

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 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 13. | 14. | 15. | 16. | 17. |
| 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 | | | S | S |
| | 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 | | | S | S |
| | 04 | Managed IT-related business risk | | | P | S | | | P | S | | P | | | S | | S | S | |
| | 05 | Realised benefits from IT-enabled investments and services portfolio | P | P | | | | S | | S | | S | S | P | | S | | | 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 | | | S | S |
| | 08 | Adequate use of applications, information and technology solutions | S | S | S | | | S | S | | S | S | P | S | | P | | S | S |
| Internal | 09 | IT agility | S | P | S | | | S | | P | | | P | | S | S | | S | P |
| | 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 | | | 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 | | | 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 | | P | S |
| | 17 | Knowledge, expertise and initiatives for business innovation | S | P | | | | S | | P | S | | 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"> • Primarily, to the achievement of the IT-related goals: <ul style="list-style-type: none"> – 02 IT compliance and support for business compliance with external laws and regulations – 04 Managed IT-related business risk – 06 Transparency of IT costs, benefits and risk – 10 Security of information, processing infrastructure and applications – 14 Availability of reliable and useful information for decision making • To a lesser degree, to the achievement of the IT-related goals: <ul style="list-style-type: none"> – 07 Delivery of IT services in line with business requirements – 08 Adequate use of applications, information and technology solutions |

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.

Figure 23—Mapping COBIT 5 IT-related Goals to Processes

| | | | IT-related Goal | | | | | | | | | | | | | | | | |
|------------------------------|-------|---|---------------------------------------|--|--|----------------------------------|--|---|--|--|------------|---|---|---|--|---|--------------------------------------|---|--|
| | | | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | | | 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 |
| 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? | | | | | | | | | | | | | | | | | |