EXHIBIT CC 36

STATEMENT & ANNEXURES

OF

GARTH STRACHAN

JUDICIAL COMMISSION OF INQUIRY INTO ALLEGATIONS OF STATE CAPTURE, CORRUPTION AND FRAUD IN THE PUBLIC SECTOR INCLUDING ORGANS OF STATE

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***IN RE*: THE JUDICIAL COMMISSION OF INQUIRY INTO ALLEGATIONS OF STATE CAPTURE, CORRUPTION AND FRAUD IN THE PUBLIC SECTOR INCLUDING ORGANS OF STATE ("THE COMMISSION")**

STATEMENT

I, the undersigned,

GARTH STRACHAN

do hereby state as set out below.

1. INTRODUCTION

1.1 I am an adult male person. I currently occupy the role of Acting Chief Executive Officer of the South African Bureau of Standards ("SABS"). I was appointed in this role by the Administrators of the SABS on 01 August 2018 and my contract ends on the 31st of October 2019.

1.2 The contents of this statement are true and correct. The events covered by this statement, as they pertain to the establishment of a "Conformance Authority" which would assume the responsibility for the testing and certification of Set-Top-Boxes (STBs) to be used for the reception of Digital Terrestrial Television (DTT) transmissions in South Africa started in 2012. As such, these events precede my time at the SABS. Therefore, I am making this statement in my official capacity as the Acting Chief Executive Office of the SABS and relying solely on the documents before me and information from persons who were involved in the project, from which (documents and information) I am able to establish the role of the SABS in the Broadcasting Digital Migration Project (BDMP).

1.3 For the purpose of relevance and to assist the Commission I will deal with the following topics in the Statement:

1.3.1 The role of the SABS in what later became known as the BDM/DTT Project;

1.3.2 Obligations of the SABS;

1.3.3 Comment on challenges experienced by the SABS (including financial implications); and

1.3.4 The current role of the SABS in relation to the said project and the way forward.

I now respond to the specific topics as follows:

2. THE ROLE OF THE SABS IN WHAT LATER BECAME KNOWN AS THE BDM/DTT PROJECT.

2.1 In addressing the role of the SABS in the BDM/DTT (Broadcasting Digital Migration Project/Digital Terrestrial Television) it is apposite to outline the legislative mandate of the SABS. The SABS was established by section 2 of the *Standards Act*, 1945 (Act No. 24 of 1945) and continues to exist in terms of the *Standards Act*, 2008 (Act No. 8 of 2008). In terms of the *Standards Act*, 2008 the objects of the SABS are (a) to develop, promote and maintain South African National Standards ("SANS"); (b) promote quality in connection with commodities, products and services; and (c) to render conformity assessment services and matters connected therewith. "Conformity Assessment" is defined in the *Standards Act*, 2008 as "*…the procedure used to determine, directly or indirectly, that the relevant requirement in technical regulations, standards or any other relevant and validated documentation has been fulfilled*".

2.2 The role of the SABS in the BDM/DTT project is outlined in the tripartite Memorandum of Agreement, which document is attached hereto as Annexure "A" hereto and hereinafter referred to as "the MoA". The MoA was signed around February 2012. The three parties who signed the MoA are the Department of Communications ("the DoC"), the Department of Trade and Industry ("the dti") and the SABS. The parties to the MoA sought to establish, develop and utilise a "Conformance Authority" which would assume the responsibility for the testing and certification of set-top-boxes (STBs) to be

used for the reception of digital terrestrial television (DTT) transmissions in South Africa.

2.3 In terms of the MoA, the SABS was appointed by the DoC to execute and complete specific obligations, which are to:

2.3.1 Conduct a feasibility study to determine the full costs of setting up a fully accredited laboratory. Such feasibility study to be concluded within two months of the agreement's signature;

2.3.2 Test STBs to the applicable SANS or other specification and provide applicable test reports;

2.3.3 Provide discounted rates for local manufacturers wishing to be certified by the SABS, which certification would include SABS product certification, SABS factory audits, consignment inspections and other relevant certification schemes as agreed to by the parties;

2.3.4 Provide audit reports and certificates for applicable audits;

2.3.5 Provide other mutually agreed technical and training related activities; and

2.3.6 Provide a representative who shall liaise with the DoC.

2.4 The contractual obligations of the SABS as espoused in the MoA are consistent with the legislative mandate of the SABS as an entity charged with rendering conformity assessment services. In essence, the SABS was appointed as a Conformance Authority to assume the responsibility to test and certify STBs to be used for the reception of DTT.

2.5 The SABS complied with its obligations in terms of the MoA and achieved the objects of the project by setting up an accredited testing laboratory for the testing of STBs to be used for the reception of DTT. The testing laboratory was commissioned in 2013. At this point it is apposite to refer to the document entitled STB Project Feasibility, which preceded the establishment of the testing facility and whose compilation was listed as a specific obligation for the SABS in the MoA. The document attached hereto as Annexure "B" and contains details of the feasibility of the testing facility and the initial

investment which was required for the establishment of the testing facility. I also refer to a document titled the Project Roles and Responsibilities, which I annex hereto as Annexure "C" and relates to the delivery of the testing facility and identifies all project role players. The project to deliver a testing facility was attained.

3. OBLIGATIONS OF THE SABS.

3.1 The SABS was appointed to be the Conformance Authority. Hence the SABS participated in all forums relating to the project only to the extent of the role for which it was appointed. The record reflects that the SABS' mandate or contractual obligations were clearly defined from the inception of the project.

3.2 Other stakeholders who participated in the project and who can be gleaned from the record at my disposal are: the DoC, SABC, SENTECH, etv, M-Net, Orbicom, the South African Post Office and ICASA.

4. COMMENT ON CHALLENGES EXPERIENCED BY THE SABS (INCLUDING FINANCIAL IMPLICATIONS)

4.1 The challenges experienced by the SABS in executing on its role as the Conformance Authority, are , *inter alia*:

4.1.1 It was recognised from the outset that setting-up a Conformance Authority would not be viable without funding to set up the testing facility and that operational revenue was dependent on both pricing and the number of tests to be conducted.

4.1.2 The feasibility study, Item 2 or Annexure 2, estimate a total cost for the testing facility to be R30 100 715.00. The SABS only received funding of R26.3m from the DoC.

4.1.3 The SABS, as per the MoA, has set-up an accredited testing laboratory to test STBs for the reception of DTT. Due to a requirement that communities who are not accessible by DTT should be catered for by Direct to Home Satellite (DTH) transmissions, the SABS as the appointed Conformance Authority needs to upgrade the existing SABS STB DTT test facility to be

able to also perform testing on DTH Satellite STBs. The upgrade costs are estimated at R10m.

4.1.4 There has not been enough testing demand to sustain the STB lab operations. The STB lab has lost key competent personnel who were fully trained to operate the lab. In the past 2(two) years the STB lab has accumulated costs of R1.6m.

4.2 I am not privy to challenges of the BDM/DTT project in general to be able to provide informed comments.

5. CURRENT ROLE OF THE SABS IN RE: THE SAID PROJECT AND THE WAY FORWARD

5.1 The SABS remains the appointed Conformance Authority. The role of the SABS is dependent on the manufacturers testing their products. Currently the SABS can only test STBs to DTT and requires additional finances to upgrade the STB lab to be able to also test to DTH. The low test volumes continues to threaten the sustainability of the STB lab.

GARTH STRACHAN

"A"

THE DEPARTMENT OF COMMUNICATIONS ("the DOC")

herein represented by **Ms Rosey Sekese**
in her capacity as the Director-General
duly authorised thereto

AND

THE DEPARTMENT OF TRADE AND INDUSTRY ("the dti")

herein represented by **Mr Lionel October**
in his capacity as the Director General
duly authorised thereto

AND

SOUTH AFRICAN BUREAU OF STANDARDS ("the SABS")

(A subsidiary of the DTI)

herein represented by **Dr Boni Mehlomakulu**
in her capacity as the Chief Executive Officer
duly authorised thereto

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CONTENTS

1. PREAMBLE

WHEREAS

1 1 The Department of Communications (DoC) is responsible for overseeing the South African electronic communications, broadcasting and postal services industries

1 2 Department of Trade and Industry is responsible for overseeing trade and industry in South Africa with the aims of promoting industrial development, investment, equity competitiveness and employment creation.

1 3 The South African Bureau of Standards ("SABS"), offers Standard development, Training, System and Product Certification services to the following industries: Chemicals, Electro-technical, Food & Health, Mechanical & Materials, Mining & Minerals, Services and Transportation;

1 4 The SABS is the only institution established for the development, promotion, certification and maintenance of standards in South Africa and the Parties wish to explore possible areas of collaboration between them and wish to negotiate in good faith to conclude technical related Agreement(s) and financial agreement(s);

1.5 The SABS possesses proprietary information, technical knowledge, experience, specimens and data of a secret and confidential nature and can be defined as intellectual property;

1.6 The SABS, the dti and DoC regard the information and knowledge referred to above as valuable commercial assets of a highly confidential nature and wish to use such information for their mutual benefit;

1 7 The DoC, the dti and SABS consequently establish this Agreement for co-operation in the establishment, development and utilisation of a Conformance Authority which will assume responsibility for the testing and certification of set-top boxes to be used for the reception of digital terrestrial television transmissions in South Africa.

1.8 This agreement is entered into by and between the following parties:

1 8 1 The Department of Communications, responsible for overseeing the South African electronic communications, broadcasting and postal services industries duly represented by **Ms Rosey Sekese** in her capacity as the Director-General with its chosen *domicilium citandi et executandi* at:

iParioli Office Park
399 Duncan Street
Hatfield
PRETORIA
0001
Tel: (012) 427 8031
Fax: (012) 427 427 8016
E-mail director-general@doc.gov za

1.3.2 The dti duly represented by **Mr Lionel October** in his capacity as the Director General with its chosen *domicilium citandi et executandi* at

77 Meintjies Street
Sunnyside
Pretoria,
0002
Tel: (012) 394 3075
Fax: (012) 394 0323
E-mail: loctober@thedti.gov.za

1.8.3 The SABS duly represented by **Dr Boni Mehlomakulu** in her capacity as Chief Executive Officer of the SABS, with its chosen *domicilium citandi et executandi* at:

Dr Lategan Road
Groenkloof
Pretoria
Tel: (012) 428 7911
Fax: (012) 344 1568:
E-mail: boni.mehlomakulu@sabs.co.za
Postal address: Private Bag X191, Pretoria, 0122

2. DEFINITIONS

2.1 In this Agreement, unless otherwise provided or indicated by the context, the following words shall have the meaning assigned to them below:

2.2 "**Agreement**" – means this Memorandum of Agreement entered into between the Parties; including all schedules and annexures.

2.3 "**Certification**" – means the process of certifying products or services against standards;

2.4 "**Instruction to Perform Work**" – means a written instruction from DoC to SABS to perform one or more of the obligations listed in clause 9.1 and 9.2 below;

2.5 "**Parties**" – means Department of Communications (DoC), DTI and SABS.

2.6 "**SMME**" - means Small Medium Micro Cooperative Enterprises,

2.7 "**Testing**" – means technically testing a product against a standard to determine performance and "fit for use";

2.8 "**Training**" – means the number of candidates being trained and the relevant specification/standard to which training is required

2.9 "Project" - means the project to define, establish, commission and operate a Conformance Authority for the testing and certification of Set-Top Boxes in South Africa

3. INTERPRETATION

3.1 This Agreement shall be interpreted according to the following provisions, unless the context requires otherwise:-

3.2 references to the provisions of any Law shall include such provisions as amended, re enacted or consolidated from time to time in so far as such amendment, re-enactment or consolidation applies or is capable of applying to any transaction entered into under this Agreement;

3.3 references to "Month" shall be to a calendar month;

3.4 references to "Parties" shall include the Parties' respective successors-in-title and, if permitted in this Agreement, their respective cessionaries and assignees;

3.5 references to a "person" shall include an individual and juristic person.

