Enterprise Architecture Management

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Literature

This chapter is based on the following literature:

- F. Ahlemann et al. (eds.), *Strategic Enterprise Architecture Management: Challenges, Best Practices, and Future Developments*, Springer-Verlag Berlin Heidelberg 2012

Additional sources:

- 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.

Learning Objective

- Topic: Management of Enterprise Architecture
- We do it because
  - Many stakeholders are involved in architecture development
  - Agility and changes/transformation cause ongoing adaptation of the architecture
  - We must ensure that the right people are empowered to make EA-relevant decisions
- Objective
  - You know the building blocks of Enterprise Architecture Management
  - You understand how Enterprise Architecture Management is integrated with other management disciplines

Enterprise Architecture is ***not*** about building models.

It is about solving enterprise problems while iteratively building models

John Zachman

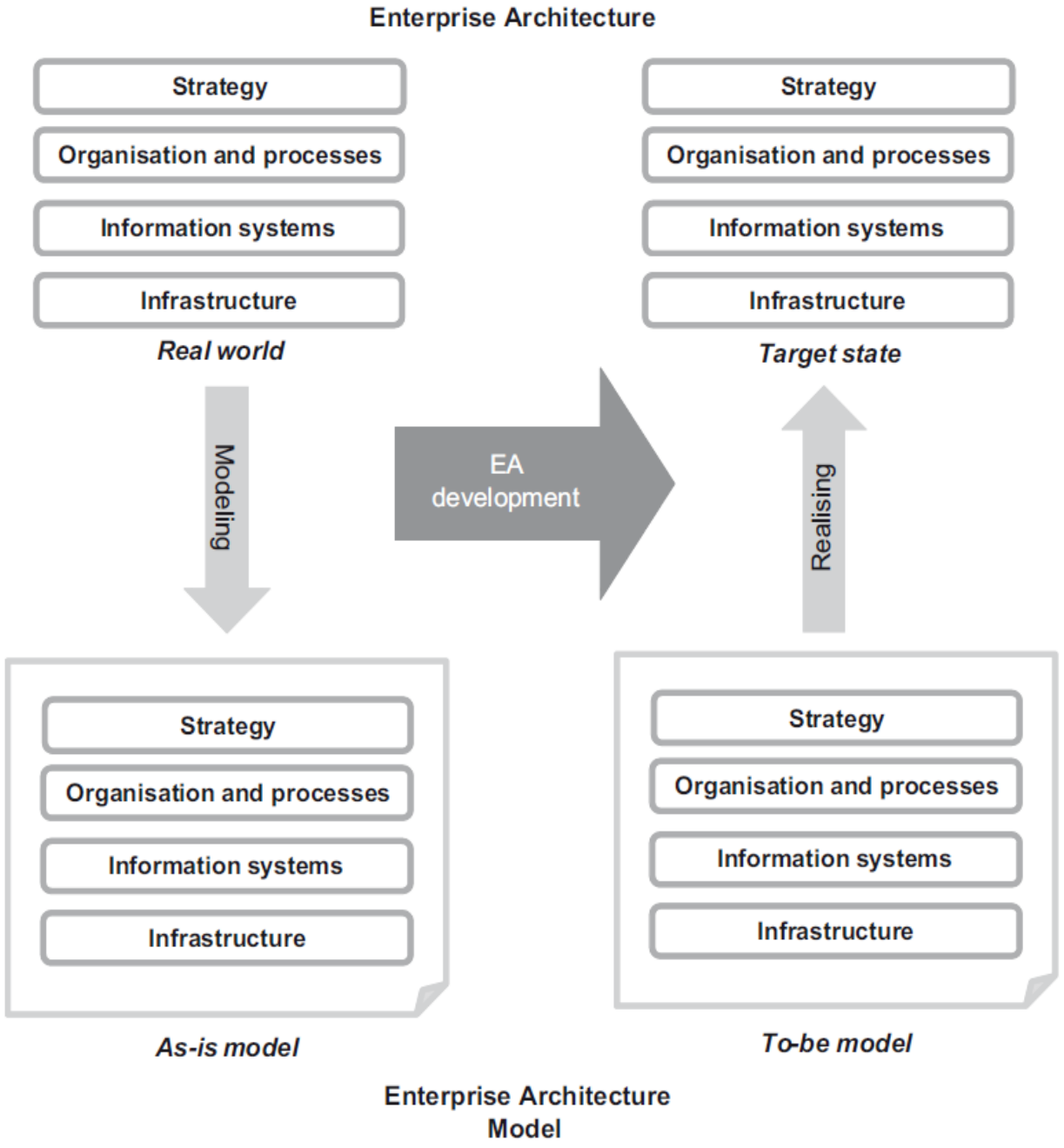
Managing Change

- 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!

Use of the Enterprise Architecture

- The Enterprise Architecture is managed as a program that facilitates
  - systematic organization change
  - continuously aligning technology investments and projects with organisation mission needs.
- Enterprise Architecture 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)



