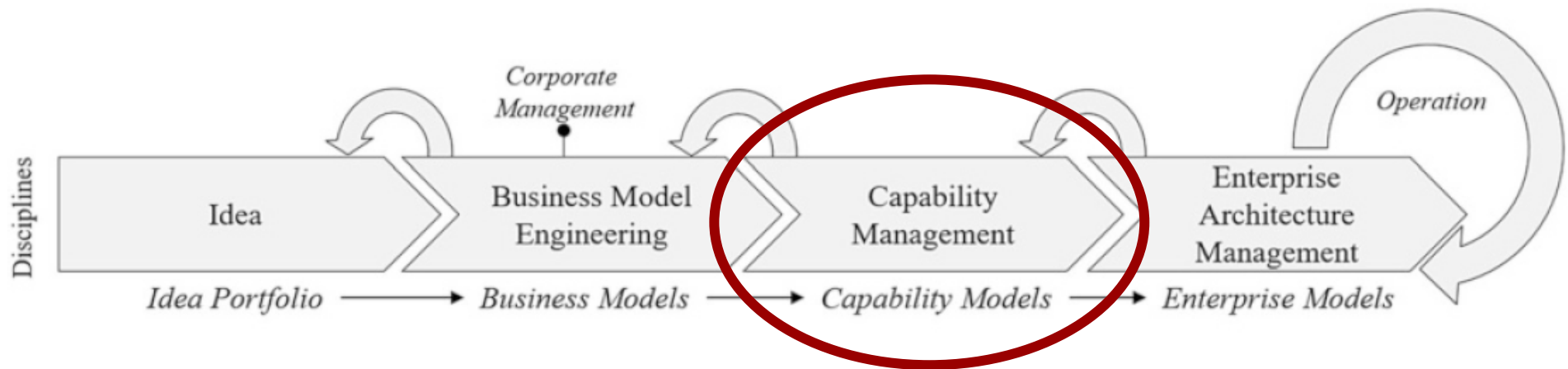


Capability-Based Planning

Knut Hinkelmann



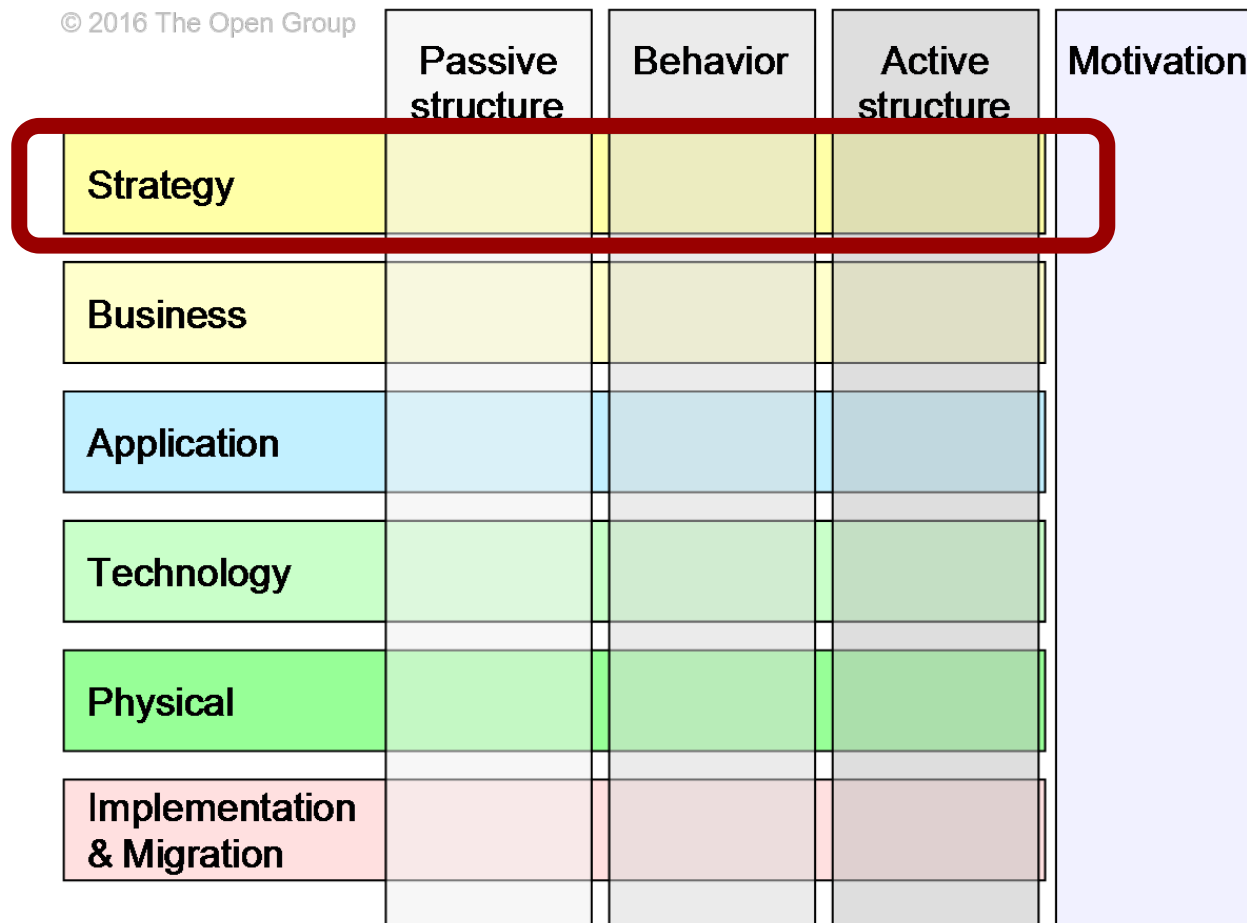
Capability Management: Bridging the Gap between Business Model and Enterprise Architecture



