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## Overview

This sub-discipline is concerned with the competencies required to create, maintain and manage IT architecture models representing the operating model for an organisation and their lower level components. It also includes those competencies required to interpret, use and apply information contained within an IT architecture to inform a range of business improvement activities, particularly those involved in the design, development, enhancement and maintenance of information technology systems supporting an organisation.

The Enterprise Architecture is typically underpinned by other diagrammatic representations of the organisation which map it at increasingly lower levels of granularity – for some large organisations, more detailed representation of the Enterprise will be represented at individual business unit level within a Segment Architecture. Some of the models represent the organisation with specific emphasis on one aspect of its operation e.g. a Data Architecture represents the organisation's information assets, their relationship with each other, and the definition of information types used and a Process Architecture concentrates on the process flows and how information may be processed within the organisation.

A Systems or Solutions Architecture provides a detailed representation of elements of the organisation that need to be supported by current or new/enhanced information technology systems. It articulates, at a low level of detail, how individual technology components need to support the process, processing and information flows required in one or several areas of the organisation. Frequently, a logical Systems or Solutions Architecture is created and used as the blueprint upon which physical design work of individual system components, or assessment of purchased components against requirements is based. The resulting physical Solutions or Systems Architecture is primarily concerned with the definition of internal interfaces among the system's components or subsystems, and the interface between the system and its external environment, especially the user.

For the purposes of these standards, all variations and types of IT architecture work are covered within this sub-discipline.

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### Performance criteria

*You must be able to:*

#### **Implement the strategy for the development of IT/technology architecture work**

- P1 Accurately identify the business expectations of IT/technology architecture work
- P2 Correctly identify the target architecture for IT/technology, to support the business strategy and operating model(s), together with suitable roadmaps to drive the development of the IT/technology landscape from the current position to it
- P3 Accurately identify and clearly present what information, data, knowledge, processes, IT/technology and functions are most important/critical to and/or valued by the organisation, based on the results of architecture work
- P4 Effectively influence the business strategy, operating model(s), projects and programmes, presenting the implications for them drawn from IT/technology architecture activities to executive sponsors and stakeholders
- P5 Design effective strategy, policies, standards, processes, tools and techniques to monitor the alignment of IT/technology architecture activities with all relevant legislation, regulations and external standards

#### **Direct the IT/technology architecture activities**

*You must be able to:*

- P6 Correctly identify, source and use appropriately skilled internal/external individuals and groups, where necessary, to undertake and/or lead IT/technology architecture and/or roadmap activities
- P7 Correctly identify when and how to use external providers of IT/technology architecture services, selecting those to be used and negotiating and contracting with them as appropriate
- P8 Negotiate effectively with sponsors, stakeholders and external bodies on the implications of IT/technology architecture activities for the wider business
- P9 Effectively apply IT/technology architecture models and roadmaps to conduct business and IT/technology scenario planning and impact ('what if') analysis

*You must be able to:*

#### **Control the management of IT/technology architectures**

- P10 Proactively identify the possibilities offered by future IT/technology architectures to support business strategy and/or operating models, developing and presenting proposals for executive sponsors and stakeholders accordingly
- P11 Regularly monitor the quality, effectiveness and relevance of

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- IT/technology architecture activities, identifying and managing action in the event of them not supporting the business strategy and/or operating model(s), or being incorrect, incomplete or inadequate
- P12 Make timely and objective decisions on the most appropriate type/s of architecture models that are needed to support the requirements of a particular architecture assignment
  - P13 Provide timely and specific advice and guidance to others on the implications of IT/technology architecture activities for the wider business
  - P14 Critically analyse the implications of the IT/technology architecture models and roadmaps for the business strategy and operating model(s), providing timely and specific advice and guidance to other individuals within the wider business accordingly

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### Knowledge and understanding