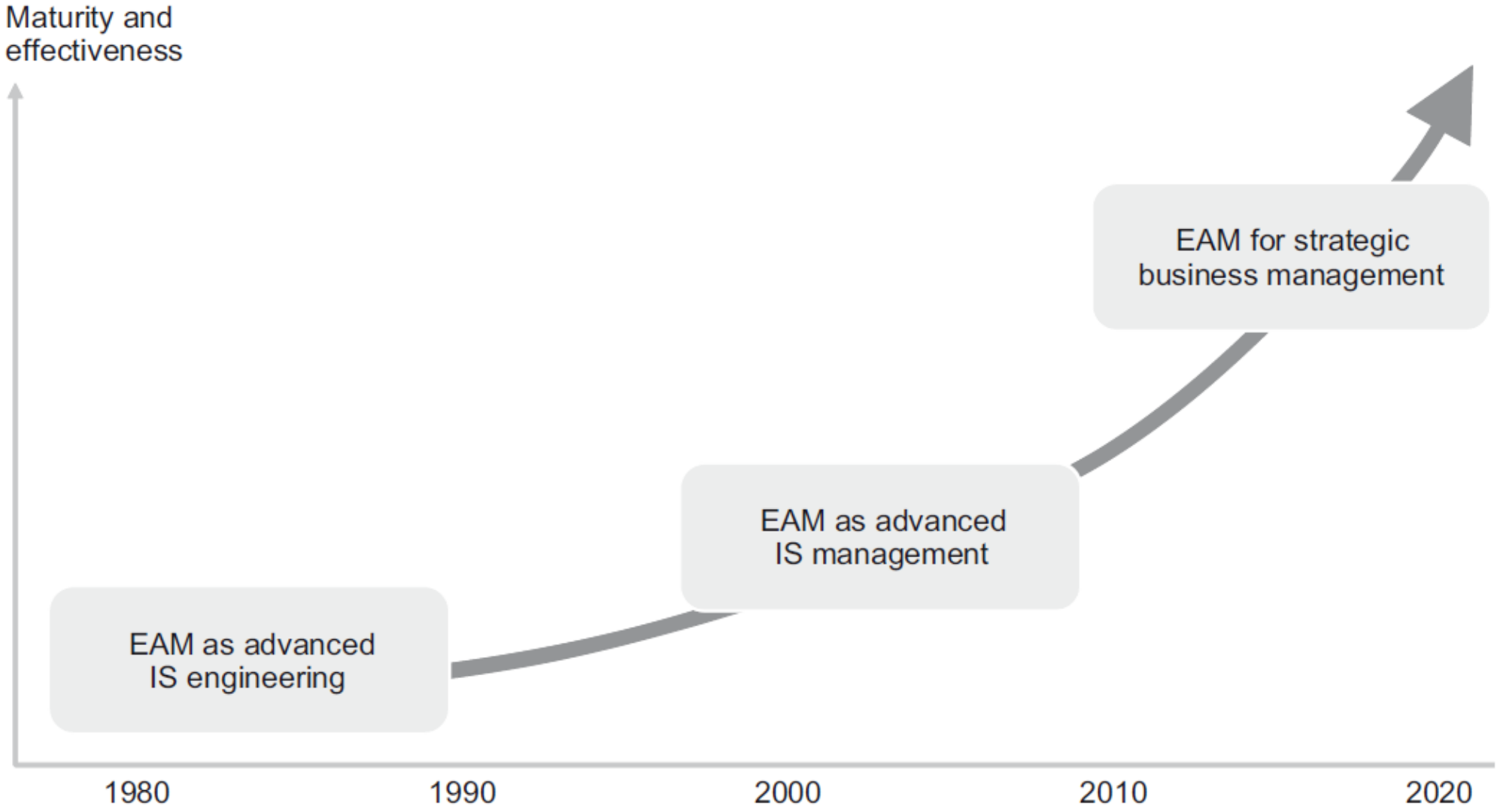
(Ahlemann et al. 2012, p. 17)

What is Enterprise Architecture Management (EAM)

EAM is a management practice that establishes, maintains and uses a coherent set of guidelines, architecture principles and governance regimes that provide direction for and practical help with the design and the development of an enterprise's architecture in order to achieve its vision and strategy.

(Ahlemann et al. 2012, p. 20)

EAM Development Phases (1)



(Ahlemann et al. 2012, p. 13)

EAM Development Phases (2)

- Phase 1: EAM for holistic engineering of information systems
  - Conceptual structure of Architecture (e.g. Zachman Framework)
- Phase 2: Advanced Information Systems Management
  - defining role models,
  - planning, implementation and controlling the processes for IT/IS landscape (not only single applications) and ensuring transparent decision-making
  - defining decision rights and accountabilities
  - Advanced EAM frameworks not only provided architectural artefacts and models, but also contained guidelines for EAM planning, implementation and controlling
  - Advanced EAM frameworks containing guidelines in addition architectural artefacts and models (e.g. TOGAF with ADM)

(Ahlemann et al. 2012, p. 13f)

EAM Development Phases (3)

- Phase 3: Strategic Business Management
  - EAM is no longer understood as just an IT department job, but as a strategic function
  - EAM plays an important role in organisational transformation and development
  - Integrating EAM into the strategy development and strategy implementation processes results in strong synergies, improved decision making and faster strategic change.
  - Strategic decision-making is based on enterprise architecture information, and takes enterprise architecture-specific objectives and policies into account.
  - Adding motivation to Architecture Frameworks and guidelines

(Ahlemann et al. 2012, p. 14)

What EAM is

- a holistic way to understand, plan, develop and control an organisation's architecture (**EAM as a management philosophy**),
- a support function to enable and improve existing strategy planning and strategy implementation processes (**EAM as an organisational function**),
- a set of management practices that helps to improve the quality of decision-making (**EAM as a methodology**),
- an open approach to reach consensus among managers on the basis of their shared vision of establishing a global optimum for the firm, free of local and personal egoism and opportunism (**EAM as a culture**).

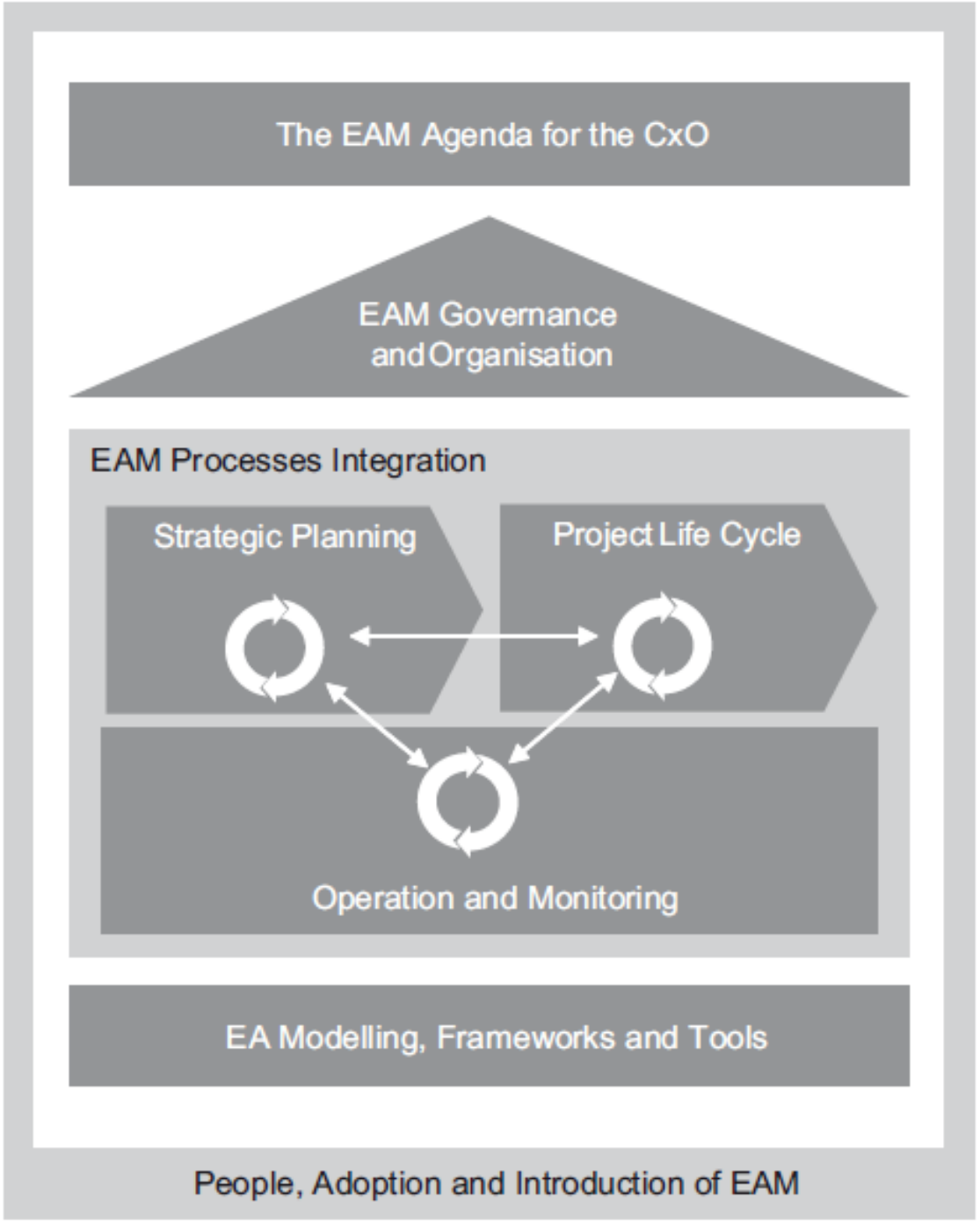
(Ahlemann et al. 2012, p. 20f)

