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# The Whole of Government Approach:

Models and Tools for EGOV Strategy & Alignment

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1. THE WG APPROACH
2. APPLICATION OF THE WG APPROACH TO IT STRATEGY MANAGEMENT (WG-ITSM)
3. TOOLS FOR WG-ITSM
4. APPLICATION OF WG-ITMS TOOLSET IN MACAO

# WHAT IS WG APPROACH?



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Whole-of-Government denotes public services agencies working across portfolio boundaries to achieve a shared goal and an integrated government response to particular issues [Christensen et al 2007].

- 1) They can focus on policy development, program management, and service delivery.
- 2) WG processes may be broadly and comprehensively applied, or may be highly specific, or targeted.
- 3) WG processes may be informal or formal. That is, they may either carry authority or consist of nothing more than a 'gentlemen's agreement'.

The rationale for WG approach include:

- 1) delivery of holistic responses to policy issues, particularly the problems that transcend agency boundaries (so-called Wicked problems);
- 2) providing administrative solutions to the problem of departmentalism;
- 3) providing incentives for departments to look beyond their narrow interests;
- 4) enabling seamless services; and
- 5) reducing duplication across departments

[Moseley 2009]

# EXAMPLE 1 – AUSTRALIA



Defines WG strategies to entail deliberate action, usually, but not always, on the part of government, to facilitate cross-departmental and inter-organizational cooperation in the development and implementation of a particular public policy and/or the delivery of services.

Presents rationale for WG approach to include:

- In Australia, fragmentation and lack of coordination across agencies (and levels of government) responsible for delivering government services, has been identified as a major problem.
- There is a belief that certain practices designed to increase integration, can be employed in the policy development and implementation cycle that will increase the likelihood of nationally consistent and more holistic and effective policy outcomes.

Parties involved - divisions under Health and Ageing department.

[Hunt 2005, Whole of Government - Does Working Together Work?]

# EXAMPLE 2 – PUBLIC SECTOR REFORM



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## 1. Addressing the negative side effects of New Public Management:

- so-called “pillarization” of the public sector
- too much focus on performance management
- single-purpose organization
- structural devolution

at the expense of horizontal integration.

## 2. Responding to the need for information sharing due to:

- security risks
- crisis and disaster management

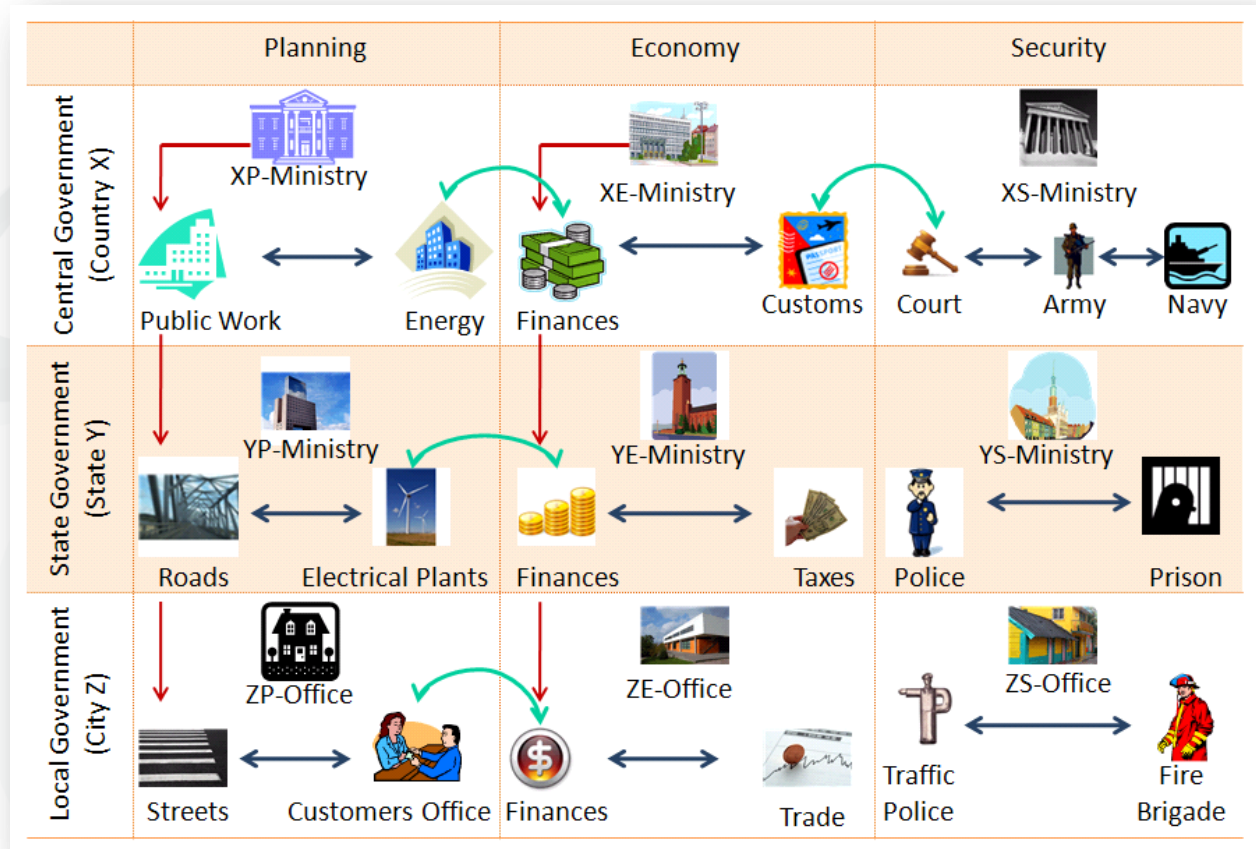
# WG NETWORK - EXAMPLE

Consider a typical view of government - different administrative levels and sectors/lines of business.

