Ms Lia Finocchiaro MLA
Chair
Public Accounts Committee
GPO Box 3721
DARWIN NT 0801

Dear Ms Finocchiaro

Re: Calls for Submissions on Management of ICT Projects

Thank you for your invitation to make a submission to the Public Accounts
Committee regarding the management of ICT projects.

The attached submission is structured in three sections. Part A outlines the ICT
governance arrangements in place within the Department of Corporate and
Information Services (DCIS). This is the framework within which ICT projects
are managed within the agency. Part B is provided in response to the specific
scope of inquiry as per your letter of 4 September 2013.

DCIS also has a leadership role in relation to ICT policy and strategy which
includes a support role to the existing all-of-government (AoG) ICT governance
arrangements. Part C outlines the current AoG approach to ICT governance
and provides an overview of the work DCIS is currently undertaking to improve
the management of ICT across government.

I hope this information will assist in the inquiry.

Yours sincerely

CHRIS HOSKING
Acting Chief Executive

12 November 2013

Part A – ICT Governance within DCIS

1. Background

As a largely administrative agency with responsibility for many transactional processes DCIS relies heavily on ICT to deliver its business. DCIS also manages the delivery of a wide range of ICT services to all Northern Territory Government (NTG) agencies.

DCIS ICT activities fall into two categories.

1.1 DCIS intra-agency ICT

The core ICT systems and activities that DCIS uses to provide its services to agencies. Examples include ICT systems for processing payment of salaries and supplier accounts, recruitment advertising, processing of tenders etc. A diverse range of ICT systems support DCIS' core business.

1.2 Agency ICT Services managed by DCIS

DCIS manages a significant range of ICT services on behalf of all agencies. This includes end user computing services delivered under outsourced contract (desktop computers, email messaging etc), enterprise computing and hosting services delivered through Data Centre Services (server hosting, mainframe processing, data storages etc) and physical infrastructure and devices delivered through the ICT Infrastructure Program.

DCIS has robust governance processes in place to manage ICT projects across these activities.

2. ICT Governance Arrangements

The DCIS Corporate Governance Framework is included at Attachment A. Committees are used to oversee ICT projects with separate arrangements in place for the management of intra-agency ICT (DCIS specific) and ICT services to all agencies on behalf of government.

2.1 DCIS intra-agency ICT

ICT projects and activities in this area are overseen by the DCIS Information Management Committee (IMC). The IMC is a sub-committee of the Executive Management Board (EMB) and is chaired by the Senior Director Commercial and Business Services with membership made up of executives from a range of DCIS business units.

The IMC's core focus is on:
- Assessment of ICT business cases and project proposals for ICT initiatives for endorsement.
- Oversight of projects through performance reporting with intervention and corrective action as required.
- Oversight of ICT usage and security – includes internet usage, billing and any security issues such as malware, viruses etc.
- Monthly ICT activity updates from all DCIS business units.

The IMC meets monthly, its meetings are minuted and tabled with the EMB.

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2.2 Agency ICT Services managed by DCIS

DCIS delivers a broad range of ICT services to all NTG agencies through three different business lines:

- ICT Services – management of end-user computing services delivered under outsourced contracts and central management of hardware purchasing and provision.
- Data Centre Services – computing environment for the hosting of ICT systems and online data management and storage. Includes mainframe computing and the NTG virtual server 'cloud computing' environment.
- ICT Policy and Strategy – development and implementation of policy and strategy at an All of Government (AoG) level and secretariat support to AoG ICT governance arrangements.

The ICT Strategy Steering Committee (ISSC) oversees projects and activities across these three business streams. The ISSC is a sub-committee of the EMB and is chaired by the DCIS Chief Executive with membership made up of senior executives from the three ICT business streams.

The ISSC's core focus is on:

- Approval of proposals for AoG ICT initiatives for which DCIS is responsible.
- Performance monitoring of the delivery of ICT services at an AoG level.
- Oversight of AoG hardware investment via the ICT Infrastructure Program.
- Dealing with strategic issues impacting the NTG ICT environment.