3.6 references to any "Responsible Authority" or any public or professional organisation shall include a reference to any of its successors or any organisation or entity, which takes over its functions or responsibilities;

3.7 the headings of clauses, sub-clauses and addendums are included for convenience only and shall not affect the interpretation of this Agreement;

3.8 the addendums to this Agreement are an integral part of this Agreement and references to this Agreement shall include the addendums;

3.9 the Parties acknowledge that each of them has had the opportunity to take legal advice concerning this Agreement, and agree that no provision or word used in this Agreement shall be interpreted to the disadvantage of either Party because that Party was responsible for or participated in the preparation or drafting of this Agreement or any part of it;

3.10 words importing the singular number shall include the plural and vice versa, and words importing either gender or the neuter shall include both genders and the neuter;

3.11 references to "this Agreement" shall include this Agreement as amended, varied, novated or substituted in writing from time to time;

3.12 any reference to any statute, enactment, order, regulation or similar instrument shall be construed as a reference to statute, enactment, order, regulation or instrument as amended, re-enacted or replaced from time to time;

3.13 references to any other agreement or document shall include (subject to all approvals required to be given pursuant to this Agreement for any amendment or

variation to or novation or substitution of such agreement or document) a reference to that agreement or document as amended varied, novated or substituted from time to time

3 14 general words preceded or followed by words such as "other" or "including" or "particularly" shall not be given a restrictive meaning because they are preceded or followed by particular examples intended to fall within the meaning of the general words, unless inconsistent with the context

3 15 when any number of days is prescribed in this Agreement, same shall be reckoned inclusively of the first and exclusively of the last day unless the last day falls on a day which is not a business day in which case the last day shall be the immediately following business day, and

3 16 references to "written" include communications by way of electronic mail

4. APPOINTMENT

4 1 The DoC hereby appoints SABS and/ or its subsidiaries to execute and complete the obligations as fully set out in clause 9.1 and 9 2 below;

4.2 SABS hereby accepts the appointment referred to in clause 4.1 above subject to the terms and conditions contained in this Agreement.

5. THE DOC/ DTI and SABS WORKING COMMITTEE

5 1 The Parties agree to establish a Working Committee which shall be responsible for –

5 1 1 the co-ordination of the Parties' respective roles and responsibilities in the implementation of this Agreement;

5.1.2 the collection and collation of all requisite information as may be required from time to time;

5 1.3 the facilitation of decisions to be adopted by the Parties in the implementation of the provisions of this Agreement;

5 1 4 the identification of any budgetary and or financial implications for the implementation of this Agreement;

5.1 5 the development of a first order budget for the implementation of the Project.

5 2 Unless otherwise agreed in writing by the Parties, the Working Committee shall comprise representatives from -

5 2 1 the dti

5 2 2 the DoC, and

5.2 3 SABS

5 3 The meetings of the Working Committee shall be chaired by DoC

5 4 The Working Committee shall conduct its activities in accordance with the Agreement All meetings of the Working Committee shall be properly minuted and

5.5 The Working Committee shall present briefings periodically on the status of the work programme

6. DURATION

6.1 The commencement date of this Agreement shall be deemed to be the date of the last signature.

7. PROJECT DEPENDENCIES:

7.1 Conclusion and signing of the Memorandum of Agreement (MOA);

7.2 Conducting a feasibility study to determine the best set top box testing system for Digital Terrestrial Television for DoC;

7.3 Identifying and entering into an agreement with a suitably experienced International entity to provide training, assist in the accreditation of the Conformance Authority and initially perform certain tests until the Conformance Authority has acquired the skills to perform these tests.

7.4 Acquiring and transfer of funds to procure the test equipment and upgrade existing facilities:

7.5 Obtaining new and upgrading existing test equipment;

7.6 Training of the technical staff for a period of six (6) months. The product testing of the units will begin after this period;

7.7 Obtaining SANAS lab accreditation – to occur within 12 months after the establishment of the test facility.

8. CONTRACT PRICE AND PAYMENT

8.1 The initial costs to enable the SABS to launch the project will be R30m, payable by the DoC within 21 days of signing this agreement.

8.2 The parties must agree in writing to any costs over and above the R30m. Such agreement must be reached within two (2) months, of concluding the feasibility study, failing which this agreement shall lapse and be of no force and effect. In such an event money paid to the SABS in terms of 8.1 above shall be repaid on demand

8.3 The additional costs mentioned in 8.2 shall be determined and mutually agreed to by the parties through a feasibility study to be performed jointly by DoC and other parties as identified by DoC and SABS.

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8.4 Upon completion of the feasibility study, the DoC shall issue an Instruction to Perform Work (IPW) to the value determined during the feasibility study and payable to the SABS as mutually agreed to between DoC and SABS

8.5 The Instruction to Perform Work shall be recorded, reduced to writing and attached as an addendum to this Agreement and will include detailed costs and payment schedule

9. OBLIGATIONS OF THE PARTIES

9.1 SABS shall provide the following services:

9.1.1 Feasibility study to determine full cost of setting up a fully accredited laboratory The feasibility study must be concluded within two months of this Agreement's signature.

9.1.2 Testing of set-top boxes to the applicable South African National Standard or other specification and provide applicable test reports;

9.1.3 Provision of discounted rates for local manufacturer's wishing to be certified by the SABS, which includes SABS product certification, SABS factory audits, consignment inspections and other relevant certification schemes as agreed by both parties.

9.1.4 Audit reports and certificates will be provided by SABS for applicable audits.

9.1.5 Other mutually agreed technically and training related activities

9.1.6 Pursuant to the obligations contained in clause 9.1 above, SABS shall provide a representative who shall liaise with the DoC on its behalf

9.2 The DoC shall provide SABS with the following:

9.2.1 A DoC representative who will act as the Project Manager on behalf of DoC;

9.2.2 A list of contact persons for effective communication and management of conformity assessments requirements.

9.3 The dti shall provide the following:

9.3.1 A dti representative who will participate in the Task Team mentioned in section 5 above to monitor the project on behalf of dti

9.3.2 A list of contact persons for effective communication and management of conformity assessments requirements.

9.3.3 The dti will work within the confines of 5.1.4 as well as its ordinary transfers to SABS to support industry certification and accreditation processes

10. CONFIDENTIALITY

10.1 All parties shall treat as confidential any written information obtained under this agreement or as a consequence of it and will ensure that such information is

used solely in assisting in the fulfilment of the obligations in this Agreement, and that it will not be passed on to the third person except in as far as it is required for the mentioned purposes

10.2 Any other verbal information supplied that is confidential shall be confirmed in writing within 24 hours, stating its content and that it is confidential.

10.3 It is agreed and undertaken by the Parties that they:

10.3.1 will hold in confidence all confidential information;

10.3.2 will not disclose such confidential information, or permit it to be disclosed by their staff to an external party;

10.3.3 agree that disclosure to other participants in this Agreement will occur only with the written permission of the other Party;

10.3.4 will not use, or permit the use of the confidential information for any purpose other than as set out in this Agreement without obtaining written permission to do so from the other Party;

11. INTELLECTUAL PROPERTY

11.1 All intellectual property rights created, acquired or otherwise obtained, including but not limited to copyright in documents and operational analysis, concepts, ideas, methods, methodologies, procedures, know-how, techniques, models, templates, generalised features of the structure, sequence and organisation of software, user interfaces and screen designs, general purposes consulting and software tools, utilities and routines, and logic, coherence and methods of operating systems, related to and in the reports, documents, databases developed and supplied prior to the conclusion of this Agreement shall remain the sole and right of each sole property and right of each party responsible for such creation or acquisition.

11.2 Except for cases where a license is expressly granted in writing neither Party shall acquire any right or interest in the Party's Intellectual Property stated above against any claim.

11.3 Each party (the warranty party) and the warranty party shall at its costs, defend the other Party against any claim that the Service infringe any such third party property rights, provided that the other party gives prompt notice to the warranting party of such claim, the warranting party controls the defence thereof, at the parties agree to co-operate and provide reasonable support to each other in the defence of the claim.

12. SUPPORT AND GOOD FAITH

12.1 The Parties undertake at all such times to do all such things, to perform all such acts and to take all such steps and to procure the doing of all such things, the performance of all such actions and the taking of all such steps, as may be open

to them and necessary for or incidental to the putting into effect or maintenance of the terms, conditions and import of this Agreement

13. ASSIGNMENT

13.1 No Party hereto may cede and delegate any of its rights and obligations (including liabilities) arising out of this Agreement, without the prior obtained written agreement of the other party

14. SEVERABILITY

14.1 Any provision in this Agreement which is or may become illegal, invalid or unenforceable in any jurisdiction affected by this Agreement shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability and shall be treated *pro non scripto* and severed from the balance of this Agreement, without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction.

14.2 Any party has the right to terminate this Agreement by giving 3 (three) month's written notice to the other Parties, provided that the SABS may not give such notice within the first year of this agreement.

15. BREACH, TERMINATION AND CANCELLATION

15.1 In the event of any Party breaching any provisions of this Agreement and failing to remedy such breach within 10 days of receiving written notice specifying the breach and calling upon the defaulting Party to remedy the same, the non-breaching Party shall be entitled at its discretion to:

15.1.1 sue for specific performance; and/or cancel this Agreement; and

15.1.2 hold the defaulting Party liable for such damages as the non-breaching Party may have sustained, without prejudice to such other Party's right to claim performance of any obligation which fell due for performance prior to the termination of this Agreement or where a right to a payment arose before termination or cancellation of this Agreement, although such payment falls due after the termination.

15.2 In the event of any breach by SABS, the DoC shall not hold the dti wholly or severally liable by virtue of the SABS being an agency of the dti, but shall treat such a breach as a sole action/ omission by SABS

16. FORCE MAJURE

16.1 Except in respect of payment liabilities, neither Party will be liable for any failure or delay in its performance due to reasons beyond its reasonable control. This includes acts of war, acts of God, earthquake, flood, riot, embargo and sabotage.

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provided the delaying Party gives the other Party prompt notice of such failure or delay and the reasons thereof.

17. AUTHORITY

17.1 Each of the Parties hereby warrants and represents to the other that it has taken or caused to be taken all steps, actions and corporate proceedings necessary to cause this Agreement to be binding on it. Either Party shall, if requested by the other Party, furnish to the latter sufficient evidence of the authority of the person or persons who will, on behalf of the Party so requested, take any action or execute any documents require or permitted to be taken or executed by such person under this Agreement.

18. DISPUTE RESOLUTION

18.1 In the event that the Parties fail to agree on the settlement of any matters concerning this Agreement, then within 10 days of notice from either Party to the other requesting the same, the senior representatives of all Parties shall meet in an attempt to resolve the disagreement.

18.2 Should the Parties fail to resolve the disagreement within 10 days of the meeting referred to in clause 16.1 above, then the disagreement shall be resolved by way of an expedited arbitration as set out in clause 18.2 below.

18.3 Any dispute arising out of this Agreement or the interpretation thereof, both while in force and after its termination, shall be resolved in accordance with section 42 of the Intergovernmental Relations Framework Act 14 of 2005.

18.4 The provisions of clause 18.3 above shall not preclude either Party from seeking urgent relief from a competent court.

19. DOMICILIUM CITANDI ET EXECUTANDI

19.1 The Parties choose as their domicilia citandi et executandi for all purposes under this Agreement, whether in respect of court process, notices or other documents or communications of whatsoever nature (including the exercise of any option) the addresses stipulated in clause 2 above:

19.1.1 Any notice or communication required or permitted to be given in terms of this Agreement shall be valid and effective only if in writing but it shall be competent to give notice by fax or e-mail.

19.1.2 Any Party may by notice to the other Party change the addresses chosen as its domicilium citandi et executandi vis-à-vis that Party to any other address, provided that the change shall become effective vis-à-vis that addressee on the 7th (seventh) day from the receipt of the notice by the addressee.

19.2 Any notice to a Party -

19.2.1 sent by prepaid registered post (by airmail if appropriate) in a correctly addressed envelope to it at an address chosen as its domicilium citandi et executandi to which post is delivered shall be deemed to have been received on the 7th day after posting (unless the contrary is proved)

19.2.2 delivered by hand to a responsible person during ordinary business hours at the physical address chosen as its domicilium citandi et executandi shall be deemed to have been received on the day of delivery; or

19.2.3 sent by fax to its chosen fax number stipulated in clause 2 above, shall be deemed to have been received on the date of despatch (unless the contrary is proved); or

19.2.4 sent by e-mail to its chosen e-mail address stipulated in clause 2 above, shall be deemed to have been received on the date of despatch (unless the contrary is proved).

19.2.5 Notwithstanding anything to the contrary contained herein, a written notice or communication actually received by a Party shall be an adequate written notice or communication to it notwithstanding that it was not sent to or delivered at its chosen domicilium citandi et executandi.