What EAM is NOT

- EAM is not a tool
- EAM is not just modeling of the enterprise architecture
- EAM is not an IT function
- EAM is not a new management process
  - EA includes a set of new management practices, but it does not produce new processes.
  - Instead, it merely changes the way existing processes/projects are run
- EAM is not strategy development
  - EAM is used in strategy management

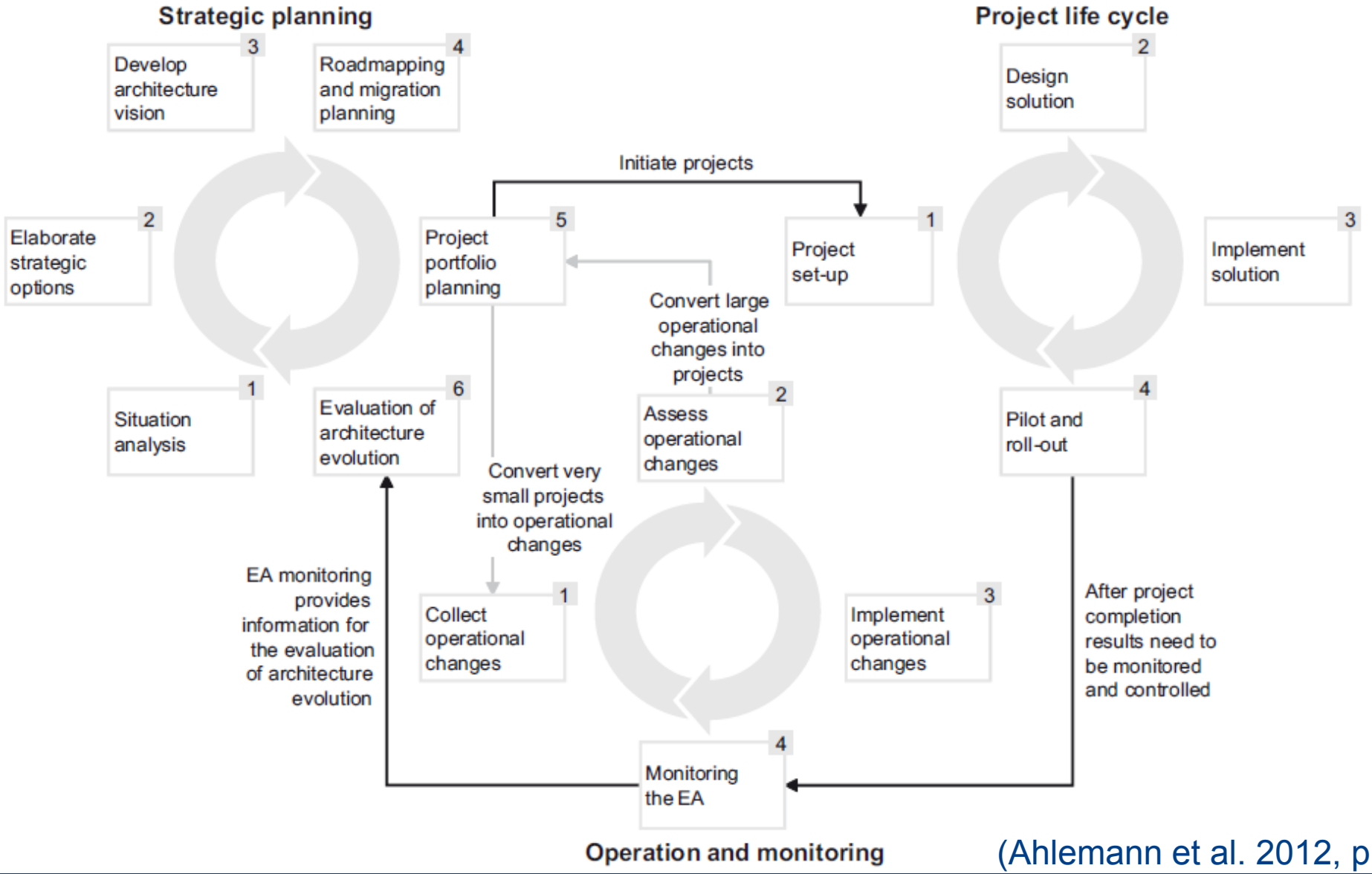
(Ahlemann et al. 2012, p. 20)

EAM Building Blocks



(Ahlemann et al. 2012, p. 42)

