

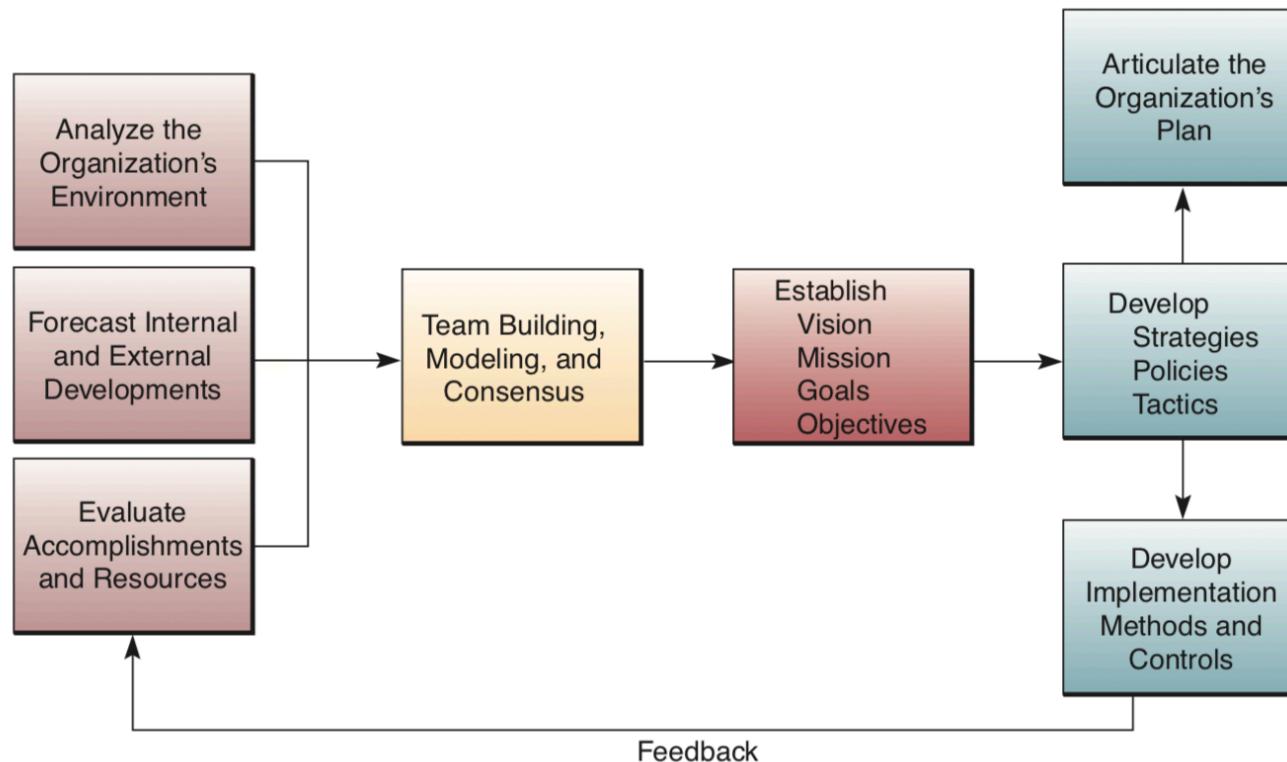
# IT Governance: Planning

II2220

Sistem Teknologi Informasi  
Institut Teknologi Bandung  
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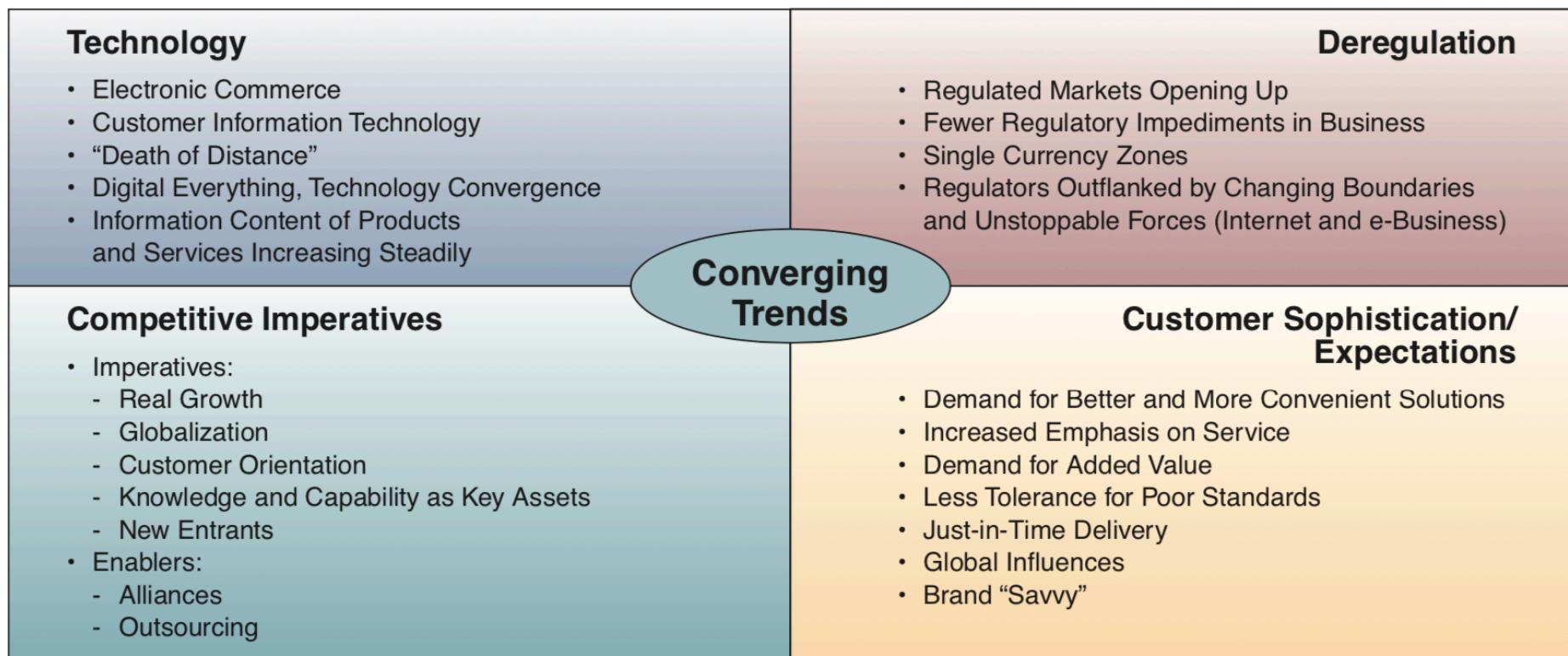
# Organizational Planning Process

FIGURE 11.2 The components of an organizational planning process.



