services; In case of interference with 2380-2400 MHz assignments, the ISM-band operator needs to establish a sufficient guard band.

### 2600 band

- IMT2600 should follow the worldwide option 1 with 2×70 MHz FDD and 50 MHz TDD.
- The option could be considered that the IMT TDD spectrum (IMT450, IMT750 and IMT2600) be assigned to one (wholesale) operator to strengthen the TDD ecosystem in South Africa.

### 3500 band

- IMT3500 should be used for 200 MHz for TDD, with special downlink schemes starting from 3400 MHz and uplink schemes ending at 3600 MHz. At least 5 MHz of guard band needs to be used with lower priority. There is a general preference for TDD in higher bands due to the asymmetry of TDD and better decoupling characteristics, especially with the IMT3500 band because of the economy of scale and potential WiMAX to LTE migrations, (which is not relevant for South Africa because FDD is in use now with the tendency of clearing the band by the current licensees).
- If the concept of Managed Spectrum Parks (MSP) is introduced in South Africa, the 5 MHz guard band between downlink and uplink schemes in IMT3500 might be enlarged to 20 MHz for MSP use.

Taking into account all above-mentioned IMT-assignments, the IMT-spectrum bandwidths would increase from 470 MHz to ~1010 MHz.

For all assignments minimum coverage and capacity requirement, thresholds should be introduced to secure capacity demands and meet the targets of SA Connect.

## **10.2 Considerations IMT Roadmap frequency bands for IMT2020 Implementation**

More input required on the time-frame and implementation challenges considering the South African situations, implementation of the bands identified for IMT as well as ITU Region 1 considerations.

See section 8.2 for frequency bands.

## Appendix A Glossary

<b>3G</b>	means 3G or 3rd generation mobile telecommunications is a generation of standards for mobile phones and mobile telecommunication services fulfilling the International Mobile Telecommunications-2000 (IMT-2000) specifications by the ITU
<b>3GPP</b>	means the 3rd Generation Partnership Project (3GPP) which consists of six telecommunications standard development organisations
<b>Act</b>	means the Electronic Communications Act, 2005 (Act No. 36 of 2005);
<b>Amateur</b>	means a person who is interested in the radio technique solely for a private reason and not for financial gain and to whom the Authority has granted an amateur radio station licence and shall mean a natural person and shall not include a juristic person or an association: provided that an amateur radio station licence may be issued to a licensed radio amateur acting on behalf of a duly founded amateur radio association;
<b>APT</b>	means Asia-Pacific Telecommunity which is the focal organisation for ICT in the Asia-Pacific region. The APT has 38 member countries, 4 associate members and 131 affiliate members.
<b>Assignment</b>	means the authorisation given by the authority to a licensee to use a radio frequency or radio frequency channel under specified conditions;
<b>Authority</b>	means ICASA is the Independent Communications Authority of South Africa;
<b>Base station</b>	means a land radio station in the land mobile service for a service with land mobile stations;
<b>BFWA</b>	means Broadband Fixed Wireless Access
<b>BS</b>	means Broadcast Service or Base Station
<b>BTX</b>	means Base Transceiver;
<b>CCTV</b>	means Closed-circuit television
<b>CA</b>	means Carrier Aggregation
<b>CDMA</b>	means Code Division Multiple Access
<b>CEPT</b>	means Conference of European Posts and Telecommunications Authorities;
<b>CoMP</b>	means Co-ordinated Multi Point
<b>DAB</b>	means Digital Audio Broadcasting which is a digital radio technology for broadcasting radio stations
<b>DECT</b>	means Digital Enhanced Cordless Telecommunications 1880 - 1900MHz which is a digital communication standard, primarily used for creating cordless phone systems

<b>DF</b>	means Dual Frequency
<b>DoC</b>	means Department of Communication
<b>DTT</b>	means Digital Terrestrial Television
<b>DTT Mobile</b>	means Digital Terrestrial Television for Mobile services
<b>EIRP</b>	means effective isotropical radiated power;
<b>ERP</b>	means effective radiated power, which is the product of the power supplied to an antenna and its gain relative to a half wave dipole in a given direction;
<b>ECA</b>	means the Electronic Communications ACT of South Africa
<b>EDGE</b>	means Enhanced Data rates for GSM Evolution and is a digital mobile phone technology that allows improved data transmission rates as a backward-compatible extension of GSM
<b>ETSI</b>	means European Telecommunications Standards Institute
<b>FDD</b>	means Frequency Division Duplex
<b>FDMA</b>	means Frequency Division Multiple Access
<b>FMP</b>	means Frequency Migration Plan
<b>FPLMTS</b>	means Future Public Land Mobile Telecommunications System also called IMT-2000
<b>FTBFP 2008</b>	means Final Terrestrial Broadcast Frequency Plan of 2008
<b>FWA</b>	means Fixed Wireless Access
<b>FWBA</b>	means Fixed Wireless Broadband Access
<b>Gbps</b>	means Gigabits per second
<b>GHz</b>	means Gigahertz of Radio Frequency Spectrum;
<b>GSM</b>	means Global System for Mobile Communications,( originally Groupe Spécial Mobile), and is a standard set developed by the European Telecommunications Standards Institute (ETSI) to describe technologies for second generation (2G) digital cellular networks
<b>GSM-R</b>	means GSM for Railways
<b>IEEE</b>	means the Institute of Electrical and Electronics Engineers
<b>IMT</b>	means International Mobile Telecommunications
<b>INMARSAT</b>	means International Maritime Satellite
<b>IoT</b>	means Internet of Things
<b>ISM</b>	means Industrial, Scientific and Medical

<b>ITU</b>	means International Telecommunication Union
<b>ITU RR</b>	means International Telecommunication Union Radio Regulations
<b>kHz</b>	means Kilohertz of Radio Frequency Spectrum
<b>Land mobile service</b>	means a mobile radio-communication service between fixed stations and mobile land stations, or between land mobile stations
<b>LEO</b>	means Low Earth Orbit satellites
<b>LMR</b>	means Land Mobile Radio
<b>Low Power Radio</b>	means radio apparatus, normally hand-held radios used for short range two-way voice communications;
<b>LTE</b>	means Long Term Evolution and is a standard for wireless communication of high-speed data for mobile phones and data terminals. It is based on the GSM/EDGE and UMTS/HSPA network technologies
<b>M2M</b>	means Machine to Machine
<b>MFN</b>	means Multiple Frequency Networks
<b>MHz</b>	means Megahertz of Radio Frequency Spectrum;
<b>MIMO</b>	means Multiple-Input and Multiple-Output and is the use of multiple antennas at both the transmitter and receiver to improve communication performance
<b>Mobile station</b>	means a radio station that is intended to be operated while it is in motion or while it is stationary at an unspecified place
<b>Model Control apparatus</b>	means radio apparatus used to control the movement of the model in the air, on land or over or under the water surface
<b>MTX</b>	means Mobile Transceiver
<b>Non-specific Short Range Devices</b>	means radio apparatus used for general telemetry, telecommand, alarms and data applications with a pre-set duty cycle (0.1%: S duty cycle < 100%)
<b>NRFP</b>	means the National Radio Frequency Plan 2013 for South Africa
<b>OB</b>	means Outside Broadcast
<b>PAMR</b>	means Public Access Mobile Radio
<b>PMR</b>	means Public Mobile Radio and is radio apparatus used for short range two-way voice communications;
<b>PPDR</b>	means Public Protection and Disaster Relief as defined in ITU-R Report M.2033.
<b>PRASA</b>	Means Passenger Rail Agency of South Africa
<b>PtM</b>	means Point to Multipoint
<b>PtP</b>	means Point to Point

<b>RATG</b>	means Radio Access Technology Group
<b>Radio trunking</b>	means a technique by means of which free channels out of a group of radio frequency channels allocated to a base station are automatically made available for the establishment of a connection between the stations of a user
<b>Radio-communication</b>	means all electronic communication by means of radio waves;
<b>Relay or repeater station</b>	means a land station in the land mobile service;
<b>RFID</b>	means Radio Frequency IDentification and is a wireless system that uses radio frequency communication to automatically identify, track and manage objects, people or animals. It consist of two main components viz, a tag and a reader which are tuned to the same frequency
<b>RFSAP</b>	means Radio Frequency Spectrum Assignment Plan
<b>RLAN</b>	means Radio Local Access Network and is the high data rate two-way (duplex) wireless data communications network
<b>SABRE</b>	means South African Band Re-planning Exercise
<b>SADC</b>	means Southern African Development Community
<b>SADC FAP</b>	means Southern African Development Community Frequency Allocation Plan 2010
<b>SAPS</b>	means South African Police Service
<b>Self Helps</b>	means repeater stations rebroadcasting television channels to limited areas on a low power basis
<b>Service licence</b>	means a BS, ECS or ECNS licence;
<b>SF</b>	means Single Frequency
<b>SFN</b>	means Single Frequency Network
<b>Ship station</b>	means a mobile station in the maritime mobile service that has been erected
<b>SNG</b>	means Satellite News Gathering
<b>Spread spectrum</b>	means a form of wireless communications in which the frequency of the transmitted signal is deliberately varied, resulting in a much greater bandwidth than the signal would have if its frequency were not varied
<b>SRD</b>	means Short Range Device and is a piece of apparatus which includes a transmitter, and/or a receiver and or parts thereof, used in alarm, telecommand telemetry applications, etc., operating with analogue speech/music or data (analogue and/or digital) or with combined analogue speech/music and data, using any modulation type intended to operate over short distances;

<b>STL or Studio Links</b>	means point to point links in the broadcasting frequency bands used to connect studios to transmitters
<b>STB</b>	means Set Top Box for DVB-T2 reception
<b>T-DAB</b>	means Terrestrial Digital Audio Broadcasting
<b>TDD</b>	means Time Division Duplex
<b>TDMA</b>	means Time Division Multiple Access
<b>Telemetry</b>	means the transmission of remotely measured data
<b>TETRA</b>	means Terrestrial Trunked Radio and is a professional mobile radio [2] and two-way transceiver specification. TETRA was specifically designed for use by government agencies, emergency services, (police forces, fire departments, ambulance) for public safety networks, rail transportation staff for train radios, transport services and the military. TETRA is an ETSI standard.
<b>UE</b>	means user equipment
<b>UHF</b>	means Ultra High Frequency
<b>UMTS</b>	means Universal Mobile Telecommunications System is a third generation mobile cellular technology for networks based on the GSM standard
<b>VHF</b>	means Very High Frequency
<b>Video Surveillance Equipment</b>	means radio apparatus used for security camera purposes to replace the cable between a camera and a monitor
<b>VSAT</b>	means Very Small Aperture Terminal and is a two-way satellite ground station that is smaller than 3 metres in diameter
<b>WAS</b>	means Wireless Access Systems and is end-user radio connections to public or private core networks;
<b>WBS</b>	means Wireless Business Solutions which is a provider of wireless broadband
<b>Wideband Wireless Systems</b>	means radio apparatus that uses spread spectrum techniques and has a high bit rate;
<b>WiMAX</b>	means Worldwide Interoperability for Microwave Access, also known as WirelessMAN which is a wireless broadband standard
<b>WP 5D</b>	means ITU-R Working Party 5D - IMT Systems
<b>WRC 07</b>	means World Radio Conference 2007 held in Geneva
<b>WRC 12</b>	means World Radio Conference 2012 held in Geneva
<b>WRC 15</b>	means the World Radio Conference held in Geneva 2015

<b>WRC 19</b>
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means the World Radio Conference planned to be held in Geneva 2019
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## A.1 Definitions

### A.1.1 ITU Definitions

The standard definitions for spectrum management in the International Telecommunication Union (ITU) Radio regulations (Article 1) are as follows:

**allocation** (of a frequency band): Entry in the Table of Frequency Allocations of a given frequency band for the purpose of its use by one or more terrestrial or space *radiocommunication services* or the *radio astronomy service* under specified conditions. This term shall also be applied to the frequency band concerned. (1.16);

**allotment** (of a radio frequency or radio frequency channel): Entry of a designated frequency channel in an agreed plan, adopted by a competent conference, for use by one or more administrations for a terrestrial or space *radiocommunication service* in one or more identified countries or geographical areas and under specified conditions. (1.17); and

**assignment** (of a radio frequency or radio frequency channel): Authorisation given by an administration for a radio station to use a radio frequency or radio frequency channel under specified conditions. (1.18).

The ITU does not define spectrum migration as such.

In the Act, the reference to spectrum migration is clearly the migration of users of radio frequency spectrum to other radio frequency bands in accordance with the radio frequency plan. The main focus of the „FREQUENCY MIGRATION PLAN” is on migrating existing users.

Since certain issues of spectrum migration involve usage as opposed to users, it is useful to expand the definition of migration to include not just users but also uses. Therefore the Authority’s definition of radio frequency migration is:

**“Radio Frequency Spectrum Migration”** means the movement of users or uses of radio frequency spectrum from their existing radio frequency spectrum location to another.

### A.1.2 Spectrum re-farming

The term spectrum re-farming is widely used, but like spectrum migration does not have a universal definition and can mean slightly different things in different countries.

The ICT Regulation Toolkit<sup>19</sup> describes spectrum re-farming:

*as a process constituting any basic change in conditions of frequency usage in a given part of radio spectrum (see The ICT Regulation Toolkit)<sup>20</sup>.*

*Such basic changes might be:*

1. *Change of technical conditions for frequency assignments;*
2. *Change of application (particular radiocommunication system using the band); and*
3. *Change of allocation to a different radiocommunication service.*

The term re-farming is used to describe:

- The process where a GSM operator changes the use of all or part of the spectrum used for GSM to UMTS / LTE; especially where the spectrum licence has specified the technology (as GSM) and the operator licence has to be changed<sup>21</sup>.
- The situation where the individual assignments within a band are changed to allow more efficient use to be made of the frequency band (usually due to a change in technology).
- The process of reallocating and reassigning frequency bands where the licence period has expired. This is happening in Europe where the original GSM licences are expiring. For the purposes of the plan therefore, radio frequency spectrum re-farming may be defined as follows:

*"Radio Frequency Spectrum Re-farming" means the process by which the use of a Radio Frequency Spectrum band is changed following a change in allocation, this may include a change in the specified technology and does not necessarily mean that the licensed user has to vacate the frequency.*

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<sup>19</sup>This allows spectrum migration to encompass re-farming of spectrum within assigned bands, other technologies and in-band migration such as the digitalisation of TV broadcast.

<sup>20</sup> The ICT Regulation Toolkit is a joint production of infoDev and the International Telecommunication Union

<sup>21</sup> Even where the licences are not technologically-specific and it could be argued that the change in use from GSM to LTE does not require a regulator to get involved; in order to make efficient use of the spectrum it may be necessary to modify the individual assignments within the band.

# **Appendix B – Additional Information 1.427- 1.518 GHz**

1.4 GHz channel plans TR13-01(A) ITU-R F.1242  
Annex A (new plan)

CEPT Band 1.4 GHz (F.3) Ctr.Freq Ch.Width Separ. Ch.Spac. Ctr.Gap		TR13-01(A) 1.4 GHz (F.3) 1433.5 MHz 25 kHz 142 MHz 100x25 kHz 117 MHz		CEPT Band 1.4 GHz (F.3) 1433.5 MHz 25 kHz 142 MHz 100x25 kHz 117 MHz		TR13-01(A) 1.4 GHz (F.3) 1433.5 MHz 25 kHz 142 MHz 100x25 kHz 117 MHz		CEPT Band 1.4 GHz (F.3) 1433.5 MHz 25 kHz 142 MHz 100x25 kHz 117 MHz		TR13-01(A) 1.4 GHz (F.3) 1433.5 MHz 25 kHz 142 MHz 100x25 kHz 117 MHz		Old plan
Ch.	Go	Retura	Ch.	Go	Retura	Ch.	Go	Retura	Ch.	Go	Retura	channel nu
1	1350.5125	1492.5125	37	1351.4125	1493.4125	73	1352.3125	1494.3125	9	1355.1250	1497.1250	109
2	1350.5375	1492.5375	38	1351.4375	1493.4375	74	1352.3375	1494.3375	10	1355.3750	1497.3750	110
3	1350.5625	1492.5625	39	1351.4625	1493.4625	75	1352.3625	1494.3625	11	1355.6250	1497.6250	111
4	1350.5875	1492.5875	40	1351.4875	1493.4875	76	1352.3875	1494.3875	12	1355.8750	1497.8750	112
5	1350.6125	1492.6125	41	1351.5125	1493.5125	77	1352.4125	1494.4125	13	1356.1250	1498.1250	113
6	1350.6375	1492.6375	42	1351.5375	1493.5375	78	1352.4375	1494.4375	14	1356.3750	1498.3750	114
7	1350.6625	1492.6625	43	1351.5625	1493.5625	79	1352.4625	1494.4625	15	1356.6250	1498.6250	115
8	1350.6875	1492.6875	44	1351.5875	1493.5875	80	1352.4875	1494.4875				116
9	1350.7125	1492.7125	45	1351.6125	1493.6125	81	1352.5125	1494.5125				117
10	1350.7375	1492.7375	46	1351.6375	1493.6375	82	1352.5375	1494.5375				118
11	1350.7625	1492.7625	47	1351.6625	1493.6625	83	1352.5625	1494.5625				119
12	1350.7875	1492.7875	48	1351.6875	1493.6875	84	1352.5875	1494.5875				120
13	1350.8125	1492.8125	49	1351.7125	1493.7125	85	1352.6125	1494.6125				121
14	1350.8375	1492.8375	50	1351.7375	1493.7375	86	1352.6375	1494.6375				122
15	1350.8625	1492.8625	51	1351.7625	1493.7625	87	1352.6625	1494.6625				123
16	1350.8875	1492.8875	52	1351.7875	1493.7875	88	1352.6875	1494.6875				124
17	1350.9125	1492.9125	53	1351.8125	1493.8125	89	1352.7125	1494.7125				125
18	1350.9375	1492.9375	54	1351.8375	1493.8375	90	1352.7375	1494.7375				126
19	1350.9625	1492.9625	55	1351.8625	1493.8625	91	1352.7625	1494.7625				127
20	1350.9875	1492.9875	56	1351.8875	1493.8875	92	1352.7875	1494.7875				128
21	1351.0125	1493.0125	57	1351.9125	1493.9125	93	1352.8125	1494.8125				129
22	1351.0375	1493.0375	58	1351.9375	1493.9375	94	1352.8375	1494.8375				130
23	1351.0625	1493.0625	59	1351.9625	1493.9625	95	1352.8625	1494.8625				131
24	1351.0875	1493.0875	60	1351.9875	1493.9875	96	1352.8875	1494.8875				132
25	1351.1125	1493.1125	61	1352.0125	1494.0125	97	1352.9125	1494.9125				133
26	1351.1375	1493.1375	62	1352.0375	1494.0375	98	1352.9375	1494.9375				134
27	1351.1625	1493.1625	63	1352.0625	1494.0625	99	1352.9625	1494.9625				135
28	1351.1875	1493.1875	64	1352.0875	1494.0875	100	1352.9875	1494.9875				136
29	1351.2125	1493.2125	65	1352.1125	1494.1125	1	1355.1250	1495.1250				137
30	1351.2375	1493.2375	66	1352.1375	1494.1375	2	1355.3750	1495.3750				138
31	1351.2625	1493.2625	67	1352.1625	1494.1625	3	1355.6250	1495.6250				139
32	1351.2875	1493.2875	68	1352.1875	1494.1875	4	1355.8750	1495.8750				140
33	1351.3125	1493.3125	69	1352.2125	1494.2125	5	1356.1250	1496.1250				141
34	1351.3375	1493.3375	70	1352.2375	1494.2375	6	1356.3750	1496.3750				142
35	1351.3625	1493.3625	71	1352.2625	1494.2625	7	1356.6250	1496.6250				143
36	1351.3875	1493.3875	72	1352.2875	1494.2875	8	1356.8750	1496.8750				
		25 kHz shared					250 kHz shared					500 kHz shared
		continue Annex B on next sheet					Typical users					
							Eskom					
							Transnet					
							SAPS					
							SANDEF					
							Ekurhuleni					
							National Research Foundation					

Annex B (new plan)			
	CEPT TR13-01(B)		
	Band 1.4 GHz (F.S)		
	Ctr.Freq 1413.5 MHz		
	Ch.Width 500 kHz		
	Separ. 52 MHz		
	Ch.Spac. 48x500 kHz		
	Ctr.Gap 27 MHz		
Ch.	Go	Return	
1	1375.7500	1427.7500	
2	1376.2500	1428.2500	
3	1376.7500	1428.7500	
4	1377.2500	1429.2500	
5	1377.7500	1429.7500	
6	1378.2500	1430.2500	
7	1378.7500	1430.7500	
8	1379.2500	1431.2500	
9	1379.7500	1431.7500	
10	1380.2500	1432.2500	Telkom
11	1380.7500	1432.7500	
12	1381.2500	1433.2500	Telkom
13	1381.7500	1433.7500	
14	1382.2500	1434.2500	
15	1382.7500	1434.7500	
16	1383.2500	1435.2500	
17	1383.7500	1435.7500	
18	1384.2500	1436.2500	
19	1384.7500	1436.7500	
20	1385.2500	1437.2500	
21	1385.7500	1437.7500	
22	1386.2500	1438.2500	
23	1386.7500	1438.7500	
24	1387.2500	1439.2500	
25	1387.7500	1439.7500	
26	1388.2500	1440.2500	
27	1388.7500	1440.7500	
28	1389.2500	1441.2500	
29	1389.7500	1441.7500	
30	1390.2500	1442.2500	
31	1390.7500	1442.7500	
32	1391.2500	1443.2500	
33	1391.7500	1443.7500	
34	1392.2500	1444.2500	
35	1392.7500	1444.7500	
36	1393.2500	1445.2500	
37	1393.7500	1445.7500	
38	1394.2500	1446.2500	
39	1394.7500	1446.7500	Telkom
40	1395.2500	1447.2500	Telkom
41	1395.7500	1447.7500	Telkom
42	1396.2500	1448.2500	Telkom
43	1396.7500	1448.7500	Telkom
44	1397.2500	1449.2500	Telkom
45	1397.7500	1449.7500	Telkom
46	1398.2500	1450.2500	Telkom
47	1398.7500	1450.7500	Telkom
48	1399.2500	1451.2500	Telkom

**Single (or simplex) frequency channels (shared) [Intended for migration of links < 1 GHz]**

ITU / CEPT Based on REC ITU-R F.1242									
Band 1.5 GHz (F.S) Simplex									
Ctr.Freq -									
Ch.Width 7x500 kHz & 140x25 kHz									
Separ. -									
Ch.Spac. 7x 500 kHz & 140x 25 kHz									
Ctr.Gap -									
Ck.		Ck.		Ck.		Ck.		Ck.	
1(IMT)	1517.75	37	1521.7375	73	1522.6375	109	1523.5375	145	1524.4375
2(IMT)	1518.25	38	1521.7625	74	1522.6625	110	1523.5625	146	1524.4625
3	1518.75	39	1521.7875	75	1522.6875	111	1523.5875	147	1524.4875
4	1519.25	40	1521.8125	76	1522.7125	112	1523.6125		
5	1519.75	41	1521.8375	77	1522.7375	113	1523.6375		
6	1520.25	42	1521.8625	78	1522.7625	114	1523.6625		
7	1520.75	43	1521.8875	79	1522.7875	115	1523.6875		
8	1521.0125	44	1521.9125	80	1522.8125	116	1523.7125		
9	1521.0375	45	1521.9375	81	1522.8375	117	1523.7375		
10	1521.0625	46	1521.9625	82	1522.8625	118	1523.7625		
11	1521.0875	47	1521.9875	83	1522.8875	119	1523.7875		
12	1521.1125	48	1522.0125	84	1522.9125	120	1523.8125		
13	1521.1375	49	1522.0375	85	1522.9375	121	1523.8375		
14	1521.1625	50	1522.0625	86	1522.9625	122	1523.8625		
15	1521.1875	51	1522.0875	87	1522.9875	123	1523.8875		
16	1521.2125	52	1522.1125	88	1523.0125	124	1523.9125		
17	1521.2375	53	1522.1375	89	1523.0375	125	1523.9375		
18	1521.2625	54	1522.1625	90	1523.0625	126	1523.9625		
19	1521.2875	55	1522.1875	91	1523.0875	127	1523.9875		
20	1521.3125	56	1522.2125	92	1523.1125	128	1524.0125		
21	1521.3375	57	1522.2375	93	1523.1375	129	1524.0375		
22	1521.3625	58	1522.2625	94	1523.1625	130	1524.0625		
23	1521.3875	59	1522.2875	95	1523.1875	131	1524.0875		
24	1521.4125	60	1522.3125	96	1523.2125	132	1524.1125		
25	1521.4375	61	1522.3375	97	1523.2375	133	1524.1375		
26	1521.4625	62	1522.3625	98	1523.2625	134	1524.1625		
27	1521.4875	63	1522.3875	99	1523.2875	135	1524.1875		
28	1521.5125	64	1522.4125	100	1523.3125	136	1524.2125		
29	1521.5375	65	1522.4375	101	1523.3375	137	1524.2375		
30	1521.5625	66	1522.4625	102	1523.3625	138	1524.2625		
31	1521.5875	67	1522.4875	103	1523.3875	139	1524.2875		
32	1521.6125	68	1522.5125	104	1523.4125	140	1524.3125		
33	1521.6375	69	1522.5375	105	1523.4375	141	1524.3375		
34	1521.6625	70	1522.5625	106	1523.4625	142	1524.3625		
35	1521.6875	71	1522.5875	107	1523.4875	143	1524.3875		
36	1521.7125	72	1522.6125	108	1523.5125	144	1524.4125		

## **Appendix C – Additional information on 24.25-27.5 GHz**



# **Appendix D      Additional information for 37- 40.5 GHz**

F.749-1 BAND Ctr-FREQ Ch.Width Separ. Ch.Spac. Ctr. Gap	A			B			B			F.749-1			B			C			C			F.749-1			C			BAND Ctr-FREQ Ch.Width Separ. Ch.Spac. Ctr. Gap		
	Go	Return	Ch.																											
1	37066.0000	38346.0000	1	37072.0000	38532.0000	38	38108.0000	39368.0000	38	37583.0000	38325.0000	38	37583.0000	38843.0000	38	38101.0000	39361.0000	38	37583.0000	38843.0000	38	38101.0000	39361.0000	38	37583.0000	38843.0000	38	38101.0000	39361.0000	75
2	37142.0000	38402.0000	2	37100.0000	38350.0000	33	38156.0000	39336.0000	33	37079.0000	38339.0000	33	37079.0000	38857.0000	33	38115.0000	39375.0000	33	37079.0000	38857.0000	33	38115.0000	39375.0000	33	37079.0000	38857.0000	33	38115.0000	39375.0000	76
3	37198.0000	38458.0000	3	37128.0000	38368.0000	40	38164.0000	39424.0000	40	37093.0000	38353.0000	40	37093.0000	38871.0000	40	38123.0000	39389.0000	40	37093.0000	38871.0000	40	38123.0000	39389.0000	40	37093.0000	38871.0000	40	38123.0000	39389.0000	77
4	37254.0000	38514.0000	4	37155.0000	38416.0000					37107.0000	38367.0000	41	37107.0000	38885.0000	41	38143.0000	39403.0000	41	37107.0000	38885.0000	41	38143.0000	39403.0000	41	37107.0000	38885.0000	41	38143.0000	39403.0000	78
5	37310.0000	38570.0000	5	37184.0000	38444.0000					37121.0000	38381.0000	42	37121.0000	38893.0000	42	38151.0000	39417.0000	42	37121.0000	38893.0000	42	38151.0000	39417.0000	42	37121.0000	38893.0000	42	38151.0000	39417.0000	79
6	37366.0000	38626.0000	6	37212.0000	38472.0000					37155.0000	38395.0000	43	37155.0000	38905.0000	43	38161.0000	39427.0000	43	37155.0000	38905.0000	43	38161.0000	39427.0000	43	37155.0000	38905.0000	43	38161.0000	39427.0000	80
7	37422.0000	38682.0000	7	37240.0000	38500.0000					37143.0000	38409.0000	44	37143.0000	38917.0000	44	38171.0000	39431.0000	44	37143.0000	38917.0000	44	38171.0000	39431.0000	44	37143.0000	38917.0000	44	38171.0000	39431.0000	
8	37478.0000	38738.0000	8	37268.0000	38528.0000					37163.0000	38423.0000	45	37163.0000	38927.0000	45	38181.0000	39435.0000	45	37163.0000	38927.0000	45	38181.0000	39435.0000	45	37163.0000	38927.0000	45	38181.0000	39435.0000	
9	37534.0000	38794.0000	9	37296.0000	38556.0000					37177.0000	38437.0000	46	37177.0000	38937.0000	46	38191.0000	39439.0000	46	37177.0000	38937.0000	46	38191.0000	39439.0000	46	37177.0000	38937.0000	46	38191.0000	39439.0000	
10	37590.0000	38850.0000	10	37324.0000	38584.0000					37191.0000	38451.0000	47	37191.0000	38947.0000	47	38205.0000	39443.0000	47	37191.0000	38947.0000	47	38205.0000	39443.0000	47	37191.0000	38947.0000	47	38205.0000	39443.0000	
11	37646.0000	38906.0000	11	37352.0000	38612.0000					37205.0000	38465.0000	48	37205.0000	38957.0000	48	38219.0000	39447.0000	48	37205.0000	38957.0000	48	38219.0000	39447.0000	48	37205.0000	38957.0000	48	38219.0000	39447.0000	
12	37702.0000	38962.0000	12	37380.0000	38640.0000					37219.0000	38479.0000	49	37219.0000	38967.0000	49	38233.0000	39451.0000	49	37219.0000	38967.0000	49	38233.0000	39451.0000	49	37219.0000	38967.0000	49	38233.0000	39451.0000	
13	37758.0000	39018.0000	13	37408.0000	38668.0000					37233.0000	38493.0000	50	37233.0000	38977.0000	50	38247.0000	39455.0000	50	37233.0000	38977.0000	50	38247.0000	39455.0000	50	37233.0000	38977.0000	50	38247.0000	39455.0000	
14	37814.0000	39074.0000	14	37436.0000	38696.0000					37247.0000	38507.0000	51	37247.0000	38987.0000	51	38261.0000	39459.0000	51	37247.0000	38987.0000	51	38261.0000	39459.0000	51	37247.0000	38987.0000	51	38261.0000	39459.0000	
15	37870.0000	39130.0000	15	37464.0000	38724.0000					37261.0000	38521.0000	52	37261.0000	38997.0000	52	38275.0000	39463.0000	52	37261.0000	38997.0000	52	38275.0000	39463.0000	52	37261.0000	38997.0000	52	38275.0000	39463.0000	
16	37926.0000	39186.0000	16	37492.0000	38752.0000					37275.0000	38535.0000	53	37275.0000	39007.0000	53	38289.0000	39467.0000	53	37275.0000	39007.0000	53	38289.0000	39467.0000	53	37275.0000	39007.0000	53	38289.0000	39467.0000	
17	37982.0000	39242.0000	17	37520.0000	38780.0000					37289.0000	38549.0000	54	37289.0000	39017.0000	54	38303.0000	39471.0000	54	37289.0000	39017.0000	54	38303.0000	39471.0000	54	37289.0000	39017.0000	54	38303.0000	39471.0000	
18	38038.0000	39298.0000	18	37548.0000	38808.0000					37303.0000	38563.0000	55	37303.0000	39027.0000	55	38317.0000	39475.0000	55	37303.0000	39027.0000	55	38317.0000	39475.0000	55	37303.0000	39027.0000	55	38317.0000	39475.0000	
19	38094.0000	39354.0000	19	37576.0000	38836.0000					37317.0000	38577.0000	56	37317.0000	39037.0000	56	38331.0000	39479.0000	56	37317.0000	39037.0000	56	38331.0000	39479.0000	56	37317.0000	39037.0000	56	38331.0000	39479.0000	
20	38150.0000	39410.0000	20	37604.0000	38864.0000					37331.0000	38591.0000	57	37331.0000	39047.0000	57	38345.0000	39483.0000	57	37331.0000	39047.0000	57	38345.0000	39483.0000	57	37331.0000	39047.0000	57	38345.0000	39483.0000	
			21	37632.0000	38892.0000					37345.0000	38605.0000	58	37345.0000	39057.0000	58	38359.0000	39487.0000	58	37345.0000	39057.0000	58	38359.0000	39487.0000	58	37345.0000	39057.0000	58	38359.0000	39487.0000	
			22	37660.0000	38920.0000					37359.0000	38619.0000	59	37359.0000	39067.0000	59	38373.0000	39491.0000	59	37359.0000	39067.0000	59	38373.0000	39491.0000	59	37359.0000	39067.0000	59	38373.0000	39491.0000	
			23	37688.0000	38948.0000					37373.0000	38633.0000	60	37373.0000	39077.0000	60	38387.0000	39495.0000	60	37373.0000	39077.0000	60	38387.0000	39495.0000	60	37373.0000	39077.0000	60	38387.0000	39495.0000	
			24	37716.0000	38976.0000					37387.0000	38647.0000	61	37387.0000	39087.0000	61	38401.0000	39499.0000	61	37387.0000	39087.0000	61	38401.0000	39499.0000	61	37387.0000	39087.0000	61	38401.0000	39499.0000	
			25	37744.0000	39004.0000					37401.0000	38661.0000	62	37401.0000	39097.0000	62	38415.0000	39503.0000	62	37401.0000	39097.0000	62	38415.0000	39503.0000	62	37401.0000	39097.0000	62	38415.0000	39503.0000	
			26	37772.0000	39032.0000					37415.0000	38675.0000	63	37415.0000	39107.0000	63	38429.0000	39507.0000	63	37415.0000	39107.0000	63	38429.0000	39507.0000	63	37415.0000	39107.0000	63	38429.0000	39507.0000	
			27	37800.0000	39060.0000					37429.0000	38689.0000	64	37429.0000	39117.0000	64	38443.0000	39511.0000	64	37429.0000	39117.0000	64	38443.0000	39511.0000	64	37429.0000	39117.0000	64	38443.0000	39511.0000	
			28	37828.0000	39088.0000					37443.0000	38703.0000	65	37443.0000	39127.0000	65	38457.0000	39515.0000	65	37443.0000	39127.0000	65	38457.0000	39515.0000	65	37443.0000	39127.0000	65	38457.0000	39515.0000	
			29	37856.0000	39116.0000					37457.0000	38717.0000	66	37457.0000	39137.0000	66	38471.0000	39519.0000	66	37457.0000	39137.0000	66	38471.0000	39519.0000	66	37457.0000	39137.0000	66	38471.0000	39519.0000	
			30	37884.0000	39144.0000					37471.0000	38731.0000	67	37471.0000	39147.0000	67	38485.0000	39523.0000	67	37471.0000	39147.0000	67	38485.0000	39523.0000	67	37471.0000	39147.0000	67	38485.0000	39523.0000	
			31	37912.0000	39172.0000					37485.0000	38745.0000	68	37485.0000	39157.0000	68	38499.0000	39527.0000	68	37485.0000	39157.0000	68	38499.0000	39527.0000	68	37485.0000	39157.0000	68	38499.0000	39527.0000	
			32	37940.0000	39200.0000					37499.0000	38759.0000	69	37499.0000	3916																

F.749-1				F.749-1				F.749-1				F.749-1			
BAND	D			D			D			D			BAND		
Ctr.FREQ	7 MHz			38 GHz			38 GHz			38 GHz			Ctr.FREQ		
Ch.Width	7 MHz			58248.000			7 MHz			7 MHz			Ch.Width		
Separ.	7 MHz			Separ.											
Ch.Spac.	7 MHz			1260 MHz			1260 MHz			1260 MHz			Ch.Spac.		
Ctr. Gap	7 MHz			140 MHz			140 MHz			140 MHz			Ctr. Gap		
Ch.	Go	Return	Ch.	Go	Return	Ch.	Go	Return	Ch.	Go	Return	Ch.	Go	Return	Ch.
1	37061.5000	38321.5000	38	37320.5000	38580.5000	75	37579.5000	38839.5000	152	37838.5000	39098.5000	143	38097.5000	39357.5000	143
2	37066.5000	38326.5000	39	37325.5000	38585.5000	76	37584.5000	38844.5000	153	37843.5000	39103.5000	150	38102.5000	39362.5000	150
3	37071.5000	38331.5000	40	37330.5000	38590.5000	77	37589.5000	38849.5000	154	37848.5000	39108.5000	151	38107.5000	39367.5000	151
4	37076.5000	38336.5000	41	37335.5000	38595.5000	78	37594.5000	38854.5000	155	37853.5000	39113.5000	152	38112.5000	39372.5000	152
5	37081.5000	38341.5000	42	37340.5000	38600.5000	79	37599.5000	38859.5000	156	37858.5000	39118.5000	153	38117.5000	39377.5000	153
6	37086.5000	38346.5000	43	37345.5000	38605.5000	80	37604.5000	38864.5000	157	37863.5000	39123.5000	154	38122.5000	39382.5000	154
7	37091.5000	38351.5000	44	37350.5000	38610.5000	81	37609.5000	38869.5000	158	37868.5000	39128.5000	155	38127.5000	39387.5000	155
8	37096.5000	38356.5000	45	37355.5000	38615.5000	82	37614.5000	38874.5000	159	37873.5000	39133.5000	156	38132.5000	39392.5000	156
9	37101.5000	38361.5000	46	37360.5000	38620.5000	83	37619.5000	38879.5000	160	37878.5000	39138.5000	157	38137.5000	39397.5000	157
10	37106.5000	38366.5000	47	37365.5000	38625.5000	84	37624.5000	38884.5000	161	37883.5000	39143.5000	158	38142.5000	39402.5000	158
11	37111.5000	38371.5000	48	37370.5000	38630.5000	85	37629.5000	38889.5000	162	37888.5000	39148.5000	159	38147.5000	39407.5000	159
12	37116.5000	38376.5000	49	37375.5000	38635.5000	86	37634.5000	38894.5000	163	37893.5000	39153.5000	160	38152.5000	39412.5000	160
13	37121.5000	38381.5000	50	37380.5000	38640.5000	87	37639.5000	38899.5000	164	37898.5000	39158.5000				
14	37126.5000	38386.5000	51	37385.5000	38645.5000	88	37644.5000	38904.5000	165	37903.5000	39163.5000				
15	37131.5000	38391.5000	52	37390.5000	38650.5000	89	37649.5000	38909.5000	166	37908.5000	39168.5000				
16	37136.5000	38396.5000	53	37395.5000	38655.5000	90	37654.5000	38914.5000	167	37913.5000	39173.5000				
17	37141.5000	38401.5000	54	37400.5000	38660.5000	91	37659.5000	38919.5000	168	37918.5000	39178.5000				
18	37146.5000	38406.5000	55	37405.5000	38665.5000	92	37664.5000	38924.5000	169	37923.5000	39183.5000				
19	37151.5000	38411.5000	56	37410.5000	38670.5000	93	37669.5000	38929.5000	170	37928.5000	39188.5000				
20	37156.5000	38416.5000	57	37415.5000	38675.5000	94	37674.5000	38934.5000	171	37933.5000	39193.5000				
21	37161.5000	38421.5000	58	37420.5000	38680.5000	95	37679.5000	38939.5000	172	37938.5000	39198.5000				
22	37166.5000	38426.5000	59	37425.5000	38685.5000	96	37684.5000	38944.5000	173	37943.5000	39203.5000				
23	37171.5000	38431.5000	60	37430.5000	38690.5000	97	37689.5000	38949.5000	174	37948.5000	39208.5000				
24	37176.5000	38436.5000	61	37435.5000	38695.5000	98	37694.5000	38954.5000	175	37953.5000	39213.5000				
25	37181.5000	38441.5000	62	37440.5000	38700.5000	99	37699.5000	38959.5000	176	37958.5000	39218.5000				
26	37186.5000	38446.5000	63	37445.5000	38705.5000	100	37704.5000	38964.5000	177	37963.5000	39223.5000				
27	37191.5000	38451.5000	64	37450.5000	38710.5000	101	37709.5000	38969.5000	178	37968.5000	39228.5000				
28	37196.5000	38456.5000	65	37455.5000	38715.5000	102	37714.5000	38974.5000	179	37973.5000	39233.5000				
29	37201.5000	38461.5000	66	37460.5000	38720.5000	103	37719.5000	38979.5000	180	37978.5000	39238.5000				
30	37206.5000	38466.5000	67	37465.5000	38725.5000	104	37724.5000	38984.5000	181	37983.5000	39243.5000				
31	37211.5000	38471.5000	68	37470.5000	38730.5000	105	37729.5000	38989.5000	182	37988.5000	39248.5000				
32	37216.5000	38476.5000	69	37475.5000	38735.5000	106	37734.5000	38994.5000	183	37993.5000	39253.5000				
33	37221.5000	38481.5000	70	37480.5000	38740.5000	107	37739.5000	38999.5000	184	37998.5000	39258.5000				
34	37226.5000	38486.5000	71	37485.5000	38745.5000	108	37744.5000	39004.5000	185	38003.5000	39263.5000				
35	37231.5000	38491.5000	72	37490.5000	38750.5000	109	37749.5000	39009.5000	186	38008.5000	39268.5000				
36	37236.5000	38496.5000	73	37495.5000	38755.5000	110	37754.5000	39014.5000	187	38013.5000	39273.5000				
37	37241.5000	38501.5000	74	37500.5000	38760.5000	111	37759.5000	39019.5000	188	38018.5000	39278.5000				