20. GENERAL PROVISIONS

20.1 This Agreement constitutes the whole agreement between the Parties relating to the subject matter hereof and neither Party shall be bound by any undertakings, representations (whether implied or tacit), warranties (whether implied or tacit), promises or the like, which are not expressly recorded herein.

20.2 No amendment, alteration, addition to or variation, consensual cancellation or novation of this Agreement, no settlement of any disputes arising under this Agreement, and no waiver of any right arising from this Agreement or its breach or termination shall be of any force or effect unless reduced to writing and signed by the Parties.

20.3 No latitude, relaxation, extension of time or other indulgence which may be given or allowed by any Party to another Party in respect of the performance of any obligation herein, and no delay or forbearance in the enforcement of any right of any Party arising from this Agreement, and no single or partial exercise of any right by any Party under this Agreement, shall in any circumstances be construed to be an implied consent or election by such Party or operate as a waiver or a novation of or otherwise affect any of the Party's rights in terms of or arising from this Agreement or estop or preclude any such Party from enforcing at any time and without notice, strict and punctual compliance with each and every provision or term of this Agreement.

20.4 Nothing contained in this Agreement shall be construed as binding the Parties to any form of exclusivity, all Parties shall be entitled to conduct business independent of each other where market requirements so dictate, unless

otherwise agreed upon in writing in a formal Agreement(s) which Agreement(s) shall be subject to such statutory obligations as may be applicable.

20.5 No Party shall present itself as the representative or agent of the other Party for any business, legal or any other reason, nor shall it have the power of authority to commit the other Party, unless it receives the other Party's prior written consent

20.6 Nothing in this Agreement shall be interpreted as establishing a partnership or joint venture between the Parties and all Parties shall act as independent signatories.

20.7 Each Party shall bear its own costs relating to the preparation and settlement of this Agreement.

21 SIGNATURES

By signing this Agreement all parties accept that they understand the contents thereof and undertake to execute the conditions and provisions of this Agreement

Signed on behalf of the Parties as set out below, each signatory hereto warranting that he or she has due authority to do so

For and on behalf of the Department of Communications

Signed at Pretoria on this 22 day of Feb 2012 ~~2011~~

M.R SEKESE
DIRECTOR GENERAL

As Witnesses
1. _____
2. _____

For and on behalf of the Department of Trade and Industry

Signed at PRETORIA on this 16th day of FEB 2012 ~~2011~~

L.OCTOBER
DIRECTOR GENERAL

As Witnesses
3. _____
4. _____

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For and on behalf of SABS

Signed at [illegible] on this 20 day of [illegible] 2012

B. MEHLOMAKHULU
CHIEF EXECUTIVE OFFICER

As Witnesses

1. [illegible]
2. [illegible]

ANNEXURE A : PROJECT PLAN

1. PROJECT SCOPE

The scope of this Project will be to define and establish a Conformance Testing Authority which would test and certify Set-Top Boxes for distribution in South Africa (using its own and other available test facilities where necessary).

The Project shall consist of two Phases as follows

- **Phase 1 - February 2012 to September 2012**

  This Phase, referred to as the Definition Phase, shall aim at defining the scope of the work to be undertaken by the Conformance Authority, its organisational structure, funding and human resource requirements. The possibility of setting up a strategic partnership with an experienced partner to assist in the testing and the transfer of technology to South Africa as indicated in Figure 1 below will also be undertaken during this Phase.

  A period of 8 months will be required for bringing the lab to fully operational testing level (Agreement with experienced and accredited partner finalised, test equipment procured, laboratory established and personnel appointed)

- **Phase 2 – February 2012 to March 2013**

  This Phase, referred to as the Implementation Phase, shall establish the Conformance Authority and commence the conformance testing in accordance with the studies performed and the decisions reached during Phase 1.

  The second phase will run in parallel with the first phase and will be aimed at ensuring that all the required technology is transferred (including skills development) to our test officers and full accreditation of the laboratory and the personnel is obtained.

The testing and certification function would include testing for compliance to the SANS 862 specification and other associated specifications defined therein. The testing will also include testing and certification of applications developed by manufacturers in accordance with the MHEG-5 middleware standard as modified for South Africa (South African Profile)

In addition, the Conformance Authority will also test and certify software modifications and upgrades developed by the manufacturers for over-the-air downloading to Set-Top Boxes for compliance with the SANS862 standard and the Rules of Operation (RoO) developed by local manufacturers and broadcasters. This testing shall include tests to verify that the proposed software submitted for testing shall be compatible with earlier generations of Set-Top Boxes which have been deployed in the field and are still operational

The tests to be performed as part of the STB Conformance testing are indicated in Annexure E (This list should however be considered as indicative and will be finalised during the Definition Phase as part of the activities of the Working Committee referred to below)

A Working Committee consisting of representatives of the Parties and other parties as deemed necessary by the Committee will be constituted to define the Conformance Testing Authority in terms of at least the following parameters:

- Functions and Responsibilities;
- Operational Philosophy (Possibly including forging a strategic partnership with a Foreign Partner to support operations and technology transfer);
- Requirements for testing and certification;
- Requirements for Facilities and Test Equipment;
- Human Resource requirements and training
- Funding
- Time scales for establishment

2. PROJECT DEFINITION AND DELIVERABLES PHASE

2.1 Establish function parameters and laboratory specifications – Within 10 weeks (Deadline end March 2012)

This will involve activities such as the determination of the preferred technology based on function parameters for the testing laboratory. For such purposes there is a need to hire the relevant expertise to assist in the study of the project requirements. This will be the first such laboratory in South Africa and the SABS will have to establish close working relations with a company such as DTG, the organization established in the UK to oversee the DTTV migration there and which also operates a test laboratory in the UK which has been doing this type of testing on the hardware and the software part of the STB decoders to the DVB-T and DVB-T2 standards.

2.2 Acquisition of test equipment – Up to 12 weeks (Deadline end June 2012)

This is the focal point of requirements that will enable us to commence with the tests. There is generally a lead time of up to 3 months for full acquisition of imported, highly specialised equipment. We therefore need to place the order as early as possible once the project starts. Close interaction with a proposed International Partner will be required prior to the equipment being ordered as the effort required to generate the test scripts in collaboration with the Partner will be considerably reduced if equipment similar to that utilized by the Partner is selected. Getting the test equipment will be through the normal SABS procurement procedures The core test items required are the Broadcast Signal Generator, Television RF analyser, Dolby Audio analyser, HDMI Analyzer, Operating software, to mention a few. For this project, it will be easier to get it through the local suppliers who will be involved in the following activities:

- Placing of an order with the equipment manufacturers

- Do a forward cover
- Ship the equipment into the country
- Delivery of the equipment to the SABS premises
- Setting up of the test equipment in the SABS laboratory
- Commissioning it to be used

2.3 **Refurbishment of the test laboratory and setting up of test conditions – 3 months (Deadline end April 2012)**

There is an existing structure that needs to be refurbished. It is currently within the Electronics and Appliances Department where the rest of the tests will be done. This shall be done by the SABS Facilities Department. External contractors may be used where necessary, but it will all be through the Facilities Department. The following needs to be done:

- Renovations of the existing structure
- Setting up of the test conditions
- Racking

2.4 **Skills development – 6 months (Deadline October 2012)**

We anticipate that we will need at least one Electronic Communication Engineer and one Test officer employed permanently in addition to the existing two Test Officers that we currently have in our telecommunications laboratory. It is also anticipated that the capability to write test scripts will be established locally and therefore at least one software engineer needs to be employed separately or sourced from within the SABS.
An additional R1300K will have to be allocated for their annual salaries, R1000K and R300K respectively.
The process will be done in conjunction with the SABS' Human Capital department and it involves:

- Identifying the necessary skills needed for the candidates
- Advertising
- Recruitment and employment
- Training to the needed skills, which will involve training with overseas lab in UK
- Declaration of competency

Detailed Project Plan for the establishment of the Conformance Authority addressing at least abovementioned parameters.

2.5 Accreditation – 6 months (Deadline early March 2012)

To obtain the accreditation will be a continuous exercise from the first date of project implementation, but this is one of the critical milestones as the laboratory cannot commence business without the proper accreditation. Since this is a new field of testing in South Africa there is currently not enough field expertise to enable us to be accredited by a local accreditation body, SANAS. It is therefore necessary to explore and aim to get an international accreditation that DTG lab in the UK has. Consequently the cost of accreditation will be much more expensive as compared to the local one, but it is necessary to ensure the quality and the full compliance of the STBs that are being tested.

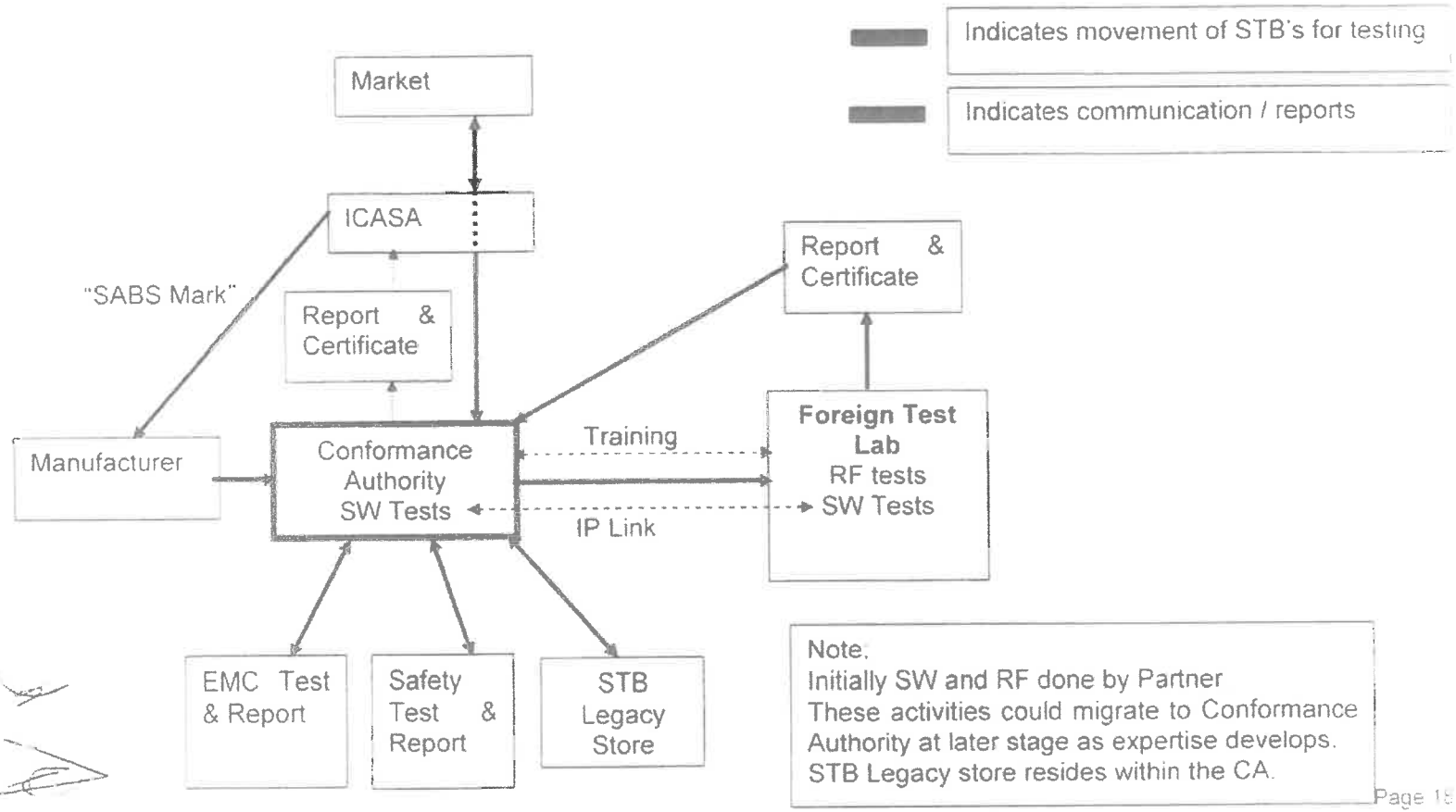
3. IMPLEMENTATION PHASE

- Establishment and operation of the Conformance Authority in accordance with the guidelines defined during the Definition Phase.