# Trends that shape strategic business/IT planning

FIGURE 11.4 Converging business, political, and technological trends that are shaping strategic business/IT planning.



# Planning for Competitive Advantage

- Five Forces of Porter
- Competitive (Generic) strategies
- SWOT Analysis
- Strategic Opportunities Matrix



# Business Model Planning

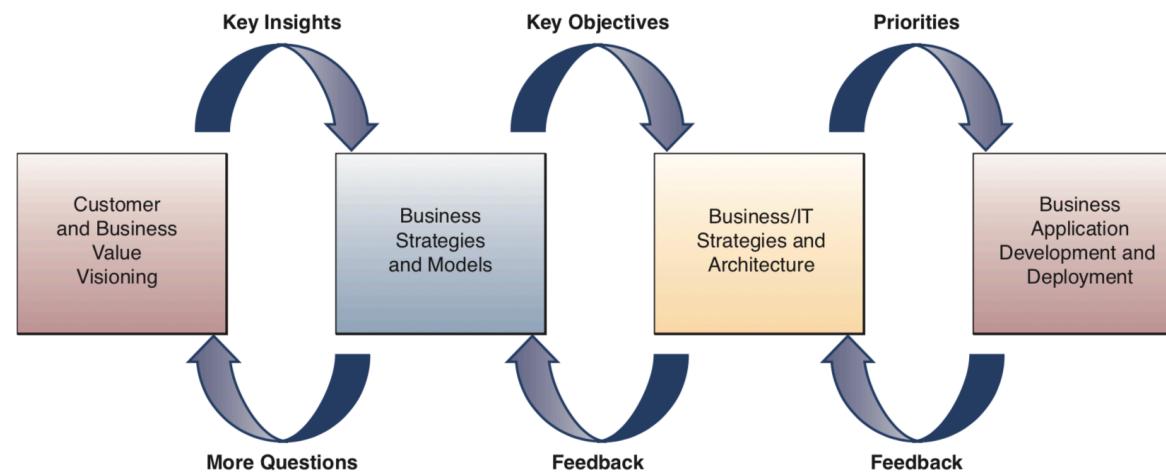
- A **business model** is a conceptual framework that expresses the underlying economic logic and system that prove how a business can deliver value to customers at an appropriate cost and make money.

Component of Business Model	Questions for All Business Models
Customer value	Is the firm offering its customers something distinctive or at a lower cost than its competitors?
Scope	To which customers (demographic and geographic) is the firm offering this value? What is the range of products/services offered that embody this value?
Pricing	How does the firm price the value?
Revenue source	Where do the dollars come from? Who pays for what value and when? What are the margins in each market and what drives them? What drives value in each source?
Connected activities	What set of activities does the firm have to perform to offer this value and when? How connected (in cross section and time) are these activities?
Implementation	What organizational structure, systems, people, and environment does the firm need to carry out these activities? What is the fit between them?
Capabilities	What are the firm's capabilities and capabilities gaps that need to be filled? How does a firm fill these capabilities gaps? Is there something distinctive about these capabilities that allows the firm to offer the value better than other firms and that makes them difficult to imitate? What are the sources of these capabilities?
Sustainability	What is it about the firm that makes it difficult for other firms to imitate it? How does the firm keep making money? How does the firm sustain its competitive advantage?

# Business IT Architecture Planning

- Focuses on discovering innovative approaches to satisfying a company's customer value and business value goals

**FIGURE 11.8** The business/IT planning process emphasizes a customer and business value focus for developing business strategies and models, and an IT architecture for business applications.



# Business IT Architecture Planning

- **Strategic Development.** Developing business strategies that support a company's business vision
  - For example, using information technology to create innovative e-business systems that focus on customer and business value. We will discuss this process in more detail shortly.
- **Resource Management.** Developing strategic plans for managing or outsourcing a company's IT resources, including IS personnel, hardware, software, data, and network resources.
- **Technology Architecture.** Making strategic IT choices that reflect an information technology architecture designed to support a company's e-business and other business/IT initiatives.

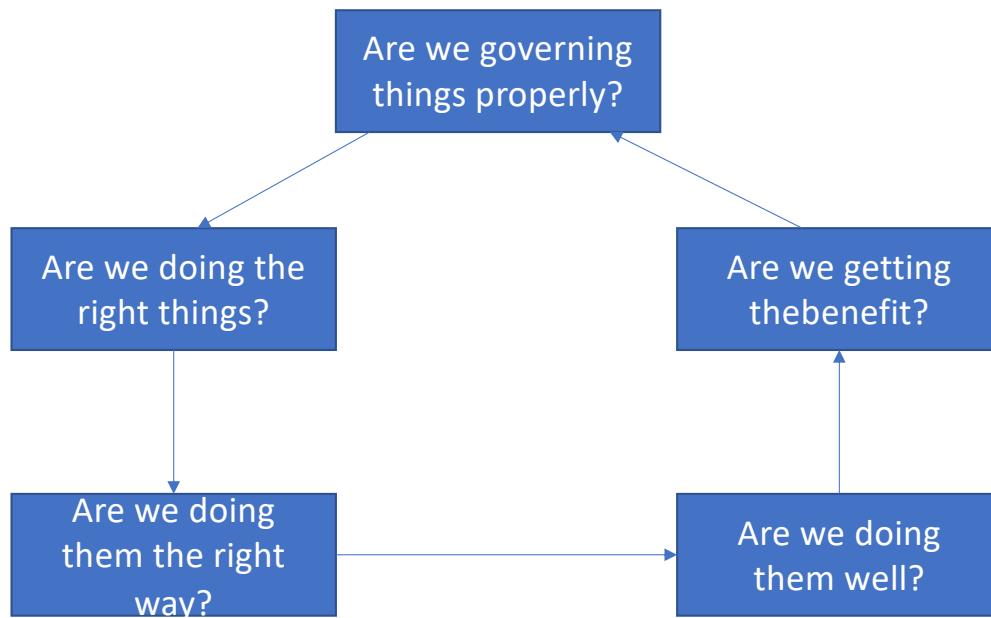
# IT Architecture

- A conceptual design, or blueprint, that includes the following major components:
  - **Technology Platform**
  - **Data Resources**
  - **Applications Architecture**
  - **IT Organization**

