Strategy & Enterprise Architecture

What we have learned so far

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University of Namur

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Career Summary

- Labnaf
- YPTO (Railroad) - BE
- Brussels Airlines - BE
- Deutsche Bank – UK
- Deutsche Bank – BE
- Microsoft/Unisys Alliance – USA
- Unisys - BE
- Comedia – BE
- Ariane II - BE
- SWIFT - BE
- Borland – USA
- CPU2I - FR
- UCB - BE

Expertise Summary

Enabling

- Language Engineering
- Method Engineering
- Tool Engineering
- Modeling Coach

Applying

- Strategy
- Enterprise Architecture
- Solution Architecture
- Analysis, Design & Implementation
- Pharmaceutical, Cinema, Legal, Banking, Transportation…

Alain Garsoux

Career Summary

- Enterprise Architect @ KBC
- Enterprise Architect @ NMBS/SNCB IT (Ypto)
- Enterprise Architect @ ING
- Solution Architect @ ING BE, Finance & Risk.
- Team Leader @ ING BE
- Portfolio Manager @ ING BE, Finance & Risk
- Business Analyst @ ING BE
- Project Leader @Carrefour NV
- Account Manager @ Cognos
- Inside Sales @ Merant
- Inside Sales, Marketing @ Progress Software.

Expertise Summary

- Enterprise Architect.
  - Special attention to some value chains : IT, FMD, Finance & Risk, Procurement, Safety & Security, Station.
- People Coaching
- Business Intelligence
- Business Process

LinkedIn url

Education/ Certification

- Commercial Ingeneer (UCL - IAG)
- TOGAF 9 certified

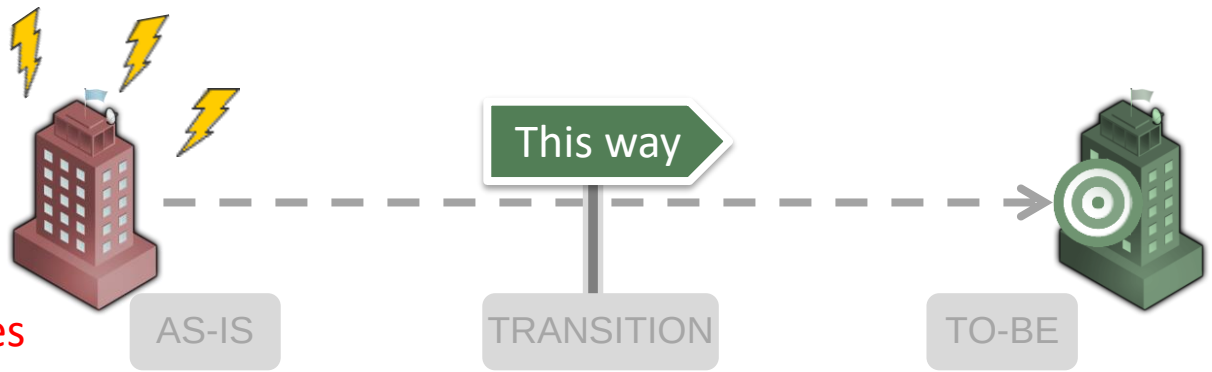
Agenda

1. Transformation Challenges
2. Architecture Framework Overview
3. Architecture Tools & Repository

Identify and drive the required changes to the organization's business and IT

Where are we today?