4. PROJECT SCHEDULE

- Detailed Project Plan 30 January 2012.
- Meeting with a suitably qualified and accredited international software conformance authority– end Jan 2012 (23/24 January)
- Publishing of tender calling for equipment procurement and support for the establishment of a Conformance Authority in the RSA – 21 January 2012
- Establishment of Conformance Authority : End of May 2012 (With some test capability locally depending on outcome of study)

FIGURE 1 : POSSIBLE MODEL OF PARTNERSHIP
PARTNER WITH EXPERIENCED LABORATORY AND INITIALLY DO CERTAIN TESTS LOCALLY.



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PROJECT RISKS

- **Available technical expertise specifically relating to the development of software test procedures and scripts.** This will be mitigated by forming a strategic partnership with an experienced Partner who will be able to assist in the development of the test procedures and test scripts for the South African profile and provide the necessary training to local personnel.
- **Time scales for the establishment and accreditation of the Conformance Authority.** This will also be mitigated by forming a strategic alliance with an experienced Partner. In particular the time for accreditation of the Conformance Authority will be dramatically reduced as the Partner will be accredited and could assist greatly in the formulation of the procedures. Some tests could also initially be performed by the Partner and then migrated to South Africa as expertise is developed locally and resources are made available.
- **Availability of Resources.** The appointment and training of local personnel is essential to the success of the Project. However, this could be done in a phased approach assuming that some of the testing could be performed initially by the Partner. The same would apply to the procurement of test equipment. However, the earlier the test equipment is procured, the more effective the training programmes could be implemented.

ANNEXURE B: PROJECT BUDGETS

Project Budget Allocation

The Project budget will depend largely on the philosophy to be followed in the establishment of the Conformance Authority and in particular whether a positive Agreement can be reached with an experienced Partner.

Assuming that the costs for testing will be borne by the manufacturer and that the Conformance Authority will derive an income from such testing which will offset the running costs, the number of tests to be performed per annum will also determine the total funding required per annum.

Based on the abovementioned assumptions it is estimated that an amount of approximately R20m per annum would be required to operate the Conformance Authority which would include the procurement of test equipment during the first year to the value of approximately R10 m and the appointment of a limited number of technical staff.

Due to the abovementioned uncertainties it is proposed that, as indicated earlier in the Project Scope in Annexure A, the budget be defined by the Working Group as the first phase of this MOU and that it be finalised after the planned preliminary discussion with an experienced organization. Funding should however be made available at this point in time for discussions with a suitably experienced Partner in the UK.

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ANNEXURE C : PROJECT DELIVERY ROLES AND RESPONSIBILITIES

ROLE OF DOC

DoC will:
Actively collaborate with the SABS for the establishment of the Set-Top Box Conformance Authority:

During the **Project Definition Phase**
Assume responsibility for the Project to and in collaboration with the SABS:

- Define the functions of the Conformance Authority;
- Interact with a suitably experienced organization in the UK regarding the establishment of the proposed Conformance Authority;
- Define the test equipment and facilities required for establishment of the Conformance Authority;
- Define the project plan and estimated funding and HR resource requirements based on the abovementioned;
- Assist the SABS in the generation of Tenders calling for a Partner to support the RSA in establishing the Conformance Authority and the definition and procurement of necessary test equipment to be used by the Conformance Authority.

During the **Project Implementation Phase,** DoC will:

- Facilitate and monitor the establishment of the Conformance Authority;
- Collaborate with and support the SABS in the establishment and operation of the Conformance Authority;
- Provide technical support in the evaluation of the test results and co-sign the Conformance Test Certificate indicating conformance with the specification.

ROLE OF SABS

SABS will:
Actively collaborate with DoC for the establishment of the Set-Top Box Conformance Authority:

During the **Project Definition Phase** SABS will:

Support DoC in the following:

- Define the functions of the Conformance Authority;
- Together with DoC, interact with a suitably experienced international partner regarding the establishment of the proposed Conformance Authority;
- Define the test equipment and facilities required for establishment of the Conformance Authority;
- Define the project plan and estimated funding and HR resource requirements based on the abovementioned;

- Generate in collaboration with DoC. Tenders calling for a Partner to support the RSA in establishing the Conformance Authority and the definition and procurement of necessary test equipment to be used by the Conformance Authority

During the **Project Implementation Phase** the SABS will:

- Assume responsibility for the establishment of the Conformance Authority.
- Appoint personnel as required to staff the Conformance Authority;
- Procure test equipment as required.
- Equip and commission the test facilities in collaboration with the Partner
- Establish and operate the Conformance Authority in collaboration with the Partner;
- Evaluate the test results and together with DoC sign the Conformance Test Certificate indicating conformance with the specification

ANNAEXURE D : PROJECT TRACKING AND REPORTING

To be defined by DOC and signed by all signatories to this MOA

STB PROJECT FEASIBILITY

CAPACITY	NAME	SIGNATURE	DATE
Originator	L.J. Heyns Owner's Engineer		14 June 2012
Approver	P Coetzer Project Director		14 June 2012

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4 S Ratlabala	5 B Amisi	6 W Haywood

1. Abbreviations

This list contains the abbreviations used in this document.

Abbreviation or Acronym	Definition
DoC	Department of Communications
DTI	Department of Trade and Industry
IDTV	Integrated Digital Television Set
IRR	Internal Rate of Return
SABS	South African Bureau of Standards
STB	Set-top Box
STB project	Set-top Boxes Conformance Authority project

2. APPLICABLE DOCUMENTS

The following documents are applicable to this document.

Document Title	Preparer/Author	Document Number	Revision or Date of Issue

3. REFERENCED DOCUMENTS

The following documents are applicable to this document.

Document Title	Preparer/Author	Document Number	Revision or Date of Issue
Memorandum of Agreement: Establishment of Conformance Authority for Set-Top Box Testing	SABS/ DoC/ DTI		22/02/2012

4. CONTENTS

5. Purpose

5.1 The purpose of this Feasibility Study is to disseminate the information required to evaluate the establishment of a Set-top Box Conformance Authority (STB Project) as to its financial viability, socio-economic impact on South Africa with respect to transfer of technology, establishment of local testing and production capability and the impact on the future business of the South African Bureau of Standards (SABS).

5.2 This feasibility report evaluates the feasibility of the project from a SABS Commercial business as well as from a joint SABS/ DOC/ DTI point of view.

5.3 The DOC has already stated that should additional funds be required to make the project viable, that SABS should enter into negotiations with DOC.

6. Executive Summary

The conclusions regarding the feasibility of the establishment of a Set-top Box conformance authority at the SABS is the following:

- The work done to date and the business case discussed herein excludes the establishment of a central facility where one sample of all historic makes and derivatives of STBs and IDTVs are kept to test and ensure backward compatibility when making MHEG and other broadcast changes and upgrades (denoted a "zoo"). SABS is currently in the process of compiling a proposal for the establishment of such a facility for the consideration of DoC, hence the feasibility of the zoo will be treated as a standalone feasibility to be investigated.
- The STB laboratory to test STBs for conformance to the SANS862 standard will be feasible, if the cost of establishment of the facility of R30m is treated as a grant. The forecast income from operations will not be sufficient to pay for the amortisation of capital cost for establishing the facility. Without the R30m grant, assuming full utilisation of the laboratory (which is unlikely), SABS will only break even over a 10 year period if tests are charged at a rate of R440,000 per test. Even so, the risk of such a business case will be enormous due to the sensitivities to costs. This sensitivity is shown by the fact that for the achievement of an IRR of 12%, the asking price per test will have to increase to R970,000 per test. If the laboratory utilisation is 80% (the more likely scenario), the asking price has to go up to R1.31m per test In order to achieve the same IRR. It is therefore concluded that the R30m grant will be required to establish a laboratory that can support local industry with tests at an affordable cost per test. Based on the information above it is important that a discussion needs to take place between the SABS, DOC and DTI with regards to the proposed pricing. Should a further reduction in testing prices deem to be necessary in order to support the establishment of the STB industry, this operational shortfall will have to be funded as per the MoA between the SABS, DOC and DTI.
- The laboratory is expected to make an operational profit and to be fully funded operationally by STB and IDTV manufacturers needing to test their product. The feasibility study however assumes that all suppliers will be required by the DOC to apply for the SABS mark scheme, which assumes a requirement to perform six-monthly field tests.
- The laboratory business case, however, remains fairly sensitive to fluctuations in income or costs and care will have to be taken to ensure that the laboratory shows an operational profit. For the base case discussed in paragraph 12, cash breakeven will be achieved in year 6 when the total

number of tests per annum has reached 72. It is assumed that the number of annual tests to be performed by the laboratory will stabilise at ±85, which is more or less 2 per week, justifying two test stations.

- A base case was assumed where the laboratory is 80% occupied (translating into 68 tests per annum), which showed an IRR of 20%. Below a utilisation of 65%, the laboratory will make a loss. It will therefore be crucial for the business case that all manufacturers participate in the SABS mark scheme. Without the mark scheme being a requirement to produce and sell STBs in the market, the laboratory will in all likelihood operate at a loss.
- Care should also be taken to manage laboratory costs carefully. A cost increase of 20% at the base case will wipe out the profit margin.
- A separate business case motivating for possible additional funding beyond the current R30m is in the process of being prepared on the reestablishment of an in-house EMC, EMI and Safety testing facility that will supplement this Feasibility Report.

The feasibility of the project should, however, not only be a financial consideration. Supporting local industry with a testing capability will have significant socio-economic benefits. It is estimated that around 400 direct jobs will be created (that excludes additional jobs through local sales, services and the growth in the television and film industry) by manufacturing Set-top Boxes locally. Having a local testing facility will help significantly in ensuring quality products to be delivered to the nation. With Government planning to subsidise five million Set-top Boxes for poor households, the cost of failure will be significantly more than the investment required to establish a Conformance Authority that can test fully to the local Set-top Box specifications.

This report concludes that the establishment of a Set-top Box conformance authority in South Africa is feasible from a combination of a financial, socio-economic, political and technical point of view. It does however require DOC funding of R30m to fund the establishment of the facility, with substantial indirect benefits as stated herein. It is also recommended that SABS and the DOC discuss potential additional funding required in future, depending on the additional support needed to make the life cycle project viable for SABS.

7. Background

7.1 The national policy on the migration to digital broadcasting, published in 2008, recognises clearly that our radio frequency spectrum is a national resource and that Government has a responsibility to use this resource in the public interest, prioritising it for developmental objectives.

7.2 Digital broadcasting uses the frequency spectrum far more efficiently than analogue technologies, which frees up valuable radio frequency spectrum. It is contemplated that about eight standard definition digital channels will be created per radio frequency currently assigned to one analogue channel. In summary, digital broadcasting is inevitable and will contribute to the economic growth of South Africa for a number of reasons, amongst other:

- the more efficient use of the frequency spectrum, a public and scarce resource;
- more channels, better picture quality, and therefore, the availability of more access to broadcasting and content diversity to the public, which will enhance the country's ability to provide universal services and to ensure more equitable access to information;

- potential for special interactive services to cater for people with visual and hearing impairments such as audio description and subtitling;
- the provision of other services important to economic growth in South Africa, such as wireless services, and an expansion of television services prioritising education, health, youth, SMMEs, interactive services, as well as Parliamentary and government information and service needs;
- given the increasing uptake and usage of mobile services and the need to increase broadband access in South Africa, it is required to make provision for new developments in ICT services and to provide for the allocation of frequency spectrum to enable the licensing of mobile broadcasting services; and
- the delivery of new e-services, which brings opportunities for developing new skills and the creation of new jobs, and new investment opportunities.

8. Introduction

8.1 The Department of Communications (DoC) is responsible for overseeing the South African electronic communications, broadcasting and postal services industries.

8.2 The Department of Trade and Industry (DTI) is responsible for overseeing trade and industry in South Africa, with the aim of promoting industrial development, investment, equity, competitiveness and employment creation.

8.3 The South African Bureau of Standards (SABS) offers Standard development, Training, System and Product Certification services. The SABS is the only institution established for the development, promotion, certification and maintenance of standards in South Africa.

8.4 The DoC, DTI and SABS concluded an Agreement for cooperation in the establishment, development and utilisation of a Conformance Authority at the SABS, which will assume responsibility for the testing and certification of Set-top Boxes to be used for the reception of digital terrestrial television transmissions in South Africa.

9. Project Description

9.1 SABS will establish a local Conformance Authority which will assume responsibility for the testing and certification of Set-top Boxes to be used for the reception of digital terrestrial television transmissions in South Africa. The laboratory must be operational by September 2012, and have obtained full accreditation by March 2013.

