NORTHERN CAPE

DEPARTMENT OF TRANSPORT, SAFETY AND LIAISON

Governance of ICT Policy

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Glossary of Terms and Definitions

Term	Definition
Accountable	Refers to the person or group who has the authority to approve or accept the execution of an activity
Accounting Officer	The head of a department must be the accounting officer for the department; and The chief executive officer of a constitutional institution must be the accounting officer for that institution. The relevant Treasury may, in exceptional circumstances, approve or instruct in writing that a person other than the person mentioned above be the accounting officer for the department or constitutional institution. (PFMA 1999 Section 36)
AG	Auditor-General of South Africa
CIO	Chief Information Officer
COBIT®	Control Objectives for Information Technology
Corporate	Public Service-wide level: A group of related Institutions that enables the Public Service to achieve its strategic mandate. Institution level: A group of related components that enables an Institution to achieve its strategic mandate. **For the purpose of this Framework** Corporate means the same as Enterprise.
Corporate Governance	"...the set of responsibilities and practices exercised by the board and executive management with the goal of providing strategic direction, ensuring that objectives are achieved, ascertaining that risks are managed appropriately and verifying that the enterprise's resources are used responsibly." (IT Governance Institute: ISACA [CGEIT] Glossary: 5 as amended) Procedures and processes according to which an organisation is directed and controlled. (Glossary of Statistical Terms – Organisation of Economic and Co-

Term	Definition
	operation Development www.oecd.org)
Corporate Governance of ICT	The system by which the current and future use of IT is directed and controlled. Corporate governance of IT involves evaluating and directing the use of IT to support the organization and monitoring this use to achieve plans. It includes the strategy and policies for using IT within an organization. (ISO 38500: 2008: 3)
DPSA	Department of Public Service and Administration
EXCO	Executive Committee (consists of executive management members)
Executive Authority	Executive Authority (PFMA) means Executing Authority (PSA) (a) In the Office of the President, means the President Acting on his/her own; (b) In the Office of the Deputy President, means the Deputy President; (c) In a department or organisational component within a Cabinet portfolio, means the Minister responsible for such portfolio; (d) In the Office of the Commission, means the Chairperson of the Commission; (e) In the Office of a Premier of a province, means the Premier of that province acting on his or her own; and (f) In a provincial department within an Executive Council portfolio, means the member of such Executive Council responsible for such portfolio. (PFMA 1999: 8)
Executive Management	This is the Executive Management of the Institution and could include the Accounting Officer (Director-General/HoD/CEO), Deputy Directors-General (DDGs) /Executive Management of the Institution. This normally constitutes the Executive Committee of the Department and should include the GITO.
GITO	Government Information Technology Officer (Cabinet Memorandum 38(a) of 2000)
GITOC	Government Information Technology Officer's Council

Term	Definition
	(Cabinet Memorandum 38(a) of 2000)
Institution	National and Provincial Departments and Provincial Administrations (Public Service Act: 1994 as amended: Schedules 1 to 3) It could also refer to an entity reporting to these departments.
HoD	Head of Department
ICT	Information and Communications Technology
GICT	Governance of ICT
CGICTF	Public Service-Wide Corporate Governance of ICT Framework
ISO 38500	International Standard on Corporate Governance of ICT (ISO/IEC WD 38500: 2008: 1)
Governance of ICT	The effective and efficient management of IT resources to facilitate the achievement of company strategic objectives. (King III Code: 2009: 52) Is the responsibility of executives and the board of directors, and consists of the leadership, organizational structures and processes that ensure that the enterprise's IT sustains and extends the organisation's strategy and objectives (ITGI 2005) The system by which the current and future use of IT is directed and controlled. Governance of IT involves evaluating and directing the use of IT to support the organization and monitoring this use to achieve plans. It includes the strategy and policies for using IT within an organization. (ISO 38500: 2009:3)
Governance Principles	The vehicle to translate the desired behaviour into practical guidance for day-to-day management (COBIT 5 Framework Exposure Draft: 29)
ISACA®	Information Systems Audit and Control Association
ICT	Information and Communication Technology also referred to as IT

Term	Definition
IT	Information Technology
ITGI™	IT Governance Institute
King III	The King III Report and Code on Governance for South Africa SAIGR: Wetgewinghandboek 2010/2011: Volume 3
M&E	Monitoring and Evaluation
MPSA	Minister of Public Service and Administration
MTEF	Medium Term Expenditure Framework
NCPG	Northern Cape Provincial Government
PSICTM	Public Service ICT Management
Responsible	Refers to the person who must ensure that activities are completed successfully
Risk Appetite	The amount of residual risk that the Institution is willing to accept. (PSRMF 2010:15)
Risk Management	A systematic and formalised process to identify, assess, manage and monitor risks. (PSRMF 2010:16)
SANS 38500	South African National Standard 38500 adopted from ISO/IEC 38500
SITA	State IT Agency

1. INTRODUCTION

Shared services can be a catalyst for positive change in the **Department of Transport, Safety and Liaison** IT environment. The initial objectives of cost savings, gaining efficiencies and maximising on human resources are augmented by meeting client needs and ensuring efficient and effective public service delivery. With the objectives in mind and the potential resistance, managing change management throughout the process of moving to this new IT governance model will be pivotal.

The development of a new IT Plan for the **Department of Transport, Safety and Liaison** in collaboration with the Department of Public Service and Administration requires a rethinking of the IT Governance model. The new IT Plan is guided by the following principles, viz. Business principles, Data principles, Application principles and Technology principles.

The profile of the **Department of Transport, Safety and Liaison** IT services is outlined in terms of the most common sets of IT services for 5 main IT service groups: Distributed Computing, Application Development and Maintenance, Production and Operations Computing, Telecommunications Network and IT Security and a common Technical Reference Model. A key feature of the IT Plan is the provision of services to departmental users on a shared services platform.

Currently, the IT Governance of **Department of Transport, Safety and Liaison** is based on a mixture of both a centralised and decentralised model. Furthermore, Government transformation is, on a strategic level, informed by government-wide key priority areas translated into 12 strategic outcomes and guided by the Batho Pele principles of equal access to services, increased productivity and lowering of costs. The executive authority of a NCPG institution is accountable to the Executive Council and the Provincial Legislature for the realisation of these strategic outcomes.

The purpose of ICT is to serve as an enabler of the public service delivery through, *inter alia,* achieving the values and key focus areas (ICT House of Values[1]) enabling the Public Service to achieve these 12 strategic outcomes.

In recent years there has been a growing realisation of the importance of corporate governance of IT, as emphasised by King III Code[2], the PRC[3] report and AG findings.