Networks can be formed at different levels [Hunt 2005]

- Intradepartmental
- Interdepartmental
- Intergovernmental
- Inter-sectoral

It results in a functional rather than organizational view of government.





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# DEFINING IT STRATEGY MANAGEMENT



ITSM is an integral part of the strategic management system of any organization involving:

- development of IT strategies to meet performance targets,
- development of IT-related capabilities to enable IT strategy implementation and
- IT performance management to monitor and control the implementation.

Typically, the government's IT management function is concerned with making sure that IT:

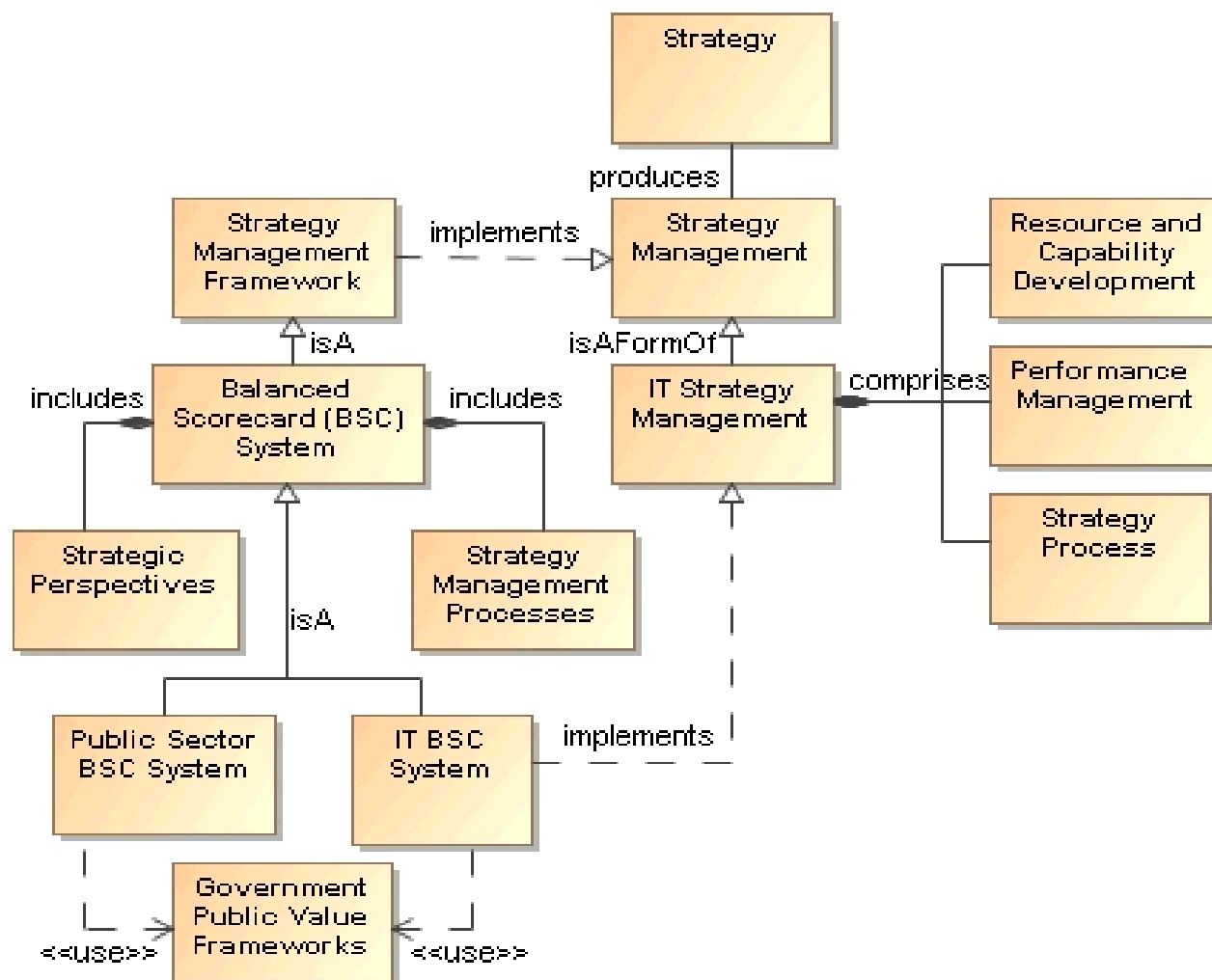
- delivers value to citizens, businesses and the public at large
- supports business and administrative processes towards operational excellence
- enables collaboration in government and compliance with government regulations; and
- supports organizational growth and the acquisition of IT skills and competences.

# CONCEPTUAL MODEL FOR ITSM



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When we combine ITSM with the WG concept, there are two possible interpretations:

- 1) Applying WG principles and processes to improve the ITSM practice in government, or
  - The involves developing a virtual IT organization across the government, with no specific application goal. This definition makes any developed WG IT capability latent until applied.
- 2) Developing the ITSM practice that inherently supports WG initiatives in government.
  - This requires the support from a virtual IT organization indicated in the first definition.