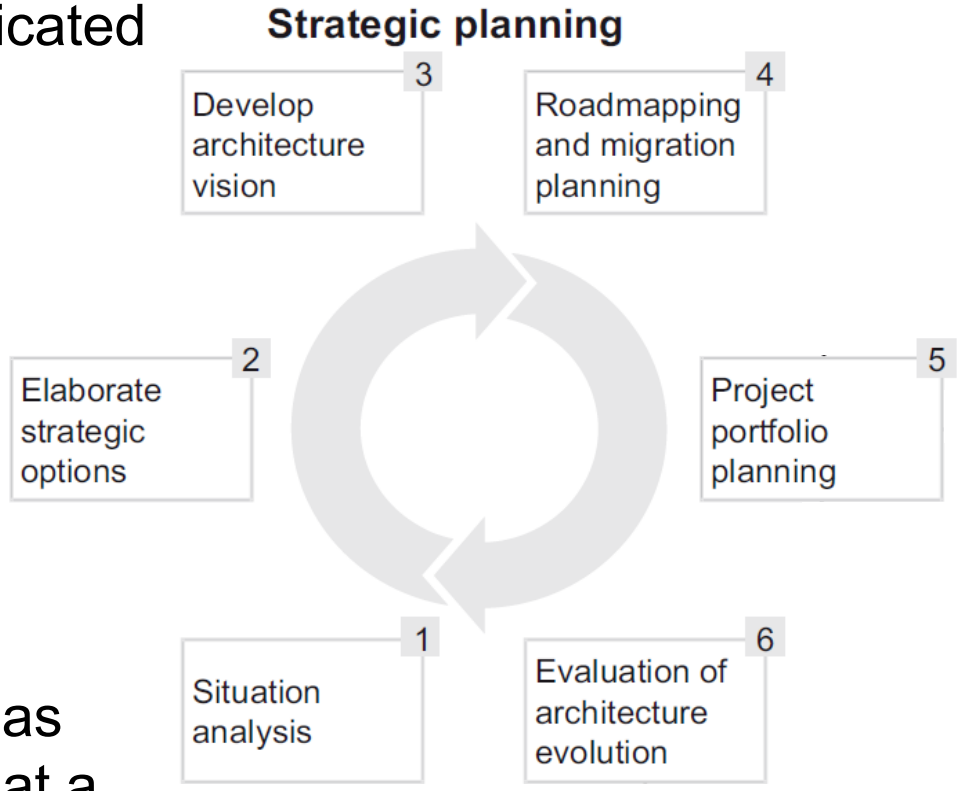
EAM Processes/Projects Integration



(Ahlemann et al. 2012, p. 45)

Embedding EAM into Strategic Planning

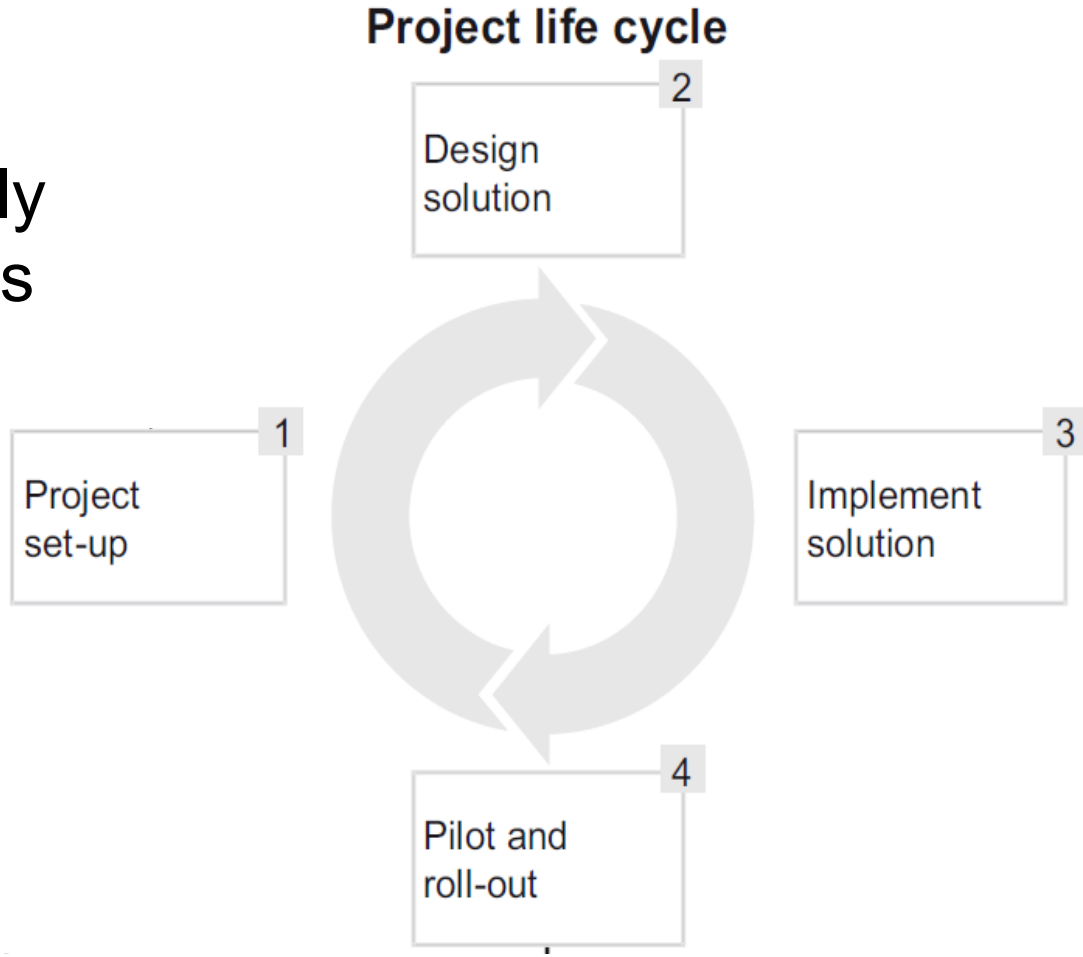
- Most projects carried out in an organisation either directly alter, or are at least affected by, the enterprise architecture
- Strategic planning can bring about dedicated architecture initiatives for the EA's structured development.
- All other strategic initiatives must be documented in the EA model and analysed in terms of their impact on the EA.
- As a result, existing strategic planning processes therefore need to be complemented by EAM practices, such as EA analysis or EA documentation, so that a long-term EA development can be ensured



(Ahlemann et al. 2012, p. 44f)

