Avancier Methods (AM)

Initiation and Context diagrams

in the AM viewpoint library

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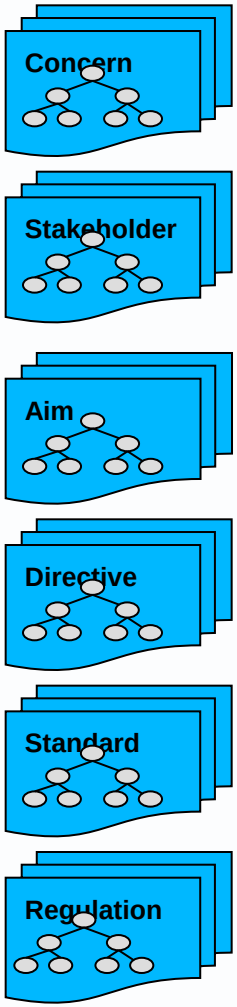
Architecture context catalogues



- Driver/Goal/Objective catalogue
- Driver or concern catalogue
- Stakeholder catalogue
- Aim (goal/objective/requirement) catalogue
- Directive (principle/policy/rule) catalogue
- Standards catalogue
- Regulations catalogue

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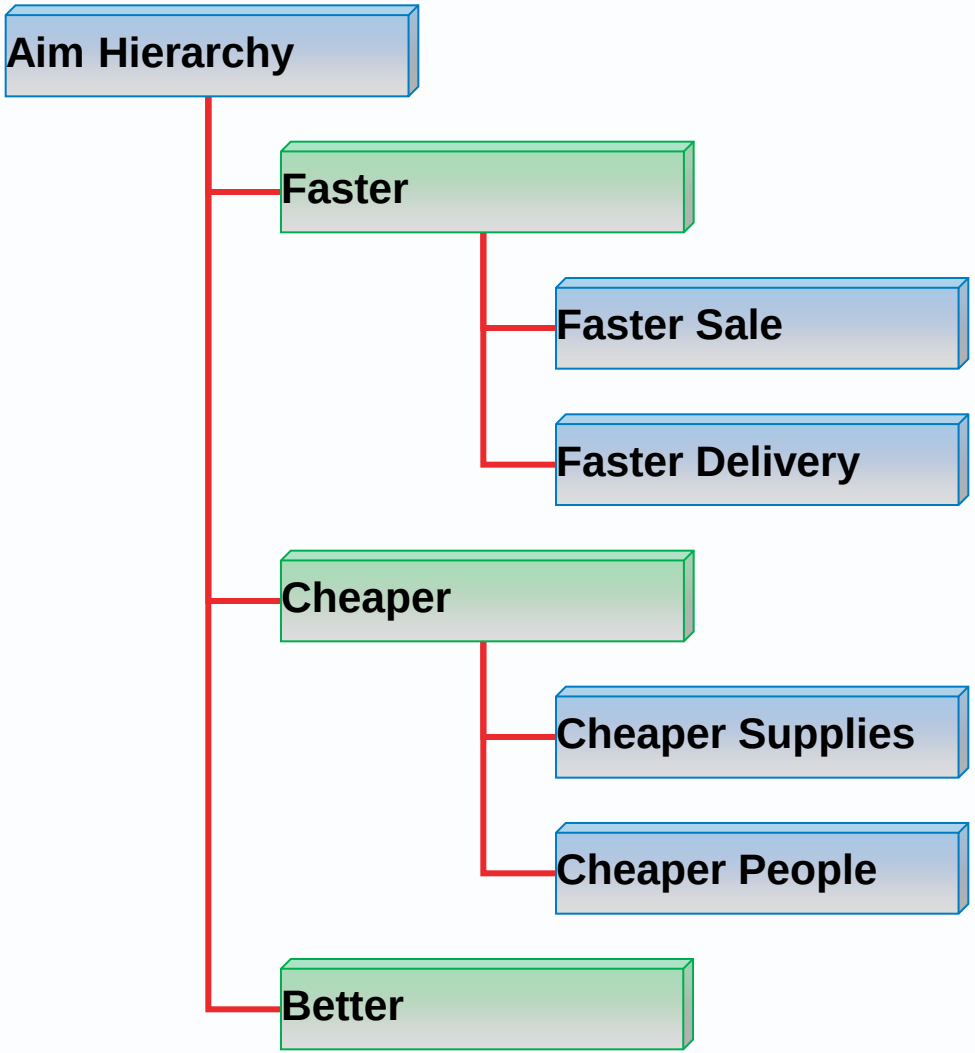
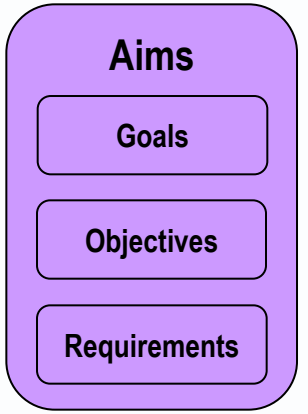
Aim catalogue: a structure





- A hierarchy (as in an Ishikawa diagram) may prove helpful.
- But generally speaking, a lower level goal may contribute to several higher levels goals
- A Balanced Score Card style of presentation may prove better.

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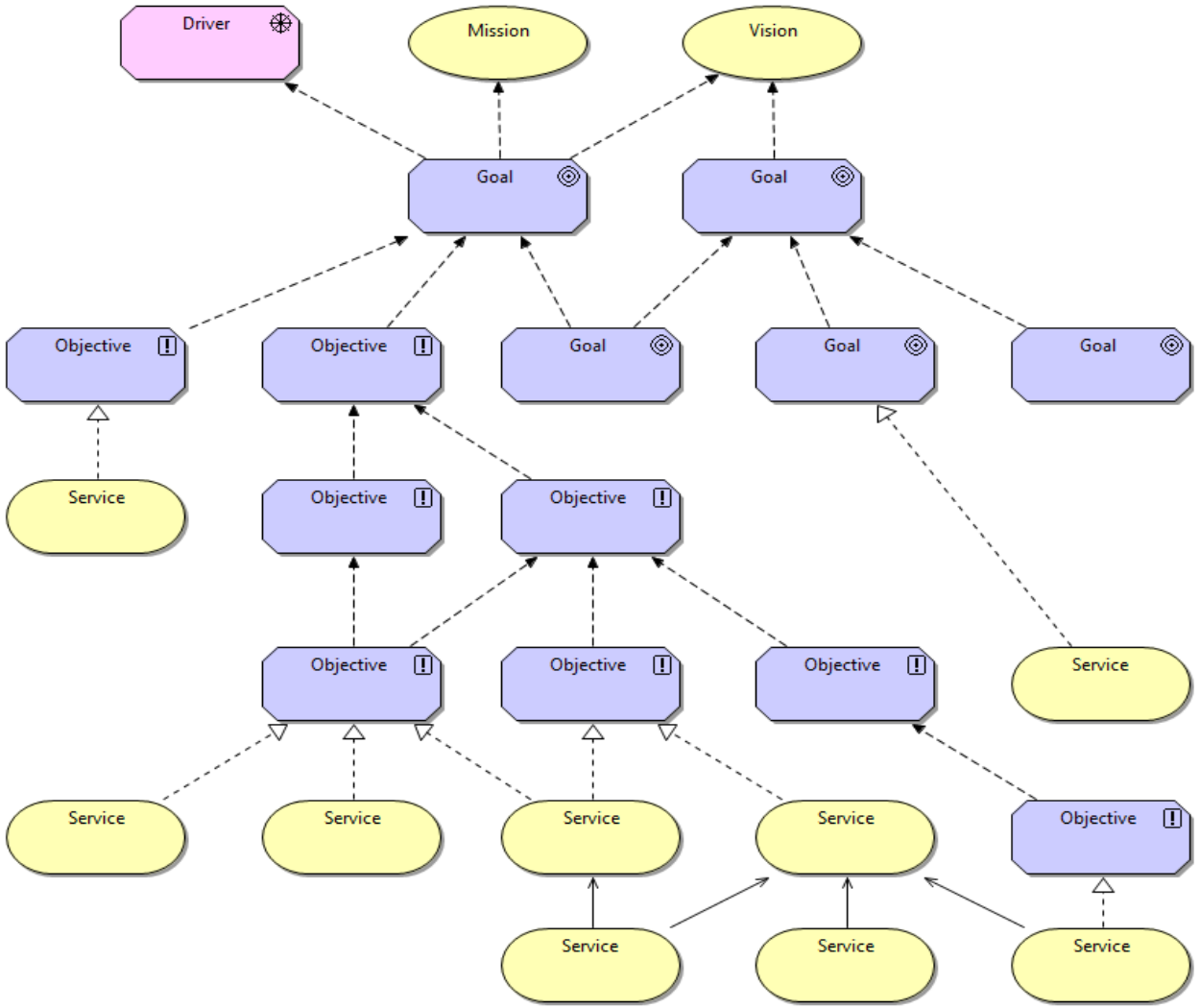
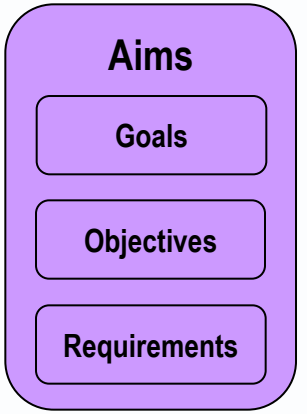
ArchiMate version drawn by Pieter Van Ostaeyen