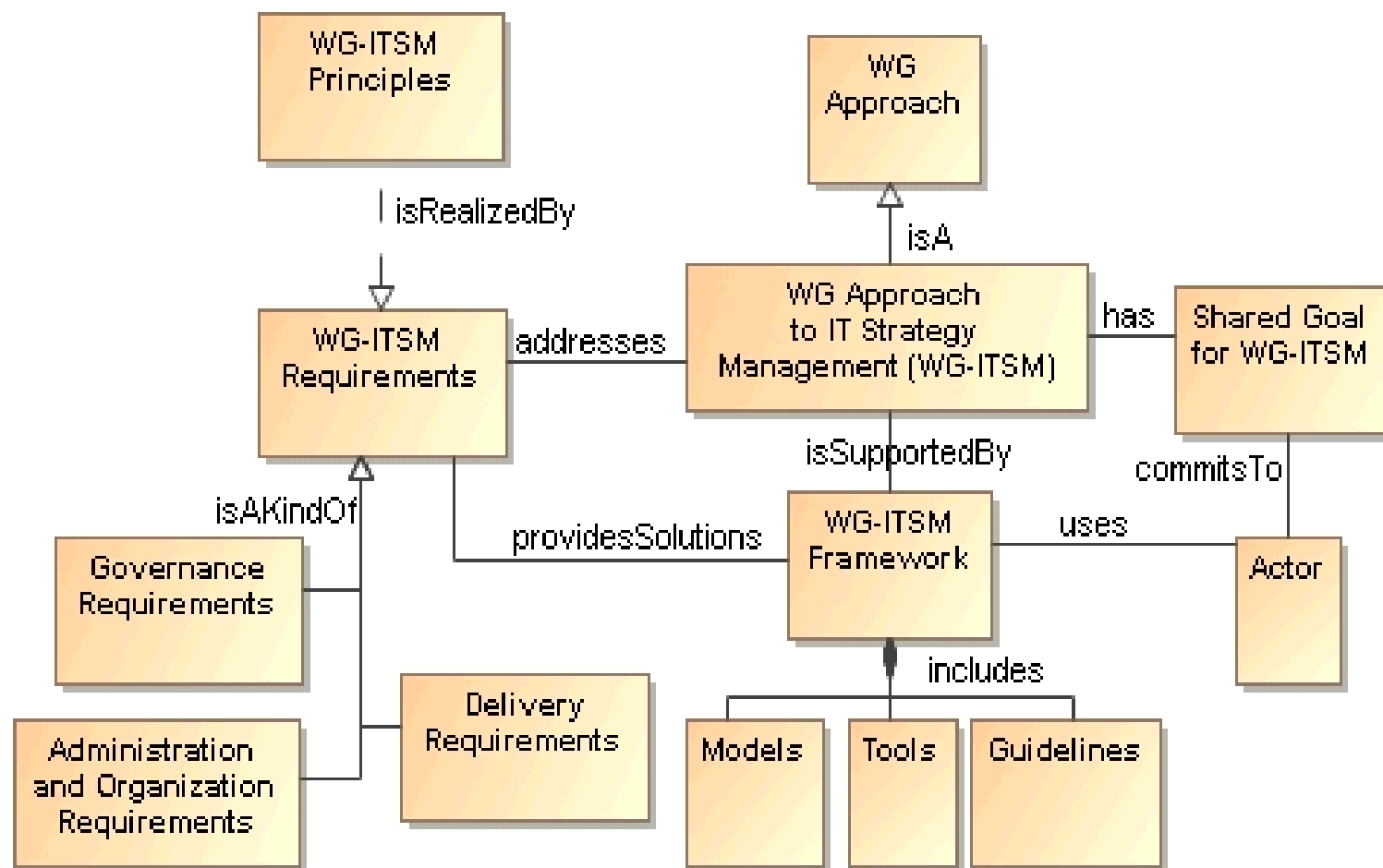
Therefore we consider WG-ITSM to include both the creation of a virtual IT organization in government and the strategic application of this organization in furthering WG initiatives.

# WG-ITSM MODEL



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# EXAMPLES OF WG-ITSM PROGRAMS

Governments are searching for better coordination, control and regulations mechanisms for technology-related policies and strategies:

## Two notable programs

- US Performance and Results Act (GPRA, 93) and Clinger-Cohen Act (96) requiring performance-based and result-oriented decision-making in IT by all federal agencies.
- AGIMO comprehensive reform process on the Australian Government's use of Information and Communication Technology (ICT).

## Substance of these programs

- GPRA requires connecting IT investments to stakeholders and mandates cooperation between agencies on IT investments
- AGIMO stipulates greater coordination and horizontal government approach to ICT policies

There are some evidence that about one-third of OECD countries are attempting to “centralize” ICT-related policies.

# OVERVIEW



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The framework consists of models and tools:

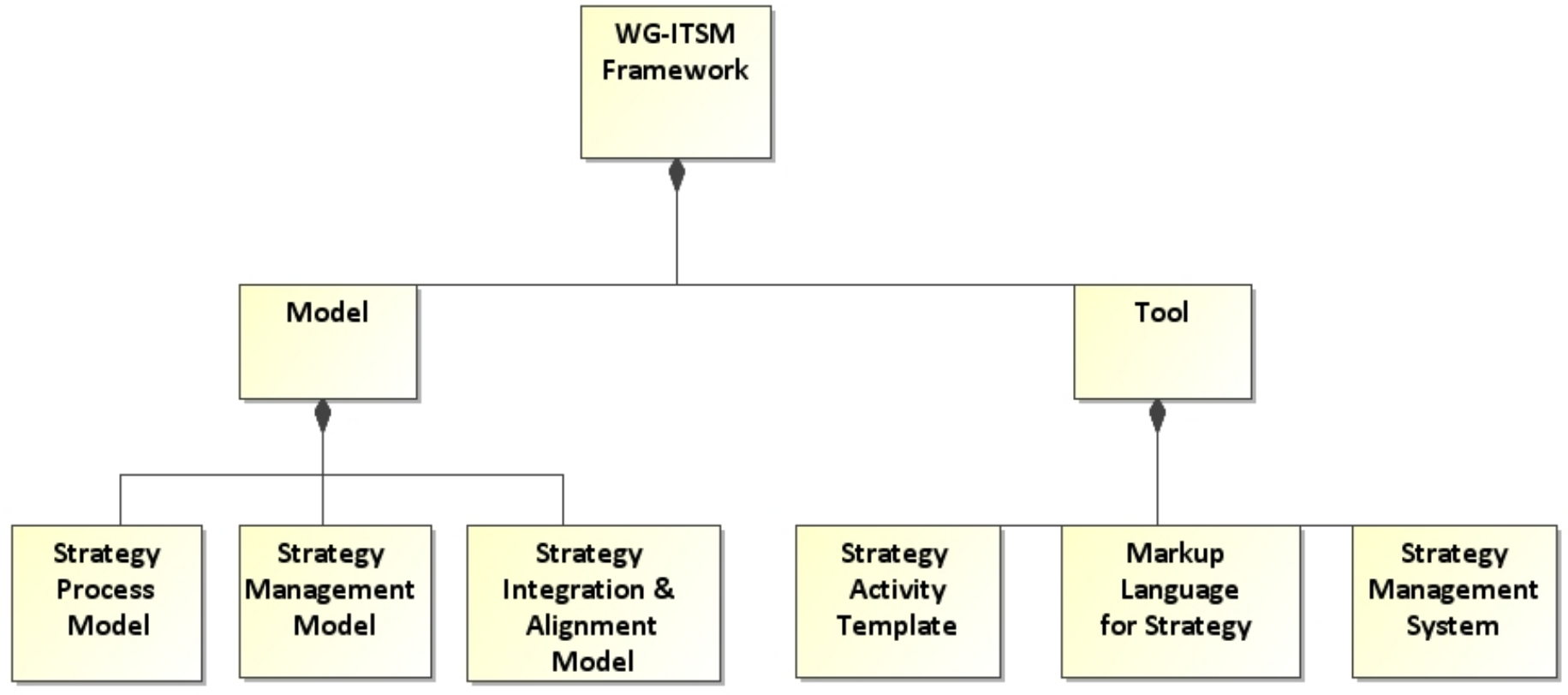
- 1) Models prescribing the adopted approach:
  - strategy management activity
  - IT strategy development process
  - coordination and integration of IT strategies
- 2) A toolset supporting the use of the models:
  - A toolkit and a set of templates to support the IT strategy process
  - A markup language to describe strategies
  - A web-based application for integrated strategy management

# TOOLSET COMPONENTS



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# TOOLSET COMPONENTS DESCRIPTION



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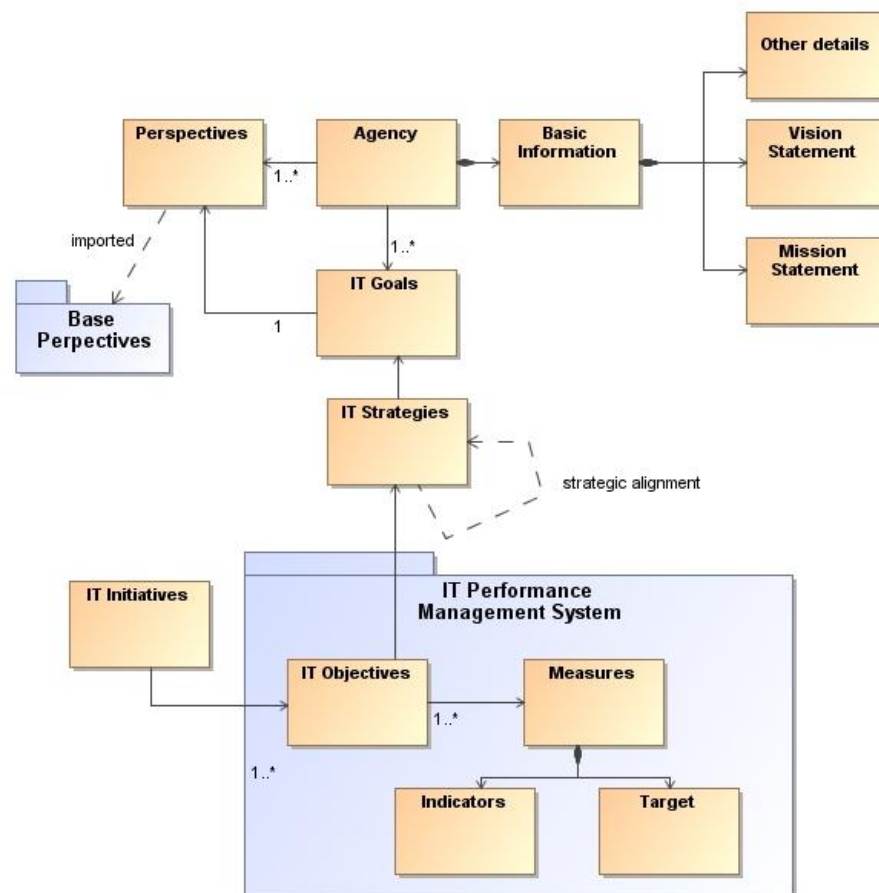
ID	ELEMENT	DESCRIPTION
C1	Strategy Management Model	Specifies the core elements of an IT strategy and the relationship among them.
C2	Strategy Process Model	Prescribes the major steps in an IT Strategy development process
C3	Strategy Integration and Alignment Model	Provides mechanisms for integrating elements of different strategies and techniques for aligning them
C4	Strategy Toolkit and Templates	A detailed guideline on how to implement the strategy process in practice
C5	Strategy Markup Language (smXML, StratML)	An XML language for representing, exchanging and integrating strategic plans
C6	Strategy Management System	A software tool for documenting, analyzing, integrating and reporting strategic plans