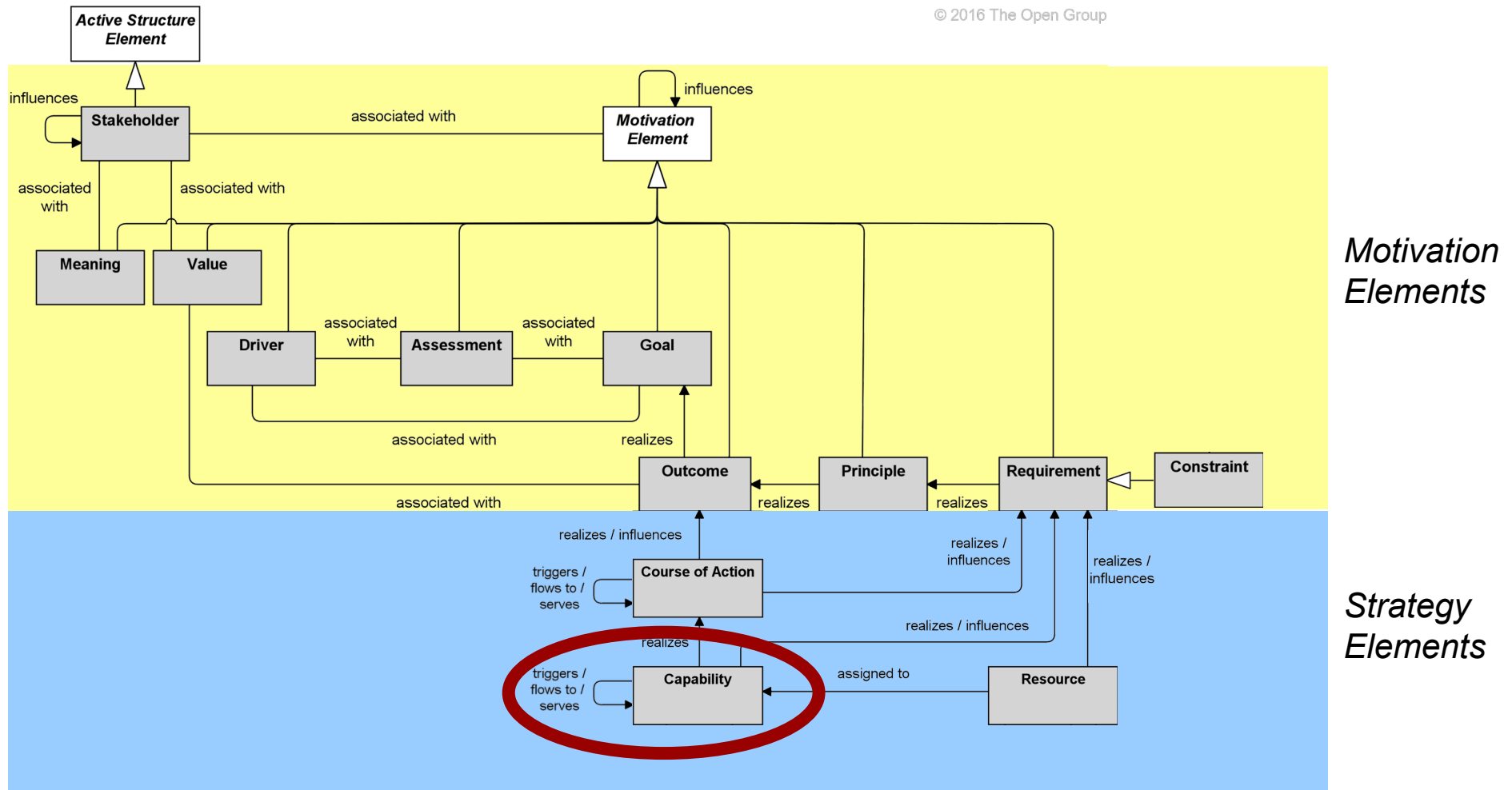
Wißotzki, M. (2018). The Notion of Capability in Literature. In Sandkuhl, K., & Stirna, J. (eds.). *Capability Management in Digital Enterprises*. Springer International Publishing. <https://doi.org/10.1007/978-3-319-90424-5>

The ArchiMate Framework

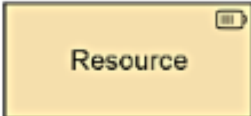

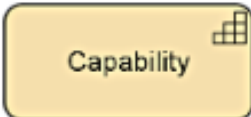



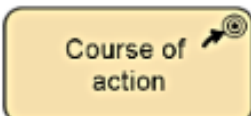

This presentation motivates how business model is connected to architecture layers in ArchiMate.