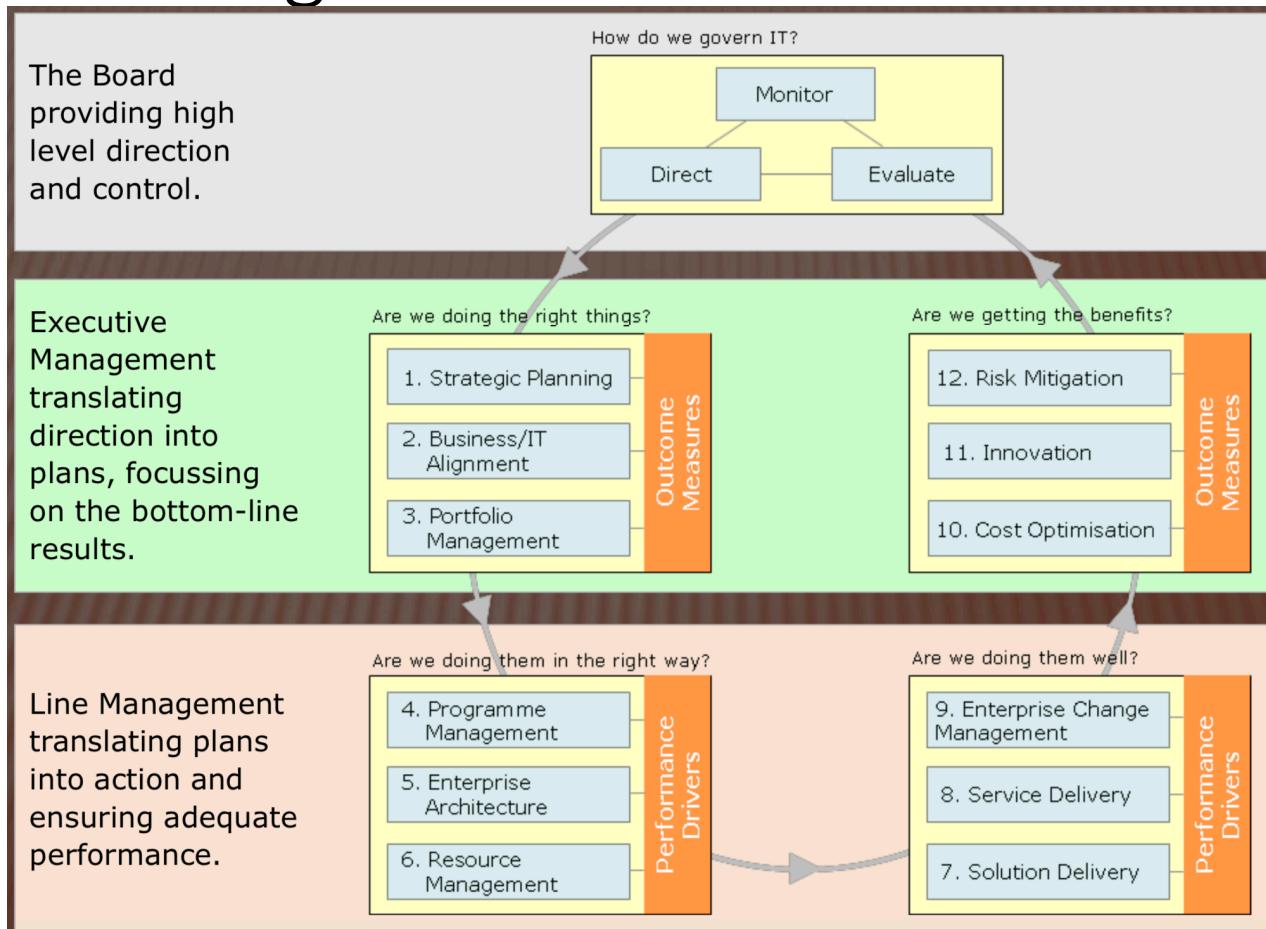
# IT Governance: Plan

- Based on COBIT 2019

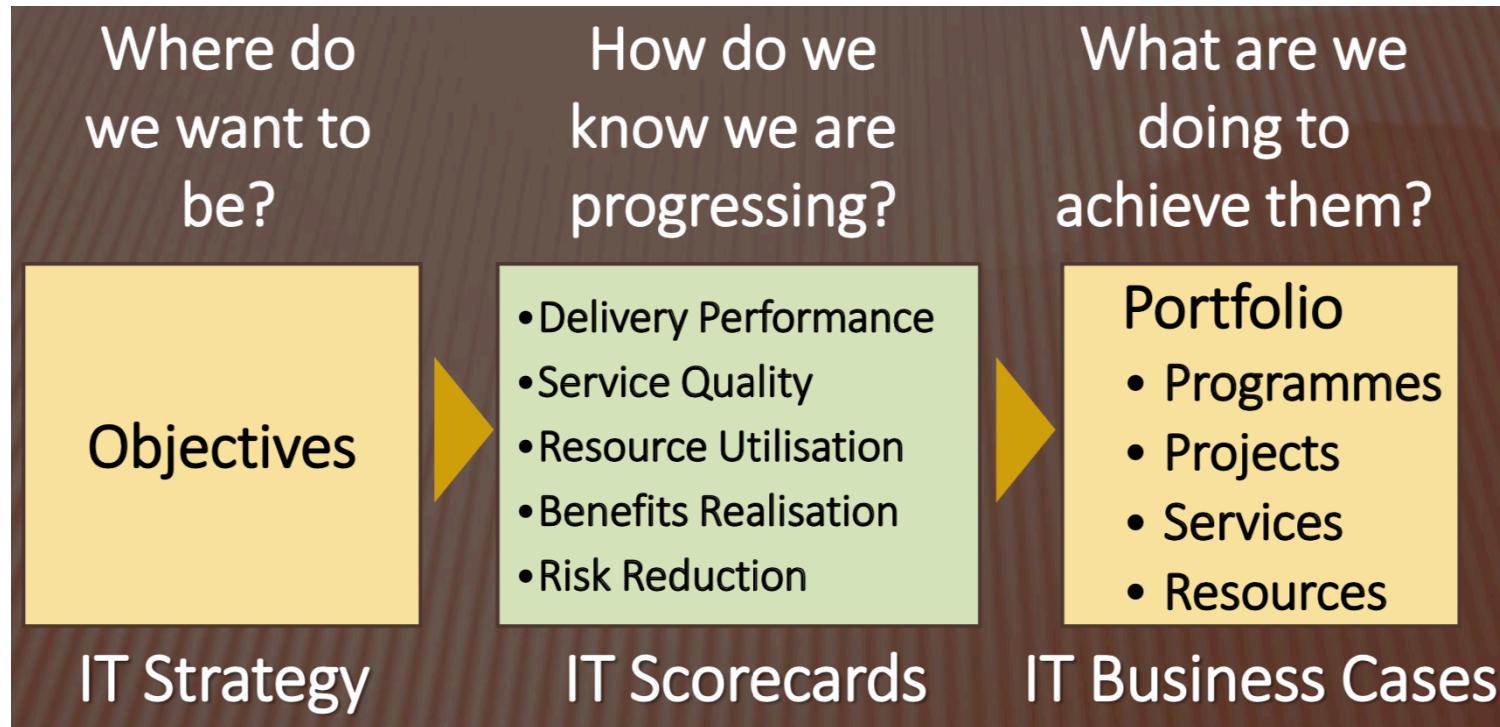
# IT Governance



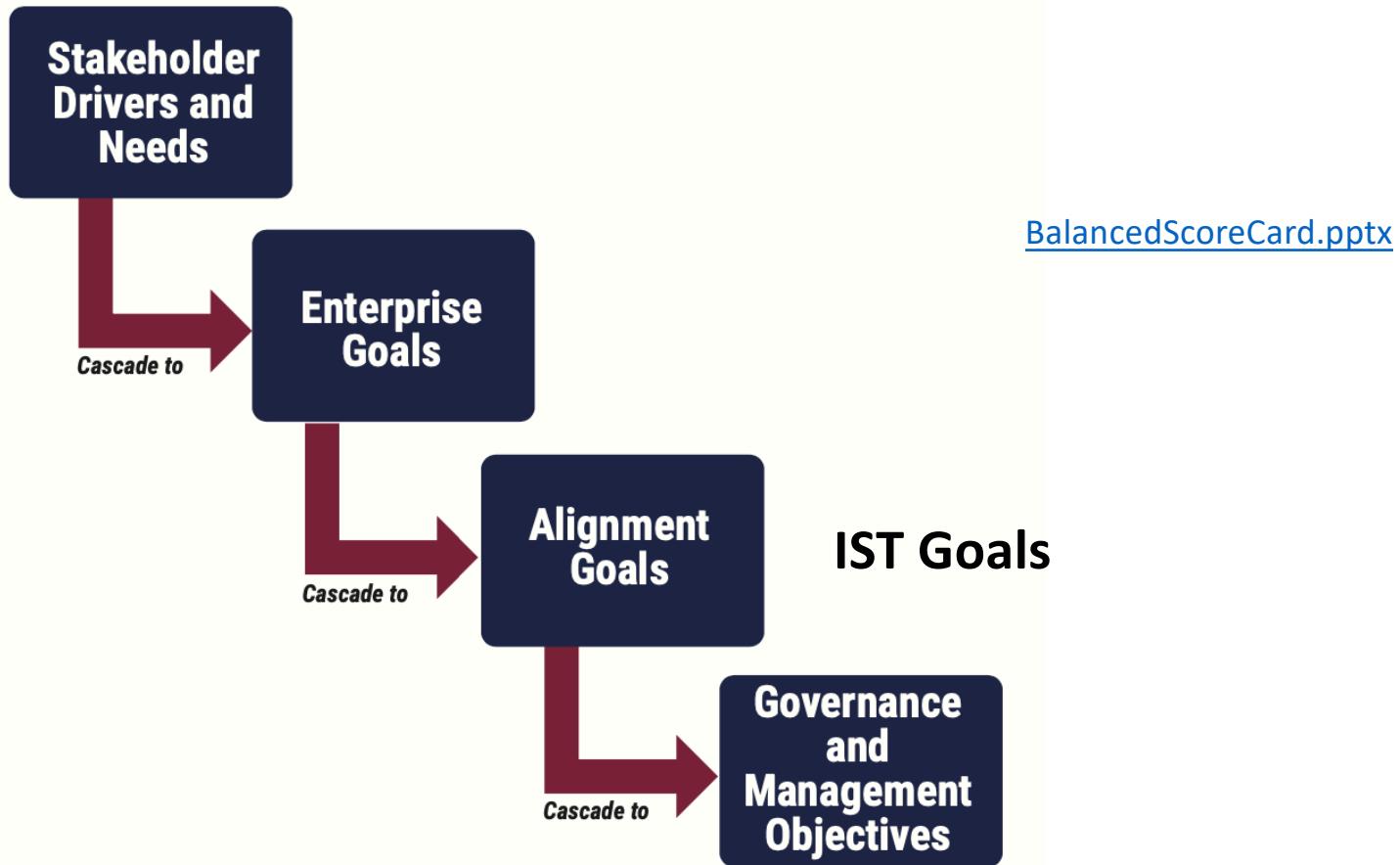
# Implementing IT Government



# Implementing IT Government



# Goals: Governance System



# Enterprise Goals(1) Balanced Score Card (BSC)

Figure 4.17—Goals Cascade: Enterprise Goals and Metrics (cont.)			
Reference	BSC Dimension	Enterprise Goal	Example Metrics
EG08	Internal	Optimization of internal business process functionality	<ul style="list-style-type: none"> <li>Satisfaction levels of board and executive management with business process capabilities</li> <li>Satisfaction levels of customers with service delivery capabilities</li> <li>Satisfaction levels of suppliers with supply chain capabilities</li> </ul>
EG09	Internal	Optimization of business process costs	<ul style="list-style-type: none"> <li>Ratio of cost vs. achieved service levels</li> <li>Satisfaction levels of board and executive management with business processing costs</li> </ul>
EG10	Internal	Staff skills, motivation and productivity	<ul style="list-style-type: none"> <li>Staff productivity compared to benchmarks</li> <li>Level of stakeholder satisfaction with staff expertise and skills</li> <li>Percent of staff whose skills are insufficient relative to competencies required for their roles</li> <li>Percent of satisfied staff</li> </ul>
EG11	Internal	Compliance with internal policies	<ul style="list-style-type: none"> <li>Number of incidents related to noncompliance with policy</li> <li>Percent of stakeholders who understand policies</li> <li>Percent of policies supported by effective standards and working practices</li> </ul>
EG12	Growth	Managed digital transformation programs	<ul style="list-style-type: none"> <li>Number of programs on time and within budget</li> <li>Percent of stakeholders satisfied with program delivery</li> <li>Percent of business transformation programs stopped</li> <li>Percent of business transformation programs with regular reported status updates</li> </ul>
EG13	Growth	Product and business innovation	<ul style="list-style-type: none"> <li>Level of awareness and understanding of business innovation opportunities</li> <li>Stakeholder satisfaction with levels of product and innovation expertise and ideas</li> <li>Number of approved product and service initiatives resulting from innovative ideas</li> </ul>