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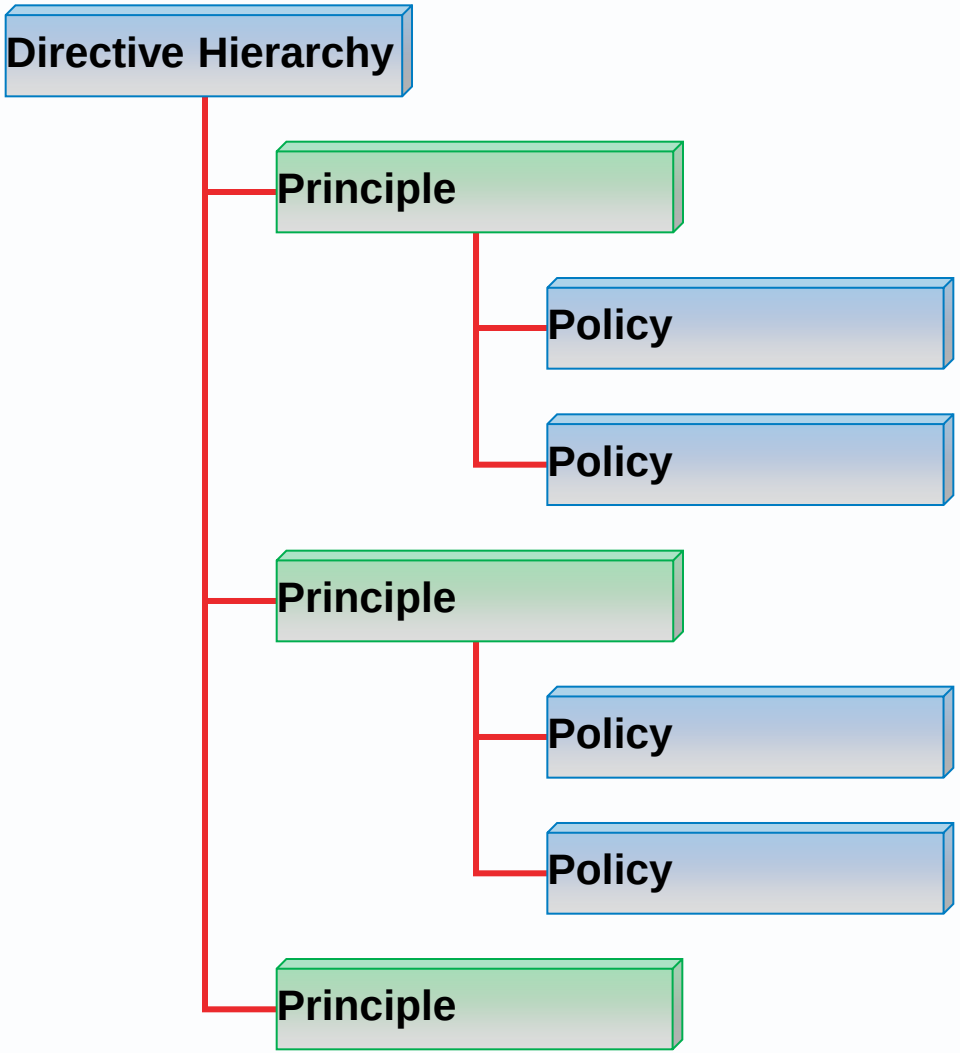
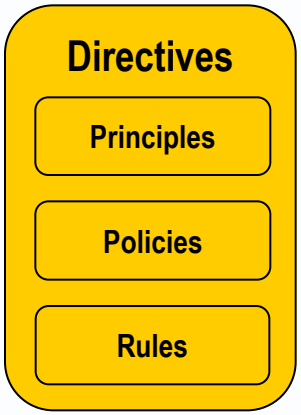
Directives catalogue: a structure





- A hierarchical structure may prove helpful
- But generally speaking, a lower level policy may support several higher level principles

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Goal or requirements traceability matrix

- Which solution elements are needed to test a requirement has been met?
- Are any requirements not addressed? Any solution elements not needed?

Solution items / Requirements	Business Intelligence	Sales mobile device	CRM	Requirements that have no solution
Faster Ordering		Satisfied by		
Remote Working		Satisfied by		
Better Forecasts	Satisfied by			
Lower Sale Cost				No solution
Solution items that have no requirement			No requirement	

- The cells could refer to test cases needed.
- Note that in test-driven development you map requirements to test cases, and test cases to solution components.

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TOGAF Phase A: Diagrams

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TOGAF/AM Vision diagrams	ArchiMate equivalent
Value Chain	**example by Pieter Van Ostaeyen**
Solution Concept/ Vision	

Contents

- Value Chain/Stream diagram
- Solution Concept/Vision diagram
- Context diagram
- Business process map diagram
- Business Footprint diagram

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Value Chain/Stream diagram

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- **Value Chain/Stream diagram**
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Value Chain diagram

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- provides a high-level orientation view of an enterprise and how it interacts with the outside world.
- focuses on presentational impact.

- to quickly on-board and align stakeholders for a particular change initiative,
- so that all participants understand the high-level functional and organizational context of the architecture engagement.

- ALL TEXT IN GREY IS EDITED FROM
- TOGAF 9.1 CHAPTER 35 ARCHITECTURE ARTEFACTS

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The IT value chain

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- From TOG IT4IT standard

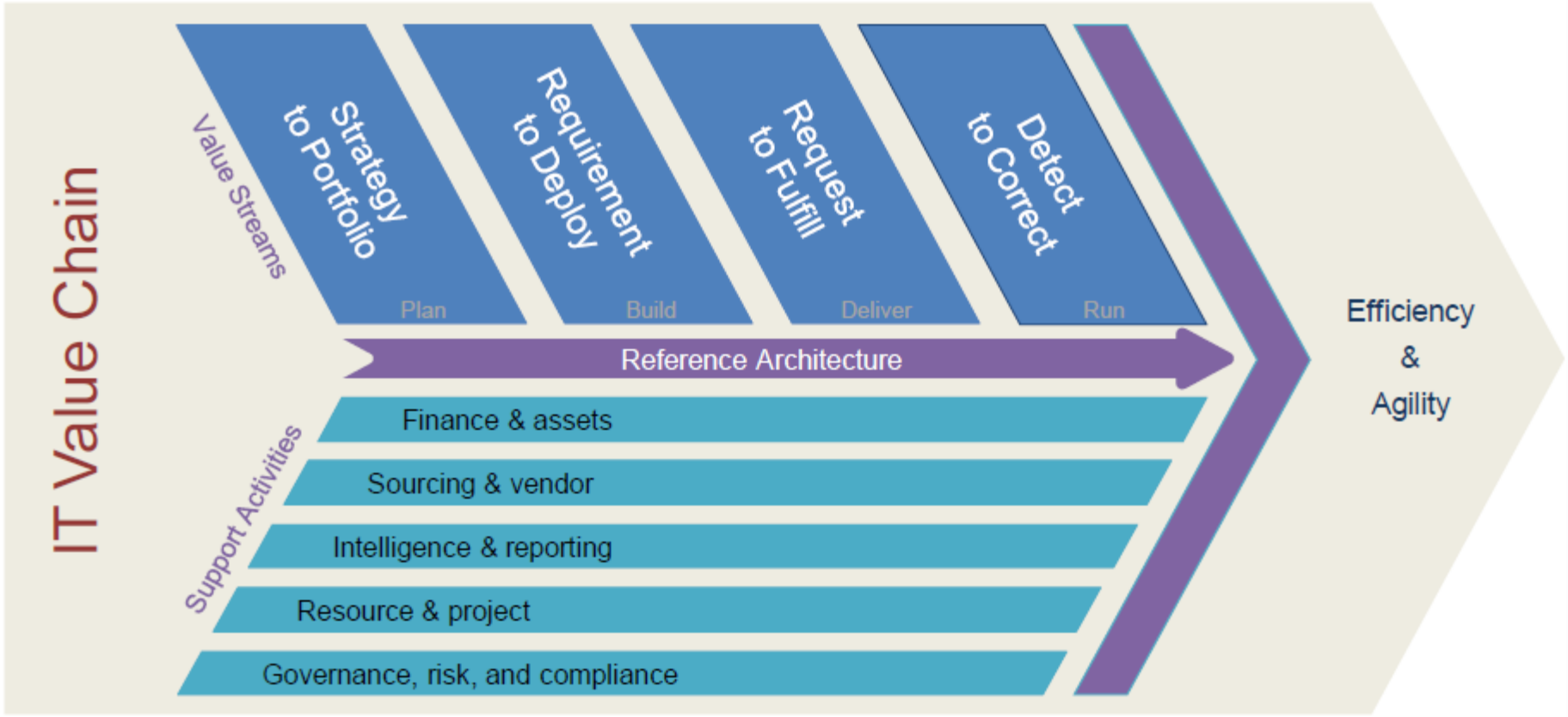

Figure 1: IT Value Chain

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Value Chain diagram as a “conceptual reference architecture”

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- From TOG “World Class EA” paper