Motivation and Strategy Elements Metamodel of Archimate



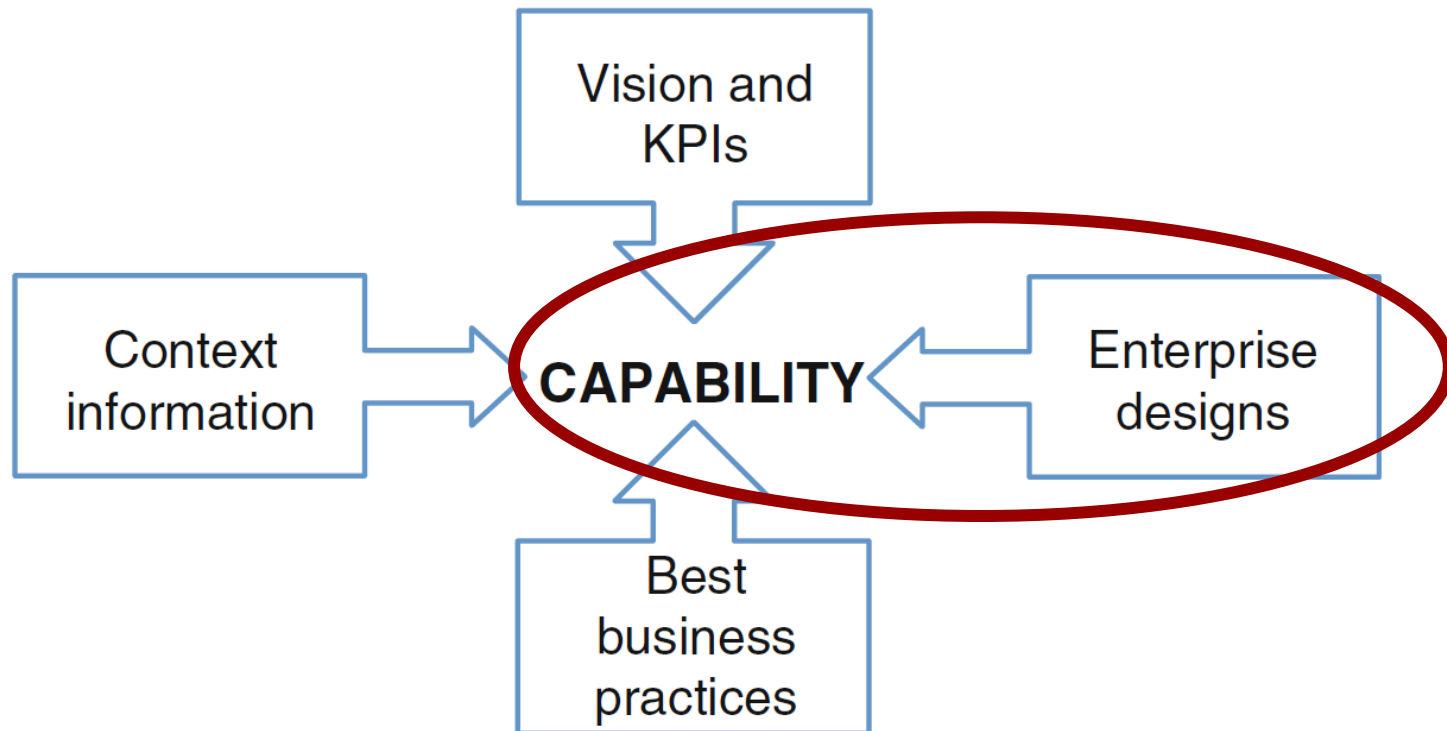
Strategy Elements

Element	Description	Notation
Resource	Represents an asset owned or controlled by an individual or organization.	 
Capability	Represents an ability that an active structure element, such as an organization, person, or system, possesses.	 
Value stream	Represents a sequence of activities that create an overall result for a customer, stakeholder, or end user.	 
Course of action	Represents an approach or plan for configuring some capabilities and resources of the enterprise, undertaken to achieve a goal.	 

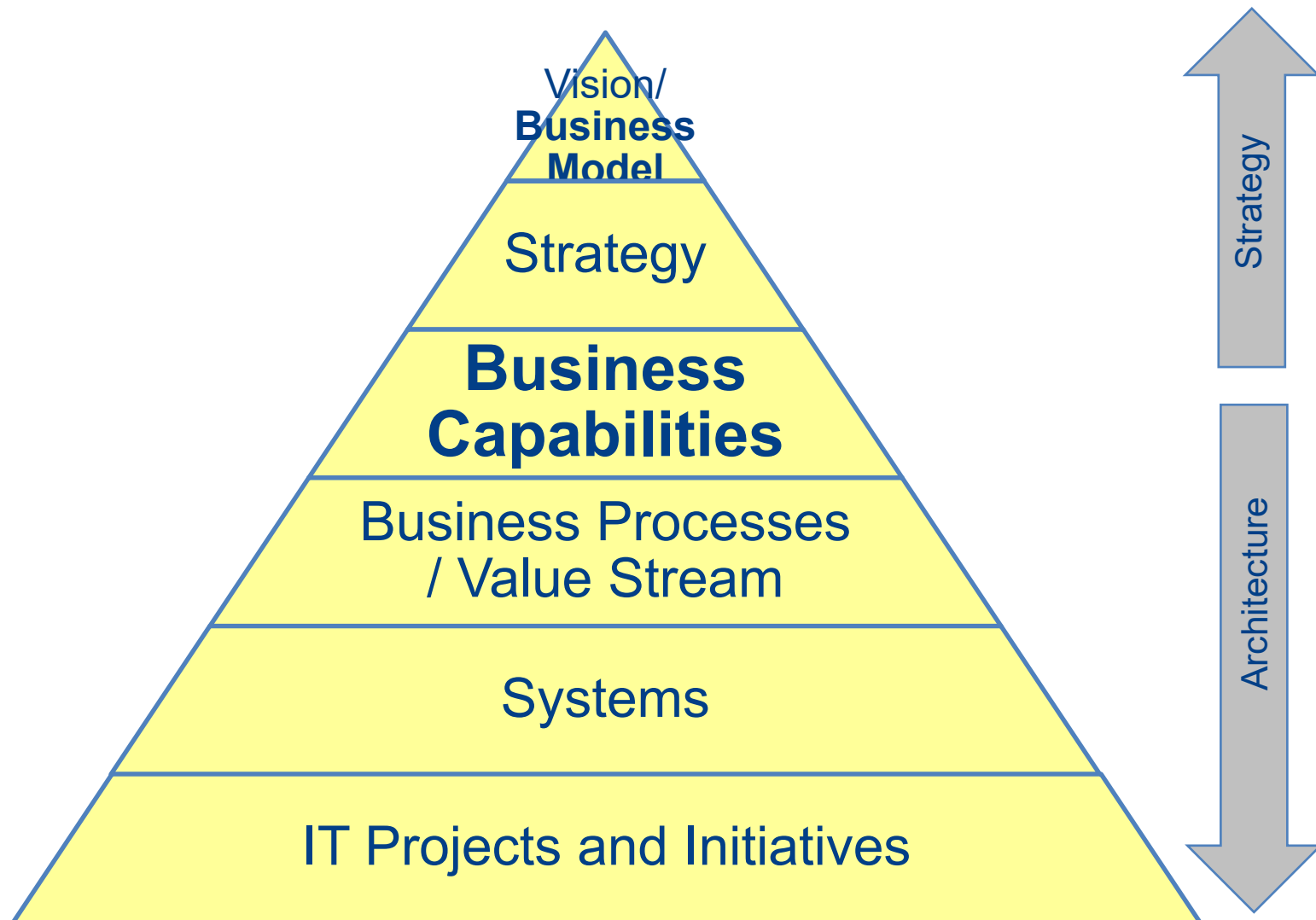
- All behavior elements can realize capabilities
- All structure elements can realize resource