# **Appendix E      Additional      Information      40.5- 42.5 GHz**

<b>42 GHz BAND (ITU-R F.2005) or ECC/REC/(01)04</b>						
<b>Sub-band A</b>				<b>Sub-band B</b>		
F ref (MHz)	42000			F ref (MHz)	42000	
Ctr.Freq (MHz)	42000			Ctr.Freq (MHz)	42000	
Separ.	1500 MHz			Separ.	1500 MHz	
Ch.Spac.	112 MHz			Ch.Spac.	56 MHz	
Ctr. Gap	156 MHz			Ctr. Gap	100 MHz	
CH	GO	RETURN		CH	GO	RETURN
1	40606	42106	YC national	1	40578	42078
2	40718	42218	YC national	2	40634	42134
3	40830	42330	space for possible expansion or sharing	3	40690	42190
4	40942	42442		4	40746	42246
5	41054	42554	Liquid Tel national	5	40802	42302
6	41166	42666	Liquid Tel national	6	40858	42358
7	41278	42778		7	40914	42414
8	41390	42890		8	40970	42470
9	41502	43002		9	41026	42526
10	41614	43114		10	41082	42582
11	41726	43226		11	41138	42638
12	41838	43338		12	41194	42694
				13	41250	42750
				14	41306	42806
				15	41362	42862
				16	41418	42918
				17	41474	42974
				18	41530	43030
				19	41586	43086
				20	41642	43142
				21	41698	43198
				22	41754	43254
				23	41810	43310
				24	41866	43366
				25	41922	43422

<b>Sub-band C</b>						
F ref (MHz)	42000					
Ctr.Freq (MHz)	42000					
Separ.	1500 MHz					
Ch.Spac.	28 MHz					
Ctr. Gap	100 MHz					
CH	GO	RETURN		CH	GO	RETURN
1	40564	42064		26	41264	42764
2	40592	42092		27	41292	42792
3	40620	42120		28	41320	42820
4	40648	42148		29	41348	42848
5	40676	42176		30	41376	42876
6	40704	42204		31	41404	42904
7	40732	42232		32	41432	42932
8	40760	42260		33	41460	42960
9	40788	42288		34	41488	42988
10	40816	42316		35	41516	43016
11	40844	42344		36	41544	43044
12	40872	42372		37	41572	43072
13	40900	42400		38	41600	43100
14	40928	42428		39	41628	43128
15	40956	42456		40	41656	43156
16	40984	42484		41	41684	43184
17	41012	42512		42	41712	43212
18	41040	42540		43	41740	43240
19	41068	42568		44	41768	43268
20	41096	42596		45	41796	43296
21	41124	42624		46	41824	43324
22	41152	42652		47	41852	43352
23	41180	42680		48	41880	43380
24	41208	42708		49	41908	43408
25	41236	42736		50	41936	43436



Sub-band E			
F ref (MHz)	42000	GO	RETURN
Chr.Freq (MHz)	42000	GO	RETURN
Separ.	1500 MHz	GO	RETURN
Ch.Spac.	7 MHz	GO	RETURN
Chr. Gap	86 MHz	GO	RETURN
1	40553.5	42053.5	42053.5
2	40560.5	42060.5	42060.5
3	40567.5	42067.5	42067.5
4	40574.5	42074.5	42074.5
5	40581.5	42081.5	42081.5
6	40588.5	42088.5	42088.5
7	40595.5	42095.5	42095.5
8	40602.5	42102.5	42102.5
9	40609.5	42109.5	42109.5
10	40616.5	42116.5	42116.5
11	40623.5	42123.5	42123.5
12	40630.5	42130.5	42130.5
13	40637.5	42137.5	42137.5
14	40644.5	42144.5	42144.5
15	40651.5	42151.5	42151.5
16	40658.5	42158.5	42158.5
17	40665.5	42165.5	42165.5
18	40672.5	42172.5	42172.5
19	40679.5	42179.5	42179.5
20	40686.5	42186.5	42186.5
21	40693.5	42193.5	42193.5
22	40700.5	42200.5	42200.5
23	40707.5	42207.5	42207.5
24	40714.5	42214.5	42214.5
25	40721.5	42221.5	42221.5
26	40728.5	42228.5	42228.5
27	40735.5	42235.5	42235.5
28	40742.5	42242.5	42242.5
29	40749.5	42249.5	42249.5
30	40756.5	42256.5	42256.5
31	40763.5	42263.5	42263.5
32	40770.5	42270.5	42270.5
33	40777.5	42277.5	42277.5
34	40784.5	42284.5	42284.5
35	40791.5	42291.5	42291.5
36	40798.5	42298.5	42298.5
37	40805.5	42305.5	42305.5
38	40812.5	42312.5	42312.5
39	40819.5	42319.5	42319.5
40	40826.5	42326.5	42326.5
41	40833.5	42333.5	42333.5
42	40840.5	42340.5	42340.5
43	40847.5	42347.5	42347.5
44	40854.5	42354.5	42354.5
45	40861.5	42361.5	42361.5
46	40868.5	42368.5	42368.5
47	40875.5	42375.5	42375.5
48	40882.5	42382.5	42382.5
49	40889.5	42389.5	42389.5
50	40896.5	42396.5	42396.5
51	40903.5	42403.5	42403.5
52	40910.5	42410.5	42410.5
53	40917.5	42417.5	42417.5
54	40924.5	42424.5	42424.5
55	40931.5	42431.5	42431.5
56	40938.5	42438.5	42438.5
57	40945.5	42445.5	42445.5
58	40952.5	42452.5	42452.5
59	40959.5	42459.5	42459.5
60	40966.5	42466.5	42466.5
61	40973.5	42473.5	42473.5
62	40980.5	42480.5	42480.5
63	40987.5	42487.5	42487.5
64	40994.5	42494.5	42494.5
65	41001.5	42501.5	42501.5
66	41008.5	42508.5	42508.5
67	41015.5	42515.5	42515.5
68	41022.5	42522.5	42522.5
69	41029.5	42529.5	42529.5
70	41036.5	42536.5	42536.5
71	41043.5	42543.5	42543.5
72	41050.5	42550.5	42550.5
73	41057.5	42557.5	42557.5
74	41064.5	42564.5	42564.5
75	41071.5	42571.5	42571.5
76	41078.5	42578.5	42578.5
77	41085.5	42585.5	42585.5
78	41092.5	42592.5	42592.5
79	41099.5	42599.5	42599.5
80	41106.5	42606.5	42606.5
81	41113.5	42613.5	42613.5
82	41120.5	42620.5	42620.5
83	41127.5	42627.5	42627.5
84	41134.5	42634.5	42634.5
85	41141.5	42641.5	42641.5
86	41148.5	42648.5	42648.5
87	41155.5	42655.5	42655.5
88	41162.5	42662.5	42662.5
89	41169.5	42669.5	42669.5
90	41176.5	42676.5	42676.5
91	41183.5	42683.5	42683.5
92	41190.5	42690.5	42690.5
93	41197.5	42697.5	42697.5
94	41204.5	42704.5	42704.5
95	41211.5	42711.5	42711.5
96	41218.5	42718.5	42718.5
97	41225.5	42725.5	42725.5
98	41232.5	42732.5	42732.5
99	41239.5	42739.5	42739.5
100	41246.5	42746.5	42746.5
101	41253.5	42753.5	42753.5
102	41260.5	42760.5	42760.5
103	41267.5	42767.5	42767.5
104	41274.5	42774.5	42774.5
105	41281.5	42781.5	42781.5
106	41288.5	42788.5	42788.5
107	41295.5	42795.5	42795.5
108	41302.5	42802.5	42802.5
109	41309.5	42809.5	42809.5
110	41316.5	42816.5	42816.5
111	41323.5	42823.5	42823.5
112	41330.5	42830.5	42830.5
113	41337.5	42837.5	42837.5
114	41344.5	42844.5	42844.5
115	41351.5	42851.5	42851.5
116	41358.5	42858.5	42858.5
117	41365.5	42865.5	42865.5
118	41372.5	42872.5	42872.5
119	41379.5	42879.5	42879.5
120	41386.5	42886.5	42886.5

Sub-band E continued																		
F ref (MHz)	42000																	
Ctr.Freq (MHz)	42000																	
Separ.	1500 MHz																	
Ch. Spac.	7 MHz																	
Ctr. Gap	86 MHz																	
CH	GO	RETURN				CH	GO	RETURN			CH	GO	RETURN					
121	41393.5	42893.5				151	41603.5	43103.5			181	41813.5	43313.5					
122	41400.5	42900.5				152	41610.5	43110.5			182	41820.5	43320.5					
123	41407.5	42907.5				153	41617.5	43117.5			183	41827.5	43327.5					
124	41414.5	42914.5				154	41624.5	43124.5			184	41834.5	43334.5					
125	41421.5	42921.5				155	41631.5	43131.5			185	41841.5	43341.5					
126	41428.5	42928.5				156	41638.5	43138.5			186	41848.5	43348.5					
127	41435.5	42935.5				157	41645.5	43145.5			187	41855.5	43355.5					
128	41442.5	42942.5				158	41652.5	43152.5			188	41862.5	43362.5					
129	41449.5	42949.5				159	41659.5	43159.5			189	41869.5	43369.5					
130	41456.5	42956.5				160	41666.5	43166.5			190	41876.5	43376.5					
131	41463.5	42963.5				161	41673.5	43173.5			191	41883.5	43383.5					
132	41470.5	42970.5				162	41680.5	43180.5			192	41890.5	43390.5					
133	41477.5	42977.5				163	41687.5	43187.5			193	41897.5	43397.5					
134	41484.5	42984.5				164	41694.5	43194.5			194	41904.5	43404.5					
135	41491.5	42991.5				165	41701.5	43201.5			195	41911.5	43411.5					
136	41498.5	42998.5				166	41708.5	43208.5			196	41918.5	43418.5					
137	41505.5	43005.5				167	41715.5	43215.5			197	41925.5	43425.5					
138	41512.5	43012.5				168	41722.5	43222.5			198	41932.5	43432.5					
139	41519.5	43019.5				169	41729.5	43229.5			199	41939.5	43439.5					
140	41526.5	43026.5				170	41736.5	43236.5			200	41946.5	43446.5					
141	41533.5	43033.5				171	41743.5	43243.5			201	41953.5	43453.5					
142	41540.5	43040.5				172	41750.5	43250.5			202	41960.5	43460.5					
143	41547.5	43047.5				173	41757.5	43257.5										
144	41554.5	43054.5				174	41764.5	43264.5										
145	41561.5	43061.5				175	41771.5	43271.5										
146	41568.5	43068.5				176	41778.5	43278.5										
147	41575.5	43075.5				177	41785.5	43285.5										
148	41582.5	43082.5				178	41792.5	43292.5										
149	41589.5	43089.5				179	41799.5	43299.5										
150	41596.5	43096.5				180	41806.5	43306.5										

## **Appendix F 66 to 76 GHz and 81 to 86 GHz Additional Information**



# Appendix G E-Band Arrangements

# Channel

**Self Coordinated E-Band**

<b>Channel Number</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>Centre frequency (GHz)</b>	73.500	73.750	74.000	74.250	74.500	74.750	75.000	75.250	75.500	75.750
<b>Centre frequency (GHz)</b>	83.500	83.750	84.000	84.250	84.500	84.750	85.000	85.250	85.500	85.750

**ICASA Coordinated E-Band**

<b>Channel Number</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Centre frequency (GHz)</b>	71.250	71.500	71.750	72.000	72.250	72.500	72.750	73.000
<b>Centre frequency (GHz)</b>	81.250	81.500	81.750	82.000	82.250	82.500	82.750	83.000

International Telecommunication Union

**Appendix H: RECOMMENDATION ITU-R  
M.2083-0.**

**ITU-R**  
Radiocommunication Sector of ITU



International Telecommunication Union

**ITU-R**  
Radiocommunication Sector of ITU

**Recommendation ITU-R M.2083-0**  
(09/2015)

**IMT Vision – Framework and overall objectives of the future development of IMT for 2020 and beyond**

**M Series**  
**Mobile, radiodetermination, amateur and related satellite services**



**ITU-R M.2083-0.**

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### **Foreword**

The role of the Radiocommunication Sector is to ensure the rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services, including satellite services, and carry out studies without limit of frequency range on the basis of which Recommendations are adopted.

The regulatory and policy functions of the Radiocommunication Sector are performed by World and Regional Radiocommunication Conferences and Radiocommunication Assemblies supported by Study Groups.

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**11 Policy on Intellectual Property Right (IPR)**

ITU-R policy on IPR is described in the Common Patent Policy for ITU-T/ITU-R/ISO/IEC referenced in Annex 1 of Resolution ITU-R 1. Forms to be used for the submission of patent statements and licensing declarations by patent holders are available from <http://www.itu.int/ITU-R/go/patents/en> where the Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC and the ITU-R patent information database can also be found.

**Series of ITU-R Recommendations**(Also available online at <http://www.itu.int/publ/R-REC/en>)

<b>Series</b>	<b>Title</b>
<b>BO</b>	Satellite delivery
<b>BR</b>	Recording for production, archival and play-out; film for television
<b>BS</b>	Broadcasting service (sound)
<b>BT</b>	Broadcasting service (television)
<b>F</b>	Fixed service
<b>M</b>	<b>Mobile, radiodetermination, amateur and related satellite services</b>
<b>P</b>	Radiowave propagation
<b>RA</b>	Radio astronomy
<b>RS</b>	Remote sensing systems
<b>S</b>	Fixed-satellite service
<b>SA</b>	Space applications and meteorology
<b>SF</b>	Frequency sharing and coordination between fixed-satellite and fixed service systems
<b>SM</b>	Spectrum management
<b>SNG</b>	Satellite news gathering
<b>TF</b>	Time signals and frequency standards emissions
<b>V</b>	Vocabulary and related subjects

**Note:** This ITU-R Recommendation was approved in English under the procedure detailed in Resolution ITU-R 1.

*Electronic Publication*  
Geneva, 2015

**ITU-R M.2083-0.****iv**

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## RECOMMENDATION ITU-R M.2083-0

**IMT Vision – Framework and overall objectives of the future development of IMT for 2020 and beyond**

(2015)

**Scope**

This Recommendation defines the framework and overall objectives of the future development of International Mobile Telecommunications (IMT) for 2020 and beyond in light of the roles that IMT could play to better serve the needs of the networked society, for both developed and developing countries, in the future. In this Recommendation, the framework of the future development of IMT for 2020 and beyond, including a broad variety of capabilities associated with envisaged usage scenarios, is described in detail. Furthermore, this Recommendation addresses the objectives of the future development of IMT for 2020 and beyond, which includes further enhancement of existing IMT and the development of IMT-2020. It should be noted that this Recommendation is defined considering the development of IMT to date based on Recommendation ITU-R M.1645.

**Keywords**

IMT, IMT-2020

**Abbreviations/Glossary**

ICT	Information and Communication Technology		
IMT	International Mobile Telecommunications		
IoT	Internet of Things		
M2M	Machine-to-Machine		
MIMO	Multiple Input Multiple Output		
QoE		Quality	of
Experience			
QoS	Quality of Service		
RAT	Radio access technology		
RLAN	Radio Local Area Network		

**Related ITU Recommendations, Reports**

Recommendation ITU-R M.1645 – Framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000

Recommendation ITU-R M.2012 – Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications Advanced (IMT-Advanced)

Report ITU-R M.2320 – Future technology trends of terrestrial IMT systems

Report ITU-R M.2370 – IMT Traffic estimates for the years 2020 to 2030

Report ITU-R M.2376 – Technical feasibility of IMT in bands above 6 GHz

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Report ITU-R M.2134 – Requirements related to technical performance for IMT-Advanced radio interface(s)

The ITU Radiocommunication Assembly,

*considering*

- a) that ITU has contributed to standardization and harmonized use of IMT, which has provided telecommunication services on a global scale;
- b) that technological advancement and the corresponding user needs will promote innovation and accelerate the delivery of advanced communication applications to consumers;
- c) that Question ITU-R 229/5 addresses further development of the terrestrial component of IMT and the relevant studies under this Question are in progress within ITU-R;
- d) that Recommendation ITU-R M.1645 defines the framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000;
- e) that for global operation and economies of scale, which are key requirements for the success of mobile telecommunication systems, it is desirable to establish a harmonized timeframe for future development of IMT considering technical, operational and spectrum related aspects;
- f) that wireless communication applications are expected to expand into new market segments to facilitate the digital economy, e.g. smart grid, e-health, intelligent transport systems and traffic control, which would bring requirements beyond what can be addressed in today's IMT application areas;
- g) that rapid uptake of smartphones, tablets and innovative mobile applications created by users has resulted in a tremendous increase in the volume of mobile data traffic;
- h) that the number of devices accessing the network are expected to increase due to the emerging applications of Internet of Things (IoT);
- i) that technologies such as beamforming, massive-Multiple Input Multiple Output (MIMO) are easier to implement in higher frequencies due to short wavelength;
- j) that wide contiguous bandwidth would enhance data delivery efficiency and ease the complexity of hardware implementation;
- k) that the cell size is being reduced (e.g. the order of some tens of metres) to provide larger area traffic capacity in dense areas;
- l) that IMT interworks with other radio systems,

*recognizing*

- a) that some administrations had deployed IMT-Advanced systems before global deployment due to the rapid increase of data traffic;

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b) that development of new radio interfaces that support the new capabilities of IMT-2020 is expected along with the enhancement of IMT-2000 and IMT-Advanced systems,

*noting*

that pursuant to Article 44 of the ITU Constitution, Member States shall endeavour to apply the latest technical advances as soon as possible,

*recommends*

that the Annex should be used as the framework and the overall objectives for the future development of IMT for 2020 and beyond.

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**Annex**

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## 12 1 Introduction

The socio-technical evolution in the last few decades has been significantly driven by the evolution of mobile communications and has contributed to the economic and social development of both developed and developing countries. Mobile communications has become closely integrated in the daily life of the whole society. It is expected that the socio-technical trends and the evolution of mobile communications systems will remain tightly coupled together and will form a foundation for society in 2020 and beyond.

In the future, however, it is foreseen that new demands, such as more traffic volume, many more devices with diverse service requirements, better quality of user experience (QoE) and better affordability by further reducing costs, will require an increasing number of innovative solutions.

The objective of this Recommendation is to establish the vision for IMT for 2020 and beyond, by describing potential user and application trends, growth in traffic, technological trends and spectrum implications, and by providing guidelines on the framework and the capabilities for IMT for 2020 and beyond.

## **13 2 Observation of trends**

### **13.1 2.1 User and application trends**

Mobile devices play various, continuously evolving roles in everyday life. Future IMT systems should support emerging new use cases, including applications requiring very high data rate communications, a large number of connected devices, and ultra-low latency and high reliability applications. More specific user and application trends are explained in §§ 2.1.1 to 2.1.8.

#### **13.1.1 2.1.1 Supporting very low latency and high reliability human-centric communication**

People expect the experience of instantaneous connectivity wherein applications need to exhibit “flash” behaviour without waiting times: a single click and the response is perceived as instantaneous. Flash behaviour will be a key factor for the success of cloud services and virtual reality and augmented reality applications. The low latency and high reliability communication that supports such behaviour thus becomes an enabler for the future development of new applications, e.g. in health, safety, office, entertainment, and other sectors.

#### **13.1.2 2.1.2 Supporting very low latency and high reliability machine-centric communication**

The reliability and latency in today’s communication systems have been designed with the human user in mind. For future wireless systems, the design of new applications is envisaged based on machine-to-machine (M2M) communication with real-time constraints. Driverless cars, enhanced mobile cloud services, real-time traffic control optimization, emergency and disaster response, smart grid, e-health or efficient industrial communications are examples of where low latency and high reliability can improve quality of life.

#### **13.1.3 2.1.3 Supporting high user density**

Users will expect a satisfactory end-user experience in the presence of a large number of concurrent users, for example in a crowd with a high traffic density per unit area and a large number of handsets and machines/devices per unit area. Examples are audio-visual content to be provided concurrently across an entire cell or infotainment applications in shopping malls, stadiums, open air festivals, or other public events that attract a lot of people. This includes users who use their phone while in unexpected traffic jams, or when travelling in public transportation systems, as well as professionals working in organisations such as police, fire brigades, and ambulances to exploit the public communication networks in crowded environments and machine-centric devices.

#### **13.1.4 2.1.4 Maintaining high quality at high mobility**

A connected society in the years beyond 2020 will need to accommodate a similar user experience for end-users on the move and when they are static e.g. at home or in the office. To offer the “best experience” to highly mobile users and communicating machine

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devices, robust and reliable connectivity solutions are needed as well as the ability to efficiently maintain service quality with mobility.

Maintaining high quality at high mobility will enable successful deployment of applications on user equipment located within a moving platform such as cars or high-speed trains which are being deployed in several countries. Connectivity on mobile platforms may be provided via IMT, Radio Local Area Network (RLAN) or another network on that platform using suitable backhaul.

**13.1.5 2.1.5 Enhanced multimedia services**

It is likely that demand for mobile high-definition multimedia will increase in many areas beyond entertainment, such as medical treatment, safety, and security.

User devices will get enhanced media consumption capabilities, such as Ultra-High Definition display, multi-view High Definition display, mobile 3D projections, immersive video conferencing, and augmented reality and mixed reality display and interface. This will all lead to a demand for significantly higher data rates. Media delivery will be both to individuals and to groups of users.

**13.1.6 2.1.6 Internet of Things**

In the future, every object that can benefit from being connected will be connected through wired or wireless internet technologies. Therefore, the number of connected devices will grow rapidly and is expected to exceed the number of human user devices in the future.

These connected “things” can be smart phones, sensors, actuators, cameras, vehicles, etc., ranging from low-complexity devices to highly complex and advanced devices. A significant number of connected devices are expected to use IMT systems.

As a result, the connected entities are bound to have varying levels of energy consumption, transmission power, latency requirements, cost, and many other indices critical for stable connection.

In addition, as more and more things get connected, various services that utilize the connection capabilities of things will appear. Smart energy distribution grid system, agriculture, healthcare, vehicle-to-vehicle and vehicle-to-road infrastructure communication are generally viewed as potential fields for further growth of the Internet of Things (IoT).

**13.1.7 2.1.7 Convergence of applications**

New applications are increasingly being delivered over IMT, including e-Government, public protection and disaster relief communication, education, linear<sup>22</sup> and on-demand

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<sup>22</sup> A linear audio-visual service refers to the “traditional” way of offering radio or TV services. Listeners and viewers “tune in” to the content organised as a scheduled sequence that may consist of e.g. news, shows, drama or movies on TV or various types of audio content on radio. These sequences of programmes are set up by content providers and cannot be changed by a

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audio-visual content, and e-health. This convergence of applications must take account of the requirements associated with these applications.

**13.1.8 2.1.8 Ultra-accurate positioning applications**

As the accuracy of positioning gets better, location-based service applications that provide improved emergency rescue services, as well as precise ground based navigation service for unmanned vehicles or drones may expand extensively.

**13.2 2.2 Growth in IMT traffic**

There are many drivers influencing the growth of future IMT traffic demand, especially the adoption of devices with enhanced capabilities that require increased bit rates and bandwidth usage. Similar drivers increased traffic in the transition from IMT-2000 to IMT-Advanced.

The main drivers behind the anticipated traffic growth include increased video usage, device proliferation and application uptake. These are expected to evolve over time, and this evolution will differ between countries due to social and economic differences. These drivers and other trends which impact traffic growth are detailed in Report ITU-R M.2370. The Report contains global IMT traffic estimates beyond 2020 from several sources. These estimates anticipate that global IMT traffic will grow in the range of 10-100 times from 2020 to 2030.

Traffic asymmetry aspects for this period are also presented in Report ITU-R M.2370. It is observed that the current average traffic asymmetry ratio of mobile broadband is in favour of the downlink, and this is expected to increase due to growing demand for audio-visual content.

**13.3 2.3 Technology trends**

Report ITU-R M.2320 provides a broad view of future technical aspects of terrestrial IMT systems considering the timeframe 2015-2020 and beyond. It includes information on technical and operational characteristics of IMT systems, including the evolution of IMT through advances in technology and spectrally-efficient techniques, and their deployment. Report ITU-R M.2320 provides more detailed information on the following technical aspects presented in §§ 2.3.1 to 2.3.8. In addition, technologies required to enable higher data rates are explained in § 2.3.9.

**13.3.1 2.3.1 Technologies to enhance the radio interface**

Advanced waveforms, modulation and coding, and multiple access schemes, e.g. filtered OFDM (FOFDM), filter bank multi-carrier modulation (FBMC), pattern division multiple access (PDMA), sparse code multiple access (SCMA), interleave division multiple access

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listener or a viewer. Linear services are not confined to a particular distribution technology. For example, a live stream on the Internet is to be considered as a linear service as well.

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(IDMA) and low density spreading (LDS) may improve the spectral efficiency of the future IMT systems.

Advanced antenna technologies such as 3D-beamforming (3D-BF), active antenna system (AAS), massive MIMO and network MIMO will achieve better spectrum efficiency.

In addition, TDD-FDD joint operation, dual connectivity and dynamic TDD can enhance the spectrum flexibility.

Simultaneous transmission and reception on the same frequency with self-interference cancellation could increase spectrum efficiency.

Other techniques such as flexible backhaul and dynamic radio access configurations can also enable enhancements to the radio interface.

In small cells, higher-order modulation and modifications to the reference-signal structure with reduced overhead may provide performance enhancements due to lower mobility in small cell deployments and potentially higher signal-to interference ratios compared to the wide-area case.

Flexible spectrum usage, joint management of multiple radio access technologies (RATs) and flexible uplink/downlink resource allocation, can provide technical solutions to address the growing traffic demand in the future and may allow more efficient use of radio resources.

**13.3.2 2.3.2 Network technologies**

Future IMT will require more flexible network nodes which are configurable based on the Software-Defined Networking (SDN) architecture and network function virtualization (NFV) for optimal processing the node functions and improving the operational efficiency of network.

Featuring centralized and collaborative system operation, the cloud RAN (C-RAN) encompasses the baseband and higher layer processing resources to form a pool so that these resources can be managed and allocated dynamically on demand, while the radio units and antenna are deployed in a distributed manner.

The radio access network (RAN) architecture should support a wide range of options for inter-cell coordination schemes. The advanced self-organizing network (SON) technology is one example solution to enable operators to improve the OPEX efficiency of the multi-RAT and multi-layer network, while satisfying the increasing throughput requirement of subscriber.

**13.3.3 2.3.3 Technologies to enhance mobile broadband scenarios**

A relay based multi-hop network can greatly enhance the Quality of Service (QoS) of cell edge users. Small-cell deployment can improve the QoS of users by decreasing the number of users in a cell and user quality of experience can be enhanced.

Dynamic adaptive streaming over HTTP (DASH) enhancement is expected to improve user experience and accommodate more video streaming content in existing infrastructure.

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Bandwidth saving and transmission efficiency improvement is an evolving trend for Evolved Multimedia Broadcast and Multicast Service (eMBMS). Dynamic switching between unicast and multicast transmission can be beneficial.

IMT systems currently provide support for RLAN interworking, at the core network level, including seamless as well as non-seamless mobility, and can offload traffic from cellular networks into license-exempt spectrum bands.

Context aware applications may provide more personalized services that ensure high QoE for the end user and proactive adaptation to the changing context.

Proximity-based techniques can provide applications with information whether two devices are in close proximity of each other, as well as enable direct device-to-device (D2D) communication. Group communication, including push-to-talk type of communication, is highly desirable for public safety.

**13.3.4 2.3.4 Technologies to enhance massive machine type communications**

Future IMT systems are expected to connect a large number of M2M devices with a range of performance and operational requirements, with further improvement of low-cost and low-complexity device types as well as extension of coverage.

**13.3.5 2.3.5 Technologies to enhance ultra-reliable and low latency communications**

To achieve ultra-low latency, the data and control planes may both require significant enhancements and new technical solutions addressing both the radio interface and network architecture aspects.

It is envisioned that future wireless systems will, to a larger extent, also be used in the context of machine-to-machine communications, for instance in the field of traffic safety, traffic efficiency, smart grid, e-health, wireless industry automation, augmented reality, remote tactile control and tele-protection, requiring high reliability techniques.

**13.3.6 2.3.6 Technologies to improve network energy efficiency**

In order to enhance energy efficiency, energy consumption should be considered in the protocol design.

The energy efficiency of a network can be improved by both reducing RF transmit power and saving circuit power. To enhance energy efficiency, the traffic variation characteristic of different users should be well exploited for adaptive resource management. Examples include discontinuous transmission (DTX), base station and antenna muting, and traffic balancing among multiple RATs.

**13.3.7 2.3.7 Terminal technologies**

The mobile terminal will become a more human friendly companion as a multi-purpose Information and Communication Technology (ICT) device for personal office and entertainment, and will also evolve from being predominantly a hand-held smart phone to also include wearable smart devices.

Technologies for chip, battery, and display should therefore be further improved.

**ITU-R M.2083-0 15****13.3.8 2.3.8 Technologies to enhance privacy and security**

Future IMT systems need to provide robust and secure solutions to counter the threats to security and privacy brought by new radio technologies, new services and new deployment cases.

**13.3.9 2.3.9 Technologies enabling higher data rates**

In order to achieve higher data rates and improvements in capacity, the following key techniques are needed:

Spectrum:

- Utilization of large blocks of spectrum in higher frequency bands
- Carrier aggregation

Physical Layer:

- Enhanced spectral efficiency by means of e.g. advanced physical layer techniques (modulation, coding) and advances in spatial processing (network MIMO and Massive MIMO), plus exploitation of other novel/alternative ideas.

Network:

- Network densification

**13.4 2.4 Studies on technical feasibility of IMT between 6 and 100 GHz**

The development of IMT for 2020 and beyond is expected to enable new use cases and applications, and addresses rapid traffic growth, for which contiguous and broader channel bandwidths than currently available for IMT systems would be desirable. This suggests the need to consider spectrum resources in higher frequency ranges.

Report ITU-R M.2376 provides information on the technical feasibility of IMT in the frequencies between 6 and 100 GHz. It includes information on potential new IMT radio technologies and system approaches, which could be appropriate for operation in this frequency range.

The Report presents measurement data on propagation in this frequency range in several different environments. Both line-of-sight and non-line-of-sight measurement results for stationary and mobile cases as well as outdoor-to-indoor results have been presented in the report. It also includes performance simulations results for several different deployment scenarios.

The Report describes solutions based on MIMO and beamforming with a large number of antenna elements, which compensate for the increasing propagation loss with frequency; these have become increasingly feasible due to the ability to exploit chip-scale antenna solutions and modular adaptive antenna arrays that do not require an ADC/DAC for each antenna element. The practicality of manufacturing commercial transmitters and receivers at these frequencies is investigated, as evidenced by availability of commercial 60 GHz multi-gigabit wireless systems (MGWS) products and prototyping activities that are already underway at frequencies such as 11, 15, 28, 44, 70 and 80 GHz.

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The potential advantages of using the same spectrum for both access and fronthaul/backhaul, as compared with using two different frequencies for access and fronthaul/backhaul, are described in the Report.

The theoretical assessment, simulations, measurements, technology development and prototyping described in the Report indicate that utilizing the bands between 6 and 100 GHz is feasible for studied IMT deployment scenarios, and could be considered for the development of IMT for 2020 and beyond.

**13.5 2.5 Spectrum implications**

Report ITU-R M.2290 provides the results of studies on estimated global spectrum requirements for terrestrial IMT in the year 2020. The estimated total requirements include spectrum already identified for IMT plus additional spectrum requirements.

It is noted that no single frequency range satisfies all the criteria required to deploy IMT systems, particularly in countries with diverse geographic and population density; therefore, to meet the capacity and coverage requirements of IMT systems multiple frequency ranges would be needed. It should be noted that there are differences in the markets and deployments and timings of the mobile data growth in different countries.

For future IMT systems in the year 2020 and beyond, contiguous and broader channel bandwidths than available to current IMT systems would be desirable to support continued growth. Therefore, availability of spectrum resources that could support broader, contiguous channel bandwidths in this time frame should be explored. Research efforts must be continued to increase spectrum efficiency and to explore the availability of contiguous broad channels.

Furthermore, if additional spectrum is made available for IMT, the potential implications to the existing uses and users of that spectrum need to be addressed.

**13.5.1 2.5.1 Spectrum harmonization**

As the amount of spectrum required for mobile services increases, it becomes increasingly desirable for existing and newly allocated and identified spectrum to be harmonized. The benefits of spectrum harmonization include: facilitating economies of scale, enabling global roaming, reducing equipment design complexity, preserving battery life, improving spectrum efficiency and potentially reducing cross border interference. Typically, a mobile device contains multiple antennas and associated radio frequency front-ends to enable operation in multiple bands to facilitate roaming. While mobile devices can benefit from common chipsets, variances in frequency arrangements necessitate different components to accommodate these differences, which leads to higher equipment design complexity.

Therefore, harmonization of spectrum for IMT will lead to commonality of equipment and is desirable for achieving economies of scale and affordability of equipment.

**13.5.2 2.5.2 Importance of contiguous and wider spectrum bandwidth**

The proliferation of smart devices (e.g. smartphones, tablets, televisions, etc.) and a wide range of applications requiring a large amount of data traffic have accelerated demand for

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wireless data traffic. Future IMT systems are expected to provide significant improvement to accommodate this rapidly increasing traffic demand. In addition, future IMT systems are expected to provide gigabit-per-second user data rate services. The currently available frequency bands and their bandwidth differ across countries and regions and this leads to many problems associated with device complexity and possible interference issues. Contiguous, broader and harmonized frequency bands, aligned with future technology development, would address these problems and would facilitate achievement of the objectives of future IMT systems.

In particular, bandwidths to support the different usage scenarios in § 4 (e.g. enhanced mobile broadband, ultra-reliable and low-latency communications, and massive machine type communications) would vary. For those scenarios requiring several hundred MHz up to at least 1 GHz, there would be a need to consider wideband contiguous spectrum above 6 GHz.

### 14 3 Evolution of IMT

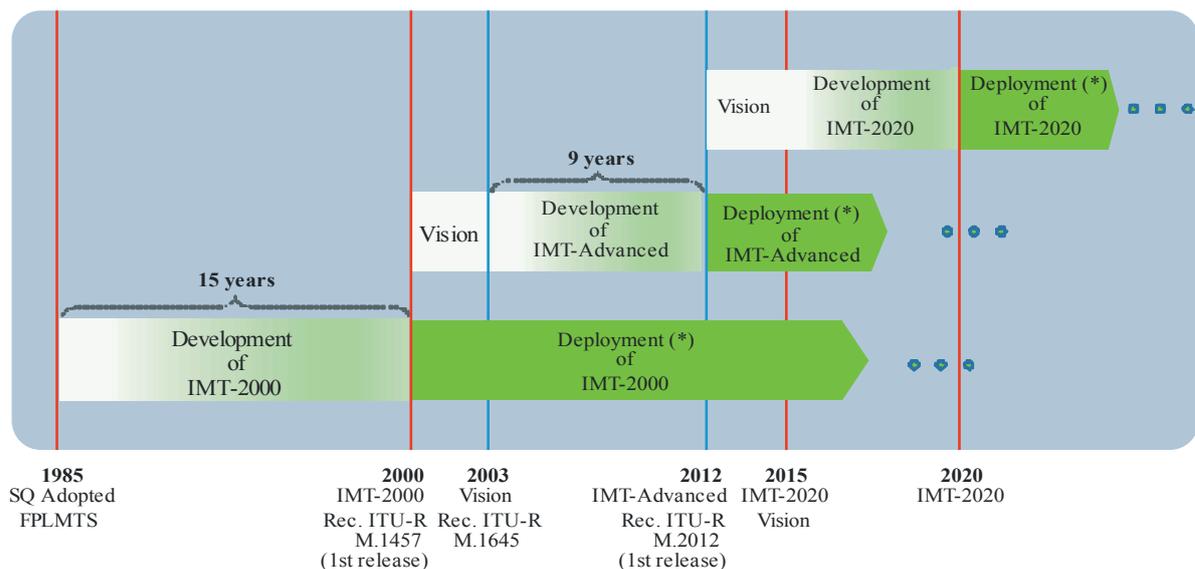
#### 14.1 3.1 How IMT has developed

Following the adoption by International Radio Consultative Committee (CCIR) of the Study Question on the Future Public Land Mobile Telecommunication Systems (FPLMTS) in 1985, it took a total of 15 years for the identification of the radio spectrum in 1992 and development of IMT-2000 specifications (Recommendation ITU-R M.1457). After this development, deployment of IMT-2000 systems started.

The ITU then immediately started to develop the vision Recommendation (Recommendation ITU-R M.1645, June 2003) on Framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000. Based on this Recommendation, the ITU has released the Recommendation ITU-R M.2012 in the terrestrial radio interface of IMT-Advanced in 2012. It took nine years for the ITU to develop the second phase of IMT after the completion of the vision recommendation. After this development, deployment of the IMT-Advanced systems started.

FIGURE 1

Overview of timeline for IMT development and deployment



(\*) Deployment timing may vary across countries.

#### 14.2 3.2 Role of IMT for 2020 and beyond

IMT systems serve as a communication tool for people and a facilitator which assists the development of other industry sectors, such as medical science, transportation, and education. Considering the key trends described in § 2, IMT should continue to contribute to the following:

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- **Wireless infrastructure to connect the world:** Broadband connectivity will acquire the same level of importance as access to electricity. IMT will continue to play an important role in this context as it will act as one of the key pillars to enable mobile service delivery and information exchanges. In the future, private and professional users will be provided with a wide variety of applications and services, ranging from infotainment services to new industrial and professional applications.
- **New ICT market:** The development of future IMT systems is expected to promote the emergence of an integrated ICT industry which will constitute a driver for economies around the globe. Some possible areas include: the accumulation, aggregation and analysis of big data; delivering customized networking services for enterprise and social network groups on wireless networks
- **Bridging the Digital Divide:** IMT will continue to help closing the gaps caused by an increasing Digital Divide. Affordable, sustainable and easy-to-deploy mobile and wireless communication systems can support this objective while effectively saving energy and maximizing efficiency.
- **New ways of communication:** IMT will enable sharing of any type of contents anytime, anywhere through any device. Users will generate more content and share this content without being limited by time and location.
- **New forms of education:** IMT can change the method of education by providing easy access to digital textbooks or cloud-based storage of knowledge on the internet, boosting applications such as e-learning, e-health, and e-commerce.
- **Promote Energy Efficiency:** IMT enables energy efficiency across a range of sectors of the economy by supporting machine to machine communication and solutions such as smart grid, teleconferencing, smart logistics and transportation.
- **Social changes:** Broadband networks make it easier to quickly form and share public opinions for a political or social issue through social network service. Opinion formation of a huge number of connected people due to their ability to exchange information anytime anywhere will become a key driver of social changes.
- **New art and culture:** IMT will support people to create works of art or participate in group performances or activities, such as a virtual chorus, flash mob, co-authoring or song writing. Also, people connected to a virtual world are able to form new types of communities and establish their own cultures.

## 15 4 Usage scenarios for IMT for 2020 and beyond

IMT for 2020 and beyond is envisaged to expand and support diverse usage scenarios and applications that will continue beyond the current IMT. Furthermore, a broad variety of capabilities would be tightly coupled with these intended different usage scenarios and applications for IMT for 2020 and beyond. The usage scenarios for IMT for 2020 and beyond include:

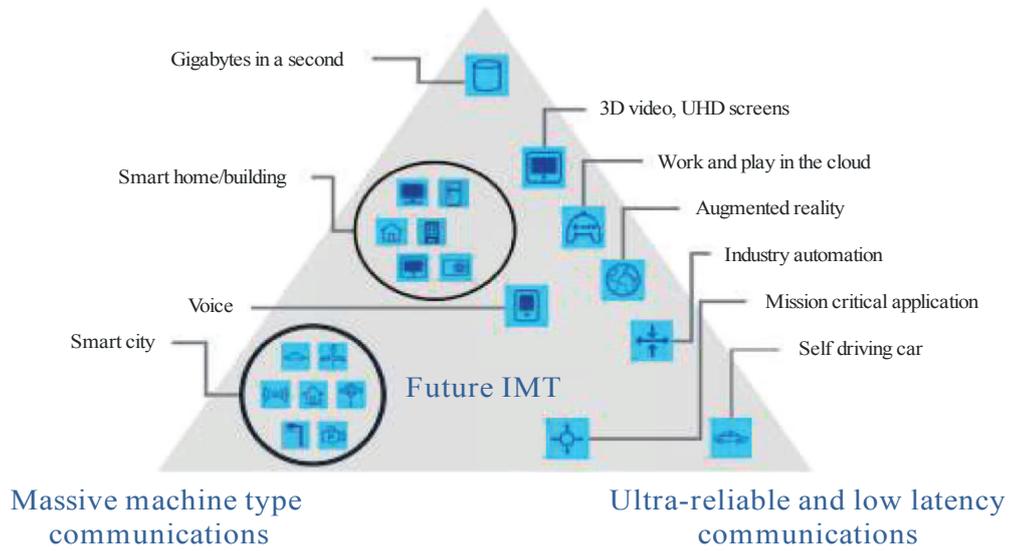
- **Enhanced Mobile Broadband:** Mobile Broadband addresses the human-centric use cases for access to multi-media content, services and data. The demand for mobile broadband will continue to increase, leading to enhanced Mobile Broadband. The enhanced Mobile Broadband usage scenario will come with new application areas and requirements in addition to existing Mobile Broadband applications for improved performance and an increasingly seamless user experience. This usage scenario covers a range of cases, including wide-area coverage and hotspot, which have different requirements. For the hotspot case, i.e. for an area with high user density, very high traffic capacity is needed, while the requirement for mobility is low and user data rate is higher than that of wide area coverage. For the wide area coverage case, seamless coverage and medium to high mobility are desired, with much improved user data rate compared to existing data rates. However the data rate requirement may be relaxed compared to hotspot.
- **Ultra-reliable and low latency communications:** This use case has stringent requirements for capabilities such as throughput, latency and availability. Some examples include wireless control of industrial manufacturing or production processes, remote medical surgery, distribution automation in a smart grid, transportation safety, etc.
- **Massive machine type communications:** This use case is characterized by a very large number of connected devices typically transmitting a relatively low volume of non-delay-sensitive data. Devices are required to be low cost, and have a very long battery life.

Additional use cases are expected to emerge, which are currently not foreseen. For future IMT, flexibility will be necessary to adapt to new use cases that come with a wide range of requirements.