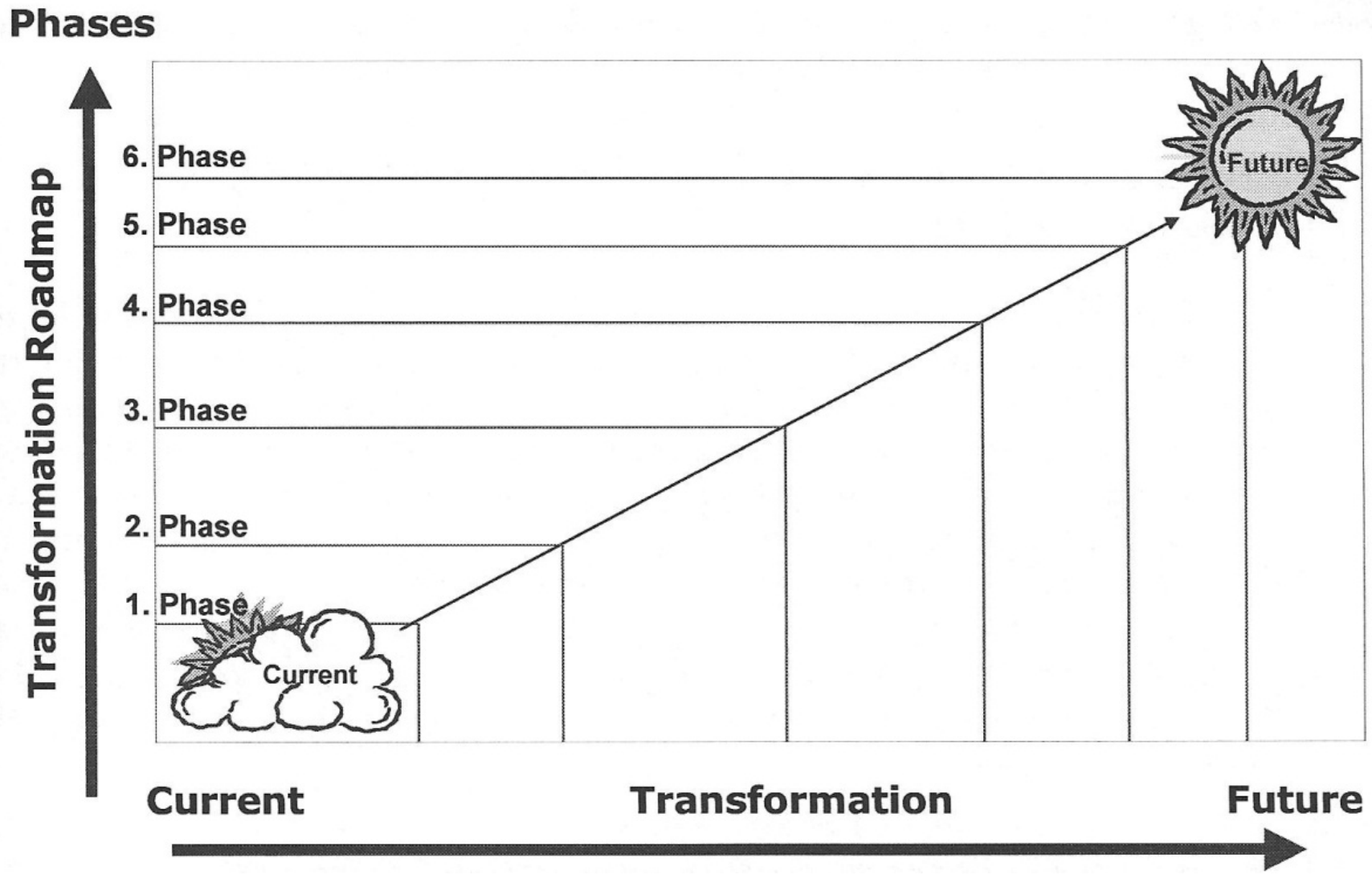
Embedding EAM in the Project Live Cycle

- Strategic objectives are mostly realised in the form of projects and project programmes.
- If there is no constant monitoring of projects and EA-relevant decision-making during project execution, the project's outcome might not align with the intended target architecture.



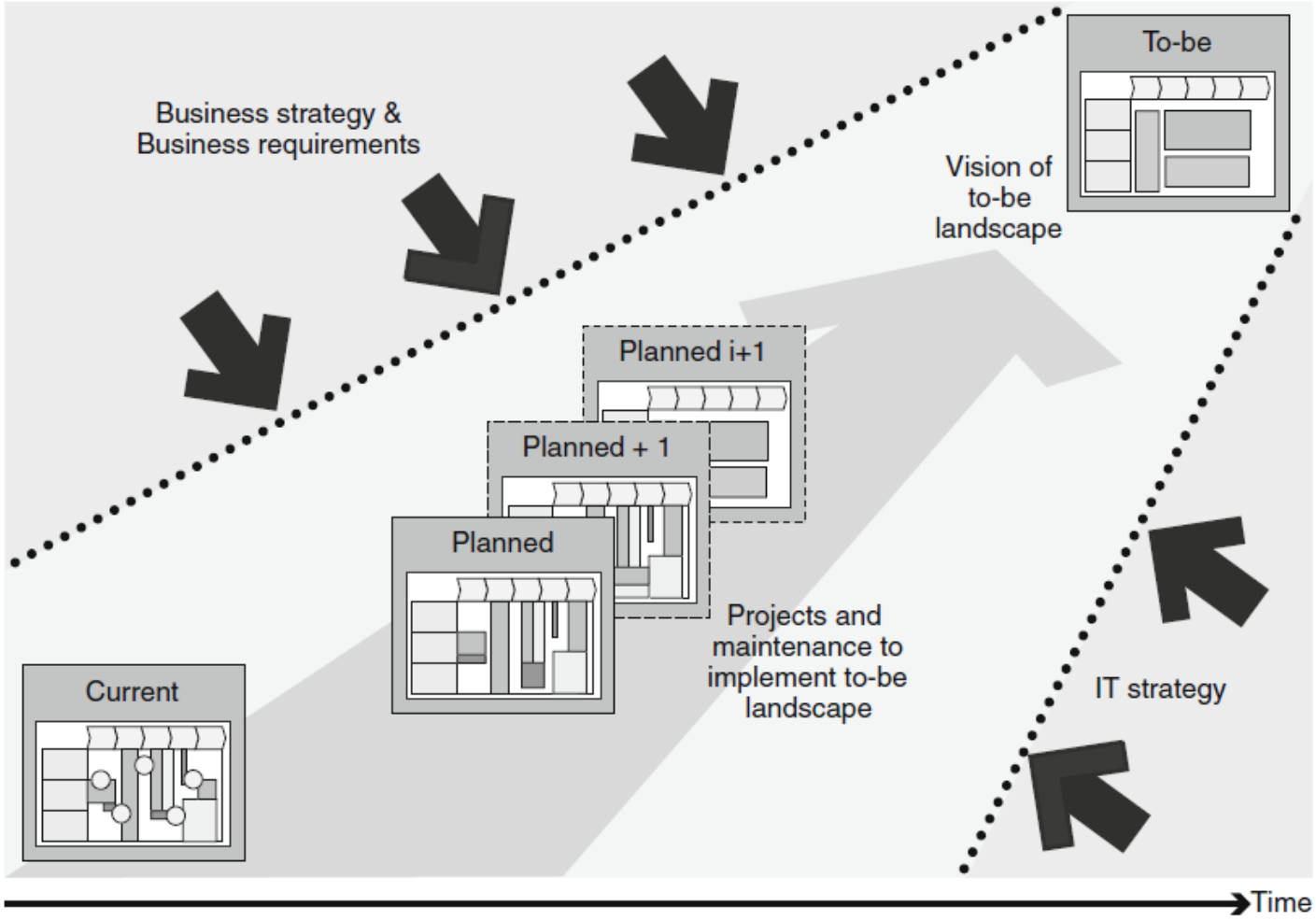
(Ahlemann et al. 2012, p. 46f)