Capabilities

- Capabilities are defined as “an ability or capacity that an organization may possess or exchange to achieve a specific outcome or goal”.
- Business capabilities define “what” a business does, not the “why” or “how.”
- Capabilities ...
 - ◆ provide a high-level view of the current and desired abilities of an organization
 - ◆ are expressed in general and high-level terms



Business Capabilities link Strategy with Architecture



based on (Nadarajah and Sapkal, 2016)

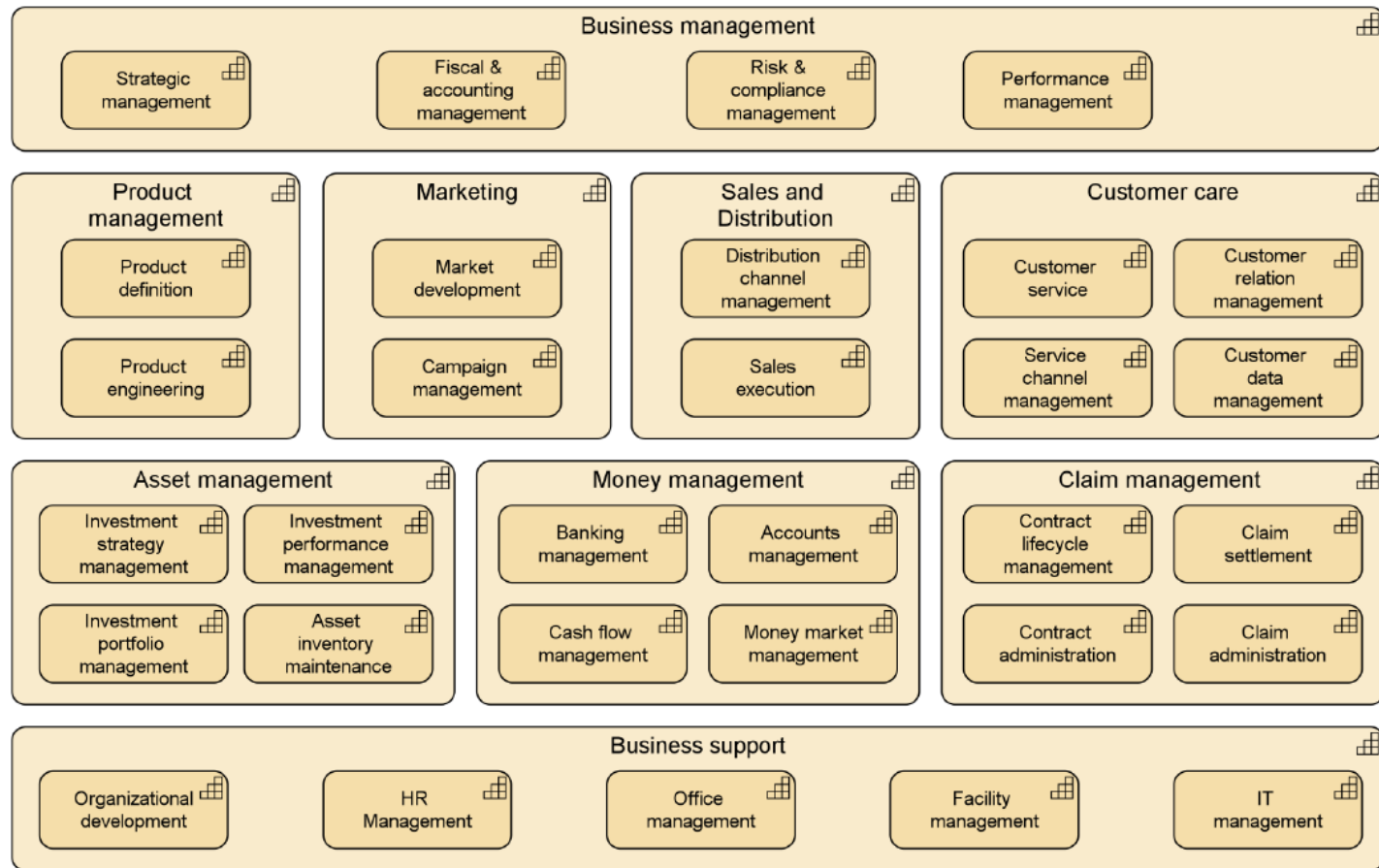
Examples for Using Business Capabilities