Future IMT systems will encompass a large number of different features. Depending on the circumstances and the different needs in different countries, future IMT systems should be designed in a highly modular manner so that not all features have to be implemented in all networks.

Figure 2 illustrates some examples of envisioned usage scenarios for IMT for 2020 and beyond.

FIGURE 2  
Usage scenarios of IMT for 2020 and beyond  
Enhanced mobile broadband



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## 16 5 Capabilities of IMT-2020

IMT for 2020 and beyond is expected to provide far more enhanced capabilities than those described in Recommendation ITU-R M.1645, and these enhanced capabilities could be regarded as new capabilities of future IMT. As ITU-R will give a new term IMT-2020 to those systems, system components, and related aspects that support these new capabilities, the term IMT-2020 is used in the following sections.

A broad variety of capabilities, tightly coupled with intended usage scenarios and applications for IMT-2020 is envisioned. Different usage scenarios along with the current and future trends will result in a great diversity/variety of requirements. The key design principles are flexibility and diversity to serve many different use cases and scenarios, for which the capabilities of IMT-2020, described in the following paragraphs, will have different relevance and applicability. In addition, the constraints on network energy consumption and the spectrum resource will need to be considered.

The following eight parameters are considered to be key capabilities of IMT-2020:

### **Peak data rate**

Maximum achievable data rate under ideal conditions per user/device (in Gbit/s).

### **User experienced data rate**

Achievable data rate that is available ubiquitously<sup>23</sup> across the coverage area to a mobile user/device (in Mbit/s or Gbit/s).

### **Latency**

The contribution by the radio network to the time from when the source sends a packet to when the destination receives it (in ms).

### **Mobility**

Maximum speed at which a defined QoS and seamless transfer between radio nodes which may belong to different layers and/or radio access technologies (multi-layer/-RAT) can be achieved (in km/h).

### **Connection density**

Total number of connected and/or accessible devices per unit area (per km<sup>2</sup>).

### **Energy efficiency**

Energy efficiency has two aspects:

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<sup>23</sup> The term “ubiquitous” is related to the considered target coverage area and is not intended to relate to an entire region or country.

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- on the network side, energy efficiency refers to the quantity of information bits transmitted to/ received from users, per unit of energy consumption of the radio access network (RAN) (in bit/Joule);
- on the device side, energy efficiency refers to quantity of information bits per unit of energy consumption of the communication module (in bit/Joule).

**Spectrum efficiency**

Average data throughput per unit of spectrum resource and per cell<sup>24</sup> (bit/s/Hz).

**Area traffic capacity**

Total traffic throughput served per geographic area (in Mbit/s/m<sup>2</sup>).

IMT-2020 is expected to provide a user experience matching, as far as possible, fixed networks. The enhancement will be realized by increased peak and user experienced data rate, enhanced spectrum efficiency, reduced latency and enhanced mobility support.

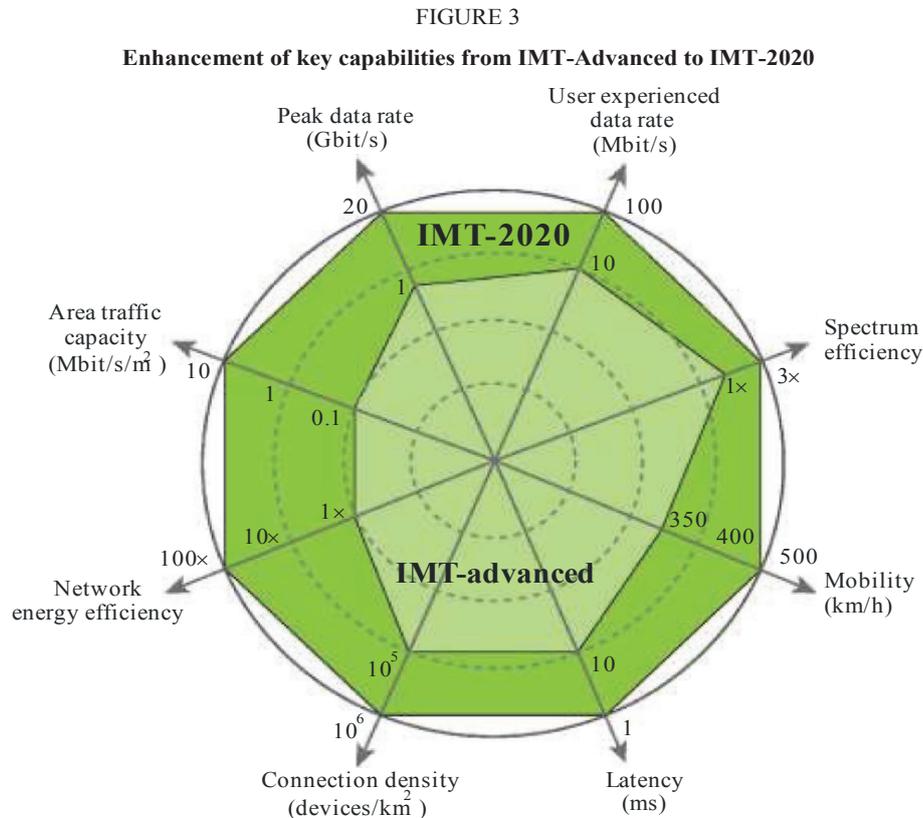
In addition to the conventional human-to-human or human-to-machine communication, IMT-2020 will realize the Internet of Things by connecting a vast range of smart appliances, machines and other objects without human intervention.

IMT-2020 should be able to provide these capabilities without undue burden on energy consumption, network equipment cost and deployment cost to make future IMT sustainable and affordable.

The key capabilities of IMT-2020 are shown in Fig. 3, compared with those of IMT-Advanced.

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<sup>24</sup> The radio coverage area over which a mobile terminal can maintain a connection with one or more units of radio equipment located within that area. For an individual base station, this is the radio coverage area of the base station or of a subsystem (e.g. sector antenna).



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The values in the Figure above are targets for research and investigation for IMT-2020 and may be further developed in other ITU-R Recommendations, and may be revised in the light of future studies. The targets are further described below.

The peak data rate of IMT-2020 for enhanced Mobile Broadband is expected to reach 10 Gbit/s. However under certain conditions and scenarios IMT-2020 would support up to 20 Gbit/s peak data rate, as shown in Fig. 3. IMT-2020 would support different user experienced data rates covering a variety of environments for enhanced Mobile Broadband. For wide area coverage cases, e.g. in urban and sub-urban areas, a user experienced data rate of 100 Mbit/s is expected to be enabled. In hotspot cases, the user experienced data rate is expected to reach higher values (e.g. 1 Gbit/s indoor).

The spectrum efficiency is expected to be three times higher compared to IMT-Advanced for enhanced Mobile Broadband. The achievable increase in efficiency from IMT-Advanced will vary between scenarios and could be higher in some scenarios (for example five times subject to further research). IMT-2020 is expected to support 10 Mbit/s/m<sup>2</sup> area traffic capacity, for example in hot spots.

The energy consumption for the radio access network of IMT-2020 should not be greater than IMT networks deployed today, while delivering the enhanced capabilities. The network energy efficiency should therefore be improved by a factor at least as great as the envisaged traffic capacity increase of IMT-2020 relative to IMT-Advanced for enhanced Mobile Broadband.

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IMT-2020 would be able to provide 1 ms over-the-air latency, capable of supporting services with very low latency requirements. IMT-2020 is also expected to enable high mobility up to 500 km/h with acceptable QoS. This is envisioned in particular for high speed trains.

Finally, IMT-2020 is expected to support a connection density of up to  $10^6/\text{km}^2$ , for example in massive machine type communication scenarios.

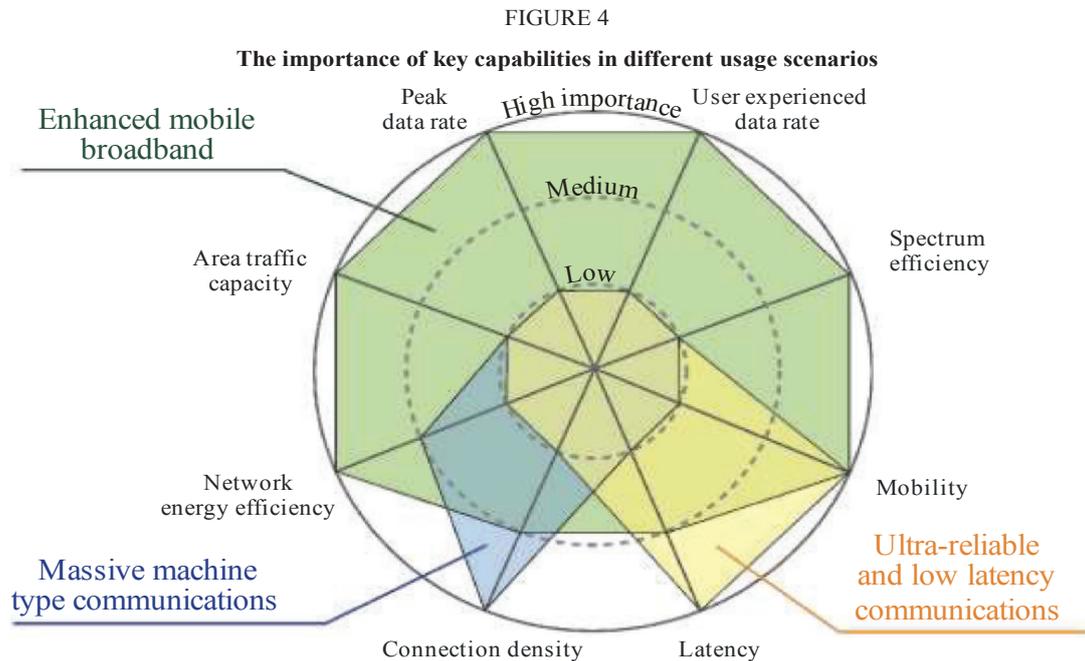
The reference values for IMT-Advanced shown in Fig. 3 for the peak data rate, mobility, spectrum efficiency and latency are extracted from Report ITU-R M.2134. The Report this was published in 2008 and was used for the evaluation of IMT-Advanced candidate radio interfaces described in Recommendation ITU-R M.2012.

As anticipated above, whilst all key capabilities may to some extent be important for most use cases, the relevance of certain key capabilities may be significantly different, depending on the use cases/scenario. The importance of each key capability for the usage scenarios *enhanced Mobile Broadband*, *ultra-reliable and low latency communication* and *massive machine-type communication* is illustrated in Fig. 4. This is done using an indicative scaling in three steps as “high”, “medium” and “low”.

In the enhanced Mobile Broadband scenario, user experienced data rate, area traffic capacity, peak data rate, mobility, energy efficiency and spectrum efficiency all have high importance, but mobility and the user experienced data rate would not have equal importance simultaneously in all use cases. For example, in hotspots, a higher user experienced data rate, but a lower mobility, would be required than in wide area coverage case.

In some ultra-reliable and low latency communications scenarios, low latency is of highest importance, e.g. in order to enable the safety critical applications. Such capability would be required in some high mobility cases as well, e.g. in transportation safety, while, e.g. high data rates could be less important.

In the massive machine type communication scenario, high connection density is needed to support tremendous number of devices in the network that e.g. may transmit only occasionally, at low bit rate and with zero/very low mobility. A low cost device with long operational lifetime is vital for this usage scenario.



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Other capabilities may be also required for IMT-2020, which would make future IMT more flexible, reliable, and secure when providing diverse services in the intended usage scenarios:

### **Spectrum and bandwidth flexibility**

Spectrum and bandwidth flexibility refers to the flexibility of the system design to handle different scenarios, and in particular to the capability to operate at different frequency ranges, including higher frequencies and wider channel bandwidths than today.

### **Reliability**

Reliability relates to the capability to provide a given service with a very high level of availability.

### **Resilience**

Resilience is the ability of the network to continue operating correctly during and after a natural or man-made disturbance, such as the loss of mains power.

### **Security and privacy**

Security and privacy refers to several areas such as encryption and integrity protection of user data and signalling, as well as end user privacy preventing unauthorized user tracking, and protection of network against hacking, fraud, denial of service, man in the middle attacks, etc.

### **Operational lifetime**

Operational life time refers to operation time per stored energy capacity. This is particularly important for machine-type devices requiring a very long battery life (e.g. more

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than 10 years) whose regular maintenance is difficult due to physical or economic reasons.

## 17 6 Framework and objectives

The objective of the development of IMT-2020 is to address the anticipated needs of users of mobile services in the years 2020 and beyond. The goals for the capabilities of IMT-2020 system described in § 5 are only targets for research and investigation and may be further developed in other ITU Recommendations, and may be revised in the light of future studies. This section provides relationships between IMT-2020 and existing IMT/other access systems, timelines and focus areas for further study as framework and objectives for the development of IMT-2020.

### 17.1 6.1 Relationships

#### 17.1.1 6.1.1 Relationship between existing IMT and IMT-2020

In order to support emerging new scenarios and applications for 2020 and beyond, it is foreseen that development of IMT-2020 will be required to offer enhanced capabilities as those described in § 5. The values of these capabilities go beyond those described in Recommendation ITU-R M.1645. The minimum technical requirements (and corresponding evaluation criteria) to be defined by ITU-R based on these capabilities for IMT-2020 could potentially be met by adding enhancements to existing IMT, incorporating new technology components and functionalities, and/or the development of new radio interface technologies.

Furthermore, IMT-2020 will interwork with and complement existing IMT and its enhancements.

#### 17.1.2 6.1.2 Relationship between IMT-2020 and other access systems

Users should be able to access services anywhere, anytime. To achieve this goal, interworking will be necessary among various access technologies, which might include a combination of different fixed, terrestrial and satellite networks. Each component should fulfil its own role, but also should be integrated or interoperable with other components to provide ubiquitous seamless coverage.

IMT-2020 will interwork with other radio systems, such as RLANs, broadband wireless access, broadcast networks, and their possible future enhancements. IMT systems will also closely interwork with other radio systems for users to be optimally and cost-effectively connected.

### 17.2 6.2 Timelines

In planning for the development of IMT-2020 as well as future enhancement of the existing IMT, it is important to consider the timelines associated with their realization, which depend on a number of factors:

- user trends, requirements and user demand;
- technical capabilities and technology development;
- standards development and their enhancement;

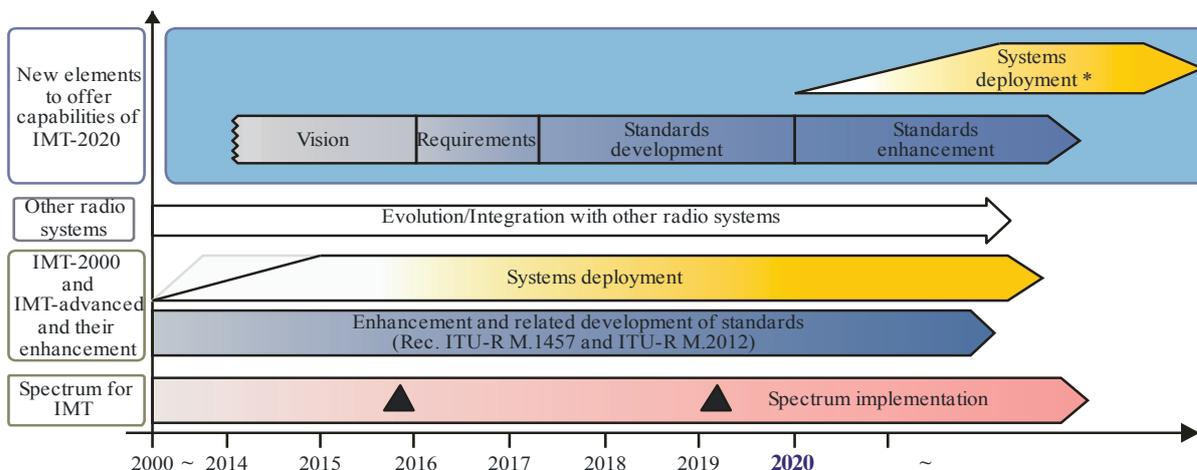
**ITU-R M.2083-0 29**

- spectrum matters;
- regulatory considerations;
- system deployment.

All of these factors are interrelated. The first five have been and will continue to be addressed within ITU. System development and deployment relates to the practical aspects of deploying new networks, taking into account the need to minimize additional infrastructure investment and to allow time for customer adoption of the services of a new system. ITU will complete its work for standardization of IMT-2020 no later than the year 2020 to support IMT-2020 deployment by ITU members expected from the year 2020 onwards.

The timelines associated with these different factors are depicted in Fig. 5. When discussing the phases and timelines for IMT-2020, it is important to specify the time at which the standards are completed, when spectrum would be available, and when deployment may start.

FIGURE 5  
Phase and expected timelines for IMT-2020



The sloped dotted lines in systems deployment indicate that the exact starting point cannot yet be fixed.

▲ : Possible spectrum identification at WRC-15 and WRC-19

\* : Systems to satisfy the technical performance requirements of IMT-2020 could be developed before year 2020 in some countries.  
 : Possible deployment around the year 2020 in some countries (including trial systems)

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**17.2.1 6.2.1 Medium term**

In the medium-term (up to about the year 2020) it is envisaged that the future development of IMT-2000 and IMT-Advanced will progress with the ongoing enhancement of the capabilities of the initial deployments, as demanded by the marketplace in addressing user needs and allowed by the status of technical developments. This phase will be dominated by the growth in traffic within the existing IMT spectrum, and the development of IMT-2000 and IMT-Advanced during this time will be distinguished by

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incremental or evolutionary changes to the existing IMT-2000 and IMT-Advanced radio interface specifications (i.e. Recommendations ITU-R M.1457 for IMT-2000 and ITU-R M.2012 for IMT-Advanced, respectively).

It is envisaged that the bands identified by WRCs will be made available for IMT within this timeframe subject to user demand and other consideration.

**17.2.2 6.2.2 Long term**

The long term (beginning around the year 2020) is associated with the potential introduction of IMT-2020 which could be deployed around the year 2020 in some countries. It is envisaged that IMT-2020 will add enhanced capabilities described in § 5, and they may need additional frequency bands in which to operate.

**ITU-R M.2083-0 31****17.3 6.3 Focus areas for further study**

The research forums and other external organizations wishing to contribute to the future development of IMT-2020 are encouraged to focus especially in the following key areas:

- a) radio interface(s) and their interoperability;
  - b) access network related issues;
  - c) spectrum related issues;
  - d) traffic characteristics.
-

DEPARTMENT OF LABOUR  
NOTICE 684 OF 2018  
LABOUR RELATIONS ACT, 1995

METAL AND ENGINEERING INDUSTRIES BARGAINING COUNCIL:  
EXTENSION TO NON-PARTIES OF THE PENSION FUND COLLECTIVE  
AGREEMENT

I, MILDRED NELISIWE OLIPHANT, Minister of Labour, hereby in terms of section 32(2) of the Labour Relations Act, 1995, declare that the collective agreement which appears in the Schedule hereto with the exclusion of clause 1(1)(b), and 2 thereof, which was concluded in the Metal And Engineering Industries Bargaining Council and is binding in terms of section 31 of the Labour Relations Act, 1995, on the parties which concluded the agreement, shall be binding on the other employers and employees in that Industry, with effect from the second Monday after the date of publication of this Notice and for the period ending on 30 April 2021.



.....  
MINISTER OF LABOUR

MN OLIPHANT, MP

DATE: ..... 25/10/2018 .....

**UMTHETHO WOBUDLELWANO KWEZABASEBENZI KA-1995****METAL AND ENGINEERING INDUSTRIES BARGAINING COUNCIL:  
UKWELULWA KWESIVUMELWANO SESIKHWAMA SOMHLALAPHANSI I  
SELULELWA KULABO ABANGEYONA INGXEENYE YESIVUMELWANO**

Mina, **MILDRED NELISIWE OLIPHANT**, uNgqongqoshe Wezabasebenzi lapha ngokwesigaba 32(2) soMthetho Wobudlelwano Kwezabasebenzi ka-1995, ngazisa ukuthi isiVumelwano sabaqashi nasasebenzi esitholakala kwiSheduli yesiNgisi exhunywe lapha, kukhishwa imishwana 1(1)(b) kanye no nombolo 2 esenziwa, **Metal and Engineering Industries Bargaining Council** futhi ngokwesigaba 31 soMthetho Wobudlelwano Kwezabasebenzi ka 1995, esibopha labo abasenzayo, sizobopha abanye abaqashi nabasebenzi kuleyoMboni, kusukela ngomsoMbuluko wesibili emva kokushicilelwa kwalesisaziso kuze kube isikhathi esiphela mhlaka 30 kuMbasa 2021.

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**UNGQONGQOSHE WEZABASEBENZI**

**MN OLIPHANT, MP**

**USUKU: 25/10/2018**

## LABOUR RELATIONS ACT, 1995

METAL AND ENGINEERING INDUSTRIES BARGAINING COUNCIL: RENEWAL OF  
PERIOD OF OPERATION OF THE PENSION FUND COLLECTIVE AGREEMENT

I, MILDRED NELISIWE OLIPHANT, Minister of Labour, hereby, in terms of section 32(6)(a)(ii) of the Labour Relations Act, 1995, declare the provisions of Government Notice R403 of 12 July 2016, to be effective from the date of publication of this notice and for the period ending 30 April 2021.



MINISTER OF LABOUR

MN OLIPHANT, MP

DATE: 25/10/2018

## UMTHETHO WOBUDLELWANO KWEZABASEBENZI KA-1995

METAL AND ENGINEERING INDUSTRIES BARGAINING COUNCIL: UKUVUSELELWA  
KWESIKHATHI SOKUSEBENZA KWESIVUMELWANO SABAQASHI NABASEBENZI  
SOKUPHATHA ISIKHWAMA SOMHLALAPHANSI

Mina, MILDRED NELISIWE OLIPHANT, uNgqongqoshe Wezabasebenzi, lapha ngokwesigaba 32(6)(a)(ii) soMthetho Wobudlelwano Kwezabasebenzi, ka-1995, ngimemezela ukuthi izihlinzeko zeSasiso sikaHulumeni R.403 somhlaka 12 kuNtulikazi 2016 zizosebenza kusukela ngosuku lokushicilelwa kwalesiSaziso kuze kube isikhathi esiphela mhlaka 30 kuMbaso 2021.



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MN OLIPHANT, MP

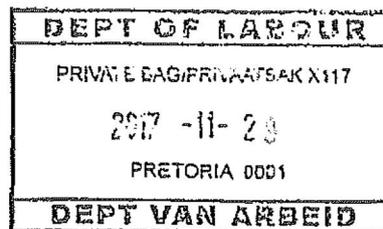
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## SCHEDULE

METAL AND ENGINEERING INDUSTRIES  
BARGAINING COUNCILCONSOLIDATED PENSION FUND COLLECTIVE AGREEMENT  
FOR THE METAL INDUSTRIES

In accordance with the provisions of the Labour Relations Act, 1995, as amended made and entered into by and between the

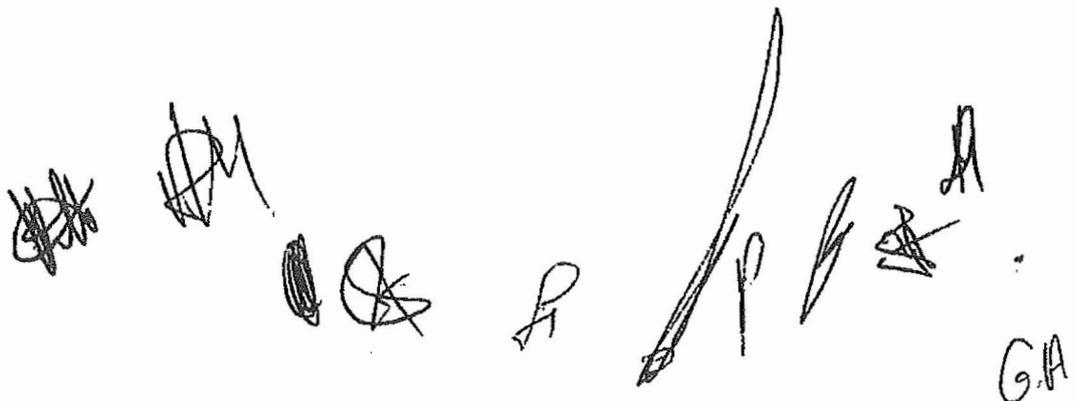
Association of Electric Cable Manufacturers' of South Africa;  
 Association of Metal Service Centres of South Africa;  
~~Border Industrial Employers Association;~~  
 Cape Engineers' and Founders' Association;  
 Constructional Engineering Association (South Africa);  
 Consolidated Employers' Organisation;  
 Eastern Cape Engineering and Allied Industries Association;  
 Electrical Engineering and Allied Industries' Association;  
 Electrical Manufacturers Association of South Africa;  
~~Federated Employers Organisation of South Africa (FEOSA);~~  
 Gate and Fence Association;  
 Hand Tool Manufacturers' Association (HATMA);  
 Iron and Steel Producers' Association of South Africa;  
 Kwa-Zulu Natal Engineering Industries' Association;  
 Lift Engineering Association of South Africa;  
 Light Engineering Industries' Association of South Africa;  
 National Employers' Association of South Africa (NEASA);  
 Non-Ferrous Metal Industries' Association of South Africa;  
 Plastics Converters Association of South Africa (PCASA);  
 Plumbers and Engineers Brassware Manufacturers' Association;  
 Pressure Equipment Manufacturers' Association of South Africa;  
 Refrigeration and Air-Conditioning Manufacturers' and Suppliers' Association;  
 South African Electro-Plating Industries' Association;  
 South African Engineers' and Founders' Association;  
 South African Fasteners Manufacturers' Association (SAFMA);  
 South African Refrigeration and Air-Conditioning Contractors' Association (SARACCA);  
 South African Pump Manufacturers' Association;  
 South African Reinforced Concrete Engineers' Association (SARCEA);



South African Valve and Actuator Manufacturers' Association (SAVAMA);  
~~South African United Commercial Employers Organisation;~~

**REGISTERED TRADE UNIONS OR "EMPLOYEE ORGANISATION" PARTY TO THE COUNCIL**

Metal and Electrical Workers' Union of South Africa (MEWUSA);  
Solidariteit / Solidarity;  
UASA-The Union;  
National Union of Metalworkers of South Africa (NUMSA);  
South African Equity Workers' Association (SAEWA);



A collection of handwritten signatures and initials in black ink, scattered across the lower half of the page. The signatures vary in style, including some that appear to be stylized or scribbled. One signature on the right side is clearly legible as 'G.A.'.

## 1. SCOPE OF APPLICATION OF AGREEMENT

- (1) The terms of this Agreement shall apply to and be observed-
- (a) in the Iron, Steel, Engineering, Metallurgical Industry throughout the Republic of South Africa;
  - (b) by all employers and scheduled employees in the Iron, Steel, Engineering and Metallurgical Industries who are members of the employers' organisations and the trade unions, respectively;
  - (c) by all employers and all scheduled employees in the Iron, Steel, Engineering and Metallurgical Industries who are not members of the employers' organisations and the trade unions; and
  - (d) the terms of this Agreement shall apply to Apprentices and Trainees not engaged by means of contracts with the merSETA.
- (2) The terms of this Agreement shall not apply to an employer and his employee who are governed by and fall within the scope of application of the Engineering Industries Pension Fund.
- (3) The terms of this Agreement shall not, subject to sub-clause (4) below, apply to any employee who on 1 May 1991 was or thereafter became a participant in and member of any fund providing provident and/or pension benefits, which was in existence on the said date (and in which the employer of that employee was on the said date a participant) or to the employer of that employee, during such period only as such fund continues to operate and both employer and employee are participants therein: Provided that a fund which provides solely for payment of benefits on death shall not be deemed to be a pension or provident fund for the purposes of this Agreement.
- (4) Where employers and employees participate in domestic schemes providing provident and/or pension benefits as referred to in sub-clause (3) above, which at the date of coming into operation of this Agreement do not provide for percentage contributions which, in total, are at least as much as the percentages, in total, specified in clause 6(2)(a) and (c) of this Agreement, a period of six weeks shall be allowed to enable compliance with this requirement subject to any amendment of this Agreement.
- (5) Clauses 1(1)(b), 2 of this Agreement shall not apply to employers and employees who are not members of the employers' organisations and trade unions, respectively.

## 2. PERIOD OF OPERATION OF AGREEMENT

- 2.1. This Agreement shall apply to parties to the agreement from date of signature until 30 April 2021;  
and

The text shows several handwritten signatures in black ink, arranged horizontally. From left to right, there are approximately seven distinct signatures, some appearing to be initials or full names. A large, stylized signature is also visible on the right side of the page, partially overlapping the text.

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- 2.2. This Agreement shall bind non-parties in terms of section 32 of the LRA as determined by the Minister of Labour, and shall remain in force until 30 April 2021.

### 3. DEFINITIONS

Any expression used in this Agreement that is defined in the Labour Relations Act, 1995, as amended shall have the same meaning as in that Act, and any reference to an Act shall include any amendments to such Act; further, unless inconsistent with the context-

"The Act" means the Pension Funds Act 24 of 1956 as amended from time to time.

"Agreement" means a collective agreement as defined in the Labour Relations Act, 1995, as amended operative in the Iron, Steel, Engineering and Metallurgical Industries, and shall include any succeeding agreement and/or any extensions and/or amendments thereof, and shall further include any agreement as defined in the said Act if such agreement has expired but was operative at the date of coming into operation of this Agreement or became operative after the date of coming into operation of this Agreement;

"Apprentice" means an employee serving under a written contract of apprenticeship registered or deemed to have been registered under the Skills Development Act, No 97 of 1998 and includes a minor employed on probation in terms of the Act or a trainee in terms of the Atrami Agreement as well as a learner in terms of Chapter IV of the Skills Development Act, No.97 of 1998."

"Council" means the Metal and Engineering Industries Bargaining Council, registered in terms of section 29 of the Act;

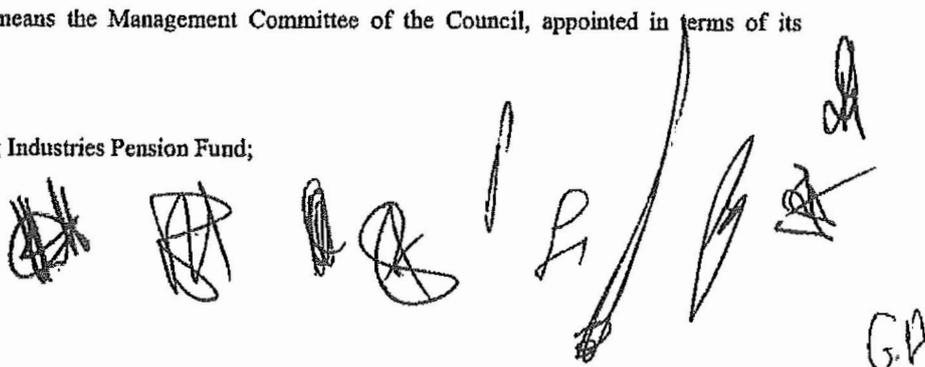
"Contribution Increase Program" means the employee and employer contributions payable as stipulated in the Approved Rules of the Fund;

"Scheduled Employee" means an employee, including an apprentice, whose minimum rate of pay is scheduled in any collective agreement as defined above in the Iron, Steel, Engineering and Metallurgical Industries;

"Establishment" means any premises wherein or whereon the industries or part thereof, as herein defined, are carried on;

"Management Committee" means the Management Committee of the Council, appointed in terms of its constitution;

"Fund" means the Engineering Industries Pension Fund;

A series of handwritten signatures and initials in black ink, including a large signature, several smaller initials, and the letters 'G.A.' at the bottom right.

**"Iron, Steel, Engineering and Metallurgical Industries" means**

- (a) the production of iron and/or steel;
- (b) the production of alloys and/or the processing and/or recovery and/or refining of metals (other than precious metals) and/or alloys from dross and/or scrap and/or residues;
- (c) the general engineering and manufacturing engineering and metallurgical Industries;
- (d) the building and/or alteration and/or repair of boats and/or ships, including the scraping, chipping or scaling and/or painting of their hulls, and general woodwork undertaken in connection with ship repairs;
- (e) the electrical engineering industry;
- (f) the lift and escalator industry;
- (g) the plastics industry and
- (h) The iron, steel and metallurgical industry as defined in paragraph (a) to (g) above shall include the activities of Temporary Employment Service as defined in the section 198(1) of the Labour Relations Act, 66 of 1995 as amended ("the LRA"), who for reward procure for or provide to a client whose undertaking falls within the registered scope of Metal and Engineering Industries Bargaining Council any persons (employees as defined in section 198(2) of the LRA) to render services or to perform work in such undertaking.

For the purpose hereof-

- (a) **"General Engineering and Manufacturing Engineering and Metallurgical Industries"** means the industries concerned with the maintenance, fabrication, erection or assembly, construction, alteration, replacement or repair of any machine, vehicle (other than a motor vehicle) or article consisting mainly of metal (other than a precious metal), or parts or components thereof, and structural metal work, including steel reinforcement work, and the manufacture of metal goods principally from such iron and/or steel and/or other metals (other than precious metals) and/or alloys, and the finishing of metal goods, but does not include the Motor Industry.

**"Precious Metals"** means the precious metals gold, silver, platinum and/or palladium and/or any alloy containing the said precious metals, or any of these in such proportion with any other metals to be the greater part in value of such alloy.

- (b) **"Electrical Engineering Industry"** shall consist of:-

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- (i) The manufacture and/or assembly from component parts of electrical equipment in the Republic of South Africa, namely generators, motors, convertors, switch and control gear (including relays, contactors, electrical instruments and equipment associated therewith), electrical lighting, heating, cooking, refrigeration and cooling equipment, transformers, furnace equipment, signalling equipment, radio or electronic equipment, including monitors, and other equipment utilising the principles used in the operation of radio and electronic equipment, the latter equipment to include, but not to be limited to, television, and further, incandescent lamps and electric cables and domestic electrical appliances, and shall also include the manufacture of component parts of the aforementioned equipment.
- (ii) Subject to clause (iii) hereunder, the installation, maintenance, repair and service of the equipment referred to in paragraph (i) above in the Provinces of the Transvaal and Natal; but does not include the activities of electrical contracting industry;
- (iii) The installation, maintenance, repair and service of television sets and monitors within the Republic of South Africa, excluding the installation, maintenance, repair and service in the Province of the Cape of Good Hope, and excluding in respect of the whole of the Republic of South Africa, the installation, maintenance, repair and service of monitors primarily intended for use in accounting and/or data processing and/or business procedures.
- (c) "Electrical Contracting Industry" means the design, preparation, (other than manufacture for sale) and erection of electrical installation forming an integral and permanent portion of buildings and the repair and/or maintenance of such installations including any cable jointing and electrical wiring associated therewith;
- (d) "Lift and Escalator Industry" means the manufacture and/or assembly and/or installation and/or repair of electrical lifts and escalators;
- (e) "Plastics Industry" means the industry concerned with the conversion of thermoplastic and/or thermosetting polymers, including the compounding or recycling thereof, or the manufacture of articles or parts wholly or mainly made of such polymers into rigid, semi rigid or flexible form, whether blown, moulded, extruded, cast, injected, formed, calendered, coated, compression moulded or rotational moulded, including in-house printing on such plastics by the manufacturers, and all operations incidental to these activities;
- (f) "Plastics" means any one of the group of materials which consist of or contains as an essential ingredient an organic substance of a large molecular mass and which, while solid in the finished state, at some stage in its manufacture has been or can be forced, i.e. cast, calendered, extruded

or moulded into various shapes by flow, usually through the application, singly or together, of heat and pressure including the recycling or compounding thereof, but only where such compounding and/or recycling is as a result of the conversion for manufacture by the same employer, but shall exclude all extrusions into mono- and multi-filament fibres and other activities falling under the scope of the National Textile Bargaining Council;

- (g) "Machine" means any appliance, irrespective of the material of which it is made, but does not include an agricultural tractor.
- (h) "Metal Goods" does not include agricultural tractor;
- (i) "Motor Industry" means-
- (aa) Assembling, erecting, testing, remanufacturing, repairing, adjusting, overhauling, wiring, upholstering, spraying, painting and/or reconditioning carried on in connection with-
- (i) chassis and/or bodies of motor vehicles;
- (ii) internal combustion engines and transmission components of motor vehicles;
- (iii) the electrical equipment connected with motor vehicles, including radios;
- (ab) automotive engineering;
- (ac) repairing, vulcanising and/or retreading tyres;
- (ad) repairing, servicing and reconditioning batteries for motor vehicles;
- (ae) the business of parking and/or storing motor vehicles;
- (af) the business conducted by filling and/or service stations;
- (ag) the business carried on mainly or exclusively for the sale of motor vehicles or motor vehicle parts and/or accessories (whether new or used) pertaining thereto whether or not such sale is conducted from premises which are attached to a portion of an establishment wherein is conducted the assembly of or repair of motor vehicles;
- (ah) the business of motor graveyards.



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- (ai) the business of assembly establishments;
- (aj) the business of manufacturing establishments wherein are fabricated motor vehicle parts and/or spares and/or accessories and/or components;
- (ak) vehicle body building;

For the purposes of this definition;

"Automotive Engineering" means the reconditioning of internal combustion engines or parts thereof for use in motor vehicles in establishments mainly or exclusively so engaged, whether such establishment is engaged in the dismantling and repair motor vehicles or not;

"Motor Vehicle" means any wheeled conveyance propelled by electrical or mechanical power (other than steam) and designed for haulage and/or for the transportation of persons and/or goods and/or loads, including trailers and caravans, but does not include any equipment designed to run on fixed tracks, trailers designed to transport loads of 20 tons or over, or aircraft;

"Vehicle Body Building" means any or all of the following activities carried on in a Vehicle Body Building establishment-

- (i) The construction, repair or renovation of cabs and/or bodies and/or any superstructure, for any type of vehicle;
- (ii) the manufacture or repair of component parts for cabs and/or bodies and/or any superstructure and the assembling, adjusting and installation of parts in cabs, bodies or on the superstructure of vehicles;
- (iii) fixing cabs and/or bodies and/or any superstructure to the chassis of any type of vehicle;
- (iv) coating and/or decorating cabs and/or bodies and/or any superstructure with any preservative or decorative substance;
- (v) equipping, furnishing and finishing off the interior of cabs and/or bodies and/or superstructures;
- (vi) building trailers, but not including the manufacture of wheels or axles therefor;
- (vii) all operations incidental to or consequent upon the activities referred to in paragraphs (i),(ii), (iii), (iv), (v) and (vi).

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For the purposes of this definition, "Vehicle" does not include an aircraft, and "Motor Industry" as defined above shall not include the following-

- (i) the manufacture of motor vehicle parts and/or accessories and/or spares and/or components in establishments laid out for and normally producing metal and/or plastic goods of a different character on a substantial scale;
- (ii) the assembling, erecting, testing, repairing, adjusting, overhauling, wiring, spraying, painting and/or reconditioning of agricultural tractors, except where carried on in establishments rendering similar service in respect of motor cars, motor lorries or motor trucks;
- (iii) the manufacture and/or maintenance and/or repair of-
  - (aa) civil and mechanical engineering equipment and/or parts thereof, whether or not mounted on wheels;
  - (bb) agricultural equipment or parts thereof; or
  - (cc) equipment designed for use in factories and/or workshops.

Provided that for the purposes of (aa), (bb) and (cc) above, "equipment" shall not be taken to mean motor cars, motor lorries and/or motor trucks;

- (dd) motor vehicle or other vehicle bodies and/or superstructures and/or parts or components thereof made of steel plate of 3,175 mm thickness when carried on in establishments laid out for and normally engaged in the manufacture and/or maintenance and/or repair of civil and/or mechanical engineering equipment on a substantial scale.

The above mentioned interests shall not include the undertakings, industries, trades or occupations in respect of which Transnet Bargaining Council has been registered on 2 October 1991. The latter Council has been registered in respect of the undertakings, industries, trades or occupations of Transnet Limited known as Spoornet, South African Airways, Autonet, Portnet, Transtel, Transwerk, Promat, Protekon or any other business, undertakings, industry, trade, occupation, unit, department or section of Transnet Limited in the Republic of South Africa as these undertakings, industries, trades or occupations were constituted on 2 October 1991.

- (6) Notwithstanding the provisions of Clause 1(1), the terms of this Agreement shall not apply to-

- (a) the manufacture, for sale, of standard high-speed cutting tools made from high-speed steel by

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means of plant and/or equipment and/or methods specifically adapted and/or designed for production by repetitive processes, in the Magisterial Districts of Johannesburg, Boksburg, Vereeniging and Pietermaritzburg;

- (b) the installation, maintenance and repair of electrical equipment referred to in paragraph (b) of the definition of 'Electrical Engineering Industry' in clause 3 of Part I of the Main Agreement published under Government Notice No. R. 404 of 31 March 1998, in the Provinces of the Cape of Good Hope and the Orange Free State;
- (c) assembling, servicing, installation, maintenance and/or repair of appliances, equipment, machines, devices and apparatus, whether utilising manual, photographic, mechanical, electrical, electrostatic or electronic principles, or any combination of such principles, which are primarily intended for use in accounting and/or business and/or calculating and/or office and/or educational procedures;
- (d) the installation and/or repair of burglar and/or other similar alarm systems in the Provinces of the Cape of Good Hope and the Orange Free State;
- (e) the installation and/or repair and/or servicing of radios and/or refrigerators and/or domestic electrical appliances in the Provinces of the Cape of Good Hope and the Orange Free State;

"Implementation date" means 1 July 2012, the date mutually agreed to by the parties on which the contribution increase program commenced.

