Develop and Use an Enterprise Architecture

Literature

This chapter is based on the following literature:

- Hanschke, Inge. (2010). *Strategic IT Management, Chapter 4*. Berlin Heidelberg: Springer-Verlag.

- Schekkerman, J. (2008). *Enterprise Architecture Good Practices Guide - Chapters 6-8*. Victoria, BC, Canada: Trafford Publishing.

For further details have a look at the referenced sources.

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Enterprise Architecture is *not* about building models.

It is about solving enterprise problems while iteratively building models

John Zachman

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What we model and on which level of granularity depends on the problem
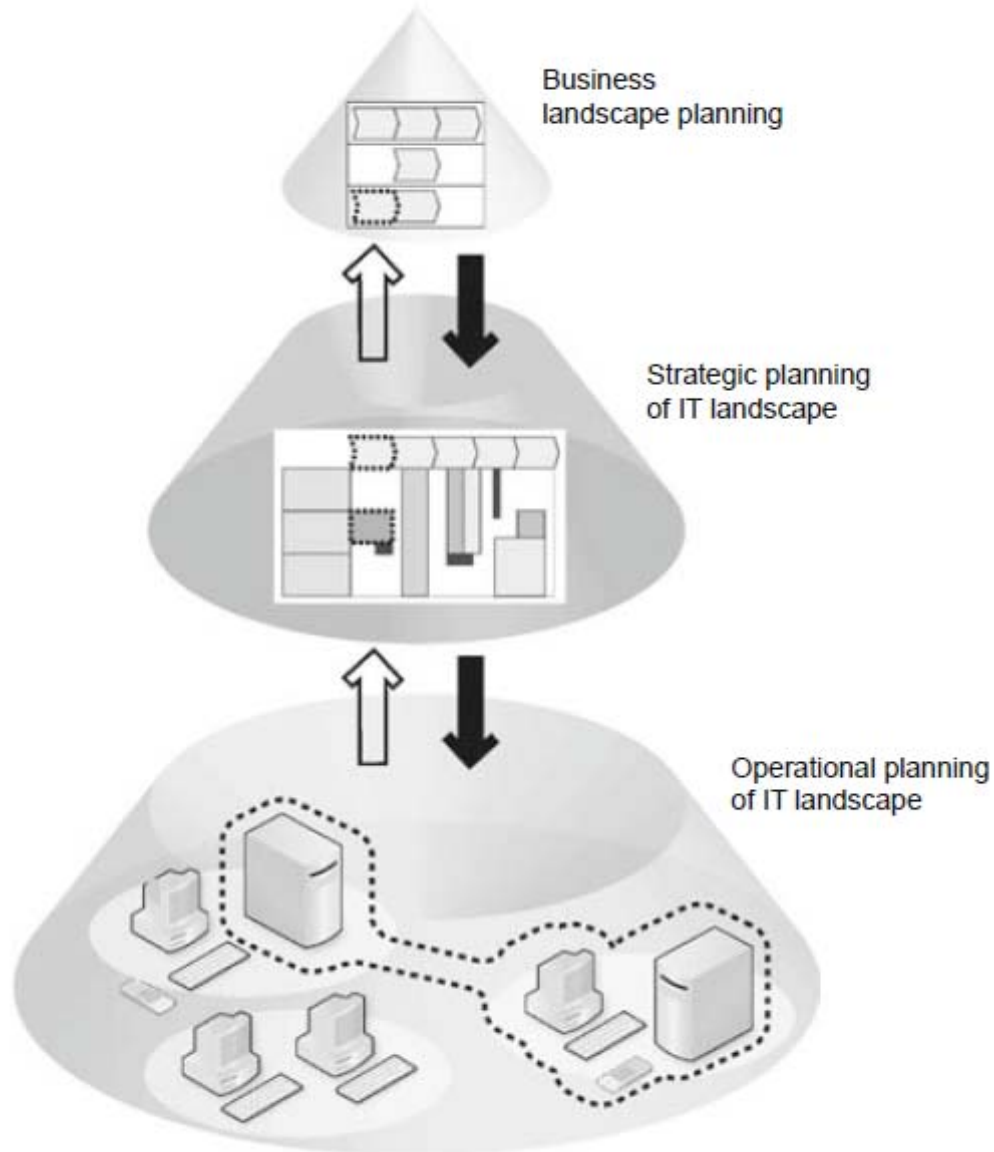
We didn't want to run through the whole enterprise and model every single process we could potentially find and create this big monster bible that no one would ever read again nor maintain. Instead we would only model a core process in those areas where we actually had projects that involved a business model change or an operational model change. So by design our enterprise model had holes, namely all those areas where we wouldn't improve or that we didn't focus on. We call this the minimalist modeling approach.

—Sylvia Steinmann
Swiss Re, CIO, Financial Services Function

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Planning Levels in the Enterprise Architecture

Business landscape planning

Strategic planning of IT landscape

Operational planning of IT landscape

- The enterprise architecture stakes out the basic structure of the business and IT and the links that exist between them

- **Business landscape planning** documents the current and future business

- The business landscape is key input for **strategic planning of the IT landscape**