*You need to know and understand:*

### Implement the strategy for the development of IT/technology architecture work

- K1 Identify
  - K1.1 what processes, operations and functions may exist in the future operating model and their relationship to IT/technology systems, services and assets
  - K1.2 the business expectations of IT/technology architecture work
  - K1.3 the priorities for and scope of any IT/technology architecture work and its deliverables
  - K1.4 internal and external sponsors of, and stakeholders for, IT/technology architecture work
  - K1.5 the range of approaches that may be taken to undertake IT/technology architecture work and their appropriateness in a range of business, IT and other technology contexts
  - K1.6 what IT/technology systems, services and assets may be required in the future and their relationship to the operating model
  - K1.7 the target architecture for IT/technology to support the business strategy and operating model(s)
  - K1.8 roadmaps to drive the development of the IT/technology landscape from the current position to the target IT/technology architecture
  - K1.9 when and how to use external providers of IT/technology architecture services
  - K1.10 which external providers of IT/technology architecture services to use in an assignment
  - K1.11 what actions may be taken in the event of the deliverables of IT/technology architecture work being incorrect, incomplete or inadequate
  - K1.12 the actions that may be taken in the event of IT/technology architecture activities not supporting the business strategy and/or operating model(s)
  - K1.13 opportunities to improve the quality and effectiveness of IT/technology architecture activities
  - K1.14 the implications for the business strategy, operating model as a result of IT/technology architecture activities
  - K1.15 the possibilities offered by future IT/technology architectures to support business strategy and/or operating models
  - K1.16 appropriately skilled internal/external individuals and groups, where necessary, to undertake and/or lead any particular IT/technology architecture assignment
  - K1.17 what information, data, knowledge, processes, IT/technology and functions are most important/critical to and/or valued by the organisation, based on the results of architecture work

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- K2 Verify the accuracy, currency, completeness and relevance of information, created, collected, used and documented during IT/technology architecture activities
- K3 Present
  - K3.1 what information, data, knowledge, processes, IT/technology and/or functions are most important/critical to or valued by the organisation, based on the results of architecture work
  - K3.2 proposals for new business strategies, opportunities and/or operating models that may be achieved that have been identified through the use of IT/technology models and roadmaps
  - K3.3 IT/technology architecture models and roadmaps to support the business strategy and operating model(s)
  - K3.4 the implications of the IT/technology architecture models and roadmaps for the business strategy and operating model(s)
  - K3.5 the implications of IT/technology architecture models and roadmaps for projects and programmes
  - K3.6 the results gained from monitoring IT/technology architecture activities
  - K3.7 the effectiveness and quality of IT/technology architecture activities
  - K3.8 the effectiveness and quality of external providers of IT/technology architecture services
  - K3.9 the alignment of IT/technology developments with IT/technology architecture models and roadmaps
- K4 Design
  - K4.1 strategy, policies and standards relating to IT/technology architecture work
  - K4.2 strategy and policies to ensure the alignment of IT/technology architecture activities with all relevant legislation, regulations and external standards
  - K4.3 the processes, tools and techniques to monitor the alignment of IT/technology architecture activities with all relevant legislation, regulations and external standards
  - K4.4 proposals for new business strategies, opportunities and/or operating models that may be achieved as a result of IT/technology
- K5 Authorise, agree and contract
  - K5.1 Actions
  - K5.2 Approaches
  - K5.3 strategy, policies, plans, procedures, standards, methods, tools and techniques
  - K5.4 contractual arrangements with external providers of IT/technology architecture services, decisions
- K6 The importance of
  - K6.1 IT/technology architecture activities proactively identifying and proposing opportunities for business improvement through the

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application of IT/technology

- K6.2 using IT/technology architecture models to inform and influence executive decision making, where appropriate, within the organisation

### **Direct the IT/technology architecture activities**

*You need to know and understand:*

- K7 Source
  - K7.1 appropriately skilled internal/external individuals and groups, where necessary, to undertake and/or lead IT/technology architecture and/or roadmap work
- K8 Take decisions
  - K8.1 on the most appropriate type/s of architecture models that are needed to support the requirements of a particular architecture assignment
  - K8.2 on when and how to use external providers of IT/technology architecture services
  - K8.3 on which external providers of IT/technology architecture services to use
- K9 Negotiate
  - K9.1 with sponsors, stakeholders and external bodies on the requirements for IT/technology architecture
  - K9.2 with sponsors, stakeholders and external bodies on the implications of IT/technology architecture activities for the wider business
  - K9.3 with external providers of IT/technology architecture services
- K10 use and apply
  - K10.1 information from sponsors, stakeholders and other individuals that will clarify what IT/technology architecture models and roadmaps need to support<sup>1</sup>
  - K10.2 the most appropriate approaches to undertake IT/technology architecture work
  - K10.3 the processes, tools and techniques to monitor the alignment of IT/technology architecture activities with all relevant legislation, regulations and external standards<sup>10 11</sup>
  - K10.4 lessons learned from prior and/or others' experience in IT/technology architecture work
  - K10.5 appropriately skilled internal/external individuals and groups, where necessary, to undertake IT/technology architecture and/or roadmap work
  - K10.6 IT/technology architecture models and roadmaps to conduct business and IT/technology scenario planning and impact ('what if') analysis
  - K10.7 IT/technology models and roadmaps to influence strategic business decision making
  - K10.8 IT/technology models and roadmaps to proactively identify opportunities for business improvement through the application of