Political (executive authority) and executive management leadership of Institutions need to extend corporate governance as a good management practice to ICT. This should be done by evaluating the current business strategic goals and future use of ICT, directing the preparation and implementation of plans to ensure that use of ICT meets business strategic goals and by monitoring conformance and performance

[1]Electronic Government a Digital Future February 2001, as Amended
[2]TheKing III Report and Code on Governance for South Africa: Chapter 5: The Governance of Information Technology
[3]Presidential Review Commission report 1998

against the strategic goals, in the execution of ICT in line with the Public Service and Institution's strategic goals.

There are international and national mechanisms available that provides guidance and frameworks for the implementation of governance of ICT, such as:

- King III Code and Report
- ISO 38500
- COBIT

The executive leadership and management should understand the strategic importance of ICT and assume responsibility for the corporate governance of ICT and place the governance of ICT on the strategic agenda. In order to achieve this it is necessary for the Public Service and NCPG Institutions to implement a governance system which should follow a layered approach namely:

- **Layer 1:** Corporate Governance of ICT Framework (CGICTF); and
- **Layer 2:** Governance of ICT Framework (GICTF).

2. PURPOSE

The purpose of this Framework is to institutionalise the Corporate Governance and Governance of ICT as an integral part of corporate governance within **Department of Transport, Safety and Liaison**.

3. SCOPE

This Framework for the corporate governance of ICT applies to all provincial departments as defined by the Public Service Act of 1994 as amended (Schedules 1 to 3).

Provincial departments that have a supervisory role over institutions and entities that do not fall under this Act may prescribe a Corporate Governance of IT Framework for such entities, which should be aligned to this Framework.

The scope may be extended to other government institutions at a later stage.

4. APPROACHES TO IT GOVERNANCE

The **Department of Transport, Safety and Liaison** is familiar with 2 approaches to managing the Information Systems responsibilities, viz:

- Centralised: Decision-making at a senior level, e.g. the Head office or specific Directorate within the Department.
- Decentralised: Decision-making at a lower level, e.g. individual units in a department or even by individual staff members

The introduction of a third approach that will accommodate the shared services model is a **core-periphery approach** that accommodates the decision making at both senior and lower level, either separately or in an integrated manner[4].

Both the centralised and decentralised models, on its own, can provide benefit to the Department, as well as make it impossible to implement and can produce serious disadvantages. This should be viewed, especially against the background of limited financial and human resources.

The adoption of a core-periphery approach attempts to reconcile both the push of the centralised with the pull of the decentralised approach. Through integration it draws the centralised and decentralised approaches together into some kind of unified or compromise approach. This approach also use both centralised and decentralised approaches and attempts to set some demarcation lines that will keep the two separate, thereby allowing them both to be accommodated.

Furthermore, the governance structure will have different individuals with different kinds of information and knowledge and should be developed in such a manner that the information and knowledge is activated in a positive way. Also, we may find that the different parties will act opportunistically to benefit their individual departments or own interests. The structure will also therefore have to compensate for such potential behaviour.

5. LEGISLATIVE ENVIRONMENT

The Institution must be aware of and comply with the legislative landscape applicable to and within the context of the Institution.

6. GOVERNMENT SERVICE DELIVERY ENABLED THROUGH ICT

Government transformation is, on a strategic level, informed by government-wide key priority areas translated into 12 strategic outcomes and guided by the Batho Pele principles of equal access to services, increased productivity and lowering of costs. Also on a strategic level the Public Service, via the National GITOC and the DPSA, adopted certain ICT values and key focus areas that should be achieved in this context as contained in the ICT House of Value shown below.

[4]Richard Heeks. Information Systems for Public Sector Management. Manchester 1999

Figure 2 ICT House of Value

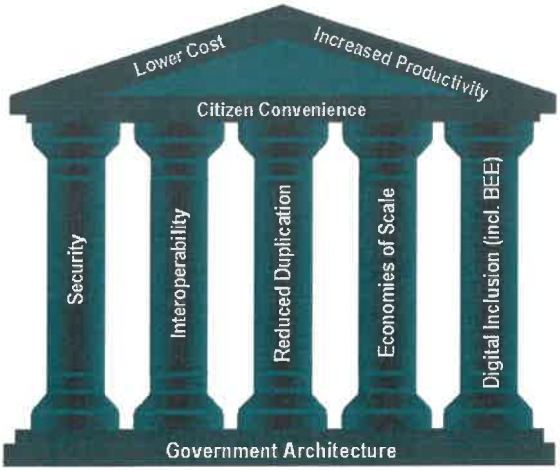


Table 1 depicts the mapping between the 12 strategic outcomes and the key focus areas of the ICT House of Value and its relationship to each other:

Table 1: Mapping of 12 strategic outcomes to the ICT House of Values

Strategic Outcome	Related Strategic Goals in ICT House of Values		Value
	Primary Influencing Goals	Secondary Influencing Goals	
OUTCOME 1: Quality Basic Education	Government Architecture Interoperability Digital Inclusion Economies of scale Reduced Duplication	Security	Lower Cost Citizen convenience Increased Productivity
OUTCOME 2: A long and healthy life for all South Africans	Government Architecture Security Interoperability Digital Inclusion Reduced Duplication	Economies of scale	Lower Cost Citizen convenience Increased Productivity
OUTCOME 3: All people in SA are and feel safe	Government Architecture Security Digital Inclusion	Interoperability Reduced duplication Economies of scale	Lower Cost Citizen convenience Increased Productivity
OUTCOME 4: Decent employment though inclusive economic growth	Security Interoperability Digital Inclusion Economies of scale Reduced Duplication	Government Architecture	Lower Cost Citizen convenience Increased Productivity

Strategic Outcome	Related Strategic Goals in ICT House of Values		Value
	Primary Influencing Goals	Secondary Influencing Goals	
OUTCOME 5: Skilled and capable workforce to support an inclusive growth path	Government Architecture Interoperability Digital Inclusion	Economies of scale Security Reduced duplication	Lower Cost Citizen convenience Increased Productivity
OUTCOME 6: An efficient, competitive and responsive economic infrastructure network	Government Architecture Security Interoperability Digital Inclusion Economies of scale Reduced Duplication		Lower Cost Citizen convenience Increased Productivity
OUTCOME 7: Vibrant, equitable, sustainable rural communities contributing towards food security for all	Government Architecture Security Digital Inclusion	Reduced duplication Economies of scale	Lower Cost Citizen convenience Increased Productivity
OUTCOME 8: Sustainable human settlement and improved quality household life	Government Architecture Digital Inclusion	Security Interoperability Economies of scale Reduced Duplication	Lower Cost Citizen convenience Increased Productivity
OUTCOME 9: Responsive, accountable, effective and efficient local government system	Government Architecture Security Interoperability Digital Inclusion Economies of scale Reduced Duplication		Lower Cost Citizen convenience Increased Productivity
OUTCOME 10: Protect and enhance our environmental assets and natural resources	Government Architecture Digital Inclusion Economies of scale	Security Interoperability Digital Inclusion	Lower Cost Citizen convenience Increased Productivity
OUTCOME 11: Create a better SA, a better Africa and a better world	Government Architecture Security Digital Inclusion	Interoperability Economies of scale Reduced Duplication	Lower Cost Citizen convenience Increased Productivity
OUTCOME 12: An efficient, effective	Government Architecture		Lower Cost Citizen

Strategic Outcome	Related Strategic Goals in ICT House of Values		Value
	Primary Influencing Goals	Secondary Influencing Goals	
and development oriented public service and empowered, fair and inclusive citizenship	Security Interoperability Digital Inclusion Economies of scale Reduced Duplication		convenience Increased Productivity

Strategic outcome number 12 "an efficient, effective and development oriented Public Service and empowered, fair and inclusive citizenship", is however the main driver of ICT business enablement in the Public Service.