9.2 A Set-top Box (STB) will allow users to view digital transmissions on their current analogue TV sets. It decodes the broadcast digital video stream and converts it into a signal that can be displayed on an analogue TV set. The availability of high-quality Set-top Boxes in South Africa will have a significant impact on South Africa's ability to migrate to terrestrial digital broadcasting.

9.3 The current Set-top Box market in South Africa is vertically integrated, with subscription broadcasters controlling the models of Set-top Boxes that are used on their network platform. In the digital broadcasting era, Set-top Boxes must be enabled to receive services from different

platforms and operators. This will allow different service providers to gain access to the same consumers and vice-versa for the consumers to have inter-changeability between service providers.

9.4 To ensure a successful migration to digital terrestrial television broadcasting in South Africa, Set-top Boxes to be introduced to South Africa need to:

- have a control system to prevent Set-top Boxes from being used outside the borders of South Africa and to disable the usage of stolen Set-top Boxes;
- be conditioned to work anywhere, provided the codes are changed to suit the needs of other countries, thereby increasing export opportunities for the South African industry – in particular to Africa;
- have a secure over-the-air-software download feature to enable service enhancement over the Set-top Box lifetime. This feature will reduce the operational costs of the box as it will enable remote upgrades of the Set-top Box centrally, making it unnecessary for providers to visit homes or for the public to go to vendor offices for such upgrades to be done;
- have a return path capability feature in the Set-top Box which enables the public to receive as well as send a message back, as opposed to only receiving messages. This feature enables the full and interactive provision of e-government services such as accessing, filling in and sending back government forms without the viewer leaving home or the place where the TV set is located such as a school, health centre, police station, post office; and
- have capabilities to unscramble the encrypted broadcast signal so that only fully compliant Set-top Boxes made or authorised for use in South Africa can work on the network.

9.5 The STB Project aims to keep the project risks as low as possible. It has therefore been decided that first-of-a-kind technologies will be avoided and that established technologies be used as far as possible. This will be the first such laboratory in South Africa and the SABS will partner with experienced international partners of the required technology to establish a local facility for Set-top Box conformance testing. An acquisition strategy has been written, detailing the approach that will be followed to identify, select, engage and contract such technology partners.

9.6 The partners have been requested to provide a transfer of technology, as well as to supply hardware and services, provide advice on project execution strategy, support with integration, acceptance and testing and general strategic inputs as required.

9.7 The latter part of the project description contains clear and definite project terms with respect to cost, scope, schedule and assumptions. It contains a project contingency which is risk-informed, i.e. a function of the expected risk. The contingency will allow SABS to allocate additional funds to the project budget from a pre-approved contingency pool, as some of these risks materialise.

9.8 In conclusion, it will be the SABS project management team's goal to ensure that the procurement of the transfer of technology, laboratory equipment and related services will achieve the following:

- Value for money;
- Quality and fitness for purpose; and
- Compliance with PFMA, SABS and other Government and legislative policies and requirements.

10. Transfer of Technology Strategy

10.1 Time is of the essence, hence existing technology should be used as far as possible. The cost and risk of developing technology that exists as is elsewhere in the world will not be worthwhile.

10.2 Equipment not supplied by the partner will be procured through the normal SABS procurement process. SABS Facilities will be responsible for refurbishing the test laboratory and setting up the relevant test conditions. External contractors may be used for this purpose. SABS HC will be responsible for the recruitment and skills development of the required skills.

11. Cost Estimate

A contingency budget has been allocated to allow for risks that may materialise on the project (covering the full scope of potential cost increases, related to, amongst other, technical risks, project risks, rate of exchange variations, material or other price increases, unforeseen events and costs, etc.).

Contingency has been considered for each line item of the budget and ranges from low to high percentage allowance, depending on the confidence with which scope, activities and associated costs can be defined, i.e. risk or uncertainty related to the specific budget item. A first-order estimating risk assessment has been done to determine the contingency percentage or amount for each line item. The total project contingency is the sum of all individual component allowances.

The contingency forms part of the overall project cost forecast, as approved by the relevant SABS authority.

The current project estimate has been done to a Class 3 level in accordance with cost estimating standards. The following are typical project estimate accuracies that will be employed through the life cycle of the project to ensure that the estimate is in accordance with industry norms and appropriate for each Phase of the project:

- Class 5 – Capacity factored -30% to +50% - for screening purposes
- Class 4 – Equipment factored -20% to +40% - feasibility (engineering 0 to 5% complete)
- Class 3 – Semi detailed -15% to +30% - Budget (engineering 10% to 40% complete)
- Class 2 – Forced detail -10% to +15% - Control budget (30% to 70% of full project definition –final scope, equipment lists, all supplier quotations etc.)
- Class 1 – Actual detail -5% to +10% - Check budget (70% to 100% project completion)

11.1 Project Delivery Cost Estimate (EMC, EMI and Safety testing excluded):

Option 1: EMC, EMI and Safety Testing Excluded

Description	Estimated Value [ZAR]
SABS Technical Expertise and Project Management (incl. Sub-contracted Services)	**7 169 070.00**
Material	**21 499 458.60**
Hardware: Laboratory Refurbishment/ Establishment and Upgrade	905 184.00
Hardware: Test Equipment	8 374 074.00
Hardware: EMC, EMI and Safety	-
Software	12 004 200.60
Accreditation	216 000.00
Disbursements	**1 432 187.00**
Total	**30 100 715.60**

It is important to point at that the above amounts exclude all relevant taxes. If taxes are to be included, the funding required to execute the project will need to be increased accordingly.

Although some contingency allowance has been made in the project budget, it does not account for any significant scope changes. Any significant changes to the cost of the project may necessitate a re-evaluation of the overall feasibility of the project.

12. Laboratory operation and maintenance

12.1 Commercial feasibility during operation and maintenance

The feasibility of the laboratory during operation and maintenance will be a direct function of the following:

- The number of Set-top Boxes tested per annum;
- The rate charged per test; and
- The operational and maintenance cost of the laboratory.

The current estimates of the income and costs are as follows:

12.1.1 Project Income

The projected income of the laboratory will be in the order of R200,000 per full Set-top Box test (the approximate standard international rate). It is estimated that the laboratory will be able to test one Set-top Box at a time. This throughput can be increased by increasing the number of test stations. However, it is unlikely that more than one test station will be needed, given the expected throughput requirement.

The expected throughput is estimated as follows, and is assumed to exclude IDTV's:

- There will be 5 manufacturers of Set-top Boxes in South Africa.
- A common approach is to have a full conformance test and consequential type approval for the initial first product per manufacturer. Hardware and software variants that substantially alter the functionality of the product should be submitted for full conformance testing. Product variants that include minor hardware changes and software fixes or minor updates can usually be approved without full conformance testing. SABS will also sample boxes in the field and will charge manufacturers for such testing.
- The number of tests per manufacturer is estimated as follows:
    - It is expected that each manufacturer will have to test a new box twice (on average) before it will pass. The second test will be charged at a rate of half of the first one.
    - It is expected that each manufacturer will introduce a new model every second year. It is also assumed that models will remain in service for 5 years.
    - It is expected that each variant of a box in the field be tested six monthly to maintain the mark scheme due to MHEG and other changes at an assumed lower rate of R50,000 per test.
    - It is expected that five foreign suppliers will want to enter the market in year two (STBs and IDTVs), and that the test patterns for these two suppliers will be the same as for the local market.
    - Full tests will be charged at R200,000, retests at half the amount i.e. R100,000 and field tests at R50,000 per test.
    - The optimistic income projection will then be as follows i.e. it is anticipated that the number of tests could be lower, but not really higher:

	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	Income per category
Full STB tests (local)	5		5		5		5		5		200 000
- Retests	5		5		5		5		5		100 000
- Field tests		10	10	20	20	30	30	30	30	30	50 000
Full IDTV tests	2		2		2		2		2		200 000
- Retests	2		2		2		2		2		100 000
- Field tests		4	4	8	8	12	12	12	12	12	50 000
Foreign STB suppliers		5		5		5		5		5	200 000
- Retests		5		5		5		5		5	100 000
- Field tests			10	10	20	20	30	30	30	30	50 000
Income	2 100 000	2 200 000	3 300 000	3 400 000	4 250 000	4 600 000	5 700 000	5 100 000	5 700 000	5 100 000	
Number of tests p/a	14	24	38	48	57	72	86	82	86	82	

Table 1: Number of tests and predicted laboratory income

12.1.2 Operational and Maintenance Cost

The operational and maintenance cost for the laboratory is expected to be the following:

- The operational cost estimate for daily running and maintaining the STB laboratory will be three senior test officers at a salary of R300,000 per annum each, plus SABS overhead allocation for a total of R900,000 per annum. Adding management and administrative labour cost of R600,000 (including a SABS overhead allocation), it brings the total labour cost per annum to R1.5m. (This figure could be higher, depending on the demand for administrative and managerial labour.)
- Software maintenance, licenses and technical support is estimated at R280,000 per annum.
- The cost of outsourcing EMC, EMI and Safety testing is estimated to be around R21,000 per Set-top Box.
- Laboratory hardware maintenance and other material expenses is estimated at 6% of turnover per annum.
- Laboratory direct overhead cost such as rent, electricity and other sundry expenses is expected to be in line with the cost ratio of other similar laboratories in SABS.
- From the above, the total annual operational and maintenance cost of the laboratory will be ±R2.8m if EMI/EMC tests continue to be outsourced. The uncertainty related to this cost is about 20% at the moment.

12.1.3 Conclusion on the Commercial Feasibility of the Laboratory

It is has been established that the laboratory will be commercially feasible, should the number of tests shown in Table 1 materialise. One has to admit, however, that this is an optimistic number. A sensitivity of the number of tests have been calculated (called laboratory utilisation). Breakeven will be achieved at ±65% utilisation. From Figure 1 below, it can be seen that the laboratory IRR is extremely sensitive to utilisation. At full utilisation, an IRR of 60% will be achieved, whilst at 80%, the IRR will drop to 20%. An 80% utilisation has been taken as the base case, i.e. the estimated most likely number of tests to be performed. The base case thus assumes that some manufacturers may have less products in the market than estimated, some may elect not to do conformance testing, and some may leave the market.

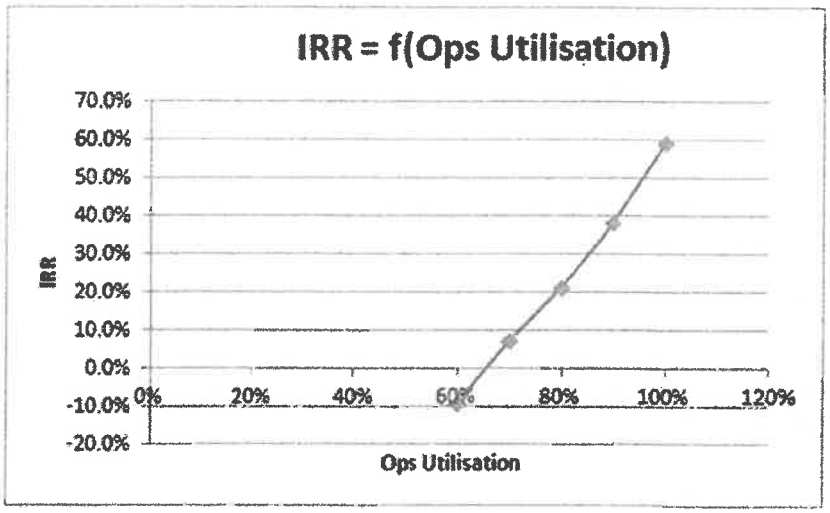

Figure 1: IRR as a function of laboratory operational utilisation

At the base case of 80% utilisation the operational cash flow of the laboratory over a ten year period is shown below in Figure 2.

