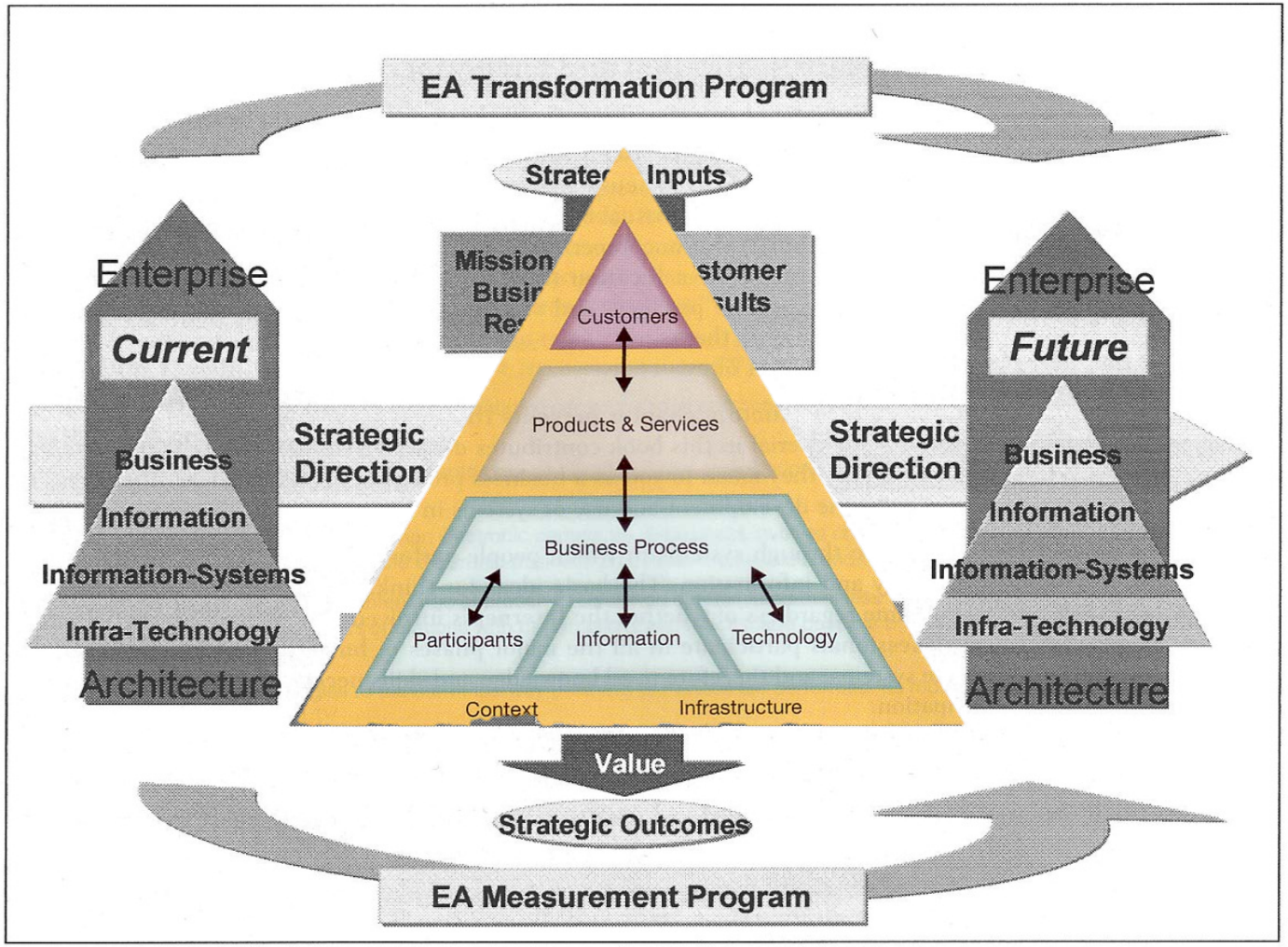
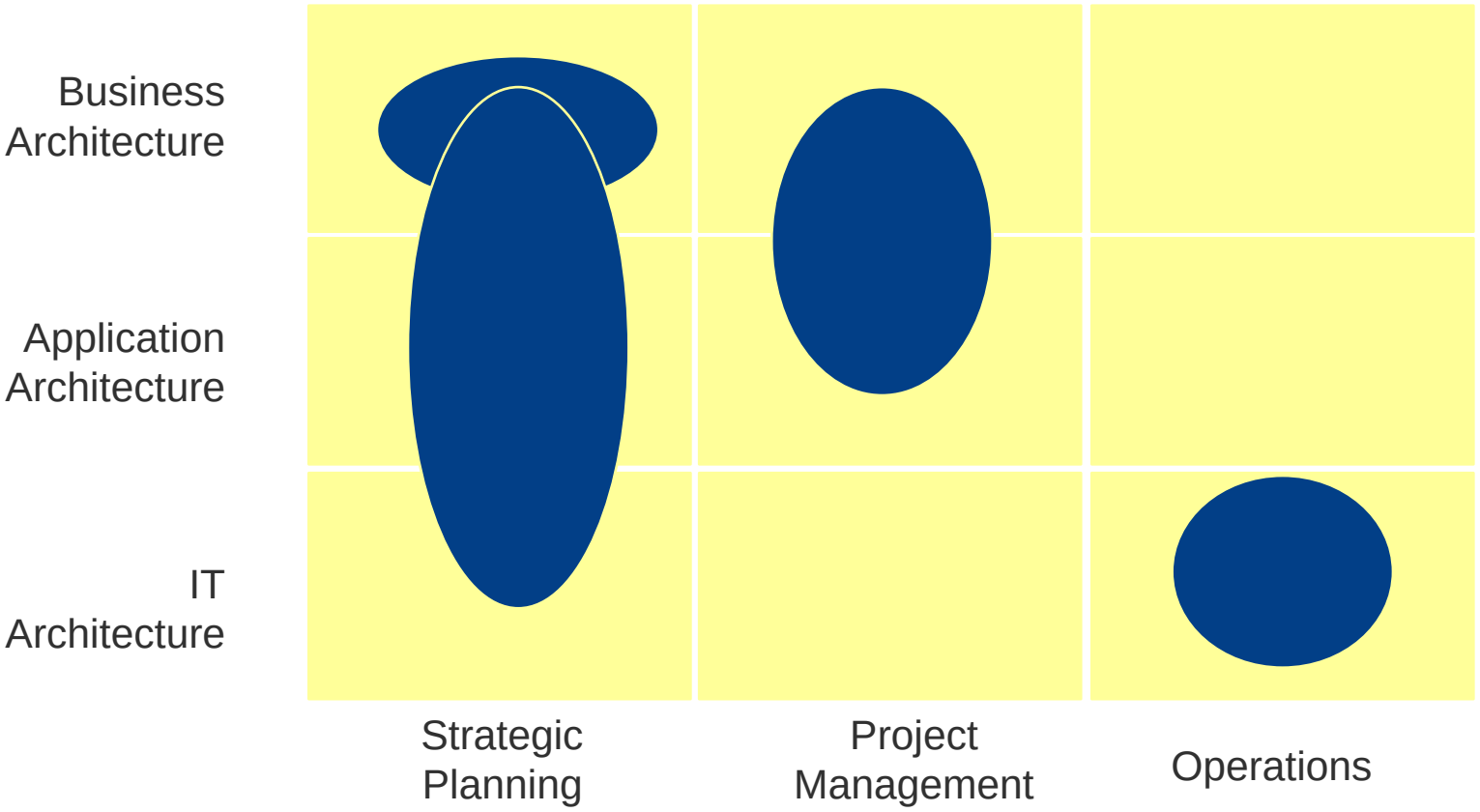
Enterprise Architecture for Business-IT Alignment