- **Processes** act as a bridge between business landscape planning and IT planning
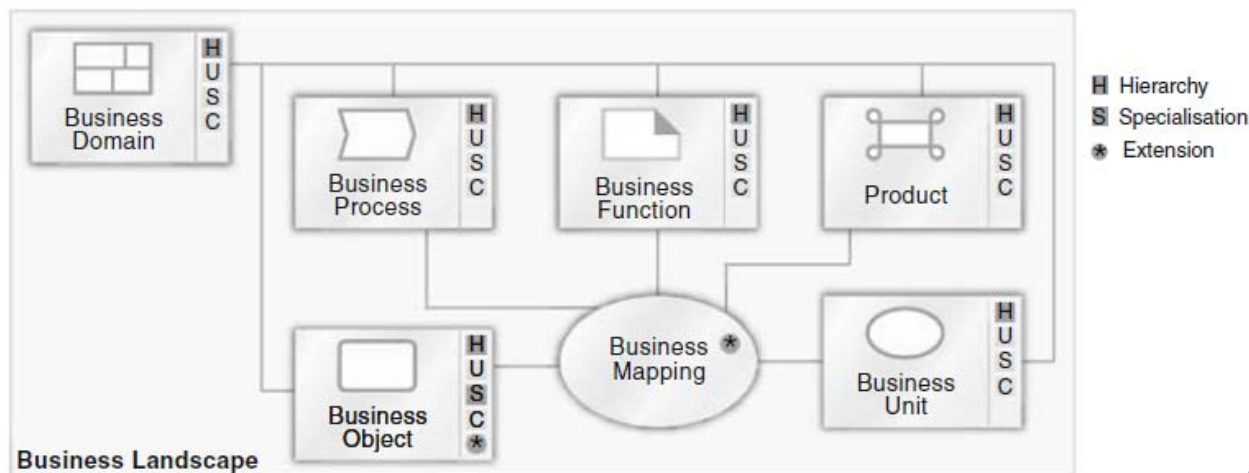
(Hanschke 2010, p. 108f)

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Business Landscape

- **The business landscape corresponds to**
  - ♦ the Business Architecture of the best practice enterprise architecture
  - ♦ the second row of the Zachman Framework
  - ♦ the Business Layer of ArchiMate and TOGAF

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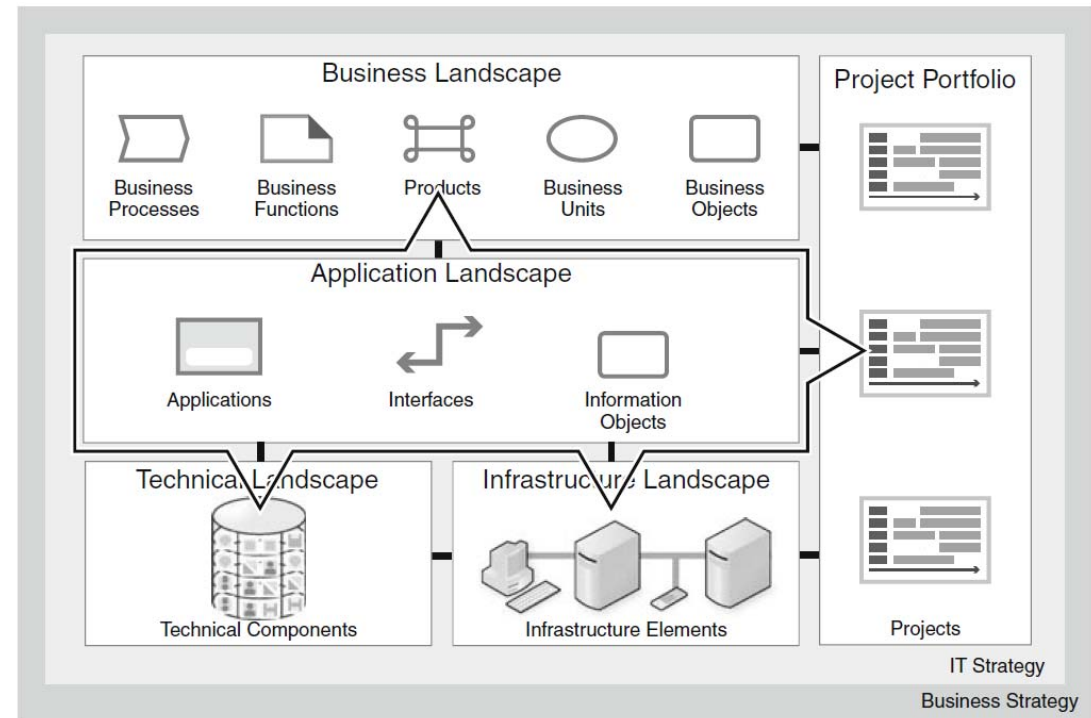
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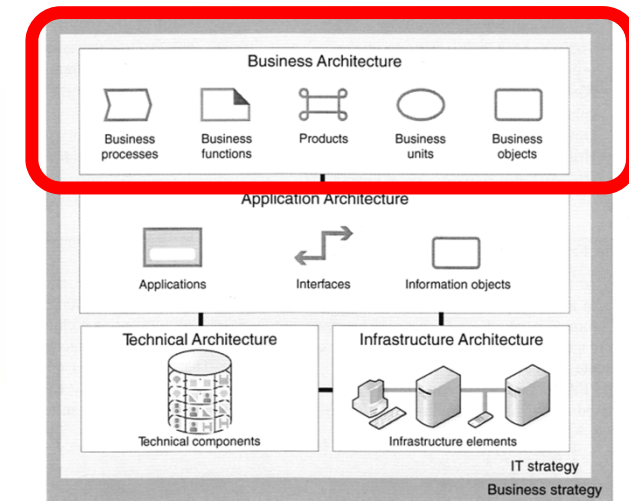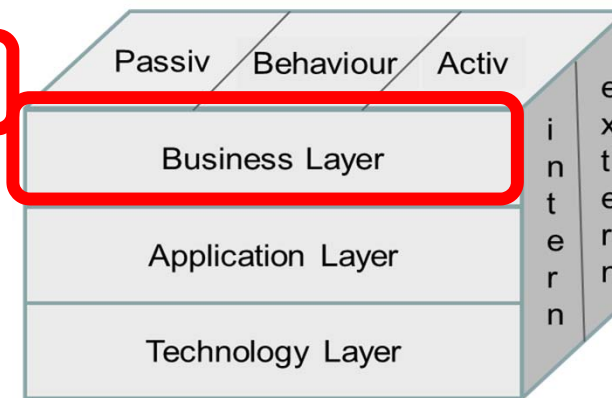
Business Landscape Management

■ Managing the business-specific parts of the enterprise architecture

■ The task of business landscape planning is to document the current and future business

- ♦ describe business processes, business functions, products, and buusness units
- ♦ interactions between them

(Hanschke 2010, p. 91)

