

## APPENDIX B

### DETAILED MAPPING ENTERPRISE GOALS—IT-RELATED GOALS

The COBIT 5 goals cascade is explained in chapter 2.

The purpose of the mapping table in **figure 22** is to demonstrate how enterprise goals are supported (or translate into) IT-related goals. For that reason, the table contains the following information:

- In the columns, all 17 generic enterprise goals defined in COBIT 5, grouped by BSC dimension
- In the rows, all 17 IT-related goals, also grouped in IT BSC dimensions
- A mapping of how each enterprise goal is supported by IT-related goals. This mapping is expressed using the following scale:
  - ‘P’ stands for primary, when there is an important relationship, i.e., the IT-related goal is a primary support for the enterprise goal.
  - ‘S’ stands for secondary, when there is still a strong, but less important, relationship, i.e., the IT-related goal is a secondary support for the enterprise goal.

#### EXAMPLE 7—MAPPING TABLE

The mapping table suggests that one would normally expect that:

- Enterprise goal 7. Business service continuity and availability will:
  - Primarily depend on the achievement of the IT-related goals:
    - 04 Managed IT-related business risk
    - 10 Security of information, processing infrastructure and applications
    - 14 Availability of reliable and useful information for decision making
  - Also depend, but to a lesser degree, on the achievement of the IT-related goals:
    - 01 Alignment of IT and business strategy
    - 07 Delivery of IT services in line with business requirements
    - 08 Adequate use of applications, information and technology solutions
- Using the table in the opposite direction, achieving the IT-related goal 09. IT agility will contribute to the achievement of several enterprise goals:
  - Primarily, the enterprise goals:
    - 2. Portfolio of competitive products and services
    - 8. Agile responses to a changing business environment
    - 11. Optimisation of business process functionality
    - 17. Product and business innovation culture
  - To a lesser degree, the enterprise goals:
    - 1. Stakeholder value of business investments
    - 3. Managed business risk (safeguarding of assets)
    - 6. Customer-oriented service culture
    - 13. Managed business change programmes
    - 14. Operational and staff productivity
    - 16. Skilled and motivated people

The table was created based on the following inputs:

- Research by the University of Antwerp Management School IT Alignment and Governance Research Institute
- Additional reviews and expert opinions obtained during the development and review process of COBIT 5

When using the table in figure 22, please consider the remarks made in chapter 2 on how to use the COBIT 5 goals cascade.

Figure 22—Mapping COBIT 5 Enterprise Goals to IT-related Goals																
			Enterprise Goal													
			Stakeholder value of business investments	Portfolio of competitive products and services	Managed business risk (safeguarding of assets)	Compliance with external laws and regulations	Financial transparency	Customer-oriented service culture	Business service continuity and availability	Agile responses to a changing business environment	Information-based strategic decision making	Optimisation of service delivery costs	Optimisation of business process functionality	Optimisation of business process costs	Managed business change programmes	Operational and staff productivity
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
IT-related Goal			Financial				Customer				Internal				Learning and Growth	
Financial	01	Alignment of IT and business strategy	P	P	S			P	S	P	P	S	P	S	P	
	02	IT compliance and support for business compliance with external laws and regulations			S	P										P
	03	Commitment of executive management for making IT-related decisions	P	S	S					S	S		S		P	
	04	Managed IT-related business risk			P	S			P	S		P			S	S
	05	Realised benefits from IT-enabled investments and services portfolio	P	P				S		S		S	S	P		S
	06	Transparency of IT costs, benefits and risk	S		S		P				S	P		P		
Customer	07	Delivery of IT services in line with business requirements	P	P	S	S		P	S	P	S		P	S	S	
	08	Adequate use of applications, information and technology solutions	S	S	S			S	S		S	S	P	S		P
Internal	09	IT agility	S	P	S			S		P			P		S	S
	10	Security of information, processing infrastructure and applications			P	P			P							P
	11	Optimisation of IT assets, resources and capabilities	P	S						S		P	S	P	S	S
	12	Enablement and support of business processes by integrating applications and technology into business processes	S	P	S			S		S		S	P	S	S	S
	13	Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards	P	S	S			S				S		S	P	
	14	Availability of reliable and useful information for decision making	S	S	S	S			P		P		S			
	15	IT compliance with internal policies			S	S										P
Learning and Growth	16	Competent and motivated business and IT personnel	S	S	P			S		S					P	
	17	Knowledge, expertise and initiatives for business innovation	S	P				S		P	S		S		S	P