EA Transformation Program

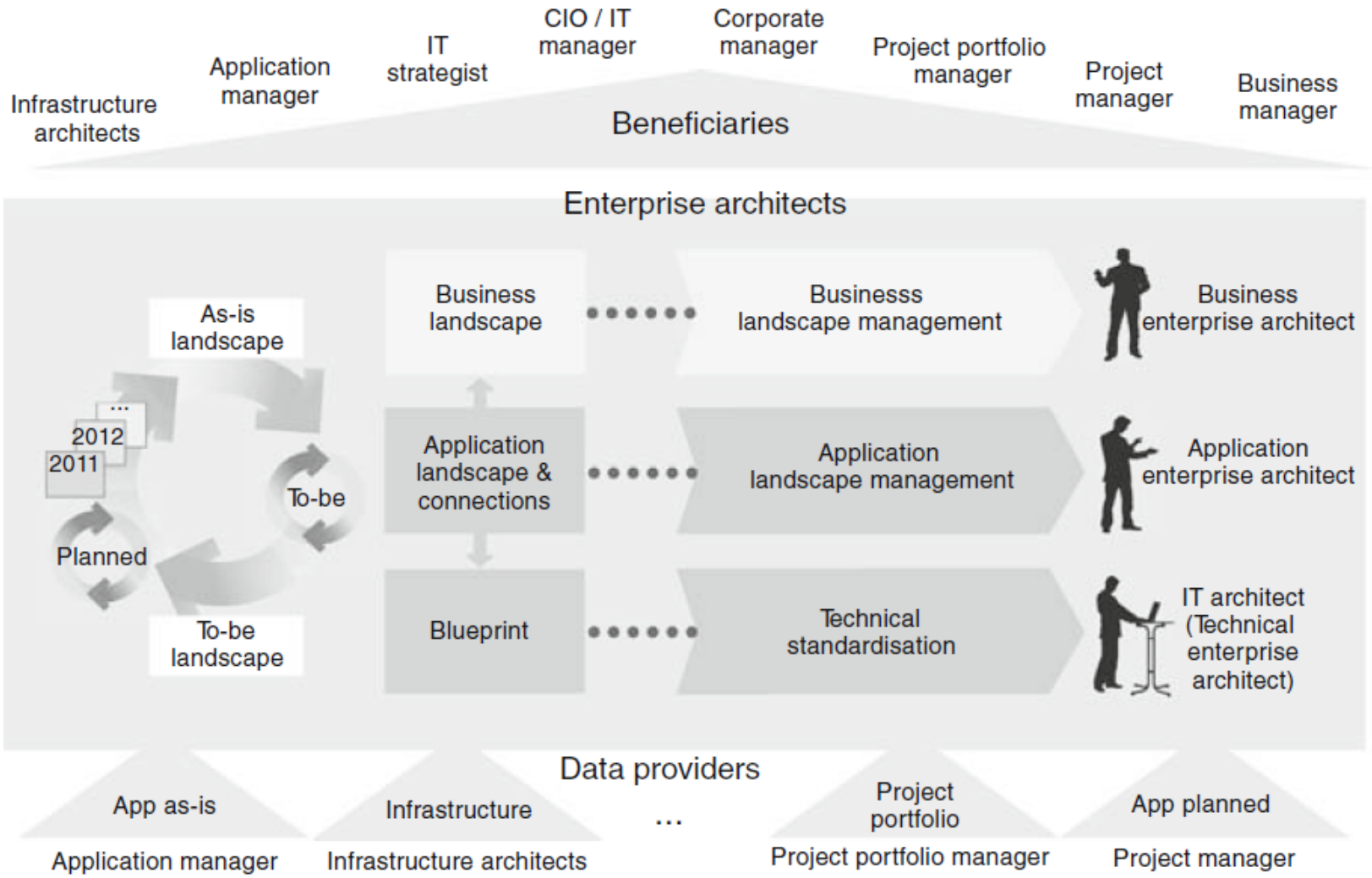


(Schekkermann 2008, p. 100)

Dimensions of Business Transformation



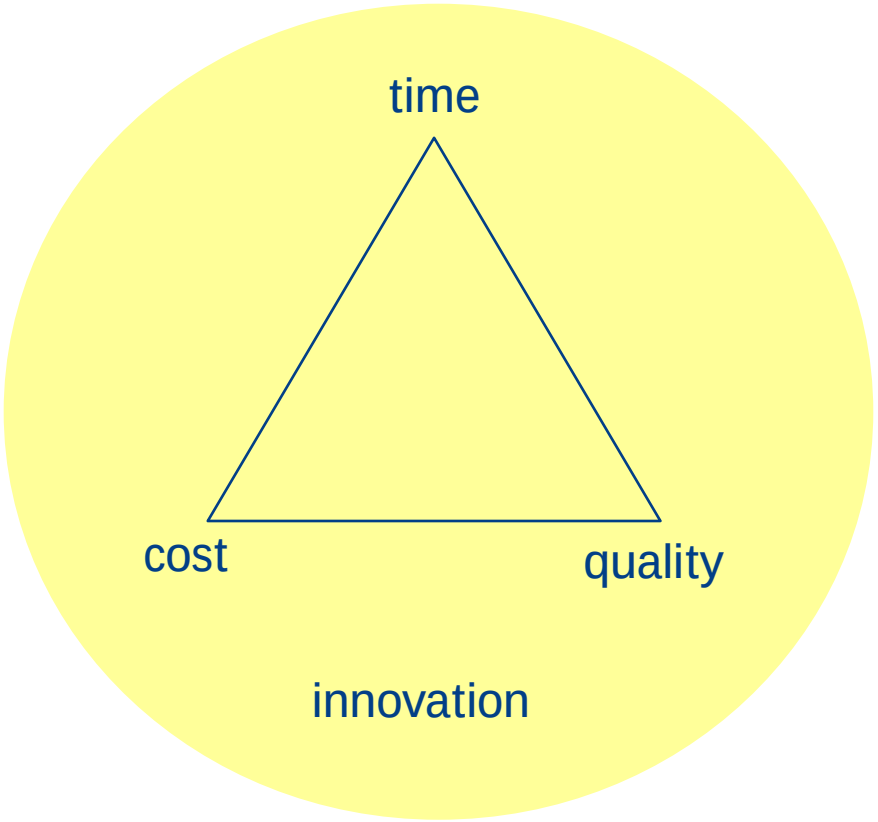
Perspectives on the Enterprise Architecture



(Hanschke 2010, p. 99)

Process Optimisation

Time – Cost – Quality Triangle



- Concurrently achieve
  - cost reduction
  - time saving
  - quality and service improvement
- ability of innovation

Source: (Osterloh & Frost, 1996, S. 17)

Business (Process) Reengineering

Business Reengineering is the ***fundamental*** rethinking and ***radical*** redesign of business ***processes*** to achieve ***dramatic*** improvements in critical, contemporary measures of performance such as cost, quality, service and speed.