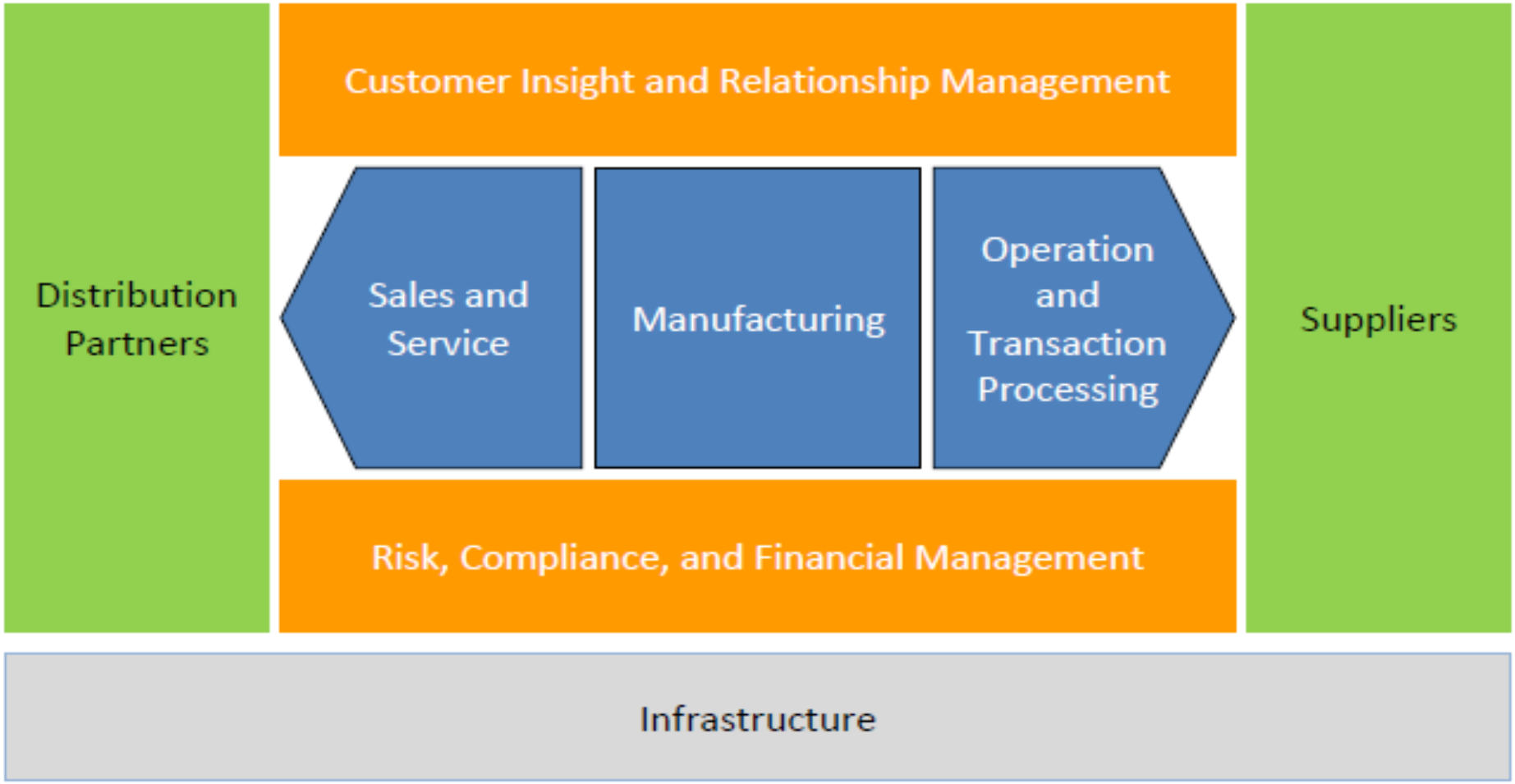

Figure 3: Conceptual Reference Architecture

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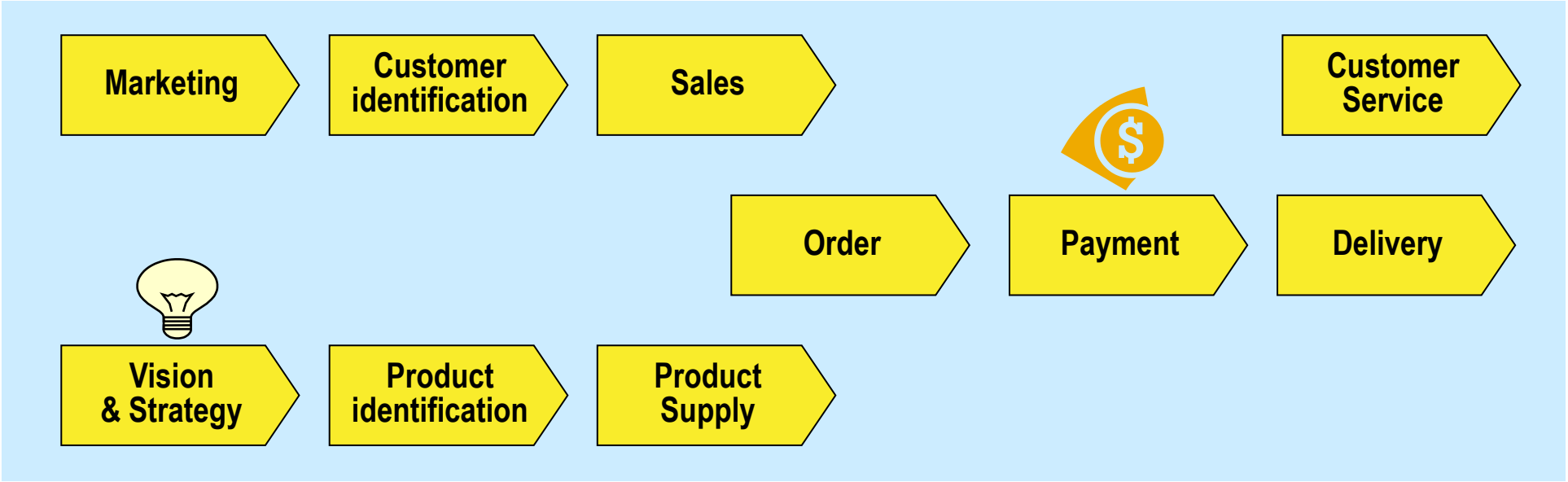
Value Chain/Stream diagram: an illustration

- Less formal than a flow chart with step-to-step transitions.
- You may draw a cartoon instead.



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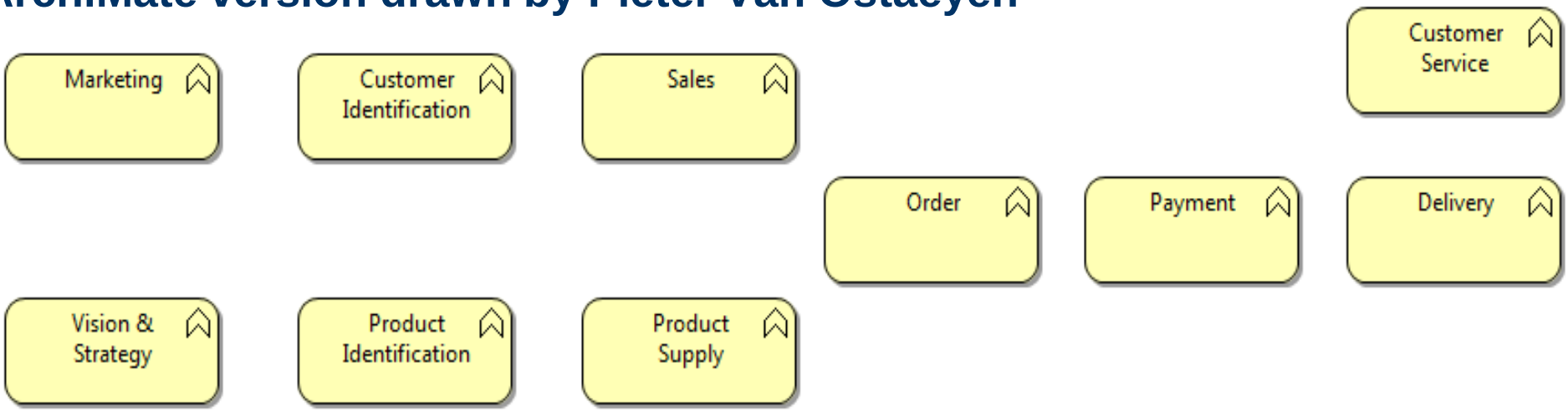
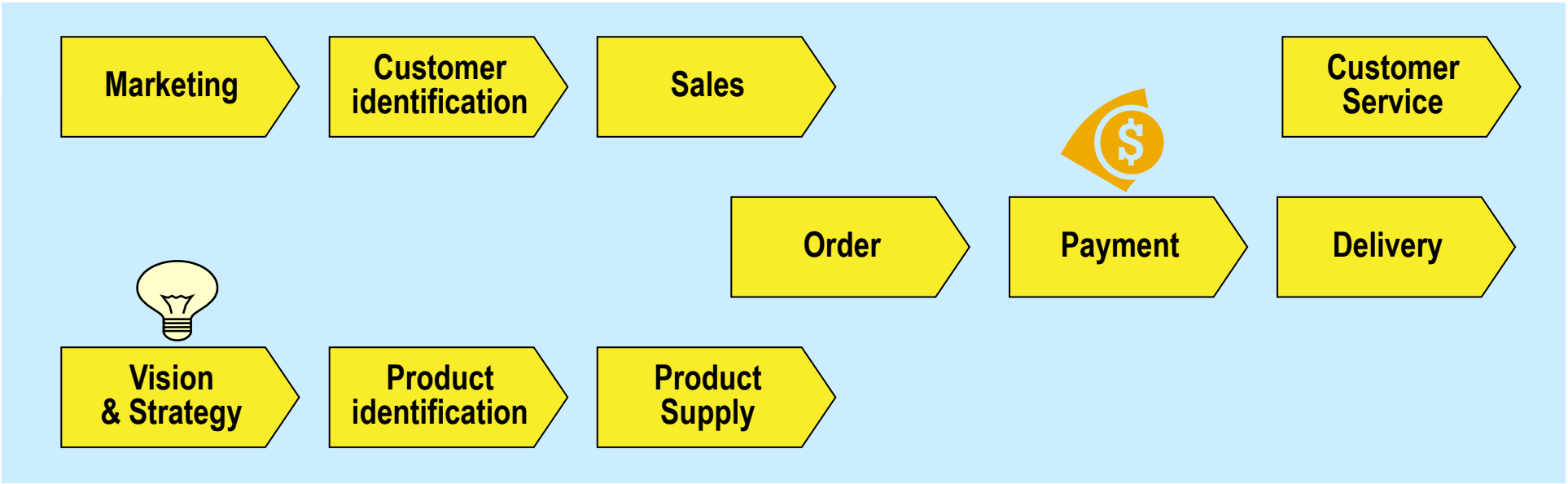
ArchiMate version drawn by Pieter Van Ostaeyen





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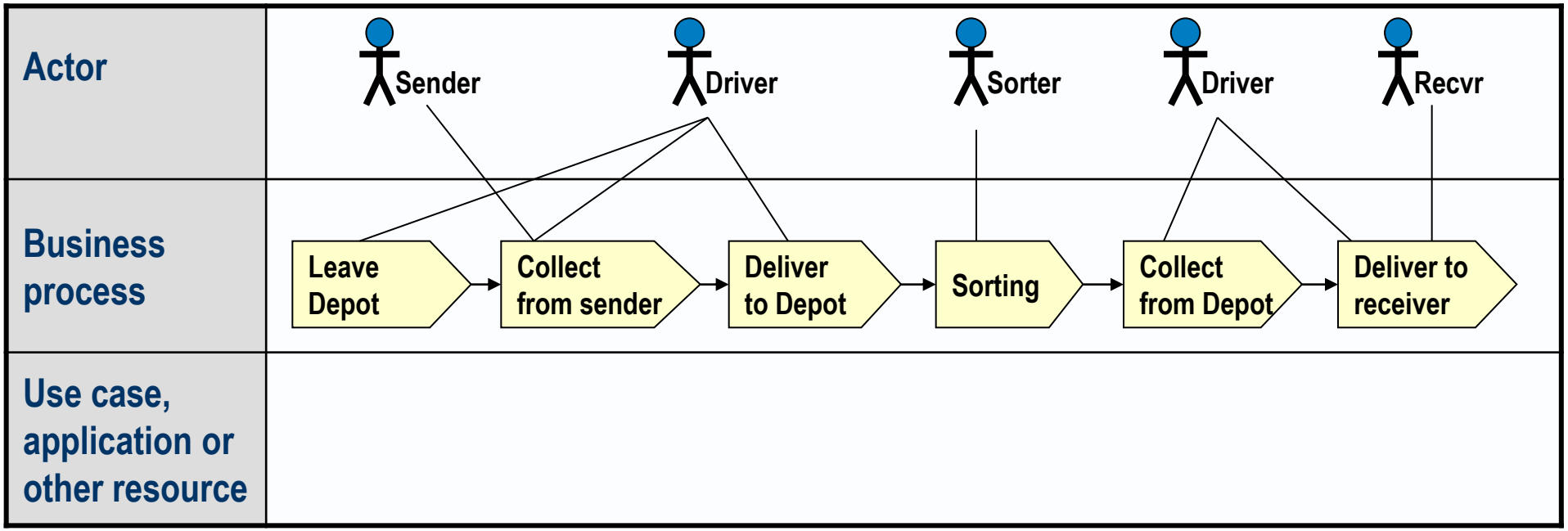
Solution-level value stream diagram