"Law" includes the common law;

"Main Agreement" means the Agreement published under Government Notice No. R. 404 of 31 March 1998 or any succeeding agreement and includes any amendment, re-enactment or extension thereof, and further includes the Main Agreement during any period that it is expired;

"Provident Fund" means the Metal Industries Provident Fund;

"Pensionable Remuneration" means the actual wages payable to an employee by the employer each week in respect of the ordinary hours worked by such employee in the shifts of the establishment concerned during such week, including monies payable in terms of any agreement or under any law, but excluding amounts paid in respect of overtime, shift and other allowances and holiday leave bonuses, but including amounts paid in respect of overtime hours worked to make up lost ordinary hours, and for the purposes of this definition-

- (a) in the case of a monthly-paid employee, his pensionable remuneration shall be the amount determined as above, converted on the basis that one month equals 4 1/3 weeks;

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(b) "shift" means that period of work ordinarily worked by an employee in any period of 24 hours;

"Permanent Disability Scheme" means the Permanent Disability Scheme constituted to organise and provide permanent disability benefits for the employees of employers in the group of industries known as the Iron, Steel, Engineering and Metallurgical Industries in the Republic of South Africa and such other industry/industries in the Republic as may from time to time be admitted to participate in the Scheme by the Board of Management in terms of the constitution of the Scheme;

"Precious Metals" means the precious metals gold, silver, platinum and/or palladium and/or any alloy containing the said precious metals, or any of these in such proportion with any other metals as to the greater part in value of such alloy;

"Regional Council" means any committee appointed as such by the Council in terms of its constitution;

"Region A" means the Magisterial Districts of Beaufort West, Bellville, Bredasdorp, Caledon, Calvinia, Carnarvon, Clanwilliam, Ceres, Fraserburg, George, Goodwood, Heidelberg (CP), Hermanus, Hopefield (CP), Knysna, Kuils River, Ladismith (CP), Laingsburg, Malmesbury, Mitchells Plain, Montagu, Moorreesburg, Mossel Bay, Namaqualand, Paarl, Piketberg, Prince Albert, Riversdale, Robertson, Simonstown, Somerset West, Stellenbosch, Strand, Sutherland, Swellendam, The Cape, Tulbagh, Vanrhynsdorp, Victoria West, Vredenburg, Vredendal, Wellington, Williston, Worcester and Wynberg, and for the purposes of these particular areas the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (Cape Regional Council), P.O. Box 8098, Roggebaai, 8012; or Room 507, Pearl Assurance House, Heerengracht, Foreshore, Cape Town, 8001;

"Region B" means the Magisterial Districts of Albert, Aliwal North, Barkly East, Cathcart, East London, Elliot, Indwe, King William's Town, Komga, Lady Grey, Maclear, Molteno, Queenstown, Sterkstroom, Stutterheim, Tarkastad and Wodehouse, and for the purposes of these particular areas the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (Border Regional Council), P.O. Box 13162, Vincent, 5217; or First Floor, 12 St Georges Road, Southernwood, 5201;

"Region C" means the Province of Natal, and for the purposes of this particular area the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (KwaZulu Natal Region), P.O. Box 5900, Durban, 4000, or 14<sup>th</sup> Floor, Mercury House, 320 Smith Street, Durban, 4001.

"Region D" means the Magisterial Districts of Aberdeen, Adelaide, Albany, Alexandria, Bathurst, Bedford, Calitzdorp, Colesberg, Cradock, Fort Beaufort, Graaff-Reinet, Hankey, Hanover, Hofmeyr, Humansdorp, Jansenville, Joubertina, Kirkwood, Middelburg (CP), Murraysburg, Noupoort, Oudtshoorn, Pearston, Port Elizabeth, Richmond (CP), Somerset East, Steytlerville, Steynsburg, Uniondale, Uitenhage, Venterstad and Willowmore, and for the purposes of these particular areas the address of the Regional Council shall be: Metal

and Engineering Industries Bargaining Council (Midlands Regional Council), P.O. Box 12848, Centrabill, 6006; or First Floor, 30 Pearston Street, Central, Port Elizabeth, 6001;

"Region E" means the Province of the Transvaal, excluding the Magisterial Districts of Bloemhof, Christiana, Coligny, Delareyville, Klerksdorp, Lichtenburg, Potchefstroom, Schweizer-Reneke, Ventersdorp and Wolmaransstad, and for the purposes of this particular area the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (Gauteng Region), P.O. Box 3998, Johannesburg, 2000 or Union Corporation Building, 1<sup>st</sup> Floor, 77 Marshall Street, Johannesburg, 2001".

"Region F" means the Province of the Orange Free State, and includes the Magisterial Districts of Bloemhof, Christiana, Coligny, Delareyville, Klerksdorp, Lichtenburg, Potchefstroom, Schweizer-Reneke, Ventersdorp and Wolmaransstad, in the Province of the Transvaal, and the Magisterial Districts of Barkly West, Britstown, De Aar, Douglas, Gordonia, Griekwastad, Hartswater, Hopetown, Kenhardt, Kimberley, Kuruman, Postmasburg, Philipstown, Prieska, Vryburg and Warrenton, in the Cape Province, and for the purposes of this particular area the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (Orange Free State and Northern Cape Regional Council), P.O. Box 95, Welkom, 9460; or 136 Constantia Road, Dagbreek, Welkom, 9459;

"Scheme" means the Permanent Disability Scheme as referred to above.

"Surplus Agreement" means the agreement approved by the Financial Services Board on 30 November 2011 to distribute surpluses in the Fund.

#### 4. CONTINUATION OF THE FUND

- (1) The Engineering Industries' Pension Fund (hereinafter referred to as the "Fund"), established in terms of Government Notice No. R. 1087 of 19 July 1957 is hereby continued.
- (2) The Fund shall consist of-
  - (a) all monies and assets standing to the credit of the fund as at the date of coming into operation of the Agreement;
  - (b) all contributions paid by employers and members in accordance with clause 6 of this Agreement;
  - (c) all investment income derived from the investment of any monies of the fund; and
  - (d) any other monies to which the fund may become entitled.
- (3) The Parties agree to ensure that the Surplus Agreement of the Fund is implemented in consultation with

the Fund, and that the terms of this Agreement are consistent with the Surplus Agreement.

#### 5. MEMBERSHIP

- (1) Each employee who becomes an employee falling within the scope of this Agreement and or after the date of coming into operation of this Agreement shall be required to choose either to become a member of this Fund or a member of the Metal Industries' Provident Fund. Such choice shall be made on the date on which he becomes an employee falling within the scope of this Agreement. Membership of the relevant Fund shall commence on that date.
- (2) If an employee to whom sub-clause (1) applies does not choose either to become a member of this Fund or a member of the Metal Industries' Provident Fund on the date on which he becomes an employee falling within the scope of this Agreement, he shall be required to become a member of the Metal Industries Provident Fund.
  - (a) All other employees shall be deemed to be members of this Fund: Provided that where any Main Agreement has expired, the last reference shall be to the most recently expired Main Agreement.
- (3) An employee to whom sub-clause (1) and/or (2) applies shall be entitled for a period of three months from the date on which he becomes an employee falling within the scope of this Agreement to withdraw from membership of this Fund in order to become a member of the other Fund. In such case, membership of the Fund to which the employee transfers shall be made retrospective to the date on which contributions commenced to this Fund, and the benefits earned in the name of the employee concerned shall be transferred to the Fund chosen in terms hereof. There shall be no refund of contributions to either the employee or employer. The right of an employee to transfer membership in terms of this sub-clause shall terminate on the expiry of the above three-month period.
- (4) If an employee who has become a member of this Fund ceases to fall within the scope of this Agreement as a result of his ceasing to be in service in the Industries or as a result of a specific exemption under clause 9 of this Agreement, but subsequently falls within the scope of this Agreement, then-
  - (a) if his benefit under this Fund or the Group Pension Fund (prior to 1 May 1991) has been paid out, he shall have the choice provided for in sub-clause (1);
  - (b) if his benefit under this Fund or the Group Pension Fund (prior to 1 May 1991) has not been paid out, he shall not have the choice provided for in sub-clause (1) but shall automatically become a member of the Fund of which he was previously a member.
- (5) If an employee terminated his membership of this Fund or the Engineering Industries' Pension Fund prior to 1 May 1991 and subsequently falls within the scope of this Agreement, or the Metal Industries Provident

Fund Agreement, then regardless of whether or not his benefit under the above funds have been paid out, he shall have a choice to become a member of either the Metal Industries Provident Fund or this Fund.

- (6) The provisions of sub-clauses (2) and (3) shall also apply to an employee referred to in sub-clauses (4) (a) and (5).
- (7) Except as provided in this clause, an employee who remains in service in the Industries and continues to fall within the scope of this Agreement may not withdraw from membership of the Pension Fund or Provident Fund unless unconditionally exempted under clause 9 of this Agreement.

#### 6. CONTRIBUTIONS

- (1) Contributions, as hereinafter provided for, shall be made by employees and employers as from the date of coming into operation of this Agreement.
- (2) Contributions in respect of this Fund and the Metal and Engineering Industries Permanent Disability Scheme (hereinafter referred to as the 'Scheme'):
- (a) The employer shall each week deduct from the pensionable remuneration of each of his employees as follows:

As gazetted on 3 August 2012, in Notice No R. 594 of the Government Gazette 35553	
Years	Employee contribution
1 July 2015 to 30 June 2016	7%
1 July 2016 to 30 June 2017	7,10%
1 July 2017 to 30 June 2018	7,20%
1 July 2018 to 30 June 2019	7,30%
1 July 2019 to 30 June 2020	7,40%
From 1 July 2020	7,50%

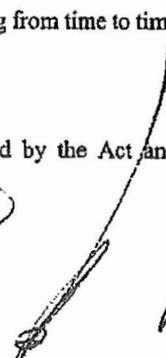
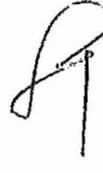
- (b) Contributions calculated in accordance with the provisions of paragraph (a) may, at the discretion of the employer, be deducted from the earnings of any other employees who request in writing to become members of this Fund: Provided that the membership provisions under clause 4 shall *mutatis mutandis* apply to such employees.
- (c) The employer shall pay to the Fund a percentage of pensionable remuneration as follows

As gazetted on 3 August 2012, in Notice No R. 594 of the Government Gazette 35553	
Years	Employer contribution
1 July 2015 to 30 June 2016	7%
1 July 2016 to 30 June 2017	7,10%
1 July 2017 to 30 June 2018	7,20%
1 July 2018 to 30 June 2019	7,30%
1 July 2019 to 30 June 2020	7,40%
1 July 2020 to 30 June 2021	7,50%
1 July 2021 to 30 June 2022	7,60%
1 July 2022 to 30 June 2023	7,70%
1 July 2023 to 30 June 2024	7,90%
1 July 2024 to 30 June 2025	8,10%
1 July 2025 to 30 June 2026	8,30%
1 July 2026 to 30 June 2027	8,50%
1 July 2027 to 30 June 2028	8,70%
1 July 2028 to 30 June 2029	8,90%
1 July 2029 to 30 June 2030	9,10%
1 July 2030 to 30 June 2031	9,30%
1 July 2031 to 30 June 2032	9,50%
1 July 2032 to 30 June 2033	9,70%
1 July 2033 to 30 June 2034	9,90%
1 July 2034 to 30 June 2035	10,10%
1 July 2035 to 30 June 2036	10,30%
From 1 July 2036	10,50%

- (d) The employee deductions and employer payments shall be made from the implementation date. During the contribution increase program, the Fund will pay an additional amount from the surplus reserve to a total contribution of 18%. If the Fund is unable to pay the difference between 18% and the employee deductions and employer deductions at any time during the Contribution Increase Program, the employee deductions and employer payments will be set at the level reached at the last anniversary of increases, in terms of the Contribution Increase Program.
- (e) The employer and employee contribution shall be apportioned as follows:
- (i) An amount specified as a percentage of the pensionable remuneration (as set out in (a) and (c) above) of each of the employees concerned shall be paid to the Scheme; and

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- (ii) From the amounts in (a) and (c) above, the amount required to meet the cost of disability benefits and from (c) above the cost of death benefits and such administration and other expenses as may be determined by the Board shall be applied for this purpose.
- (iii) The balance shall be the employee's and employer's contribution to the Fund for retirement benefits.
- (3) No deductions shall be made or contributions paid in respect of periods of absence on unpaid leave, and absences owing to sickness, injury on duty and military service where no payment is due to the employee by the employer in terms of an agreement or under any law.
- (4) (a) Every employer in regions A, B, C, D, E and F shall forward the total amount payable each month in terms of sub-clause (2), together with a statement in such form as may be prescribed from time to time, to reach the Council at its MIBFA Bargaining Council Collection Unit, Second Floor, Metal Industries House, 42 Anderson Street, Johannesburg, 2001 by no later than close of business on the 7<sup>th</sup> day of the subsequent month.
- (b) The employer uses the postal service, a courier service or any other means of delivery or transfer at the employer's own risk. The relevant postal address is P. O Box 61474, Marshalltown, 2107. A facility for direct bank-to-bank transfer of funds is also available. Enquiries may be directed to the Funds Contribution Manager, at the above address or telephone (011) 870-2000.
- (5) Notwithstanding the provisions of this clause, failure on the part of the employer to make the deduction of employees' contributions which he is required to make shall not be absolve the employer from having to submit the total amount of the employees' contributions and his own contributions to the Council.
- (6) All contributions received by the Council shall be paid to the Provident Fund and the Scheme within seven days of receipt of such monies by the Council.
- (7) (a) If any amount that falls due in terms of this clause is not received in full by the Council by the 1<sup>st</sup> day of the month following the month for which the amount is payable, then the employer shall be liable to pay interest in accordance with the following provisions:
- (i) The interest payable shall accrue on the balance of the amount outstanding from time to time from the 1st day until the full amount is received by the Council.
- (ii) The interest shall accrue at the effective rate and terms as prescribed by the Act and regulation to the Act.

  
G.A

- (iii) All the other provisions of the Act that are relevant for the purpose of calculating any interest payable by the employer in terms of this sub-clause and the Act shall *mutatis mutandis* apply for these purposes.
- (b) For the purposes of this sub-clause, 'the Act' means the Pension Funds Act 24 of 1956 as amended.
- (8) In the event of the Council incurring any costs or becoming obliged to pay any collection commission by reason of the failure of the employer to make any payment on or before the due date, the employer shall then be liable to pay forthwith all such costs of whatever nature as between attorney and client and all such collection commission.

#### 7. ADMINISTRATION

- (1) The Fund and the Scheme shall be administered in accordance with the Rules of the Fund and the Rules of the Scheme. Such Rules shall not be inconsistent with this Agreement or the provisions of the Pension Funds Act 24 of 1956, as amended and a copy of the Rules and amendments thereto shall be lodged with the Registrar of Pension Funds and the Registrar of Labour Relations.
- (2) In the event of the dissolution of the Council or in the event of its ceasing to function during the currency of this Agreement, the Board of Trustees of the Fund shall take over the functions of the Council in respect of this Agreement, and if for any reason the Board of Trustees should be unable or unwilling to perform such duties, the Registrar of Pension Funds may appoint trustees to perform the Council's functions. The Board Trustees so appointed shall have all the powers vested in the Council for the purposes of this Agreement. Payment (if any) for the services of the trustees shall be borne by the Fund and /or the Scheme, as the case may be.

#### 8. AGENTS

- 8.1. The Council shall appoint one or more persons as agents in terms of section 33(1) of the LRA to promote, monitor and enforce the terms of this Agreement. The council shall apply to the Minister to appoint such designated agent.
- 8.2. A person appointed in terms of sub-clause (1) above shall thereafter be referred to as a designated agent and shall have the powers set out in section 33A and in Schedule 10 of the LRA.
- 8.3. Enforcement of this agreement by a designated agent shall be in accordance with Clause 10 of this agreement.

9 EXEMPTIONS



The text '9 EXEMPTIONS' is followed by several handwritten signatures and initials. One signature on the right is clearly marked 'G.A.'.

1. *General*

- (a) Any person bound by this Agreement may apply for exemption.
- (b) The Bargaining Council has the authority to consider applications for exemptions and/or licenses issued for exemptions.
- (c) An employer who has obtained an exemption from the Fund shall be required to apply in writing, should he wish to re-join the Fund at a later stage.
- (d) Exemptions and appeals shall be dealt with, within a period of 30 days of receipt of the exemption or appeal application.

2. *Fundamental principles for consideration*

2.1 All applications must be in writing and fully motivated and sent to the Regional Office of the Council for the area in which the applicant is located.

- (a) In scrutinising an application for exemption the Council will consider the views expressed by the employer and the workforce, together with any other representations received in relation to that application.
- (b) The employer must consult with the workforce, through a trade union representative or, where no trade union is involved, with the workforce itself, and must include the views expressed by the workforce in the application. The consultation must comply with the Pension Funds Act and Regulations in respect of communication.

Where the views of the workforce differ from that of the employer, the reasons for the views expressed must be submitted with the application.

Where an agreement between the employer and the workforce is reached, the signed written agreement must accompany the application.

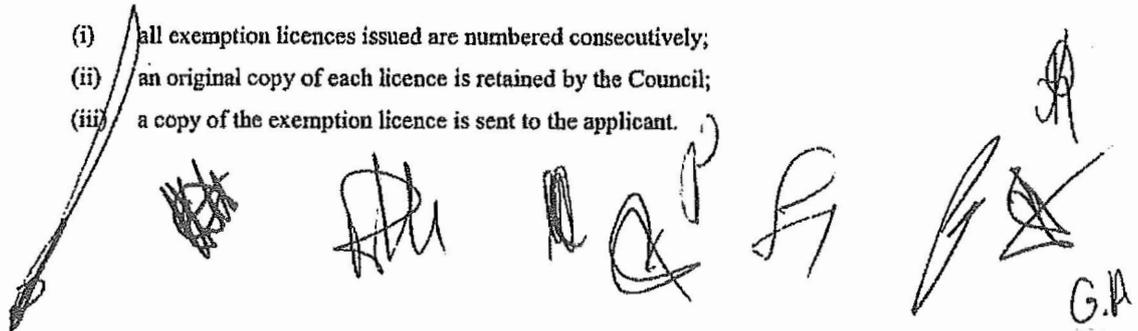
- (c) The exemption shall not contain terms that would have an unreasonably detrimental effect on the fair, equitable and uniform application of this Agreement in the Industry.
- (d) An application for exemption shall not be considered if the contents of the application are covered by an arbitration award binding the applicant.
- (e) When considering the application the council will refer the application to the Fund Actuary to scrutinize the application and make a recommendation to the regional committee and/or Independent Exemption Appeal Board.

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- (f) The Fund Actuary shall apply the following criteria:
- i. The overall benefit package must be equal or better than the benefits provided for by the Engineering Industries Pension Fund;
  - ii. The proportion of employer net contribution paid on withdrawal or retirement;
  - iii. Cover for death and disability;
  - iv. No waiting period for membership to the fund may be applied;
  - v. The total contributions must be similar to those required in terms of Clauses 1(4) of this agreement and the net allocation towards retirement benefits must be equal or better;
  - vi. Compare investments in terms of:
    - a. The benchmark for each fund being compared;
    - b. The investment managers;
    - c. The historical returns on investment for 1, 3, 5 and 10 years; and
    - d. The investment fees charged by the respective investment managers.
- (g) The exemption may be withdrawn only if:
- i. There is no-compliance with the conditions set out on the license;
  - ii. Failure to file confirmation on an annual basis that the benefit package is still on the whole (based on the criteria set out in (2) above) not less favourable than the benefits of the Engineering Industries Pension Fund.

### 3. Process

- (a) The Council shall issue to every person to whom exemption has been granted an exemption licence, setting out the following:
- (i) the full name of the person or enterprise concerned;
  - (ii) the provisions of this Agreement from which the exemption has been granted;
  - (iii) the conditions subject to which exemption is granted;
  - (iv) the period of the exemption;
  - (v) the date from which the exemption shall operate; and
  - (vi) the area in which the exemption applies.
- (b) The Council shall ensure that –
- (i) all exemption licences issued are numbered consecutively;
  - (ii) an original copy of each licence is retained by the Council;
  - (iii) a copy of the exemption licence is sent to the applicant.



- (c) Unless otherwise specified in the licence of exemption, any exemption from this Agreement shall be valid only in the region of the Council in which the application was made.
- (d) Written reasons for the refusal to grant an exemption must be provided to the applicant of that exemption.

#### 4. Appeals

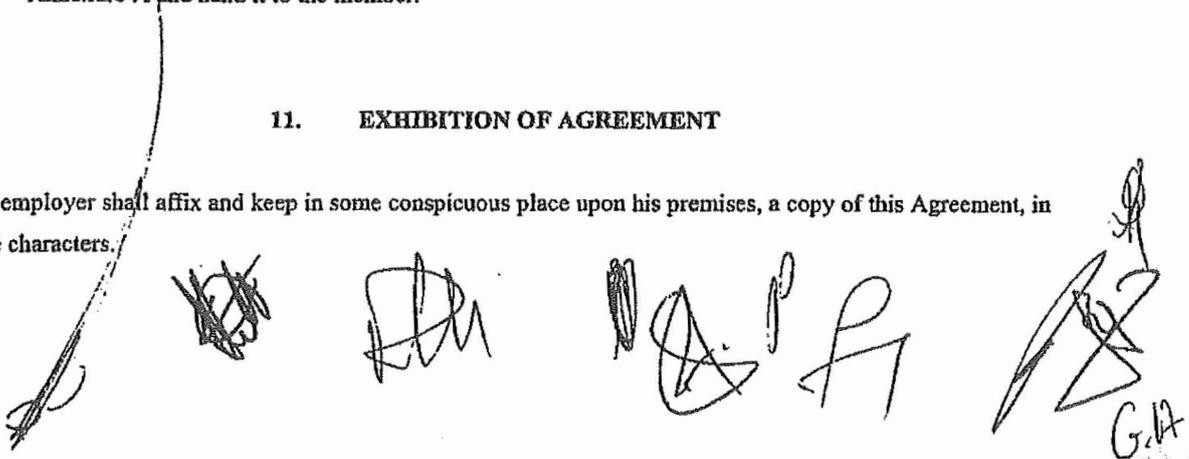
- (a) An independent body, referred to as the Independent Exemptions Appeal Board (the Board), is hereby appointed and shall consider any appeal against an exemption granted or refused by the Council, or a withdrawal of an exemption.
- (b) The Council Secretary will on receipt of an appeal against a decision to refuse the granting of an exemption submit it to the Independent Exemptions Appeal Board for consideration and finalisation.
- (c) In considering an appeal the Board shall consider the recommendations of the Council, any further submissions by the employer and the workforce or their respective employee organisations or trade unions and shall be bound to apply the criteria set out in clause 2 above and also any other representations received in relation to the application.
- (d) Should the appeal be granted a licence of exemption shall be issued in terms of sub-clause (4)(a) and (b) above.

### 10. RESOLUTION OF DISPUTES

- 10.1 Any dispute about the interpretation, application, or enforcement of this Agreement shall be referred to the Council and shall be dealt with in accordance with the provisions contained in the Metal and Engineering Industries Bargaining Council Dispute Resolution Agreement as amended from time to time.
- 10.2 On termination of employment of a member of the Fund, his employer shall complete the details on Annexure A and hand it to the member.

### 11. EXHIBITION OF AGREEMENT

Every employer shall affix and keep in some conspicuous place upon his premises, a copy of this Agreement, in legible characters.



## 12. MEMBERS' BENEFITS

- 12.1. Members will be entitled to retirement, death, disability, resignation and retrenchment benefits in terms of the Rules of the Fund.
- 12.2. Enquiries should be directed to the offices of the Metal Industries Benefit Funds Administrators at telephone (011) 870-2000

## ANNEXURE A

## PENSION FUND AGREEMENT

(Form to be completed by employer and handed to members of the Engineering Industries Pension Fund on termination of employment)

*Member's Rights to Benefits*

1. A lump sum benefit on retirement at the age of 65 or later, or on early retirement from the age of 55 up to 65.
2. A permanent disability benefit owing to permanent disability / incapacity in terms of the rules of the Provident Fund and rules of the Permanent disability Scheme.
3. *Death benefits:* A lump sum benefit as if the member had retired on date of death PLUS a lump sum of three years' salary on –
  - (i) Death in service of a contributing member before the age of 65;
  - (ii) Death before the age of 65 where death occurs within six weeks of ceasing employment, if ex-member was unemployed for such period and had been a member of the Fund for a consecutive period of not less than two years prior to such unemployment;
  - (iii) Death before the age of 65 where death occurs within six months of ceasing employment owing to sickness or a works accident, and ex-member was unemployed owing to such sickness or work accident until the date of death.
4. A lump sum benefit on retrenchment / redundancy, before the age of 65, as if the member had retired on date of retrenchment / redundancy. The fund will aim to pay the benefit within six weeks after cessation of service in the industries: Provided that the member has not returned to employment in the industries within that period.

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5. A lump sum on ceasing service in the industries for reasons other than in (1) to (4) above. The lump sum is a refund of the member's own contributions, PLUS interest, PLUS a share of the employer's contributions, less costs, according to length of continuous service, and is payable not less than eight weeks after the cessation of service in the industries.

*To be completed by the employer:*

- (i) Name of employee (surname first) .....
- (ii) Identity Ref. No:..... Works No:.....
- (iii) Period of service (from) ..... to .....
- (iv) Reasons for termination of employment:
  - Retrenchment
  - Redundancy
  - Resignation
  - Permanent disability / incapacity
  - Other
- (v) In cases of retrenchment, state name and regional council and date on which notification of retrenchment was given under clause 35 of the Main Agreement:
  - Regional Council
  - Date
- (vi) The appropriate form for benefits has been handed to the employee.
  - Date

*For and on behalf of the employer*

*Notes:*

- (i) Claim forms for the various benefits are available from regional councils or from the offices of the Metal Industries Benefit Fund Administrator.
- (ii) It should be ensured that the employee has been handed his membership card of the fund and any brochures or other information relating to the Fund.

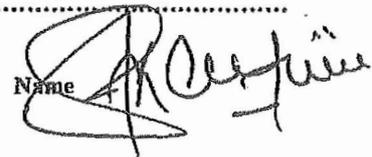
- (iii) The employer is required to maintain a permanent record of the permanent address (i.e. home address) of each employee.

Thus signed at Johannesburg, for and on behalf of the parties, on..... 2017

**ON BEHALF OF EMPLOYERS:**

For the Steel and Engineering Industries Federation of Southern Africa (SEIFSA) on behalf of its

Member Employer Associations: ..... **LUCIO-TRENTINI**

Name 

- Association of Electric Cable Manufacturers' of South Africa
- Association of Metal Service Centres of South Africa
- Cape Engineers' and Founders' Association
- Constructional Engineering Association (South Africa)
- Eastern Cape Engineering and Allied Industries Association
- Electrical Manufacturers Association of South Africa (EMASA)
- Electrical Engineering and Allied Industries' Association
- Gate and Fence Association
- Hand Tool Manufacturers' Association (HATMA)
- Iron and Steel Producers' Association of South Africa (ISPA)
- Kwa-Zulu Natal Engineering Industries' Association
- Lift Engineering Association of South Africa
- Light Engineering industries' Association of South Africa
- Non-Ferrous Metal Industries' Association of South Africa
- Plumbers and Engineers Brassware Manufacturers' Association
- Pressure Equipment Manufacturers' Association of South Africa
- Refrigeration and Air-Conditioning Manufacturers' and Suppliers' Association (RAMSA)
- South African Electro-Plating Industries' Association
- South African Fasteners Manufacturers' Association (SAFMA)
- South African Refrigeration and Air-Conditioning Contractors' Association (SARACCA)



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South African Pump Manufacturers' Association (SAPMA)

South African Reinforced Concrete Engineers' Association (SARCEA)

South African Valve and Actuator Manufacturers' Association (SAVAMA)

And

National Employers' Association of South Africa (NEASA): *J. Swart* .....

Name

And

Plastics Convertors Association of South Africa (PCASA): *John Puma* .....

Name

And

South African Engineers and Founders' Association (SAEFA): .....

Name

And

Consolidated Employers' Organisation (CEO): *J. Press* .....

Name

And

Border Industrial Employers' Association: .....

Name

And

South African United Commercial Employers Organisation: .....

Name

*[Handwritten signatures]*

And

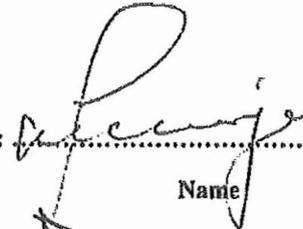
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Federated Employers' Organisation of South Africa (FEOSA): .....

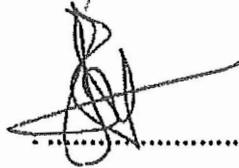
Name

ON BEHALF OF TRADE UNIONS:

MEWUSA

:  - 8/6/2017  
Name

NUMSA

:  15/06/2017  
Name

SAEWA

:  MOSES TPAULO  
06/06/2017  
Name

Solidarity/Solidarity

: FH VAN HEERDEN   
06/06/2017  
Name

UASA-The Union

:  Brian Muna  
06/06/2017  
Name

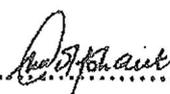


210.

DEPARTMENT OF LABOUR  
NOTICE 685 OF 2018  
LABOUR RELATIONS ACT, 1995

**METAL AND ENGINEERING INDUSTRIES BARGAINING COUNCIL:  
EXTENSION TO NON-PARTIES OF THE PROVIDENT FUND COLLECTIVE  
AGREEMENT**

I, MILDRED NELISIWE OLIPHANT, Minister of Labour, hereby in terms of section 32(2) of the Labour Relations Act, 1995, declare that the Collective Agreement which appears in the Schedule hereto, with the exclusion of clause 1(1)(b) and 2 thereof, which was concluded in the Metal and Engineering Industries Bargaining Council and is binding in terms of section 31 of the Labour Relations Act, 1995, on the parties which concluded the agreement, shall be binding on the other employers and employees in that Industry, with effect from the second Monday after the date of publication of this Notice and for the period ending 30 April 2021.

..........

MINISTER OF LABOUR

MN OLIPHANT, MP

DATE: 25/10/2018

**UMTHETHO WOBUDLELWANO KWEZABASEBENZI KA-1995**

**METAL AND ENGINEERING INDUSTRIES BARGAINING COUNCIL:  
UKWELULWA KWESIVUMELWANO PHAKATHI KWABAQASHI  
NABASEBENZI SESIKHWAMA SOMHLALAPHANSI SELULELWA KULABO  
ABANGEYONA INGXEYENYE YESIVUMELWANO**

Mina, **MILDRED NELISIWE OLIPHANT**, uNgqongqoshe Wezabasebenzi ngokwesigaba 32(2) soMthetho Wobudlelwano Kwezabasebenzi ka-1995, ngazisa ukuthi isiVumelwano phakathi kwabaqashi nabasebenzi esitholakala kwiSheduli yesiNgisi exhunywe lapha, kukhiswa imishwana 1(1)(b) kanye nonombolo 2 esenziwa kwi Metal and Engineering Industries Bargaining Council, ngokwesigaba 31 soMthetho Wobudlelwano Kwezabasebenzi ka 1995, esibopha labo abasenzayo, sizobopha bonke abanye abaqashi nabasebenzi kuleyoMboni, kusukela ngomSombuluko wesibili emva kokushicilelwa kwalesisaziso kuze kube isikhathi esiphela mhlaka 30 kuMbaso 2021.

..........

**UNGQONGQOSHE WEZABASEBENZI**

**MN OLIPHANT, MP**

**USUKU: 25/11/2018**

**LABOUR RELATIONS ACT, 1995****METAL AND ENGINEERING INDUSTRIES BARGAINING COUNCIL:  
RENEWAL OF PERIOD OF OPERATION OF THE PROVIDENT FUND  
COLLECTIVE AGREEMENT**

I, MILDRED NELISIWE OLIPHANT, Minister of Labour, hereby, in terms of section 32(6)(a)(ii) of the Labour Relations Act, 1995, declare the provisions of Government Notices R. 594 of 3 August 2012, R. 404 of 12 July 2016 and R. 405 of 12 July 2016 to be effective for a further period with effect from the date of publication of this notice and for the period ending 30 April 2021.



.....

**MINISTER OF LABOUR**  
**MN OLIPHANT, MP**  
**DATE: 25/10/2018**

**UMTHETHO WOBUDLELWANO KWEZABASEBENZI KA- 1995**

**METAL AND ENGINEERING INDUSTRIES BARGAINING COUNCIL: EMBONINI YONJINIYELA BEZINSIMBI: UKUVUSELELWA KWESIKHATHI SOKUSEBENZA KWESIVUMELWANO SABAQASHI NABASEBENZI SOKUPHATHA ISIKHWAMA SOMHLALAPHANSI**

Mina, MILDRED NELISIWE OLIPHANT, UNgqongqoshe Wezabasebenzi, lapha ngokwesigaba 32(6)(a)(ii) soMthetho Wobudlelwano Kwezabasebenzi, ka-1995, ngimemezela ukuthi izihlinzoko zeSasiso sikaHulumeni R.594 somhlaka 3 kuNcwaba 2012, R. 404 uNtulikazi 2016 kanye R. 405 uNtulikazi 2016 zizosebenza isikhathi esengeziwe kusukela ngosuku lokushicilelwa kwalesisaziso kuze kube isikhathi esiphela mhlaka 30 kuMbasa 2021.

.....  
.....  
**UNGGONGQOSHE WEZABASEBENZI**  
**MN OLIPHANT, MP**  
**USUKU: 29/10/2018**

## SCHEDULE

METAL AND ENGINEERING INDUSTRIES  
BARGAINING COUNCILCONSOLIDATED PROVIDENT FUND COLLECTIVE AGREEMENT  
FOR THE METAL INDUSTRIES

In accordance with the provisions of the Labour Relations Act, 1995, as amended made and entered into by and between the

Association of Electric Cable Manufacturers' of South Africa;  
 Association of Metal Service Centres of South Africa;  
~~Border Industrial Employers Association;~~  
 Cape Engineers' and Founders' Association;  
 Constructional Engineering Association (South Africa);  
 Consolidated Employers' Organisation;  
 Eastern Cape Engineering and Allied Industries Association;  
 Electrical Engineering and Allied Industries' Association;  
 Electrical Manufacturers Association of South Africa;  
~~Federated Employers Organisation of South Africa (FEOSA);~~  
 Gate and Fence Association;  
 Hand Tool Manufacturers' Association (HATMA);  
 Iron and Steel Producers' Association of South Africa;  
 Kwa-Zulu Natal Engineering Industries' Association;  
~~Lift Engineering Association of South Africa;~~  
 Light Engineering Industries' Association of South Africa;  
 National Employers' Association of South Africa (NEASA);  
 Non-Ferrous Metal Industries' Association of South Africa;  
 Plastics Converters Association of South Africa (PCASA);  
 Plumbers and Engineers Brassware Manufacturers' Association;  
 Pressure Equipment Manufacturers' Association of South Africa;  
 Refrigeration and Air-Conditioning Manufacturers' and Suppliers' Association;  
 South African Electro-Plating Industries' Association;  
 South African Engineers' and Founders' Association;  
 South African Fasteners Manufacturers' Association (SAFMA);  
 South African Refrigeration and Air-Conditioning Contractors' Association (SARACCA);  
 South African Pump Manufacturers' Association;  
 South African Reinforced Concrete Engineers' Association (SARCEA);



South African Valve and Actuator Manufacturers' Association (SAVAMA);  
~~South African United Commercial Employers Organisation~~

**REGISTERED TRADE UNIONS OR "EMPLOYEE ORGANISATION" PARTY TO THE COUNCIL**

Metal and Electrical Workers' Union of South Africa (MEWUSA);  
Solidariteit / Solidarity;  
UASA-The Union;  
National Union of Metalworkers of South Africa (NUMSA);  
South African Equity Workers' Association (SAEWA);



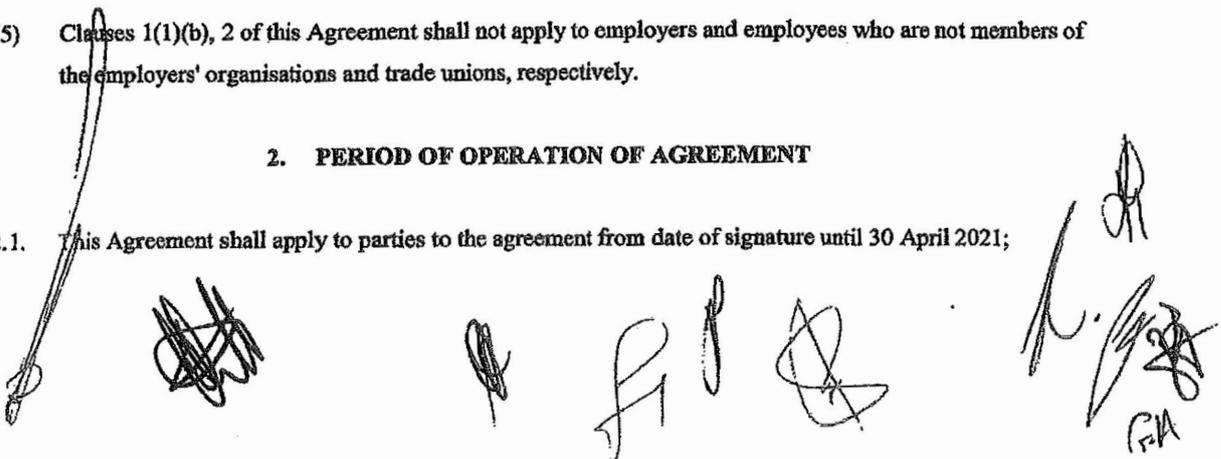
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**1. SCOPE OF APPLICATION OF AGREEMENT**

- (1) The terms of this Agreement shall apply to and be observed-
- (a) in the Iron, Steel, Engineering, Metallurgical Industry throughout the Republic of South Africa;
  - (b) by all employers and scheduled employees in the Iron, Steel, Engineering and Metallurgical Industries who are members of the employers' organisations and the trade unions, respectively;
  - (c) by all employers and all scheduled employees in the Iron, Steel, Engineering and Metallurgical Industries who are not members of the employers' organisations and the trade unions; and
  - (d) the terms of this Agreement shall apply to Apprentices and Trainees not engaged by means of contracts with the merSETA.
- (2) The terms of this Agreement shall not apply to an employer and his employee who are governed by and fall within the scope of application of the Metal Industries Provident Fund.
- (3) The terms of this Agreement shall not, subject to sub-clause (4) below, apply to any employee who on 1 May 1991 was or thereafter became a participant in and member of any fund providing provident and/or pension benefits, which was in existence on the said date (and in which the employer of that employee was on the said date a participant) or to the employer of that employee, during such period only as such fund continues to operate and both employer and employee are participants therein: Provided that a fund which provides solely for payment of benefits on death shall not be deemed to be a pension or provident fund for the purposes of this Agreement.
- (4) Where employers and employees participate in domestic schemes providing provident and/or pension benefits as referred to in sub-clause (3) above, which at the date of coming into operation of this Agreement do not provide for percentage contributions which, in total, are at least as much as the percentages, in total, specified in clause 6(2)(a) and (c) of this Agreement, a period of six weeks shall be allowed to enable compliance with this requirement subject to any amendment of this Agreement.
- (5) Clauses 1(1)(b), 2 of this Agreement shall not apply to employers and employees who are not members of the employers' organisations and trade unions, respectively.

**2. PERIOD OF OPERATION OF AGREEMENT**

- 2.1. This Agreement shall apply to parties to the agreement from date of signature until 30 April 2021;

A series of handwritten signatures in black ink, arranged horizontally below the text of clause 2.1. The signatures vary in style, with some being more stylized and others more legible. There are approximately seven distinct signatures.

2.2. This Agreement shall bind non-parties in terms of section 32 of the LRA as determined by the Minister of Labour, and shall remain in force until 30 April 2021.

### 3. DEFINITIONS

Any expression used in this Agreement that is defined in the Labour Relations Act, 1995, as amended shall have the same meaning as in that Act, and any reference to an Act shall include any amendments to such Act; further, unless inconsistent with the context-

"The Act" means the Provident Funds Act 9 of 1924 as amended from time to time.

"Agreement" means a collective agreement as defined in the Labour Relations Act, 1995, as amended operative in the Iron, Steel, Engineering and Metallurgical Industries, and shall include any succeeding agreement and/or any extensions and/or amendments thereof, and shall further include any agreement as defined in the said Act if such agreement has expired but was operative at the date of coming into operation of this Agreement or became operative after the date of coming into operation of this Agreement;

"Apprentice" means an employee serving under a written contract of apprenticeship registered or deemed to have been registered under the Skills Development Act, No 97 of 1998 and includes a minor employed on probation in terms of the Act or a trainee in terms of the Atrami Agreement as well as a learner in terms of Chapter IV of the Skills Development Act, No.97 of 1998."

"Council" means the Metal and Engineering Industries Bargaining Council, registered in terms of section 29 of the Act;

"Contribution increase program" means the employee and employer contributions payable as stipulated in the Approved Rules of the Fund; \_\_\_\_\_

"Scheduled employee" means an employee, including an apprentice, whose minimum rate of pay is scheduled in any collective agreement as defined above in the Iron, Steel, Engineering and Metallurgical Industries;

"Establishment" means any premises wherein or whereon the industries or part thereof, as herein defined, are carried on;

"Management Committee" means the Management Committee of the Council, appointed in terms of its constitution;

"Fund" means the Provident Fund for the Metal Industries;

"Iron, Steel, Engineering and Metallurgical Industries" means

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- (a) the production of iron and/or steel;
- (b) the production of alloys and/or the processing and/or recovery and/or refining of metals (other than precious metals) and/or alloys from dross and/or scrap and/or residues;
- (c) the general engineering and manufacturing engineering and metallurgical industries;
- (d) the building and/or alteration and/or repair of boats and/or ships, including the scraping, chipping or scaling and/or painting of their hulls, and general woodwork undertaken in connection with ship repairs;
- (e) the electrical engineering industry;
- (f) the lift and escalator industry;
- (g) the plastics industry and
- (h) The iron, steel and metallurgical industry as defined in paragraph (a) to (g) above shall include the activities of Temporary Employment Service as defined in the section 198(1) of the Labour Relations Act, 66 of 1995 as amended ("the LRA"), who for reward procure for or provide to a client whose undertaking falls within the registered scope of Metal and Engineering Industries Bargaining Council any persons (employees as defined in section 198(2) of the LRA) to render services or to perform work in such undertaking.