# Enterprise Goals(2)

**Figure 4.17—Goals Cascade: Enterprise Goals and Metrics**

Reference	BSC Dimension	Enterprise Goal	Example Metrics
EG01	Financial	Portfolio of competitive products and services	<ul style="list-style-type: none"> <li>Percent of products and services that meet or exceed targets in revenues and/or market share</li> <li>Percent of products and services that meet or exceed customer satisfaction targets</li> <li>Percent of products and services that provide competitive advantage</li> <li>Time-to-market for new products and services</li> </ul>
EG02	Financial	Managed business risk	<ul style="list-style-type: none"> <li>Percent of critical business objectives and services covered by risk assessment</li> <li>Ratio of significant incidents that were not identified in risk assessments vs. total incidents</li> <li>Appropriate frequency of update of risk profile</li> </ul>
EG03	Financial	Compliance with external laws and regulations	<ul style="list-style-type: none"> <li>Cost of regulatory noncompliance, including settlements and fines</li> <li>Number of regulatory noncompliance issues causing public comment or negative publicity</li> <li>Number of noncompliance matters noted by regulators or supervisory authorities</li> <li>Number of regulatory noncompliance issues relating to contractual agreements with business partners</li> </ul>
EG04	Financial	Quality of financial information	<ul style="list-style-type: none"> <li>Satisfaction survey of key stakeholders regarding the transparency, understanding and accuracy of enterprise financial information</li> <li>Cost of regulatory noncompliance with finance-related regulations</li> </ul>
EG05	Customer	Customer-oriented service culture	<ul style="list-style-type: none"> <li>Number of customer service disruptions</li> <li>Percent of business stakeholders satisfied that customer service delivery meets agreed levels</li> <li>Number of customer complaints</li> <li>Trend of customer satisfaction survey results</li> </ul>
EG06	Customer	Business service continuity and availability	<ul style="list-style-type: none"> <li>Number of customer service or business process interruptions causing significant incidents</li> <li>Business cost of incidents</li> <li>Number of business processing hours lost due to unplanned service interruptions</li> <li>Percent of complaints as a function of committed service-availability targets</li> </ul>
EG07	Customer	Quality of management information	<ul style="list-style-type: none"> <li>Degree of board and executive management satisfaction with decision-making information</li> <li>Number of incidents caused by incorrect business decisions based on inaccurate information</li> <li>Time to provide supporting information to enable effective business decisions</li> <li>Timeliness of management information</li> </ul>

# Alignment Goals

**Figure 4.18—Goals Cascade: Alignment Goals and Metrics**

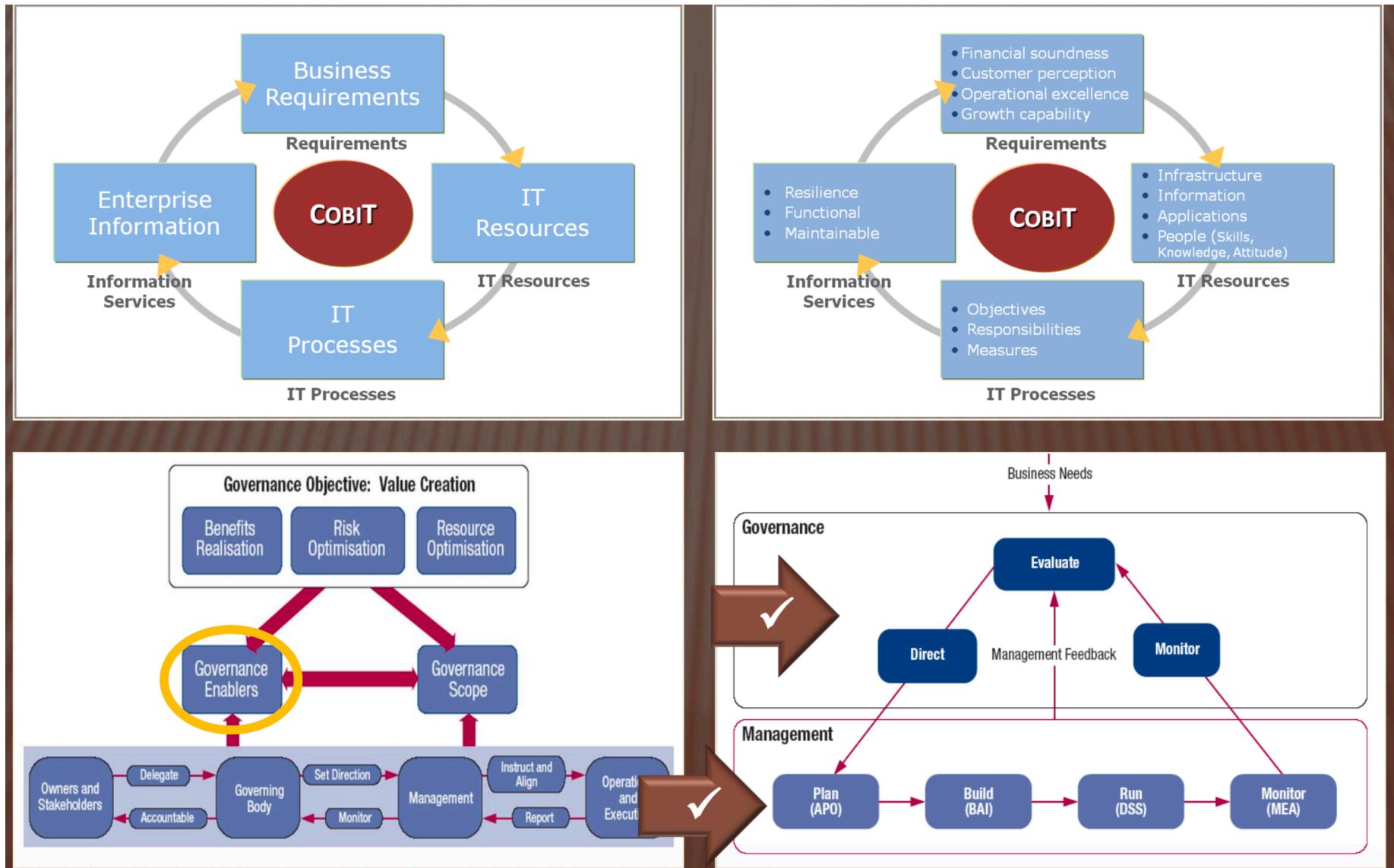
Reference	IT BSC Dimension	Alignment Goal	Metrics
AG01	Financial	I&T compliance and support for business compliance with external laws and regulations	<ul style="list-style-type: none"> <li>Cost of IT noncompliance, including settlements and fines, and the impact of reputational loss</li> <li>Number of IT-related noncompliance issues reported to the board or causing public comment or embarrassment</li> <li>Number of noncompliance issues relating to contractual agreements with IT service providers</li> </ul>
AG02	Financial	Managed I&T-related risk	<ul style="list-style-type: none"> <li>Appropriate frequency of update of risk profile</li> <li>Percent of enterprise risk assessments including I&amp;T-related risk</li> <li>Number of significant I&amp;T-related incidents that were not identified in a risk assessment</li> </ul>