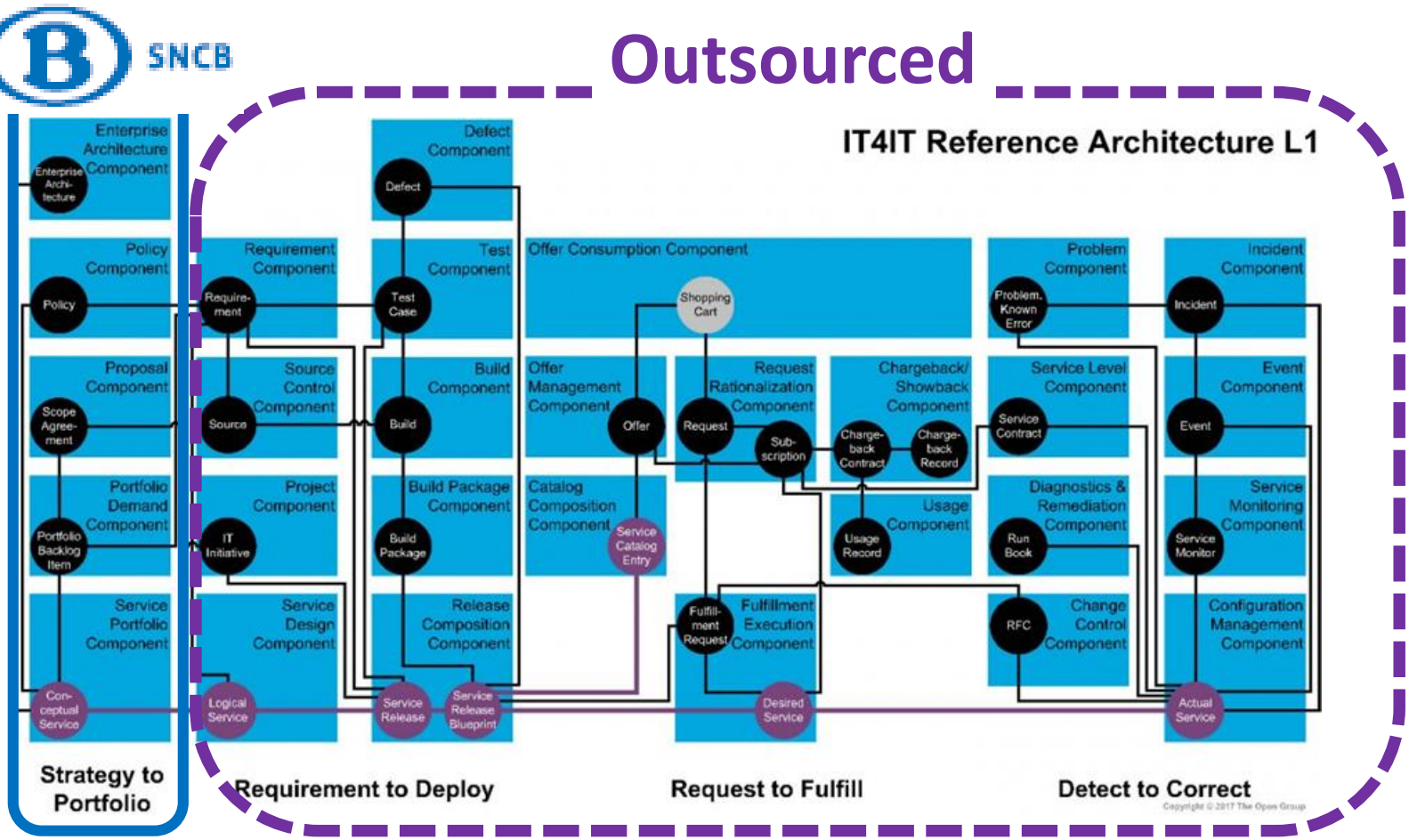
Where do we want to be in the future?



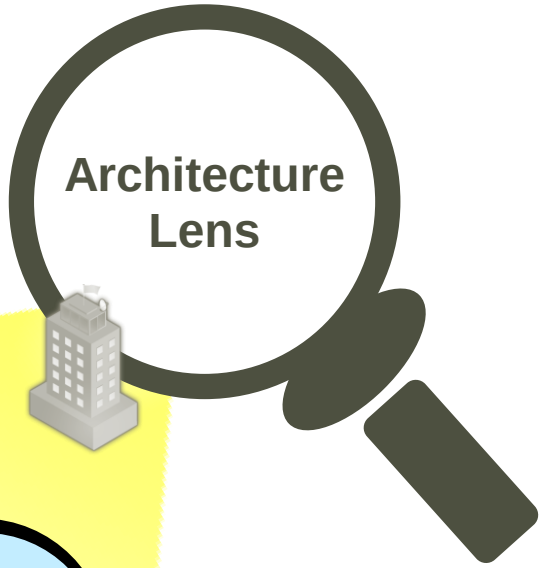
Strengths
Weaknesses
Opportunities
Threats