Source: M. Hammer, J. Champy, Business Reengineering

Business Reengineering – revolutionary

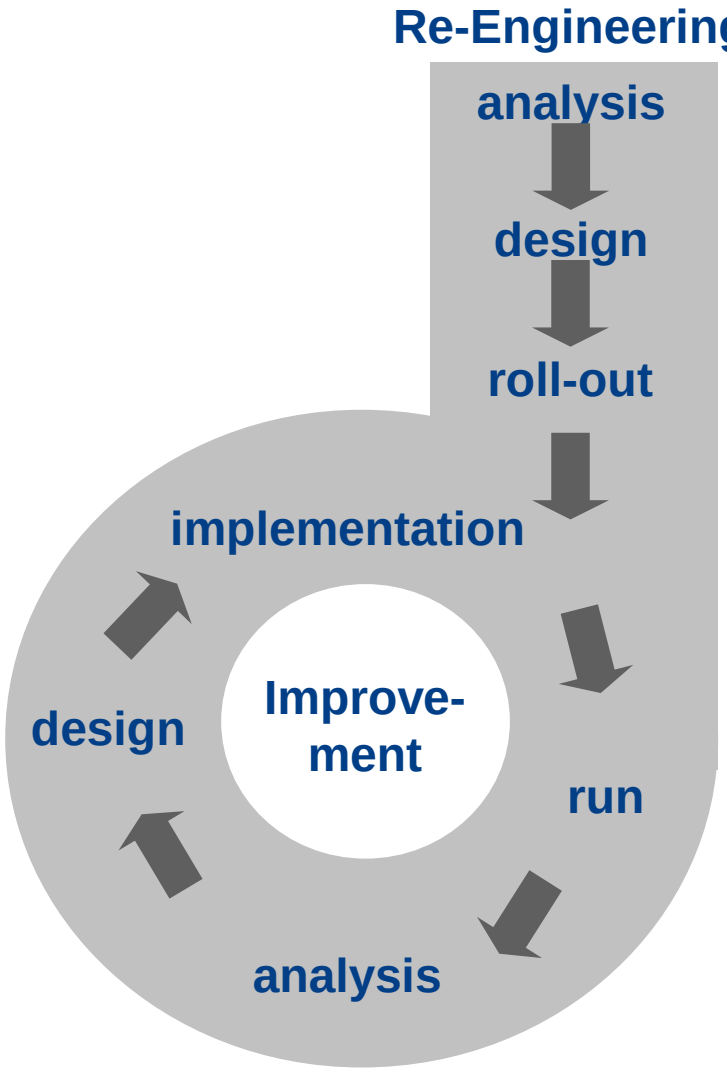
- fundamental
  - BR challenges assumption and presetting::
    - *Why do wo do the things we do?*
    - *Why do we do them this way?*
  - First decide about what has to be done and then how to do it.
- radical
  - By willing to enforce basic changes
  - Developping new wys to do the work, neglecting existing structurs and procedures
    - *What if we would start from scratch?*
- dramatic
  - no marginal improvements by finetuning
  - Destruction of the old and buidling something new
  - Utilising innovative possiblities of information technology

(Hammer, Champy 1995)

Reengineering vs. Improvement (Optimisation)

	Reengineering	*Process Improvement*
Objective	renewal, replacement	improvement
Change	radical, revolutionary	moderate, evolutionary
Method	understanding the process neglecting details	process analysis, detailed description
Risk	high	moderate
Object	processes	processes or functions
Realisation	project	institutionalized

Re-Engineering and Optimization



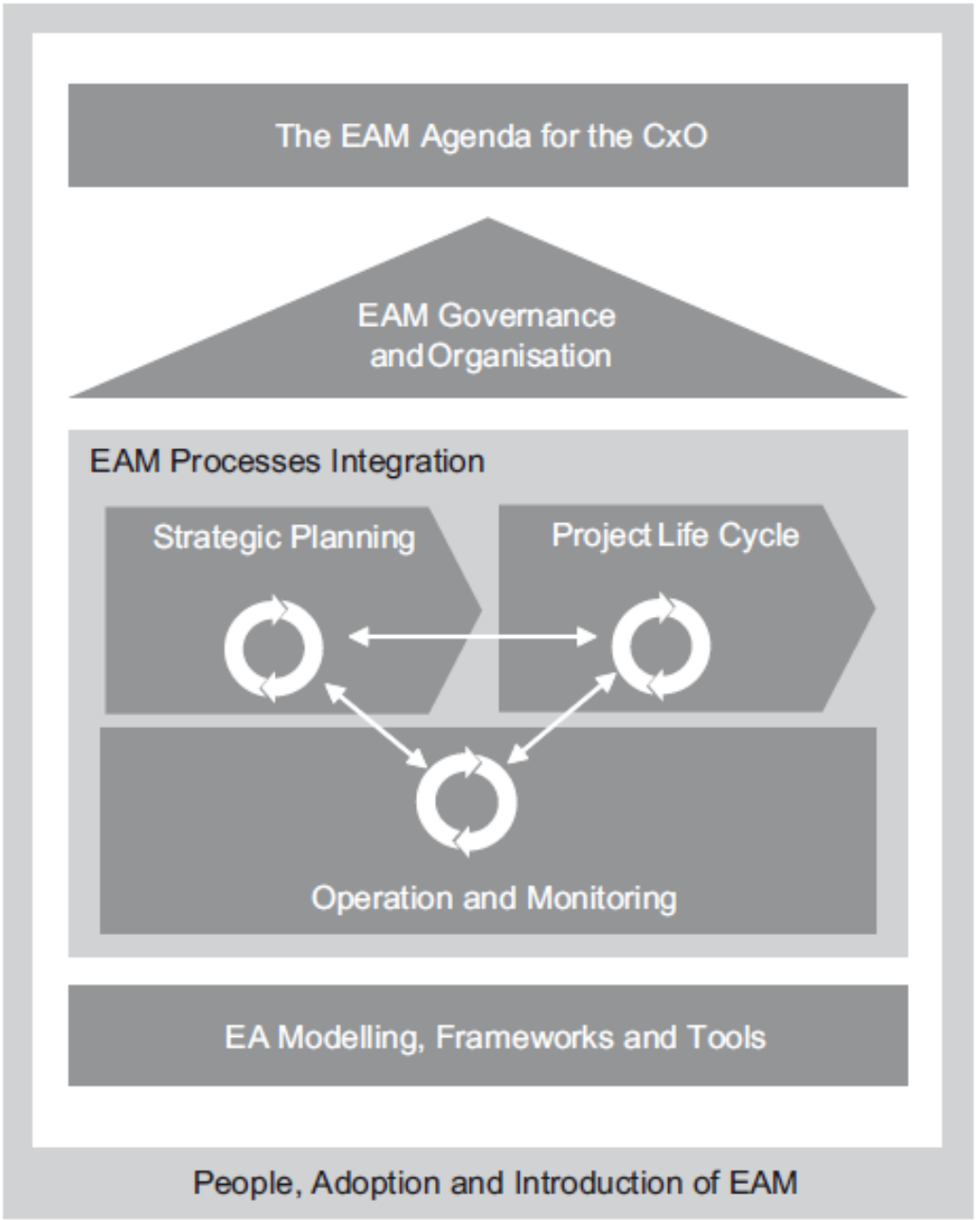
Business Process Management can be

- Business Re-Engineering
  - Re-newal of processes
  - Analyse potentials and requirements
  - plan new solution
  - roll out new solution
- Continuous Improvement
  - Analysis of running processes
  - plan improvements
  - implement step by step

(Österle 1994)