The ISSC meets fortnightly, its meetings are minuted with business papers and project progress reports reviewed at each meeting.

The ISSC is supported by the ICT Strategic Working Group (ISWG). The role of the ISWG is to identify and prioritise strategic ICT issues relevant to the NTG environment and develop and implement strategies, plans and responses under the direction of the ISSC.

The ISWG's core focus is on:

- Identifying current and emerging ICT issues and trends relevant to NTG.
- Facilitating the development of strategies in response to strategic ICT issues.
- Developing ICT project proposals and solutions relevant to ICT services and/or government-wide policies and strategies.
- Review of ICT project proposals developed by business units prior to consideration by to the ISSC.
- Contributing to the development, implementation and review of ICT frameworks, policies and processes under the ICT governance framework.

The ISWG meets fortnightly, its meetings are minuted and business papers are reviewed.

The ISSC is also supported by the ICT Projects Sub-Committee (IPSC). The role of the IPSC is to oversight projects and initiatives through performance reporting across all ICT streams under the direction of the ISSC.

The IPSC's core focus is on:

- Performance monitoring and oversight of ICT projects.
- Ensuring alignment of projects and activities across the different ICT streams.
- Escalation of project issues and intervention to address issues and project slippage.
- Ensuring appropriate resources are matched to project requirements and troubleshooting resourcing issues.

The IPSC meets fortnightly, its meetings are minuted and project progress reports are reviewed.

3. ICT Project Management Approach

DCIS uses industry standard project management approaches based on the PRINCE2 and Thomsett methodologies.

Tools and processes are adapted to specific projects based on the scope and complexity of the body of work. For example major ICT system projects require a full suite of project governance measures including project documentation (eg. plans, Gantt charts, business cases, scope and approach documents, project initiation documents, risk plans, issue registers etc) with project specific and agency steering committees and agency reference groups. A 'lighter' approach is deployed for small scale projects. The appropriate approach is developed as part of project initiation, scoping and approval.

ICT projects are driven through a stand-alone Program Management Office (PMO). This approach ensures suitably skilled project directors, project managers, business analysts and other specialist resources are allocated to drive projects, manage performance and provide progress reporting to relevant governance committees. Business units manage steady-state system operations.

The activities of the PMO are oversighted by the governance committees described earlier in this document which approve and monitor projects. This standardised approach is adopted across all major business streams in DCIS

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Part B – Responses to Specific PAC Scope of Inquiry

The letter to Chief Executives of 4 September sought feedback in relation to three main lines of inquiry. The following is provided based on DCIS' experience in managing many large ICT systems and delivering a diverse range of ICT projects.

1. Factors Determining the Success or Failure of Projects

Formal Governance Processes

The use of effective project governance processes and mature, project management methodologies as described in Part A are the single most important factor in achieving successful ICT projects. Effective governance models introduce the right checks and balances to ensure other critical success factors are identified and put in place prior to projects being initiated and ensures that projects are monitored and remedial action taken as issues arise.

There is no 'best' approach to ICT governance at an organisational level. The model used by DCIS is appropriate given the large number of complex ICT projects managed as part of DCIS' core business. Organisations need to develop and implement models suited to their ICT requirements, the complexity of their business environment, the management culture of the organisation and their available resources.

Project Size and Complexity

The risk of project failure increases significantly as the size, scope and complexity of the project increases. The use of a phased delivery approach where projects are broken down into smaller components will assist to mitigate this risk and allow staged decision points where project management can make considered decisions about moving from one phase to the next.

This approach can also be used to prioritise deliverables, allowing less essential components to be delivered in later stages and enabling funding to be staggered over a longer period with approval based on the success of earlier phases.

Business Requirements and Project Scope

Clarity and agreement around project scope and documented functional requirements for an ICT system are essential for ICT projects to be successful. This approach avoids rework once projects are underway with scope and functional requirements becoming better understood through a process of 'discovery'.

Effective project governance mechanisms will 'red flag' issues as they arise in order that remedial action can be taken.