## APPENDIX C

### DETAILED MAPPING IT-RELATED GOALS—IT-RELATED PROCESSES

This appendix contains the mapping table between the IT-related goals and how these are supported by IT-related processes, as part of the goals cascade explained in chapter 2.

**Figure 23** contains:

- In the columns, all 17 generic IT-related goals defined in chapter 2, grouped in IT BSC dimensions
- In the rows, all 37 COBIT 5 processes, grouped by domain
- A mapping of how each IT-related goal is supported by a COBIT 5 IT-related process. This mapping is expressed using the following scale:
  - ‘P’ stands for primary, when there is an important relationship, i.e., the COBIT 5 process is a primary support for the achievement of an IT-related goal.
  - ‘S’ stands for secondary, when there is still a strong, but less important, relationship, i.e., the COBIT 5 process is a secondary support for the IT-related goal.

EXAMPLE 8—AP013 MANAGE SECURITY
<p>The process AP013 <i>Manage security</i> will contribute:</p> <ul style="list-style-type: none"> <li>• Primarily, to the achievement of the IT-related goals:               <ul style="list-style-type: none"> <li>– 02 IT compliance and support for business compliance with external laws and regulations</li> <li>– 04 Managed IT-related business risk</li> <li>– 06 Transparency of IT costs, benefits and risk</li> <li>– 10 Security of information, processing infrastructure and applications</li> <li>– 14 Availability of reliable and useful information for decision making</li> </ul> </li> <li>• To a lesser degree, to the achievement of the IT-related goals:               <ul style="list-style-type: none"> <li>– 07 Delivery of IT services in line with business requirements</li> <li>– 08 Adequate use of applications, information and technology solutions</li> </ul> </li> </ul>

The table was created based on the following inputs:

- Research by the University of Antwerp Management School IT Alignment and Governance Research Institute
- Additional reviews and expert opinions obtained during the development and review process of COBIT 5

When using the table in figure 23, please consider the remarks made in chapter 2 on how to use the COBIT 5 goals cascade.

			IT-related Goal																
			01 Alignment of IT and business strategy	02 IT compliance and support for business compliance with external laws and regulations	03 Commitment of executive management for making IT-related decisions	04 Managed IT-related business risk	05 Realised benefits from IT-enabled investments and services portfolio	06 Transparency of IT costs, benefits and risk	07 Delivery of IT services in line with business requirements	08 Adequate use of applications, information and technology solutions	09 IT agility	10 Security of information, processing infrastructure and applications	11 Optimisation of IT assets, resources and capabilities	12 Enablement and support of business processes by integrating applications and technology into business processes	13 Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards	14 Availability of reliable and useful information for decision making	15 IT compliance with internal policies	16 Competent and motivated business and IT personnel	17 Knowledge, expertise and initiatives for business innovation
COBIT 5 Process			Financial				Customer		Internal						Learning and Growth				
Evaluate, Direct and Monitor	EDM01	Ensure Governance Framework Setting and Maintenance	P	S	P	S	S	S	P		S	S	S	S	S	S	S	S	S
	EDM02	Ensure Benefits Delivery	P		S		P	P	P	S			S	S	S	S		S	P
	EDM03	Ensure Risk Optimisation	S	S	S	P		P	S	S		P			S	S	P	S	S
	EDM04	Ensure Resource Optimisation	S		S	S	S	S	S	S	P		P		S			P	S
	EDM05	Ensure Stakeholder Transparency	S	S	P			P	P						S	S	S		S
Align, Plan and Organise	AP001	Manage the IT Management Framework	P	P	S	S			S		P	S	P	S	S	S	P	P	P
	AP002	Manage Strategy	P		S	S	S		P	S	S		S	S	S	S	S	S	P
	AP003	Manage Enterprise Architecture	P		S	S	S	S	S	S	P	S	P	S		S			S
	AP004	Manage Innovation	S			S	P			P	P		P	S		S			P
	AP005	Manage Portfolio	P		S	S	P	S	S	S	S		S			P			S
	AP006	Manage Budget and Costs	S		S	S	P	P	S	S			S		S				
	AP007	Manage Human Resources	P	S	S	S			S		S	S	P		P		S	P	P
	AP008	Manage Relationships	P		S	S	S	S	P	S			S	P	S		S	S	P
	AP009	Manage Service Agreements	S			S	S	S	P	S	S	S	S		S	P	S		
	AP010	Manage Suppliers		S		P	S	S	P	S	P	S	S		S	S	S		S
	AP011	Manage Quality	S	S		S	P		P	S	S		S		P	S	S	S	S
	AP012	Manage Risk		P		P		P	S	S	S	P			P	S	S	S	S
	AP013	Manage Security		P		P		P	S	S		P				P			