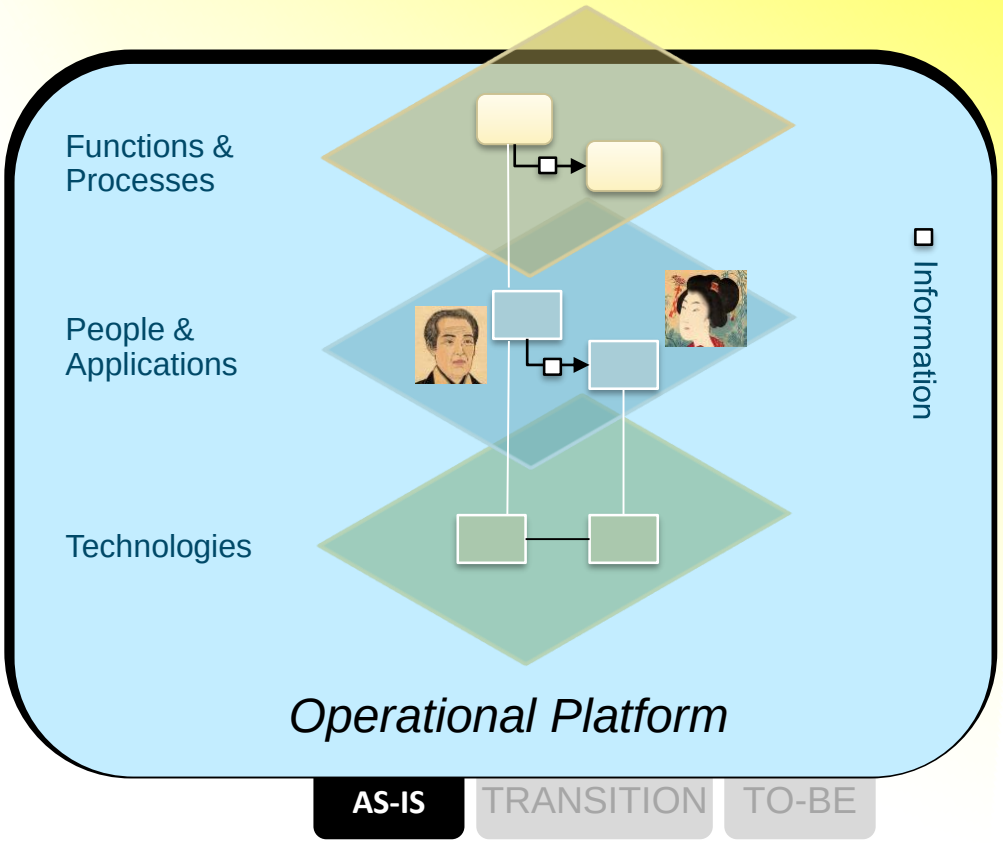
How shall we get there?

Labnaf value proposition : 1 source of information to support an outsourcing decision @ SNCB