Procurement and Contract Management

ICT system procurement needs to be well planned with tender documentation that sets out a detailed specification of the system requirements, the delivery model (eg. buy vs build) and clear deliverables.

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Contracts need to be structured around key deliverables, particularly if a phased delivery approach is being used as referred to above. Payment milestones within the contract explicitly tied to contracted deliverables provides the most effective mechanism for managing contractor performance.

Effective contract management after procurement is completed is a critical success factor for ICT systems.

Skilled Resources

The success or failure of an ICT project is largely influenced by the calibre of resources engaged in project delivery. A common thread in failed ICT projects is under-resourcing to cut costs.

Specialist resources required include a project director, project manager/s, business analyst, testing specialists and, in the case of 'build' projects, developers. A classic mistake made by organisations is to run an ICT project from a business unit using business-as-usual resources who undertake the project in addition to normal duties.

The tendency to 'short cut' these requirements due to funding constraints or time imperatives will usually lead to cost over-runs and failure to achieve timeframes and project outcomes.

Effective Change Management

Effective change management prior to go-live to prepare users for the new system and follow-up once in production is necessary for successful uptake and effective usage of any new system. This can include; reforming business processes to maximise the benefits of a new system; training for users; user support during and post go-live; communication and engagement with key stakeholders and user groups to promote acceptance and support for a new system.

The activities involved in change management for introducing an ICT system are not technology-based, they relate to skills development, engagement and communication and are hence often seen as less important that the tangible task of delivering the new piece of technology. The skills to manage these task and activities differ considerably from the technical skills involved in delivering an ICT system.

2. Lessons Learned

Since DCIS was created in 1998 it has managed and delivered a broad range of ICT services and initiatives on behalf of government and effectively managed major corporate business systems. The ICT governance arrangements described at Part A have evolved over an extended period based on experience and often through considerable trial and error.

During this process DCIS has, at times, made all the classic mistakes outlined at Point 1 above. DCIS has developed effective and robust ICT governance arrangements informed by its successes and failures. The process of learning from our experiences is continuous and has been driven by a commitment from the senior executive level to continuously improve and deliver better outcomes.

The single most critical thing any organisation can do improve the likelihood of success with its ICT projects and initiatives is to develop an ICT governance approach suited to its organisational requirements and culture and to get the right people within the organisation participating in it

If organisations get this foundation layer right, other success factors such as project scoping; operational project management; resourcing; procurement & contract management; change management and implementation will all be addressed through the governance approach.

3. Options for Improving ICT Procurement and Management Across Government

DCIS has a leadership role across government in terms of ICT policy and strategy and provides support to the existing AoG ICT governance arrangements.

DCIS is currently undertaking a body of work targeted at improving governance of ICT across government and strengthening legislative and policy frameworks to achieve more rigorous oversight of major ICT investment decisions and performance monitoring of critical ICT projects that have an AoG focus or impact. This is described in Section C.

Part C – All-of-Government ICT Governance

1: Background

Delivery of services by governments is increasingly being enabled or supported by ICT. Service delivery requirements driven by citizen expectations are creating a more sophisticated and complex ICT systems environment. This has resulted in larger and more complex investments in ICT with greater costs, risk and challenges in managing their implementation and steady-state operation.

In today's environment, strong governance of ICT is an essential element of good corporate governance. There is a clear need for governments to have clear and robust planning and decision making arrangements in place for major ICT investments and a rigorous approach to the way in which ICT projects and initiatives are managed. ICT governance needs to be addressed in a top-down systemic way starting at the all-of-government level.

The Northern Territory Government (NTG) has recently experienced several high profile examples of ICT projects that have not delivered in terms of meeting government's requirements on-time and on-budget. The resulting cost over-runs and delays have led to negative media attention, unsatisfactory audit outcomes and a strong perception that the checks and balances in place for oversight and control of ICT at an AoG level are not adequate.

2: Current AoG ICT Governance Arrangements

A schematic of the current ICT governance model within government is included at Attachment B. This has been in place since 2002 and has reached the point where it is no longer effective.