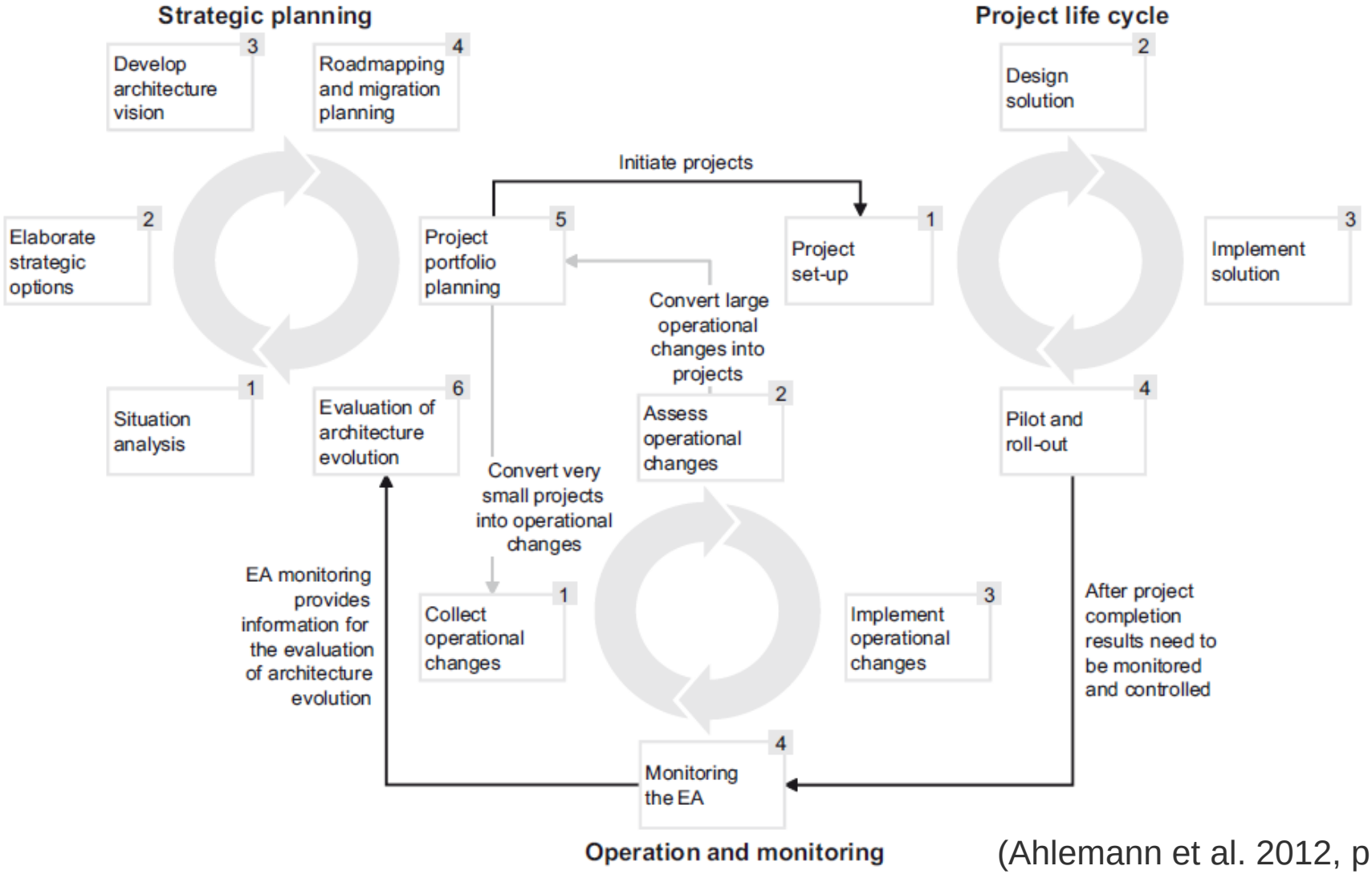
EAM Building Blocks

- Business Transformation can be on
  - Strategic level
  - Project level
  - Operational level



(Ahlemann et al. 2012, p. 42)

EAM Processes/Projects Integration



(Ahlemann et al. 2012, p. 45)

Strategic Business Transformation

- The process of getting the enterprise from where it is today to where it wants to be in the future needs formal thought (…).
- 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)

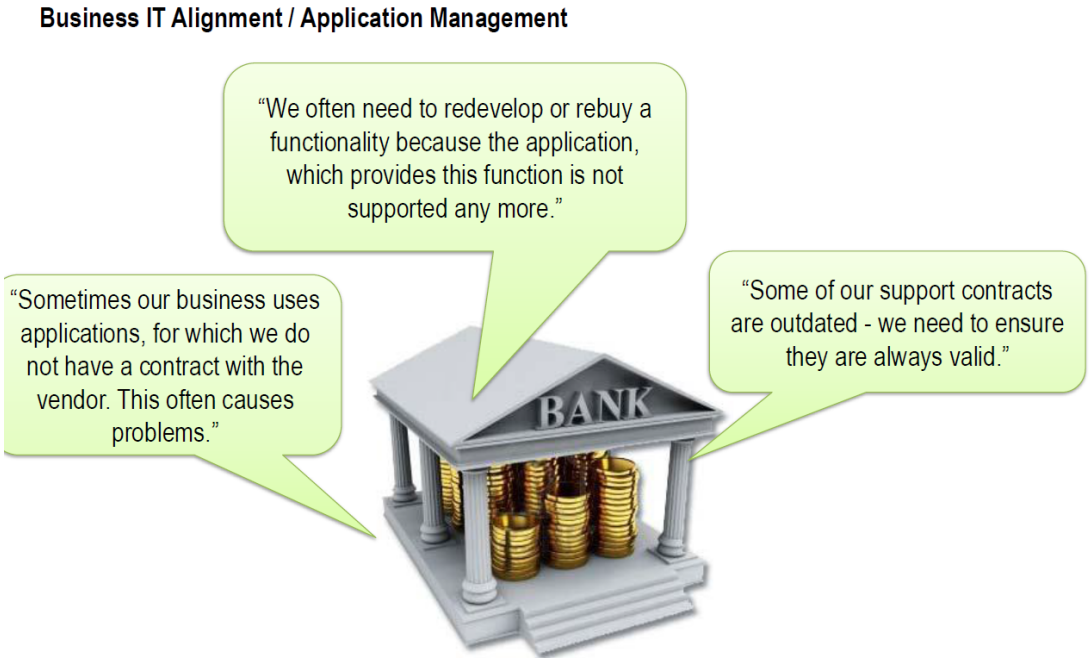
- The goals can be documented using Business motivation model → Architecture Principle

Business Transformation Projects

- Planning a project needs formal thought, too.
- This thought process is documented with the project plan. This document defines the
  - ♦ goals of the projects
  - ♦ workplan for business and IT changes.
- This can be modeled using Business Motivation, too
  → Architecture Principle