# COMPONENT 1 – STRATEGY MODEL



## The Strategy Management Model:

- Applies the Balanced Scorecard System
- Perspectives define major areas of concerns
- Organizes IT strategies around IT goals, associated with perspectives stemming from the vision statement
- Prescribes linkages between IT strategies associated with different perspectives to achieve alignment
- Provides the object model for the design of the smXML Language (C5)



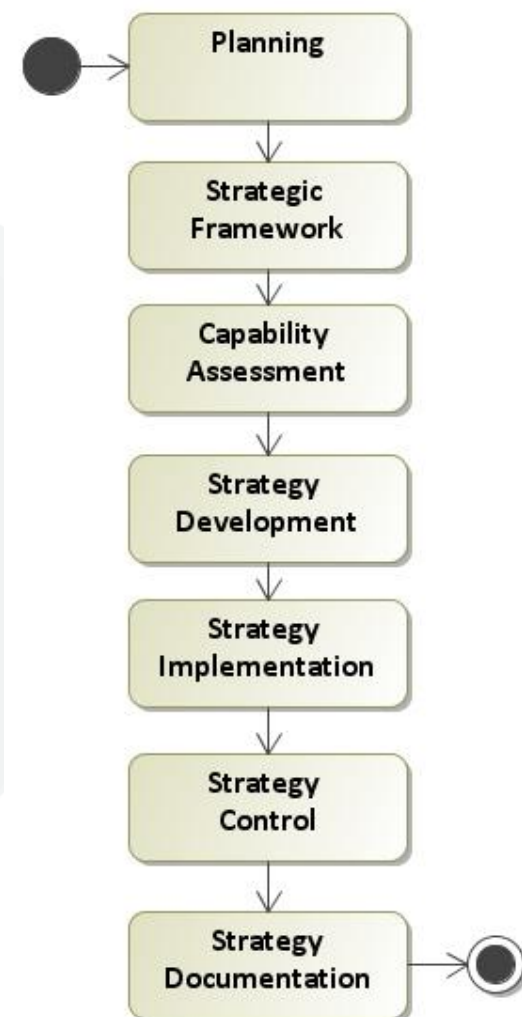
# COMPONENT 2 – STRATEGY PROCESS



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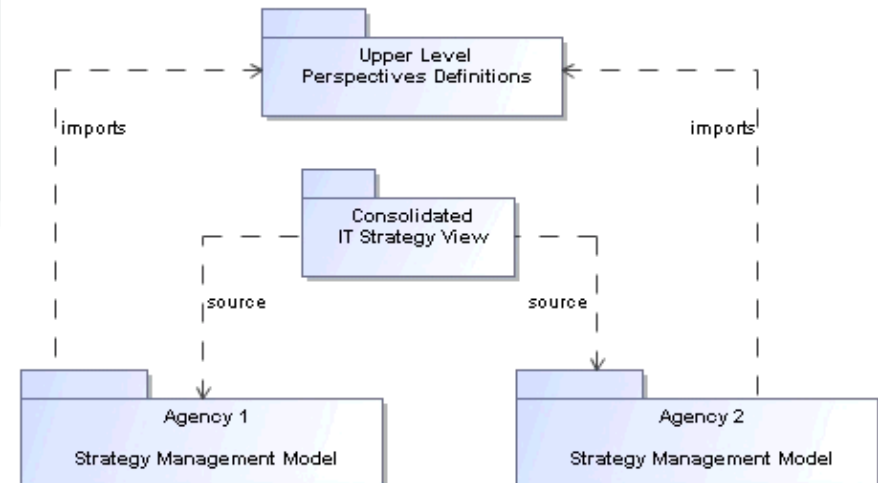
ID	Step	Description
S1	Planning	Approve, commit, identify stakeholders, mobilize resources, schedule activities
S2	Strategic Framework	Revisit organizational vision, IT vision and goals, revisit IT mission
S3	Capability Assessment	Evaluate technical, organizational and managerial aspects of IT
S4	Strategy Development	Discuss, learn, and decide on strategies through SWOT using S2, and S3
S5	Strategy Implementation	Determine actions from strategies, prioritize them for time and resources
S6	Strategy Control	Develop and monitor strategy performance measures
S7	Strategy Documentation	Document, communicate and disseminate strategies



# COMPONENT 3 – INTEGRATION MODEL

The integration model works as follows:

- Perspectives are used as a basis for integrating strategies across agencies
- High-level perspectives (as upper-level ontologies) are agreed by agencies
- High-level perspectives are associated with agency-level perspectives
- Consolidation across agencies is carried out based on high-level perspectives
- This integration model is being extended to support the use of semantic tags