The NTG ICT environment has become increasingly more sophisticated and now requires a stronger, more proactive approach to governance, including oversight of critical projects and investments decisions.

Problems with the current model include;

- A weak and ineffective committee structure.
- No central technology oversight of critical ICT investment decisions (other than the standard Cabinet submission process to seek funding decisions).
- Lack of oversight of ICT projects and initiatives that are high-cost, high-risk and critical to government.
- Poor participation by agencies in governance committees and associated processes; and
- No legislative basis for decision-making and controls other than the standard *Financial Management Act* requirements of Chief Executives as Accountable Officers.

A new approach is required with appropriate checks and balances to ensure better oversight of major ICT investment decisions and management of initiatives from an AoG perspective.

3: Proposed ICT Governance Framework

DCIS has been working with independent expert Frazer-Walker to review ICT governance and develop an approach to improve management of ICT within government. A modern, contemporary ICT governance model has been developed based on this work.

A schematic of the proposed new governance structure is included at Attachment C, key features include:

- An ICT Governance Board chaired by the DCIS Chief Executive with membership at Deputy Chief Executive or equivalent level.
- An ICT Leadership Group comprising senior business and ICT executives.
- A Ministerial ICT Advisory Council comprising appropriately qualified experts from other industry sectors to provide external expertise, drive innovation and new ideas and act as a 'sounding board' for developing technology strategy.
- A number of other technical reference groups to address specific ICT policy, strategy and technical issues.

A comprehensive *NT Government ICT Governance Framework* is being developed based on the work done by Frazer Walker. This will be further strengthened by developing a Treasurer's Direction series under the *Financial Management Act* to provide an explicit legislative basis for ICT decision-making and management. DCIS is working closely with the Department of Treasury and Finance to achieve this.

4: Benefits

The introduction of the proposed *NT Government ICT Governance Framework* will improve alignment of ICT investments with government direction, strengthen oversight of high risk and high value ICT investments and put in place a framework to improve the management of ICT.

This will be a clear and tangible response to the deficiencies in the management of ICT identified by the Auditor General, the Public Accounts Committee and various other independent reviews undertaken in response to troubled ICT systems projects.