Enterprise Architecture Transformation

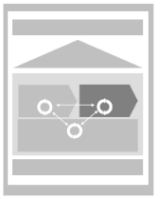


An EA can be developed incrementally in different projects. (Schekkermann 2008, p. 121)

Projects Change the Enterprise Architecture



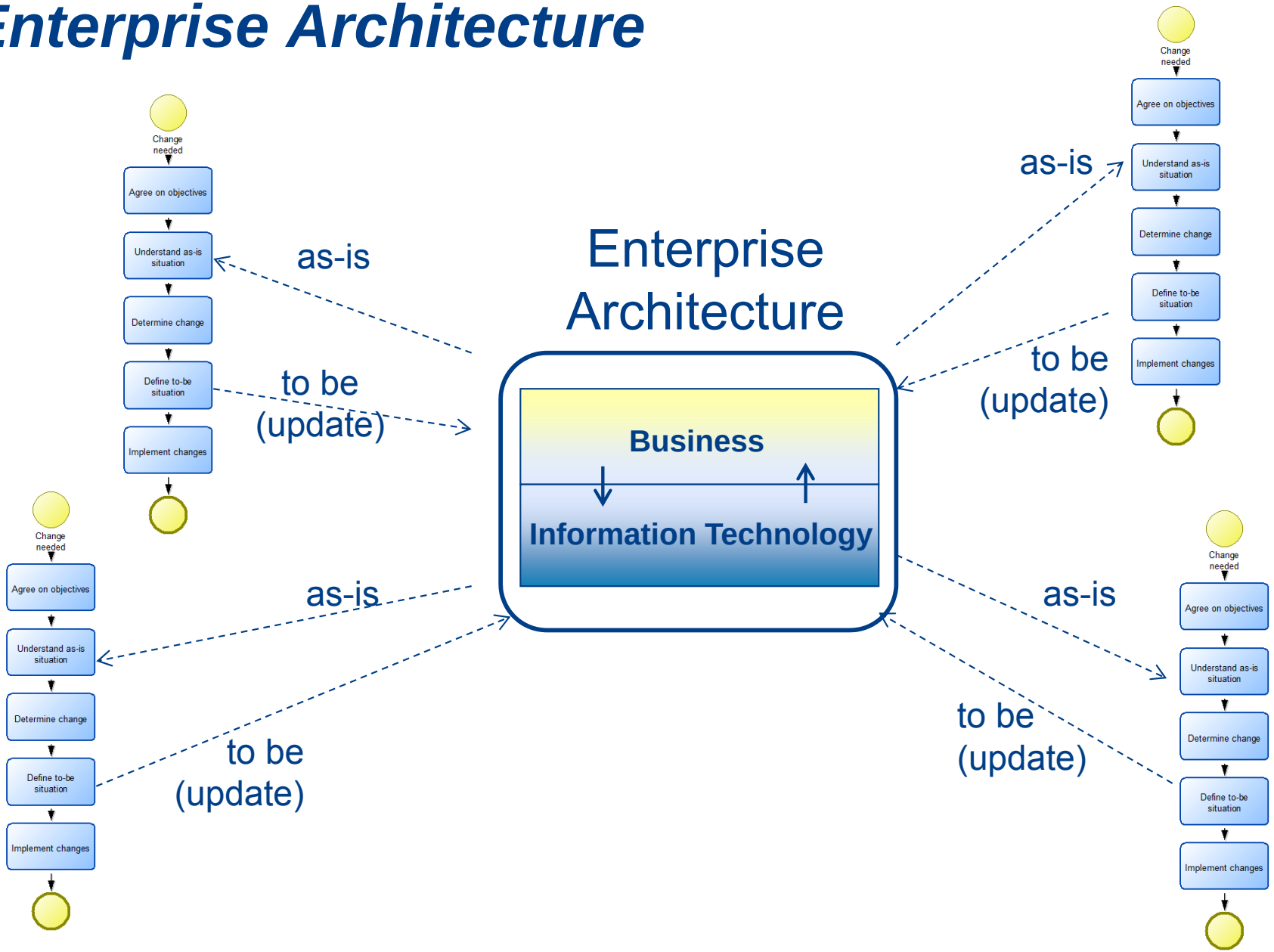
(Hanschke 2010, p. 165)



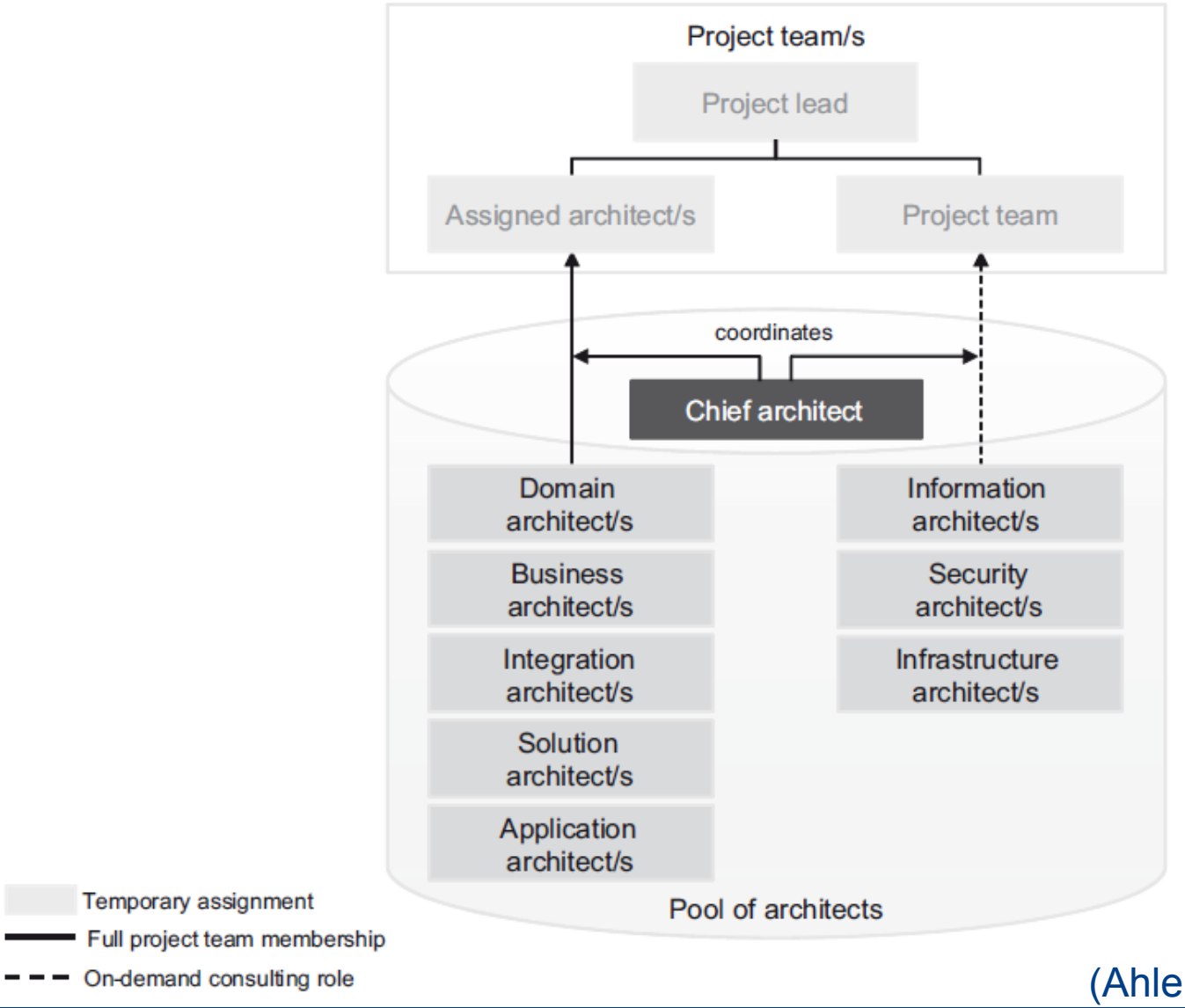
Incremental Development of an Enterprise Architecture