- Actors should be Roles, but people prefer the Actor symbol



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Solution-level value stream diagram

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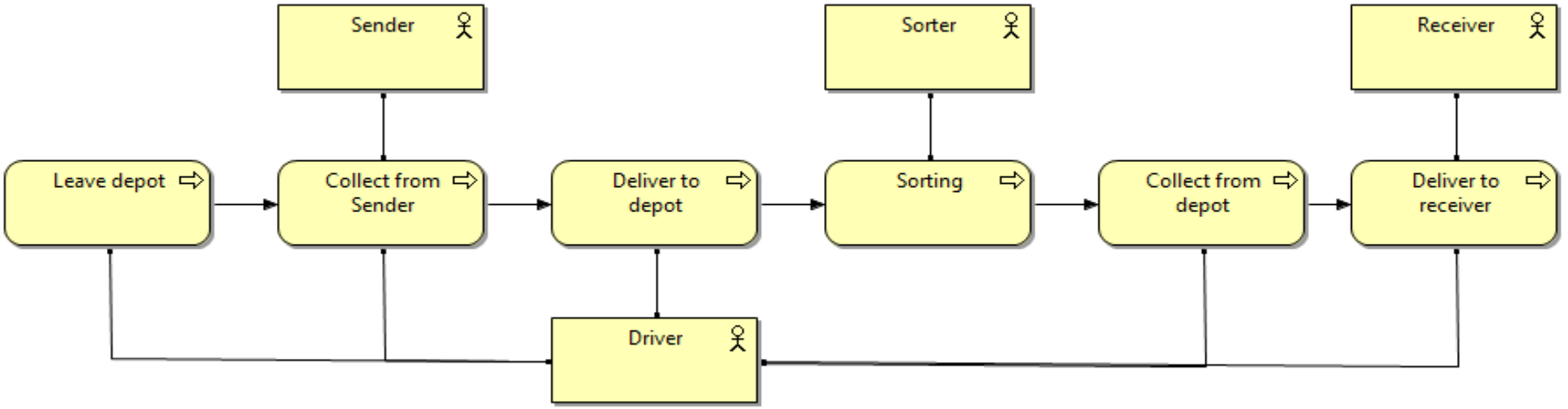

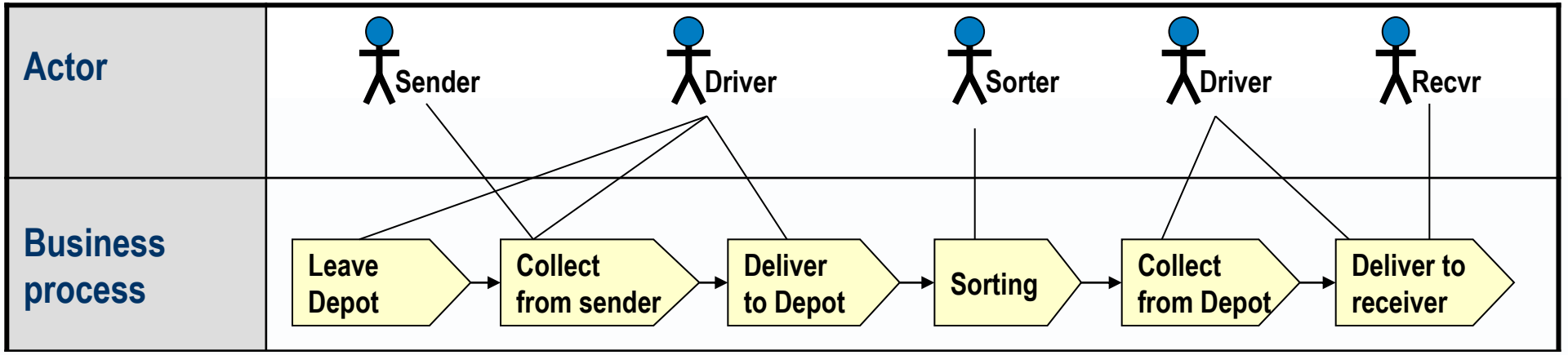

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Solution Concept/Vision diagram

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- Value Chain/Stream diagram
- **Solution Concept/Vision diagram**
- Context diagram
- Business process map diagram
- Business Footprint diagram

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TOGAF: Solution Concept/ Vision diagram

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- What is a proposed solution; what does it do?
- Should be an engaging summary description.

- TOGAF says
  - Provides high-level orientation of solution that is envisaged in order to meet objectives of architecture engagement
    - "Pencil sketch" of expected solution at outset of engagement
  - This diagram may
    - Embody key objectives, requirements, and constraints
    - Highlight work areas to be investigated in more detail
  - Objective
    - Gain stakeholder support for a particular change initiative
    - All participants understand
      - What the architecture engagement is seeking to achieve
      - How a particular solution approach will meet the needs of the enterprise

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Solution Concept/Vision diagram: MODAF style

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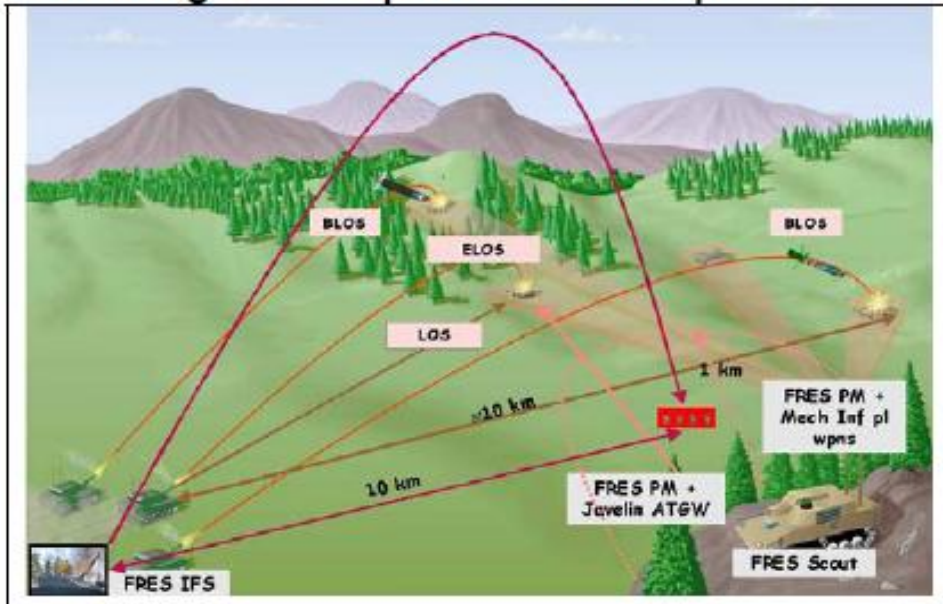
- Based around a “rich picture” or cartoon

OV-1a High Level Operational Concept



Example – FRES scenario

Data objects:
All business objects of interest, including:

Nodes, Systems, Organisations, Information Flows, Environmental context objects

Usage:
Contextual articulation of an operational situation or scenario
Tool for discussion and presentation; for example, aids industry engagement in acquisition

Description:
Graphical representation of a scenario or use-case as a set of business objects and interconnectivity in a contextual battlespace environment.

Alternative Views:
No UML equivalent

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Solution Concept/ Vision diagram: rich picture

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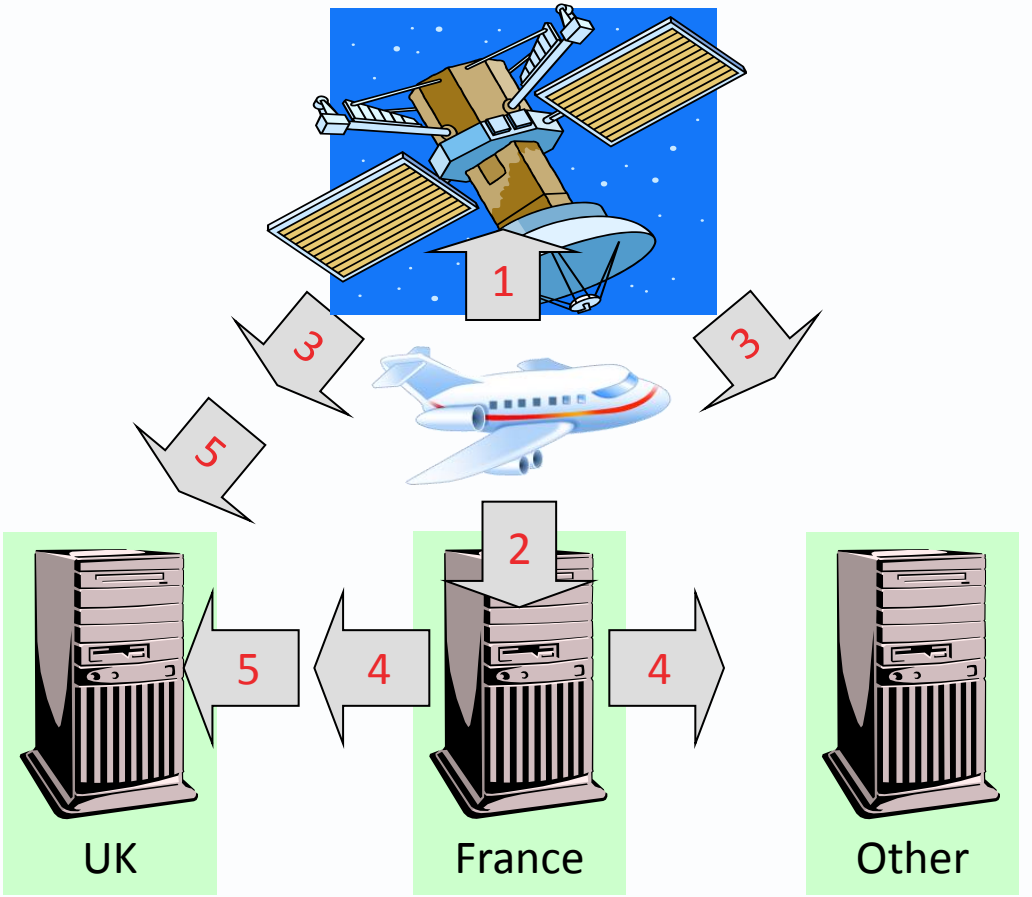
Problem: how to maintain integrity of airplane position data?