- Business capabilities can be used in a variety of business situations, such as:
 - ◆ **Realizing a Business Model**
 - Use a business capability map as a starting point to identify elements of the enterprise architecture.
 - ◆ **Post-merger and acquisition (M&A) IT consolidation**
 - Use a business capability map for both organizations as a starting point to identify areas of overlap and to achieve cost synergies.
 - ◆ **Strategic planning and IT investments**
 - A gap between current-state and future-state business capabilities can identify key areas of investment.
 - ◆ **Application portfolio rationalization**
 - Avoid that functionality is duplicated by different applications within different business units by using a business capability map as the primary input.

Capability Map

- A capability map describes what the organization does with a business focus.
- Capabilities are *stratified*, distinguish between
 - ◆ **strategic** capabilities (such as strategy management, finance management),
 - ◆ **core** capabilities (adding value for customers)
 - ◆ **supporting** capabilities (such as HR management)(see Porter's Value Chain)
- The name of a capability is a noun, not a verb.

Example of a Capability Map



Strategic

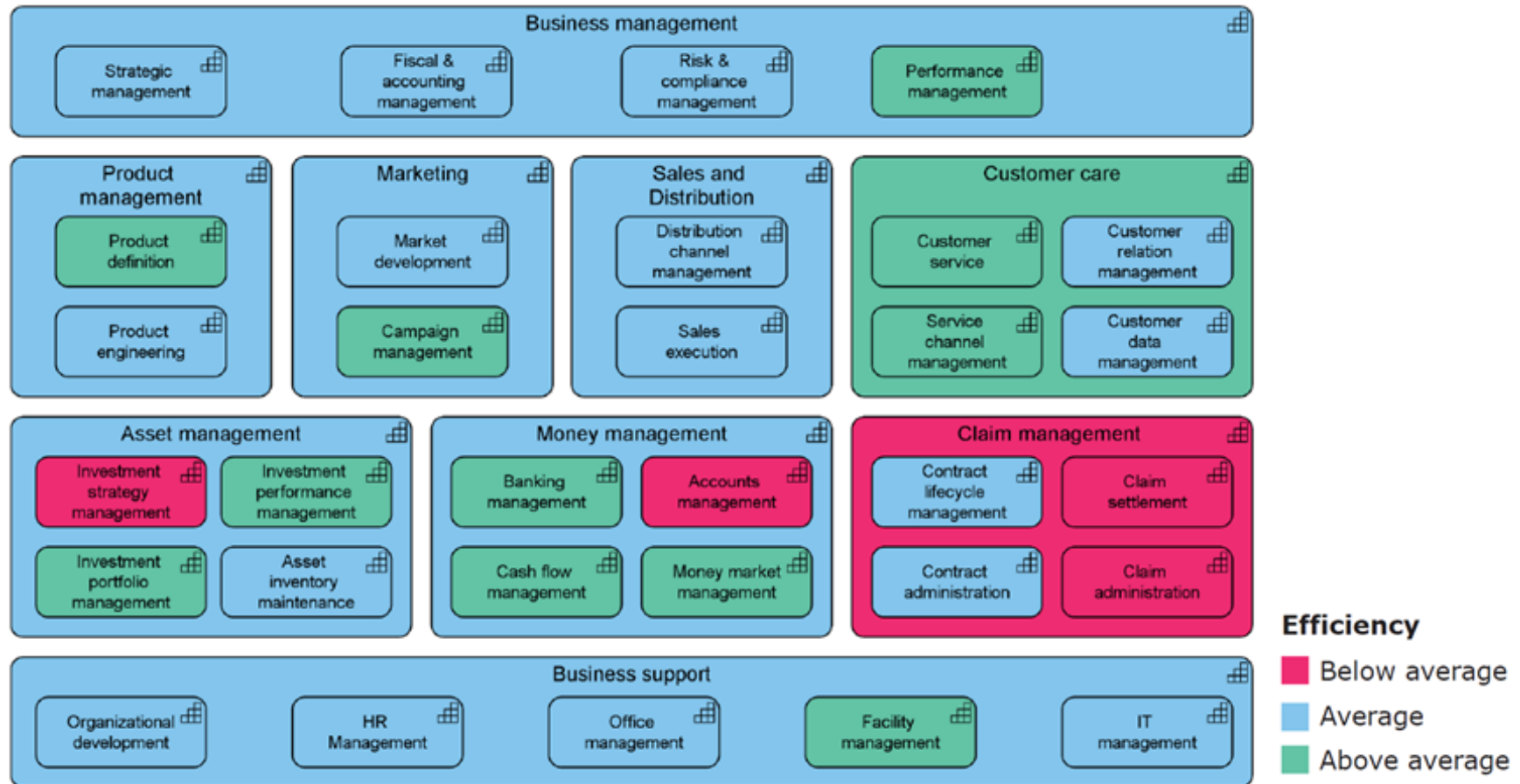
Core
(Operational)