For the purpose hereof-

- (a) "General Engineering and Manufacturing Engineering and Metallurgical Industries" means the industries concerned with the maintenance, fabrication, erection or assembly, construction, alteration, replacement or repair of any machine, vehicle (other than a motor vehicle) or article consisting mainly of metal (other than a precious metal), or parts or components thereof, and structural metal work, including steel reinforcement work, and the manufacture of metal goods principally from such iron and/or steel and/or other metals (other than precious metals) and/or alloys, and the finishing of metal goods, but does not include the Motor Industry.

"Precious metals" means the precious metals gold, silver, platinum and/or palladium and/or any alloy containing the said precious metals, or any of these in such proportion with any other metals to be the greater part in value of such alloy.

- (b) "Electrical Engineering Industry" shall consist of:-

- (i) The manufacture and/or assembly from component parts of electrical equipment in the

Republic of South Africa, namely generators, motors, convertors, switch and control gear (including relays, contactors, electrical instruments and equipment associated therewith), electrical lighting, heating, cooking, refrigeration and cooling equipment, transformers, furnace equipment, signalling equipment, radio or electronic equipment, including monitors, and other equipment utilising the principles used in the operation of radio and electronic equipment, the latter equipment to include, but not to be limited to, television, and further, incandescent lamps and electric cables and domestic electrical appliances, and shall also include the manufacture of component parts of the aforementioned equipment.

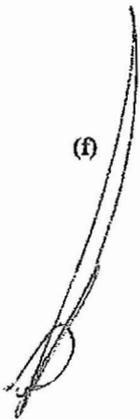
- (ii) Subject to clause (ii) hereunder, the installation, maintenance, repair and service of the equipment referred to in paragraph (i) above in the Provinces of the Transvaal and Natal; but does not include the activities of electrical contracting industry;
- (iii) The installation, maintenance, repair and service of television sets and monitors within the Republic of South Africa, excluding the installation, maintenance, repair and service in the Province of the Cape of Good Hope, and excluding in respect of the whole of the Republic of South Africa, the installation, maintenance, repair and service of monitors primarily intended for use in accounting and/or data processing and/or business procedures.

(c) "Electrical Contracting Industry" means the design, preparation, (other than manufacture for sale) and erection of electrical installation forming an integral and permanent portion of buildings and the repair and/or maintenance of such installations including any cable jointing and electrical wiring associated therewith;

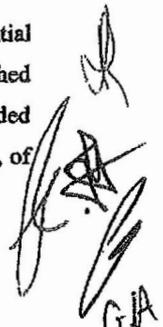
(d) "Lift and Escalator Industry" means the manufacture and/or assembly and/or installation and/or repair of electrical lifts and escalators;

(e) "Plastics Industry" means the industry concerned with the conversion of thermoplastic and/or thermosetting polymers, including the compounding or recycling thereof, or the manufacture of articles or parts wholly or mainly made of such polymers into rigid, semi rigid or flexible form, whether blown, moulded, extruded, cast, injected, formed, calendered, coated, compression moulded or rotational moulded, including in-house printing on such plastics by the manufacturers, and all operations incidental to these activities;

(f) "Plastics" means any one of the group of materials which consist of or contains as an essential ingredient an organic substance of a large molecular mass and which, while solid in the finished state, at some stage in its manufacture has been or can be forced, i.e. cast, calendered, extruded or moulded into various shapes by flow, usually through the application, singly or together, of





heat and pressure including the recycling or compounding thereof, but only where such compounding and/or recycling is as a result of the conversion for manufacture by the same employer, but shall exclude all extrusions into mono- and multi-filament fibres and other activities falling under the scope of the National Textile Bargaining Council;

- (g) "Machine" means any appliance, irrespective of the material of which it is made, but does not include an agricultural tractor.
- (h) "Metal goods" does not include agricultural tractor;
- (i) "Motor Industry" means-
- (aa) Assembling, erecting, testing, remanufacturing, repairing, adjusting, overhauling, wiring, upholstering, spraying, painting and/or reconditioning carried on in connection with-
- (i) chassis and/or bodies of motor vehicles;
- (ii) internal combustion engines and transmission components of motor vehicles;
- (iii) the electrical equipment connected with motor vehicles, including radios;
- (ab) automotive engineering;
- (ac) repairing, vulcanising and/or retreading tyres;
- (ad) repairing, servicing and reconditioning batteries for motor vehicles;
- (ae) the business of parking and/or storing motor vehicles;
- (af) the business conducted by filling and/or service stations;
- (ag) the business carried on mainly or exclusively for the sale of motor vehicles or motor vehicle parts and/or accessories (whether new or used) pertaining thereto whether or not such sale is conducted from premises which are attached to a portion of an establishment wherein is conducted the assembly of or repair of motor vehicles;
- (ah) the business of motor graveyards.
- (ai) the business of assembly establishments;

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- (aj) the business of manufacturing establishments wherein are fabricated motor vehicle parts and/or spares and/or accessories and/or components;
- (ak) vehicle body building;

For the purposes of this definition;

"Automotive engineering" means the reconditioning of internal combustion engines or parts thereof for use in motor vehicles in establishments mainly or exclusively so engaged, whether such establishment is engaged in the dismantling and repair motor vehicles or not;

"Motor vehicle" means any wheeled conveyance propelled by electrical or mechanical power (other than steam) and designed for haulage and/or for the transportation of persons and/or goods and/or loads, including trailers and caravans, but does not include any equipment designed to run on fixed tracks, trailers designed to transport loads of 20 tons or over, or aircraft;

"Vehicle body building" means any or all of the following activities carried on in a Vehicle Body Building establishment-

- (i) The construction, repair or renovation of cabs and/or bodies and/or any superstructure, for any type of vehicle;
- (ii) the manufacture or repair of component parts for cabs and/or bodies and/or any superstructure and the assembling, adjusting and installation of parts in cabs, bodies or on the superstructure of vehicles;
- (iii) fixing cabs and/or bodies and/or any superstructure to the chassis of any type of vehicle;
- (iv) coating and/or decorating cabs and/or bodies and/or any superstructure with any preservative or decorative substance;
- (v) equipping, furnishing and finishing off the interior of cabs and/or bodies and/or superstructures;
- (vi) building trailers, but not including the manufacture of wheels or axles therefor;
- (vii) all operations incidental to or consequent upon the activities referred to in paragraphs (i),(ii), (iii), (iv), (v) and (vi).

For the purposes of this definition, "Vehicle" does not include an aircraft, and "Motor Industry" as defined

above shall not include the following-

- (i) the manufacture of motor vehicle parts and/or accessories and/or spares and/or components in establishments laid out for and normally producing metal and/or plastic goods of a different character on a substantial scale;
- (ii) the assembling, erecting, testing, repairing, adjusting, overhauling, wiring, spraying, painting and/or reconditioning of agricultural tractors, except where carried on in establishments rendering similar service in respect of motor cars, motor lorries or motor trucks;
- (iii) the manufacture and/or maintenance and/or repair of-
  - (aa) civil and mechanical engineering equipment and/or parts thereof, whether or not mounted on wheels;
  - (bb) agricultural equipment or parts thereof; or
  - (cc) equipment designed for use in factories and/or workshops.

Provided that for the purposes of (aa), (bb) and (cc) above, "equipment" shall not be taken to mean motor cars, motor lorries and/or motor trucks;

- (dd) motor vehicle or other vehicle bodies and/or superstructures and/or parts or components thereof made of steel plate of 3,175 mm thickness when carried on in establishments laid out for and normally engaged in the manufacture and/or maintenance and/or repair of civil and/or mechanical engineering equipment on a substantial scale.

The above mentioned interests shall not include the undertakings, industries, trades or occupations in respect of which Transnet Bargaining Council has been registered on 2 October 1991. The latter Council has been registered in respect of the undertakings, industries, trades or occupations of Transnet Limited known as Spoornet, South African Airways, Autonet, Portnet, Transtel, Transwerk, Promat, Protekon or any other business, undertakings, industry, trade, occupation, unit, department or section of Transnet Limited in the Republic of South Africa as these undertakings, industries, trades or occupations were constituted on 2 October 1991.

(6) Notwithstanding the provisions of Clause 1(1), the terms of this Agreement shall not apply to-

- (a) the manufacture, for sale, of standard high-speed cutting tools made from high-speed steel by means of plant and/or equipment and/or methods specifically adapted and/or designed for

production by repetitive processes, in the Magisterial Districts of Johannesburg, Boksburg, Vereeniging and Pietermaritzburg;

- (b) the installation, maintenance and repair of electrical equipment referred to in paragraph (b) of the definition of 'Electrical Engineering Industry' in clause 3 of Part I of the Main Agreement published under Government Notice No. R. 404 of 31 March 1998, in the Provinces of the Cape of Good Hope and the Orange Free State;
- (c) assembling, servicing, installation, maintenance and/or repair of appliances, equipment, machines, devices and apparatus, whether utilising manual, photographic, mechanical, electrical, electrostatic or electronic principles, or any combination of such principles, which are primarily intended for use in accounting and/or business and/or calculating and/or office and/or educational procedures;
- (d) the installation and/or repair of burglar and/or other similar alarm systems in the Provinces of the Cape of Good Hope and the Orange Free State;
- (e) the installation and/or repair and/or servicing of radios and/or refrigerators and/or domestic electrical appliances in the Provinces of the Cape of Good Hope and the Orange Free State;

"Implementation date" means 1 July 2012, the date mutually agreed to by the parties on which the contribution increase program commenced.

"Law" includes the common law;

"Main Agreement" means the Agreement published under Government Notice No. R. 404 of 31 March 1998 or any succeeding agreement and includes any amendment, re-enactment or extension thereof, and further includes the Main Agreement during any period that it is expired;

"Pension Fund" means the Engineering Industries Pension Fund;

"Pensionable remuneration" means the actual wages payable to an employee by the employer each week in respect of the ordinary hours worked by such employee in the shifts of the establishment concerned during such week, including monies payable in terms of any agreement or under any law, but excluding amounts paid in respect of overtime, shift and other allowances and holiday leave bonuses, but including amounts paid in respect of overtime hours worked to make up lost ordinary hours, and for the purposes of this definition-

- (a) in the case of a monthly-paid employee, his pensionable remuneration shall be the amount determined as above, converted on the basis that one month equals 4 1/3 weeks;

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(b) "shift" means that period of work ordinarily worked by an employee in any period of 24 hours;

"Permanent Disability Scheme" means the Permanent Disability Scheme constituted to organise and provide permanent disability benefits for the employees of employers in the group of industries known as the Iron, Steel, Engineering and Metallurgical Industries in the Republic of South Africa and such other industry/industries in the Republic as may from time to time be admitted to participate in the Scheme by the Board of Management in terms of the constitution of the Scheme;

"Precious metals" means the precious metals gold, silver, platinum and/or palladium and/or any alloy containing the said precious metals, or any of these in such proportion with any other metals as to the greater part in value of such alloy;

"Regional council" means any committee appointed as such by the Council in terms of its constitution;

"Region A" means the Magisterial Districts of Beaufort West, Bellville, Bredasdorp, Caledon, Calvinia, Carnarvon, Clanwilliam, Ceres, Fraserburg, George, Goodwood, Heidelberg (CP), Hermanus, Hopfield (CP), Kaysna, Kuils River, Ladismith (CP), Laingsburg, Malmesbury, Mitchells Plain, Montagu, Moorreesburg, Mossel Bay, Namaqualand, Paarl, Piketberg, Prince Albert, Riversdale, Robertson, Simonstown, Somerset West, Stellenbosch, Strand, Sutherland, Swellendam, The Cape, Tulbagh, Vanrhynsdorp, Victoria West, Vredenburg, Vredendal, Wellington, Williston, Worcester and Wynberg, and for the purposes of these particular areas the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (Cape Regional Council), P.O. Box 8098, Roggebaai, 8012; or Room 507, Pearl Assurance House, Heerengracht, Foreshore, Cape Town, 8001;

"Region B" means the Magisterial Districts of Albert, Aliwal North, Barkly East, Cathcart, East London, Elliot, Indwe, King William's Town, Komga, Lady Grey, Maclear, Molteno, Queenstown, Sterkstroom, Stutterheim, Tarkastad and Wodehouse, and for the purposes of these particular areas the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (Border Regional Council), P.O. Box 13162, Vincent, 5217; or First Floor, 12 St Georges Road, Southernwood, 5201;

"Region C" means the Province of Natal, and for the purposes of this particular area the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (KwaZulu Natal Region), P.O. Box 5900, Durban, 4000, or 14<sup>th</sup> Floor, Mercury House, 320 Smith Street, Durban, 4001.

"Region D" means the Magisterial Districts of Aberdeen, Adelaide, Albany, Alexandria, Bathurst, Bedford, Calitzdorp, Colesberg, Cradock, Fort Beaufort, Graaff-Reinet, Hankey, Hanover, Hofmeyr, Humansdorp, Jansenville, Joubertina, Kirkwood, Middelburg (CP), Murraysburg, Noupoort, Oudtshoorn, Pearston, Port Elizabeth, Richmond (CP), Somerset East, Steytlerville, Steynsburg, Uniondale, Uitenhage, Venterstad and Willowmore, and for the purposes of these particular areas the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (Midlands Regional Council), P.O. Box 12848, Centrahill, 6006;

or First Floor, 30 Pearston Street, Central, Port Elizabeth, 6001;

"Region E" means the Province of the Transvaal, excluding the Magisterial Districts of Bloemhof, Christiana, Coligny, Delareyville, Klerksdorp, Lichtenburg, Potchefstroom, Schweizer-Reneke, Ventersdorp and Wolmaransstad, and for the purposes of this particular area the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (Gauteng Region), P.O. Box 3998, Johannesburg, 2000 or Union Corporation Building, 1<sup>st</sup> Floor, 77 Marshall Street, Johannesburg, 2001".

"Region F" means the Province of the Orange Free State, and includes the Magisterial Districts of Bloemhof, Christiana, Coligny, Delareyville, Klerksdorp, Lichtenburg, Potchefstroom, Schweizer-Reneke, Ventersdorp and Wolmaransstad, in the Province of the Transvaal, and the Magisterial Districts of Barkly West, Britstown, De Aar, Douglas, Gordonia, Griekwastad, Hartswater, Hopetown, Kenhardt, Kimberley, Kuruman, Postmasburg, Philipstown, Prieska, Vryburg and Warrenton, in the Cape Province, and for the purposes of this particular area the address of the Regional Council shall be: Metal and Engineering Industries Bargaining Council (Orange Free State and Northern Cape Regional Council), P.O. Box 95, Welkom, 9460; or 136 Constantia Road, Dagbreek, Welkom, 9459;

"Scheme" means the Permanent Disability Scheme as referred to above.

"Surplus Agreement" means the agreement approved by the Financial Services Board on 30 November 2011 to distribute surpluses in the Fund.

#### 4. CONTINUATION OF THE FUND

- (1) The Metal Industries' Provident Fund (hereinafter referred to as the "Fund"), established in terms of Government Notice No. R. 624 of 19 April 1991, is hereby continued.
- (2) The Fund shall consist of-
  - (a) all monies and assets standing to the credit of the fund as at the date of coming into operation of the Agreement;
  - (b) all contributions paid by employers and members in accordance with clause 6 of this Agreement;
  - (c) all investment income derived from the investment of any monies of the fund; and
  - (d) any other monies to which the fund may become entitled.
- (3) The Parties agree to ensure that the Surplus Agreement of the Fund is implemented in consultation with the Fund, and that the terms of this Agreement are consistent with the Surplus Agreement.

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## 5. MEMBERSHIP

- (1) Each employee who becomes an employee falling within the scope of this Agreement and or after the date of coming into operation of this Agreement shall be required to choose either to become a member of this Fund or a member of the Engineering Industries' Pension Fund. Such choice shall be made on the date on which he becomes an employee falling within the scope of this Agreement. Membership of the relevant Fund shall commence on that date.
- (2) If an employee to whom sub-clause (1) applies does not choose either to become a member of this Fund or a member of the Engineering Industries' Pension Fund on the date on which he becomes an employee falling within the scope of this Agreement, he shall be required to become a member of this Fund.
- (a) All employees shall be deemed to be members of this Fund:  
Provided that where any Main Agreement has expired, the last reference shall be to the most recently expired Main Agreement.
- (3) An employee to whom sub-clause (1) and/or (2) applies shall be entitled for a period of three months from the date on which he becomes an employee falling within the scope of this Agreement to withdraw from membership of this Fund in order to become a member of the other Fund.

In such case, membership of the Fund to which the employee transfers shall be made retrospective to the date on which contributions commenced to this Fund, and the benefits earned in the name of the employee concerned shall be transferred to the Fund chosen in terms hereof. There shall be no refund of contributions to either the employee or employer.

The right of an employee to transfer membership in terms of this sub-clause shall terminate on the expiry of the above three-month period.

- (4) If an employee who has become a member of this Fund ceases to fall within the scope of this Agreement as a result of his ceasing to be in service in the Industries or as a result of a specific exemption under clause 9 of this Agreement, but subsequently falls within the scope of this Agreement, then-
- (a) if his benefit under this Fund or the Group Pension Fund (prior to 1 May 1991) has been paid out, he shall not have the choice provided for in sub-clause (1);
- (b) if his benefit under this Fund or the Group Pension Fund (prior to 1 May 1991) has not been paid out, he shall not have the choice provided for in sub-clause (1) but shall automatically become a member of the Fund of which he was previously a member.
- (5) If an employee terminated his membership of this Fund or the Engineering Industries' Pension Fund prior










to 1 May 1991 and subsequently falls within the scope of this Agreement, or the Engineering Industries Pension Fund Agreement, then regardless of whether or not his benefit under the above funds have been paid out, he shall become a member of this Fund.

- (6) The provisions of sub-clauses (2) and (3) shall also apply to an employee referred to in sub-clauses (4) (a) and (5).
- (7) Except as provided in this clause, an employee who remains in service in the Industries and continues to fall within the scope of this Agreement may not withdraw from membership of the Pension Fund or Provident Fund unless unconditionally exempted under clause 9 of this Agreement.

## 6. CONTRIBUTIONS

- (1) Contributions, as hereinafter provided for, shall be made by employees and employers as from the date of coming into operation of this Agreement.
- (2) Contributions in respect of this Fund and the Metal and Engineering Industries Permanent Disability Scheme (hereinafter referred to as the 'Scheme'):
- (a) The employer shall each week deduct from the pensionable remuneration of each of his employees as follows:

As gazetted on 3 August 2012, in Notice No R. 594 of the Government Gazette 35553	
Years	Employee contribution
1 July 2015 to 30 June 2016	7%
1 July 2016 to 30 June 2017	7,10%
1 July 2017 to 30 June 2018	7,20%
1 July 2018 to 30 June 2019	7,30%
1 July 2019 to 30 June 2020	7,40%
From 1 July 2020	7,50%

- (b) Contributions calculated in accordance with the provisions of paragraph (a) may, at the discretion of the employer, be deducted from the earnings of any other employees who request in writing to become members of this Fund: Provided that the membership provisions under clause 4 shall *mutatis mutandis* apply to such employees.

- (c) The employer shall pay to the Fund a percentage of pensionable remuneration as follows

As gazetted on 3 August 2012, in Notice No R. 594 of the Government Gazette  
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Years	Employer contribution
1 July 2015 to 30 June 2016	7%
1 July 2016 to 30 June 2017	7,10%
1 July 2017 to 30 June 2018	7,20%
1 July 2018 to 30 June 2019	7,30%
1 July 2019 to 30 June 2020	7,40%
1 July 2020 to 30 June 2021	7,50%
1 July 2021 to 30 June 2022	7,60%
1 July 2022 to 30 June 2023	7,70%
1 July 2023 to 30 June 2024	7,90%
1 July 2024 to 30 June 2025	8,10%
1 July 2025 to 30 June 2026	8,30%
1 July 2026 to 30 June 2027	8,50%
1 July 2027 to 30 June 2028	8,70%
1 July 2028 to 30 June 2029	8,90%
1 July 2029 to 30 June 2030	9,10%
1 July 2030 to 30 June 2031	9,30%
1 July 2031 to 30 June 2032	9,50%
1 July 2032 to 30 June 2033	9,70%
1 July 2033 to 30 June 2034	9,90%
1 July 2034 to 30 June 2035	10,10%
1 July 2035 to 30 June 2036	10,30%
From 1 July 2036	10,50%

- (d) The employee deductions and employer payments shall be made from the implementation date. During the contribution increase program, the Fund will pay an additional amount from the surplus reserve to a total contribution of 18%. If the Fund is unable to pay the difference between 18% and the employee deductions and employer deductions at any time during the Contribution Increase Program, the employee deductions and employer payments will be set at the level reached at the last anniversary of increases, in terms of the Contribution Increase Program.

(e) The employer and employee contribution shall be apportioned as follows:

- (i) An amount in the sole discretion of the Board equal to a specified percentage of the

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**CONTINUES ON PAGE 386 - PART 4**



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pensionable remuneration (as set out in (a) and (c) above) of each of the employees concerned shall be paid to the Scheme; and

- (ii) From the amounts in (a) and (c) above, the amount required to meet the cost of disability benefits and from (c) above the cost of death benefits and such administration and other expenses as may be determined by the Board shall be applied for this purpose.
- (iii) The balance shall be the employee's and employer's contribution to the Fund for retirement benefits.
- (3) No deductions shall be made or contributions paid in respect of periods of absence on unpaid leave, and absences owing to sickness, injury on duty and military service where no payment is due to the employee by the employer in terms of an agreement or under any law.
- (4) (a) Every employer in regions A, B, C, D, E and F shall forward the total amount payable each month in terms of sub-clause (2), together with a statement in such form as may be prescribed from time to time, to reach the Council at its MIBFA Bargaining Council Collection Unit, Second Floor, Metal Industries House, 42 Anderson Street, Johannesburg, 2001 by no later than close of business on the 7<sup>th</sup> day of the subsequent month.
- (b) The employer uses the postal service, a courier service or any other means of delivery or transfer at the employer's own risk. The relevant postal address is P. O Box 61474, Marshalltown, 2107. A facility for direct bank-to-bank transfer of funds is also available. Enquiries may be directed to the Funds Contribution Manager, at the above address or telephone (011) 870-2000.
- (5) ~~Notwithstanding the provisions of this clause, failure on the part of the employer to make the deduction of employees' contributions which he is required to make shall not be absolve the employer from having to submit the total amount of the employees' contributions and his own contributions to the Council.~~
- (6) All contributions received by the Council shall be paid to the Provident Fund and the Scheme within seven days of receipt of such monies by the Council.
- (7) (a) If any amount that falls due in terms of this clause is not received in full by the Council by the 1<sup>st</sup> day of the month following the month for which the amount is payable, then the employer shall be liable to pay interest in accordance with the following provisions:
- (i) The interest payable shall accrue on the balance of the amount outstanding from time to time from the 1st day until the full amount is received by the Council.










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- (ii) The interest shall accrue at the effective rate and terms as prescribed by the Act and regulation to the Act.
- (iii) All the other provisions of the Act that are relevant for the purpose of calculating any interest payable by the employer in terms of this sub-clause shall *mutatis mutandis* apply for these purposes.”
- (b) For the purposes of this sub-clause, ‘the Act’ means the Pension Funds Act as amended from time to time.
- (8) In the event of the Council incurring any costs or becoming obliged to pay any collection commission by reason of the failure of the employer to make any payment on or before the due date, the employer shall then be liable to pay forthwith all such costs of whatever nature as between attorney and client and all such collection commission.

#### 7. ADMINISTRATION

- (1) The Fund and the Scheme shall be administered in accordance with the Rules of the Fund and the Rules of the Scheme. Such Rules shall not be inconsistent with this Agreement or the provisions of the Pension Funds Act 24 of 1956, as amended and a copy of the Rules and amendments thereto shall be lodged with the Registrar of Pension Funds and the Registrar of Labour Relations.
- (2) In the event of the dissolution of the Council or in the event of its ceasing to function during the currency of this Agreement, the Board of Trustees of the Fund shall take over the functions of the Council in respect of this Agreement, and if for any reason the Board of Trustees should be unable or unwilling to perform such duties, the Registrar of Pension Funds may appoint trustees to perform the Council's functions. The Board Trustees so appointed shall have all the powers vested in the Council for the purposes of this Agreement. Payment (if any) for the services of the trustees shall be borne by the Fund and /or the Scheme, as the case may be.

#### 8. AGENTS

- (1) The Council shall appoint one or more persons as agents in terms of section 33(1) of the Act to promote, monitor and enforce the terms of this Agreement. The council shall apply to the Minister to appoint such designated agent.
- (2) A person appointed in terms of sub-clause (1) above shall thereafter be referred to as a designated agent and shall have the powers set out in section 33A and in Schedule 10 of the Act.



- (3) Enforcement of this agreement by a designated agent shall be in accordance with Clause 10 of this agreement.

**9. EXEMPTIONS**

**1. General**

- (a) Any person bound by this Agreement may apply for exemption.
- (b) The Bargaining Council has the authority to consider applications for exemptions and/or licenses issued for exemptions.
- (c) An employer who has obtained an exemption from the Fund shall be required to apply in writing, should he wish to re-join the Fund at a later stage.
- (d) Exemptions and appeals shall be dealt with, within a period of 30 days of receipt of the exemption or appeal application.

**2. Fundamental principles for consideration**

2.1 All applications must be in writing and fully motivated and sent to the Regional Office of the Council for the area in which the applicant is located.

- (a) In scrutinising an application for exemption the council will consider the views expressed by the employer and the workforce, together with any other representations received in relation to that application.
- (b) The employer must consult with the workforce, through a trade union representative or, where no trade union is involved, with the workforce itself, and must include the views expressed by the workforce in the application. The consultation must comply with the Pension Funds Act and Regulations in respect of communication.

Where the views of the workforce differ from that of the employer, the reasons for the views expressed must be submitted with the application.

Where an agreement between the employer and the workforce is reached, the signed written agreement must accompany the application.

- (c) The exemption shall not contain terms that would have an unreasonably detrimental effect on the fair, equitable and uniform application of this Agreement in the Industry.
- (d) An application for exemption shall not be considered if the contents of the application are covered by an arbitration award binding the applicant.

- (e) When considering the application the council will refer the application to the Fund Actuary to scrutinize the application and make a recommendation to the regional committee and/or Independent Exemption Appeal Board.
- (f) The Fund Actuary shall apply the following criteria:
- i. The overall benefit package must be equal or better than the benefits provided for by the Metal Industries Provident Fund;
  - ii. The proportion of employer net contribution paid on withdrawal or retirement;
  - iii. Cover for death and disability;
  - iv. No waiting period for membership to the fund may be applied;
  - v. The total contributions must be similar to those required in terms of Clauses 1(4) of this agreement and the net allocation towards retirement benefits must also be equal or better;
  - vi. Compare investments in terms of:
    - a. The benchmark for each fund being compared;
    - b. The investment managers;
    - c. The historical returns on investment for 1, 3, 5 and 10 years; and
    - d. The investment fees charged by the respective investment managers.
- (g) The exemption may be withdrawn only if:
- i. There is no-compliance with the conditions set out on the license;
  - ii. Failure to file confirmation on an annual basis that the benefit package is still on the whole (based on the criteria set out in (2) above) not less favourable than the benefits of the Metal Industries Provident Fund.

### 3. Process

- (a) The Council shall issue to every person to whom exemption has been granted an exemption licence, setting out the following:
- (i) the full name of the person or enterprise concerned;
  - (ii) the provisions of this Agreement from which the exemption has been granted;
  - (iii) the conditions subject to which exemption is granted;
  - (iv) the period of the exemption;
  - (v) the date from which the exemption shall operate; and
  - (vi) the area in which the exemption applies.

- (b) The Council shall ensure that –
- (i) all exemption licences issued are numbered consecutively;
  - (ii) an original copy of each licence is retained by the Council;
  - (iii) a copy of the exemption licence is sent to the applicant.
- (c) Unless otherwise specified in the licence of exemption, any exemption from this Agreement shall be valid only in the region of the Council in which the application was made.
- (d) Written reasons for the refusal to grant an exemption must be provided to the applicant of that exemption.

#### 4. Appeals

- (a) An independent body, referred to as the Independent Exemptions Appeal Board (the Board), is hereby appointed and shall consider any appeal against an exemption granted or refused by the Council, or a withdrawal of an exemption.
- (b) The Council Secretary will on receipt of an appeal against a decision to refuse the granting of an exemption submit it to the Independent Exemptions Appeal Board for consideration and finalisation.
- (c) In considering an appeal the Board shall consider the recommendations of the Council, any further submissions by the employer and the workforce or their respective employee organisations or trade unions and shall be bound to apply the criteria set out in clause 2 above and also any other representations received in relation to the application.
- (d) Should the appeal be granted a licence of exemption shall be issued in terms of sub-clause (4)(a) and (b) above.

### 10. RESOLUTION OF DISPUTES

- 10.1 Any dispute about the interpretation, application, or enforcement of this Agreement shall be referred to the Council and shall be dealt with in accordance with the provisions contained in the Metal and Engineering Industries Bargaining Council Dispute Resolution Agreement as amended from time to time.
- 10.2 On termination of employment of a member of the Fund, his employer shall complete the details on Annexure A and hand it to the member.

**11. EXHIBITION OF AGREEMENT**

Every employer shall affix and keep in some conspicuous place upon his premises, a copy of this Agreement, in legible characters.

**12. MEMBERS' BENEFITS**

12.1. Members will be entitled to retirement, death, disability, resignation and retrenchment benefits in terms of the Rules of the Fund.

12.2. Enquiries should be directed to the offices of the Metal Industries Benefit Funds Administrators at telephone (011) 870-2000

**ANNEXURE A****PROVIDENT FUND AGREEMENT**

(Form to be completed by employer and handed to members of the Metal Industries Provident Fund on termination of employment)

*Member's Rights to Benefits*

1. A lump sum benefit on retirement at the age of 65 or later, or on early retirement from the age of 55 up to 65.
2. A permanent disability benefit owing to permanent disability / incapacity in terms of the rules of the Provident Fund and rules of the Permanent disability Scheme.
3. *Death benefits:* A lump sum benefit as if the member had retired on date of death PLUS a lump sum of three years' salary on –
  - (i) Death in service of a contributing member before the age of 65;
  - (ii) Death before the age of 65 where death occurs within six weeks of ceasing employment, if ex-member was unemployed for such period and had been a member of the Fund for a consecutive period of not less than two years prior to such unemployment;
  - (iii) Death before the age of 65 where death occurs within six months of ceasing employment owing to sickness or a works accident, and ex-member was unemployed owing to such sickness or work accident until the date of death.

GA

- 4. A lump sum benefit on retrenchment / redundancy, before the age of 65, as if the member had retired on date of retrenchment / redundancy. The fund will aim to pay the benefit within six weeks after cessation of service in the industries: Provided that the member has not returned to employment in the industries within that period.
  
- 5. A lump sum on ceasing service in the industries for reasons other than in (1) to (4) above. The lump sum is a refund of the member's own contributions, PLUS interest, PLUS a share of the employer's contributions, less costs, according to length of continuous service, and is payable not less than eight weeks after the cessation of service in the industries.

*To be completed by the employer:*

- (i) Name of employee (surname first) .....
  
- (ii) Identity Ref. No:..... Works No:.....
  
- (iii) Period of service (from) ..... to .....
  
- (iv) Reasons for termination of employment:
  - Retrenchment
  - Redundancy
  - Resignation
  - Permanent disability / incapacity
  - Other
  
- (v) In cases of retrenchment, state name and regional council and date on which notification of retrenchment was given under clause 35 of the Main Agreement:
 

Regional Council

Date
  
- (vi) The appropriate form for benefits has been handed to the employee.
 

Date

*For and on behalf of the employer*

Notes:

- (i) Claim forms for the various benefits are available from regional councils or from the offices of the Metal Industries Provident Fund.
- (ii) It should be ensured that the employee has been handed his membership card of the fund and any brochures or other information relating to the Fund.
- (iii) The employer is required to maintain a permanent record of the permanent address (i.e. home address) of each employee.

Thus signed at Johannesburg, for and on behalf of the parties, on..... 2017

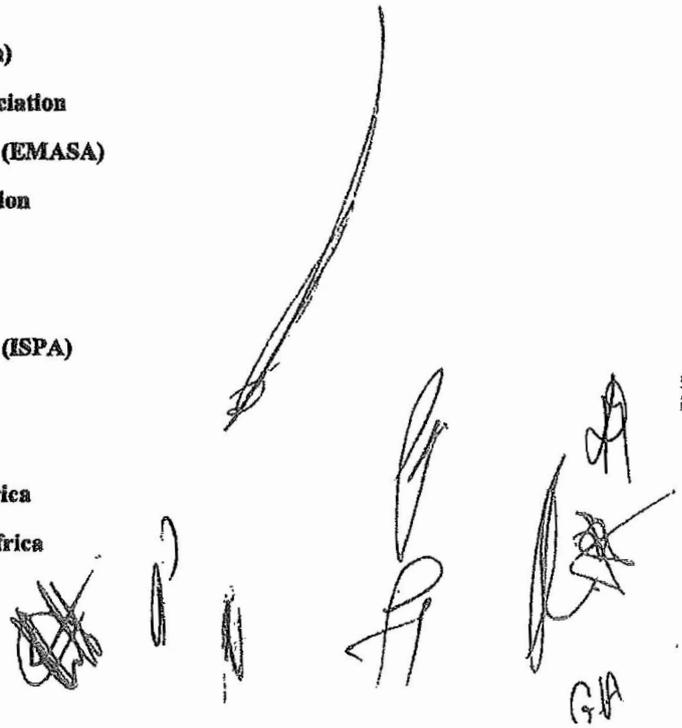
**ON BEHALF OF EMPLOYERS:**

For the Steel and Engineering Industries Federation of Southern Africa (SEIFSA) on behalf of its

member Employer Associations: ..... **LUCIO TRENTINI** .....

Name 

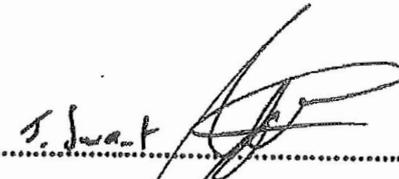
- Association of Electric Cable Manufacturers' of South Africa
- Association of Metal Service Centres of South Africa
- Cape Engineers' and Founders' Association
- Constructional Engineering Association (South Africa)
- Eastern Cape Engineering and Allied Industries Association
- Electrical Manufacturers Association of South Africa (EMASA)
- Electrical Engineering and Allied Industries' Association
- Gate and Fence Association
- Hand Tool Manufacturers' Association (HATMA)
- Iron and Steel Producers' Association of South Africa (ISPA)
- Kwa-Zulu Natal Engineering Industries' Association
- Lift Engineering Association of South Africa
- Light Engineering industries' Association of South Africa
- Non-Ferrous Metal Industries' Association of South Africa



Handwritten signatures of representatives from various employer associations, including a large signature for the SEIFSA representative and several smaller ones for other associations.

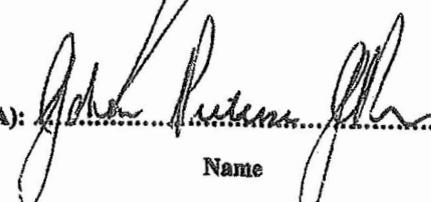
- Plumbers and Engineers Brassware Manufacturers' Association
- Pressure Equipment Manufacturers' Association of South Africa
- Refrigeration and Air-Conditioning Manufacturers' and Suppliers' Association (RAMSA)
- South African Electro-Plating Industries' Association
- South African Fasteners Manufacturers' Association (SAFMA)
- South African Refrigeration and Air-Conditioning Contractors' Association (SARACCA)
- South African Pump Manufacturers' Association (SAPMA)
- South African Reinforced Concrete Engineers' Association (SARCEA)
- South African Valve and Actuator Manufacturers' Association (SAVAMA)

And

National Employers' Association of South Africa (NEASA):  .....

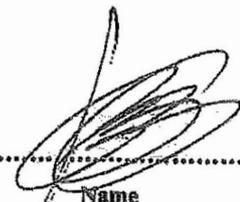
Name

And

Plastics Convertors Association of South Africa (PCASA):  .....

Name

And

South African Engineers and Founders' Association (SAEFA):  .....

Name

And

Consolidated Employers' Organisation (CEO):  .....

Name

And

Border Industrial Employers' Association:  .....

Name



And

South African United Commercial Employers Organisation: .....

Name

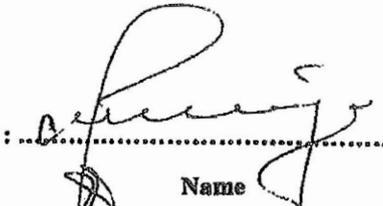
And

Federated Employers' Organisation of South Africa (FEOSA): .....

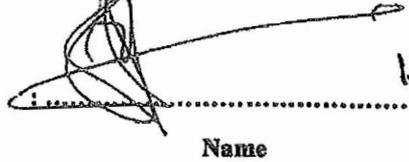
Name

ON BEHALF OF TRADE UNIONS:

MEWUSA

:  8/6/2017  
Name

NUMSA

:  15/06/2017  
Name

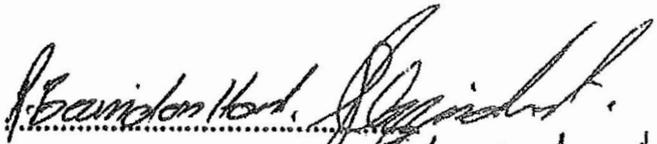
SAEWA

:  MOSES THULO  
06/06/2017  
Name

Solidarity/Solidarity

: F. VAN HEERDEN   
06/06/2017  
Name

UASA-The Union

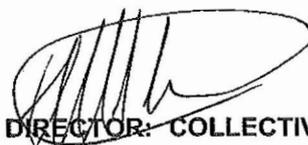
:  6/6/2017  
Name

 G.A.

**DEPARTMENT OF LABOUR  
NOTICE 686 OF 2018  
LABOUR RELATIONS ACT, 1995**

**BARGAINING COUNCIL FOR THE LAUNDRY, CLEANING AND DYEING INDUSTRY  
(KWA ZULU NATAL): EXTENSION OF PERIOD OF OPERATION OF THE MAIN  
COLLECTIVE AGREEMENT**

I, **STEPHEN RATHAI**, Director: Collective Bargaining, duly authorised thereto by the Minister of Labour, hereby, in terms of section 32(6)(a)(i) of the Labour Relations Act, 1995, extend the period fixed in Government Notice No. R. 666 of 5 September 2014 for a further period ending 31 December 2021.



**DIRECTOR: COLLECTIVE BARGAINING**

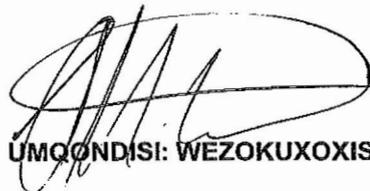
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**UMNYANGO WEZABASEBENZI**

**UMTHETHO WOBUDLELWANO KWEZABASEBENZI KA-1995**

**~~BARGAINING COUNCIL FOR THE LAUNDRY, CLEANING AND DYEING INDUSTRY~~  
(KWAZULU NATAL): UKWELULWA KWESIKHATHI SOKUSEBENZA  
KWESIVUMELWANO ESIYINGQIKITHI**

Mina, **Stephen Rathai**, uMqondisi Wezokuxoxisana Phakathi kwaBaqashi nabaSebenzi, ngegunya likaNgqongqoshe Wezabasebenzi, lapha ngokwesigaba 32(6)(a)(i) soMthetho Wobudlelwano Kwezabasebenzi, ka-1995, ngelula isikhathi sokusebenza kwesivumelwano esinqunywe kwiSaziso sikaHulumeni esingunombolo R.666 somhlaka 05 kuMandulo 2014 ngesikhathi esengeziwe esiphela mhlaka 31 kuZibandlela 2021.