1. Airplane sends time-stamped airplane/position message to satellite
2. Airplane also sends time-stamped airplane/position message to data centre (e.g. France) of controller responsible for current air space
3. Satellite forwards the airplane/position message to UK and others
4. France forwards the airplane/position message to UK and others
5. UK receives messages
6. UK replaces airplane/position record *if time stamp of message is later than time stamp of message last processed*



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Context diagram

- Value Chain/Stream diagram
- Solution Concept/Vision diagram
- **Context diagram**
- Business process map diagram
- Business Footprint diagram

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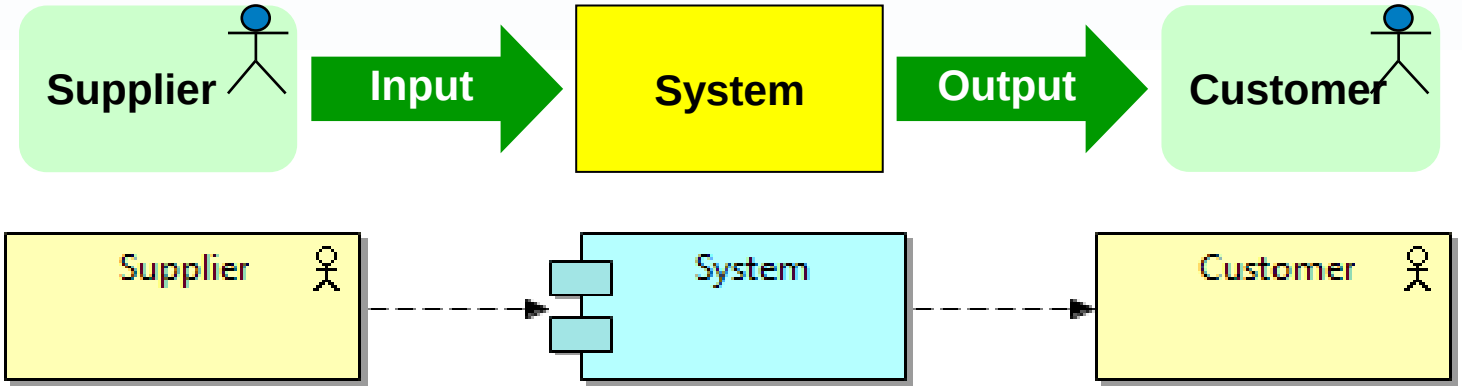
Context diagram

- What is the scope of a system?
- What goods, service or data flows are input and output?
- What external entities supply inputs or consume outputs?



- Shows why the system exists
  - the system that is the focus of design
  - the external entities, inputs and outputs around the boundary.
- Does not show what the system is made of
  - parts or components are hidden from view

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Context diagram (ArchiMate style)

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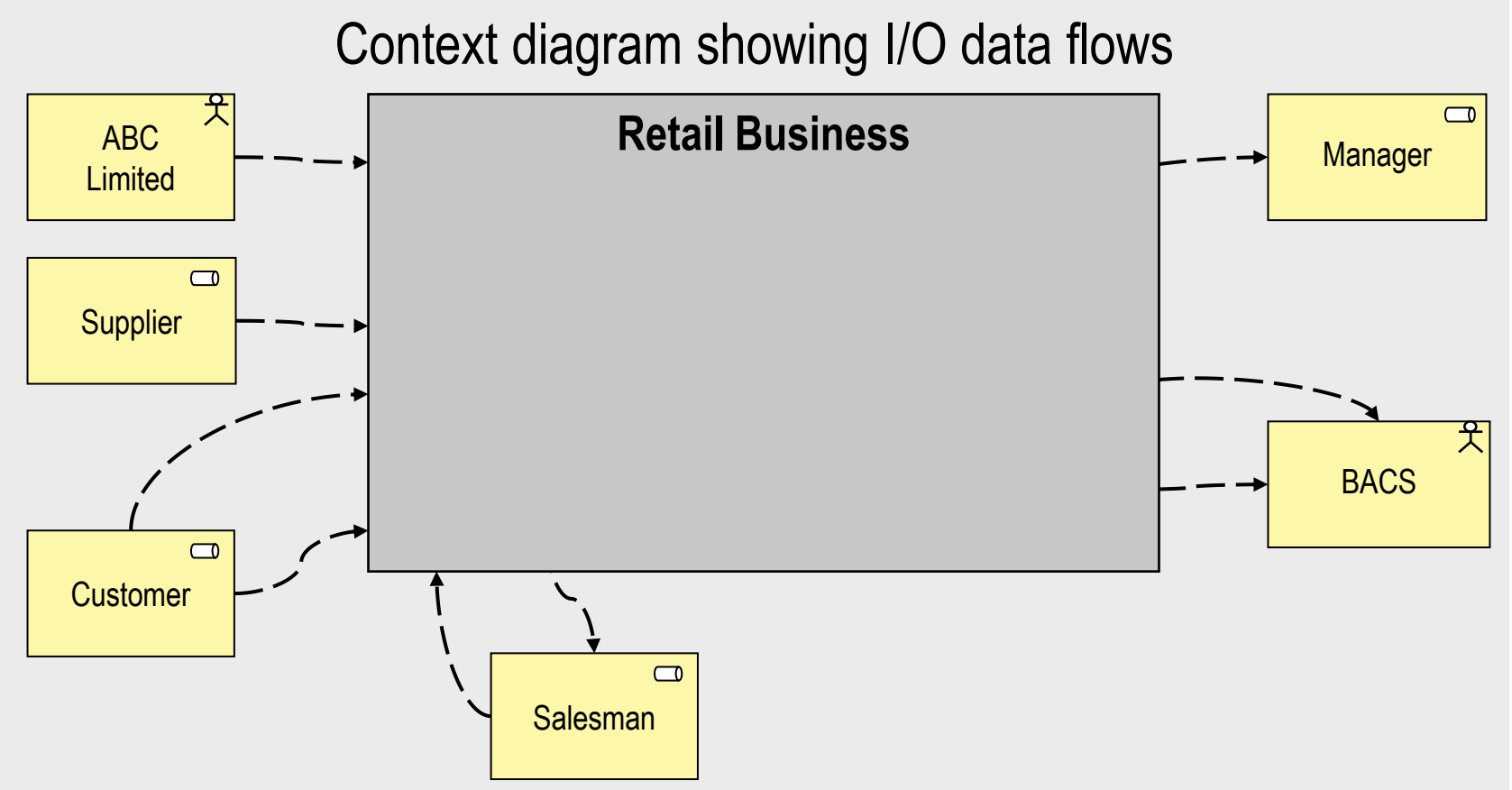
Flow (materials or data)

Role (type)

Actor (individual)



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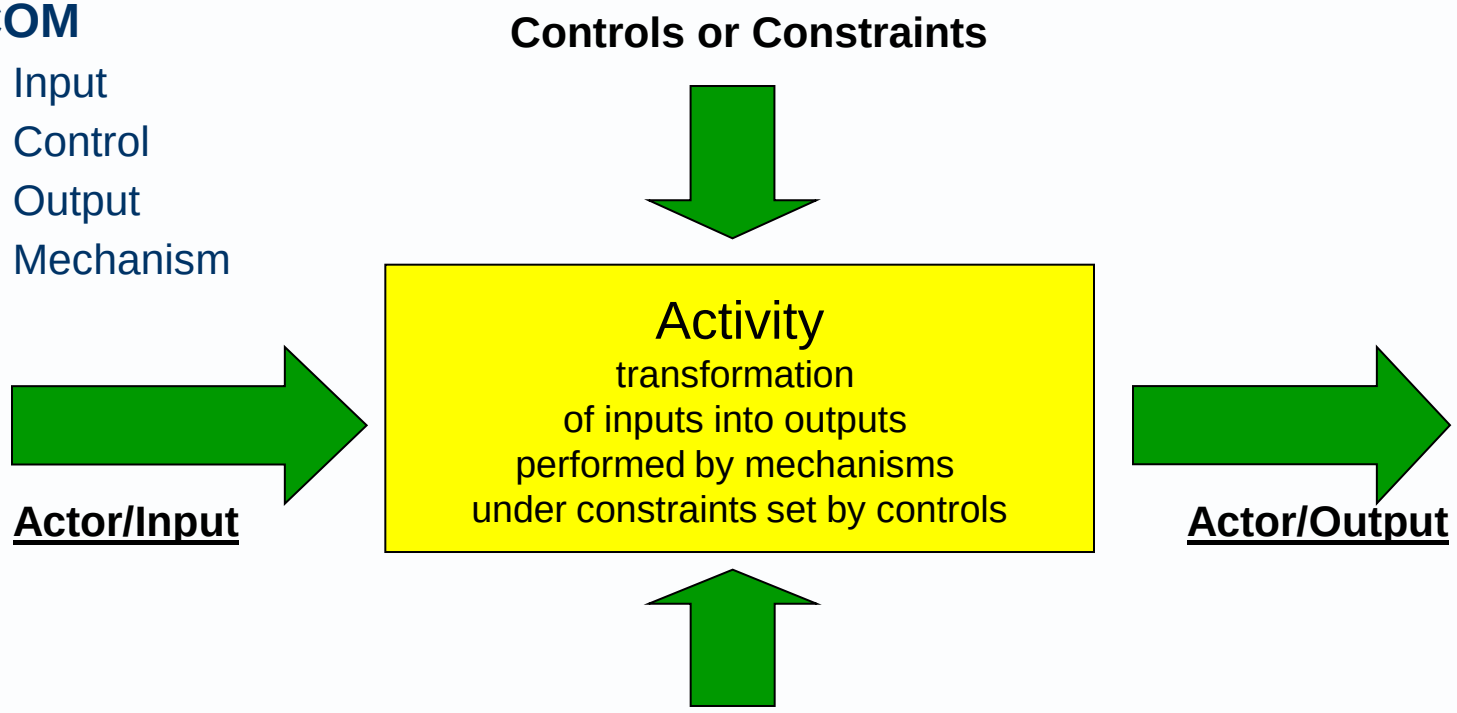
Context diagram: IDEF style

- **ICOM**
  - Input
  - Control
  - Output
  - Mechanism



- **Cf. SIPOC**
  - Supplier
  - Input
  - Process
  - Output
  - Customer

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Business process map diagram