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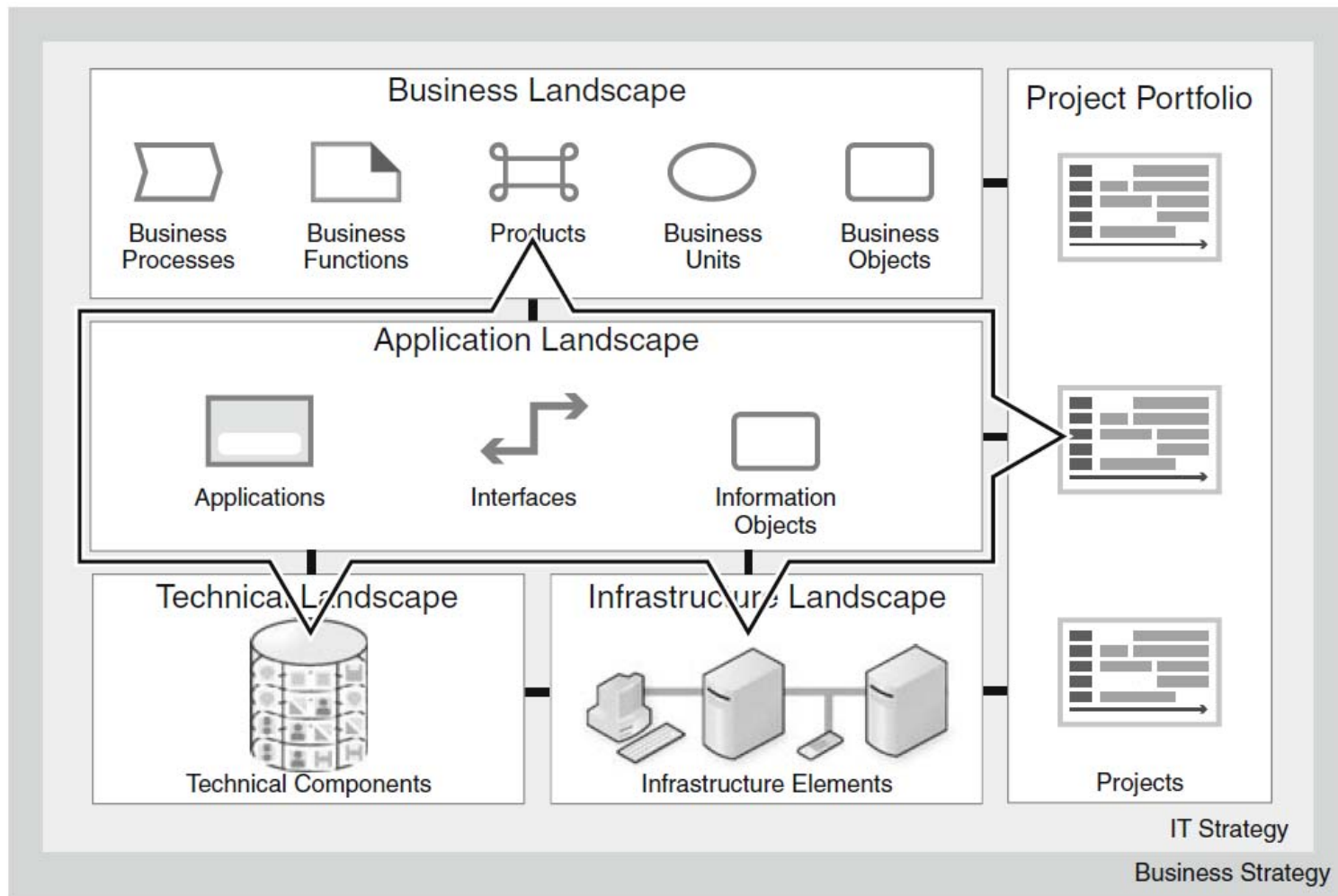Enterprise Architecture - Alignment of Business and IT

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Interaction of IT Landscape with Enterprise Architecture

■ The enterprise architecture provides key input for strategic management of the IT landscape

■ IT landscape management documents and shapes the

♦ application landscape

in interaction with

♦ business, technical and infrastructure landscape
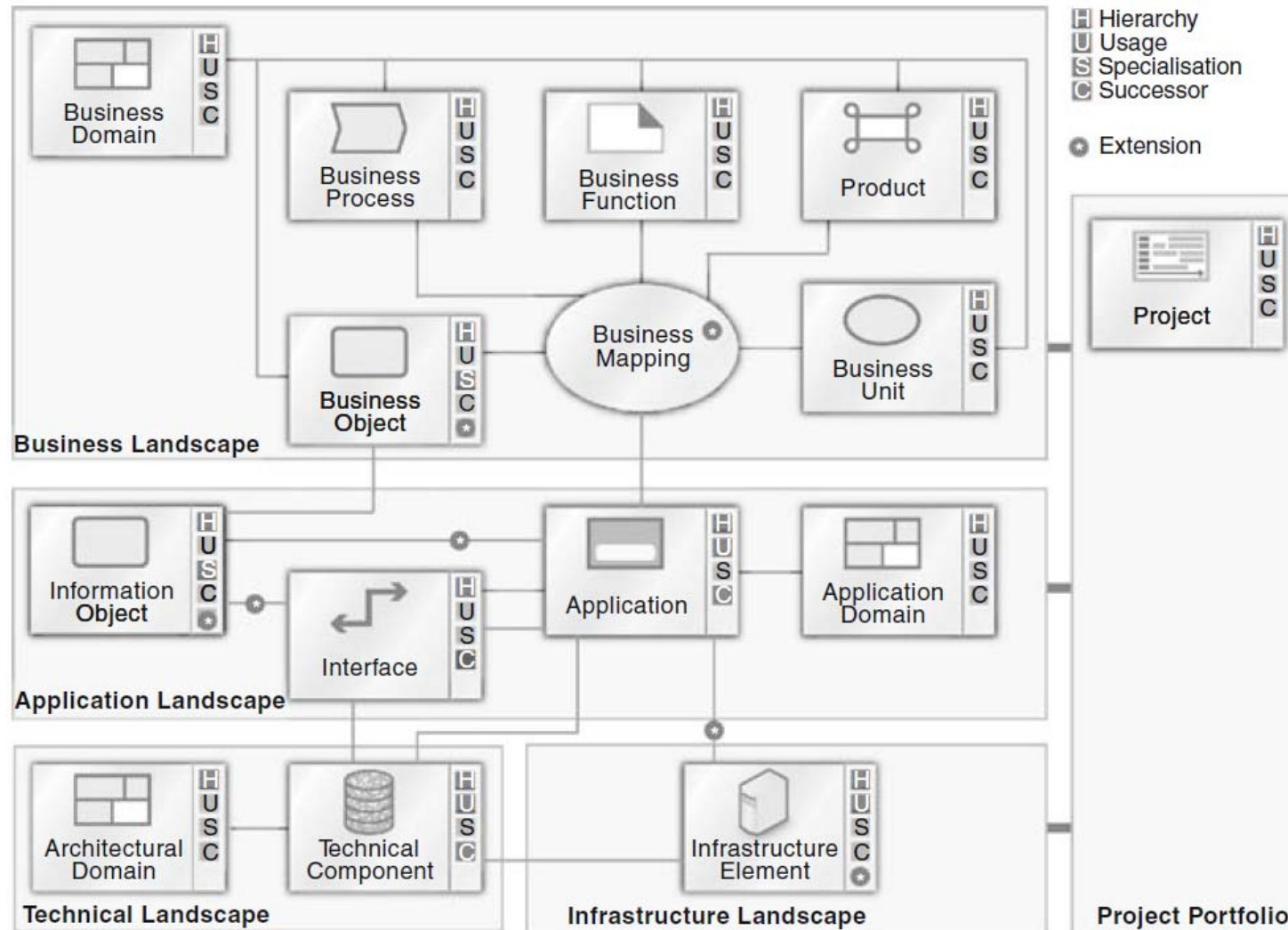
and with the