**Figure 4.18—Goals Cascade: Alignment Goals and Metrics (cont.)**

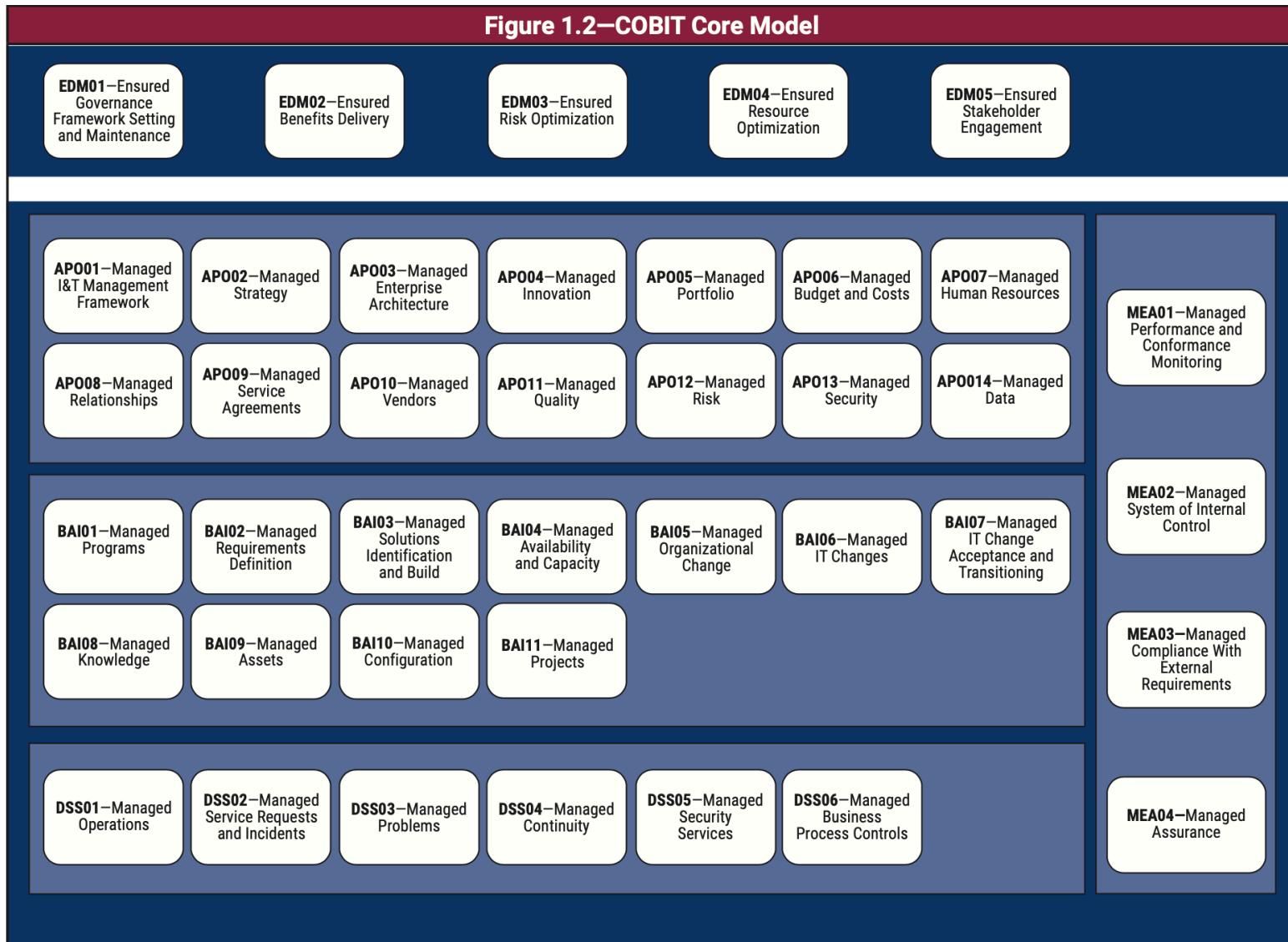
Reference	IT BSC Dimension	Alignment Goal	Metrics
AG03	Financial	Realized benefits from I&T-enabled investments and services portfolio	<ul style="list-style-type: none"> <li>Percent of I&amp;T-enabled investments for which claimed benefits in the business case are met or exceeded</li> <li>Percent of I&amp;T services for which expected benefits (as stated in the service level agreements) are realized</li> </ul>
AG04	Financial	Quality of technology-related financial information	<ul style="list-style-type: none"> <li>Satisfaction of key stakeholders regarding the level of transparency, understanding and accuracy of IT financial information</li> <li>Percent of I&amp;T services with defined and approved operational costs and expected benefits</li> </ul>
AG05	Customer	Delivery of I&T services in line with business requirements	<ul style="list-style-type: none"> <li>Percent of business stakeholders satisfied that IT service delivery meets agreed service levels</li> <li>Number of business disruptions due to IT service incidents</li> <li>Percent of users satisfied with the quality of IT service delivery</li> </ul>
AG06	Customer	Agility to turn business requirements into operational solutions	<ul style="list-style-type: none"> <li>Level of satisfaction of business executives with IT's responsiveness to new requirements</li> <li>Average time-to-market for new I&amp;T-related services and applications</li> <li>Average time to turn strategic I&amp;T objectives into an agreed and approved initiative</li> <li>Number of critical business processes supported by up-to-date infrastructure and applications</li> </ul>
AG07	Internal	Security of information, processing infrastructure and applications, and privacy	<ul style="list-style-type: none"> <li>Number of confidentiality incidents causing financial loss, business disruption or public embarrassment</li> <li>Number of availability incidents causing financial loss, business disruption or public embarrassment</li> <li>Number of integrity incidents causing financial loss, business disruption or public embarrassment</li> </ul>
AG08	Internal	Enabling and supporting business processes by integrating applications and technology	<ul style="list-style-type: none"> <li>Time to execute business services or processes</li> <li>Number of I&amp;T-enabled business programs delayed or incurring additional cost due to technology integration issues</li> <li>Number of business process changes that need to be delayed or reworked because of technology integration issues</li> <li>Number of applications or critical infrastructures operating in silos and not integrated</li> </ul>
AG09	Internal	Delivery of programs on time, on budget and meeting requirements and quality standards	<ul style="list-style-type: none"> <li>Number of programs/projects on time and within budget</li> <li>Number of programs needing significant rework due to quality defects</li> <li>Percent of stakeholders satisfied with program/project quality</li> </ul>
AG10	Internal	Quality of I&T management information	<ul style="list-style-type: none"> <li>Level of user satisfaction with quality and timeliness and availability of I&amp;T-related management information, taking into account available resources</li> <li>Ratio and extent of erroneous business decisions in which erroneous or unavailable I&amp;T-related information was a key factor</li> <li>Percentage of information meeting quality criteria</li> </ul>