5: Next Steps

The development of the *NT Government ICT Governance Framework* is close to completion. This matter will be progressed early in 2014.
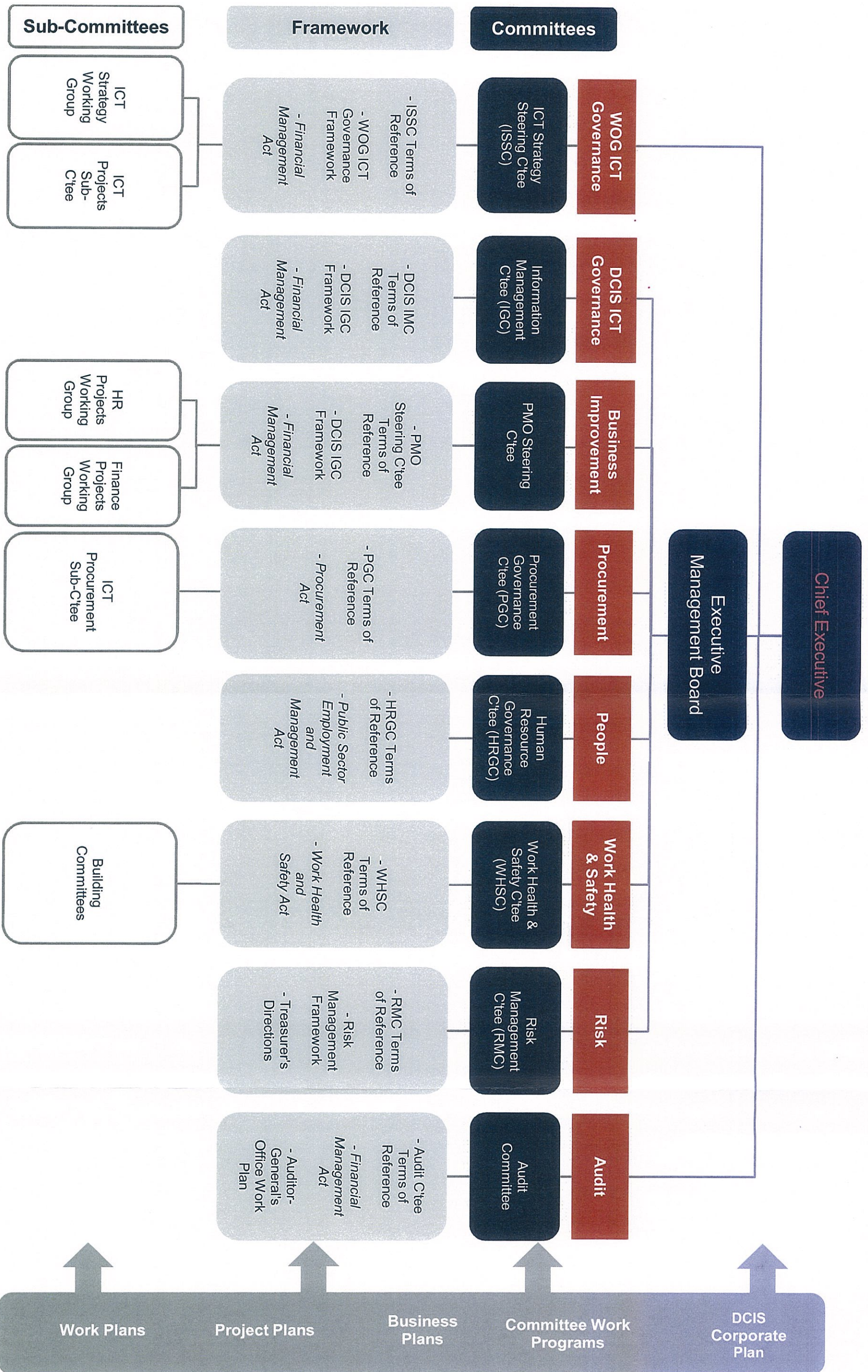
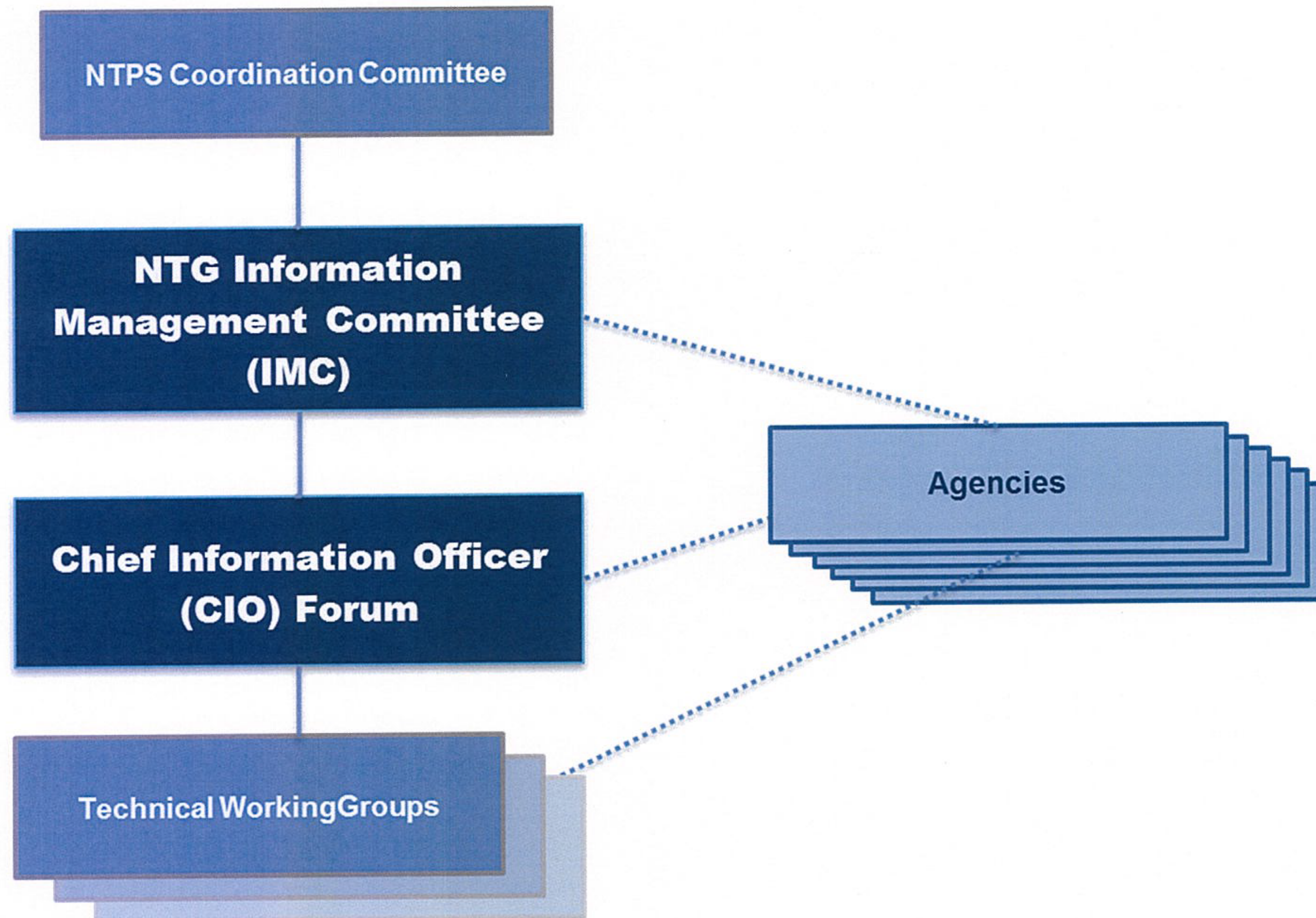**Attachments**