♦ project portfolio

(Hanschke 2010, p. 109)

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Interaction of IT Landscape with Enterprise Architecture

(Hanschke 2010, p. 107)

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Relationships in Application Landscapes

(Hanschke 2010, p. 125)

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The assignments of applications to business processes, products, business functions, business objects and business units create the visible associations between business requirements and corporate goals on the one side the the IT landscape on the other.

Accordingly, the business landscape model creates the framework for management and directing IT in terms of business goals.

(Hanschke 2010, p. 91)

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Relationships of the Application Landscape Model to the Business Landscape Model

- The assignment of applications to business processes, products, business functions, business objects and business units can be made on different levels of granularity

- Assigning applications to …

  - ♦ *activities* in a process model – this is the finest level of detail

  - ♦ *processes or subprocesses* (as in application usage diagrams in ArchiMate)

  - ♦ the *value chain*: landscape diagrams essentially give a big-picture view; they model how applications fit into the value chain

Business Processes

Organisation Units

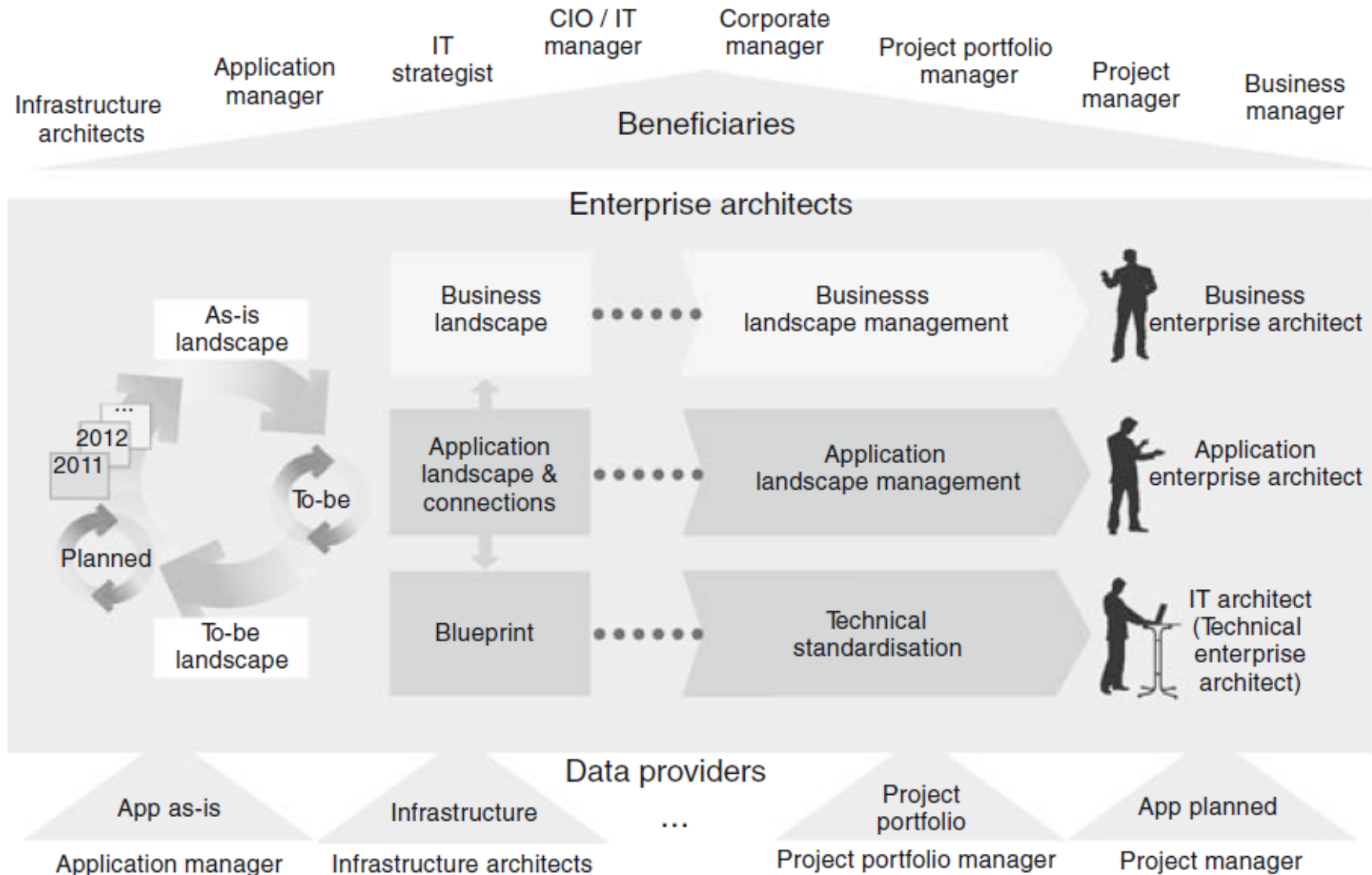Applications
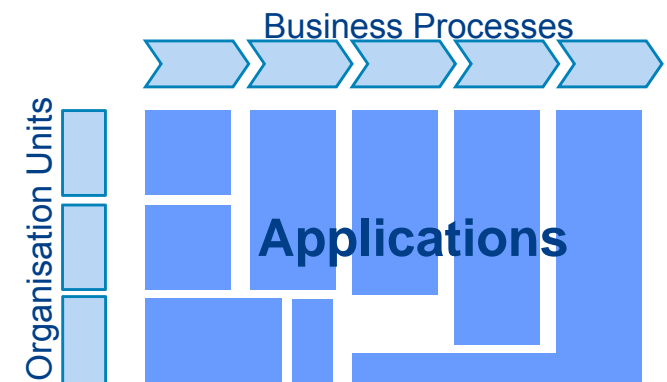
(Hanschke 2010, p. 126)