Supporting

Inspired by Panorama360 reference model

Lankhorst, 6 Capabilities of the Adaptive Enterprise

Example of a Capability Heat Map

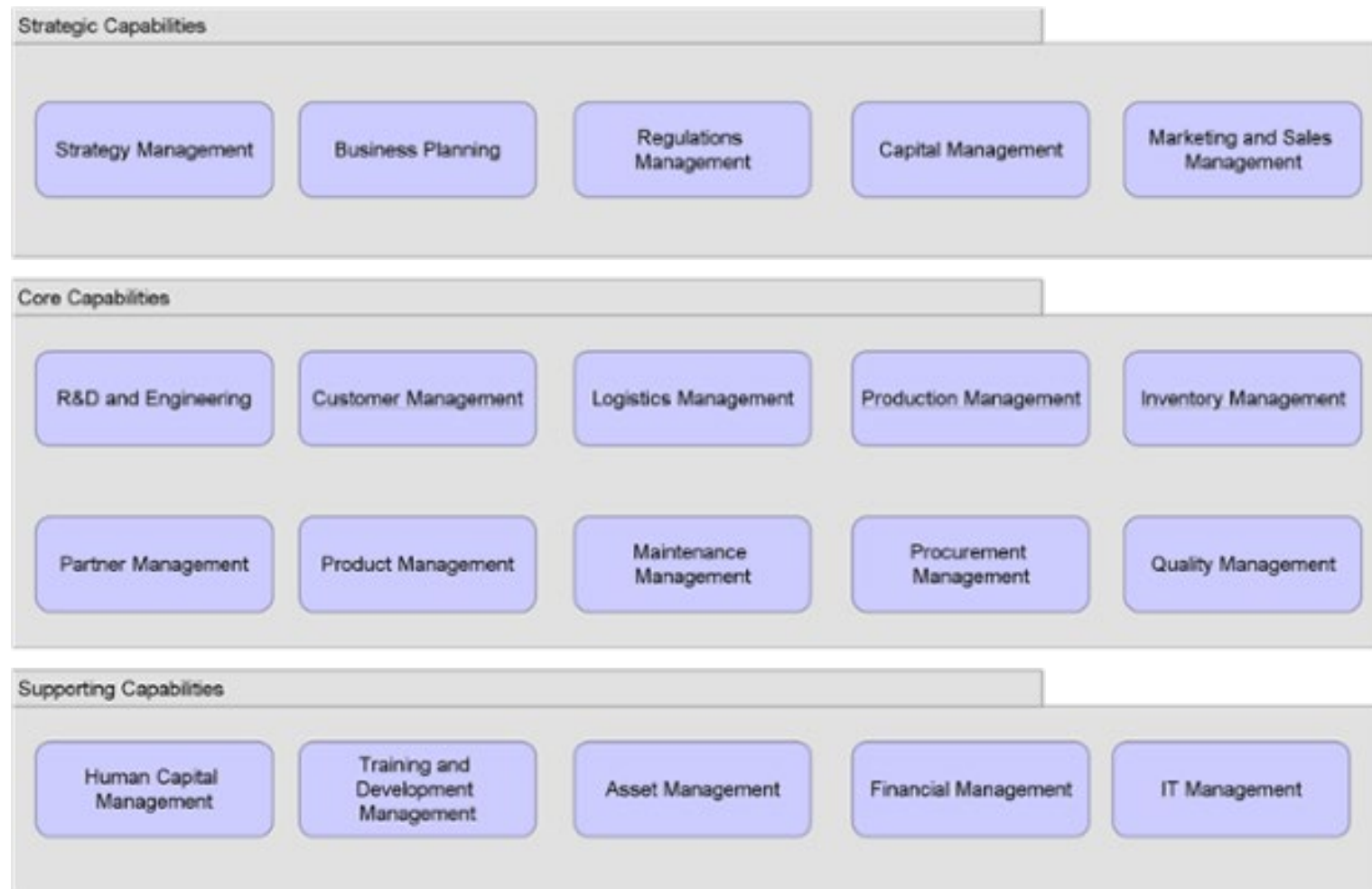


Inspired by Panorama360 reference model

Lankhorst, 6 Capabilities of the Adaptive Enterprise

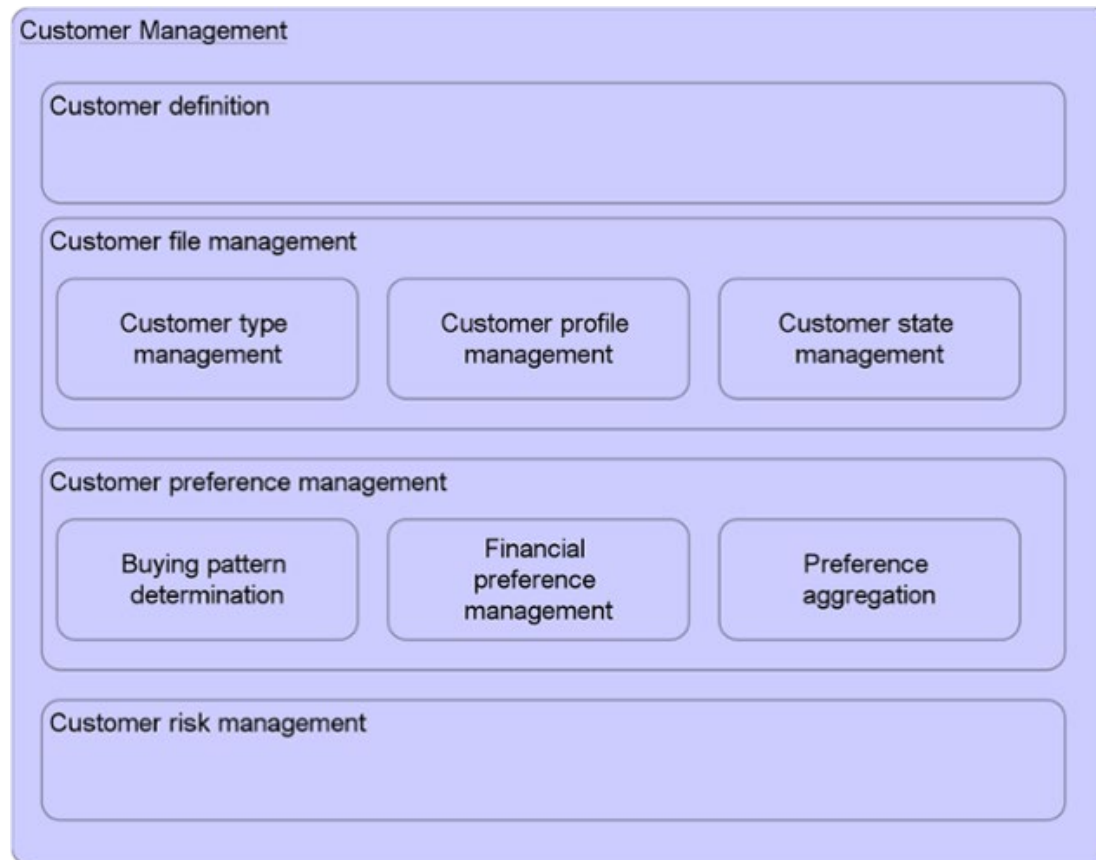
Another Example of a Capability Map

Level 1:



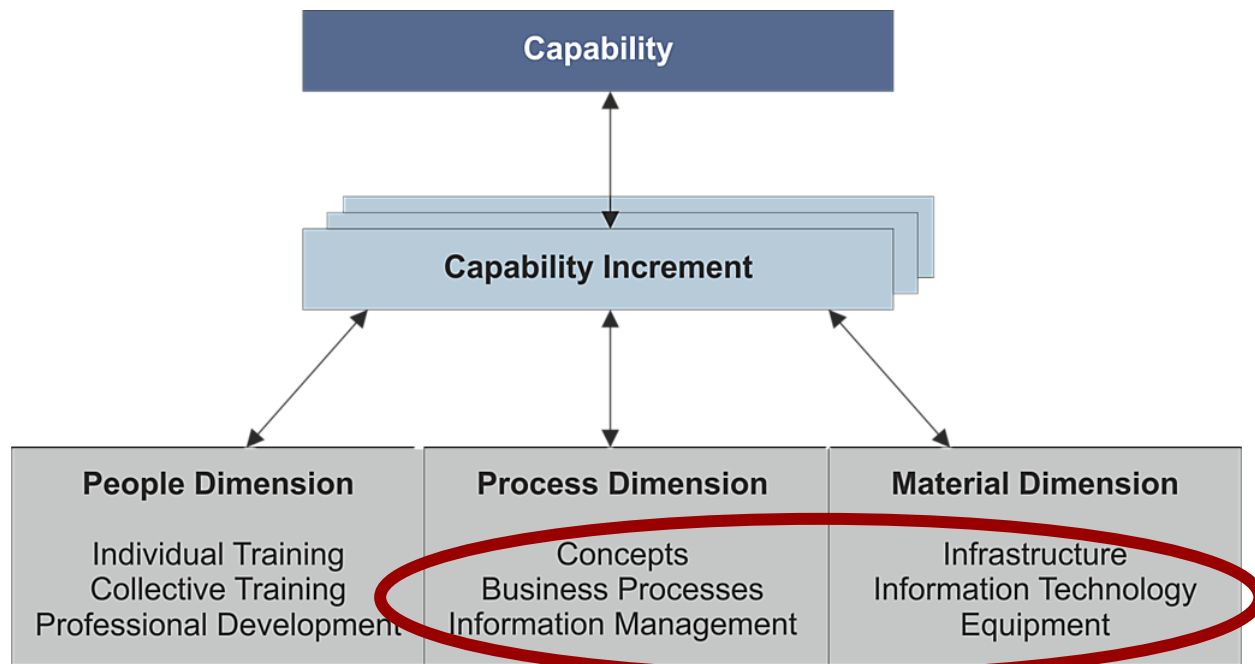