**UMQONDISI: WEZOKUXOXISANA**

**DEPARTMENT OF LABOUR  
NOTICE 687 OF 2018  
LABOUR RELATIONS ACT, 1995**

**INVITATION TO MAKE REPRESENTATIONS**

**NOTICE IN TERMS OF SECTION 32(2) READ WITH SECTION 32(5)(c) OF THE LABOUR RELATIONS ACT, 1995: THE DISPUTE RESOLUTION LEVY AND REGISTRATION OF EMPLOYERS COLLECTIVE AGREEMENT OF THE NATIONAL BARGAINING COUNCIL FOR THE WOOD AND PAPER SECTOR**

1. I, Mildred Nelliswe Oliphant, Minister of Labour, do hereby in terms of section 32(2) read with section 32(5)(c) of the Labour Relations Act, 1995, publish a notice in accordance with the provisions of subsection 32(5)(c) inviting representations from the public in response to the National Bargaining Council for the Wood and Paper Sector's application for extension to non-parties regarding its Dispute Resolution Levy and Registration of Employers Collective Agreement which was submitted to the Department of Labour on 10 September 2018.
2. Representations must reach the Department of Labour not later than 21 days from the date of publication of this notice.
3. A copy of this Application may be inspected or obtained c/o the Department of Labour, Laboria House, 215 Francis Baard Street, PRETORIA.
4. Representations should be submitted to the following address:

**By Post or Fax:**

Department of Labour  
Directorate: Collective Bargaining  
Attention: Ms MM Ngwetjiana  
Postal Address: Private Bag x117  
PRETORIA, 0001

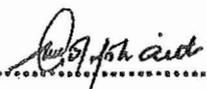
**Hand Deliveries:**

Department of Labour  
Laboria House  
Room 122/132  
215 Francis Baard Street  
PRETORIA, 0002

**By e-mail**

[Mary.ngwetjiana@labour.gov.za](mailto:Mary.ngwetjiana@labour.gov.za)

[Grace.johnson@labour.gov.za](mailto:Grace.johnson@labour.gov.za)

  
.....  
**MM OLIPHANT, MP  
MINISTER OF LABOUR**

18/10/2018

**UMNYANGO WEZABASEBENZI****UMTHETHO WEZOBUDLELWANO KWEZABASEBENZI KA-1995****ISIMEMO SOKULETHWA KWEZIKHALO**

**ISAZISO NGOKWESIGABA 32(2) SIFUNDWA NESIGABA 32(5)(c) SOMTHETHO WEZOBUDLELWANO KWEZABASEBENZI KA 1995: ISIVUMELWANO PHAKATHI KWABAQASHI NABASEBENZI SENTELA YOKUXAZULULWA KWEZIMPIKISWANO KANYE NOKUBHALISWA KWABAQASHI SOMKHANDLU WOKUXOXISANA PHAKATHI KWABAQASHI NABASEBENZI EMKHAKHENI WEZINKUNI NAMAPHEPHA**

1. Mina, MILDRED NELISIWE OLIPHANT, uNgqongqoshe Wezabasebenzi, lapha ngokwesigaba 32(2) sifundwa nesigaba 32(5)(c) somthetho Wezobudlelwano Kwezabasebenzi, ka-1995, ngikhipha isazisa ngokwezihlinzeko zesigatshana 32(5)(c) sokumema izikhalo zomphakathi mayelana nesicelo somKhandlu Wokuxoxisana Phakathi Kwabaqashi Nabasebenzi emkhakheni Wezinkuni Namaphepha sokwelulwa kwesivumelwano sawo seNtela Yokuxazululwa Kwezimpikiswano Kanye Nokubhaliswa kwabaqashi selulelwa kulabo abangeyona ingxenye yaso esalethwa eMnyangweni Wezabasebenzi mhlaka 12 kuMandulo 2018.
2. Izikhalo kumele zifike eMnyangweni Wezabasebenzi zingakapheli izinsuku ezingu 21kusukela osukwini lokukhiswa kwalesiSaziso.
3. Ikhophi yalesisicelo ingahlofwa noma litholakale ku c/o Department of Labour, Laboria House, 215 Francis Baard Street, PRETORIA
4. Izikhalo kumele zilethwe kulamakheli alandelayo:

**Ngeposi noma ngefeksi:**

**Okulethwa Ngezandla**

**Umnnyango Wezabasebenzi**

**Ihhovisi 122/132**

**Laboria House**

**Umqondisi: Wezokuxoxisana Kwabaqashi nabasebenzi**

**215 Francis Baard Street**

**Iqondiswe ku: Mary Ngwetjana**

**PRETORIA**

**Postal address: Private Bag X117**

**PRETORIA, 0001**

FAX 012 309 4158/4848

[Mary.ngwetjana@labour.gov.za](mailto:Mary.ngwetjana@labour.gov.za)

[grace.johnson@labour.gov.za](mailto:grace.johnson@labour.gov.za)



.....  
MN OLIPHANT, MP

UNGQONGOSHE WEZABASEBENZI

18/10/2018

**DEPARTMENT OF PUBLIC WORKS****NOTICE 688 OF 2018****Construction Industry Development Board****cidb Best Practice Project Assessment  
Scheme:  
Standard for Minimum Requirements for  
Engaging Contractors and Sub-Contractors  
on Construction Works Contracts****25 October 2015**

In terms of sections 5(2) of the Construction Industry Development Board Act, 2000 (Act no. 38 of 2000) (the Act), the Construction Industry Development Board is empowered to promote best practice Standards. The Board has identified the cidb Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts as a best practice Standard on work packages of a value greater than that equivalent to the upper limit of the tender value range of Grade 1.

This Standard establishes minimum requirements in the appointment of principal contractors and sub-contractors on construction works contracts in terms of compliance in terms of good standing with COIDA, registration with the relevant bargaining council(s), if any, a written contract between the principal contractor and sub-contractors, and payment requirements in terms of a contract.

This Standard updates and replaces the cidb Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts published in the government Gazette 41237 of 10 November 2017 by including reference to the General Conditions of Subcontracting for use when the General Conditions of Contract for Construction Works (GCC) is used for the principal contractor.

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Ms Nonkululeko Sindane  
Chairperson: Construction Industry Development Board

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# Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts

(25 October 2018)

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Construction Industry Development Board  
Pretoria  
Tel: 012 482 7200  
E-mail: [cidb@cidb.org.za](mailto:cidb@cidb.org.za)

## **Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts**

<b>Foreword</b>	<b>1</b>
<b>1. Scope</b>	<b>1</b>
<b>2. Terms and Definitions</b>	<b>1</b>
<b>3. Requirements</b>	<b>2</b>
<b>4. Records</b>	<b>3</b>
<b>5. Sanctions</b>	<b>3</b>

## Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts

### Foreword

The CIDB Act (Act 38 of 2000) requires that the Board must establish a *Best Practice Project Assessment Scheme* based on the best practices identified by the Board. All construction contracts above a prescribed tender value will then be subject to an assessment of compliance with best practice standards and guidelines published by the Board.

The aim of this best practice Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts is to promote uniformity in minimum requirements in the appointment of principal contractors and sub-contractors on construction works contracts. Private and public sector employees are encouraged to adopt this Standard.

This Standard will be subject to a review every five years or sooner if required.

### 1. Scope

This Standard establishes minimum requirements in the appointment of principal contractors and sub-contractors on construction works contracts in terms of compliance in terms of good standing with COIDA, registration with the relevant bargaining council(s), if any, a written contract between the principal contractor and sub-contractors, and payment requirements in terms of a contract.

Subject to 3(c), such requirements are only applicable on work packages of a value greater than that equivalent to the upper limit of the tender value range of Grade 1.

### 2. Terms and Definitions

For the purposes of this document, the following definitions apply:

**Construction Industry Development Board (cidb):** the Board established in terms of the Construction Industry Development Board Act of 2000 (Act 38 of 2000).

**COIDA:** Compensations for Occupational Injuries and Disease Act

**construction works:** the provision of a combination of goods and services arranged for the development, extension, installation, repair, maintenance, renewal, removal, renovation, alteration, dismantling or demolition of a fixed asset including building and engineering infrastructure.

**employer:** person or organization entering into the contract with the principal contractor for the provision of goods, services, or engineering and construction works.

**employer's representative:** person authorized to represent the employer and named as such in the contract data.

**principal contractor:** contractor who contracts with the employer for the provision of construction works, and who may subcontract part of this contract.

**sub-contractor:** the contractor who contracts with the principal contractor for the provision of portions of construction works.

### 3. Requirements

- a) Where applicable in terms of the Compensations for Occupational Injuries and Disease Act (COIDA), principal contractors and sub-contractors must have a letter of good standing in terms of COIDA.
- b) Principal contractors and sub-contractors must have proof of registration with the relevant bargaining council(s), if any, duly established in terms of Part C of the Labour Relations Act 66 of 1995, as amended.
- c) A written contract must exist between the principal contractor and sub-contractor using the latest Edition of one of the forms of contracts identified in items (i) to (vi) below, unless the publishers of such forms of contracts indicate that such a form of contract is not suited for the intended application in which case a modified form of the most appropriate form of contract must be used. Note that:
  - The standard forms of contract shall be used with minimal contract amendments which do not change their intended usage and shall only be amended when absolutely necessary to accommodate special needs.
  - Each of the forms of subcontract may only be used in conjunction with the relevant Edition of the principal agreement for which it has been issued, where applicable.
  - The General Conditions of Subcontract (GCSC) should be used where the General Conditions of Contract for Construction Works (GCC) is used for the principal contractor.
  - The MBSA Domestic Subcontract Agreement and the MBSA Labour Only Subcontract Agreement should be used where the Joint Building Contracts Committee (JBCC) is used for the principal contractor.
  - i) Construction Industry Development Board: Standard Subcontract (labour only);
  - ii) The Joint Building Contracts Committee (JBCC): Nominated / Selected Subcontract Agreement (NSSA);
  - iii) New Engineering Contract (NEC, as published by the Institution of Civil Engineers);
    - NEC Engineering and Construction Subcontract;
    - NEC Engineering and Construction Short Subcontract;
  - iv) International Federation of Consulting Engineers (FIDIC);

- Conditions of Subcontract for Construction (for building and engineering works designed by the Employer);
  - v) The General Conditions of Subcontract (GCSC), as published by South African Institution of Civil Engineering (SAICE)); and
  - vi) Master Builders South Africa (MBSA):
    - Domestic Subcontract Agreement; and
    - Labour Only Subcontract Agreement.
- d) The date on which payment to the sub-contractor becomes due and payable is the date determined in the contract, but may not be later than 30 days after the date on which the sub-contractor has submitted a statement for payment or a claim for payment to the principal contractor in relation to construction works, goods or services completed or delivered in accordance with the contract between the principal contractor and the sub-contractor.
- e) Where a sub-contractor has not been paid within 30 days after the date on which the sub-contractor has submitted a statement for payment or a claim for payment to the principal contractor for construction works, goods or services completed or delivered in accordance with the contract, the employer shall upon a written request by the sub-contractor confirm in writing within 15 days whether the principal contractor has been paid in full or in part by the employer in respect of construction works, goods or services completed or delivered by the sub-contractor.

#### **4. Records**

The principal contractor shall submit a report substantiating compliance with this Standard in an acceptable format to the employer's representative for acceptance within 15 days of achieving practical completion.

The employer's representative shall certify the submission made by the principal contractor.

#### **5. Sanctions**

In the event that the principal contractor fails to substantiate compliance with this Standard, the sanctions provided for in the contract or order between the employer and the principal contractor shall apply.

Note: The contract establishes the sanctions that will apply. These are set out in a tender evaluation schedule, the scope of work or contract data.

## DEPARTMENT OF PUBLIC WORKS

## NOTICE 689 OF 2018

**Construction Industry Development Board****cidb Project Assessment Scheme:  
Standard for Standard for Health & Safety  
Plans and Auditing Requirements****08 November 2018**

In terms of sections 5(2) of the Construction Industry Development Board Act, 2000 (Act no. 38 of 2000) (the Act), the Construction Industry Development Board is empowered to promote best practice Standards. The Board has identified the cidb Standard for Standard for Health & Safety Plans and Auditing Requirements as a best practice Standard on work packages of a value greater than that equivalent to the upper limit of the tender value range of Grade 1.

This Standard sets out the process and responsibilities by which a client:

- reviews and approves the H&S plan submitted by the principal contractor; and
- audits the implementation of the H&S plan during construction.

This draft best practice Standard is issued here for public comment. Interested persons and the public are invited to submit comments on the draft best practice standard within 30 days of the date of this publication. Interested parties are requested to forward their comments in writing for the attention of Ishmail Cassiem to one of the following:

cidb  
P O Box 2107  
Brooklyn Square 0075

email: [ishmailc@cidb.org.za](mailto:ishmailc@cidb.org.za)

cidb  
Block N&R  
SABS Campus  
2 Dr Lategan Drive  
Groenkloof, Pretoria

Fax: 086 687 4936

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Ms Nonkululeko Sindane  
Chairperson: Construction Industry Development Board

**Draft**

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**Standard for Health & Safety Plans and  
Auditing Requirements  
(Grades 2 to 9)  
22 August 2018**

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Construction Industry Development Board

# Draft

Pretoria  
Tel: 012 482 7200  
E-mail: [cidb@cidb.org.za](mailto:cidb@cidb.org.za)

# Draft

## Standard for Health & Safety Plans and Auditing Requirements (Grades 2 to 9)

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<b>1 Scope</b>	<b>1</b>
<b>2 Terms and Definitions</b>	<b>1</b>
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# Draft

## Standard for Health & Safety Plans and Auditing Requirements (Grades 2 to 9)

### Foreword

The cidb Act (Act 38 of 2000) requires that the Board must establish a *Best Practice Project Assessment Scheme* based on the best practices identified by the Board. All construction contracts above a prescribed tender value will then be subject to an assessment of compliance with best practice standards and guidelines published by the Board.

The Construction Regulations<sup>1</sup> require that a client develops a H&S specification based on the project's baseline risk assessment, and that the principal contractor is to provide and demonstrate to the client a suitable and sufficiently documented H&S plan, based on the client's documented H&S specification. The Regulations require that the client shall discuss and negotiate with the principal contractor the contents of the H&S plan and thereafter finally approve the H&S plan for implementation. The client shall monitor the H&S performance of a principal contractor and carry out H&S audits as agreed with the principal contractor, but at least at monthly intervals. The Regulations then require that the principal contractor shall hand over a H&S file to the client at the completion of the project.

In line with the Construction Regulations, the aim of this best practice *Standard for Health & Safety Plans and Auditing Requirements* is to provide for:

- a uniform and consistent assessment of a principal contractor's H&S plan by the client prior to the beginning of a construction works project; and
- auditing of the implementation of the principal contractor's H&S plan by the client during the construction period.

Private and public sector employers are encouraged to adopt this Standard. Notwithstanding this, it is the cidb's intent that in terms of the cidb Act and as prescribed by the Minister of Public Works, the cidb will undertake a mandatory assessment of compliance with this Standard on selected public sector contracts.

## 1 Scope

This Standard sets out the process and responsibilities by which a client:

- reviews and approves the H&S plan submitted by the principal contractor; and
- audits the implementation of the H&S plan during construction.

This Standard is applicable to construction works within tender values equivalent to cidb Contractor Grades 2 to 9.

## 2 Terms and Definitions

For the purposes of this document, the following terms and definitions apply:

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<sup>1</sup> Department of Labour (DoL), (2014). *Occupational Health and Safety Act (1993): Construction Regulations*. Pretoria: Government Gazette, Regulation Gazette No. 10113, Vol. 584, No. 37305.

## Draft

**as-built drawings:** revised set of drawings submitted by a contractor upon completion of a project

**class of construction works:** the class of construction works referred to in Schedule 3 of the Construction Industry Development Regulations 2004 as amended and published in terms of the Construction Industry Development Board Act of 2000 (Act 38 of 2000)

**client:** person or organization entering into the contract with the contractor for the provision of goods, services, or engineering and construction works

**Construction Industry Development Board (CIDB):** the board established in terms of the Construction Industry Development Board Act of 2000 (Act 38 of 2000)

**construction site:** a work place where construction work is being performed

**contract amount:** financial value of the contract at the time of the award of the contract, exclusive of all allowances and any value added tax or sales tax which the law requires the employer to pay to the contractor

**contractor:** an employer who performs construction work

**practical completion certificate:** a certificate issued in terms of a contract by the employer, signifying that the whole of the construction works have reached a state of readiness for occupation or use for the purposes intended, although some minor work may be outstanding

NOTE Practical completion is commonly understood to be a state of readiness for occupation of the whole works although some minor work may be outstanding. Practical completion in a construction works contract occurs when:

- a) FIDIC Short Form of Contract: the date when the Employer considers that the Works have been completed in accordance with the Contract, except for minor outstanding work and defects which will not substantially affect the use of the Works for their intended purpose
- b) FIDIC Red, Silver and Yellow Book: the date when the Engineer determines that the Works has substantially been completed and can be used for the purpose intended
- c) GCC 2010: "Practical Completion" means the date when the Engineer certifies that the whole or portion of the Works has reached a state of readiness, fit for the intended purpose, and occupation without danger or undue inconvenience to the Employer, although some work may be outstanding
- d) JBCC 2000 Principal Building Agreement and JBCC Minor Works Agreement: the date when the principal agent decides that the completion of the works has substantially been reached and can be used for the purpose intended
- e) NEC3 Engineering and Construction Contract: the date when the Project Manager decides that the Contractor has reached Completion as defined in the contract
- f) NEC3 Engineering and Construction Short Contract: the date when the Employer decides that the Contractor has completed the works in accordance with the Works Information except for correcting notified Defects which do not prevent the Employer from using the works and others from doing their work.

**principal contractor:** an employer appointed by the client to perform construction work

**project:** a construction works contract or a series of related construction works contracts

### 3. Requirements

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## 3.1 Health and Safety Specifications

- 3.1.1 Clients must prepare a baseline risk assessment for the specific project which will inform the client with the development of the H&S specification. [5(1)(a)]<sup>2</sup>
- 3.1.2 Clients must include the H&S specification in the tender documents when soliciting tenders for construction works contracts. [5(1)(f)]

## 3.2 Health and Safety Plans

- 3.2.1 Clients must review, discuss and negotiate the H&S plan submitted by the principal contractor<sup>3</sup> before the work begins to verify that the H&S plan responds to the client's project H&S specifications, using the checklist in Annex B as a guide to assess the suitability of the principal contractor's H&S plan. [5(1)(l)]
- 3.2.2 The H&S plan must be structured to include the following five areas:
- project information;
  - client requirements for H&S management on the project;
  - environmental restrictions and existing risks on site;
  - H&S file; and
  - project H&S review.
- 3.2.3 Should there be any deficiencies in the H&S plan, clients must recommend improvements to the contents of the H&S plan and must approve and sign the amended H&S plan before the work begins. [5(1)(l)]
- 3.2.4 Clients must ensure that the H&S plan submitted by the principal contractor is implemented and maintained on the construction site and must agree on the audit schedule which should take place at least monthly with the principal contractor. Clients must use the audit checklist in Annex C as a guide to assess whether the principal contractor implements the agreed H&S plan on the project. [5(1)(n)]; [5(1)(o)]
- 3.2.5 Clients must undertake follow-up inspections should there be any non-conformance during the audit and close out all outstanding issues.
- 3.2.6 Clients must receive a consolidated H&S file for the specific project from the principal contractor at practical completion of the project and are required to use the checklist in Annex B (section 4) as a guide for the completeness of the H&S file. [7(1)(e)]

<sup>2</sup> Note: references in [ ] brackets denote clauses within the Construction Regulations, 2014

<sup>3</sup> Guidelines for H&S plans are given in Annex A

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## Annex A: Guidelines for H&S Plans (Informative)

### A.1 General

An H&S plan is a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified. An H&S plan sets out the arrangements to manage H&S on a construction project.

[7(1)(a)]

The H&S plan must be in writing, accessible to an employee, inspector, contractor and easily understood by management, supervisors and workers on the construction site. It may not be necessary to communicate the entire plan to all workers (including contractors), however, they must be made aware of the parts that are applicable to the work they are carrying out. The H&S plan must be implemented, maintained and kept up to date during the course of the work on the site.

[5(1)(m)];  
[5(1)(n)]

This Annex provides guidelines for clients to assess the adequacy of the principal contractor's H&S plan before the work begins, auditing the principal contractor's implementation of the H&S plans and finally to sign off the H&S file as required. These guidelines can also be used by principal contractors to develop and implement their H&S plans.

### A.2 Preparing a Health and Safety Plan

The level of detail required for a H&S plan will depend on how complex the construction site is (in particular, the number of contractors at the construction site at any one time) and the risks involved in the work.

The principal contractor should prepare a H&S plan that includes:

- project information;
- client requirements for H&S management on the project;
- environmental restrictions and existing on-site risks arrangements, imposed by others or developed by the principal contractor, to control significant site H&S risks;
- H&S file; and
- project H&S review.

The H&S plan should include the following information:

- details of the client, that is the person commissioning the construction work, for example their name, representative and contact details;
- details of the principal contractor;
- details of the construction project, for example address of the workplace, anticipated start and end date and a brief description of the type of construction work that the H&S plan will cover;
- details on how contractors will be managed and monitored, including how the principal contractor intends to implement and ensure compliance with the H&S plan such as checking on the performance of contractors and how non-compliance will be handled; and

[7(1)(c)(vi);  
(vii)]

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- details on how the risks associated with falls, falling objects, moving plant, electrical work and all high risk construction work that will take place on a construction project will be managed.

[9]

The H&S plan should also include information on:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• the provision and maintenance of a hazardous chemicals register, safety data sheets and hazardous chemicals storage;</li> <li>• the safe use and storage of plant;</li> <li>• the development of a construction project traffic management plan;</li> <li>• obtaining and providing essential services information – electrical, gas, telecommunication, water and similar services;</li> <li>• workplace security and public safety;] and</li> <li>• ensuring workers:             <ul style="list-style-type: none"> <li>• are competent,</li> </ul> </li> </ul> | <p>[25(a)]; [29(b)]</p> <p>[23]</p> <p>[23(2)(b); (c);(d)]</p> <p>[13(2g)]; [14(4)(e)]; [24(a)]</p> <p>[13(2)(i)]; [14(4)(h)]; [23(2)(b); (c); (d)]; [27(f)(g)]</p> <p>[8(1);(8)]; [9(1)]; [10(1)(a)]; [10(5)(b)]; [12(1); (2)]; [12(3)(a); (e); (f); (g)]; [13(1)(a); 13(2)(k)]; [14(1); 14(11)]; [16(1)]; [17(1); 17(8)(a); (c); [18(1)(a); (c); [18(2)(b)]; [19(6); 19(8)(a); (8)(c)]; [20(1); 20(2)]; 21(2)(b); (g)(ii)]; [22(a); (e); [23(1)(d)(i); [24(c); (d)]; [28(a)]; [29(h)] [18(1)(c)] [7(5)]; [9(3)]; [10(2)(c)]; [12(3)(d)]; [17(12)(c)]; [17(13)]; [21(1)(b); [23(1)(d)(i); [29(i)]</p> |
|---|--|
- to undertake the construction work<sup>4</sup>.

### A.3 Contents of a Health and Safety Plan

#### A.3.1 Project Information

The H&S plan must contain:

- a general description of the type of work activities involved in the project and not just a description of the facility to be constructed;
- the project program or schedule details, including start and finish dates, showing principal activities;
- details of client, design team, principal contractor, contractors, and major suppliers; and
- extent and location of relevant existing records, surveys, site investigation and geotechnical reports, 'as-built' drawings, H&S files, and maps.

<sup>4</sup> NSW Government, (2013). *Work Health and Safety Management Systems and Auditing Guidelines*. 5th ed. [www.procurepoint.nsw.gov.au](http://www.procurepoint.nsw.gov.au)

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### A.3.2 Client Requirements for H&S Management on Projects

The H&S plan must contain:

a) **H&S responsibilities:** Details of the principal contractor's project organizational structure, procedures and allocations of responsibilities for H&S in the form of an H&S organogram/organizational chart with the names of individuals and their specific H&S responsibilities. For example:

- |  |                    |
|--|--------------------|
| • overall responsible person (construction manager);                     | [8(1)]             |
| • assistant construction manager;  | [8(2)]             |
| • construction supervisor;   | [8(7)]             |
| • competent employees (assisting construction supervisors);              | [8(8)]             |
| • construction H&S Officer;  | [8(5)]             |
| • responsible persons for:   |                    |
| • conducting risk assessments;   | [9(1)]             |
| • work at height/roof;   | [10]               |
| • preparation of fall protection plan;                                   | [10(1)(a)]         |
| • structures;  | [11]               |
| • temporary works design and inspection;                                 | [12(1) and         |
| • excavation works;  | 12(2)]             |
| • explosives for excavations;  | [13(a)]            |
| • explosives for demolition work;  | [13(2)(k)]         |
| • demolition work;   | [14(11)]           |
| • asbestos work;   | [14(1)]            |
| • lead work;   | [14(9)]            |
| • tunnelling;  | [14(10)]           |
| • scaffold;  | [15]               |
| • suspended platforms;   | [16(1)]            |
| • rope access work;  | [17(1)]            |
| • operating a material hoist;  | [18(1)(a)]         |
| • erection and maintenance of material hoists;                           | [19(6)]            |
| • supervision of bulk mixing plant;                                      | [19(8)(a)]         |
| • operating a bulk mixing plant;   | [20(1)]            |
| • health and safety in confined spaces;                                  | [20(2)]            |
| • operation, maintenance and use of explosive actuated fastening device; | [20(7)];           |
| • design and erection of tower cranes;                                   | [21(1)(b); (2)(b); |
| • operating a tower crane;   | (2)(g)(i),(ii)]    |
| • maintaining construction vehicles and mobile plant;                    | [22(a)]            |
| • operating construction vehicles and mobile plant;                      | [22(e)]            |
| • inspection of construction vehicles and mobile plant;                  | [23(1)(b)]         |
| • temporary electrical installations; waste collection/disposal;         | [23(1)(d)(i)]      |
| • supervision of stacking and storage;                                   | [23(1)(k)]         |
| • fire precautions, emergencies/first-aid/fire;                          | [26(b),(d)]        |
| • fire equipment inspection;   | [28(a)]            |
| • use of fire – extinguishing equipment;                                 | [25(c)]; [29]      |
|  | [29(h)]            |
|  | [29(i)]            |
| • construction employees' facilities;                                    | [30]               |
| • H&S Representative; and  |                    |
| • other.   |                    |

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- b) Notice boards:** The plan must indicate what arrangements will be made for the display of the notifiable particulars on project signboards. [17(7)(c)]; [19(5)]; [21(2)(f)]; [25(b)]; [29(c)]; [9(d)(iii)]
- c) H&S goals:** The plan must include the principal contractor's H&S goals that must be achieved for the project and how they relate to the Client's stipulated goals in the H&S specifications where these have been stated. The principal contractor must make arrangements for the monitoring and review of H&S such as H&S goals, targets, key performance indicators, etc.
- d) Permits:** The plan must include processes to ensure requirements for permits and authorizations are obtained before the start of the works. The plan must include arrangements to display the construction work permit should the site be assigned such a permit. [3(4)]
- e) Notifications:** The plan must include processes to ensure requirements for notifications and authorizations are obtained before the start of the works. [4]
- f) H&S monitoring:** The plan must indicate how H&S will be going to be monitored on the project. [7(1)(c)(vi)]
- The plan must indicate how the H&S performance of others especially contractors and suppliers' are going to be measured and monitored.
- g) H&S review:** The plan must indicate how H&S is going to be reviewed and updated. The plan must indicate how the principal contractor will review the contents of the contractor's H&S plan to ensure that the plan responds to the relevant sections of the client's H&S specification and provided by the principal contractor. [7(2)(a)]
- The plan must indicate how the contractor will review its H&S plan to ensure that the plan is updated as the work progresses. [7(2)(a)]
- h) H&S inspections:** The plan must indicate what types and frequency of H&S inspections are planned and by whom. The plan must indicate how the principal contractor will be conducting periodic site audits and document verification at mutually agreed intervals with the contractor. [7(1)(c)(vii)]
- i) Emergency and first aid:** The plan must indicate what emergency procedures and requirements are in place and the contact arrangements with external services, particularly first aid, emergency medical care and rescue work (e.g. fire). [29(l)]
- j) Medical certificates:** The plan must indicate the arrangements to ensure all the employees have valid medical certificates of fitness specific to the construction work to be performed. [7(1)(g); 7(8)]
- k) Medical surveillance:** The plan must indicate the arrangements to ensure all medical surveillance are carried out on the project to specific standards and the supporting documentation are provided.

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- l) Reporting fatality, permanent injury or occupational disease:** The plan must indicate the procedures following the requirements for reporting a fatality, permanent injury or occupational disease to the provincial director as contemplated in section 24 and 25 of the Act and in accordance with regulations 8 and 9 of the General Administrative Regulations, 2003 as amended. [5(3)]
- m) Registration with the Compensation Fund:** The plan must make provision for proof of registration and letters of good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993. [7(1)(c)(iv)]
- n) Purchasing:** The plan must include procedures for ensuring the competence and adequacy of resources of contractors, suppliers, and manufacturers (prequalification submittals) are appropriate to the requirements of the project. [7(1)(c)(iii); 7(2)(c)]
- o) Communication and consultation:** The plan must include arrangements in place for regular liaison between all those working on site to:
- exchange H&S information; [7(2)(e)]
  - ensure security;
  - ensure site inductions and on-site training; [7(5); 7(6)]
  - co-ordinate and enforce fire and emergency procedures, prevention and control; [29(a); 29(g); 29(l)]
  - enforce site rules;
  - co-ordinate responsibility for shared plant & equipment;
  - co-ordinate and enforce First Aid arrangements and procedures; and
  - investigate accidents and incidents.

The plan must include arrangements for provision of understandable and accessible information to everyone on the job including induction, changing work environmental conditions, and emergencies.

The plan must include arrangements for ensuring that every contractor provides H&S information to their workers and that they provide the necessary training.

The plan must include procedures in place for worker consultation and forums such as required by the Occupational Health and Safety Act (OH&SA of 1993). [9(5)]

- p) Co-operation between contractors:** The plan must include arrangements for identifying where works by one contractor and their assessment and control of risks may affect the works of another contractor.

The plan must include arrangements by the principal contractor for co-operation between all contractors, for example, where the type and frequency of H&S meetings are described. [7(4)]

The plan must include arrangements for co-ordinating preventative and control measures where more than one contractor may be exposed to the same risk.

The plan must ensure co-ordination of H&S surveillance and/or assistance between various contractors.

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- The plan must include arrangements by the contractor to co-operate with the principal contractor to enable both parties to conform with the H&S requirements. [7(2)(d)]
- q) Site rules:** The plan must include specific site rules and other restrictions on contractors, suppliers and manufacturers such as permit-to-work procedures and arrangements for compliance by others with any rules in the H&S plan.
- r) Permits:** The plan must include processes to ensure requirements for permits and authorizations are obtained before the start of the works. [4(1); (2)]
- s) Site security and access:** The plan must include security arrangements that include site boundary, security, demarcation such as fencing, enclosures, alarm and warning systems, no-go areas, etc. are in place. [27(f)]
- The plan must include arrangements for access to the site by authorised persons only and have procedures in place to prevent access by everyone else including consideration of rights of way and needs of emergency services. [27(f)]
- The plan must include access arrangements, including traffic routes, vehicles, doors, traffic booms, and gates that includes details of no-go areas, pedestrian and vehicle segregation, one-way road systems, and route plans. [12(3)(m)]; [13(2)(f)]; [14(4)(g)]; [16(2)]; [17(6)(e)]; 17(12)(c)(i)]; [19(2)(b)]; [20(4)(a)]; [21(2)(d)]; [23(1)(e)]; [27(c)] [23(2)(c); (d)] [23(1)(f); 23(2)(c), [20(5) [23(2)(b); [23(2)(c)]; [29(j)]
- The plan must include arrangements for permanent and temporary lighting for doing the work and security.
- The plan must indicate the contractor's arrangements to prevent an employee or person to enter the site before they have received induction training regarding the hazards on the site. [7(5); (6)]
- t) Deliveries:** The plan must include arrangements for deliveries, and any restrictions such as delivery times, demarcated/reserved storage areas, loading and unloading areas, working areas for prefabrication.
- u) Construction employees' facilities:** The plan must include provision for construction employees' facilities such as toilets and washing facilities, drinking water, rest facilities, facilities to change, clothing lockers, etc. [30(1)]
- v) Waste:** The plan must include arrangements for collection and disposal of waste materials and general debris. [14(6); (12)]; [27(b); (e)]
- w) Personal Protective Equipment:** The plan must include provision for Personal Protective Equipment (PPE) relative to identification of need for PPE (environmental exposure, medical surveillance requirements, occupational hygiene, hazardous chemical substance exposure), provision, maintenance, storage, training, etc. [7(6)]

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- x) **Working hours:** The plan must indicate the working hours details that include arrangements, for example working at night, after hours, over week-ends, and during holidays.
- y) **Training:** The plan must include arrangements for training of workers; and keeping records of such training, obtaining feedback from workers, giving advice, and the co-ordination of this information. [7(5)];[10(2)(c)]; [12(3)(d)]; [17(12)(c)]; [23(1)(d)(1)] [7(7)]; [10(2)(c)];
- z) **Design information:** The plan must include measures to capture new information in the case where there is on-going design of elements of work and management of design changes. [5(1)(r)]; [5(2)]; [7(1) (c)(ix)]; [9(7)(a)]; [12(3)(o)]

The principal contractor must have arrangements for liaison between all parties relative to:

- the exchange of design information; [7(1)(c)(i);(ix)]; [11(1)(c)]
- dealing with design changes; and [7(1)(c)(ix)];
- on-site changes and the potential H&S implications of variation orders (VOs), Requests for Information (RFIs) and Site Instructions. [5(1)(r)]; [5(2)]; [9(7)(a)]

The plan must include arrangements for possible client continued use of the facility.

The principal contractor must include details of how the H&S plan will be expanded to include each work 'package' as the design and programme continues.

The principal contractor must include arrangements for continuing interaction with the client where the design is on-going.

- aa) **Hazard identification and risk assessments:** The plan must include arrangements for obtaining and using risk assessment information, and the production of method statements [9(1)(a); (b)] [9(1)(c)]

The plan must include formal acknowledgement by the principal contractor of the hazards and risks outlined in the H&S specification.

The plan must include details of how the principal contractor has addressed these hazards and/or risks.

The plan must include the risk assessment information and the production of method statements of contractors.

The plan must include details of the inclusion of measures to deal with current residual risks.

The plan must have processes in place that will include new residual risk information.

The plan must include arrangements in place for dealing with risks for activities on or adjacent to the site during the project.

- ab) **Method statements:** The plan must include arrangements for obtaining and using risk assessment information, and the production of method statements.

The plan must include the risk assessment information and the production of method statements of contractors.

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The plan must include arrangements for the approval of method statements prepared by contractors.

- ac) H&S file:** The plan must include arrangements in place for inclusions in H&S file. [7(1)(e); 7(1)(f); (7(2)(b)]

### A.3.3 Environmental restrictions and existing risks on site

The H&S plan must cover the following risks:

#### Health and Safety risks:

- **Fall protection:** The plan must include a fall protection plan. [10(1)(a)]
- **Fall prevention:** The plan must include measures to prevent persons from falling over objects and from heights. [10(4)(a);(b)]
- **Roof work:** The plan must include how the roof work is going to be carried out and the measures in place to work over openings and fragile materials. [5]
- **Falling objects:** The plan must have measures to prevent injury to persons on site from falling objects by providing cover over public walkways, nets and safety helmets. [14(4)(h)]; [27(g)]
- **Structures**
  - Existing structures:** The plan must provide the measures for dealing with existing and hazardous structures.
  - The plan must include details of the processes and procedures to deal with existing buildings with respect to, for example, fire damage, post-tensioned concrete structures, and stability and fragility of existing structures. [11(1)(a)]
  - New structures:** The plan must provide the measures to prevent the uncontrolled collapse of new structures. [11(1)(a)]
- **Temporary works:** The plan must include processes and procedures for the installation/erection of temporary works that will comply to the necessary standards and legal requirements. The plan must indicate the appointed competent person responsible for the design, inspection and approval of the erected temporary works on site. The plan must also indicate the competent person responsible for supervision of all temporary works. [12]
- **Excavations:** The plan must include details of processes and procedures to carry out excavations especially in poor ground conditions and excavations below the level where the Construction Regulations require specific control. [13]
- Existing services and obstructions:** The plan must include processes and procedures for dealing with services, particularly buried or underground services and underground obstructions. [13(2)(g)]

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- The plan must include processes and procedures for dealing with water/liquid/gas/electrical hazards on or adjacent to the 'site' that require control measures. [13(2)(g)]

**Ground conditions:** The plan must include details of processes to deal with ground water conditions.
- **Demolition works:** The plan must provide a method statement by a competent person indicating the procedures to be followed when demolishing the structure. [14(1);(2)]

The plan must include processes and procedures for dealing with asbestos according to the requirements of the Asbestos Regulations, 2001 as amended. [14(9)]

The plan must include processes and procedures for dealing with lead to the requirements of the Lead Regulations, 2001 as amended. [14(10)]
- **Tunnelling:** The plan must indicate the minimum height which is allowed for a person to enter a tunnel. [15]
- **Scaffolding:** The plan must indicate the arrangement in place to ensure that the scaffolding work operations are carried out under the supervision of a competent person and to the required scaffold design and safety standards as incorporated for this purpose into these Regulations under section 44 of the Act. [16(1); (2)]
- **Suspended platforms:** The plan must indicate the arrangement in place to ensure that the suspended platform work operations are carried out under the supervision of a competent person and to the required design and safety standards as incorporated for this purpose into these Regulations under section 44 of the Act. [17]
- **Rope access work:** The plan must indicate the arrangement in place to ensure that all rope access work is carried out under the supervision of a competent person to the required safety standards as incorporated for this purpose into these Regulations under section 44 of the Act and that all rope access operators are competent and licensed to carry out their work. [18]
- **Material hoists:** The plan must include the arrangements to ensure that a material hoist and its tower are constructed to the required standards, that the foundations are adequate, that persons are prevented from being injured by moving parts, that the platform is designed to safely contain the loads, that daily inspections are carried out and that the hoist is operated by a competent person. [19]

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- **Bulk mixing plant:** The plan must include arrangements to ensure that the operation of a bulk mixing plant is carried out under the supervision of a competent person, that the placement and erection is carried out according to the manufacturer's requirements, that the starting and stopping devices are easily accessible and that all moving parts are secured to prevent injury to persons and that precautionary measures are taken for persons entering silos as stipulated in the General Safety Regulations, 2003 as amended.

[20]
- **Explosive actuated fastening device:** The plan must indicate the measures in place for the authorised use of an explosive actuated fastening device by trained persons, the procedures for the use, storage and controlled issuing of cartridges and nails and studs.

[21]
- **Cranes:** The plan must indicate the risk assessment carried out with the development of a method statement, the design and erection of the crane by a competent person, the measures in place to ensure the construction of a firm base and track for the crane and that only competent operators in possession of a medical certificate of fitness operate cranes as stipulated in the Driven Machinery Regulations, 1988 as amended.

[22]
- **Construction vehicles and plant:**

**Maintenance of plant:** The plan must include processes and procedures for the maintenance of plant and equipment to ensure that the plant is kept in a condition that will not compromise the safety of the persons using it and also that of the persons on site.

[23(1)(c)]
- Operation of plant:** The plan must include measures in place to ensure that only competent persons are authorised to operate construction vehicles and plant safely that vehicles transporting construction workers to and from site are securely fitted with seats. The use construction vehicles and mobile plant are complying to the requirements of the National Road Traffic Act, 1996.

[23(1)(d)]  
[23(2)(i)]
- **Electrical installations and machinery:** The plan must indicate the processes and procedures in place to locate existing electrical cables and apparatus on site and the guarding thereof to prevent injury to workers to ensure the temporary installations and inspections thereof are carried out under the supervision of a competent person and that all electrical machinery are inspected by authorised persons in accordance with the Electrical Installation Regulations, 2009 as amended, and Electrical Machinery Regulations, 1988 as amended.

[24(a)],  
[24(c);(d)]  
[24(e)]
- **Flammable and hazardous materials:** The plan must include procedures to control and secure flammable and hazardous materials and substances.

[25]

The plan must include storage arrangements for hazardous materials on the site in accordance with the General Safety Regulations, 2003 as amended.

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- **Water environments:** The plan must include measures in place to prevent persons from falling and drowning when working over or near water. [26]
- **Housekeeping and general safeguarding:**  
**Site security:** The plan must include procedures to prevent trespassing to the site and/or vandalism of the works. [27]  
  
 The plan must include procedures for proper storage of materials, removal of unwanted material, disposal of material from a high place and measures in place to protect persons that pass or work under a danger area from falling objects in accordance with the Environmental Regulations for Workplaces, 1987 as amended.
- **Stacking and storage:** The plan must include arrangements for the safe stacking and storage of materials in demarcated areas in accordance with the General Safety Regulations, 2003 as amended and under the supervision of a competent person. [28]
- **Fire precautions:** The plan must include measures to prevent the risk of fire, provision of suitable storage, signage, well maintained fire-extinguishing equipment inspected by a competent person, trained workers in the use of fire-extinguishing equipment and an evacuation plan and in accordance with the Environmental Regulations for Workplaces, 1987 as amended. [29]
- **Construction employees' facilities:** The plan must make provision for shower facilities, sanitary facilities and changing facilities for each gender and sheltered areas for eating as well as reasonable living accommodation for workers in accordance with the Facilities Regulations, 2004 as amended if the site is far from their homes. [30]
- **Contaminated land:** The plan must include procedures in place for dealing with contaminated land according to the client's requirements.
- **Client activities (risks):** The plan must include arrangements for dealing with H&S risks from the activities of clients or others on site or adjacent to the site.
- **Manual handling of materials:** The plan must include procedures describing how manual handling of materials and equipment has to be dealt with. [9(2)]
- **Noise and vibration:** The plan must include arrangements for dealing with restrictions on noise and other nuisances, the measures to reduce the exposure to or effect of noise, vibration and other nuisances.
- **Working near fragile materials:** The plan must include processes and procedures when working with and/or near to fragile materials such as on roof works. [10(5)(d), (e)]

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- **Traffic planning:** The plan must include a traffic plan demarcating the traffic routes and the segregation of vehicles and pedestrians. [23(2)(b),(c),(d)]
- **Control of dust and mud:** The plan must include the procedures for the control of dust and the control and/or cleaning of mud generated by the site operations.
- **Monitoring of noise, silica and dust levels:** The plan must include the procedures for the monitoring the levels of noise, silica and dust generated by the site operations.
- **Confined spaces:** The plan must indicate measures in place as determined in the General Safety Regulations 2003 as amended for persons entering excavations for persons entering a silo and in confined and other places in which flammable gasses, vapours or dust can cause danger. [13(j)]; [20(7)] [29(d)]

### A.3.4 H&S File

The H&S file is a document prepared by the principal contractor containing important project H&S information for use by the owner of the completed structure after construction has been completed. Clients must use the contents of a H&S file as is listed in section 4, Annexure B.

It is essential that the process of compiling the file commences as early as possible to ensure sufficient time to gather the required information.

The principal contractor must ensure that the client's format and layout of the H&S file is adhered to. The principal contractor must identify the responsible person that will prepare the H&S file and who will be responsible for the drafting of as-built drawings. The principal contractor must establish procedures:

- for obtaining the required information to be included in the H&S file,
- for marking-up drawings to show what has been built where there is a difference from the original drawings, and
- to ensure that residual risk information for the H&S file is passed on to those who need it.