Modelling Tools: Electronically Linking Elements

- Volume of information is often too great for a user to quickly comprehend

- Users often focus on their particular area of concern and can easily overlook critical dependencies that their processes and assets may have on other processes and organisations

- Therefore, providing electronic links among the interdependent information can highlight the interdependencies and greatly improve understandability.

- Most organisations will document and distribute its EAs in the form of web sites.

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Perspectives on the Enterprise Architecture

(Hanschke 2010, p. 99)

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Management of Change

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Managing Change

- **Managing Change is the duty of every manager**
  - ♦ Change is decision making and leading
  - ♦ And this is exactly what managers do

- **Change the architecture before you change the object!**

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Use of the Enterprise Architecture

- The EA is managed as a program that facilitates
  - ◆ systematic organization change by
  - ◆ continuously aligning technology investments and projects with organisation mission needs.

- EA is updated continuously to reflect changes

- It is a primary tool for baseline control of complex, interdependent enterprise decisions and communication of these decisions to organization stakeholders.

(Schekkermann 2008, p. 107)

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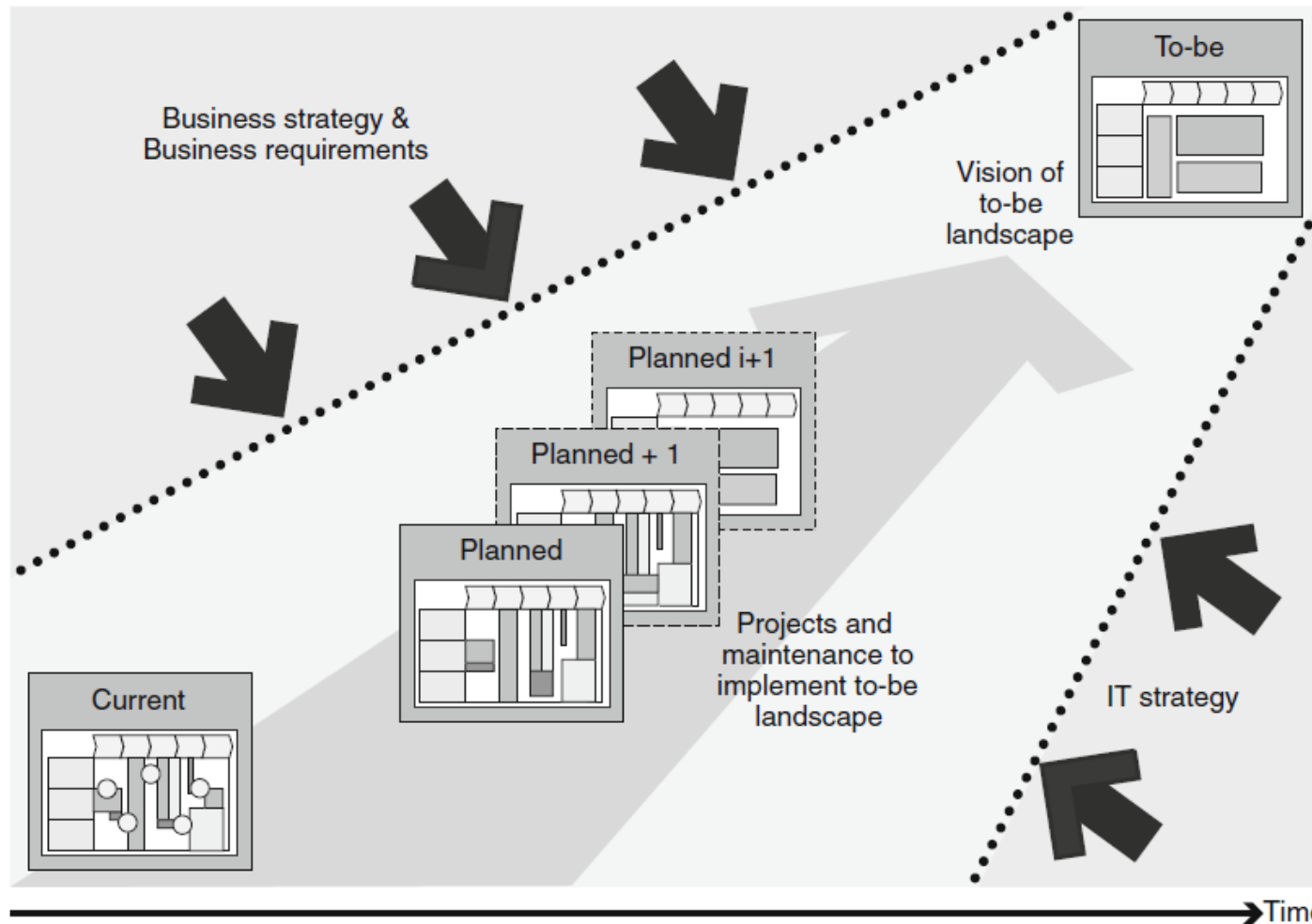
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Enterprise Architecture Transformation
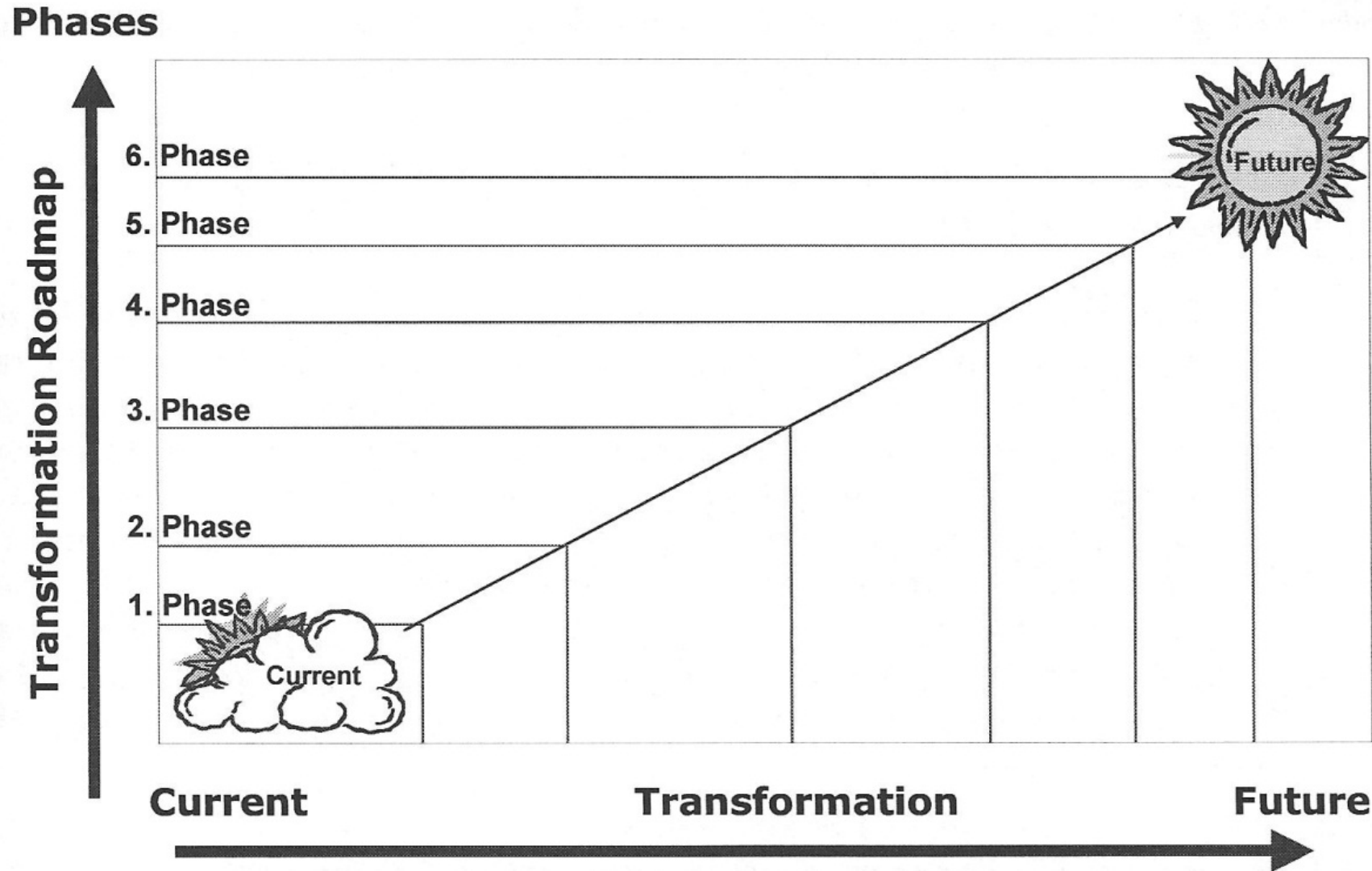
An EA can be developed incrementally in different projects.   (Schekkermann 2008, p. 121)