The Money Bank Example

Influencers



Goal

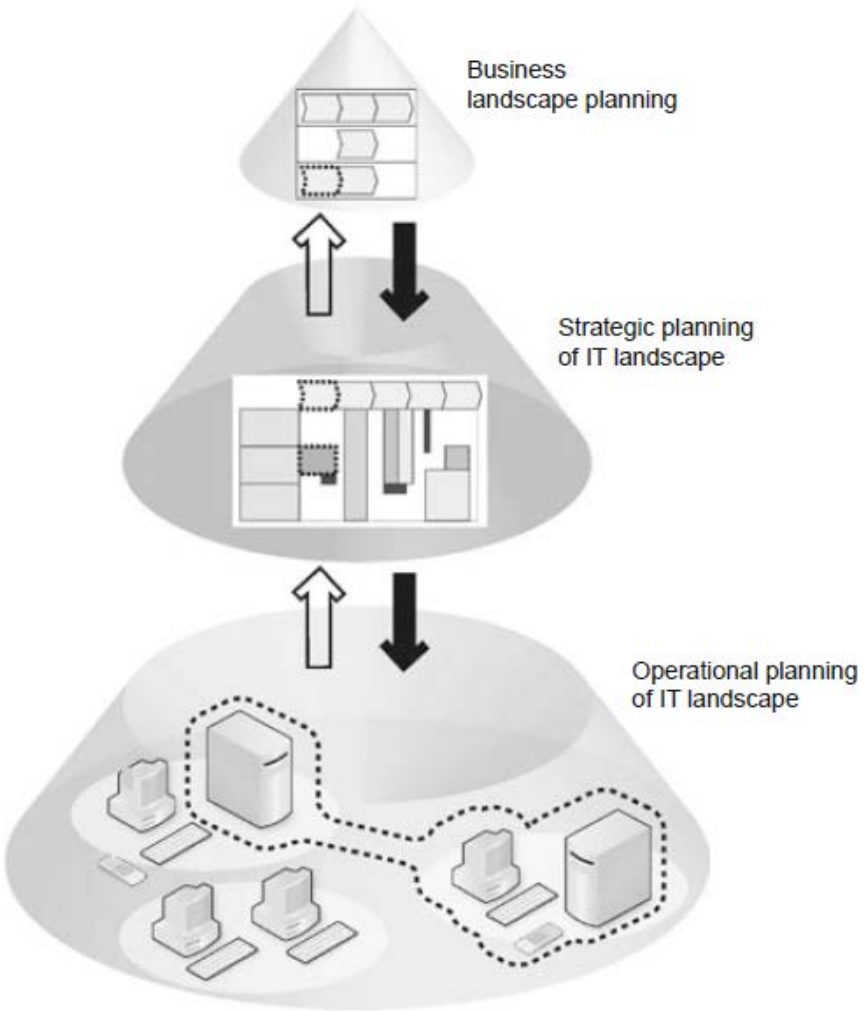
For all our applications a valid support and maintenance contract needs to be in place.

Source: Höllwieser, BOC

Architecture Principle	Each business function is provided by only ONE defined application across the company.
Architecture Layer	Business Layer Application Layer Technology Layer
Description	Redundant functionalities are very expensive. High costs for IT support because the support employees need to know each implementation. Changes in the functionality must be developed for each implementation separately.
IT Goals	Harmonisation of process support Consolidation of applications
Indicators	% of business functions, that are implemented redundantly
Risk on applying the principle	Some demands for new applications will be refused.
Risk on not applying the principle	Functional redundancy High operational costs because of several redundant functionality High training effort for IT support

assessment

Planning Levels in the Enterprise Architecture

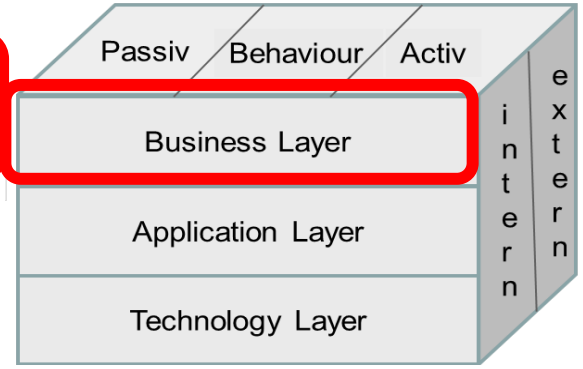


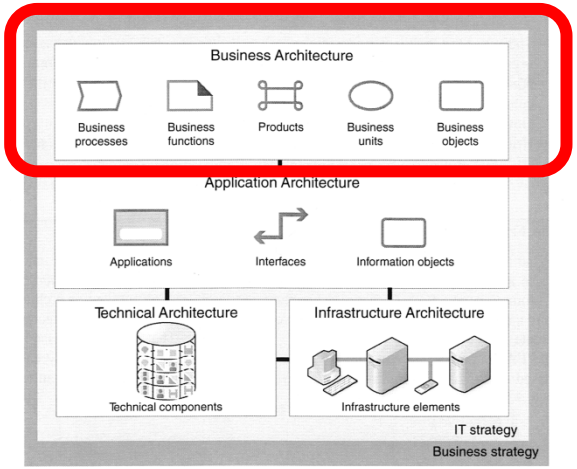
- The enterprise architecture stakes out the basic structure of the business and IT and the links that exist between them
- **Business landscape planning** documents the current and future business
- The business landscape is key input for **strategic planning of the IT landscape**
- Processes act as a bridge between business landscape planning and IT planning

(Hanschke 2010, p. 108f)

Business Landscape

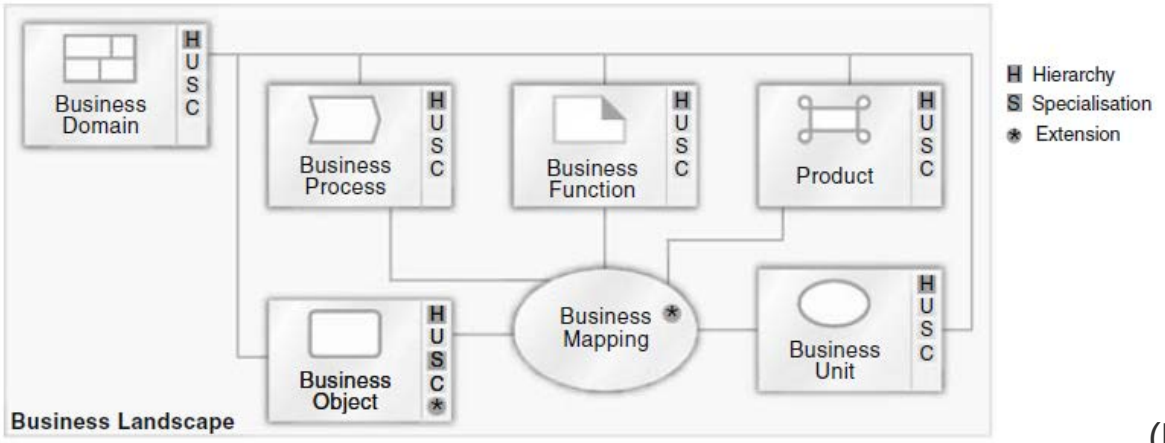
- The business landscape corresponds to
  - the Business Architecture of the best practice enterprise architecture
  - the second and third row of the Zachman Framework
  - the Business Layer of ArchiMate and TOGAF





Business Landscape Management

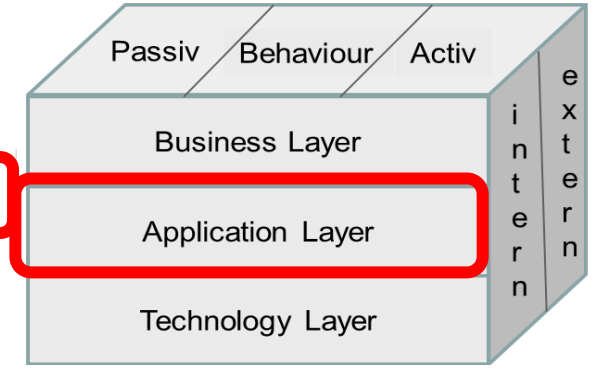
- Managing the business-specific parts of the EA
- The task of business landscape planning is to document the current and future business
  - ♦ describe business processes, business functions, products, and business units
  - ♦ interactions between them

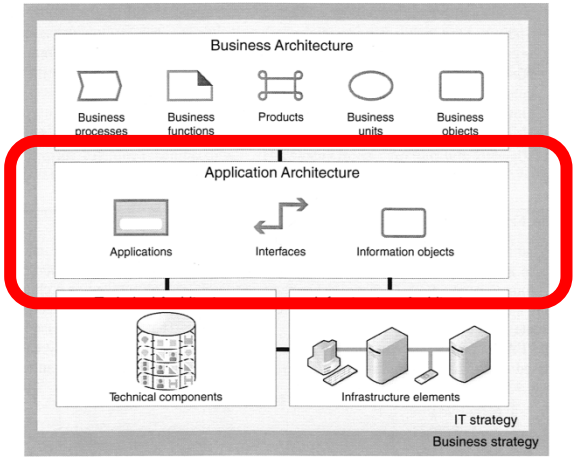


(Hanschke 2010, p. 91)