- IT/technology
- K11 Manage
  - K11.1 the relationships with external providers offering IT/technology architecture services
  - K11.2 actions to be taken in the event of IT/technology architecture work activities not supporting the business strategy and operating model(s)
  - K11.3 issues arising as a result of IT/technology architecture activities
  - K11.4 external factors that may impact on IT/technology architecture activities
- K12 What are the benefits and disadvantages of using external providers of IT/technology architecture services
- K13 The fact that
  - K13.1 individuals and groups involved in IT/technology architecture and roadmap activities need to remain involved with 'real life' business and IT/technology challenges and operational activities, to ensure their work remains relevant
- K14 Who
  - K14.1 needs to lead IT/technology architecture assignments
  - K14.2 needs to be involved in any particular IT/technology architecture assignment
- K15 The importance of ensuring that individuals and groups involved in IT/technology architecture and roadmap activities have appropriate technical and business expertise that is relevant for their production ensuring that individuals and groups involved in IT/technology architecture and roadmap activities remain involved with 'real life' business and IT/technology challenges and operational activities, to ensure their work remains relevant

**Control the management of IT/technology architectures**

*You need to know and understand:*

- K16 Implement and maintain
  - K16.1 strategy, policies and standards relating to IT/technology architecture work
  - K16.2 strategy and policies to ensure the alignment of IT/technology architecture activities with all relevant legislation, regulations and external standards
- K17 Analyse
  - K17.1 the implications of the IT/technology architecture models and roadmaps for the business strategy and operating model(s)
  - K17.2 the results gained from monitoring IT/technology architecture activities
  - K17.3 what information, data, knowledge processes, IT/technology and/or functions are most important/critical to or valued by the organisation, based on the results of architecture work
- K18 Monitor

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- K18.1 compliance with all relevant legislation, regulations and external standards relating to IT/technology architecture activities
- K18.2 compliance with all professional and ethical standards relating to IT/technology architecture activities
- K18.3 the quality and effectiveness of IT/technology architecture activities
- K18.4 the quality and effectiveness of external providers of IT/technology architecture services
- K18.5 the alignment of IT/technology architecture activities with business strategy and operating model(s)
- K18.6 the relevance of IT/technology architecture activities to all other IT/technology functions and operational activities
- K19 Report
- K19.1 any issues arising from monitoring IT/technology architecture activities
- K19.2 findings from monitoring the quality and effectiveness of IT/technology architecture activities
- K20 Take action
- K20.1 in the event of IT/technology architecture activities not supporting the business strategy and/or operating model(s)
- K20.2 to establish effective relationships with external providers of IT/technology architecture services
- K20.3 in the event of external providers not providing the appropriate quality of IT/technology architecture services
- K20.4 to influence business strategy and operating model(s), where appropriate, as a result of IT/technology architecture work undertaken
- K20.5 to influence IT/technology strategy, policies and standards, where appropriate, as a result of IT/technology architecture work undertaken
- K20.6 to ensure that IT/technology architecture models and/or roadmaps are developed and maintained by appropriately skilled individuals for their production
- K20.7 that IT/technology architecture work fully reflects the business strategy and operating model(s)
- K20.8 that individuals and groups involved in IT/technology architecture and roadmap activities remain involved with 'real life' business and IT/technology challenges and operational activities, to ensure their work remains relevant
- K21 Provide
- K21.1 information relating to the value, role, purpose of IT/technology architecture work to sponsors and stakeholders
- K21.2 information for new business strategy and/or operating model(s) to sponsors and stakeholders that has been developed through IT/technology architecture work
- K22 Communicate
- K22.1 the strategic value and importance of IT/technology architectures and



roadmaps to sponsors, stakeholders and other individuals

K23 Advice and guidance on

K23.1 all aspects of IT/technology architecture activities

K23.2 the best practice in IT/technology architecture work

K23.3 the actions that may be taken in the event of IT/technology architecture activities not supporting the business strategy and operating model(s)

K23.4 opportunities for change to the business strategy and/or operating model arising from IT/technology architecture work

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