More Detailed Capabilities

Levels 2 and 3: Drilling Down Capabilities



Capability Planning and Business-IT Alignment (1)

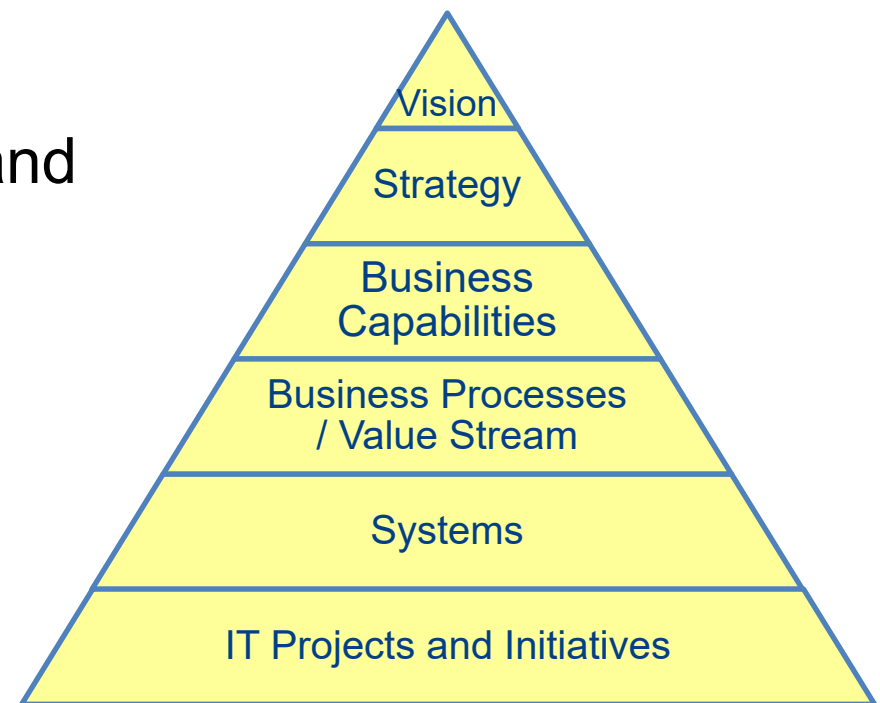
- A capability can take an extended time to deliver and will normally involve many projects delivering numerous increment
- Capabilities are engineered/generated taking into consideration various dimensions