The following benefits are realised when the corporate governance of ICT is effectively implemented and maintained:

- It positions the Public Service to improve the delivery on the 12 strategic outcomes;
- Improved achievement of Public Service-wide and government Institution strategic goals;
- Improved effective public service delivery through ICT enabled access to government information and services;
- Improved ICT enablement of business;
- Improved delivery of ICT service quality;
- Improved stakeholder communication;
- Continuous improvement of business and ICT alignment;
- Improve trust between ICT, the business and citizen;
- Lower cost;
- Increased alignment of investment towards strategic goals;
- Improved return on ICT enabled investment;
- ICT risks are managed in line with the priorities and appetite of the Public Service and Institution;
- Provides appropriate security measures to protect the Institutional and employee information;
- Improved management of business related ICT projects;
- Improved management of information as it is managed on the same level as other resources such as people, finance and material in the Public Service;
- ICT pro-actively recognises opportunities and guide institutional and Public Service in timeous adoption of appropriate technology; and
- Improved ICT resilience and agility to learn and adapt to changing circumstances;
- ICT is executed in line with legislative and regulatory requirements.

7. CORPORATE GOVERNANCE AND GOVERNANCE OF ICT GOOD PRACTICES AND STANDARDS

In recognition of the importance of the governance of ICT, various internationally recognised frameworks and standards, such as King III Code, ISO 38500 and COBIT, were developed to provide context for institutionalisation of the corporate governance of ICT.

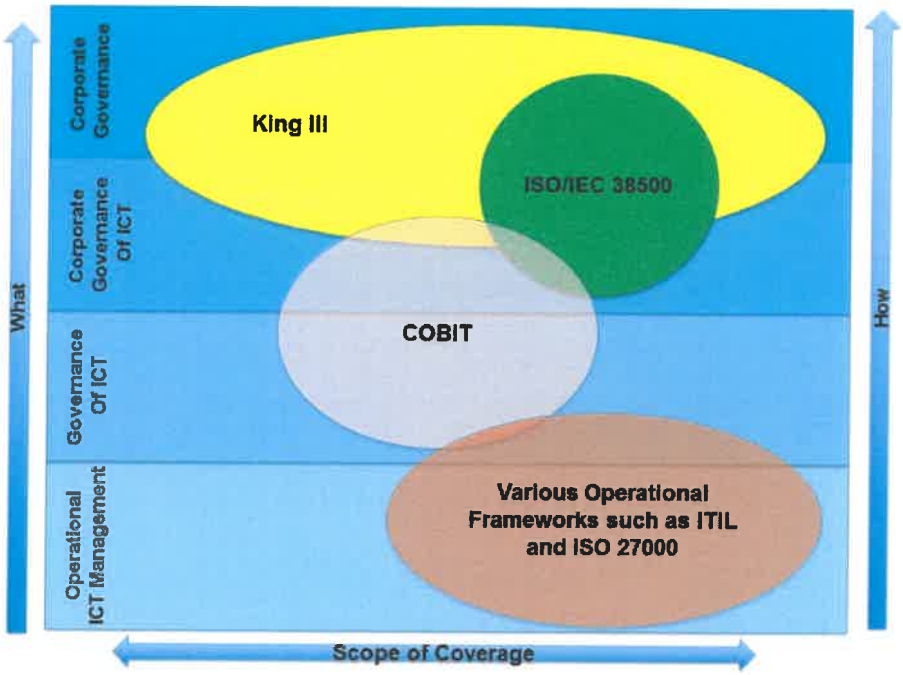
The King III Code is the most commonly accepted corporate governance framework in South Africa is also valid for the Public Service. It was also used to inform the corporate governance of ICT principles and practices in this document and to establish the relationship between corporate governance and the governance of ICT.

ISO/IEC 385005 is internationally accepted as the standard for corporate governance of ICT and provides governance principles and a model.

COBIT is an internationally accepted process framework for the implementation of the governance of ICT. COBIT fully supports the principles of the King III Code and the ISO 38500 standard on the corporate governance of ICT.

Figure 3 depicts the different layers of governance and the interrelationship between the different Frameworks and Standards.

Figure 3: Interrelation of these different Frameworks and Standards



[5]Adopted for South Africa as SANS 38500

8. LAYERED APPROACH TO CORPORATE GOVERNANCE OF ICT

The Corporate Governance of ICT comprises two levels of decision making, authority and accountability to satisfy the expectations of all stakeholders by:

a) Facilitating the achievement of Department of Transport, Safety and Liaison strategic goals (Corporate Governance of ICT); and
b) The efficient and effective management of ICT service delivery (Governance of ICT).

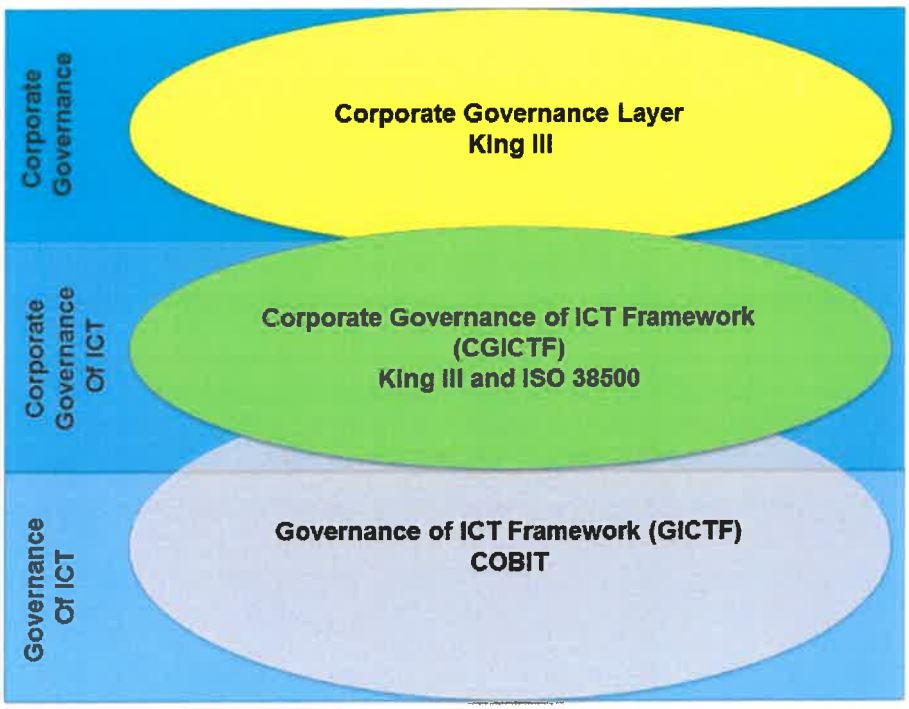
The implementation of Corporate Governance of ICT in the Public Service thus consists of the following layered approach:

a) This Framework addresses the ***corporate governance of ICT*** *layer*; and

b) COBIT will be adapted and implemented as the GICTF on the ***governance of ICT*** *layer*.

Figure 4 demonstrates the different governance layers with its related Frameworks and Standard.

Figure 4 Governance Layers



9. CORPORATE GOVERNANCE IN THE PUBLIC SERVICE

The purpose of corporate governance is to create value for the stakeholders of the Department of Transport, Safety and Liaison. It consists of a governance system that affects the way the Public Service Institutions are managed and controlled. It also defines the relationships between stakeholders and the strategic goals of the Public Service and Institutions.

Corporate governance is a vehicle through which value is created within Institutional context. Value creation means realising of benefits whilst optimising resources and risks. This value creation takes place within a governance system that is established by this Framework. A governance system refers to all the means and mechanisms that enable the Accounting Officer and Senior Management of the Institution to have a structured and organised say in:

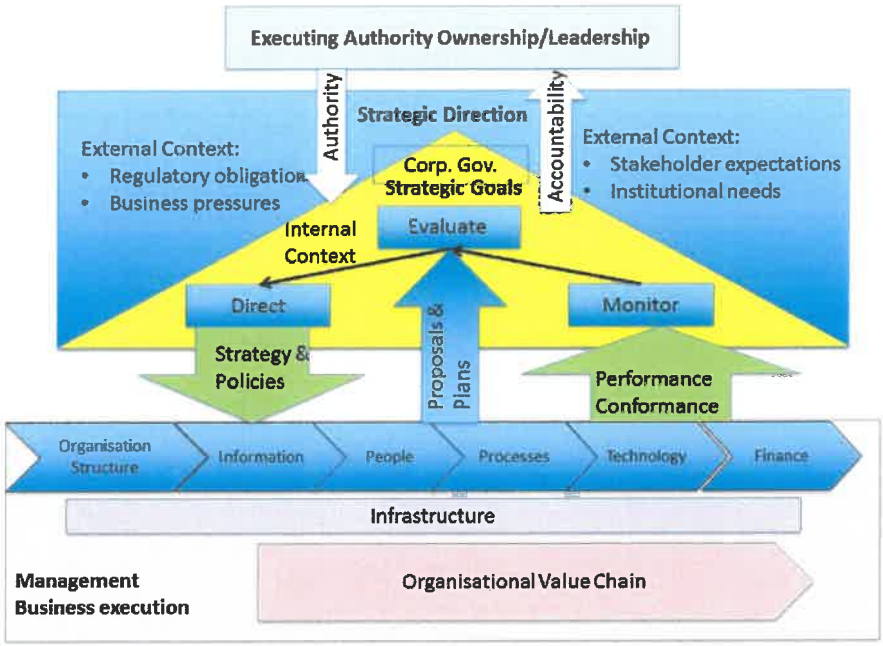
a) ***Evaluate*** *internal and external context*, strategic direction and risk to conceptualise the Institution's strategic goals and how it will be measured;
b) ***Direct*** *the Institution in the execution* of the strategic goals to ensure that value is realised and risk is managed; and
c) To ***monitor*** *the execution* of the strategic goals within an Institution against the measures identified for attaining the strategic goals.

Corporate governance is also concerned with individual accountability and responsibilities within an Institution. It describes how the institution is directed and controlled and is in particular concerned with:

a) **Organisation** - the organisational structures, and coordinating mechanisms (such as steering forums) established within the institution and in partnership with external bodies;
b) **Management** – the individual roles and responsibilities established to manage business change and operational services; and
c) **Policies** - the frameworks established for making decisions and the context and constraints within which decisions are taken.

Figure 5 depicts the functioning of the governance system. The executive leadership, who is accountable, provides the strategic direction of the Institution. The strategic direction, together with the external and internal context, determines the strategic goals. Corporate Governance and the Corporate Governance of ICT are executed on a Senior Management level through the function of *evaluation, direction and monitoring*. The management of business execution is done through the organisational structure and utilisation of the relevant resources.

Figure 5 Governance System



The executive leadership and management of an Institution are accountable and responsible to implement a governance system.

10. CORPORATE GOVERNANCE OF ICT IN THE PUBLIC SERVICE

The corporate governance of ICT is a subset of corporate governance and is an integral part of the governance system. In terms of such a system:

a) The **Executive Authority** provides the political leadership;
b) The **Accounting Officer** provides the strategic leadership and is accountable for the implementation of the corporate governance of ICT; and
c) **Senior Management** is responsible to ensure that the corporate governance of ICT is implemented and managed.

The corporate governance of ICT involves evaluating and directing the achievement of strategic goals and the use of ICT to enable the Institutional business as well as the monitoring of ICT service delivery with the purpose of continuous service improvement. It includes the determination of strategic goals and plans, and annual performance plans for ICT service delivery.

The Accounting Officer and Senior Management are respectively accountable and responsible to implement the corporate governance of ICT in the institution. Effective corporate governance of ICT is achieved in an Institution through:

a) The institutionalisation of a Corporate Governance of ICT Framework that is consistent with the Corporate Governance of the Institution;
b) Align the ICT strategic goals with the Institutional strategic goals;
c) Ensure that optimum business value is realised from ICT related investment, services and assets.

d) Ensure that business and ICT related risks do not exceed the Institutional risk appetite and risk tolerance.

e) Ensure that ICT related resource needs are met in an optimal manner by providing the organisational structure, capacity and capability;

f) Ensure that the communication with stakeholders are transparent, relevant and timely; and

g) Ensure transparency of performance and conformance and drive achievement of strategic goals by monitoring and evaluation.