- 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.

Enterprise Architecture



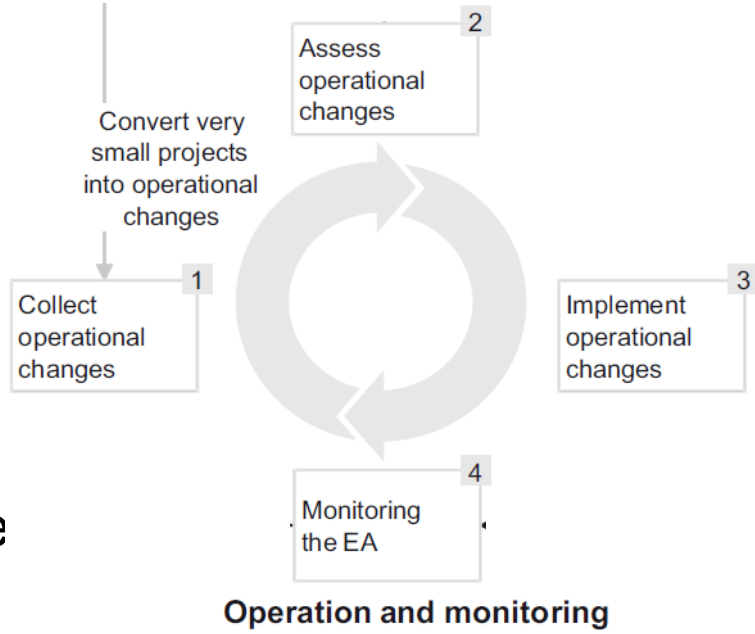
Assignment of Architectural Roles to Project Teams



(Ahlemann et al. 2012, p151)

Embedding EAM into Operations and Monitoring

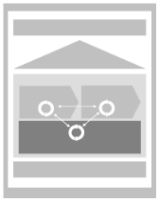
- Projects are the vehicle for large EA changes, but many changes are small. These changes are handled during routine EA operation.
  - There is always the risk that small changes might affect the functionality of applications, the topology of the network infrastructure, or the control flow of a business process.
  - these changes might be implemented in ways that conflict with EA guidelines or cause unforeseen side effects.
  - they may not be documented properly, and future decision-making might therefore not be based upon complete information.



Operation and monitoring

- Operations and monitoring need to establish procedures for the efficient handling of smaller changes in the EA in order to counter these risks

(Ahlemann et al. 2012, p. 47)



Frameworks, Modelling and Tools / People, Adoption and Introduction of EAM

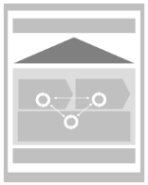
- Frameworks comprise guidelines, procedural models and methodologies for the EA's structured development.
  - Software tools have the potential to lift these activitie to a new productivity level.
- EAM's impact is also heavily influenced by 'soft factors' resulting from the social sphere in which EAM is applied.
  - Individual resistance, incentives and supportive stakeholders therefore all play an important role.

(Ahlemann et al. 2012, p. 48f)

EAM Governance and Organisation

- EAM is about decision-making in the interest of the organisation
- EAM governance and organisation deal with the manner in which EAM is institutionalised in an organisation.
  - ♦ define the organisational components, roles, and committees to perform EAM-related tasks
  - ♦ specify their tasks, responsibilities and decision rights.
  - ensure that the right people are empowered to make EA-relevant decisions.
- Balance local autonomy and global coordination

(Ahlemann et al. 2012, p. 42f)