#### a) Contents of a consolidated H&S file

- A copy of the construction work permit for inspection by an inspector, the client, the client's authorised agent, or an employee [3(6)]
- Details and contact numbers of the client
- Details and contact numbers of the agent
- Details and contact numbers of the principal contractor
- Details and contact numbers of the designer of the project
- Details and contact numbers of the construction manager, construction health and safety manager and construction health and safety officer
- Physical address of the construction and site office
- Nature of the construction work
- Commencement date
- Completion date
- Maximum number of people and the name of every individual that worked on site
- Number of contractors available on site accountable to the principal contractor

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- Names of contractors appointed<sup>5</sup>
- Arrangements for the client to ensure that the principal contractor maintains the H&S file [5(s)]
- 'Record' of 'as-built' drawings and plans used and produced throughout the project [7(1)(e)]
- Design criteria such as design loadings for structural elements [7(1)(e)]
- Potential hazards included in the structure e.g. pre or post-tensioned beams or slabs – details should be provided
- General details of the construction methods and materials used
- Details of the equipment and maintenance facilities within the structure [7(1)(e)]
- Maintenance procedures and requirements for the structure
- Any hazards that have not been eliminated through the design and construction processes, and how they have been addressed (e.g. surveys or other information concerning asbestos or contaminated land)
- Hazardous materials used (e.g. lead paints and special coatings)
- Information regarding the removal or dismantling of installed plant and equipment<sup>6</sup>
- A list and proof of appointment of each contractor for part of the project on the construction site [7(1)(c)(v); 7(1)(f)]
- Arrangement to approve, monitor and review all contractors' H&S files for the project and ensure that the H&S files are available on request to an inspector, the client, the client's agent or the principal contractor [7(2)(b)]
- Arrangements by the principal contractor to ensure that all contractors' consolidated H&S files are included in the principal contractor's consolidated H&S file Manuals produced by suppliers and specialist contractors, which outline operating and maintenance procedures and schedules for plant and equipment
- Details of the location and nature of utilities and services, including emergency and fire-fighting systems<sup>7</sup>
- Arrangements to encapsulate critical documents; inclusion of Letters of Good Standing
- Or other client requirements

### A.3.5 Project H&S Review

Contractors must review the H&S performance upon completion of the construction project as part of the project close-out report.

<sup>5</sup> Department of Labour (DoL), (2014). *Occupational Health and Safety Act (1993): Construction Regulations*. Pretoria: Government Gazette, Regulation Gazette No. 10113, Vol. 584, No. 37305.

<sup>6</sup> Health and Safety Executive (HSE), (2015). *Managing health and safety in construction, Construction (Design and Management) Regulations 2015, Guidance on Regulations, L153, Appendix 4: The Health and Safety File.* London: ISBN 978 0 7176 6626 3, www.hse.gov.uk

<sup>7</sup> Deacon, C and Smallwood, J. (2014) Construction Regulations Seminar, Module 2.4, Health and Safety Specification.

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## Annex B: Checklist to Evaluate the Adequacy of a Health & Safety Plan

The checklist has been designed to guide and support the client with the review process, and not to be a definitive checklist. It could also be used by organizations as a guide when developing their H&S plans.

Name of Principle Contractor:
Project:
Date of Evaluation / Assessment:
Client:
Name of Person undertaking Evaluation / Assessment:

	Does the H&S plan include:	Reference:	Comments:
		Where referred to in the H&S plan, include cross references to existing documents	Include comments about the adequacy of the H&S plan, for example, relative to the H&S specification
<b>1</b>	<b>Project information</b>		
	A general description of the type of work activities involved in the project - not just a description of the construction project.		
	Project program or schedule details, including start and finish dates, showing principal activities and intermediate stages.		
	Details of:		
	• client		
	• design team		
	• principal contractor		
	• contractor/s		
	• major suppliers		
	Extent and location of:		
	• relevant existing records		
	• surveys		
	• site investigation and geotechnical reports		
	• records of 'as-built' drawings		
	• H&S files		
	• maps		
<b>2</b>	<b>Client requirements for H&amp;S management on project</b>		
2.1	<b>H&amp;S Responsibilities</b>		
	Details of the principal contractor's project organizational structure, procedures and allocations of responsibilities for H&S, i.e. organogram		
	• overall responsible person (construction manager); [8(1)]		
	• assistant construction manager; [(8(2)]		
	• construction supervisor; [8(7)]		
	• competent employees (assisting construction supervisors); [8(8)]		
	• H&S Officer; [8(5)]		
	• responsible persons for:		
	• conducting risk assessments; [9(1)]		
	• work at height/roof; [10]		

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	<b>Does the H&amp;S plan include:</b>	<b>Reference:</b>	<b>Comments:</b>
	<ul style="list-style-type: none"> <li>preparation of fall protection plan; [10(1)(a)]</li> </ul>		
	<ul style="list-style-type: none"> <li>structures; [11]</li> </ul>		
	<ul style="list-style-type: none"> <li>temporary works design and inspection; [12(1) and 12(2)]</li> </ul>		
	<ul style="list-style-type: none"> <li>excavation works; [13(a)]</li> </ul>		
	<ul style="list-style-type: none"> <li>explosives for excavations; [13(2)(k)]</li> </ul>		
	<ul style="list-style-type: none"> <li>explosives for demolition work; [14(11)]</li> </ul>		
	<ul style="list-style-type: none"> <li>demolition work; [14(1)]</li> </ul>		
	<ul style="list-style-type: none"> <li>asbestos work; [14(9)]</li> </ul>		
	<ul style="list-style-type: none"> <li>lead work; [14(10)]</li> </ul>		
	<ul style="list-style-type: none"> <li>tunnelling; [15]</li> </ul>		
	<ul style="list-style-type: none"> <li>scaffold; [16(1)]</li> </ul>		
	<ul style="list-style-type: none"> <li>suspended platforms; [17(1)]</li> </ul>		
	<ul style="list-style-type: none"> <li>rope access work; [18(1)(a)]</li> </ul>		
	<ul style="list-style-type: none"> <li>operating a material hoist; [19(6)]</li> </ul>		
	<ul style="list-style-type: none"> <li>erection and maintenance of material hoists; [19(8)(a)]</li> </ul>		
	<ul style="list-style-type: none"> <li>supervision of bulk mixing plant; [20(1)]</li> </ul>		
	<ul style="list-style-type: none"> <li>operating a bulk mixing plant; [20(2)]</li> </ul>		
	<ul style="list-style-type: none"> <li>health and safety in confined spaces; [20(7)]</li> </ul>		
	<ul style="list-style-type: none"> <li>operation, maintenance and use of explosive actuated fastening device; [21(1)(b); (2)(b); (2)(g)(i),(ii)]</li> </ul>		
	<ul style="list-style-type: none"> <li>design and erection of tower cranes; [22(a)]</li> </ul>		
	<ul style="list-style-type: none"> <li>operating a tower crane; [22(e)]</li> </ul>		
	<ul style="list-style-type: none"> <li>maintaining construction vehicles and mobile plant; [23(1)(b)]</li> </ul>		
	<ul style="list-style-type: none"> <li>operating construction vehicles and mobile plant; [23(1)(d)(i)]</li> </ul>		
	<ul style="list-style-type: none"> <li>inspection of construction vehicles and mobile plant; [23(1)(k)]</li> </ul>		
	<ul style="list-style-type: none"> <li>temporary electrical installations; [24(c)]</li> </ul>		
	<ul style="list-style-type: none"> <li>inspection of temporary electrical installations; [24(d)]</li> </ul>		
	<ul style="list-style-type: none"> <li>inspection of electrical machinery [24(e)]</li> </ul>		
	<ul style="list-style-type: none"> <li>safe use and storage of flammable liquids; [25]</li> </ul>		
	<ul style="list-style-type: none"> <li>safe working near water environments; [26]</li> </ul>		
	<ul style="list-style-type: none"> <li>housekeeping and general safeguarding; [27]</li> </ul>		
	<ul style="list-style-type: none"> <li>waste collection/disposal; [26(b),(d)]</li> </ul>		
	<ul style="list-style-type: none"> <li>supervision of stacking and storage; [28(a)]</li> </ul>		
	<ul style="list-style-type: none"> <li>fire precautions, emergencies/ first-aid/ fire; [25(c); [29]</li> </ul>		
	<ul style="list-style-type: none"> <li>fire equipment inspection; [29(h)]</li> </ul>		
	<ul style="list-style-type: none"> <li>use of fire – extinguishing equipment; [29(i)]</li> </ul>		
	<ul style="list-style-type: none"> <li>construction employees' facilities; [30]</li> </ul>		
	<ul style="list-style-type: none"> <li>H&amp;S Representative; and</li> </ul>		
	<ul style="list-style-type: none"> <li>other</li> </ul>		
2.2	<b>H&amp;S goals</b>		
	H&S goals that must be achieved for the project and how they relate to the Client's stipulated goals in H&S specifications where these have been stated		
	Monitoring and review of H&S such as H&S goals, targets, key performance indicators, etc.		
2.3	<b>Hazard identification and risk assessments</b>		
	Arrangements for obtaining and using risk assessment information, and the production of method statements		
	The formal acknowledgement by the PC of the hazards and risks outlined in the H&S specification		

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	<b>Does the H&amp;S plan include:</b>	<b>Reference:</b>	<b>Comments:</b>
	Details of how the PC has addressed these hazards and/or risks		
	Inclusion of risk assessment information and production of method statements of contractors		
	Details of the inclusion of measures to deal with current residual risks		
	Description of the process to include new residual risk information		
	Arrangements for activities on or adjacent to the site during the project		
2.4	<b>Design information</b>		
	Measures for on-going design of elements of work and the introduction of new information and management of design changes		
	<ul style="list-style-type: none"> <li>• arrangements for liaison between all parties relative to:</li> <li>• the exchange of design information</li> <li>• dealing with design changes</li> </ul>		
	On-site changes and the potential H&S implications of variation orders (VOs), Requests for Information (RFIs) and Site Instructions		
	Arrangements for possible client continued use of facility		
	Details of how the H&S plan will be enlarged to include each work 'package' as the design and programme continues		
	Arrangements for continuing interaction with the Client where design is on-going		
2.5	<b>Communication and consultation</b>		
	Arrangements for regular liaison between all those working on site to:		
	<ul style="list-style-type: none"> <li>• exchange H&amp;S information</li> <li>• ensure security</li> <li>• ensure site inductions and on-site training</li> <li>• co-ordinate and enforce fire and emergency procedures, prevention and control</li> <li>• enforce site rules</li> <li>• co-ordinate responsibility for shared plant &amp; equipment</li> <li>• co-ordinate and enforce First Aid arrangements and procedures</li> <li>• investigate accidents and incidents</li> </ul>		
	Arrangements for provision of understandable and accessible information to everyone on the job including induction, changing work environmental conditions, and emergencies		
	Arrangements for ensuring every other contractor provides H&S information to their workers and provides necessary training		
	Worker consultation procedures and forums such as required by the OH&SA of 1993		
2.6	<b>Co-operation between contractors</b>		
	Arrangements for identifying where works by one contractor and their assessment and control of risks may affect the works of another contractor		
	Arrangements for co-operation between all contractors such as where the type and frequency of H&S meetings are described		

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	<b>Does the H&amp;S plan include:</b>	<b>Reference:</b>	<b>Comments:</b>
	Arrangements for co-ordinating preventative and control measures where more than one contractor may be exposed to the same risk		
	Co-ordination of H&S surveillance and/or assistance between various contractors		
2.7	<b>H&amp;S Monitoring</b>		
	How is H&S going to be monitored?		
	How is the H&S performance of others especially contractors going to be measured and monitored?		
2.8	<b>H&amp;S Inspections</b>		
	What types and frequency of H&S Inspections are planned?		
	Who is the person who will be responsible for these?		
2.9	<b>H&amp;S Review</b>		
	How is H&S going to be reviewed?		
2.10	<b>Training</b>		
	Arrangements for training of PC's workers, obtaining feedback from workers, giving advice, and the co-ordination of this information		
2.11	<b>Purchasing</b>		
	Procedure for ensuring the competence and adequacy of resources of contractors, suppliers, and manufacturers (prequalification submittals)		
2.12	<b>Site rules</b>		
	Specific site rules and other restrictions on contractors, suppliers and manufacturers such as permit-to-work procedures and arrangements for compliance by others with any rules in the H&S plan		
2.13	<b>Permits</b>		
	Requirements for permits and authorizations		
2.14	<b>Site security and access</b>		
	Security arrangements that include site boundary, security, demarcation such as fencing, enclosures, alarm and warning systems, no-go areas, etc.		
	Arrangements for access to the site by authorised persons only and envisaged steps to prevent access by everyone else including consideration of rights of way and needs of emergency services		
	Access arrangements, including traffic routes, vehicles, doors, traffic booms, and gates that includes details of no-go areas, pedestrian and vehicle segregation, one-way road systems, and route plans		
	Arrangements for permanent and temporary lighting for doing the work and security		
2.15	<b>Deliveries</b>		
	The principal contractor must have arrangements for deliveries, and any restrictions such as delivery times, demarcated/reserved storage areas, loading and unloading areas, working areas for prefabrication in place		
2.16	<b>Construction employees' facilities</b>		
	Provision of construction employees' facilities such as toilets and washing facilities, drinking water, rest facilities, facilities to change, clothing lockers, etc.		
2.17	<b>Waste</b>		
	Arrangements for collection and disposal of waste materials and general debris		

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	<b>Does the H&amp;S plan include:</b>	<b>Reference:</b>	<b>Comments:</b>
2.18	<b>Personal Protective Equipment</b>		
	Personal Protective Equipment (PPE) relative to identification of need for PPE (environmental exposure, medical surveillance requirements, occupational hygiene, hazardous chemical substance exposure), provision, maintenance, storage, training, etc.		
2.19	<b>Working hours</b>		
	Working hours details that include arrangements such as for working at night, after hours, over week-ends, and during holidays		
2.20	<b>Notice boards</b>		
	Arrangements for display of the notifiable particulars on project signboards		
2.21	<b>Emergency and first aid</b>		
	Contact arrangements with external services, particularly first aid, emergency medical care and rescue work (e.g. fire). Emergency procedures and requirements		
2.22	<b>Medical certificates</b>		
	Arrangements to ensure all the employees have valid medical certificates of fitness specific to the construction work to be performed		
2.23	<b>Medical surveillance</b>		
	Arrangements to ensure all medical surveillance are carried out on the project to specific standards and the supporting documentation (Annex 3 & first page of the medical assessment stating fitness for work) are provided		
2.24	<b>Reporting fatality, permanent injury and occupational diseases</b>		
	Procedures following the requirements for reporting a fatality, permanent injury or occupational disease		
2.25	<b>Method statements</b>		
	Arrangements for obtaining and using risk assessment information, and the production of method statements		
	Inclusion of risk assessment information and production of method statements of contractors		
	Arrangements for approval by the PC of method statements prepared by contractors.		
2.26	<b>H&amp;S file</b>		
	Arrangements for inclusions in H&S file		
<b>3</b>	<b>Environmental restrictions and existing on-site risks arrangements</b>		
3.1	<b>Fall protection:</b>		
	Procedures and methods used to mitigate risks for all work carried out from a fall risk position		
3.2	<b>Fall prevention:</b>		
	Prevention of falls		
3.3	<b>Roof work:</b>		
	Ensuring that all roof work is planned and appropriate measures are in place to prevent roof erectors from falling, taking measures to prevent falling		
3.4	<b>Falling objects:</b>		
	Protection from falling objects		
3.5	<b>Structures</b>		
3.5.1	<b>Existing structures:</b>		

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	<b>Does the H&amp;S plan include:</b>	<b>Reference:</b>	<b>Comments:</b>
3.5.1a	<ul style="list-style-type: none"> <li>Dealing with existing buildings with respect to, for example, fire damage, post-tensioned concrete structures, and stability and fragility of existing structures</li> </ul>		
3.5.1b	<ul style="list-style-type: none"> <li>Measures to deal with existing hazardous structures</li> </ul>		
3.5.2	<b>New structures:</b>		
3.5.2a	<ul style="list-style-type: none"> <li>Measures to deal with the prevention of uncontrolled collapse of a structure</li> </ul>		
3.6	<b>Temporary works:</b>		
	Dealing with the design, supervision, erection and dismantling of temporary works structures		
3.7	<b>Excavations:</b>		
3.7.1	<b>Existing services and obstructions:</b>		
3.7.1a	<ul style="list-style-type: none"> <li>Dealing with services, particularly buried or underground services and underground obstructions</li> </ul>		
3.7.1b	<ul style="list-style-type: none"> <li>Water/liquid/gas electrical hazards on or adjacent to the 'site' that require control measures</li> </ul>		
3.7.2	<b>Ground conditions:</b>		
3.7.2a	<ul style="list-style-type: none"> <li>Excavations especially in poor ground conditions</li> </ul>		
3.7.2b	<ul style="list-style-type: none"> <li>Dealing with ground water conditions</li> </ul>		
3.8	<b>Demolition works:</b>		
	Dealing with the demolishing of structures in a controlled manner		
	Dealing with asbestos and lead		
	Dealing with explosives		
3.9	<b>Tunnelling:</b>		
	Prohibition of working in tunnels less than the specified height		
3.10	<b>Scaffolding:</b>		
	The erection of scaffolding under the supervision of a competent person to safety standards		
3.11	<b>Suspended platforms:</b>		
	The design and supervision of suspended platform works operations		
3.12	<b>Rope access work:</b>		
	The carrying out of rope access work under the supervision of a competent person and licensed rope access operators with the proper equipment		
3.13	<b>Material hoists:</b>		
	Lifting and handling operations		
3.14	<b>Bulk mixing plant:</b>		
	The placement, erection, operation, maintenance and repairs of bulk mixing plant		
3.15	<b>Explosive actuated fastening device:</b>		
	Measures to control the authorised use of explosive actuated fastening devices		
3.16	<b>Cranes:</b>		
	Deals with the design, erection, risk assessment and method statement. Measures to ensure bases and rails are firm and cranes are operated by competent and medically fit operators		
3.17	<b>Construction vehicles and plant:</b>		
3.17.1	<b>Maintenance of plant:</b>		
	The maintenance of plant and equipment		
3.17.2	<b>Operation of plant</b>		
	The operation of plant and equipment		
3.18	<b>Electrical installations and machinery:</b>		

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	<b>Does the H&amp;S plan include:</b>	<b>Reference:</b>	<b>Comments:</b>
3.18.1	<b>Electrical installations</b> Temporary electrical installations		
3.18.2	<b>Machinery</b> Inspection of electrical machinery		
3.19	<b>Flammable and hazardous materials:</b> Procedures to control and secure flammable and hazardous materials and substances Storage arrangements for hazardous materials		
3.20	<b>Water environments:</b> Procedures to prevent falling into water and drowning		
3.21	<b>Housekeeping and general safeguarding:</b> Measures for the proper storage of material, removal of waste, disposal of debris from heights and protection of workers and the public from falling objects		
3.21.1	<b>Site security:</b> Measures to provide controlled access and the prevention of unauthorised entry to the site		
3.22	<b>Stacking and storage:</b> The controlled stacking and storage of materials		
3.23	<b>Fire precautions:</b> The measures to prevent the risk of fire, provision of fire-extinguishing equipment and dealing with fire, provision of an evacuation plan		
3.24	<b>Construction employees' facilities:</b> Provision for shower, toilet, eating and sleeping facilities		
3.25	<b>Contaminated land</b> Dealing with contaminated land		
3.26	<b>Client activities (risks)</b> Arrangements for dealing with H&S risks from the activities of Clients or others on site or adjacent to the site		
3.27	<b>Manual handling of materials</b> Manual handling		
3.28	<b>Noise and vibration</b> Measures to reduce the exposure to or effect of noise and vibration Arrangements for dealing with restrictions on noise and other nuisances		
3.29	<b>Working near fragile materials</b> Working with and/or near to fragile materials		
3.30	<b>Traffic planning</b> Traffic routes and the segregation of vehicles and pedestrians		
3.31	<b>Control of dust and mud</b> Dust and mud control and/or cleaning		
3.32	<b>Monitoring of noise, silica and dust levels:</b> Procedures for the monitoring the levels of noise, silica and dust generated by the site operations		
3.33	<b>Confined spaces</b> Measures in place when working in confined spaces, i.e. excavations, entering silos and places in which flammable gases, vapours or dust can cause danger		
<b>4</b>	<b>H&amp;S file</b>		
4.1	Is the layout and format of the H&S File identified?		
4.2	Who in the PCs organization is preparing the H&S File?		
4.3	Are there procedures for getting the information to this person/organisation?		

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	<b>Does the H&amp;S plan include:</b>	<b>Reference:</b>	<b>Comments:</b>
4.4	Is a copy of the construction work permit in the H&S file?		
4.5	Are the details provided of all the parties required on the application for a permit?		
4.6	Is the physical address provided of the construction and site office?		
4.7	Is the nature of the construction work described?		
4.8	Are the commencement and completion date recorded?		
4.9	Is a list provided of the appointed contractors accountable to the principal contractor?		
4.10	Are there procedures to allow the client to ensure that the principal contractor maintains the H&S file		
4.11	Are there 'record' of 'as built' drawings and plans used and produced throughout the project?		
4.12	Is there a copy of the design criteria such as design loadings for structural elements for the project?		
4.13	Are details provided for potential hazards included in the structure e.g. pre or post-tensioned beams or slabs?		
4.14	Are the general details provided of the construction methods and materials used?		
4.15	Are the details provided of the equipment and maintenance facilities within the structure?		
4.16	Are the maintenance procedures and requirements provided for the structure?		
4.17	Is a list and proof of appointment of each contractor for part of the project on the construction site provided?		
4.18	Are there procedures to approve, monitor and review all contractors' H&S files for the project and ensure that the H&S files are available on request to an inspector, the client, the client's agent or the principal contractor?		
4.19	Are Manuals produced by suppliers and specialist contractors, which outline operating and maintenance procedures and schedules for plant and equipment?		
4.20	Are details of the location and nature of utilities and services, including emergency and fire-fighting systems provided?		
4.21	Who is responsible for the 'as-built' drawings?		
4.22	Are there procedures for marking-up drawings to show what has been built where different from original drawings?		
4.23	Are there procedures to ensure that residual risk information for the H&S File is passed on to those who need it?		
<b>5</b>	<b>Project review</b>		
5.1	Provision for project review and applying lessons learned including continuing evaluations of contractor competence		

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## Annex C: Checklist to Audit the Implementation of a Health & Safety Plan

The checklist has been designed to guide and support the client with the auditing of the implementation of a principal contractor's H&S plan on the construction site, and not to be a definitive checklist. It could also be used by principal contractors as a guide when preparing for a H&S audit.

Name of Principle Contractor:
Project:
Date of Audit:
Client:
Name of Person undertaking the Audit:

	Is the principal contractor complying with the H&S plan for the site?	YES	NO	Comments:
				Include comments about the non-compliance with the H&S plan
<b>1</b>	<b>Project information</b>			
	Is there a general description of the type of work activities involved in the project? - not just a description of the construction project			
	Is there a project program or schedule details, including start and finish dates, showing principal activities and intermediate stages?			
	Are details provided of:			
	• client			
	• design team			
	• principal contractor			
	• contractors			
	• major suppliers			
	Are documents available of the extent and location of:			
	• relevant existing records			
	• surveys			
	• site investigation and geotechnical reports			
	• records of 'as-built' drawings			
	• H&S files			
	• Maps			
<b>2</b>	<b>Client requirements for H&amp;S management on project</b>			
2.1	<b>H&amp;S Responsibilities</b>			
	Is there an organizational structure for the project for H&S for the site?			
	Has the principal contractor entered into formal agreements with the persons responsible for H&S on site? [8(1)]; [8(2)]; [8(5)]; [8(7)]; [8(8)]; [9(1)]; [(10)(1)(a)];[12(1)]; [13(1)(a)]; [14(1)]; [16(1)]; [17(1)]; [17(8)(c)]; [18(1)(a)]; [19(8)(a)]; [20(1)]; [21(2)(g)(i)]; [23(1)(d)(i)]; [24(c)]; [28(a)]; [29(h)]			
	Do these persons have the required competency to carry out the H&S role?			
	Has the required H&S appointments been made?			
	• overall responsible person(construction manager); [8(1)]			

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	Is the principal contractor complying with the H&S plan for the site?	YES	NO	Comments:
	• assistant construction manager; [(8)(2)]			
	• construction supervisor; [8(7)]			
	• competent employees (assisting construction supervisors); [8(8)]			
	• H&S Officer; [8(5)]			
	• responsible persons for:			
	• conducting risk assessments; [9(1)]			
	• work at height/roof; [10]			
	• preparation of fall protection plan; [10(1)(a)]			
	• structures; [11]			
	• temporary works design and inspection; [12(1) and 12(2)]			
	• excavation works; [13(a)]			
	• explosives for excavations; [13(2)(k)]			
	• explosives for demolition work; [14(11)]			
	• demolition work; [14(1)]			
	• asbestos work; [14(9)]			
	• lead work; [14(10)]			
	• tunnelling; [15]			
	• scaffold; [16(1)]			
	• suspended platforms; [17(1)]			
	• rope access work; [18(1)(a)]			
	• operating a material hoist; [19(6)]			
	• erection and maintenance of material hoists; [19(8)(a)]			
	• supervision of bulk mixing plant; [20(1)]			
	• operating a bulk mixing plant; [20(2)]			
	• health and safety in confined spaces; [20(7)]			
	• operation, maintenance and use of explosive actuated fastening device; [21(1)(b); (2)(b); (2)(g)(i),(ii)]			
	• design and erection of tower cranes; [22(a)]			
	• operating a tower crane; [22(e)]			
	• maintaining construction vehicles and mobile plant; [23(1)(b)]			
	• operating construction vehicles and mobile plant; [23(1)(d)(i)]			
	• inspection of construction vehicles and mobile plant; [23(1)(k)]			
	• temporary electrical installations; [24(c)]			
	• inspection of temporary electrical installations; [24(d)]			
	• inspection of electrical machinery; [24(e)]			
	• safe use and storage of flammable liquids; [25]			
	• safe working near water environments; [26]			
	• housekeeping and general safeguarding; [27]			
	• waste collection/disposal; [26(b),(d)]			
	• supervision of stacking and storage; [28(a)]			
	• fire precautions, emergencies / first-aid / fire; [25(c); [29]			

## Draft

	Is the principal contractor complying with the H&S plan for the site?	YES	NO	Comments:
	<ul style="list-style-type: none"> <li>• fire equipment inspection; [29(h)]</li> </ul>			
	<ul style="list-style-type: none"> <li>• use of fire – extinguishing equipment; [29(i)]</li> </ul>			
	<ul style="list-style-type: none"> <li>• construction employees' facilities; [30]</li> </ul>			
	<ul style="list-style-type: none"> <li>• H&amp;S Representative [9(5)]</li> </ul>			
	<ul style="list-style-type: none"> <li>• other</li> </ul>			
2.2	<b>H&amp;S goals</b>			
	Has the principal contractor stated the H&S goals for the site?			
	Has the principal contractor stated how these H&S goals will be achieved?			
	Are these H&S goals in alignment with the client's H&S goals as stated in the H&S specifications?			
	Has the principal contractor identified the person from senior management that is responsible for the review of the H&S goals?			
	Has the principal contractor arrange for monitoring whether the actual H&S goals have been achieved			
	Has the principal contractor achieved the planned targets?			
	If not, has the principal contractor implemented steps to achieve the new targets?			
2.3	<b>Hazard identification and risk assessments</b>			
	Has the principal contractor documented the identified hazards and risk assessment?			
	Has the principal contractor identified high risks areas on the site?			
	Did the principal contractor use the information obtained from the HIRA to design the method statements for each of these high risk areas?			
	Is there a record of formal acknowledgement by the PC of the identified hazards and assessed risks?			
	Is there a record of the details how the PC addressed these hazards or risks?			
	Does the PC have a record of the assessed risks for each contractor on the project?			
	Does the principal contractor have measures in place to deal with residual risks on the site?			
	Does the principal contractor have procedures in place should new residual risks be identified?			
	Are there procedures in place for dealing with client activities or those activities adjacent to the site?			
2.4	<b>Design information</b>			
	Does the principal contractor have measures in place to capture on-going design elements of work			
	Does the principal contractor have measures in place to manage design changes?			
	Does the principal contractor have arrangements in place for liaison between all parties relative to:			
	<ul style="list-style-type: none"> <li>• the exchange of design information?</li> </ul>			
	<ul style="list-style-type: none"> <li>• deal with design changes</li> </ul>			
	<ul style="list-style-type: none"> <li>• deal with VOs?</li> </ul>			
	<ul style="list-style-type: none"> <li>• deal with Request for Information?</li> </ul>			
	<ul style="list-style-type: none"> <li>• deal with site instructions?</li> </ul>			
	Does the principal contractor have arrangements in place for the continued use of facility by the client?			

## Draft

	<b>Is the principal contractor complying with the H&amp;S plan for the site?</b>	<b>YES</b>	<b>NO</b>	<b>Comments:</b>
	Has the principal contractor made arrangements to capture and include the additional work packages in line with the on-going design and programme			
	Does the principal contractor have a record of interaction with the client as the design continues?			
2.5	<b>Communication and consultation</b>			
	Does the principal contractor have records of regular liaison between those on site:			
	• exchange H&S information			
	• ensure security			
	• ensure site inductions and on-site training			
	• co-ordinate and enforce fire and emergency procedures, prevention and control			
	• enforce site rules			
	• co-ordinate responsibility for shared plant & equipment			
	• co-ordinate and enforce First Aid arrangements and procedures			
	• investigate accidents and incidents			
	Is the principal contractor making information accessible to everyone on site?			
	Are these interactions with the contractors documented?			
	Is the principal contractor ensuring that the contractors are providing H&S information to their workers?			
	Is it documented?			
	Has the principal contractor established an H&S Forum?			
	Is the principal contractor using this Forum as a platform for H&S consultation and communication?			
	Are these consultations and communication documented?			
2.6	<b>Co-operation between contractors</b>			
	Has the principal contractor put measures in place to mitigate the risks where one contractor affects the work of another contractor?			
	Did the principal contractor have H&S meetings between contractors, i.e. when were they held?			
	Does the principal contractor have procedures in place to co-ordinate preventative and control measures where contractors are exposed to the same risks?			
	Does the principal contractor have procedures in place to co-ordinate H&S surveillance and assistance to the contractors?			
2.7	<b>H&amp;S Monitoring</b>			
	Does the principal contractor have procedures in place to monitor H&S on the site?			
	Does the principal contractor have procedures in place to monitor the H&S performance of contractors?			
2.8	<b>H&amp;S Inspections</b>			
	Are the types of inspections described?			
	Are the intervals of inspections indicated?			
	Are the results of the inspections recorded?			
	Are the non-conformances referred to be addressed?			
	Are there rectifications in place to deal with the non-compliances?			
	Have these non-conformances been closed-out?			
	Is the responsible person carrying out the inspections identified?			

## Draft

	<b>Is the principal contractor complying with the H&amp;S plan for the site?</b>	<b>YES</b>	<b>NO</b>	<b>Comments:</b>
2.9	<b>H&amp;S Review</b>			
	Are there procedures in place to review H&S on site?			
	Is the responsible person carrying out the review identified?			
2.10	<b>Training</b>			
	Are there arrangements in place for training of PC's workers, obtaining feedback from workers, giving advice, and the co-ordination of this information?			
2.11	<b>Purchasing</b>			
	Are procedures in place to select competent contractors, suppliers and other service providers on site?			
2.12	<b>Site rules</b>			
	Are the site rules clearly communicated and available to the principal contractor's workers, contractors, material suppliers and visitors?			
	Are these documented?			
2.13	<b>Permits</b>			
	Are the requirements for permits and work authorizations communicated to the principal contractor's staff and contractors?			
	Have the necessary permits been obtained before the start of the work?			
2.14	<b>Site security and access</b>			
	Has the principal contractor secured the site, i.e. fencing and no-go areas and protection of the public?			
	Are there procedures for allowing only authorised person on site and prevention of unauthorised access?			
	Are there access arrangements for traffic to the site?			
	Are there arrangements for permanent and temporary lighting for doing the work and security?			
2.15	<b>Deliveries</b>			
	Are there arrangements for deliveries?			
2.16	<b>Construction employees' facilities</b>			
	Are there arrangements for construction employees' facilities on site?			
2.17	<b>Waste</b>			
	Is there arrangement for waste management and removal?			
2.18	<b>Personal Protective Equipment</b>			
	Is there a PPE policy for the use of PPE?			
	Is training provided for its use, maintenance and storage?			
2.19	<b>Working hours</b>			
	Are permits, authorisations and policies available for working outside normal hours?			
2.20	<b>Notice boards</b>			
	Are notifiable information displayed on notice boards			
2.21	<b>Emergency and first aid</b>			
	Contact arrangements with external services, particularly first aid, emergency medical care and rescue work (e.g. fire). Emergency procedures and requirements			
2.22	<b>Medical certificates</b>			
	Are arrangements in place to ensure all the employees have valid medical certificates of fitness specific to the construction work to be performed?			
2.23	<b>Medical surveillance</b>			

## Draft

	<b>Is the principal contractor complying with the H&amp;S plan for the site?</b>	<b>YES</b>	<b>NO</b>	<b>Comments:</b>
	Are arrangements in place to ensure all medical surveillance are carried out on the project to specific standards and the supporting documentation (Annex 3 & first page of the medical assessment stating fitness for work) are provided			
2.24	<b>Reporting fatality, permanent injury and occupational diseases</b>			
	Are procedures in place that are in line following the requirements for reporting a fatality, permanent injury or occupational disease			
2.25	<b>Method statements</b>			
	Are the activities identified in the risk assessments being constructed according to the approved method statements?			
	Are the activities identified in the risk assessments being constructed by contractors according to the approved method statements?			
	Is there a record of approval by the PC of the contractors' method statements?			
2.26	<b>H&amp;S file</b>			
	Is the H&S file up to date?			
<b>3</b>	<b>Environmental restrictions and existing on-site risks arrangements</b>			
3.1	<b>Fall protection:</b>			
	Has a fall protection plan been prepared?			
	Has the plan been developed by a competent person?			
	Are arrangements in place to amend the plan where necessary?			
	Has a risk assessment of the work carried out been done?			
	Is there a process in place to evaluate the employees' medical fitness?			
	Is there a programme for the training of employees working from a fall risk position?			
	Is there a procedure addressing the inspection, testing and maintenance of fall protection equipment?			
	Is there a rescue plan in place			
3.2	<b>Fall prevention:</b>			
	Is there a policy in place for the prevention of falls?			
	Is there a procedure in place for the prevention of falls?			
	Are the required fall prevention measures in place?			
	Has a competent person signed off the fall prevention interventions?			
	Is there a record of these activities have been carried out?			
3.3	<b>Roof work:</b>			
	Has the roof work been properly planned?			
	Are the roof rectors competent?			
	Are measures in place to deal with openings and fragile materials?			
	Are protection measures in place to prevent workers from falling? i.e. guard-rails, barriers and toe-boards			
3.4	<b>Falling objects:</b>			
	Protection from falling objects			
	Is there a policy in place for the prevention of injuries from falling objects?			
	Is there a procedure for preventing injuries as a result of falling objects?			

## Draft

	<b>Is the principal contractor complying with the H&amp;S plan for the site?</b>	<b>YES</b>	<b>NO</b>	<b>Comments:</b>
	Are the workers being provided with protective clothing, i.e. hard hats?			
	Did the workers receive training to prevent injury from falling objects?			
3.5	<b>Structures</b>			
3.5.1	<b>Existing structures:</b>			
	Are there procedures in place for dealing with existing buildings with respect to, i.e. fire damage, post-tensioned concrete structures, and stability and fragility of existing structures			
	Has a competent person inspected and assessed the structure and provided measures for safe working?			
	Are there procedures in place to deal with existing hazardous structures?			
3.5.2	<b>New structures:</b>			
	Are there procedures in place to prevent uncontrolled collapse of new structures which may become unstable?			
	Are these checks being carried out by a competent person?			
3.6	<b>Temporary works:</b>			
	Are there procedures in place to deal with temporary works, i.e. support work, scaffolding and shoring of excavations?			
	Has the temporary works been designed by a competent person to the required standards?			
	Has the procedures been followed when erecting support work, scaffolding or shoring of excavations			
	Has the temporary works been inspected and signed off as safe before it is being used?			
	Is there a record that the required procedures were followed?			
3.7	<b>Excavations:</b>			
	Is there a policy for working in poor ground conditions?			
	Are there procedures for working in excavations in poor ground conditions?			
	Has the measures to secure the excavation been designed to accepted standards by a competent person?			
	Is there a policy for working in deep excavations			
	Are there procedures for working in deep excavations?			
	Has the measures to secure the excavation been designed to accepted standards by a competent person?			
3.7.1	<b>Existing services and obstructions:</b>			
	Is there a policy for dealing with existing underground services and obstructions?			
	Is there a procedure for dealing with existing underground services and obstructions			
3.7.2	<b>Ground conditions:</b>			
	Are there procedures in place for dealing with ground water?			
3.8	<b>Demolition works:</b>			
	Has a competent person been appointed to supervise and control the demolition works?			
	Has a detailed structural survey been carried out and a method statement developed by the competent person?			
	Has adequate shoring been placed to prevent accidental collapse of the structure or adjoining structure?			
	Has the shoring been designed by a competent person?			

## Draft

	<b>Is the principal contractor complying with the H&amp;S plan for the site?</b>	<b>YES</b>	<b>NO</b>	<b>Comments:</b>
	Has the existing services been allocated and made safe for persons to woe			
	Has appropriate lighting been provided?			
	Are there appropriate measures in place to protect entrances or passageways to protect persons from falling objects?			
	Has chutes been properly placed to dispose of waste and debris from a high place?			
	Are processes in place to determine whether existing floors can support the working equipment?			
	Are asbestos related work carried out in accordance with the Asbestos Regulations, 2001?			
	Are lead related work carried out in accordance with the Lead Regulations, 2001?			
	Has a method statement been carried out by a competent person in the event of the use of explosives?			
3.9	<b>Tunnelling:</b>			
	Are there measures in place to prevent persons from entering tunnels less than 800 millimetres in height?			
3.10	<b>Scaffolding:</b>			
	Has the scaffolding work operations been carried out under the supervision of a competent person?			
	Are the scaffold erectors, team leaders and inspectors competent?			
	Has the scaffolding been signed off as safe by the competent person and that it complies with the safety standards			
3.11	<b>Suspended platforms:</b>			
	Has a competent person been assigned to supervise all suspended platform work?			
	Are the suspended platform erectors, operators and inspectors competent?			
	Has the suspended platform been designed by a competent person?			
	Is there a copy of the certificate of system design to use the suspended platform?			
	Is there an operational compliance plan			
	Has the plan been developed by a competent person?			
	Has a copy of the certificate of system design been submitted to the provincial director?			
3.12	<b>Rope access work:</b>			
	Has a competent person been appointed as a rope access supervisor			
	Are there measures in place to ensure that all rope access operators are competent and licensed?			
	Are there processes and procedures in place to ensure that the design, selection and use of equipment and anchors comply with the safety standards?			
	Has a site specific fall protection plan been developed by a competent person?			
	Are there measures in place to allow rescue procedures to start should a fall incident occur?			
3.13	<b>Material hoists:</b>			
	Lifting and handling operations:			
	Is there a policy that deals with lifting and handling operations?			

## Draft

	<b>Is the principal contractor complying with the H&amp;S plan for the site?</b>	<b>YES</b>	<b>NO</b>	<b>Comments:</b>
	Is there a procedure that deals with lifting and handling operations?			
	Are the operators competent to operate the lifting plant?			
	Do the operators have the required licences to operate the plant?			
3.14	<b>Bulk mixing plant:</b>			
	Has a competent person been appointed to supervise the operation of a bulk mixing plant?			
	Are procedures and processes in place to place and erect the bulk mixing plant as designed?			
	Are measures in place to ensure that all devices to start and stop a bulk mixing plant are provided?			
	Are measures in place to prevent persons from being injured by moving parts?			
	Are there procedures in place to allow only authorised persons to remove or modify any guard?			
	Are records kept of all repairs or maintenance to the bulk mixing plant?			
3.15	<b>Explosive actuated fastening device:</b>			
	Are provisions made for protective equipment for the users of explosive actuated fastening devices?			
	Is the user trained in the operation and maintenance of the device?			
	Are procedures in place for the safe use, maintenance, storage, issuing and collection of the device and cartridges?			
3.16	<b>Cranes:</b>			
	Has the crane been designed and erected by a competent person?			
	Has a relevant risk assessment been conducted?			
	Has a method statement been developed?			
	Has provision been made to fit a wind speed device to alert the operator when wind speeds are exceeded?			
	Are there procedures in place to ensure that the bases and tracks have been levelled and secured?			
	Are there measures in place ensure that only that only a competent tower crane operator is authorised to operate a tower crane?			
	Are there measures in place that ensure that tower crane operators have a medical certificate of fitness?			
3.17	<b>Construction vehicles and plant:</b>			
3.17.1	<b>Operation of plant</b>			
	Does the policy describe:			
	the operation of construction vehicles and mobile plant by only trained and certified competent persons?			
	that all operators must have a medical certificate of fitness to operate construction vehicles and mobile plant			
	the safe use of vehicles and plant?			
	the actions to be taken when plant are not in use or parked at night?			
	The transporting of workers to and from site?			
3.17.2	<b>Maintenance of plant:</b>			
	Is there a policy for the maintenance and the inspection of construction vehicles and mobile plant?			
3.18	<b>Electrical installations and machinery:</b>			

## Draft

	<b>Is the principal contractor complying with the H&amp;S plan for the site?</b>	<b>YES</b>	<b>NO</b>	<b>Comments:</b>
3.18.1	<b>Temporary electrical installations</b>			
	Is there a policy in place that deals with temporary electrical installations?			
	Are procedures in place to install temporary electrical installations?			
	Have these procedures been followed when installing electrical works?			
	Do the person/persons have the required licence to do the electrical installations?			
	Has the installations been signed off by a licenced electrician?			
3.18.2	<b>Electrical machinery</b>			
	Has the electrical machinery been inspected by the authorized operator or user?			
3.19	<b>Flammable and hazardous materials:</b>			
	Are there procedures for the control and securing of flammable and hazardous material?			
	Is there a safety data sheet indicating hazardous materials on site?			
	Is there a register for hazardous material on site?			
	Are these materials safely stored?			
3.20	<b>Water environments:</b>			
	Are provisions made for preventing persons from falling into water?			
	Are measures in place to rescue persons from drowning?			
	Has provisions been made for the issuing of life jackets?			
3.21	<b>Housekeeping and general safeguarding:</b>			
	Are there arrangements for the proper storage of materials?			
	Are there arrangements for the removal of waste and scrap?			
	Are materials placed in a manner that does not cause obstruction?			
	Is the disposal of waste and debris controlled from high places by means of proper chutes?			
	Is the site fenced off to control access to the site?			
	Are measures in place at entrances or passageways that prevent injury to persons from falling objects?			
3.22	<b>Stacking and storage:</b>			
	Is the stacking and storage been supervised by a competent person?			
	Is adequate storage space being provided?			
	Are the storage areas demarcated?			
	Are storage areas kept neat and under control?			
3.23	<b>Fire precautions:</b>			
	Are appropriate measures taken to avoid the risk of fire?			
	Are sufficient and suitable storage provided for flammable liquids, solids, gases?			
	Are non-smoking signs placed near these stores?			
	Are welding operations carried out after precautionary measures have been taken?			
	Are sufficient fire-extinguishing equipment placed at appropriate intervals?			
	Is the fire equipment inspected by a competent person?			
	Is there sufficient number of workers trained to use the fire-extinguishing equipment?			
	Are suitable signs provided to indicate escape routes?			