**Figure 4.18—Goals Cascade: Alignment Goals and Metrics (cont.)**

Reference	IT BSC Dimension	Alignment Goal	Metrics
AG11	Internal	I&T compliance with internal policies	<ul style="list-style-type: none"> <li>Number of incidents related to noncompliance with IT-related policies</li> <li>Number of exceptions to internal policies</li> <li>Frequency of policy review and update</li> </ul>
AG12	Learning and Growth	Competent and motivated staff with mutual understanding of technology and business	<ul style="list-style-type: none"> <li>Percent of I&amp;T-savvy business people (i.e., those having the required knowledge and understanding of I&amp;T to guide, direct, innovate and see opportunities of I&amp;T for their domain of expertise)</li> <li>Percent of business-savvy IT people (i.e., those having the required knowledge and understanding of relevant business domains to guide, direct, innovate and see opportunities of I&amp;T for the business domain)</li> <li>Number or percentage of business people with technology management experience</li> </ul>
AG13	Learning and Growth	Knowledge, expertise and initiatives for business innovation	<ul style="list-style-type: none"> <li>Level of business executive awareness and understanding of I&amp;T innovation possibilities</li> <li>Number of approved initiatives resulting from innovative I&amp;T ideas</li> <li>Number of innovation champions recognized/awarded</li> </ul>



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# ALIGN, PLAN AND ORGANIZE (APO)

- 01 Managed I&T Management Framework
- 02 Managed Strategy
- 03 Managed Enterprise Architecture
- 04 Managed Innovation
- 05 Managed Portfolio
- 06 Managed Budget and Costs
- 07 Managed Human Resources
- 08 Managed Relationships
- 09 Managed Service Agreements
- 10 Managed Vendors
- 11 Managed Quality
- 12 Managed Risk
- 13 Managed Security
- 14 Managed Data



# Manage I&T Management Framework



- Description
  - Design the management system for enterprise I&T based on enterprise goals and other design factors. Based on this design, implement all required components of the management system
- Purpose
  - Implement a consistent management approach for enterprise governance requirements to be met, covering governance components such as management processes; organizational structures; roles and responsibilities; reliable and repeatable activities; information items; policies and procedures; skills and competencies; culture and behavior; and services, infrastructure and applications.

# Manage I&T Management Framework

- Goals

- Enterprise

- EG03: Compliance with external laws and regulations
    - EG08: Optimization of internal business process functionality
    - EG11: Compliance with internal policies
    - EG12: Managed digital transformation programs

- Alignment

- AG03 Realized benefits from I&T – enabled investments and services portfolio
    - AG11 I&T compliance with internal policies



# Manage I&T Management Framework



- Component Process

- APO01.01 Design the management system for enterprise I&T
- APO01.02 Communicate management objectives, direction and decisions made.
- APO01.03 Implement management processes (to support the achievement of governance and management objectives).
- APO01.04 Define and implement the organizational structures
- APO01.05 Establish roles and responsibilities.
- APO01.06 Optimize the placement of the IT function.
- APO01.07 Define information (data) and system ownership
- APO01.08 Define target skills and competencies
- APO01.09 Define and communicate policies and procedures
- APO01.10 Define and implement infrastructure, services and applications to support the governance and management system.
- APO01.11 Manage continual improvement of the I&T management system.

# Manage I&T Management Framework



B. Component: Organizational Structures												
	Key Management Practice											
	AP001.01 Design the management system for enterprise I&T.											
	Executive Committee	Chief Risk Officer	Chief Information Officer	Chief Technology Officer	Chief Digital Officer	I&T Governance Board	Architecture Board	Enterprise Risk Committee	Chief Information Security Officer	Business Process Owners	Data Management Function	Head Human Resources
AP001.02 Communicate management objectives, direction and decisions made.	A	R	R	R	R	R		R		R		
AP001.03 Implement management processes (to support the achievement of governance and management objectives).	A	R	R	R	R	R		R				
AP001.04 Define and implement the organizational structures.	A		R	R	R	R				R		
AP001.05 Establish roles and responsibilities.	A		R	R	R	R						
AP001.06 Optimize the placement of the IT function.	A		R	R	R	R	R					
AP001.07 Define information (data) and system ownership.	A		R	R	R	R	R	R	R	R		
AP001.08 Define target skills and competencies.	A		R	R	R	R				R	R	R
AP001.09 Define and communicate policies and procedures.	A		R	R	R	R	R	R	R	R	R	R
AP001.10 Define and implement infrastructure, services and applications to support the governance and management system.	A		R	R	R	R		R	R	R	R	R
AP001.11 Manage continual improvement of the I&T management system.	A		R	R	R	R		R	R	R	R	R