The implementation of the corporate governance of ICT can be achieved through the following means and mechanisms, and decision making mechanisms:

a) Means and mechanisms:

   (i) Frameworks (e.g. CGICTF);

   (ii) Principles (As described in this Framework);

   (iii) Governance Practices (As described in this Framework)

   (iv) Policies (e.g. Governance of ICT Charter/Policy);

   (v) Sponsorship; and

   (vi) Structures such as ICT Strategic Committee on Executive Management level, ICT Steering Committee on Senior Management level and ICT Architecture and Operational Committee on technical level.

b) Decision making mechanisms:

   (i) Roles and responsibilities;

   (ii) Processes; and

   (iii) Process practices.

Depending on the size and complexity of their ICT operations, Institutions may also elect to adapt and/or adopt related standards and frameworks. The following are recommended:

a) Enterprise Architecture (e.g. GWEA/TOGAF)

b) ICT Security (e.g. ISO 27000 set)

c) Service Management (e.g. ITIL)

d) Interoperability Standards (e.g. MIOS)

e) Portfolio, Program and Project Management (e.g. PRINCE 2/PMBOK)

11. OBJECTIVES OF THE CORPORATE GOVERNANCE OF ICT

In order to give effect to the corporate governance of ICT in the Public Service the following objectives were adopted by the GITOC:

a) Identify, establish and prescribe a uniform Governance of ICT Framework (GICTF) and implementation guideline for the Public Service;

b) Embed the corporate governance and governance of ICT as a subset of corporate governance;

c) Create business value through ICT enablement by ensuring business and ICT strategic alignment;

d) Provision of relevant ICT resources, organisational structure, capacity and capability to enable ICT service delivery;

e) Achieve and monitor ICT service delivery performance and conformance to relevant internal and external policies, frameworks, laws, regulations, standards and practices;

f) Implement the governance of ICT in the Institution based on the COBIT process framework; and

g) Position the GITO function as an integral part of the Executive Management.

12. THE PRINCIPLES FOR THE CORPORATE GOVERNANCE OF ICT

This CGICTF is based on principles as explained in the international standard for IT governance, ISO/IEC 385000, King III Code and COBIT (See Annexure A). The following table (3) contains the adopted principles.

Table 3: Corporate Governance of ICT Principles

Principle 1: The corporate governance of ICT must enable the Institution's **Political** Mandate.
The Executive Authority is responsible to ensure that corporate governance of ICT achieve the political mandate of the Institution.
Principle 2: The corporate governance of ICT must enable the Institution's **Strategic** Mandate.
The Accounting Officer is responsible to ensure that corporate governance of ICT achieve the Institution's Strategic goals.
Principle 3: ICT should be aligned with the strategic goals of the Institution
The Senior Management must ensure that ICT is aligned with the Institutional strategic goals and that business accounts for current and future capabilities of ICT. It must ensure that ICT is fit for purpose at the correct service levels and quality for current and future business needs.

Principle 4: Executive management is responsible for the corporate governance of ICT
Senior Management must create an enabling environment in respect of the corporate governance of ICT within the applicable judiciary and information security context.
Principle 5: Executive management should monitor and evaluate significant ICT investment
The Senior Management is responsible to monitor and evaluate major ICT investment and must ensure that ICT investment is made for valid business enabling reasons. It must further monitor and manage the benefits, opportunities, costs and risks resulting from these investments whilst ensuring that information assets are adequately managed.
Principle 6: Senior management should ensure that ICT Risk are managed and that the ICT function is audited
The Senior Management is responsible to ensure that ICT risks are managed within the Institutional risk management practice. It must also ensure that the ICT function is audited as part of the institutional audit plan.
Principle 7: Senior management should ensure that ICT service delivery is sensitive to Human Behaviour
The Senior Management must ensure that the use of ICT demonstrates the understanding of and respect for human behaviour.

13. THE CORPORATE GOVERNANCE OF ICT PRACTICES

The corporate governance of ICT practices will be used to cascade the principles for implementation in Institutions. The following Table 4 depicts the practices.

Table 4: Corporate Governance of ICT Practices

Practice Number	Practice Description
1.	The **Executive Authority** is to take interest in the Governance of ICT to the extent necessary to obtain comfort that a properly established and functioning governance of ICT is in place to enable the Institution to leverage ICT as a business enabler.
2.	**Executive Authority should:** a) Ensure that the business- and ICT strategic goals of the Institution are aligned with the political mandate of the Institution; and b) Assist the Accounting Officer to deal with intergovernmental, political and other ICT related business issues beyond their direct control and influence.
3.	**Accounting Officer is accountable for:** a) The alignment of the ICT strategic plan with the Institutional- and business strategic plan; b) The development and implementation of a corporate governance of ICT framework, charter and related policies for the Institutionalisation of the corporate governance of ICT; c) The delegation of authority, personal responsibility and – accountability to the Senior Management with regards to the governance of ICT; d) Realisation of Institution wide value through ICT service delivery and management of business and ICT related risks. e) The provision of appropriate ICT capability and capacity and the appointment of a suitably qualified and experienced GITO who should function on an Senior Management level; and f) Monitor and evaluate the effectiveness of the governance of ICT in the institution.
4.	A risk and audit committee should assist the Accounting Officer in carrying out his/her ICT accountabilities and responsibilities.
5.	**Executive Management is accountable to ensure that:** a) ICT strategic goals are aligned with the business strategic goals of the Institution; and b) Business related ICT strategic goals are cascaded throughout the Institution for implementation and are reported on.

Principle Number	Principle Description
6.	**Senior Management is responsible to ensure that:** **a) Strategic Context:** (i) The corporate governance of ICT is on the strategic agenda of the Institution; (ii) ICT strategic goals support strategic business processes; (iii) That business and ICT related risks are managed; (iv) The corporate governance of ICT is implemented and managed; (v) Advice is provided to the Accounting Officer on the implementation and management of the corporate governance of ICT and the governance of ICT; (vi) The planning and execution of ICT adheres to relevant judiciary requirements; and (vii) Significant ICT investments and expenditure are informed by the Institution's Enterprise and ICT Architecture, motivated (Business Cases), monitored and evaluated. **b) Delegations:** (i) The responsibility for the implementation of the corporate governance of ICT is delegated and communicated to the relevant management (senior business and ICT management); (ii) The necessary strategies, architectures, plans, frameworks, policies, structures (including outsourcing), procedures, processes, mechanisms and controls, and ethical culture, regarding all aspects of ICT use (business and ICT) are clearly defined, implemented, enforced and assured through independent audits; and (iii) Everyone in the Institution understands the link between business and ICT strategic goals and accepts their responsibilities with respect to the supply and demand for ICT. **c) ICT Security:** (i) An information security strategy is approved; (ii) Intellectual property in information systems is appropriately protected; and (iii) ICT assets, privacy, security and personal information of employees are effectively managed. **d) Human Behaviour:** (i) The use of ICT, demonstrates the understanding of and respect for human behaviour.