ApplicationLandscape

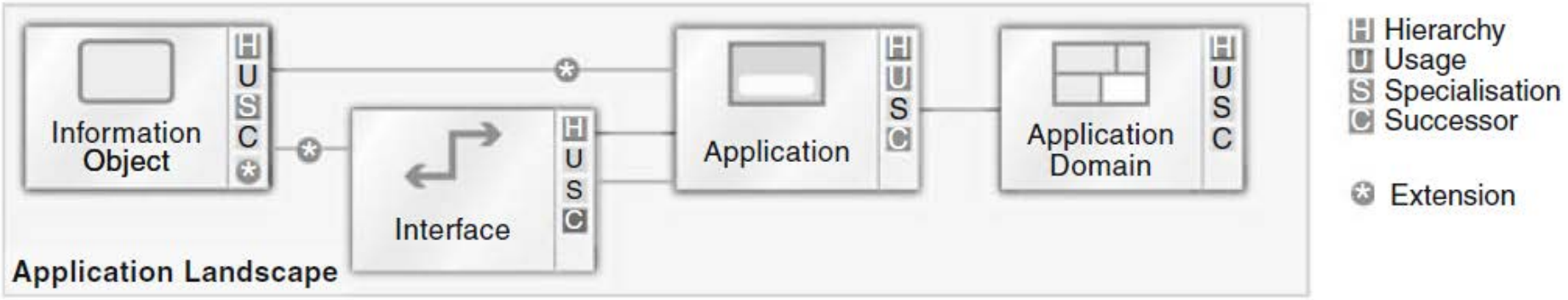
- The application landscape corresponds to
  - the Application Architecture of the best practice enterprise architecture
  - the fourth row of the Zachman Framework
  - the Application Layer of ArchiMate and TOGAF





Constituents of the IT Landscape

- IT landscape management documents and shapes the application landscape model in terms of its interplay with the business, technical and infrastructure landscape models and the project portfolio.
- The core constituents of IT landscape management are the application landscape model itself, and the relationships to the other landscape models, and with the project portfolio.



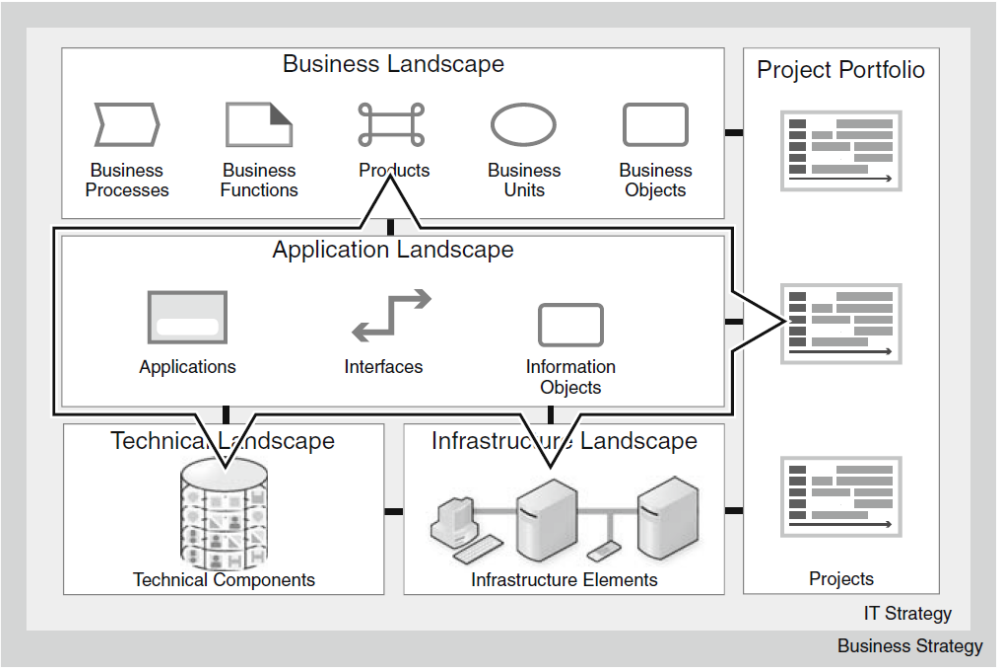
(Hanschke 2010, p. 115f)

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

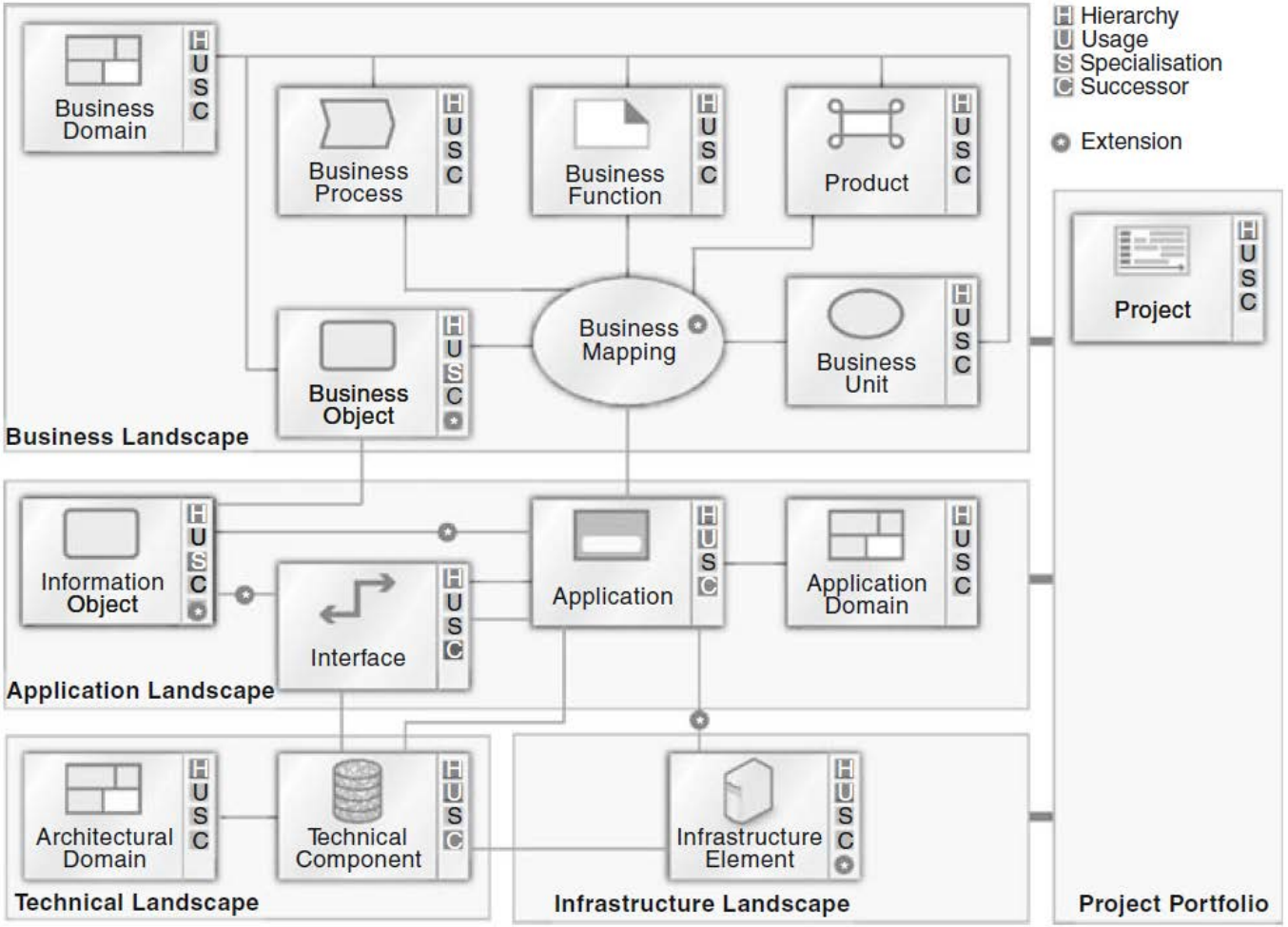
  in interaction with
  - ♦ business, technical and infrastructure landscape

  and with the
  - ♦ project portfolio



(Hanschke 2010, p. 109)