**Figure 23—Mapping COBIT 5 IT-related Goals to Processes (cont.)**

			IT-related Goal																
			Alignment of IT and business strategy	IT compliance and support for business compliance with external laws and regulations	Commitment of executive management for making IT-related decisions	Managed IT-related business risk	Realised benefits from IT-enabled investments and services portfolio	Transparency of IT costs, benefits and risk	Delivery of IT services in line with business requirements	Adequate use of applications, information and technology solutions	IT agility	Security of information, processing infrastructure and applications	Optimisation of IT assets, resources and capabilities	Enablement and support of business processes by integrating applications and technology into business processes	Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards	Availability of reliable and useful information for decision making	IT compliance with internal policies	Competent and motivated business and IT personnel	Knowledge, expertise and initiatives for business innovation
			01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
COBIT 5 Process			Financial					Customer			Internal							Learning and Growth	
Build, Acquire and Implement	BAI01	Manage Programmes and Projects	P		S	P	P	S	S	S			S		P			S	S
	BAI02	Manage Requirements Definition	P	S	S	S	S		P	S	S	S	S	P	S	S			S
	BAI03	Manage Solutions Identification and Build	S			S	S		P	S			S	S	S	S			S
	BAI04	Manage Availability and Capacity				S	S		P	S	S		P		S	P			S
	BAI05	Manage Organisational Change Enablement	S		S		S		S	P	S		S	S	P				P
	BAI06	Manage Changes			S	P	S		P	S	S	P	S	S	S	S	S		S
	BAI07	Manage Change Acceptance and Transitioning				S	S		S	P	S			P	S	S	S		S
	BAI08	Manage Knowledge	S				S		S	S	P	S	S			S		S	P
	BAI09	Manage Assets		S		S		P	S		S	S	P			S	S		
	BAI10	Manage Configuration		P		S		S		S	S	S	P			P	S		
Deliver, Service and Support	DSS01	Manage Operations		S		P	S		P	S	S	S	P			S	S	S	S
	DSS02	Manage Service Requests and Incidents				P			P	S		S				S	S		S
	DSS03	Manage Problems		S		P	S		P	S	S		P	S		P	S		S
	DSS04	Manage Continuity	S	S		P	S		P	S	S	S	S	S		P	S	S	S
	DSS05	Manage Security Services	S	P		P			S	S		P	S	S		S	S		
	DSS06	Manage Business Process Controls		S		P			P	S		S	S	S		S	S	S	S
Monitor, Evaluate and Assess	MEA01	Monitor, Evaluate and Assess Performance and Conformance	S	S	S	P	S	S	P	S	S	S	P		S	S	P	S	S
	MEA02	Monitor, Evaluate and Assess the System of Internal Control		P		P		S	S	S		S				S	P		S
	MEA03	Monitor, Evaluate and Assess Compliance With External Requirements		P		P	S		S			S					S		S