14. ICT ENABLING STRUCTURES IN THE PUBLIC SERVICE

To give effect to the PRC recommendations to improve the delivery of ICT service in the Public Service, different structures/entities were established:

a) The **GITO**[6] function was established in each Institution with a purpose to align and execute ICT service delivery with the strategic goals and management plans of the institution. The GITO must be represented on the strategic management level (executive management).
b) The **GITO Council**[7]**and Provincial GITO Council** was established as the principal inter-departmental forum to improve ICT practices of Institutions on such matters as the design, modernisation, use, sharing, and performance of information and ICT resources;
c) The **State IT Agency**[8] (SITA) was created as the Prime Systems Integrator of Transversal Information and Communication Systems for Government; and
d) In the DPSA, **Public Service ICT Management** (PSICTM)[9] is responsible to ensure that ICT execution enables the Public Service to improve the Public Service delivery.

These structures/entities however does not negate the accountability and/or responsibility of **the Executive Authority, Accounting Officer and/or Senior Management** to *direct, evaluate and monitor* ICT service delivery of their Institution.

15. GOVERNANCE OF ICT OVERSIGHT STRUCTURE IN THE PUBLIC SERVICE

The need for the creation of this CGICTF was informed by various investigations performed in the past. It was found that ICT is not effectively managed on the various levels of the Public Service as intended by the applicable acts and regulations. This CGICTF creates a Public Service-wide oversight structure to foster an integrated approach to the corporate governance of ICT and ensure proper coordination between stakeholders. The oversight structure is:

a) **Ministerial cluster for Governance and Administration** is responsible to foster an integrated approach to governance and ensure proper coordination.
b) **The Minister for Public Service and Administration** (MPSA) is responsible for information and communication technologies in the Public Service. In the relation to this Framework the Minister may establish ICT norms and minimum standards, make regulations, determinations and directives to improve the internal functioning of the Public Service and to render effective services to the public.
c) **The Department of Public Service and Administration** supports the MPSA in leading public service transformation and provides professional advice and

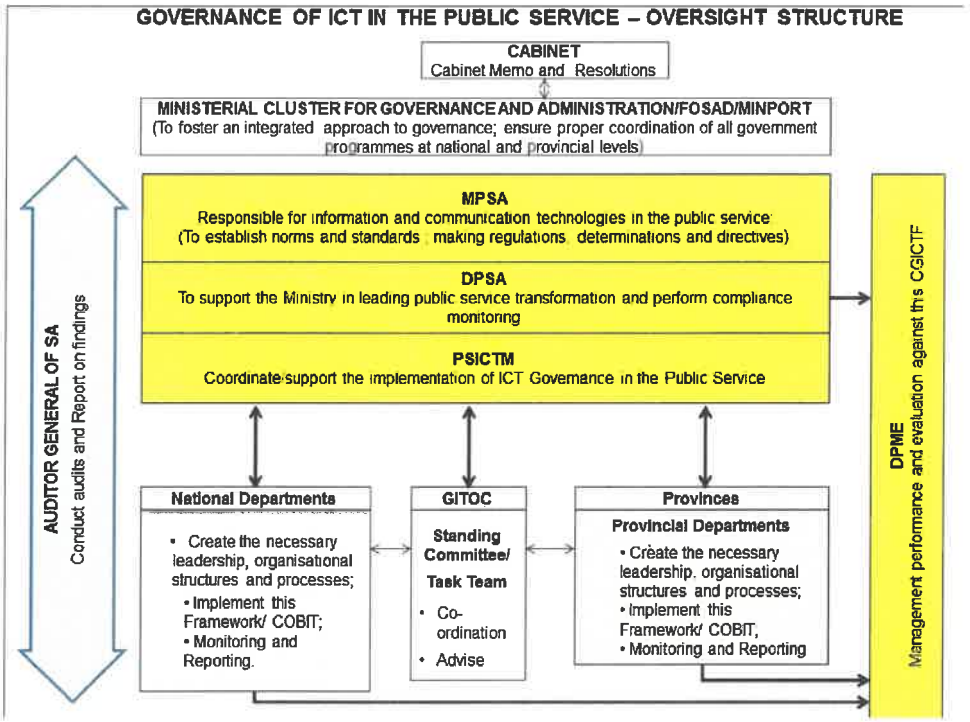
[6]Cabinet Memorandum 38(a) of 2000
[7]Public Service Act 1994 as amended
[8]SITA Act of 1998 as Amended
[9]SITA Act of 1998 as Amended

support to ensure public service excellence and good governance. The Department also has a monitoring function to monitor compliance with the corporate governance of ICT.

d) **The Department of Performance, Monitoring and Evaluation** enables and improves the overall performance of all government spheres. This is done by monitoring and evaluating the performance of government, and assisting government to focus on the prioritised strategic outcomes. This department will monitor and evaluate management performance against this CGICTF.
e) **The Public Service ICT Management Branch** is responsible for the development, oversight and compliance monitoring of the corporate governance of ICT in accordance with the CGICTF and the GICTF.
f) **The GITO Council** through the Standing Committee on ICT Governance is the principal inter-departmental forum to coordinate, advise and facilitate the adoption and implementation of the corporate governance and governance of ICT.
g) **The Auditor General** conducts audits and reports on their findings to the relevant authorities.
h) **Institutions:**
i) Create a sustained enabling environment for directing the implementation of the corporate governance and governance of ICT;
j) Ensure that the corporate governance of ICT is evaluated and managed in such a way to achieve continuous improvement of ICT enabled service delivery; and
k) Reporting on ICT performance, conformance and risk management (monitoring).

The following Figure 4 depicts the oversight structures that are relevant for the implementation of the corporate governance of ICT in the Public Service.

Figure 6 Public Service Corporate Governance of ICT Oversight Structures



16. COBIT AS PROCESS FRAMEWORK FOR THE GOVERNANCE OF ICT

COBIT was created by ISACA. It is a good practice that has widespread implementation throughout the world and in South Africa. COBIT enables institutions to achieve their strategic goals by deriving optimal value from ICT through the realisation of benefits and optimising resources and risk. COBIT is not a standard. It is a process framework within which an institution is afforded flexibility with implementation according to its specific environmental context. As a set of governance of ICT and management processes, COBIT provides managers, ICT users and auditors with:

- Standard indicators;
- Processes for the implementation of the governance of ICT;
- Good practices to enable maximisation of the corporate value in using ICT.
- Identifies the accountability and responsibilities of business and ICT process owners;
- Metrics to measure the achievement of the IT related goals; and
- A model to measure governance of ICT process maturity.

One of the five COBIT principles provides an 'Integrator Framework' (Principle 1) provides for seamless integration with other relevant standards and frameworks such as ITIL (Service Management), CMMI / ISO 15504 (Maturity Assessments) and ISO 2700x (Security).