Relationships between Landscapes



(Hanschke 2010, p. 125)

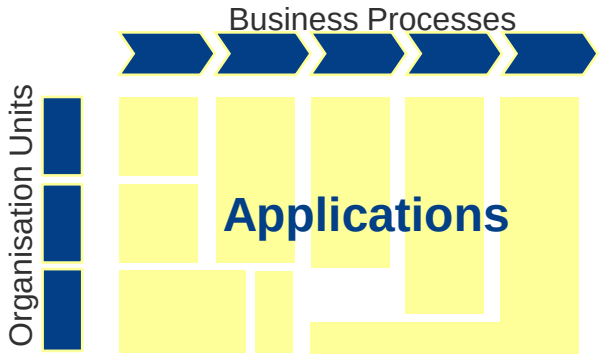
The assignments of applications to business processes, products, business functions, business objects and business units create the visible associations between business requirements and corporate goals on the one side and the IT landscape on the other.

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

(Hanschke 2010, p. 91)

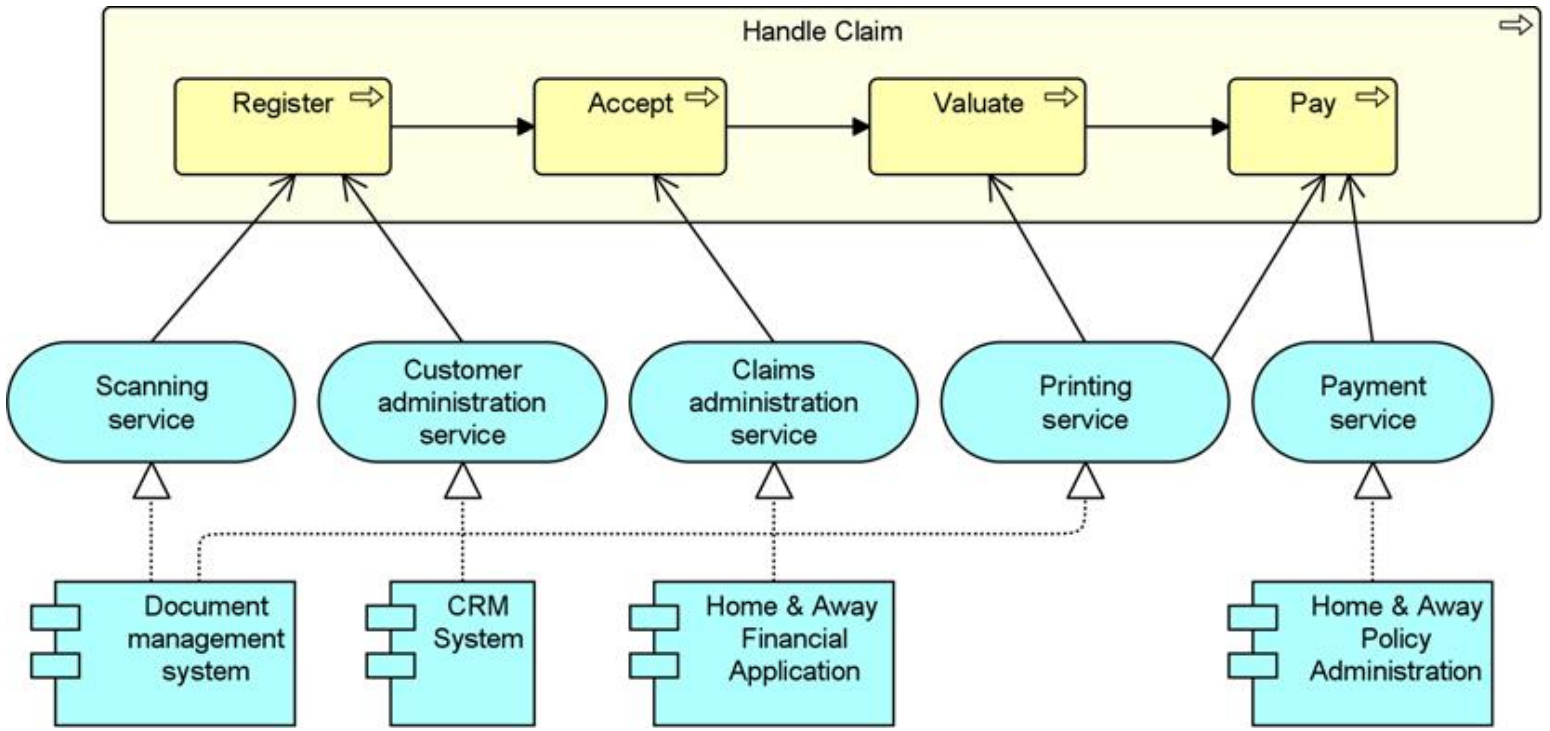
Relationships of the Application Landscape Model to the Business Landscape Model

- 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 referencing 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



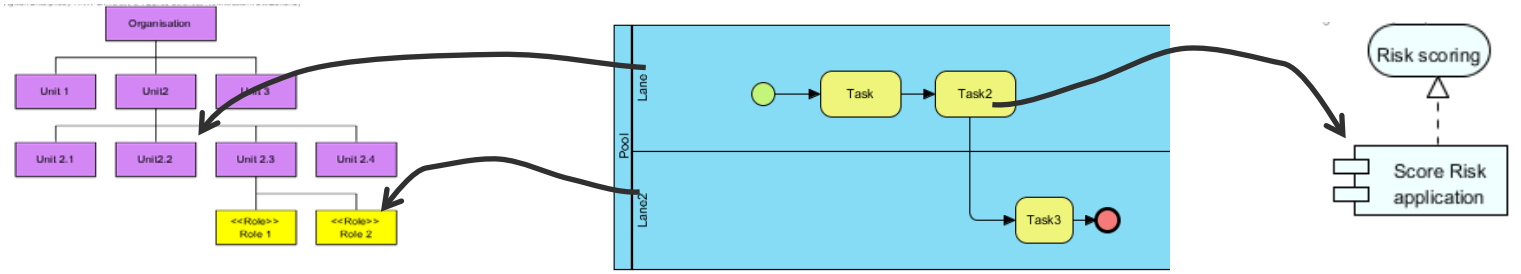
(Hanschke 2010, p. 126)