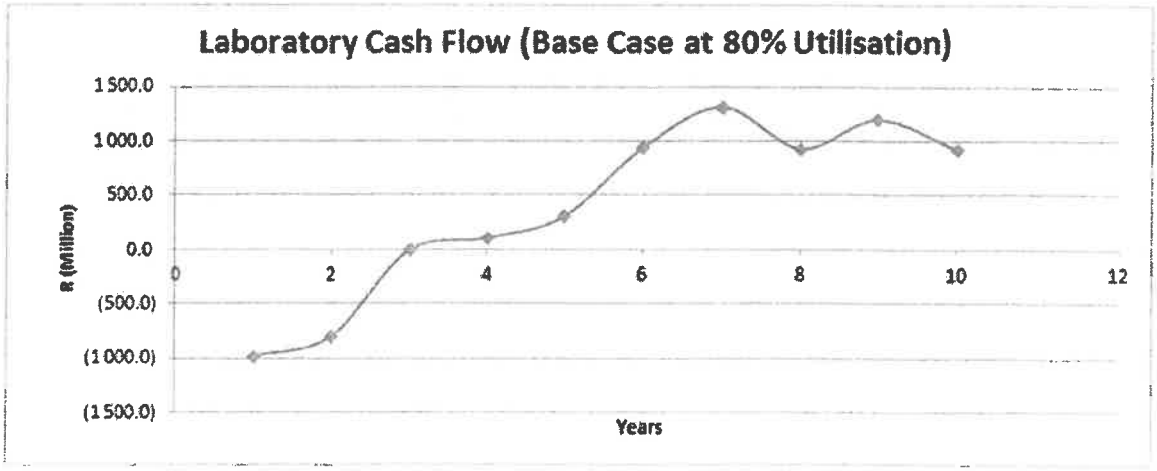

Figure 2: Laboratory Case Flow for the Base Case

For the base case, cash breakeven will be achieved in year 5, as shown in Figure 3 below.

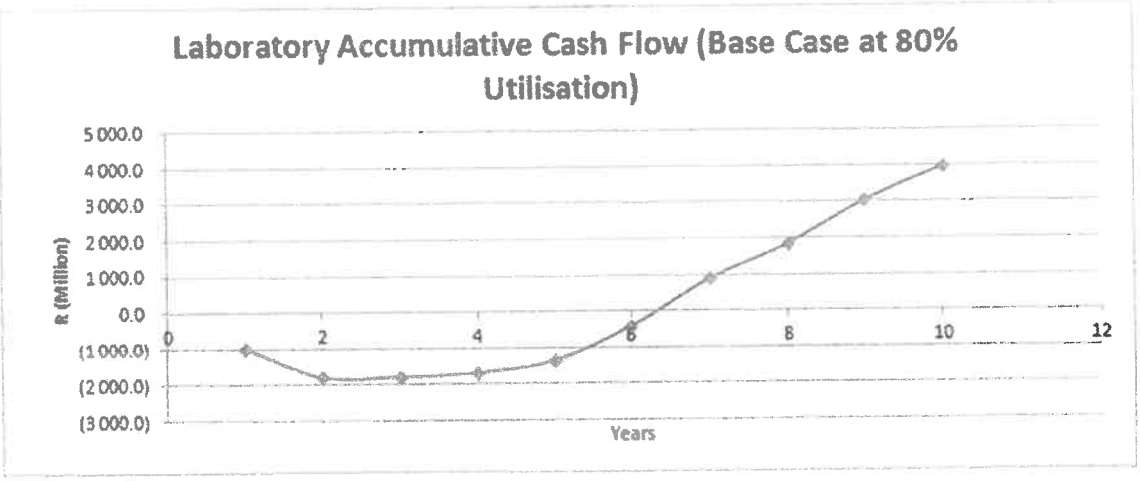

Figure 3: Laboratory Accumulated Cash Flow for the Base Case

The sensitivity of operational cost has also been analysed. Given the sensitivity that the business case has to income, it is expected that the business case is similarly sensitive to operational cost increases. In Figure 4, one can see that for the base case, a 20% increase in operational cost will lead to a breakeven (IRR = 0%) scenario.

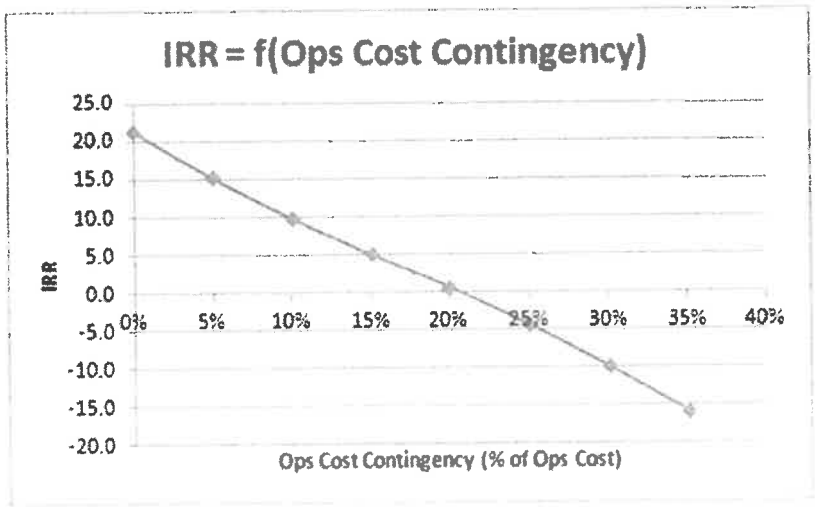

Figure 4: IRR as a function of additional operational cost

It is concluded that SABS must gear up its capacity and capability to operate the laboratory as a function of increased demand. To reduce operational cost, one could only train two operators initially, and only bring a third operator on board once the demand for tests has increased sufficiently to justify the additional cost.

13. Economic factors

The plan to migrate South Africa's broadcasting system from analogue to digital will enable broadcasters to have better capacity to improve and diversify their services. The main challenge of implementing this strategy lies in balancing expansion of services to all South Africans, particularly the poor, with expected opportunities for growth in the South African film and television industry and socio-economic development.

The growth of the South African film and television industry will benefit the country as a whole. With the support suggested above it can make a significant contribution to the economy and employment while it also plays an important social role providing information and entertainment, reflecting diversity and promoting a sense of nationhood. As we enter the 21st century, growing this industry not only provides economic benefits and international exposure, but more critically, provides an outlet for South African talent with the consequent rewards of recognition, skill and income.

13.1 Development of the Electronics and Local Content Industries

Currently, South African firms are manufacturing Set-top Boxes for the local subscription TV market as well as some for foreign countries. The country also has greater export capabilities and potential as global demand for decoders increased in the previous few years.

Government has decided to support this industry as part of contributing to job creation. Given South Africa's capability and capacity in electronics manufacturing, Set-top Boxes shall therefore be sourced primarily from South African manufacturers. This means that the industry will need to increase investment in capital production machineries to meet the expected demand for Set-top Boxes. The local development of Set-top Boxes will bring to bear a whole new value chain required to meet the production levels. In this regard, the SABS laboratory for testing and certification will play a crucial role in the establishment, support and maintenance of the local Set-top Box manufacturing industry.

The experience of manufacturing Set-top Boxes in South Africa will also contribute to the acceleration of the development of the integrated digital television manufacturing capacity. This could result in the manufacturing of TV sets that will no longer require Set-top Boxes to receive a digital signal post dual illumination as the electronics of the Set-top Boxes will be integrated into the TV sets.

13.1.1 The Importance of a Conformance Requirement to Local Manufacture Support

The most important short term benefit of Set-top Box control is that it will ensure that conformant digital products are traded in the South African market. It is the only fool-proof method of ensuring new digital products coming into the South African market will conform to standards such as SANS862.

Set-top Box control will ensure the success of Government's multi billion rand digital migration project directly and indirectly supporting six of the ten "Policy Aims" stated in the August 2008 Government Policy Document. In addition to this, it will allow for a controlled migration environment, preventing incidences as has happened in Mauritius where there was no control mechanism in place, resulting in non-conformant Set-top Boxes flooding the market.

Implementing Set-top Box control will give each Set-top Box a unique number linked to a specific household, enabling more control in the distribution of the Set-top Box subsidy, thereby mitigating the risk of possible duplication and corruption.

Local Set-top Box design and manufacture will be key. Only when you have a competitive Digital TV platform incorporating the vision of Government and all Stakeholders will job creation become a reality.

Referring to Governments strategies and the job creation challenges in South Africa, Set-top Box control is a key supporting mechanism, ensuring a level playing field through conformance and differentiating the South African Set-top Box industry from the mainstream Asian Set-top Box Manufacturers. Through added design complexity, it will ensure that all Set-top Boxes will conform to the minimum local requirements and in the process not prejudice any manufacturer. It is believed that without this solution, Government will fail to develop a sustainable world-class Set-top Box manufacturing industry and any manufacturing jobs created through digital migration will be short lived. Taking into consideration that the local electronics industry has been in decline for many years, this lifeline from Government is crucial to revitalise this industry.

By differentiating the South African Digital Migration Solution, i.e. the local Set-top Box product, and by promoting its capabilities in Africa, South Africa has a much greater chance of becoming a successful Set-top Box (and other) digital product exporter in Africa. Historically South Africa has much influence in Africa and it is believed this solution for South Africa will be easily marketable in Africa, thereby passing on the benefits to our neighbours.

13.1.2 Job Creation and Economic Impact

It is concluded that the STB Project is expected to have a significant positive impact on the South African economy. South Africa is a country rich in natural resources. However, it is imperative that the South African economy is steered towards production and value-adding industries. With the local production of Set-top Boxes, it is expected that the project will lay the foundation for significant further growth in this market – providing a significant stimulus to the macro economy in terms of its development of the factors of production.

The STB Project will generate long-term benefits in creating opportunities for exports and is likely to serve as a catalyst for further investment in related production projects. This would offer additional long-term employment opportunities and provide a platform for on-going developmental projects and initiatives.

The production of Set-top Boxes will conservatively create around 400 direct jobs, that excludes additional jobs that will be created through local sales, services and the growth in the television and film industry.

14. Political factors

In the Government Gazette of 8 September 2008, the Minister of Communications stated that in this era of heightened demand for spectrum, digital migration will provide South Africa with increased opportunities to offer different services and applications to our people. These benefits provide a clear case for South Africa to prioritise the migration to digital broadcasting. Digital broadcasting provides not only the space within which new and cutting edge technologies can be developed, but more importantly, it has the potential to directly contribute to socio-economic development and the improvement of the quality of life of all the people in South Africa.

With the migration to digital broadcasting, Government aims to support:

- the development of a South African world-class electronic manufacturing industry; and
- the development of the creative industries.

14.1 Importance of Providing Access to Television

The television industry plays a powerful role in communicating ideas, information and ideology. For individuals, film and television provides an indirect link to the rest of society. It has the potential to create a common culture and system of values as well as inform people of a diversity of cultures and ideas. It can provide minority communities with local news and entertainment and allow them to see the world through their own lenses.

On a political level, this industry provides a forum for debate and discussion as well as information, which is essential for individual's participation in community life. It therefore plays a central role in the workings of a democratic state. Economically, this is an industry which turns over billions of dollars and generates millions of jobs throughout the world. The film and television industry also contributes economically by generating jobs directly in production and postproduction companies, through casting and crewing agencies, in equipment-hiring companies, through set design and manufacturing companies and prop suppliers. This industry also creates jobs indirectly in supporting industries such as the hospitality industry in catering firms and hotels, and the transport industry.

15. Social factors

South Africa is confronted with a wide range of developmental challenges such as the digital divide as well as building social cohesion and a common national identity, poverty eradication, and employment creation. Digital broadcasting has the potential to contribute significantly to addressing these challenges. Accordingly, the South African Government has identified broadcasting digital migration as a national priority.

Globally poverty is associated with low access to information and knowledge. Government therefore regards greater information and communication flows within and between communities and regions as an important tool in the war against poverty in South Africa. The digital divide is to some extent a cause as well as a consequence of poverty.

The country's information society vision is to "establish South Africa as an advanced information society in which Information and Communication Technology tools and information are key drivers of economic and societal development".

Digital broadcasting has a key role to play in the socio-economic and cultural development of South Africa. It is of fundamental importance in the emerging information society and knowledge economy, in which access to information and knowledge is regarded as a prerequisite to economic and societal development.

Although coverage limitations will be overcome in the digital environment, access to Set-top Boxes and public broadcasting services by all South Africans, regardless of their economic status, remains a fundamental principle that should not be diluted by the digital migration process. The total TV-owning households in SA are estimated at 7.5 million, of which approximately 94% rely exclusively on free-to-air broadcasting services. Of these 7.5 million TV households, about 4.5 million are poor households who would find it very difficult or impossible to afford Set-top Boxes. Government has therefore decided, as a matter of policy, to consider finding means of making the Set-top Boxes affordable and available to the poorest TV-owning households. This support by Government should be seen as part of its commitment to bridging the digital divide in South Africa.

Accordingly, for South Africa, the Set-top Boxes will have special features which enable access to e-government services for all citizens, especially those who thus far have had limited or no access. In

this regard, the STB Project will be a key mechanism to provide control and assurance that the socio-economic endeavours of government are met. It will play an important role to enable the provision of services in a multiplicity of languages, thus increasing access to information which in line with Government's information society vision is an important tool for societal and economic development. This is essential to meet our poverty reduction goals.