- Value Chain/Stream diagram
- Solution Concept/Vision diagram
- Context diagram
- **Business process map diagram**
- Business Footprint diagram

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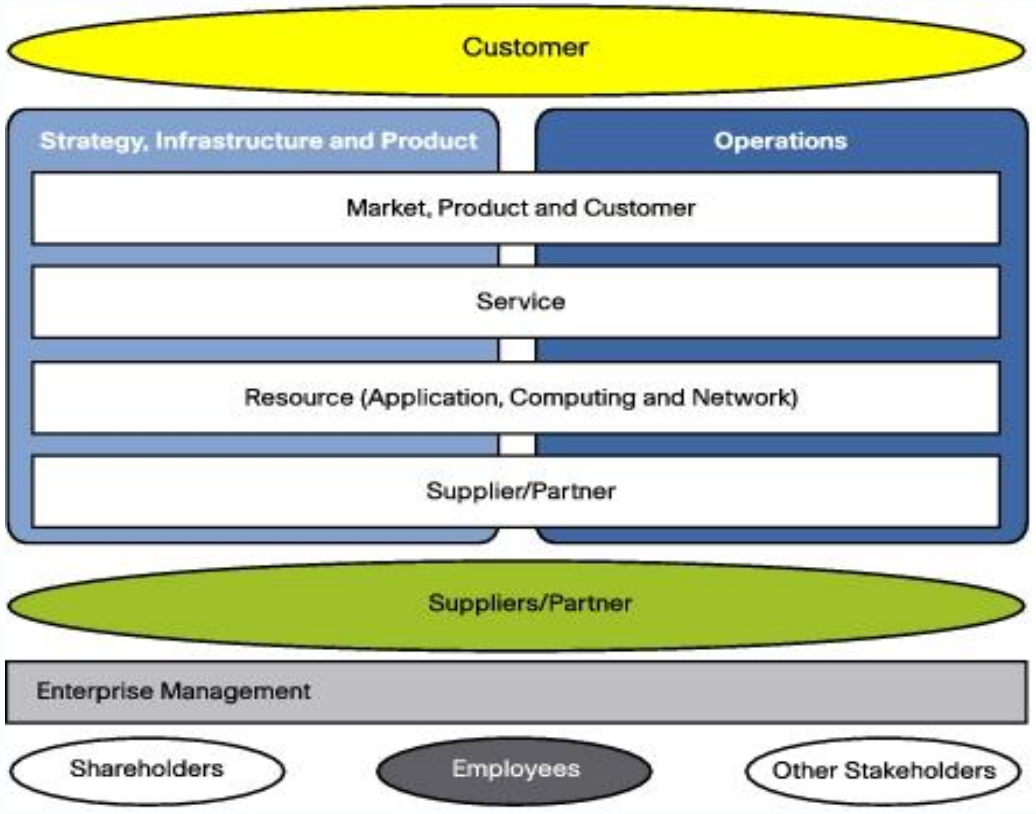
Business process map diagram

- What processes are carried out in an enterprise or system?
- A summary and ideally engaging graphical representation.

TMF eTOM
Level 0



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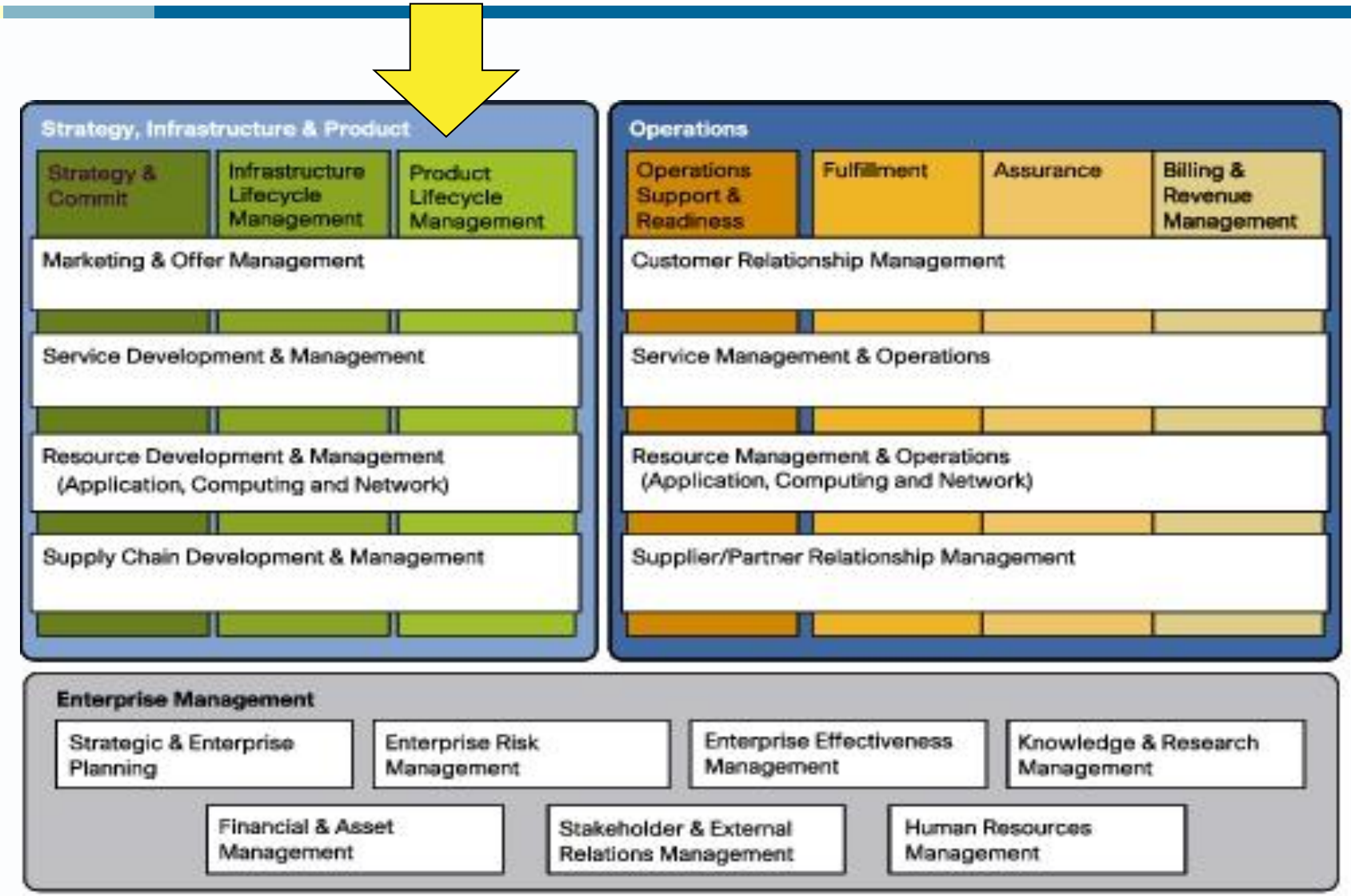
eTOM Level 1 Model (Copyright TM Forum)



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ArchiMate: Landscape Map Viewpoint

Cf. Business process map

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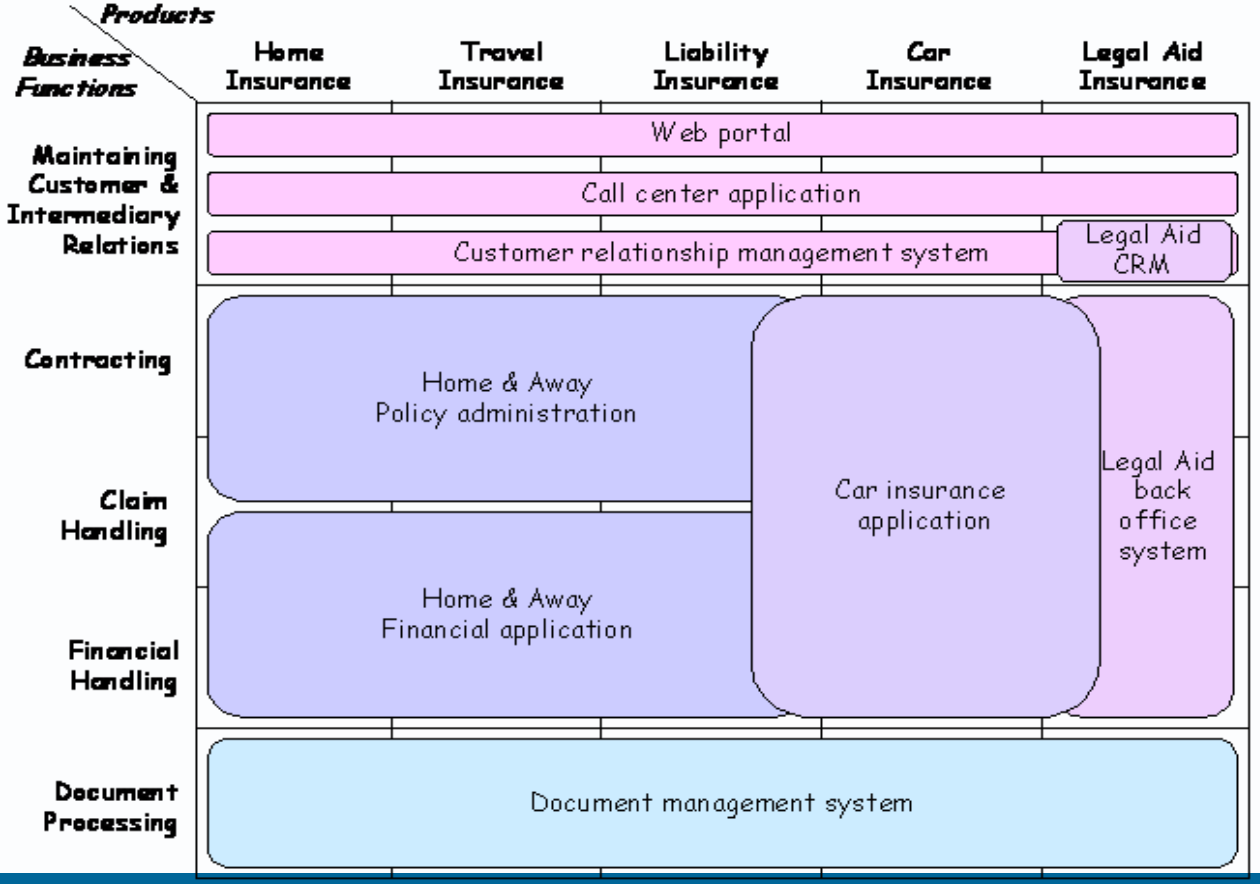
- Stakeholders: Enterprise architects, top managers: CEO, CIO
- Concerns: Readability, management and reduction of complexity, comparison of alternatives