# COMPONENT 3 – ALIGNMENT MODEL

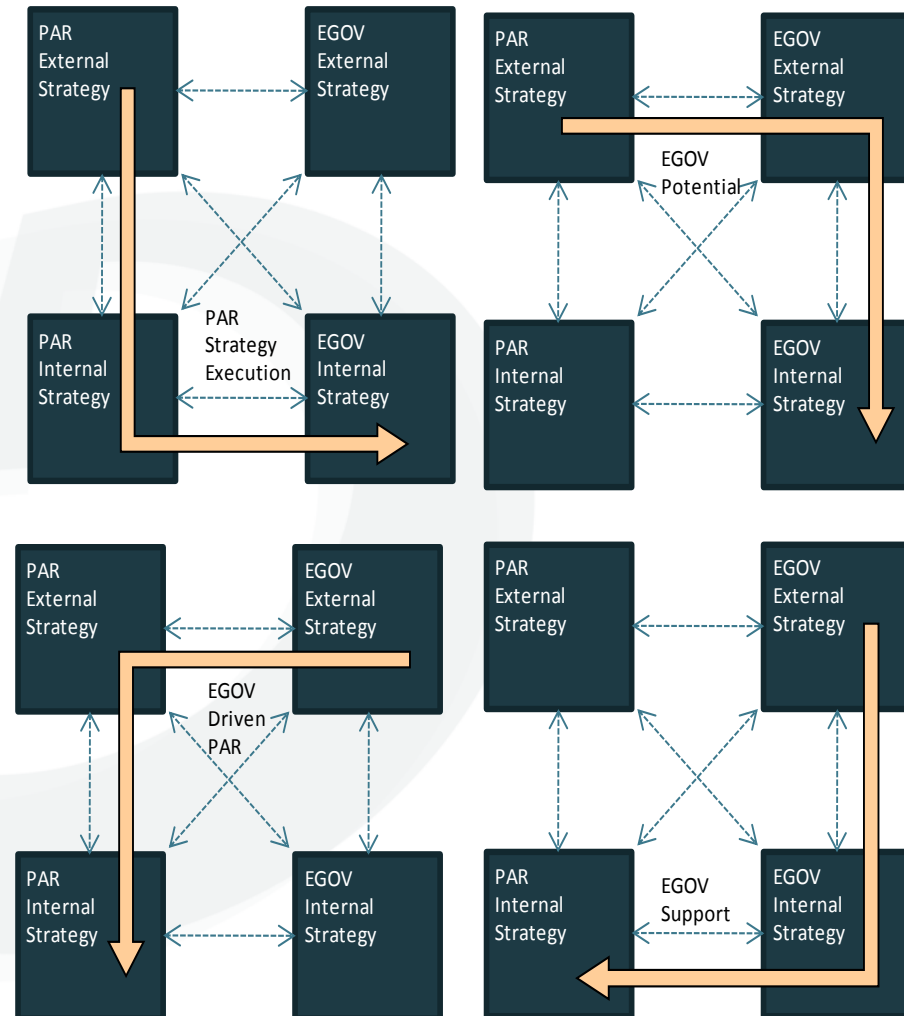


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The alignment model:

- Adapts the Strategic Alignment Model of [Henderson and Venkatraman, 1990] to suit alignment problems in government
- Maps alignment domains to pairs of 1) strategic or external issues and 2) internal supporting processes and infrastructures
- Provides an alignment process
- Supported by Toolkit and Extension to the Strategy Management System



# COMPONENT 4 – TOOLKIT AND TEMPLATES



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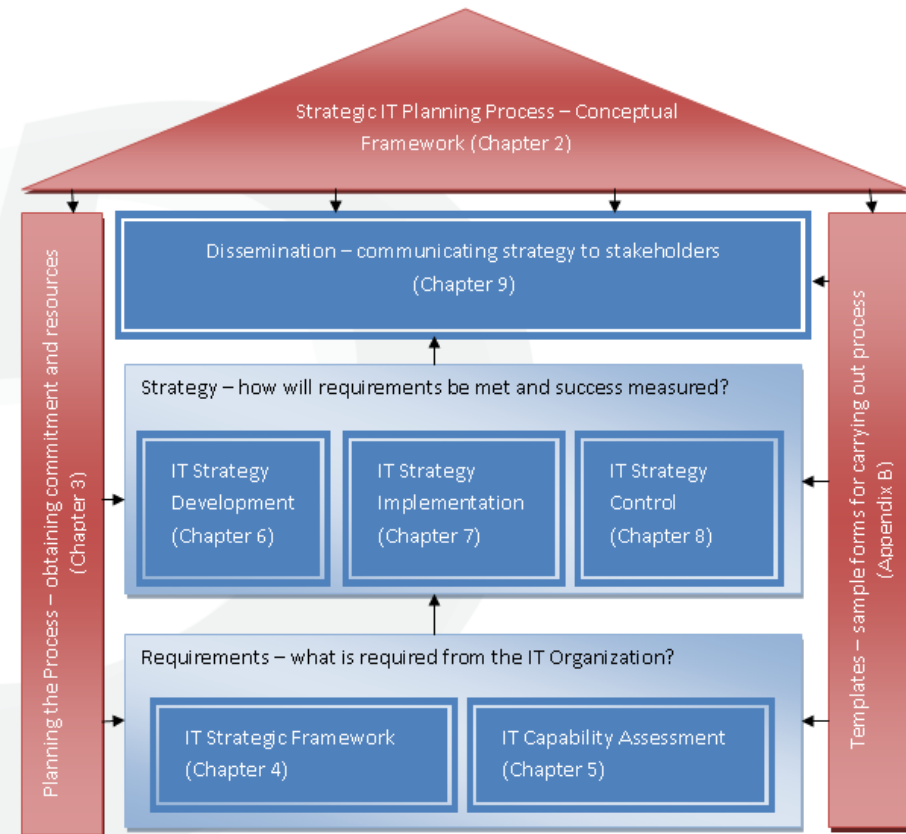
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The toolkit supports:

- 1) Development of IT Strategy Processes
- 2) IT Strategy practice to satisfy COBIT control objectives
- 3) The IT Balanced Scorecard (IT-BSC) method

The Templates provides instruments for:

- Stakeholders analysis,
- Capability assessment,
- IT visioning and goal setting,
- Strategy development,
- Elaboration of objectives and
- Strategy mapping



# COMPONENT 5 – MARKUP LANGUAGES



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Provides XML Language for ITSM (smXML):