© The Open Group

Capability Planning and Business-IT Alignment (2)

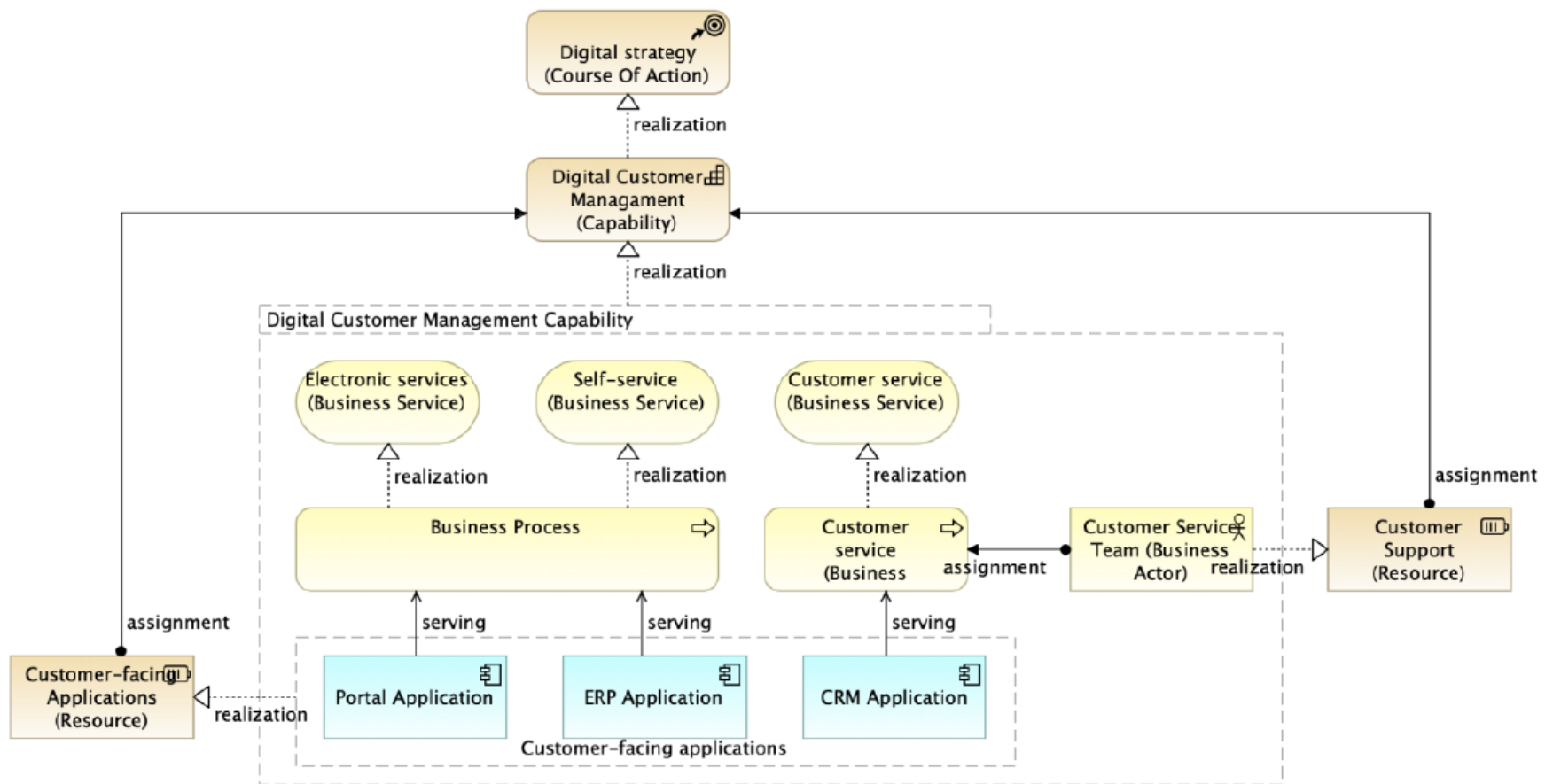
- Ideally, every strategic component should have relevant business capabilities identified.
- Once the capability map is complete, it can be linked to business processes, services.
- At the end, relevant IT projects and initiatives can be identified.



Capability Planning and Business-IT Alignment (3)

- Capabilities are typically assigned to a combination of various resources like
 - ◆ *organization/people*
 - ◆ *processes*
 - ◆ *information*
 - ◆ *systems/applications*
 - ◆ *technology*
- These can be described, designed, and implemented using *Enterprise Architecture* approaches.

Capability Planning Example



Source: Archimate Cookbook

Capability Planning for Airlines (simplified)