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Business process map diagram: illustration

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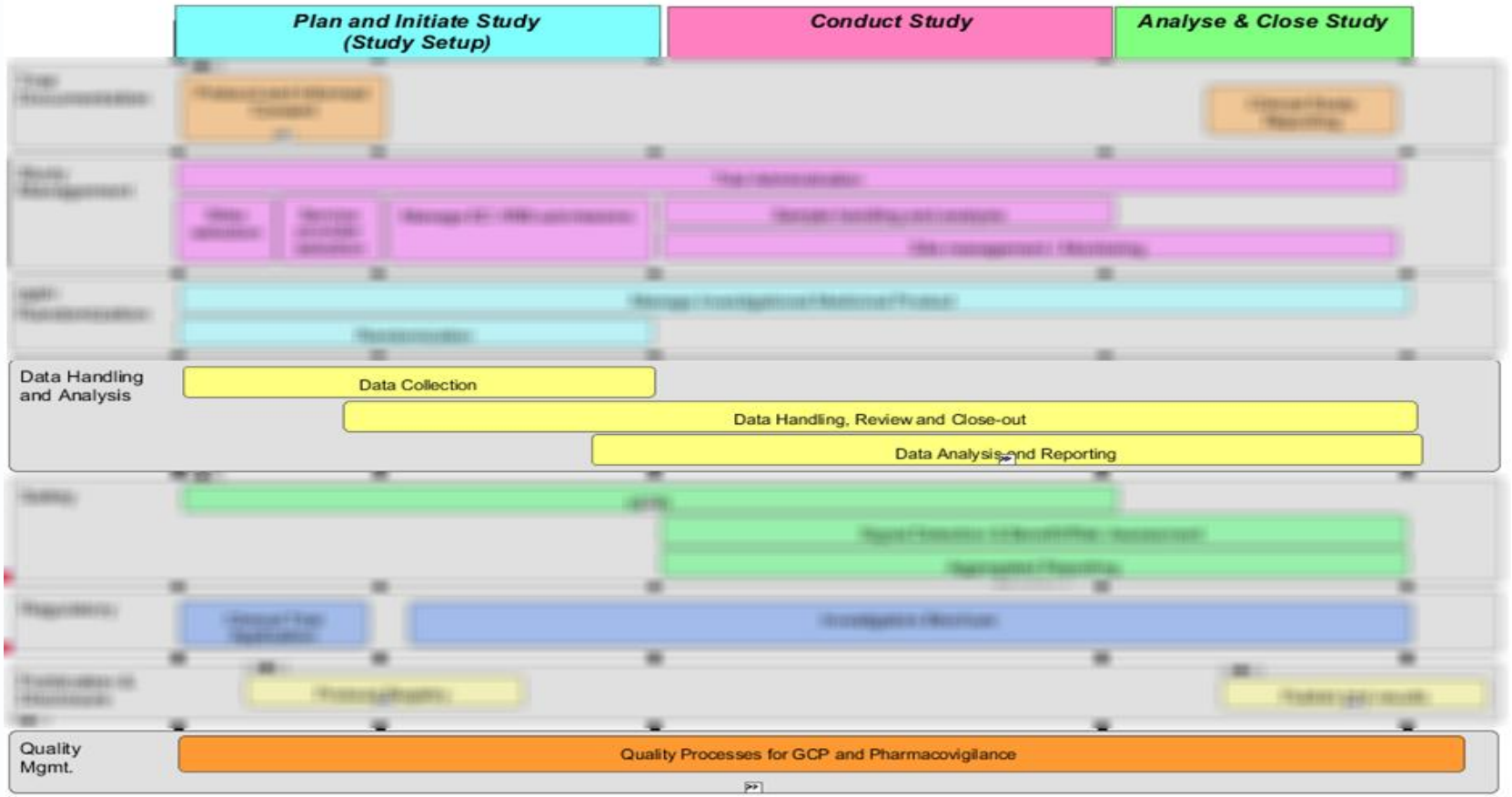
Global enterprise



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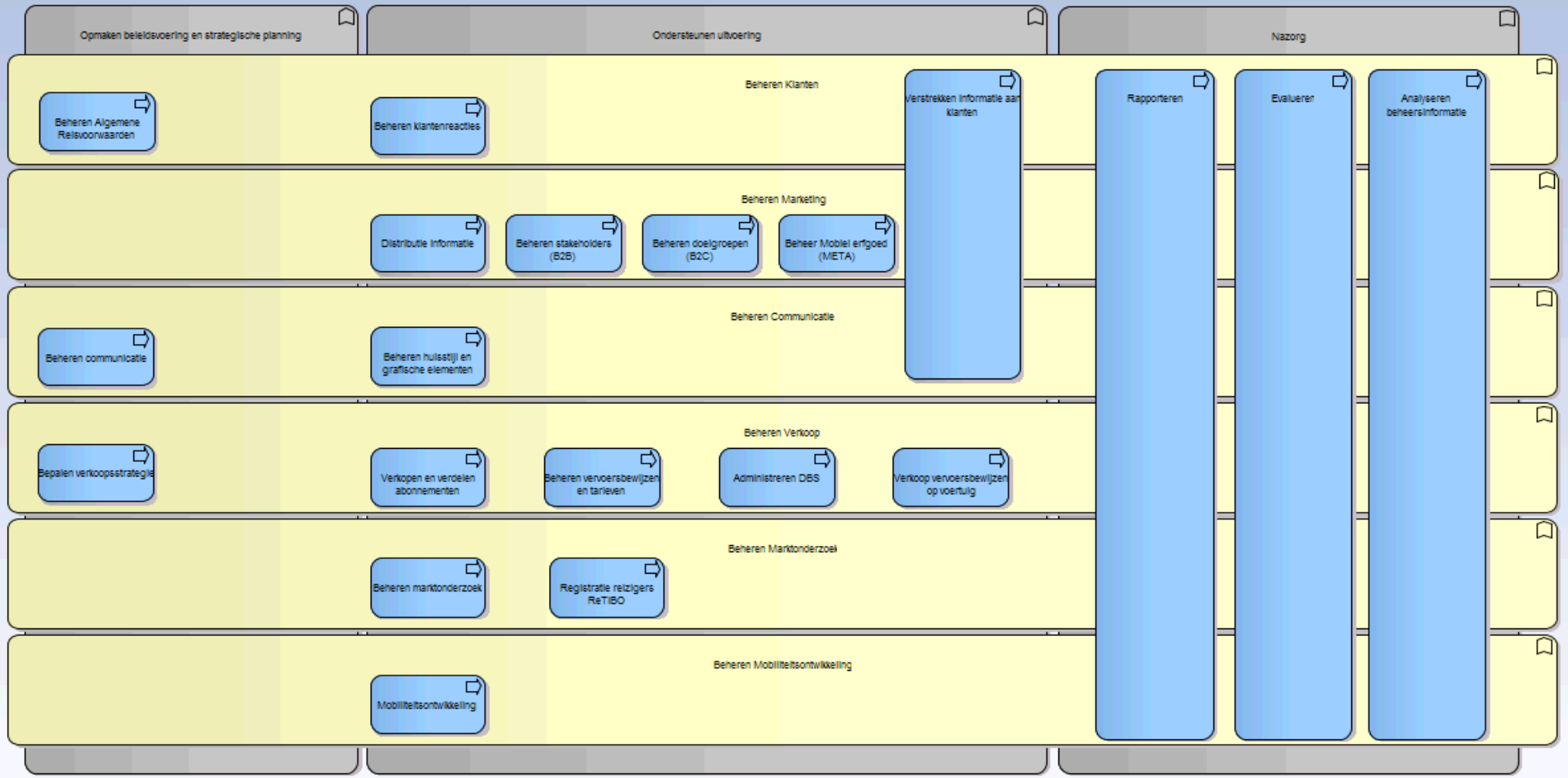

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Business Footprint diagram

- Value Chain/Stream diagram
- Solution Concept/Vision diagram
- Context diagram
- Business process map diagram
- **Business Footprint diagram**

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TOGAF: Business Footprint Diagram

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- describes the links between business goals, organizational units, business functions, and services,
- maps these functions to the technical components delivering the required capability.

- provides a clear traceability between a technical component and the business goal that it satisfies
- demonstrates ownership of the services identified.

- demonstrates only the key facts linking organization unit functions to delivery services and is utilized as a communication platform for senior-level (CxO) stakeholders.

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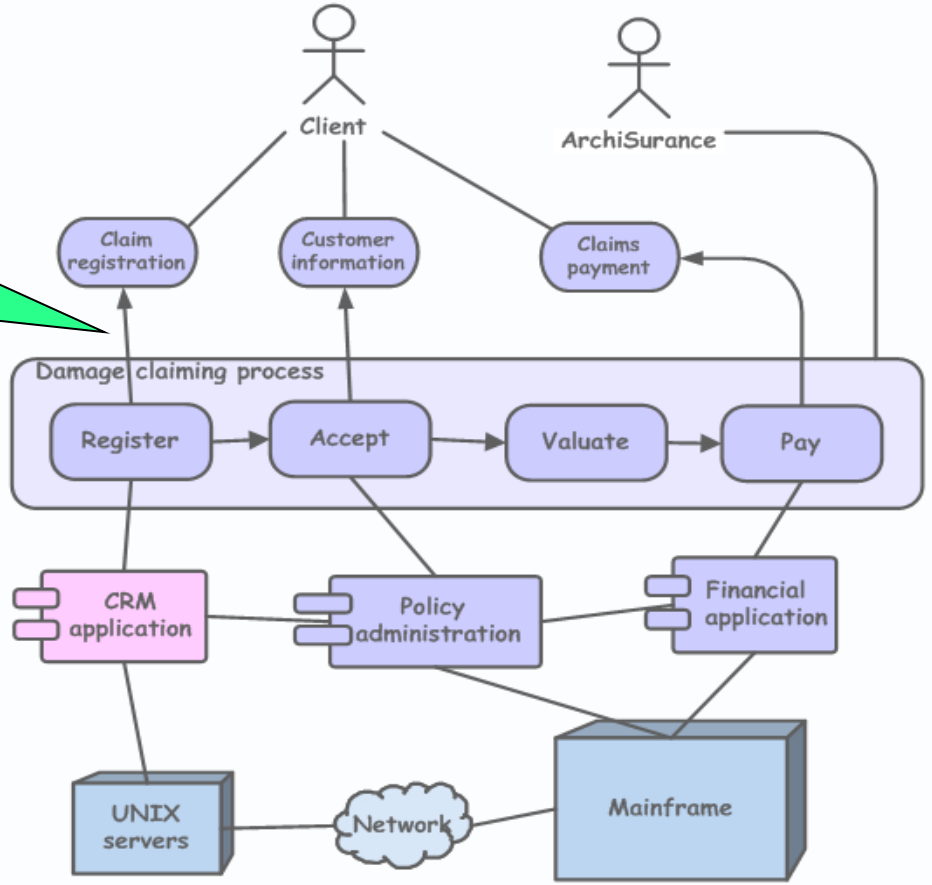
ArchiMate: Introductory Viewpoint