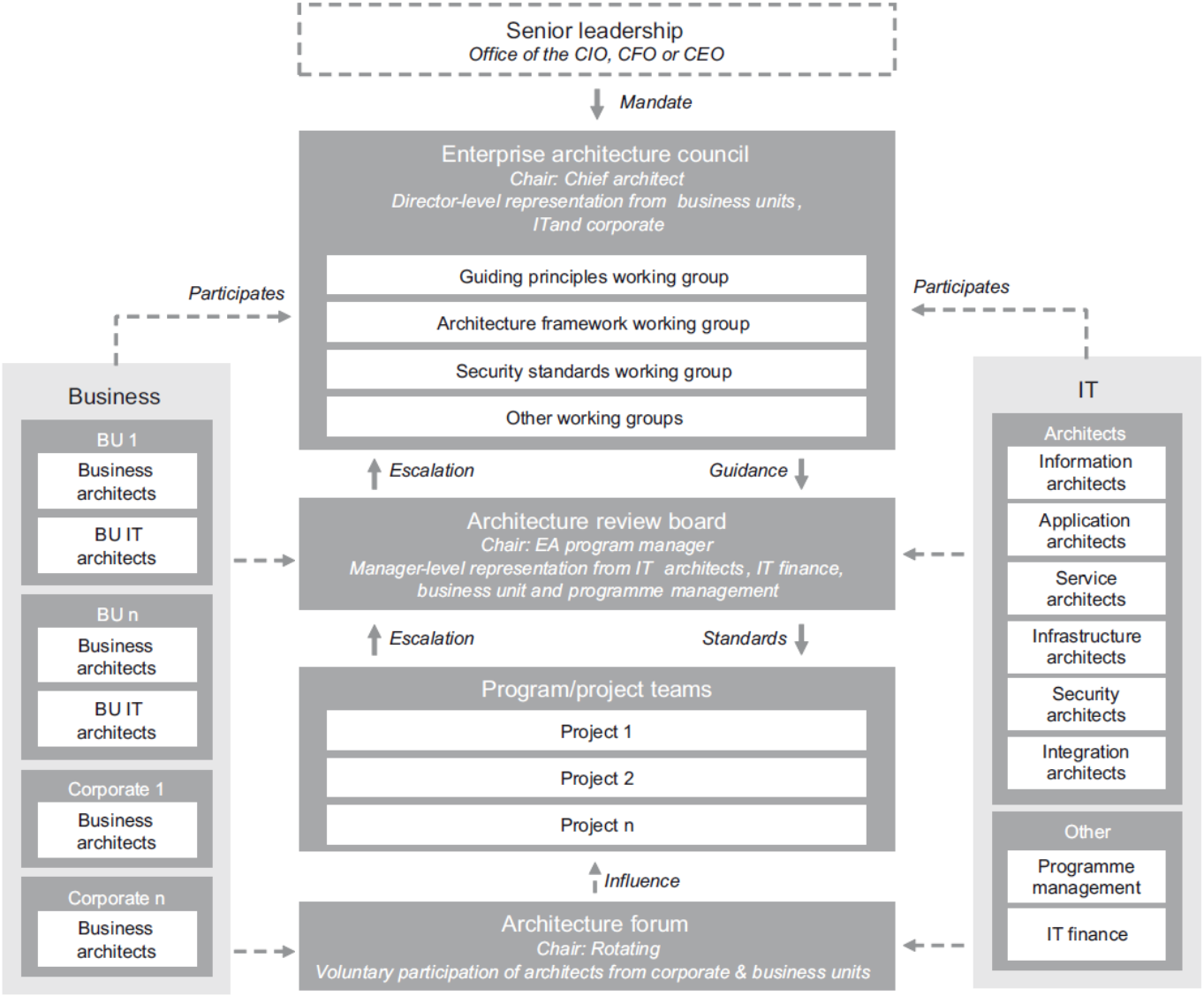


Two Unhelpful Extremes

- You need to ***avoid*** two unhelpful extremes when you establish EAM practices
  - The first is ***implementing minimal EAM***; in other words, dabbling in EAM without a real commitment. This approach will at best produce sporadic and inconsistent results.
  - At the other extreme, EAM organisations can become ***self-serving*** and lose sight of their true purpose, namely to deliver business value. In this case, EAM organisations become useless ivory towers.

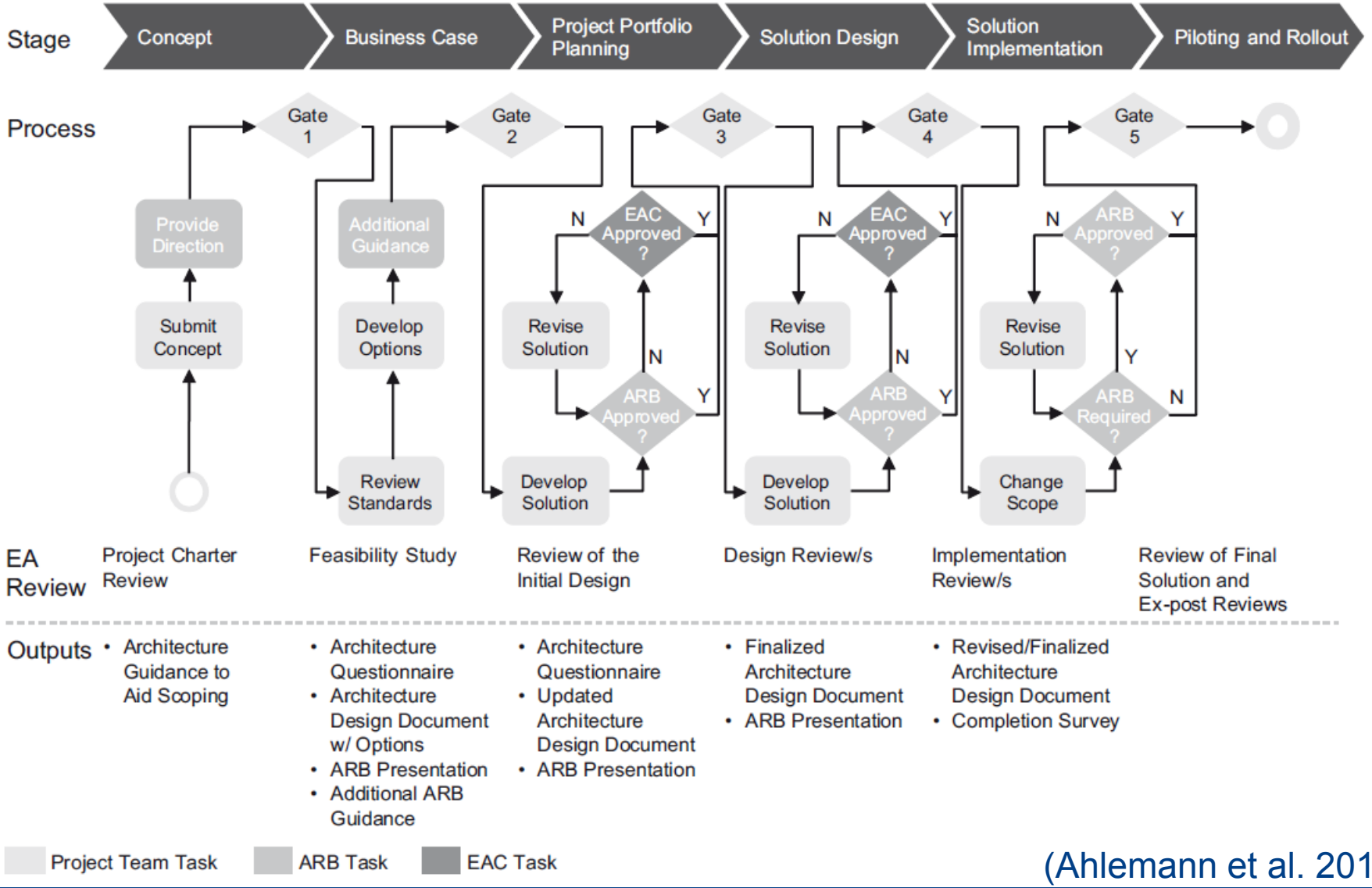
(Ahlemann et al. 2012, p. 85)

A possible Architecture Governance Model



(Ahlemann et al. 2012, p. 92)

Integration of EA Reviews in the Project Life Cycle



(Ahlemann et al. 2012, p. 157)