## Draft

	<b>Is the principal contractor complying with the H&amp;S plan for the site?</b>	<b>YES</b>	<b>NO</b>	<b>Comments:</b>
	Is there an effective evacuation plan?			
3.24	<b>Construction employees' facilities:</b>			
	Is sufficient number of shower facilities provided?			
	Are sufficient sanitary facilities for each sex provided?			
	Are appropriate changing facilities provided for each sex?			
	Are appropriate shelters provided for eating?			
3.25	<b>Contaminated land</b>			
	Are there procedures in place for dealing with contaminated land?			
3.26	<b>Client activities (risks)</b>			
	Are there procedures in place for dealing with client activities or those activities adjacent to the site?			
3.27	<b>Manual handling of materials</b>			
	Are there policies in place for manual handling of material?			
3.28	<b>Noise and vibration</b>			
	Are there measures in place to reduce the exposure or effect of noise and vibration			
	Are there arrangements in place to deal with restrictions of noise and other nuisances?			
3.29	<b>Working near fragile materials</b>			
	Is there a policy in place when working with and/or near to fragile materials			
	Is there a procedure when working with or near fragile materials?			
3.30	<b>Traffic planning</b>			
	Is there a traffic plan available?			
3.31	<b>Control of dust and mud</b>			
	Is there a policy in place for dealing with dust			
	Is there a policy in place for dealing with mud being carried on the public road?			
3.32	<b>Monitoring of noise, silica and dust levels:</b>			
	Are procedures in place for monitoring the levels of noise, silica and dust generated by the site operations?			
3.33	<b>Confined spaces</b>			
	Are there procedures in place for dealing with confined spaces			
<b>4</b>	<b>H&amp;S file</b>			
4.1	Is the H&S file in the required layout and format?			
4.2	Has a person responsible for the compilation of the H&S file been assigned?			
4.3	Are there procedures in place for disseminating H&S information to the responsible person?			
4.4	Is a copy of the construction work permit in the H&S file?			
4.5	Are the details provided of all the parties required on the application for a permit?			
4.6	Is the physical address provided of the construction and site office?			
4.7	Is the nature of the construction work described?			
4.8	Are the commencement and completion date recorded?			
4.9	Is a list provided of the appointed contractors accountable to the principal contractor?			
4.10	Are there procedures to allow the client to ensure that the principal contractor maintains the H&S file			

## Draft

	<b>Is the principal contractor complying with the H&amp;S plan for the site?</b>	<b>YES</b>	<b>NO</b>	<b>Comments:</b>
4.11	Is there a 'record' of 'as built' drawings and plans used and produced throughout the project?			
4.12	Is there a copy of the design criteria such as design loadings for structural elements for the project?			
4.13	Are details provided for potential hazards included in the structure e.g. pre or post-tensioned beams or slabs?			
4.14	Are the general details provided of the construction methods and materials used?			
4.15	Are the details provided of the equipment and maintenance facilities within the structure?			
4.16	Are the maintenance procedures and requirements provided for the structure?			
4.17	Is a list and proof of appointment of each contractor for part of the project on the construction site provided?			
4.18	Are there procedures to approve, monitor and review all contractors' H&S files for the project and ensure that the H&S files are available on request to an inspector, the client, the client's agent or the principal contractor?			
4.19	Is a copy of the construction work permit in the H&S file?			
4.20	Are Manuals produced by suppliers and specialist contractors, which outline operating and maintenance procedures and schedules for plant and equipment?			
4.21	Are details of the location and nature of utilities and services, including emergency and fire-fighting systems provided?			
4.22	Are the as-built drawings recorded in the H&S file?			
4.23	Are there procedures in place to ensure residual risks information is passed on to those who need it?			
<b>5</b>	<b>Project review</b>			
5.1	Has the project been reviewed and applying lessons learned documented?			
	Is contractor competence continually being evaluated?			

**Construction Industry Development Board**

**cidb Project Assessment Scheme:  
Standard for Primary Health Assessments  
for Construction Works Contracts  
(Grades 5 to 9)**

**08 November 2018**

In terms of sections 5(2) of the Construction Industry Development Board Act, 2000 (Act no. 38 of 2000) (the Act), the Construction Industry Development Board is empowered to promote best practice Standards. The Board has identified the cidb Standard for Primary Health Assessments for Construction Works Contracts (Grades 5 to 9) as a best practice Standard on work packages of a tender value range of Grade 5 to Grade 9.

This Standard sets out the process and responsibilities by which a client specifies requirements for primary health assessments for unskilled, semi-skilled and skilled labour on construction sites. The primary health care assessments apply to workers employed by the principal contractor and subcontractors.

This draft best practice Standard is issued here for public comment. Interested persons and the public are invited to submit comments on the draft best practice standard within 30 days of the date of this publication. Interested parties are requested to forward their comments in writing for the attention of Ishmail Cassiem to one of the following:

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Ms Nonkululeko Sindane  
Chairperson: Construction Industry Development Board

**Draft**

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**Standard for Primary Health Assessments  
for Construction Works Contracts  
(Grades 5 to 9)**

**22 August 2018**

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Construction Industry Development Board

# Draft

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# Draft

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Version	Date	Comments
1.0		
2.0		

# Draft

# Draft

## Standard for Primary Health Assessments for Construction Works Contracts (Grades 5 to 9)

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# Draft

# Draft

## Standard for Primary Health Assessments for Construction Works Contracts (Grades 5 to 9)

### Foreword

The cidb Act (Act 38 of 2000) requires that the Board must establish a *Best Practice Project Assessment Scheme* based on the best practices identified by the Board. All construction contracts above a prescribed tender value will then be subject to an assessment of compliance with best practice standards and guidelines published by the Board.

The Construction Regulations<sup>1</sup> require that the principal contractor and all other contractors must ensure that all their employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner. However, it is recognised that leading contractors conduct primary health assessments for staff, at no cost to the staff<sup>2</sup>. The Green Building Council of South Africa (GBCSA) has also introduced credits for primary health assessments in its Green Star SA – Socio-Economic Category Pilot 2014<sup>3</sup>.

Private and public sector employers are encouraged to adopt this cidb *Standard for Primary Health Assessments* on construction works contracts. Notwithstanding this, it is the cidb's intent that in terms of the cidb Act and as prescribed by the Minister of Public Works, the cidb will undertake a mandatory assessment of compliance with this Standard on selected public sector contracts.

This Standard will be reviewed every five years or earlier if necessary.

### 1 Scope

This Standard sets out the process and responsibilities by which a client specifies requirements for primary health assessments for unskilled, semi-skilled and skilled labour on construction sites. The primary health care assessments apply to workers employed by the principal contractor and subcontractors.

This Standard is applicable to all classes of construction works within tender values equivalent to cidb Contractor Grades 5 and above.

This Standard does not apply to the Expanded Public Works Programme (EPWP).

### 2 Terms and Definitions

For the purposes of this document, the following terms and definitions apply:

**class of construction works:** the class of construction works referred to in Schedule 3 of the Construction Industry Development Regulations 2004 as amended and published in terms of the Construction Industry Development Board Act of 2000 (Act 38 of 2000)

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- 1 Department of Labour (2014). Occupational Health and Safety Act (1993): Construction Regulations
  - 2 Smallwood, J and Deacon, C (2016). Primary Health Promotion (PHP) in the South African Construction Sector. International Seeds Conference 2016, Sustainability Ecology Engineering Design for Society Leeds, United Kingdom 14-15 September 2016
  - 3 GBCSA (2014) *Green Star SA – Socio-Economic Category Pilot 2014*. Green Building Council of South Africa, [www.gbcsa.org.za](http://www.gbcsa.org.za)

# Draft

**client:** person or organization entering into the contract with the contractor for the provision of goods, services, or engineering and construction works

**Construction Industry Development Board (CIDB):** the Board established in terms of the Construction Industry Development Board Act of 2000 (Act 38 of 2000)

**construction site: a work place where construction work is being performed**

**contractor:** an employer who performs construction work

**employer:** person or organization entering into the contract with the contractor for the provision of goods, services, or engineering and construction works.

**joint venture:** grouping of two or more contractors acting as one legal entity, where each is liable for the actions of the other.

**practical completion certificate:** a certificate issued in terms of a contract by the employer, signifying that the whole of the construction works have reached a state of readiness for occupation or use for the purposes intended, although some minor work may be outstanding

NOTE Practical completion is commonly understood to be a state of readiness for occupation of the whole works although some minor work may be outstanding. Practical completion in a construction works contract occurs when:

- a) FIDIC Short Form of Contract: the date when the Employer considers that the Works have been completed in accordance with the Contract, except for minor outstanding work and defects which will not substantially affect the use of the Works for their intended purpose
- b) FIDIC Red, Silver and Yellow Book: the date when the Engineer determines that the Works has substantially been completed and can be used for the purpose intended
- c) GCC 2010: "Practical Completion" means the date when the Engineer certifies that the whole or portion of the Works has reached a state of readiness, fit for the intended purpose, and occupation without danger or undue inconvenience to the Employer, although some work may be outstanding
- d) JBCC 2000 Principal Building Agreement and JBCC Minor Works Agreement: the date when the principal agent decides that the completion of the works has substantially been reached and can be used for the purpose intended
- e) NEC3 Engineering and Construction Contract: the date when the Project Manager decides that the Contractor has reached Completion as defined in the contract
- f) NEC3 Engineering and Construction Short Contract: the date when the Employer decides that the Contractor has completed the works in accordance with the Works Information except for correcting notified Defects which do not prevent the Employer from using the works and others from doing their work.

**primary health carer:** first-level services that promote health, prevent disease, and provide diagnostic, curative, rehabilitative, supportive and palliative services<sup>4</sup>

**principal contractor:** an employer appointed by the client to perform construction work, including a joint-venture where applicable

## 3 Requirements

### 3.1 Principal and Subcontractors

The principal contractor shall comply with the requirements of the cidb *Standard for Primary Health Assessments*.

<sup>4</sup> Lamarche, P.A., Beaulieu, M-D., et.al. 2003. *Choices for Change: The Path for Restructuring Primary Health Care Services in Canada*. Report submitted to the Canadian Health Services Research Foundation.

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Subject to item 3.7, the requirements for a primary health assessment shall apply to all permanent and part-time employees and as well as casual labour employed by the principal contractor and all subcontractors appointed by the principal contractor

### 3.2 Primary Health Assessment

A pro-forma medical questionnaire for a primary health care assessment is given Appendix 1.

### 3.3 Professional Assessment

The primary health assessment shall be undertaken by a health care professional registered and in good standing with the Health Professional Council of South Africa (HPCSA) as a medical doctor or the South African Nursing Council (SANC) as a primary care nurse specialist, occupational health nurse or professional nurse.

### 3.4 Confidentiality

The results of the health care assessment shall remain confidential between the workers and the health care professional, and shall not be divulged to the employer unless with the consent of the employee.

### 3.5 Cost of Assessment

The principal contractor shall arrange for primary health assessments to be undertaken on the construction works site or at a medical clinic. The principal contractor or subcontractor shall be liable for travel costs to the medical clinic as appropriate.

The minimum cost of assessment shall be R500 per individual, which shall be to the account of the principal contractor.

### 3.6 Skilled, Semi-skilled and Unskilled Labour

The requirements for a primary health assessment for labour applies to skilled, semi-skilled and unskilled labour<sup>5</sup> subject to a primary health assessment has not been undertaken within a proceeding 12-month period.

### 3.7 Permanent, Part-Time and Casual Labour

The requirements for a primary health assessment shall apply to all permanent and part-time employees as well as casual labour subject to:

- i) a primary health assessment has not been undertaken within a proceeding 12-month period; and
- ii) part-time and casual labour are employed on a work package exceeding five consecutive working days in duration or are employed on a work package exceeding 15 working days in total.

### 3.8 Voluntary Primary Health Assessments

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<sup>5</sup> see cidb (2017). *cidb Standard for Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts*. Construction Industry Development Board, [www.cidb.org.za](http://www.cidb.org.za)

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All primary health assessments shall be voluntary, and any employee can decline such an assessment. Where an employee is liable for a primary health assessment but declines such an assessment, the employee must place his/her decision on record (see Appendix 2). An employer may not in any form discriminate against any employees that decline such an assessment.

The primary health assessment does not replace the statutory requirement for a medical certificate of fitness<sup>6</sup> or medical surveillance<sup>7,8,9</sup> specific to the construction work to be performed as prescribed by the Regulations under the Occupational Health and Safety Act, 1993.

### 3.9 Annual Assessments

Where an employee has undertaken a primary health assessment within the past 12-month period with a different employer or through different circumstances, he/she must:

- i) provide such evidence as necessary and place it on record; or
- ii) where such evidence cannot be produced, the employee shall place a declaration on record that he/she has had a primary health assessment (see Appendix 2); or
- iii) be afforded the opportunity to undertake a new primary health assessment.

## 4. Records

The principal contractor shall submit all the documentation required in terms of substantiating the requirements of this cidb *Standard for Primary Health Assessments* in a timely manner and according to a prescribed format where applicable (see Appendix 2), but not less than 15 days after practical completion.

The employer's representative shall certify the requirements of the cidb *Standard for Primary Health Assessments* have been achieved.

## 5. Sanctions

In the event that the contractor fails to substantiate that any failure to achieve the requirements of this cidb *Standard for Primary Health Assessments* was due to reasons beyond the contractor's control which may be acceptable to the employer, the sanctions provided for in the contract or order shall apply.

Note: The contract establishes the sanctions that will apply. These are set out in a tender evaluation schedule, the scope of work or contract data. Sanctions where tender evaluation points are granted with respect to a tendered CPG or where a minimum CPG is specified are usually applied in the form of:

- a) financial penalties (low performance damages), typically formulated on the difference between the contracted CPG and the CPG achieved in the performance of the contract; and
- b) the issuing of completion certificates only after the certificates described in Section 7 are received.

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6 Construction Regulations. 2014. Regulations 7(1)(g); 7(8); 10(2)(b); 17(12)(a); 22(f); 23(1)(d)(ii) or any other Regulation requiring medical fitness examinations.

7 Asbestos Regulations. 2001

8 Lead Regulations. 2001

9 Noise-induced Hearing Loss Regulations. 2003

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## Appendix 1: Primary Health Assessment for Construction Workers

### Dear Health Professional

This Primary Health Assessment of construction workers is a requirement on selected construction works contracts so as to encourage a healthy construction workforce. The Primary Health Assessment is confidential between the Construction Worker and the Registered Health Care Professional, and may not be divulged to the construction worker's employer without the consent of the construction worker.

For proof of the Primary Health Assessment, the examiner must please sign the 'Primary Health Assessment; Proof of Assessment'.

The cost of the Primary Health Assessment is to the cost of the employer, and must be substantiated by a receipt issued to the employer.

### Part 1: Medical History

1) Name of construction worker: \_\_\_\_\_

2) Identification Number: \_\_\_\_\_

3) Town, city or local authority of residence: \_\_\_\_\_

4) Marital status (mark the appropriate box with an ✓):

Single	Married	Divorced	Living together	Widow/er

5) Number of children: \_\_\_\_\_

6) What is your current occupation (the job you do now)? \_\_\_\_\_

7) How old are you? \_\_\_\_ years.

8) What is your current level of education? (mark the appropriate box with an ✓):

None	Grade 1-7/ <Std 5	Grade 8 or 9/ Std 6 or 7	Grade 10 or 11/ Std 8 or 9	Grade 12/ Std 10

9) Do you have a post-school qualification (Y/N): \_\_\_\_\_

If yes, please specify: \_\_\_\_\_

10) Are you qualified in a trade? (Y/N): \_\_\_\_\_

If yes, please specify: \_\_\_\_\_

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- 11) Are you employed as a (mark the appropriate box with an ✓):

Casual ≤3days/week	Part-time Worker ≤ 3 month contract	Permanent worker	Other

If 'Other', please specify: \_\_\_\_\_

- 12) Have you, or have you ever had, any of the following? (mark the appropriate box with an ✓):  
If 'Yes' please provide full details in the following table below\*)

	Answer	
	Yes	No
a) Problems with your skin (i.e. rashes, sores)?		
b) Problems with your heart?		
i) Chest pain (angina)?		
ii) High cholesterol level?		
iii) Shortness of breath if you climb stairs?		
iv) High blood pressure (hypertension)?		
c) Problems with your lungs?		
i) Asthma?		
ii) TB?		
iii) Bronchitis?		
iv) Coughing for more than two (2) weeks?		
d) Problems with your stomach?		
e) Problems with bladder or kidney infections?		
i) Problems passing water?		
ii) VD (drop)?		
f) Epilepsy (fits)?		
i) Unconscious?		
ii) Headaches or migraines?		
g) Problems with your ears?		
h) Problems with your eyes?		
i) Problems with your throat?		
j) Problems with the muscles, bones, joints?		
k) Problems with your back?		
i) Have you ever slipped a disk?		
l) Have you ever had any sugar in your urine?		
m) Have you ever been tested for HIV/AIDS?		
n) Have you ever had yellow jaundice?		
o) Cancer or tumours of any kind?		
p) Do you take any tablets or medicines on a daily basis, or been given any by Doctor or Clinic in past 3 months?		
i) Type: Dosage:		
ii) Type Dosage:		
iii) Type Dosage:		
q) Have you ever been in hospital?		
r) Have you ever had an operation?		
s) Have you ever had an accident (i.e. sport, car)?		
t) Have you ever been injured on duty/while at work?		
u) Are there any foods or medicines that cause a rash, itchy skin or make it difficult to breath?		
v) Where do you get your medical assistance from:		
i) GP		
ii) Hospital		
iii) Clinic		

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\*For each of the 'Yes' answers above, please provide the following details:

Item	When were the last symptoms?	Treated by?	Specific treatment used	Current status

- 13) Family history: Do any of your immediate family have or had any of the following illnesses/diseases? (mark the appropriate box with an ✓):

Disease	Mother			Father		
	Yes	No	Don't know	Yes	No	Don't know
a) High blood pressure (Hypertension)						
b) Stroke						
c) Heart attack						
d) Angina (chest pain)						
e) Sugar diabetes (Diabetes)						
f) Porphyria						
g) Mental Illness e.g. Depression requiring hospitalisation						

- 14) Do you drink any alcohol? (Y/N): \_\_\_\_\_

If 'Yes' what types of alcohol do you drink? (mark the appropriate box with an ✓):

Type	Frequency				No. of drinks		
	Daily	Week-ends Only	Monthly/ bi-monthly	Special Occasions	No. of Glasses	No. of Bottles	
						350 ml	750 ml
a) Beer							
b) Wine / Fortified wine / Liqueurs							
c) Spirits							
d) Other:							

- 15) Do you smoke? (Y/N): \_\_\_\_\_

If 'Yes' how long have you smoked? \_\_\_\_ Years \_\_\_\_ Months

If 'Yes', what do you smoke? (mark the appropriate box with an ✓):

Type	Frequency			How many?
	Daily	Weekly	Monthly	
a) Cigarettes				
b) Pipe				
c) Dagga				
d) Other:				

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16) Do you play sport? (Y/N): \_\_\_\_

If 'Yes', what types of sport do you play? (mark the appropriate box with an ✓):

Type	Frequency			
	Daily to weekly	Weekends	Monthly	Never
a) Rugby				
b) Soccer				
c) Boxing				
d) Cricket				
e) Gym				
f) Other:				

17) What do you do on your off days/spare time? (mark the appropriate box with an ✓):

Type	Frequency			
	Daily	Weekends	Monthly	Never
a) Read				
b) Watch TV				
c) Work at home				
d) Church work				
e) Other:				

## Part 2: Physical Examination

Note: L = Left; R = Right

Scoring:

0 = Normal, no abnormality detected

1 = Minor abnormality (minor treatment, no specialist referral)

2 = Major abnormality (specialist referral, impact on lifestyle, possibly work if untreated)

18) General condition:

Item	Comments	Score
a) Height (cm)		
b) Mass (Weight) (kg)		
c) Body Mass Index (BMI)		
d) Skin		
e) Lymph Glands		
f) Varicosities		

19) Head and Neck:

Item	Comments	Score	
		L	R
a) Corrected Vision (Snellen)			
b) Pupils (pearl)			
c) Peripheral vision			

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20) ENT:

Item	Comments	Score	
		L	R
a) Canals			
b) Drums			
c) Sinuses			
d) Throat			
e) Teeth			

21) CVS:

Item	Comments	Score
a) Pulse Rate		
b) BP		
c) Respiration		
d) Thorax and breasts		
e) Lungs		
f) Heart		

22) Abdomen:

Item	Comments	Score
a) Organs		
b) Masses		
c) Hernia		

23) Musculo skeletal:

Item	Comments	Score
a) Deformities		
b) Spine		

24) CNS:

Item	Comments	Score
a) Power		
b) Co-ordination		

25) Skin and appendages:

Item	Comments	Score
a) Hands		

26) Special Investigations,:

	Normal	Glucose	Blood	Protein	Other	Other	Other
Urinalysis							

27) Remarks from examiner:

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28) Referral Requirements (Please record each appropriate organization or person):

Referral	Organization or person
a) Municipal Clinic	
b) Day Hospital	
c) GP	
d) Specialist	
e) Other:	

Person	Name	Signature	Date
Worker:			
Examiner: Professional Registration Number:			
Doctor (If seen): Professional Registration Number:			

**For proof of the Primary Health Assessment, the examiner must please also sign the 'Primary Health Assessment; Proof of Assessment'.**

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## Appendix 2: Primary Health Assessment; Proof of Assessment

- 1) Name of construction worker: \_\_\_\_\_
- 2) Identification number: \_\_\_\_\_
- 3) Town, city or local authority of residence: \_\_\_\_\_

### A Details of Primary Health Assessment:

- 4) Name of primary health assessment examiner: \_\_\_\_\_
- 5) Professional registration or practice number: \_\_\_\_\_
- 6) Date of assessment: \_\_\_\_\_
- 7) Signature of examiner: \_\_\_\_\_

### B Declaration of Primary Health Assessment within the past 12 months:

- 8) I (name of construction worker) \_\_\_\_\_ declare that I have had a primary health assessment within the past 12 months, but have lost the documentary proof of such assessment.
- 9) Approximate date of assessment: \_\_\_\_\_
- 10) Town, city or local authority of assessment: \_\_\_\_\_
- 11) Date of declaration: \_\_\_\_\_
- 12) Signature of construction worker: \_\_\_\_\_

### C Waiver of Primary Health Assessment:

- 13) I (name of construction worker) \_\_\_\_\_ decline to undertake a primary health assessment.
- 14) Date of waiver: \_\_\_\_\_
- 15) Signature of construction worker: \_\_\_\_\_

**DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM  
NOTICE 690 OF 2018**

**GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT NO. 22 OF 1994)**

Notice is hereby given in terms of Section 11 (1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994) that a claim for the restitution of land rights on the following properties have been lodged with the Regional Land Claims Commissioner: KwaZulu-Natal and that the Commission on Restitution of Land Rights will further investigate the claim in terms of provisions of the Act in due course:

<b>Property</b>	:	<b>Lot 1 Albert Falls Township</b>
<b>Extent of property</b>	:	<b>2, 2766 ha</b>
<b>Magisterial District</b>	:	<b>New Hanover</b>
<b>Administrative District:</b>	:	<b>KwaZulu-Natal</b>
<b>Previous Title Deed No.</b>	:	<b>T13203/1973</b>
<b>Current Title Deed No.</b>	:	<b>T13203/1973</b>
<b>Current Owner</b>	:	<b>Republic of South Africa</b>
<b>Bonds &amp; Restrictive Conditions (Interdicts)</b>	:	<b>None</b>
<b>Claimant</b>	:	<b>Dennis Vivekananda Pillay</b>
<b>Date claim lodged</b>	:	<b>19 October 1998</b>
<b>Reference number</b>	:	<b>KRN6/2/3/E/38/872/1857/41</b>

Any party/parties who have an interest in the above-mentioned properties is hereby invited to submit, within **30 days** from the date of publication of this notice, any representations and/ or information which shall assist the Commissioner in proving or disproving this claim.

Should no information and/ or representations from the affected party/ parties be forthcoming within the stipulated period, the affected party/parties shall be *ipso facto* barred from further doing so and the Commission shall continue with the subsequent processes towards completion of the investigation.

Any comments and information should be submitted to:

The Regional Land Claims Commissioner: KwaZulu-Natal  
Private Bag X9120  
Pietermaritzburg 3200

Tel: (033) 355 - 8400  
Fax: (033) 342 - 3409

Submissions may also be delivered to Second Floor, African Life Building, 200 Church Street, Pietermaritzburg.

**LEBJANE MAPHUTHA  
REGIONAL LAND CLAIMS COMMISSIONER: KWAZULU NATAL  
DATE:**

**DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM  
NOTICE 691 OF 2018**

**GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT NO. 22 OF 1994)**

Notice is hereby given in terms of Section 11 (1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994) that a claim for the restitution of land rights on the following properties have been lodged with the Regional Land Claims Commissioner: KwaZulu-Natal and that the Commission on Restitution of Land Rights will further investigate the claim in terms of provisions of the Act in due course:

<b>Property</b>	:	<b>see attached schedule</b>
<b>Extent of property</b>	:	<b>40, 4686 ha</b>
<b>Magisterial District</b>	:	<b>Pinetown</b>
<b>Administrative District</b>	:	<b>KwaZulu-Natal</b>
<b>Current Title Deed No.</b>	:	<b>see attached schedule</b>
<b>Current Owner</b>	:	<b>see attached schedule</b>
<b>Bonds &amp; Restrictive Conditions (Interdicts)</b>	:	<b>see attached schedule</b>
<b>Claimant</b>	:	<b>Bhekani Wilson Mzobe on behalf of the Mzobe Family</b>
<b>Date claim lodged</b>	:	<b>29 December 1998</b>
<b>Reference number</b>	:	<b>KRN6/2/2/2E/39/0/0/23</b>

Any party/parties who have an interest in the above-mentioned properties is hereby invited to submit, within **30 days** from the date of publication of this notice, any representations and/ or information which shall assist the Commissioner in proving or disproving this claim.

Should no information and/ or representations from the affected party/ parties be forthcoming within the stipulated period, the affected party/parties shall be *ipso facto* barred from further doing so and the Commission shall continue with the subsequent processes towards completion of the investigation.

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**LEBJANE MAPHUTHA  
REGIONAL LAND CLAIMS COMMISSIONER: KWAZULU NATAL  
DATE:**

## SCHEDULE

NO.	PROPERTY DESCRIPTION	EXTENT	CURRENT TITLE DEED NO.	CURRENT OWNER	BONDS & RESTRICTIVE CONDITIONS (INTERDICTS)
1	Portion 28 of the farm Upper End of Langefontein No. 980	0, 3986 ha	T40168/1995	Mfanizo Alfred Nyathikazi and Thembi Goodness Mfuphi	B43078/1995 I-3877/2001AT I-6965/2000AT I-9386/2003AT
2	Portion 29 of the farm Upper End of Langefontein No. 980	5, 6102 ha	T13618/1995	Shimshack Properties (Pty) Ltd	I-3805/2010AT
3	Remainder of Portion 30 of the farm Upper End of Langefontein No. 980	5, 0132 ha	T24536/2017	Ronnel Tracy Smith	K824/2017S
4	Remainder of Portion 31 of the farm Upper End of Langefontein No. 980	2, 5173 ha	T30468/2017	Stuart Alan Thoms and Linda Diane Thoms	B13739/2017
5	Portion 457 of the farm Upper End of Langefontein No. 980	2, 0361 ha	23715/2017	Ronnel Tracy Smith	None
6	Portion 757 of Portion 30 of the farm Upper End of Langefontein No. 980	1, 6671 ha	T9080/2017	Fedcorp Business Trade Proprietary Limited	None
7	Portion 758 of the farm Upper End of Langefontein No. 980	3, 6258 ha		Not Registered	

**DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM  
NOTICE 692 OF 2018**

**GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT NO. 22 OF 1994)**

Notice is hereby given in terms of Section 11 (1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994) that a claim for the restitution of land rights on the following properties have been lodged with the Regional Land Claims Commissioner: KwaZulu-Natal and that the Commission on Restitution of Land Rights will further investigate the claim in terms of provisions of the Act in due course:

<b>Property</b>	:	<b>Portion 0 (remaining extent) of the farm Mount Verde No. 18081</b>
<b>Extent of property</b>	:	<b>379, 2870 ha</b>
<b>Magisterial District</b>	:	<b>Lions River</b>
<b>Administrative District:</b>	:	<b>KwaZulu-Natal</b>
<b>Current Title Deed No.</b>	:	<b>T1181/2009</b>
<b>Current Owner</b>	:	<b>Mount Verde (Pty) Ltd</b>
<b>Bonds &amp; Restrictive Conditions (Interdicts)</b>	:	<b>None</b>
<b>Claimant</b>	:	<b>Pius Ben Mzobe</b>
<b>Date claim lodged</b>	:	<b>15 December 1998</b>
<b>Reference number</b>	:	<b>KRN6/2/2/E/19/0/044</b>

Any party/parties who have an interest in the above-mentioned properties is hereby invited to submit, within **30 days** from the date of publication of this notice, any representations and/ or information which shall assist the Commissioner in proving or disproving this claim.

Should no information and/ or representations from the affected party/ parties be forthcoming within the stipulated period, the affected party/parties shall be *ipso facto* barred from further doing so and the Commission shall continue with the subsequent processes towards completion of the investigation.

Any comments and information should be submitted to:

The Regional Land Claims Commissioner: KwaZulu-Natal  
Private Bag X9120  
Pietermaritzburg 3200

Tel: (033) 355 - 8400  
Fax: (033) 342 - 3409

Submissions may also be delivered to Second Floor, African Life Building, 200 Church Street, Pietermaritzburg.

**LEBJANE MAPHUTHA  
REGIONAL LAND CLAIMS COMMISSIONER: KWAZULU NATAL  
DATE:**

**DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM  
NOTICE 693 OF 2018**

**GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT NO. 22 OF 1994)**

Notice is hereby given in terms of Section 11 (1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994) that a claim for the restitution of land rights on the following properties have been lodged with the Regional Land Claims Commissioner: KwaZulu-Natal and that the Commission on Restitution of Land Rights will further investigate the claim in terms of provisions of the Act in due course:

<b>Property</b>	:	see attached schedule
<b>Extent of property</b>	:	see attached schedule
<b>Magisterial District</b>	:	Klip River
<b>Administrative District</b>	:	KwaZulu-Natal
<b>Previous Title Deed No.</b>	:	see attached schedule
<b>Current Title Deed No.</b>	:	see attached schedule
<b>Current Owner</b>	:	see attached schedule
<b>Claimant</b>	:	1. Jeffrey Queenton Kubheka on behalf of the Kubheka Family 2. Peddie Elizabeth van Wyk (née Skeef)
<b>Date claim lodged</b>	:	1. 14 December 1996 2. 16 January 1998
<b>Reference number</b>	:	1. KRN6/2/E/17/0/0/87 2. KRN6/2/E/17/0/0/117

Any party/parties who have an interest in the above-mentioned properties is hereby invited to submit, within **30 days** from the date of publication of this notice, any representations and/ or information which shall assist the Commissioner in proving or disproving this claim.

Should no information and/ or representations from the affected party/ parties be forthcoming within the stipulated period, the affected party/parties shall be *ipso facto* barred from further doing so and the Commission shall continue with the subsequent processes towards completion of the investigation.

Any comments and information should be submitted to:

The Regional Land Claims Commissioner: KwaZulu-Natal  
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Submissions may also be delivered to Second Floor, African Life Building, 200 Church Street, Pietermaritzburg.

**LEBJANE MAPHUTHA**  
**REGIONAL LAND CLAIMS COMMISSIONER: KWAZULU NATAL**  
**DATE:**

**SCHEDULE**

<b>NO.</b>	<b>PROPERTY DESCRIPTION</b>	<b>EXTENT</b>	<b>PREVIOUS TITLE DEED NO.</b>	<b>CURRENT TITLE DEED NO.</b>	<b>CURRENT OWNER</b>
1	A 0,001666 undivided share in Sub. 1 of the farm Stein Coal Spruit 1171, previously known as Sub. A of the farm Stein Coal Spruit 1171	824, 3454 ha	T236/1898 T682/1917	T17384/1978	Republic of South Africa
2	A 0,020000 undivided share in Sub. 1 of farm Stein Coal Spruit 1171, previously known as Sub. A of the farm Stein Coal Spruit 1171	824, 3454 ha	T1150/1903	T3355/1979	Republic of South Africa
3	Remainder of Sub. 6 of the farm Stein Coal Spruit 1171, previously known as Remainder of Lot 6 of the farm Stein Coal Spruit 1171.	57, 7445 ha	T682/1917	T3355/1979	Republic of South Africa

**DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM  
NOTICE 694 OF 2018**

**GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT NO. 22 OF 1994)**

Notice is hereby given in terms of Section 11 (1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994) that a claim for the restitution of land rights on the following properties have been lodged with the Regional Land Claims Commissioner: KwaZulu-Natal and that the Commission on Restitution of Land Rights will further investigate the claim in terms of provisions of the Act in due course:

<b>Property</b>	:	<b>Portion 2 of the farm Tala No. 13731</b>
<b>Extent of property</b>	:	<b>40, 4686 ha</b>
<b>Magisterial District</b>	:	<b>Camperdown</b>
<b>Administrative District</b>	:	<b>KwaZulu-Natal</b>
<b>Current Title Deed No.</b>	:	<b>T12668/2014</b>
<b>Current Owner</b>	:	<b>Rime Investments cc</b>
<b>Bonds &amp; Restrictive Conditions (Interdicts)</b>	:	<b>None</b>
<b>Claimant</b>	:	<b>Mnimumuzi Phillip Ndlovu on behalf of the Ndlovu Family</b>
<b>Date claim lodged</b>	:	<b>19 November 1998</b>
<b>Reference number</b>	:	<b>KRN6/2/2/2E/4/0/0/47</b>

Any party/parties who have an interest in the above-mentioned properties is hereby invited to submit, within **30 days** from the date of publication of this notice, any representations and/ or information which shall assist the Commissioner in proving or disproving this claim.

Should no information and/ or representations from the affected party/ parties be forthcoming within the stipulated period, the affected party/parties shall be *ipso facto* barred from further doing so and the Commission shall continue with the subsequent processes towards completion of the investigation.

Any comments and information should be submitted to:

The Regional Land Claims Commissioner: KwaZulu-Natal  
Private Bag X9120  
Pietermaritzburg 3200

Tel: (033) 355 - 8400  
Fax: (033) 342 - 3409

Submissions may also be delivered to Second Floor, African Life Building, 200 Church Street, Pietermaritzburg.

**LEBJANE MAPHUTHA**  
**REGIONAL LAND CLAIMS COMMISSIONER: KWAZULU NATAL**  
**DATE:**

**DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM  
NOTICE 695 OF 2018**

**GENERAL NOTICE IN TERMS SECTION 11 (1) OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 (ACT NO. 22 OF 1994)**

Notice is hereby given in terms of Section 11 (1) of the Restitution of Land Rights Act, 1994 (Act No. 22 of 1994) that a claim for the restitution of land rights on the following properties have been lodged with the Regional Land Claims Commissioner: KwaZulu-Natal and that the Commission on Restitution of Land Rights will further investigate the claim in terms of provisions of the Act in due course:

<b>Property</b>	:	<b>Lot 888 Ladysmith Township</b>
<b>Extent of property</b>	:	<b>0, 4047 ha</b>
<b>Magisterial District</b>	:	<b>Klip River</b>
<b>Administrative District</b>	:	<b>KwaZulu-Natal</b>
<b>Previous Title Deed No.</b>	:	<b>T4251/1982</b>
<b>Claimant</b>	:	<b>Suleman Essop Chupty on behalf of the Chupty Family</b>
<b>Date claim lodged</b>	:	<b>23 December 1998</b>
<b>Reference number</b>	:	<b>KRN6/2/3/E/17/1/1/28</b>

Any party/parties who have an interest in the above-mentioned properties is hereby invited to submit, within **30 days** from the date of publication of this notice, any representations and/ or information which shall assist the Commissioner in proving or disproving this claim.

Should no information and/ or representations from the affected party/ parties be forthcoming within the stipulated period, the affected party/parties shall be *ipso facto* barred from further doing so and the Commission shall continue with the subsequent processes towards completion of the investigation.

Any comments and information should be submitted to:

The Regional Land Claims Commissioner: KwaZulu-Natal  
Private Bag X9120  
Pietermaritzburg 3200

Tel: (033) 355 - 8400  
Fax: (033) 342 - 3409

Submissions may also be delivered to Second Floor, African Life Building, 200 Church Street, Pietermaritzburg.

**LEBJANE MAPHUTHA**  
**REGIONAL LAND CLAIMS COMMISSIONER: KWAZULU NATAL**  
**DATE:**

**SOUTH AFRICAN RESERVE BANK****NOTICE 696 OF 2018****Notice and Order of Forfeiture**

Notice of Forfeiture to the State of money in terms of the provisions of Regulation 22B of the Regulations ("the Exchange Control Regulations") made under Section 9 of the Currency and Exchanges Act, 1933 (Act No. 9 of 1933), as amended, as promulgated by Government Notice No. R.1111 of 1961-12-01 in respect of the money of:

**Turalor Close Corporation (the 'Respondent')**  
**(Registration number: 2011/030108/23)**

of:

C24 China Mart East End  
Press Avenue  
Crown Mines  
Johannesburg  
2025

**Be pleased to take notice that:**

1. The Minister of Finance has, by virtue of the provisions of Regulation 22E of the Exchange Control Regulations delegated all the functions and/or powers conferred upon the Treasury by the provisions of the Exchange Control Regulations [with the exception of the functions and/or powers conferred upon the Treasury by Regulations 3(5) and (8), 20 and 22, but which exception does not include the functions and/or powers under Exchange Control Regulations 22A, 22B, 22C and 22D], and assigned the duties imposed thereunder on the Treasury, to, *inter alia*, the Governor or the Deputy Governor of the South African Reserve Bank.
2. By virtue of the functions, powers and/or duties vested in me, in my capacity as the Deputy Governor of the South African Reserve Bank, in terms of the delegation and assignment of the functions, powers and/or duties referred to in 1 above, I hereby give notice of a decision to forfeit to the State the following money and I hereby declare and order forfeit to the State the following money, namely:
  - 2.1 the amount of R205 624.60 being capital standing to the credit of the Respondent, in account number 62358242552, held with FirstRand Bank Limited, together with any interest thereon and/or other accrual thereto.
3. The date upon which the money specified in 2 above is hereby forfeited to the State is the date upon which this Notice of Forfeiture is published in this Gazette.
4. The money specified in 2 above shall be disposed of by deposit thereof to the National Revenue Fund.
5. This Notice also constitutes a written order, as contemplated in Regulation 22B of the Exchange Control Regulations, in terms of which the money specified in 2 above is hereby forfeited to the State.
6. Signed at Pretoria on this 23 day of OCTOBER 2018.



**K Naidoo**  
**Deputy Governor**  
**South African Reserve Bank**





# **WARNING!!!**

## **To all suppliers and potential suppliers of goods to the Government Printing Works**

The Government Printing Works would like to warn members of the public against an organised syndicate(s) scamming unsuspecting members of the public and claiming to act on behalf of the Government Printing Works.

One of the ways in which the syndicate operates is by requesting quotations for various goods and services on a quotation form with the logo of the Government Printing Works. Once the official order is placed the syndicate requesting upfront payment before delivery will take place. Once the upfront payment is done the syndicate do not deliver the goods and service provider then expect payment from Government Printing Works.

Government Printing Works condemns such illegal activities and encourages service providers to confirm the legitimacy of purchase orders with GPW SCM, prior to processing and delivery of goods.

To confirm the legitimacy of purchase orders, please contact:

Anna-Marie du Toit (012) 748-6292 ([Anna-Marie.DuToit@gpw.gov.za](mailto:Anna-Marie.DuToit@gpw.gov.za)) and

Siraj Rizvi (012) 748-6380 ([Siraj.Rizvi@gpw.gov.za](mailto:Siraj.Rizvi@gpw.gov.za))

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