Cf. Business footprint diagram

- Stakeholders: Enterprise architects, managers
- Concerns: Make design choices visible, convince stakeholders

Note this arrow does not have the proper ArchiMate meaning, so the diagram is a cartoon



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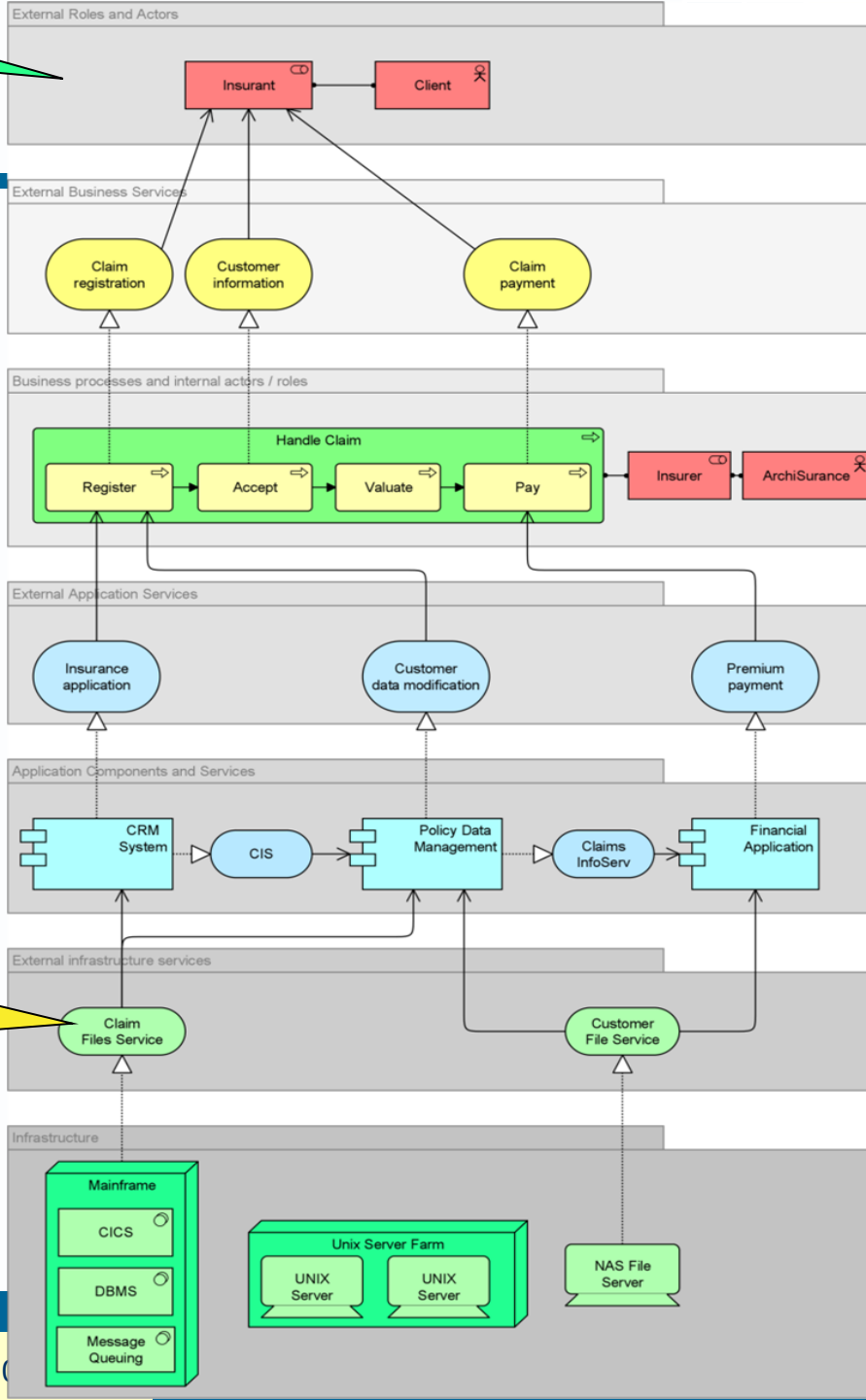
Cf. Business footprint diagram

ArchiMate: Layered Viewpoint

- Stakeholders: Enterprise, process, application, infrastructure, and domain architects
- Concerns: Consistency, reduction of complexity, impact of change, flexibility



Look like application services rather than platform services

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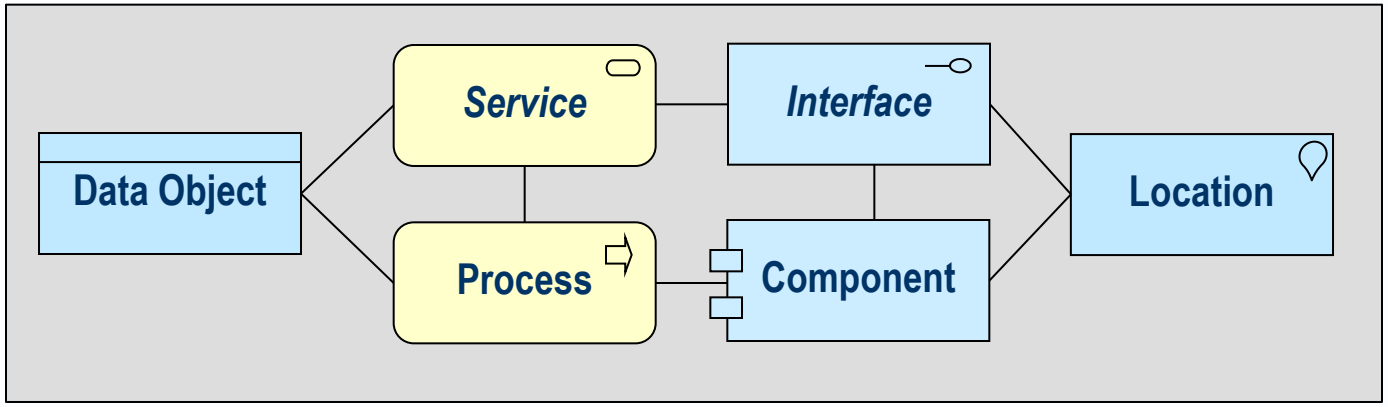
Note

- There is far from a common understanding of the four concepts at the heart of this diagram: process, service, component and interface



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Avancier Methods

- **Avancier Methods** can be used on their own
- and/or to supplement any architecture framework that shares similar domains and entities

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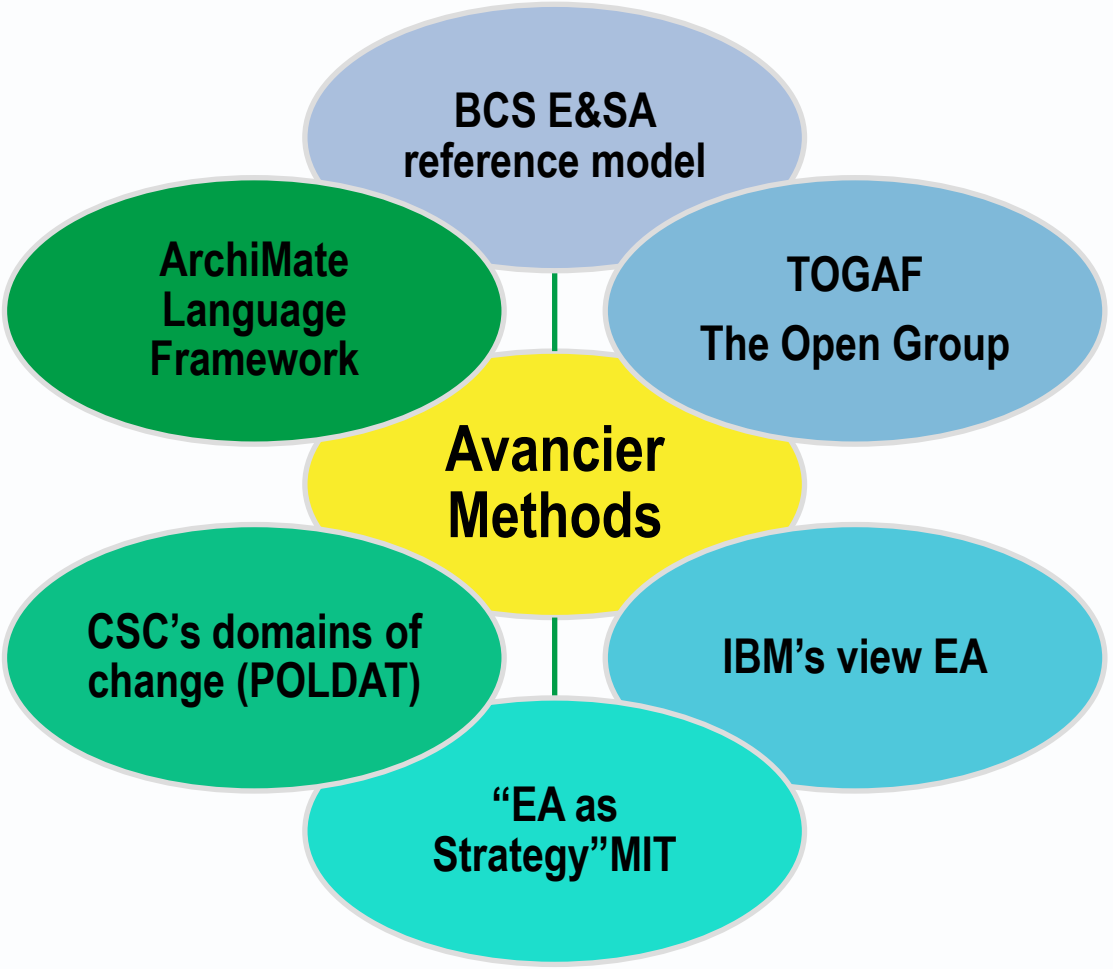

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