15.1 Building National Identity and Social Cohesion

The migration to digital broadcasting will create opportunities for the development, use and wide dissemination of local content in all eleven official languages. It will also advance the expression and the efficient communication of the knowledge and experience of all communities and the country as a whole. It could contribute to the integration of people from different ethnic or racial backgrounds, thus contributing to nation building.

16. Technological factors

The key benefit of digital broadcast technologies is that they use scarce national radio frequency spectrum far more efficiently than analogue technologies. This means that existing broadcasting services can be provided using less of the radio frequency spectrum they currently occupy/ hence the additional and dedicated delivery of government information, education, health and SMME programmes.

The radio frequency spectrum freed-up through the digital migration process, often referred to as 'digital dividend', has the potential not only to provide new and improved broadcasting, but also to enable additional ICT services traditionally not provided in the broadcasting radio frequency band, such as mobile telephony and wireless broadband as well as dedicated delivery of government information and services.

Although there are challenges, the migration of the national broadcasting system from analogue to digital brings with it a variety of opportunities – the local manufacture of Set-top Boxes being only one. The process is also critical for the future of the local broadcasting industry as well as the South African economy as a whole.

As a means to achieve universal service and access in digital terrestrial broadcasting basic Set-top Boxes will be made affordable and they shall be sourced primarily from South African manufacturers. This is part of government's vision to contribute to job creation and South Africa's global excellence in the manufacturing of Set-top Boxes.

It brings with it a lot of benefits including, but not limited to:

- multiple channels prioritizing parliamentary services, education, Small, Micro and Medium Enterprises (SMMEs) and youth. The provision of these channels will enhance the diversity of our content;
- opportunity to upgrade the aging broadcasting infrastructure;
- e-government services which should be seen as a fulfilment of government's contract with its people relating to the provision of services;
- the local manufacturing of Set-top Boxes as a critical step to reinvigorate the country's electronic industry, thus creating jobs;

- Digital broadcasting must contribute significantly to accelerating the building of social cohesion and achieving national identity in South Africa through the dissemination of appropriate content that adequately reflect the country's cultures.

17. RECORDS

DESCRIPTION	RETENTION PERIOD	BY WHOM

18. REVISION HISTORY

This document has been revised in accordance with the following schedule:

Rev. No.	Date Approved	Nature of Revision	Originator
0.1	See title page	First issue	L.J. Heyns
0.2	See title page	Second issue	L.J. Heyns
1.0	See title page	Updated and approved for issue.	P.F. Coetzer
2.0	See title page	Updated and approved for issue.	P.F. Coetzer

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Communications
REPUBLIC OF SOUTH AFRICA

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Department:
Trade and Industry
REPUBLIC OF SOUTH AFRICA

SABS

Project Roles and Responsibilities

Project Name:	Conformance Authority for Set-Top Boxes		
Customer:	DoC	**Project Sponsor:**	DoC
Project Manager:	Louis Heyns	**Project Director:**	Pieter Coetzer
Project Description:	SABS will be established as a new Conformance Authority and will assume responsibility for the testing and certification of set-top boxes to be used for the reception of digital terrestrial television transmissions in South Africa.		
Accountable Executive appointed:	Sylvester Ratlabala		

Purpose

The purpose of this document is to define the project roles and responsibilities for the purpose of ensuring project alignment and functioning. This document is not a delegation of authority document or a human resource job description document. The SABS commercial delegation of authority and human resource processes will be followed. It serves to establish a project team and to document the roles. This document is also not restrictive, i.e. it is not final or limiting in any way and the project manager, project director, or any other authority may instruct a project member to perform new or different work at any time during the execution of the project.

Introduction

The following roles have been identified on the project:

1. Project Steering Committee
2. Accountable Executive
3. Project Director
4. Project Manager
5. Project Assurance Manager
6. SABS User Representative

The responsibilities of each of the roles identified above are discussed below:

Project structure and resources

Project Reporting Structure

The project management and reporting structure is presented as follows:

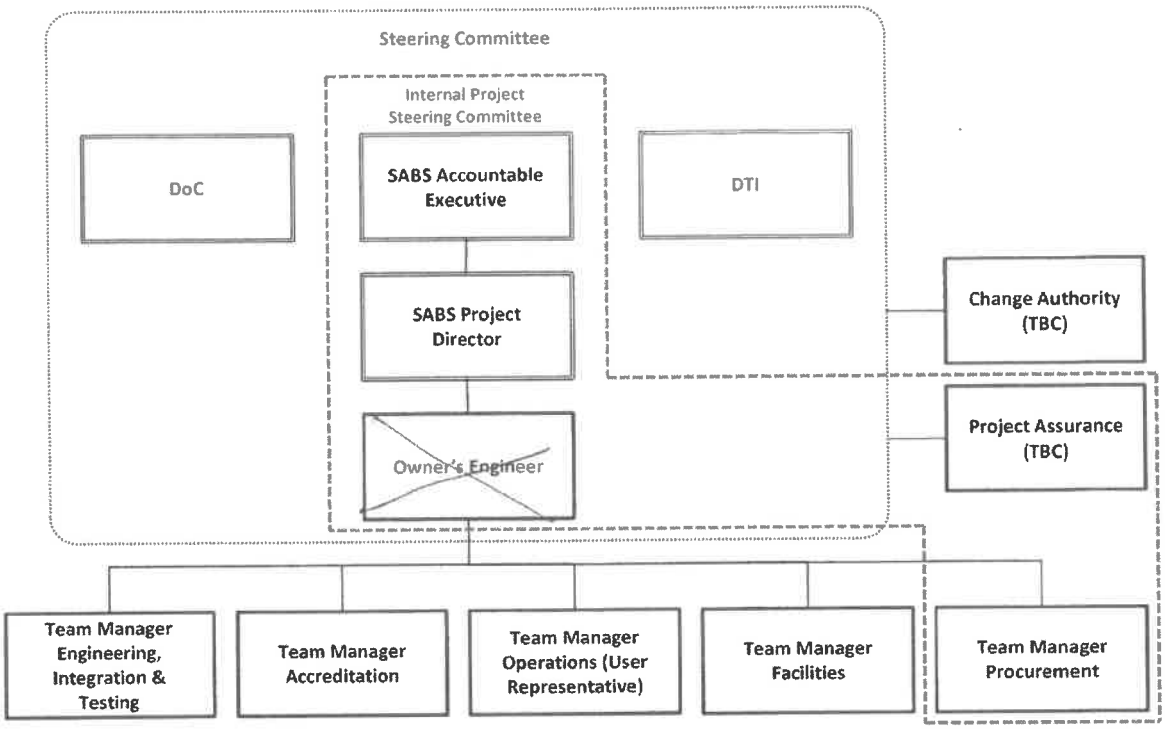

Figure 1: Project reporting structure

Note: each individual function does not necessarily represent a dedicated resource; where practicable functions will be combined in order to minimize the number of resources on the project and maximize utilization and efficiency.

Project Steering Committee (PSC)

The purpose of the Project Steering Committee (PSC) is to review and control project progress, cost and schedule, ensuring that the project is proceeding according to plan and that project changes are approved within governance guidelines provided herein.

The Project Steering Committee will also give regular feedback to the responsible member of the Executive Committee, and may report to Exco on an as and when required basis. The Project Steering Committee will advise the CEO on procurement matters within her delegation.

Terms of Reference

The PSC:

- Approves project changes within the project budget and allocates contingency up to 100% to the project budget;
- Recommends project changes outside of its DoA for approval to SABS Exco;
- Informs the SABS Exco of all approvals it made within its DoA;
- Reviews and approves all project cost and schedule trends;
- Reviews the project cost and schedule forecast and informs the SABS Exco via the Executive: SABS Commercial of the project forecast;
- Approves Project Change Notes (PCNs) to project scope, schedule and cost, provided it can be funded by Pending Savings and Additional Cost (PSAC);

- Reviews and recommends to the SABS Exco PCNs on project scope, schedule and cost changes outside of the PSC DoA;
- Informs the SABS Exco via the Executive: Commercial of all approvals it made within its DoA.
- Monitors the project execution status, (within the context of its mandate to provide change control and operational oversight and guidance) with particular attention to the following:
  - Technical integrity and direction of the project;
  - Resources;
  - Supplier performance;
  - Status of delivery and delivery plans;
  - Status of localisation and localisation plans;
  - Discussion and resolution of potential obstacles to successful project delivery;
  - Standards and quality of deliverables;
  - Information sharing and effectiveness of communication;
  - Risk matters and early warnings, and
  - Ensuring that issues likely to adversely affect the project is treated appropriately.
- Rules on the following project execution actions:
  - Updates to the project execution strategy and plan;
  - Project execution corrective actions;
  - Re-prioritisation of major tasks;
  - Actions following early warnings potentially materially affecting cost, schedule or scope;
  - Commercial corrective actions;
  - Contract amendments and Compensation Events, as required (as per this DoA);
  - Cost reduction initiatives; and
  - Localisation initiatives.

Conduct of Business:

- The PSC will meet monthly, or at different intervals if so decided by the PSC chairman as a function of business requirements.
- The Executive: Commercial chairs the meeting.
- The Project Director submits a project financial status report for review.
- The draft minutes shall be issued and distributed to all members within ten working days of the meeting.
- The Chairman (on request of any regular member) of the PSC may call for a meeting by exception to conduct activities of the PSC.
- The Owner's Engineer shall issue a draft agenda to the Chairman and members within two working days before the meeting.
- Documents offered for the PSC's consideration shall be issued two working days before the meeting where they are to be discussed, and such discussion should be outlined in the agenda of the planned meeting.
- The PSC shall assure a majority consensus of the regular members for each item brought before it. The Chairman's signature indicates that the consensus has been reached.
- The PSC may appoint work groups as required.
- The Owner's Engineer shall record the minutes.

Membership:

- The PSC comprises of the following members:
  - Executive: SABS Commercial who chairs the meeting – voting.
  - Project Director – voting.

- Group Manager: Procurement (Team Manager: Procurement) – voting.
- Project Assurance – non-voting.
- Owner's Engineer. Will attend the PSC as required and propose and motivate trends and PCNs to the meeting – non-voting.
- Any of the other Team Managers e.g. Engineering, Integration and Testing or Facilities may be co-opted to the PSC on an as-and-when-required basis.

- A quorum shall constitute of all three of voting members of the committee.

Delegation of Authority

The following project DoA will apply to the PSC:

- Allocate contingency (as approved by the SABS Exco) to the project budget up to 100% of the contingency amount. The SABS Exco shall be informed of all contingency allocations to the project budget.
- Changes to the high level scope, trends and PCNs, which are not of a strategic nature and may be required as a result of:
  - Changing operational requirements;
  - Conformance Authority requirements;
  - Engineering changes;
  - Other project changes;

  The approval of any single change, sequential changes, or a combination of will be subject thereto that these changes do not lead to an increase in the forecast final cost of the project which exceeds the total project budget plus contingency.
- The PSC may accept validated "high" risk changes to the Project Management Plan and risk register.
- Funding of the PSAC from the approved project contingency. The SABS Exco shall be informed regularly on the status of PSAC by the Executive: Commercial.

Project Management Team

Chaired by:	Project Director
Frequency:	Weekly
Purpose:	**During planning** – Conduct detail project planning towards the creation of a scope of work, schedule and budget that aligns with the original business case and/or project proposal. **During execution** – Manage project progress, performance, issues, risks and change requests towards completion of the project within time, cost and scope. **During close-out** – Formally closes the project.
Functions:	The Project Management Team fulfills the following functions: 1. Tracks project progress against the schedule and budget. 2. Resolve project issues. 3. Identify, assess and plan appropriate risk responses. 4. Validate and confirm project progress as per the project schedules. 5. Determine impact of change requirements and prepare for approval by Project Steering Committee.

	6. Capture relevant data and conduct project lessons learned session.
Membership:	As a minimum the Project Director, Owner's Engineer, Team Manager: Operations and: 1. Team Manager: Engineering, Integration and Testing 2. Team Manager: Procurement 3. Team Manager: Accreditation 4. Team Manager: Facilities 5.