Attachment A – DCIS Corporate Governance Model

Attachment B – Current AoG ICT Governance Model

Attachment C – Proposed AoG ICT Governance Model

DCIS Corporate Governance Framework

Sub-Committees	Framework	Committees		

Sub-Committees:
- ICT Strategy Working Group
- ICT Projects Sub-C'tee
- HR Projects Working Group
- Finance Projects Working Group
- ICT Procurement Sub-C'tee
- Building Committees

Framework / Committees / Programs:

- ISSC Terms of Reference
- WOG ICT Governance Framework
- Financial Management Act
  → ICT Strategy Steering C'tee (ISSC) → WOG ICT Governance

- DCIS IMC Terms of Reference
- DCIS IGC Framework
- Financial Management Act
  → Information Management C'tee (IGC) → DCIS ICT Governance

- PMO Steering C'tee Terms of Reference
- DCIS IGC Framework
- Financial Management Act
  → PMO Steering C'tee → Business Improvement

- PGC Terms of Reference
- Procurement Act
  → Procurement Governance C'tee (PGC) → Procurement

- HRGC Terms of Reference
- Public Sector Employment and Management Act
  → Human Resource Governance C'tee (HRGC) → People

- WHSC Terms of Reference
- Work Health and Safety Act
  → Work Health & Safety C'tee (WHSC) → Work Health & Safety

- RMC Terms of Reference
- Risk Management Framework
- Treasurer's Directions
  → Risk Management C'tee (RMC) → Risk

- Audit C'tee Terms of Reference
- Financial Management Act
- Auditor-General's Office Work Plan
  → Audit Committee → Audit

Executive Management Board → Chief Executive

Bottom row (inputs):
- Work Plans
- Project Plans
- Business Plans
- Committee Work Programs
- DCIS Corporate Plan

Attachment B - Current AoG ICT Governance Model

Attachment C – Proposed AoG ICT Governance Model