# Manage I&T Management Framework

C. Component: Information Flows and Items (see also Section 3.6)				
Management Practice	Inputs		Outputs	
	From	Description	Description	To
APO01.01 Design the management system for enterprise I&T.	AP002.05	Strategic road map	Priority governance and management objectives	All APO; All BAI; All DSS; All MEA
	AP012.01	Emerging risk issues and factors	Management system design	All APO; All BAI; All DSS; All MEA
	AP012.02	Risk analysis results		
	EDM01.01	• Enterprise governance guiding principles • Decision-making model		
APO01.02 Communicate management objectives, direction and decisions made.	AP012.06	Risk impact communication	Communication ground rules	All APO; All BAI; All DSS; All MEA
	DSS04.01	Policy and objectives for business continuity	Communication on I&T objectives	All APO; All BAI; All DSS; All MEA
	DSS05.01	Malicious software prevention policy		
	DSS05.02	Connectivity security policy		
	DSS05.03	Security policies for endpoint devices		
	EDM01.02	Enterprise governance communication		
	EDM04.02	Principles for safeguarding resources		
APO01.03 Implement management processes (to support the achievement of governance and management objectives).	AP002.04	Gaps and changes required to realize target capability	Target model gap analysis	All APO; All BAI; All DSS; All MEA
	EDM01.01	Enterprise governance guiding principles	Process capability levels	AP001.11
APO01.04 Define and implement the organizational structures.	AP003.02	Process architecture model	Enterprise operational guidelines	AP003.02
	EDM01.01	Enterprise governance guiding principles	Definition of organizational structure and functions	AP003.02

C. Component: Information Flows and Items (see also Section 3.6) (cont.)				
Management Practice	Inputs		Outputs	
	From	Description	Description	To
APO01.05 Establish roles and responsibilities.	AP007.03	• Skills and competencies matrix • Skill development plans	Definition of supervisory practices	AP007.01
	AP011.01	Quality management system (QMS) roles, responsibilities and decision rights	Definition of I&T-related roles and responsibilities	DSS05.04
	AP013.01	Information security management system (ISMS) scope statement		
	DSS06.03	• Allocated roles and responsibilities • Allocated levels of authority		
	EDM01.01	Authority levels		
	EDM04.02	Assigned responsibilities for resource management		
APO01.06 Optimize the placement of the IT function.	Outside COBIT	• Enterprise strategy • Enterprise operating model	Defined operational placement of IT function	AP003.02
			Evaluation of options for IT organization	AP003.02
APO01.07 Define information (data) and system ownership.			Data classification guidelines	AP003.02; AP014.01; BAI02.01; DSS05.02; DSS06.01
			Data security and control guidelines	AP014.04; AP014.10; BAI02.01
			Data integrity procedures	AP014.04; BAI02.01; DSS06.01
APO01.08 Define target skills and competencies.			Target skills and competencies matrix	AP007.03
APO01.09 Define and communicate policies and procedures.	DSS01.04	Environmental policies	Noncompliance remedial actions	MEA01.05
	MEA03.02	Updated policies, principles, procedures and standards		
APO01.10 Define and implement infrastructure, services and applications to support the governance and management system.	AP009.01	Identified gaps in I&T services to the business	Plan of right-size I&T landscape including missing I&T capabilities, services and applications	AP002.02; AP002.03
	Outside COBIT	I&T landscape assessment including services, applications and infrastructure		
APO01.11 Manage continual improvement of the I&T management system.	AP001.03	Process capability levels	Process improvement opportunities	All APO; All BAI; All DSS; All MEA
	EDM01.03	Feedback on governance effectiveness and performance	Performance goals and metrics for process improvement tracking	MEA01.02
	MEA03.02	Updated policies, principles, procedures and standards	Process capability assessments	MEA01.03
Related Guidance (Standards, Frameworks, Compliance Requirements)		Detailed Reference		
No related guidance for this component				

# Manage I&T Management Framework

## D. Component: People, Skills and Competencies

Skill	Related Guidance (Standards, Frameworks, Compliance Requirements)	Detailed Reference
IT governance	Skills Framework for the Information Age V6, 2015	GOVN
IT management	Skills Framework for the Information Age V6, 2015	ITMG

## E. Component: Policies and Procedures

Relevant Policy	Policy Description	Related Guidance	Detailed Reference
I&T management framework	Establishes management system for enterprise I&T based on enterprise goals and other design factors. Considers detailed policies and principles for I&T management across all components.		

## F. Component: Culture, Ethics and Behavior

Key Culture Elements	Related Guidance	Detailed Reference
Set an internal culture of alignment between business and IT, establishing the necessary management objectives, structures, processes, and roles and responsibilities that enable decision making and value creation in the most effective and efficient manner.		

## G. Component: Services, Infrastructure and Applications

- COBIT and related products/tools
- Equivalent frameworks and standards

# TUGAS KELOMPOK

APO01—Managed I&T Management Framework	APO02—Managed Strategy	APO03—Managed Enterprise Architecture	APO04—Managed Innovation	APO05—Managed Portfolio	APO06—Managed Budget and Costs	APO07—Managed Human Resources
APO08—Managed Relationships	APO09—Managed Service Agreements	APO10—Managed Vendors	APO11—Managed Quality	APO12—Managed Risk	APO13—Managed Security	APO14—Managed Data

- Satu kelompok membahas satu proses IT Gov (antara APO02 sd APO14)
- Tuliskan dalam ppt (7 halaman)
  - Halaman 1- Nomor, Nama proses dan Nama mahasiswa2
  - Halaman 2- Deskripsi proses
  - Halaman 3- Apa keuntungannya melakukan proses ini
  - Halaman 4- Apa risiko jika tidak dilakukan
  - Halaman 5- Aktivitas utama yang dilakukan
  - Halaman 6- Siapa pelakunya
  - Halaman 7- Kaitan dengan proses IT-Gov lainnya
  - Halaman 8- Kesimpulan/ Penutup
- Dikumpulkan sebelum kuliah minggu depan