Project roles and responsibilities

The following project roles and responsibilities are applicable to govern the planning and execution of the project:

Accountable Executive:	**Sylvester Ratlabala**
Context: The Accountable Executive is the individual ultimately responsible for the project and is supported by the Project Director, Owner's Engineer and User Representative. The Executive's role is to provide project oversight and guidance, ensuring that the high level SABS objectives are met. The Executive will also chair all internal project steering committee meetings, ensuring the meeting of the project's objectives and realisation of the benefits for which they are responsible. **Responsibilities:** In addition to the collective responsibilities described above, the Accountable Executive is responsible for the following: • Select and appoint the senior members of the project management team, in particular the Project Director and Owner's Engineer; • Ensure that sufficient funding is available, secured and approved for the project when needed; • Approval of any additional supplier and partnering contracts that may be required (if the relationship is a commercial one), within his delegation and motivating approvals outside of his delegation; • High-level oversight of the project to ensure proper project governance, as well as execution of the project on time, within budget and according to the performance requirements; • Provides support and assistance to the Project Director regarding the resolution of blocking issues; • Ensures commitment from various business units in terms of the resources required by and/or allocated to the project; • Regular monitoring and control of progress in strategic terms as well as making sure that risks associated with the project are duly identified and managed; • Reporting project progress to the SABS Executive Committee, as and when required;	

- Motivating and obtaining SABS Executive Committee approval on the project Acquisition Strategy and Project Mandate;
- Review and address stakeholder interests and communicate with major stakeholders;
- Review project financial matters on a regular basis;
- Review project risks and participate in mitigation actions and decisions as and when required, ensuring that issues that are likely to affect the project are treated in the appropriate manner; and
- Attending high-level project progress reviews as needed.

Project Director:	**Pieter Coetzer**

Context:
The Project Director is accountable to direct and oversee the management and execution of the project. The Project Director will act for an on behalf of SABS to execute the project and is supported by the Owner's Engineer and User Representative. The Project Director's role is to represent the SABS in all Project Steering Committee meetings with DoC. The Project Director should solicit inputs and support from the Owner's Engineer, DOC, SABS technology partner and balance the varying demands of the business, suppliers, partners and client.

Responsibilities:
In addition to the collective responsibilities described above, the Project Director is responsible for the following:

- Reporting the project status to SABS' Accountable Executive;
- Instituting formal governance processes in collaboration with the Accountable Executive and executing the project within this framework;
- Select and appoint the lower level project management team;
- Oversee the development and implementation of the Project Management Plan;
- Approval of any contracts, contract modifications and other legal documents within his delegation;
- Holding the technology partner, Owner's Engineer, and other project resources to account for the specialist approach and products produced for the project both in terms of quality and integrity;
- Accepts and sign off all project deliverables as and when they are delivered;
- Provides a single point for decisions regarding the project's objectives and deliverables;
- Makes the final recommendation in terms of the project's scope to be ratified by the Steering Committee;
- Day to day oversight of project risk management;
- Holding the internal User Representative to account for realising the predicted benefits of the project. Ensuring these are realized and that the reviews take place to monitor the degree to which the benefits stated are achieved;
- If the project tolerance is forecasted to be exceeded, escalate issues and risks to the Project Steering Committee;
- Reporting to the Project Steering Committee;
- Day to day oversight of the project to ensure execution of the project on time, within budget and according to the performance requirements;
- Maintain a project resource plan;
- Manage major project milestones and hold points;
- Managing the day-to-day finances of the project and being accountable to SABS for the

execution of the project within budget;
- Attending high-level project progress reviews;
- Keep the Accountable Executive and the Steering Committee informed of deviations from the approved plan.
- Facilitating the appointment of individuals to the project delivery teams;
- Defining project resource roles and responsibilities on an ongoing basis as needed; and
- Make arrangements for appropriate business assurance of the project i.e. ensure the business case remains valid and that the project will be completed within tolerances.

DoA:
- Approve changes to the project that increase or decrease the Forecasting Final Cost (FFC) by less than R200,000 [TBC] within the project budget of the latest approved FFC.
- Approve changes to schedule that do not impact on the interim milestones by more than 4 weeks.
- Accepts other validated risks to the project's PMP, risk baseline and risk register.

Owner's Engineer/ Project Manager:	Louis Heyns

Context:
The Owner's Engineer supports the Project Director in the management and execution oversight of the project on a daily basis. The Owner's Engineer interacts with the Project Director, DOC, SABS technology partner and the project team on a daily basis and ensures at a detail level and on a daily basis that the project is executed within scope, budget and time.

Responsibilities:
In addition to the collective responsibilities described above, the Owner's Engineer is responsible for the following:
- Day to day project management;
- Prepare the following Reports:
- Status Reports;
- Issue Reports;
- End Stage Reports;
- Lessons Learnt Reports;
- Exception Reports; and
- Project Close-out Report.
- Write and maintain a project acquisition and partnering strategy, project description document, documentation plan, project resource plan, risk management plan, project scope document, schedule and milestones, work breakdown structure, configuration management plan, communication plan, quality management plan;
- Development and implementation of the Project Management Plan;
- Track project progress, resolve and/or escalate issues and/or risks;
- Attains agreement on the scope of the project and define associated work packages;
- Advising the Project Director on project matters and execution strategy;
- Ensures access to subject matter experts by the project team;
- Managing the technology partner, Owner's Engineering resources, and other project resources to account for the specialist approach and products produced for the project both in terms of quality and integrity;
- Oversee the development of a project specification, including interface control

documents, acceptance test requirements, acceptance test plans, project bill of materials, procurement packages and other detail project documentation required to deliver the project on time.

- Day to day project risk management, including the development and maintenance of the project risk register;
- Motivate and lead the team working on the project and ensure that appropriate behavioural expectations of the team are established;
- Manage the production of the products, assuming responsibility for progress and resources at a high level and commencing corrective actions as and when required;
- Set up, manage and monitor the implementation of procedures and controls on the project including risk, issues, quality, communications, configuration management, monitoring and reporting;
- Manage the following elements of the project:
- Test suite development and laboratory establishment;
- Facilities;
- Integration, Testing and Acceptance;
- Training;
- Accreditation; and
- Operations.

The management of the above includes production of the products, assuming responsibility for progress and resources at a high level and commencing corrective actions as and when required

- Responsible for testing and acceptance of the integrated test bench;
- Execute the following elements of the project:
- Technical specifications;
- Supplier technical management; and
- Engineering.
- Coordinate the flow of information between the Directing and Delivering levels of the project;
- Implement the Configuration Management Strategy including checks, audits and corrective actions;
- Executing the Communication Strategy;
- Record deviations from plan;
- Leading project progress reviews; and
- Ensuring successful delivery of the project, achieving set milestones.

DoA:

- Approve changes of a technical nature that do not impact on the FFC, provided that such changes are not material in terms of scope change.
- Approve changes to schedule that do not impact on the interim milestones by more than 2 weeks.
- Any changes made as set out above, shall be submitted for notification to the Project Director.

User Representative	Sabelo Hlatswayo

Context:
The User Representative (Laboratory Manager) that will operate the laboratory and assume

responsibility for the testing and certification of the set-top boxes. He is responsible to determine and advise on testing methodologies, user requirements, specification and technical integrity of the project and the quality of the products to be delivered. This will include specification of the product functions, layout, user interface, software interface requirements etc.

The role represents the full extent of those who will use the project's products, including operations and maintenance and those who will further use the products to achieve the intended benefit. The User Representative is able to commit user resources and must monitor products against user requirements.

Responsibilities:
In addition to the collective responsibilities described above, the User Representative is responsible for the following:

- Validate the viability of the proposed project approach and ensure that the proposals for the design and development of the products are realistic;
- Determine and advise on testing methodologies, user requirements, specification and technical integrity of the project and the quality of the products to be delivered;
- Validate the viability of proposed project approach and ensure proposals for design and development of products are realistic;
- Provide input on the choice of approaches for design, development and acceptance;
- Ensure that the supplier resources required for the project are appropriate;
- Ensure that the desired project outcome is clearly specified;
- Ensure that the project produces products that will satisfy and deliver the desired outcomes, satisfying user requirements;
- Ensure that any user resources required for the project (e.g. for quality inspections or product approval) are provided;
- Take decisions on escalated issues, in particular focusing on the integrity of the complete solution;
- Adjudicate on potential conflicts over supplier requirements and priorities;
- Brief and advise non-technical management on supplier aspects of the project;
- Ensure that the Quality Management Strategy and procedures are adhered to so that products meet the requirements set;
- Provide a supplier perspective on project assurance;
- Provide the user's quality expectations and defining the acceptance criteria to be applied;
- Resolve any conflicts pertaining to user requirements and priorities;
- Define resource requirements and ensuring the recruitment of suitably qualified and experienced resources to operate the laboratory; and
- Take decisions on escalated issues, in particular focusing on protecting the expected benefits.

Team Manager: Accreditation	Germa Mare

Context:
The Team Manager: Accreditation will be responsible to ensure that the laboratory is duly accredited to test and certify set top boxes to the appropriate standards. Her responsibility is to advise on the requirements, process, activities and systems required to obtain accreditation.

Responsibilities:
In addition to the collective responsibilities described above, the Team Manager: Accreditation is responsible for the following:

- Liaise with the relevant accreditation bodies to obtain requirements;
- Development of accreditation requirement specification;
- Manage co-opting of relevant international standards (if required); and
- Manage the overall accreditation process.

Team Manager: Facilities	Ernest Otoo

Context:
The Team Manager: Facilities will be responsible to ensure that the facility that is to host the laboratory meets the minimum requirement with regards to environmental conditioning, data infrastructure, security and ergonomics.

Responsibilities:
In addition to the collective responsibilities described above, the Team Manager: Accreditation is responsible for the following:

- Development of laboratory (facility) User Requirement Specification in collaboration with Team Manager: Operations and technology partner;
- Development of technical portion or tender documentation in collaboration with Team Manager: Procurement;
- Manage and oversee the facility upgrade/ renovation; and
- Acceptance of renovated facility, ensuring it satisfies user requirements in collaboration with Team Manager: Operations.

Team Manager: Procurement	Mothusi Motjale

Context:
The Team Manager: Procurement will be responsible to ensure that the procurement activities on the project are executed within the approved project mandate, due process is followed in the selection, appointment and procurement of goods and/ or services and that appropriate commercial terms are agreed.

Responsibilities:
In addition to the collective responsibilities described above, the Team Manager: Procurement is responsible for the following:

- Development and approval of project Acquisition Strategy;
- Evaluation and commercial assessment, selection and procurement of a suitably experienced technology partner;
- Procurement of products and services as required in the successful execution of the project e.g. test suite development, technology transfer, equipment and facility upgrade; and
- Support to Project Director and Owner's Engineer on commercial management of project i.e. contract management and administration.

Team Manager: Engineering, Integration and Testing	Piet de Villiers (GeroCon)

Context:
The Team Manager: Engineering, Integration and Testing will be responsible to ensure that

technical user requirements are properly defined, equipment duly specified and all deliverables properly integrated and commissioned.

Responsibilities:
In addition to the collective responsibilities described above, the Team Manager: Procurement is responsible for the following:

- Definition of user requirements;
- Specification of equipment and/ or the verification thereof (in collaboration with the User Representative and technology partner);
- Specification of software/ test suite requirements (in collaboration with the User Representative and technology partner);
- The delivered equipment, software and facility are properly integrated;
- Appropriate test procedures are developed and employed in the testing and acceptance of software and equipment (in collaboration with the User Representative and technology partner); and
- The supplied equipment and facility are properly commissioned and handed over.

Primary performing organization:	Project Team
Representatives:	Pieter Coetzer Louis Heyns (GeroCon) Piet de Villiers (GeroCon) Sabelo Hlatswayo Germa Mare Ernest Otoo Mothusi Motjale Stanley Mamaregane (Legal; during Phase 3)

The core responsibilities are:

- Plan, monitor and manage the assigned work.
- Take responsibility for the progress of the work and use of resources, and initiate corrective action, where necessary, within the constraints laid down by the Project Manager.
- Identify and advise the Project Director of any issues and risks associated with the assigned work.
- Advise the Project Manager of any deviations from the plan and recommend corrective actions.
- Manage specific issues and risks as directed by the Project Director.
- Assist the Project Director in examining and resolving issues and risks.
- Ensure that all assigned issues, actions, progress and risks are properly reported to the Owner's Engineer to maintain the relevant logs and registers.
- Capture all relevant data required to perform a proper lessons learned session after completion of the project.
- Ensue that project deliverables are submitted as per forecasted due dates.
- Attend scheduled feedback meetings, and reporting on progress and status.