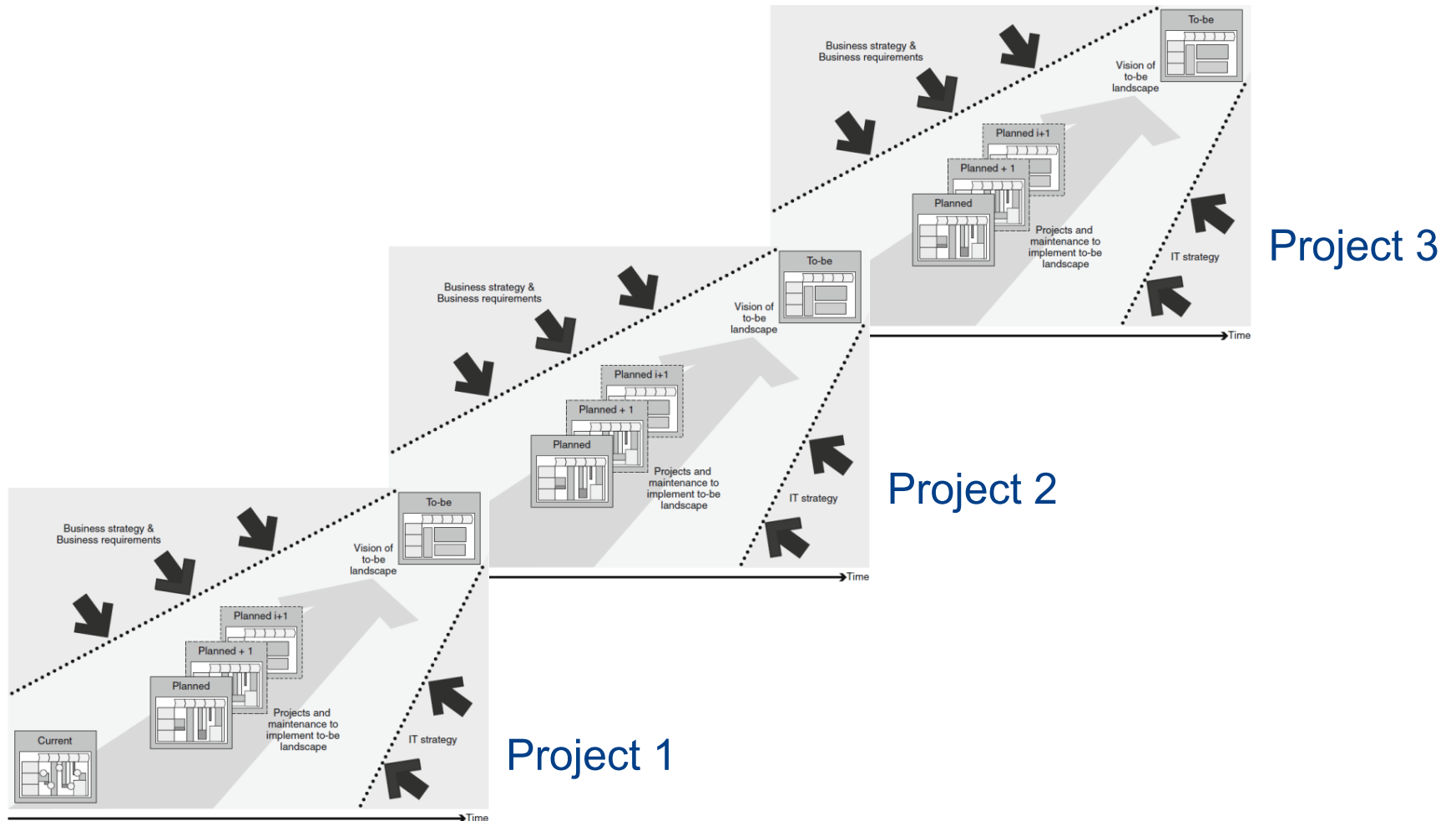# Projects Change the Enterprise Architecture (Business and IT Landscape)

(Hanschke 2010, p. 165)

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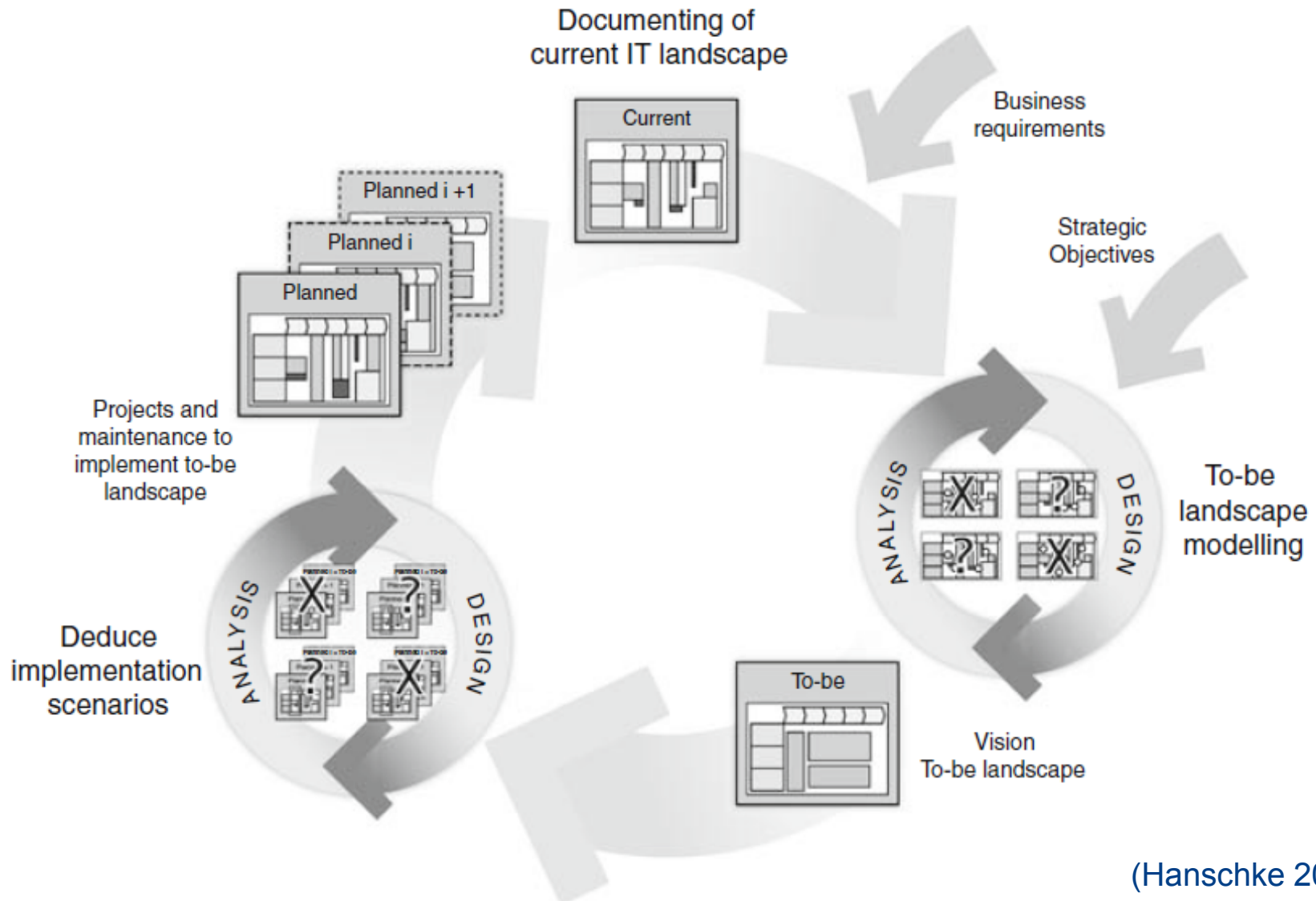Enterprise Architecture - Alignment of Business and IT

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Incremental Development of an Enterprise Architecture

■ Transformation of an enterprise takes place in projects.