Application Usage



References between Models and Elements

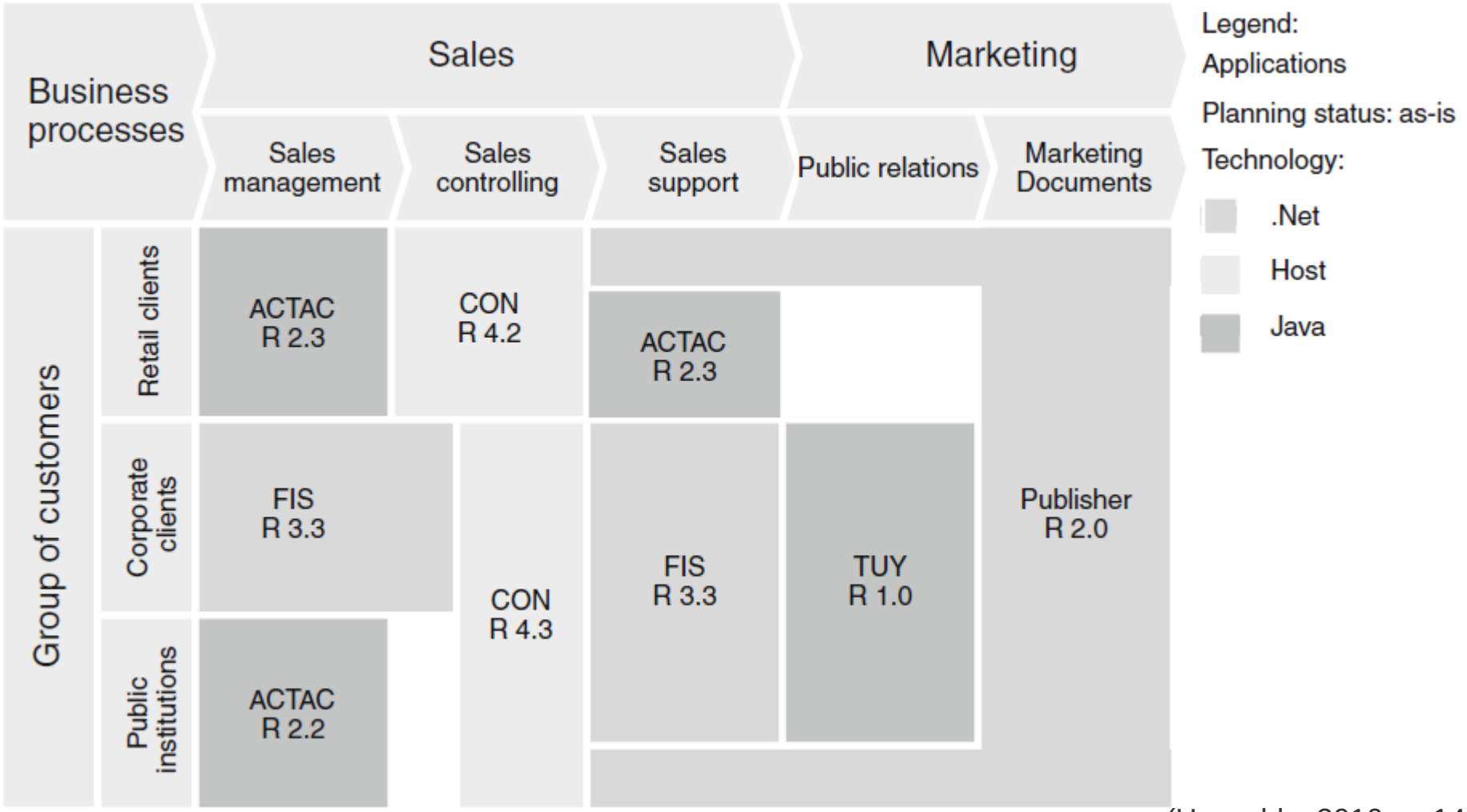
- Volume of information is often too great for a user to quickly comprehend
- Models provide information for a particular area of concern, e.g. processes
- References among interdependent information can highlight the interdependencies and thus improve understandability.
- Example: Referencing organisation units and applcations from processes



- Many organisations document and distribute their EAs in this form on web sites.

(Schekkermann 2008, p. 96f)

Example of a Landscape Diagram



(Hanschke 2010, p. 144)

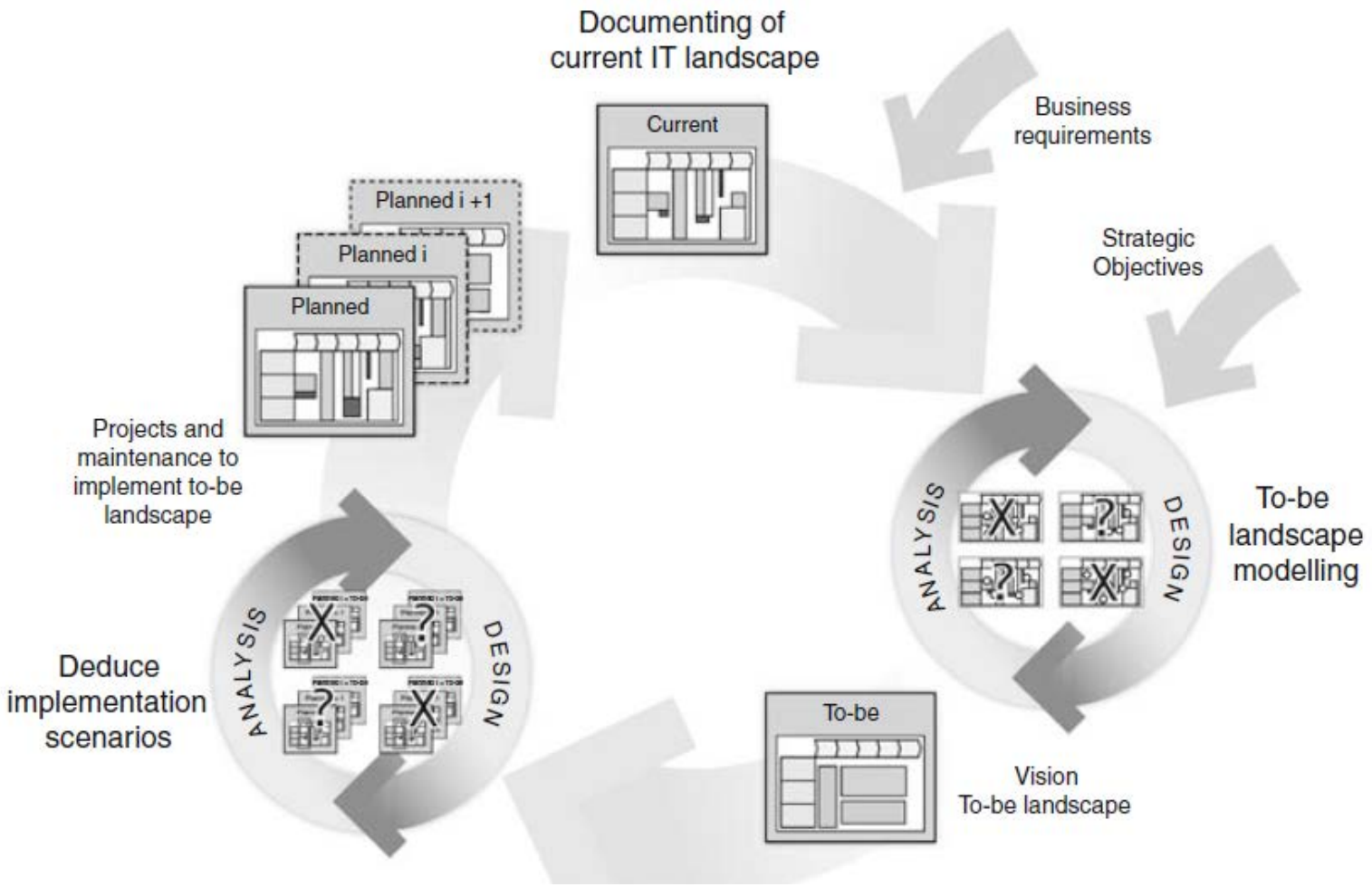
Modelling all these things is too much effort?

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*

Swiss Re Case, page 5

IT Landscape Planning as Ongoing Process



(Hanschke 2010, p. 158)