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## APPENDIX D STAKEHOLDER NEEDS AND ENTERPRISE GOALS

Chapter 4 showed the individual steps of the goals cascade, starting from stakeholder needs down to enabler goals. Chapter 2 included a table with typical governance and management questions on IT. From a stakeholder point of view it is interesting to know how these questions relate to the enterprise goals. For that reason, **figure 24** is included; it shows how a list of internal stakeholder needs can be linked to the enterprise goals.

This table can be used to help setting and prioritising specific enterprise goals or IT-related goals, based on specific stakeholder needs. The same precautions should be used when using these tables as with the other goals cascade tables, i.e., every enterprise's individual situation differs, and these tables should not be used in a mechanical way, but only as a suggested generic set of relationships. In **figure 24**, the intersection of a stakeholder need and enterprise goal is filled in if that need should be considered for that goal.

Figure 24—Mapping COBIT 5 Enterprise Goals to Governance and Management Questions																	
STAKEHOLDER NEEDS	Stakeholder value of business investments	Portfolio of competitive products and services	Managed business risk (safeguarding of assets)	Compliance with external laws and regulations	Financial transparency	Customer-oriented service culture	Business service continuity and availability	Agile responses to a changing business environment	Information-based strategic decision making	Optimisation of service delivery costs	Optimisation of business process functionality	Optimisation of business process costs	Managed business change programmes	Operational and staff productivity	Compliance with internal policies	Skilled and motivated people	Product and business innovation culture
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
How do I get value from the use of IT? Are end users satisfied with the quality of the IT service?																	
How do I manage performance of IT?																	
How can I best exploit new technology for new strategic opportunities?																	
How do I best build and structure my IT department?																	
How dependent am I on external providers? How well are IT outsourcing agreements being managed? How do I obtain assurance over external providers?																	
What are the (control) requirements for information?																	
Did I address all IT-related risk?																	
Am I running an efficient and resilient IT operation?																	
How do I control the cost of IT? How do I use IT resources in the most effective and efficient manner? What are the most effective and efficient sourcing options?																	
Do I have enough people for IT? How do I develop and maintain their skills, and how do I manage their performance?																	
How do I get assurance over IT?																	

Figure 24—Mapping COBIT 5 Enterprise Goals to Governance and Management Questions (cont.)

STAKEHOLDER NEEDS	Stakeholder value of business investments	Portfolio of competitive products and services	Managed business risk (safeguarding of assets)	Compliance with external laws and regulations	Financial transparency	Customer-oriented service culture	Business service continuity and availability	Agile responses to a changing business environment	Information-based strategic decision making	Optimisation of service delivery costs	Optimisation of business process functionality	Optimisation of business process costs	Managed business change programmes	Operational and staff productivity	Compliance with internal policies	Skilled and motivated people	Product and business innovation culture
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
Is the information I am processing well secured?																	
How do I improve business agility through a more flexible IT environment?																	
Do IT projects fail to deliver what they promised—and if so, why? Is IT standing in the way of executing the business strategy?																	
How critical is IT to sustaining the enterprise? What do I do if IT is not available?																	
What concrete vital primary business processes are dependent on IT, and what are the requirements of business processes?																	
What has been the average overrun of the IT operational budgets? How often and how much do IT projects go over budget?																	
How much of the IT effort goes to fighting fires rather than to enabling business improvements?																	
Are sufficient IT resources and infrastructure available to meet required enterprise strategic objectives?																	
How long does it take to make major IT decisions?																	
Are the total IT effort and investments transparent?																	
Does IT support the enterprise in complying with regulations and service levels? How do I know whether I am compliant with all applicable regulations?																	