■ Enterprise architecture is typically developed incrementally in transformation projects:

♦ A project typically starts with an "as-is" landscape

♦ The result is modeled in the "to-be" landscape.

♦ This landscape is retained as the current state of the enterprise architecture

♦ The next project starts with the former "to-be" landscape and extends or modifies it appropriately.

♦ etc.

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Incremental Development of an Enterprise Architecture

Project 1

Project 2

Project 3

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IT Landscape Planning as Ongoing Process

(Hanschke 2010, p. 158)

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Current and Future Enterprise Architecture

■ Current Enterprise Architecture ("as is")

♦ describe and document the current state of the enterprise from business functions to technology infrastructure

■ Future Enterprise Architecture ("to be")

♦ define a vision of future business operations and supporting technology

♦ provides answers to these basic questions:

● What are the strategic business objectives of the organization?
● What is our place in the extended value net?
● What information is needed to support the business?
● What applications are needed to provide the information?
● What technology is needed to support the applications?

(Schekkermann 2008, p. 98)

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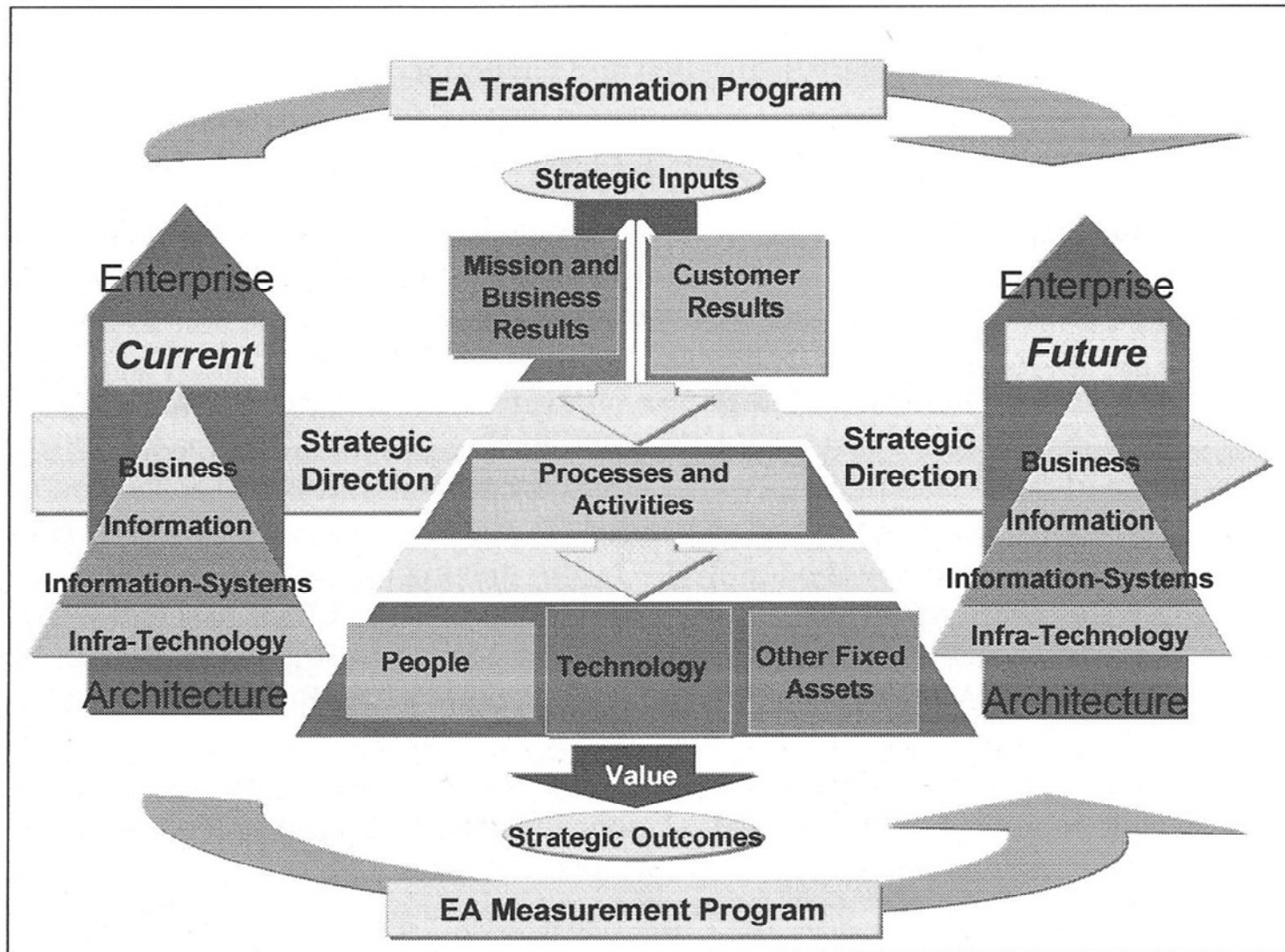MSc Business Information Systems

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Business Motivation Model

■ The process of getting the enterprise from where it is today to where it wants to be in the future needs formal thought and that focuses on optimizing enterprise-wide performance and accountability.

■ This thought process is documented with the organization's strategic plan. This document defines the mission and long-range objectives of the organization and relates to plans for business engineering and systems modernization.

(Schekkermann 2008, p. 97)

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EA Transformation Program

(Schekkermann 2008, p. 100)

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