- Underlying object model is based on the Strategy Management Model (C1)
- Developed to enable integration of strategies across government
- Provides representations for strategic plans and scorecards
- Covers the main elements of StratML
- Elements include: Organization, Mission, Vision, Perspective, Goal, Strategy, Objective, Initiative, Project, Measures
- Also supports StratML as alternative format



# COMPONENT 6 – STRATEGY MANAGEMENT SYSTEM

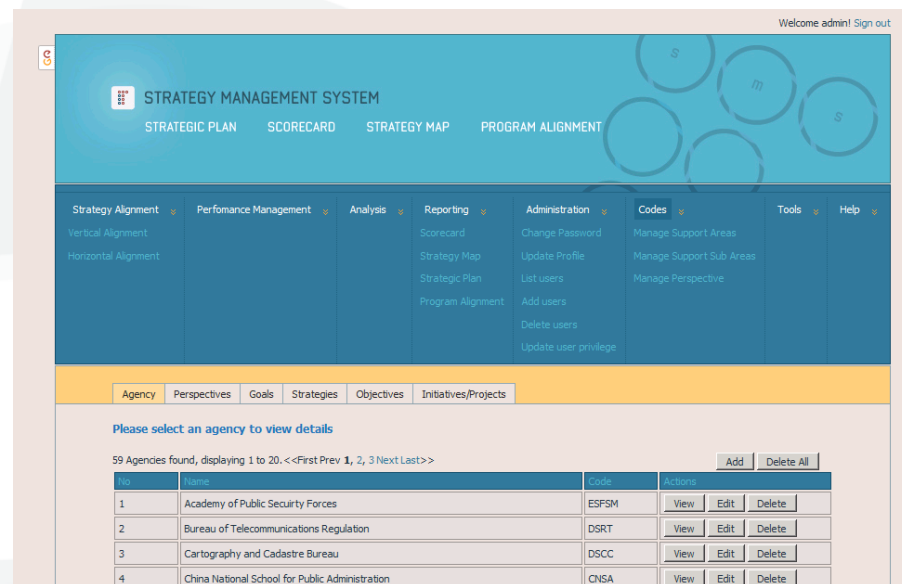


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SMS is a software tool that supports:

- Centralized management of IT strategies including integration and alignment
- Development, analysis and reporting of strategies by individual agencies
- Specific features:
  - 1) documenting IT strategy elements and maintaining IT strategy database
  - 2) generating formatted IT strategies and scorecard documents
  - 3) representing agency IT strategies in smXML and StratML
  - 4) analyzing vertical and horizontal alignment between strategies





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MSARG has since 1999 pursued two major programs for administrative improvement:

- Public Administration Reform Program aimed at improvements in internal government management and public service delivery.
- Technology-enabled Transformation of Government through E-Government

Both programs include:

- Restructuring administrative processes and eliminating information islands through better coordination, organizational interoperability and governance frameworks; and
- Streamlining and integrating government information infrastructure for instance through technical and managerial standards and the use of shared components in the development of agency portals and electronic public services.

The application of the WG-ITSM framework was carried out within the context of the 2<sup>nd</sup> Phase of the e-Macao Program from 2006 to 2008, under the Strategic IT Planning Project.

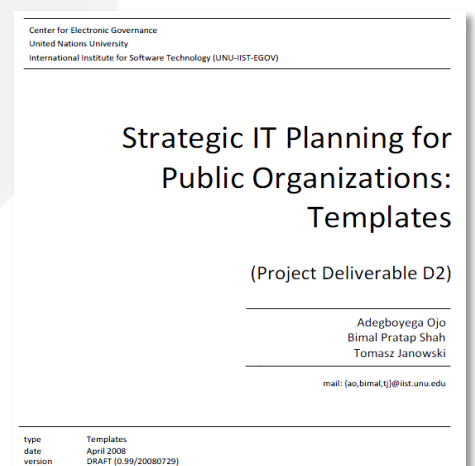
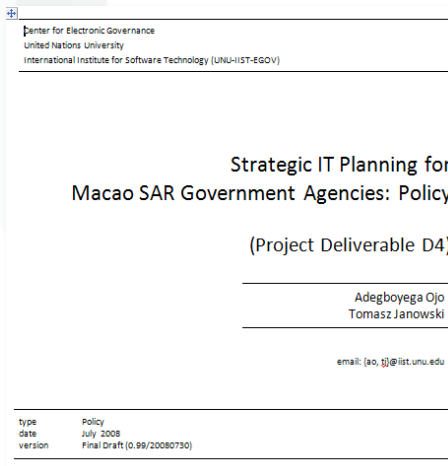
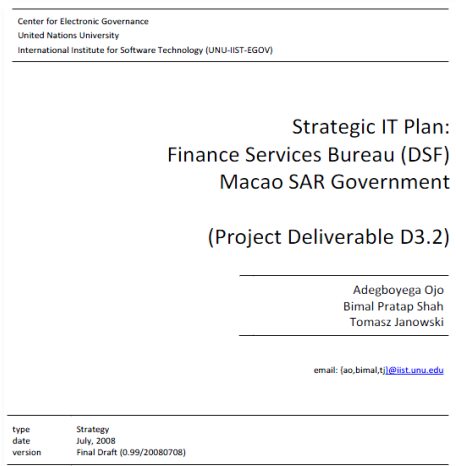
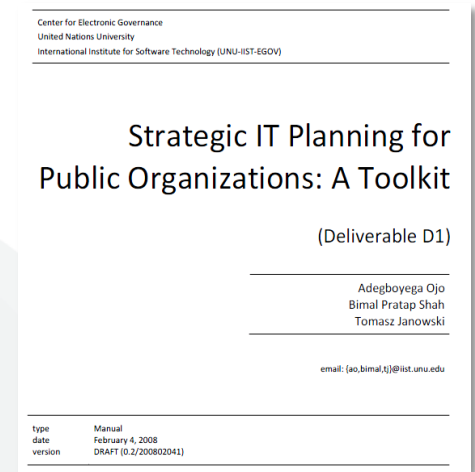
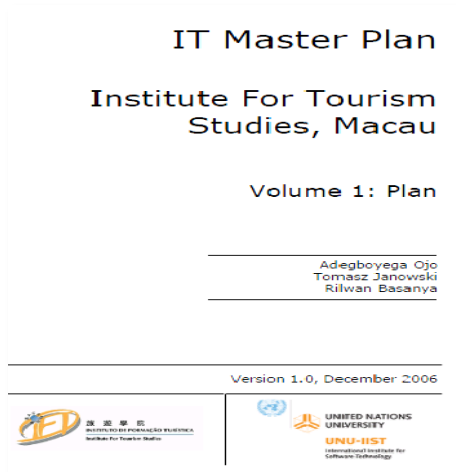
The objectives of the project include:

- to facilitate the provision of the necessary leadership and guidance framework for coordinating IT strategic management practices in Macao; and
- to develop the ITSM capacity in government agencies in support of their individual missions and of the overall socio-economic goals of the government.

# TOOLSET APPLICATIONS – OUTPUTS FOR MACAO



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# EXAMPLE – GENERATING STRATEGY FROM SMS



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 **STRATEGY MANAGEMENT SYSTEM**

[STRATEGIC PLAN](#)   [SCORECARD](#)   [STRATEGY MAP](#)   [PROGRAM ALIGNMENT](#)

[Strategy Alignment](#) ^   [Performance Management](#) ^   [Analysis](#) ^   [Reporting](#) ^   [Administration](#) ^   [Codes](#) ^   [Tools](#) ^   [Help](#) ^

[Agency](#)   [Perspectives](#)   [Goals](#)   [Strategies](#)   [Objectives](#)   [Initiatives/Projects](#)

**Please choose one agency to view its strategic plan**

Select an Agency   [View](#) [SmXML](#) [StratML](#)

# EXAMPLE – STRATEGY DOC GENERATED FROM SMS



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## Strategic IT Plan

Bureau of Telecommunications Regulation (DSRT), Macau SAR Government

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### Table of Content

- 1. Strategic Framework
    - 1.1. Mission
    - 1.2. Vision
    - 1.3. Strategic Perspectives
    - 1.4. Strategic IT Goals
  - 2. IT Strategy
    - 2.1. Strategies
    - 2.2. Strategic Objectives
    - 2.3. Scorecard
  - 3. IT Initiatives and Projects
- 

- 1. Strategic Framework
  - 1.1. Mission

The mission of DSRT is to assist the Government in elaborating foresighted policies in areas of telecommunications and information technology and exercising its authoritative functions. It will also promote the development of infrastructures and the introduction and operation of services in the areas of telecommunications and information. In addition, DSRT will control the quality of service and the pricing of public telecommunications and information services

# EXAMPLE – GENERATED STRATEGY IN “SMXML”



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  <agency>Bureau of Telecommunications Regulation</agency>
  ▼<mission>
    The mission of DSRT is to assist the Government in elaborating foresighted policies in areas of telecommunications and
    information technology and exercising its authoritative functions. It will also promote the development of
    infrastructures and the introduction and operation of services in the areas of telecommunications and information. In
    addition, DSRT will control the quality of service and the pricing of public telecommunications and information
    services and oversee if the requirements stated in regulations are duly fulfilled by the telecommunications and
    information operators. Finally the agency will manage and oversee the radio spectrum, normalize and type approve
    equipments of telecommunications and information technology.
  </mission>
  ▼<vision>
    The vision of DSRT is to provide the Macao SAR with excellent, advanced and diversified telecommunication and
    information services, elevate its competitiveness and improve the quality of life.
  </vision>
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      <goalName>Transform to Communication Regulation Authority</goalName>
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        ▼<objective id="5" seq="1">
          ▼<objectiveName>
            Comprehensive Survey of Operators Strategies, Prodyucts and Services
          </objectiveName>
          ▼<measure id="4" seq="1">
            ▼<measureName>
              Degree of coverage - number of operators covered, extent to which all required information were obta
            </measureName>
            <target/>
            <frequency/>
            <baseline/>
          </measure>
        </objective>
      </strategy>
    </goal>
  </perspective>
</StrategicPlan>
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# EXAMPLE – GENERATED STRATEGY IN “STRATML”



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  ▼<StrategicPlanCore>
    ▼<Organization>
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      <Acronym>DSRT</Acronym>
      <Description/>
    </Organization>
    ▼<Vision>
      ▼<Description>
        The vision of DSRT is to provide the Macao SAR with excellent, advanced and diversified telecommunication and information services, elevate its competitiveness and improve the quality of life.
      </Description>
    </Vision>
    ▼<Mission>
      ▼<Description>
        The mission of DSRT is to assist the Government in elaborating foresighted policies in areas of telecommunications and information technology and exercising its authoritative functions. It will also promote the development of infrastructures and the introduction and operation of services in the areas of telecommunications and information. In addition, DSRT will control the quality of service and the pricing of public telecommunications and information services and oversee if the requirements stated in regulations are duly fulfilled by the telecommunications and information operators. Finally the agency will manage and oversee the radio spectrum, normalize and type approve equipments of telecommunications and information technology.
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    </Mission>
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# CONCLUDING REMARKS



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- Implementation of SMS still in pilot phase in Macao, however a few countries have indicated in interest in using the application.
- We hope to further develop the analytical aspects of the SMS application to suggest common themes in strategies beyond consolidation through perspectives.



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Thanks for listening!  
Questions?

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