Principle 4, Governance Enablers, provides for the implementation of a governance and management system for corporate ICT. There are seven categories of enablers:

- Processes

- Principles and policies
- Organisational structures
- Skills and competences
- Culture and behaviour
- Service capabilities
- Information

17. IMPLEMENTATION OF A GOVERNANCE OF ICT SYSTEM

17.1 Corporate Governance of ICT comprises two levels of decision making, authority and accountability to satisfy the expectations of all stakeholders by:

a) Facilitating the achievement of an Institution's strategic goals (Corporate Governance of ICT Layer); and

b) The efficient and effective management of ICT service delivery (Governance of ICT Layer).

17.2 **Corporate Governance of ICT Layer**

a) Each Institution has a unique internal and external contextual environment therefore a common but flexible approach to the corporate governance of ICT is required. This Framework adopts objectives, principles and practices in support of a flexible and sustainable approach to **Corporate Governance of ICT** within the Institution.

17.3 **Governance of ICT Layer**

a) COBIT, as process framework, will be used to implement the Governance of ICT within the context of this Framework.

17.4 To enable an Institution to implement this Framework and COBIT, a phased approach will be followed:

a) **Phase 1**: Establish a Corporate Governance and Governance of ICT environment;

b) **Phase 2**: Plan and implement business and ICT strategic alignment; and

c) **Phase 3**: Continuous improvement of Corporate Governance and Governance of ICT.

These phases are depicted in the paragraphs following.

17.5 **Phase 1: Establish the Corporate Governance and Governance of ICT Environments**

These environments are established through the development and implementation of strategies, architectures, plans, frameworks, policies, structures, procedures, processes, mechanisms and controls, and ethical culture. A minimum enabling environment should be created through the following:

a) **Corporate Governance of ICT Framework**

This CGICTF must be adapted for internal implementation. The intent of the objectives, principles and practices of this Framework should however be kept intact.

b) **Governance of ICT Framework**

The Implementation Guideline, to be published by the DPSA, will provide guidance on the implementation of COBIT as process framework for the governance of ICT in the Institution.

c) **Institutional Corporate Governance of ICT Charter**

The Institution should analyse and articulate its requirements for the corporate governance and governance of ICT and develop, implement and maintain a related charter. This should enable the creation and maintenance of effective enabling governance structures, processes and practices. It should also clarify the governance of ICT related roles and responsibilities towards achieving the Institution's strategic goals. This charter should be approved on a strategic level in the Institution and should contain the following:

(i) How the ICT strategic goals and its related service delivery will be aligned with the Institutional strategic goals, monitored and reported on to the relevant stakeholders;

(ii) How ICT service delivery will be guided from a strategic level to create business and ICT value;

(iii) How business and ICT related risks will be managed;

(iv) Which structures will be created to effect the corporate governance and governance of ICT, and management of ICT functions, the members of these structures and the roles, responsibilities and delegations of each. Proposed structures are:

- ICT Strategic Committee;
- ICT Steering Committee;
- Architecture Committee (Business and ICT);
- Risk Committee (Business and ICT); and
- Audit Committee (Business and ICT);

(v) How the necessary capacity and capability (resources/skills), to deliver an enabling ICT service to the Institution, will be established;

(vi) The strategic and operational function of:

– **Governance Champion**, a person knowledgeable in the business of the Institution, who will be responsible to drive the implementation and maintenance of corporate governance and governance of ICT in the Institution;

– **Enterprise Architect**, a person knowledgeable in the business of the Institution, who will be responsible for the structured planning to articulate the business and related processes of the Institution in an interrelated and standardised way;

– **Government Information Technology Officer**, should perform on an Executive Management level, and is responsible to align the

institutions' ICT strategic goals with the business strategic goals, considering both business and ICT processes; and

- **ICT Manager**, responsible for the operational management of ICT.

(vii) Corporate governance and governance of ICT implementation and maintenance plan; and

(viii) How the governance frameworks will be maintained.

d) **Enabling policies, frameworks and plans**

The effective implementation of the corporate governance and governance of ICT must be supported by enabling frameworks, plans and policies, to be approved on Executive Management level:

(i) **Institutional Enterprise Architecture** is required to articulate stakeholder/ business needs. Enterprise Architecture is a prerequisite for the ICT Architecture however it does not fall within the scope of this Framework.

(ii) **ICT Architecture** is used to translate the Institutional business strategic plan (5 year) and Enterprise Architecture into an enabling ICT service. This should contain a migration plan from the "current" to a "future" environment. The ICT Architecture is informed by the:

- Institutional Business Strategic Plan and other long-term plans;
- Institutional Enterprise Architecture; and
- ICT Strategic Plan.

(iii) **Institutional Risk Management Policy** must include how business related ICT risks will be managed and how capacity will be created in the Risk Management Function in order to address ICT related risks.

(iv) **Institutional Internal Audit Plan** should include ICT audits. It should also indicate how the Internal Audit Function will be capacitated to perform ICT related audits.

(v) **ICT Management Framework** must ensure a consistent management approach for the ICT function in line with the corporate governance requirements and strategic goals. This should include management processes, organisational structures, roles and responsibilities, activities as well as required skills and competencies.

(vi) **ICT Portfolio Management Framework** should be embedded in the institutional Portfolio/Program Management Structures. It must include how the Institution will create the necessary capacity to manage ICT related business programs/projects.

(vii) **Institutional Information Security Strategy** must ensure that classified information, intellectual property and personnel information are protected within ICT systems according to it's the security.

(viii) **Information Security Plan** which must be informed by the Information Security Strategy.

(ix) **ICT Security Policy,** to be informed by the Information Security Plan.

(x) **Institutional Business Continuity Plan** informed by the operational, information and data requirements of the business. The Business Continuity Plan must inform:

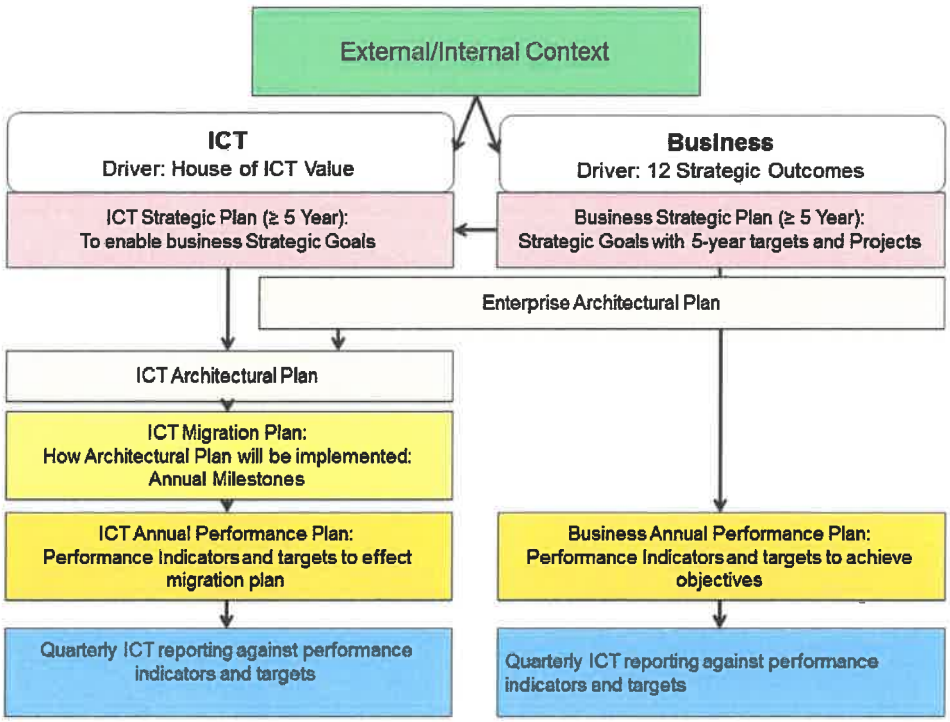
- **Business Continuity Strategy**;
- **Business Continuity Policy;** and
- **ICT Continuity Plan**.

17.6 Phase 2: Business and ICT Strategic Alignment

a) It is important that the alignment of business and ICT strategies are done in line with approved South African Government planning frameworks such as the National Treasury 'Framework for Strategic Plans and Annual Performance Plans' and GWEA. The architectural planning process articulates the business strategic goals that ICT service delivery must respond to in order to support the business in value creation, benefits realisation, and resource and risk optimisation.

b) Figure 7 depicts the cascading of the institutional strategic plan and its related ICT alignment.

Figure 7: Business and ICT Strategic Alignment



17.7 Phase 3: Continuous improvement of Corporate Governance and Governance of ICT

a) The successful implementation of a corporate governance of ICT system leads to continuous improvement in the creation of business value. ICT service

delivery must be assessed to identify gaps between expected and realised service delivery. Assessments must be performed on two levels:

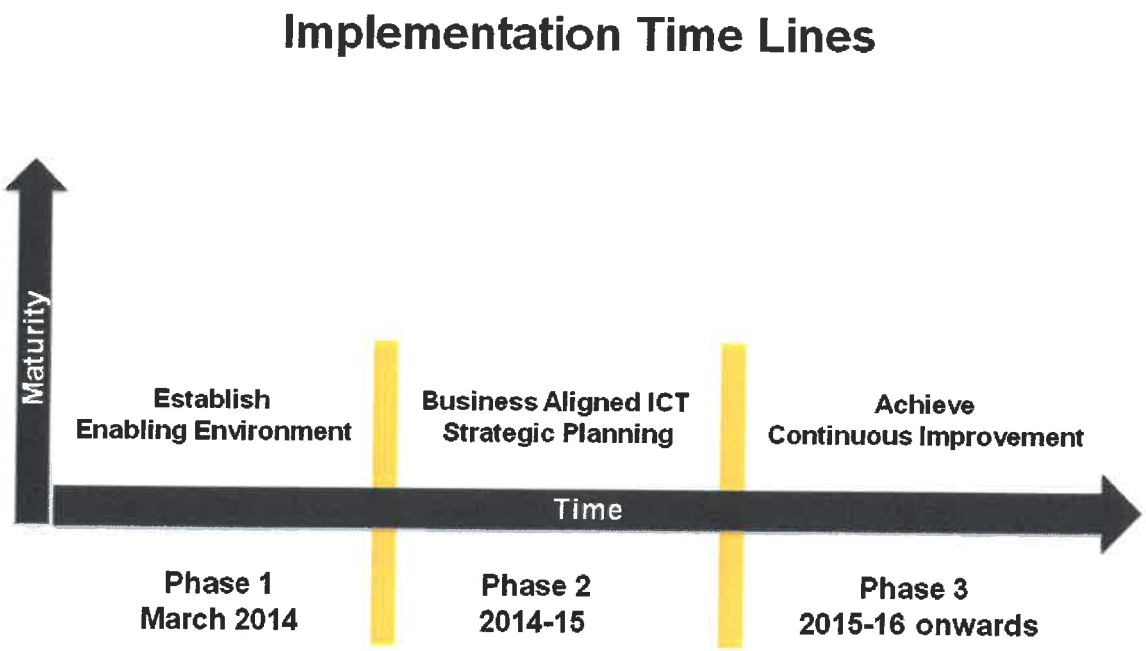
(i) Corporate Governance of ICT (ICT contribution to realisation of business value); and

(ii) Governance of ICT (continuous improvement of the management of ICT – COBIT processes).

17.8 Implementation Time Lines

The above mentioned implementation phases will be conducted in stages according to the following Figure:

Figure 8: Corporate Governance of ICT Implementation Stages



The AGSA will use these implementation stages as a time-line for auditing purposes.

17.9 Implementation Deliverables per Financial Year

a) **Phase 1:** 2012 to March 2014

(i) **Corporate Governance** and **Governance of ICT Frameworks** approved and implemented;

(ii) Approved and implemented **Governance of ICT Charter**;

(iii) The following capabilities are created in the department:

- Governance Champion responsibility allocated;
- Capacity created to fulfil the role of the Enterprise Architect;

- A proficient Government Information Technology Officer (GITO) is appointed and functioning on strategic level; and
- A proficient ICT Manager is appointed.

(iv) Approved and implemented **Risk Management Policy** that includes the management of business related ICT risks;

(v) Approved and implemented **Internal Audit Plan** that includes ICT audits;

(vi) Approved and implemented **ICT Management Framework**;

(vii) Approved and implemented Institutional **Portfolio Management Framework** that includes ICT portfolio/program and project management;

(viii) Approved and implemented **ICT Security Policy;** and

(ix) Approved **ICT Continuity Plan** informed by **Institutional Business Continuity Plan** and **Strategy**.

b) **Phase 2:** 2014 to 2015

(i) Approved **ICT Strategic Plan**;

(ii) Approved first iteration of the **Enterprise Architecture** informs the **ICT Architecture**;

(iii) Approved **ICT Migration Plan** with annual milestones linked to an enabling budget;

(iv) Approved **ICT Procurement Strategy** for adhering to the ICT House of Values taking into consideration the SITA Regulations of 2005; and

(v) Approved **ICT Annual Performance Plan** for 2015 to 2016 and a description of how it will be monitored.

c) **Phase 3:** 2015 / 2016 onwards

(i) All aspects of the **corporate governance and governance of ICT** demonstrate measurable improvement from the initial phase of implementation in 2012-14.