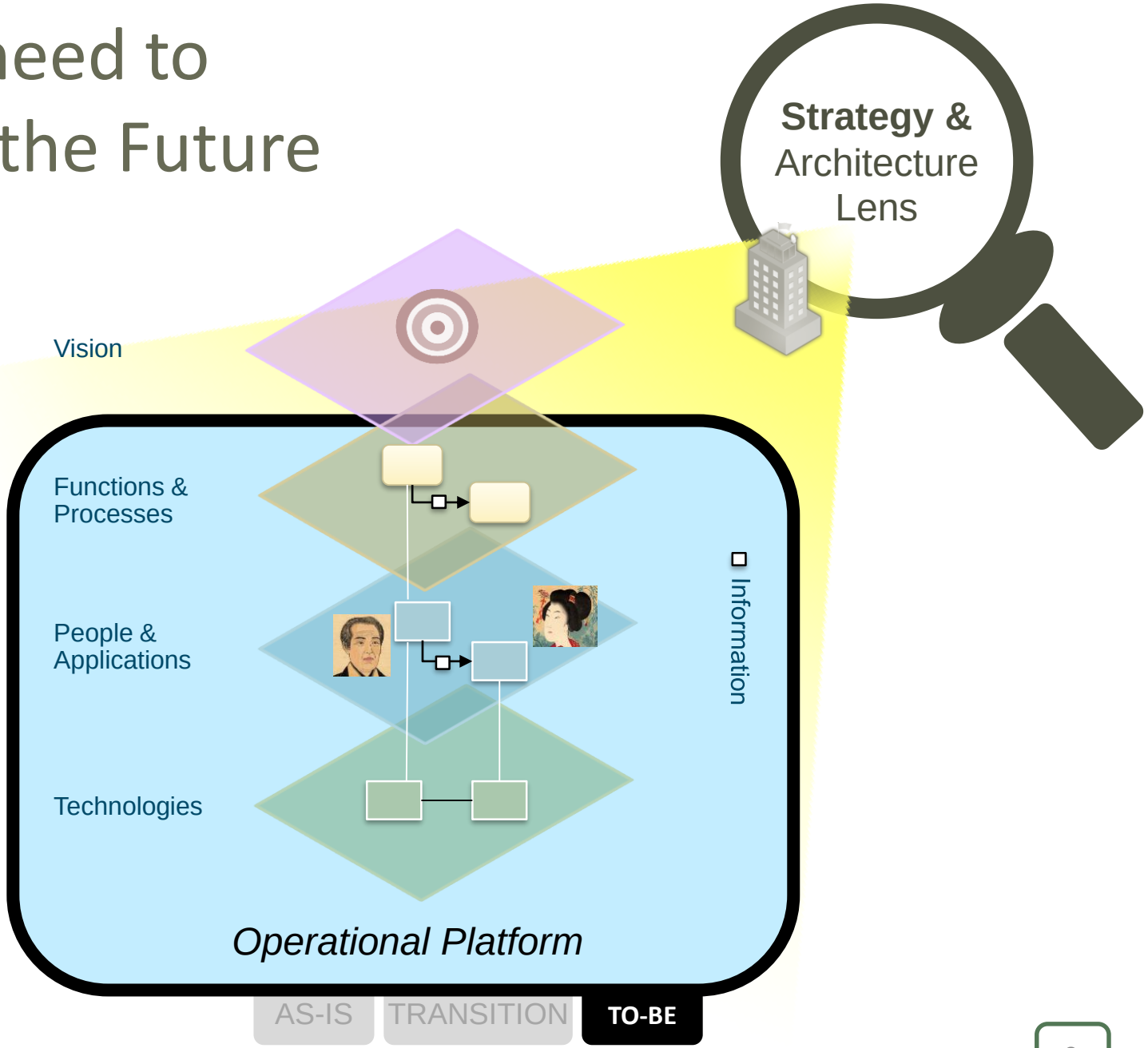


Decisions Require Visibility on Where we are Today

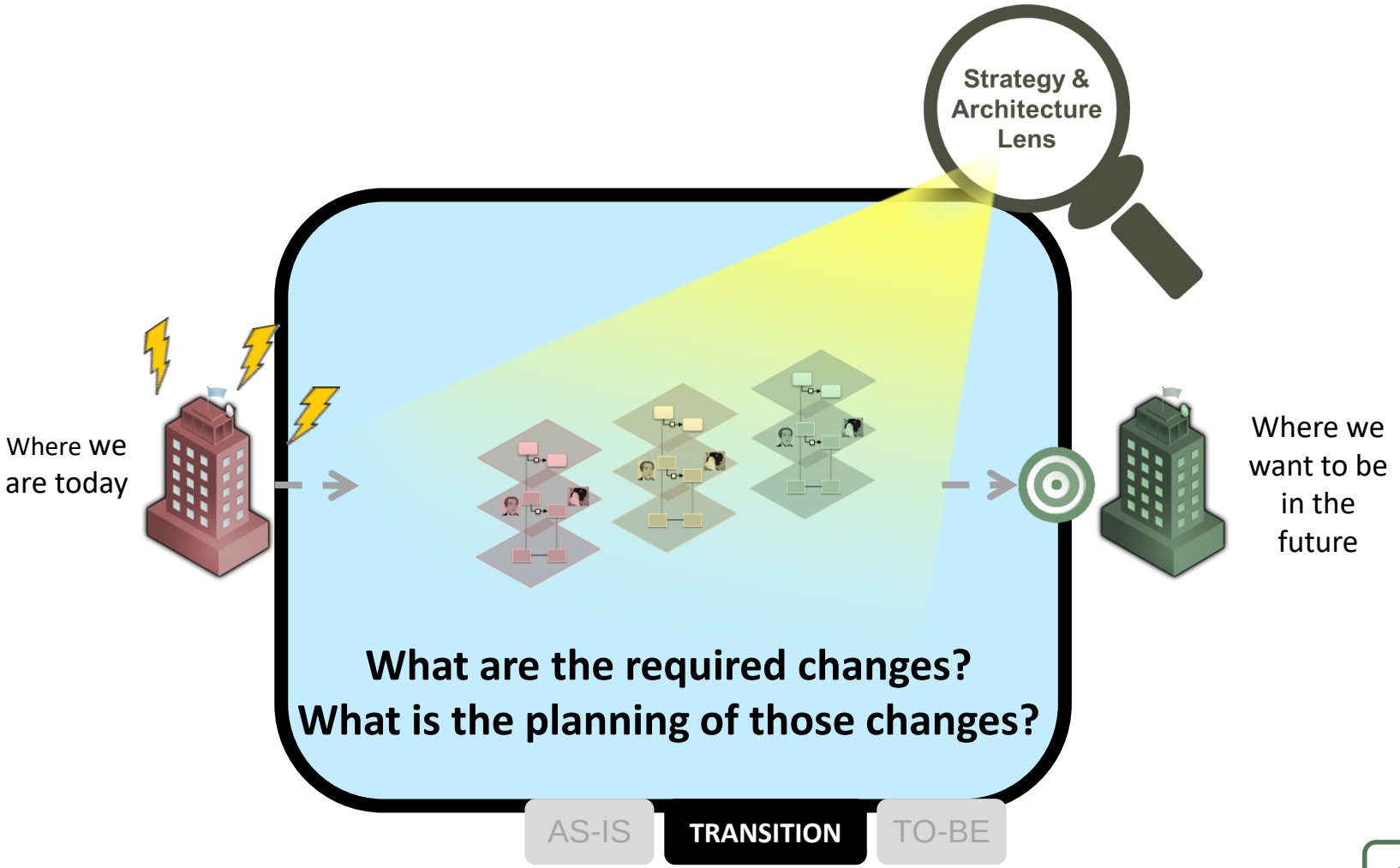




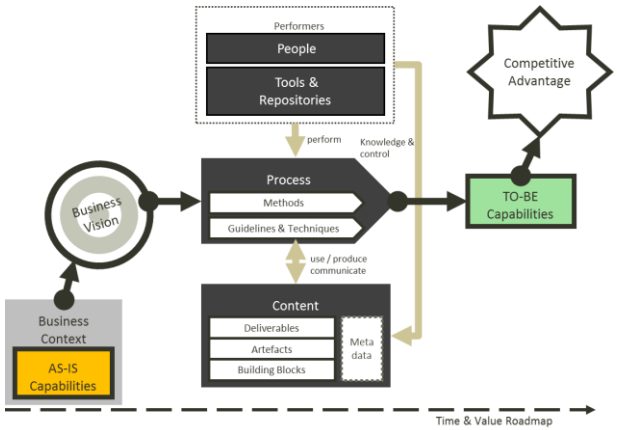
We also need to Describe the Future

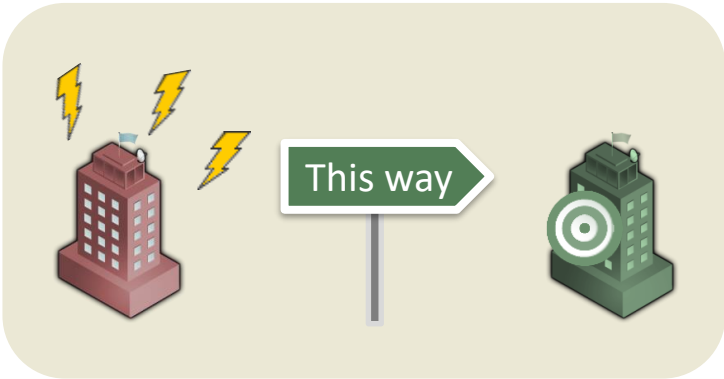


And we need to Describe the Required Changes and Planning to get there



We need a **Framework** as a vehicle to Effectively **Drive Transformations**



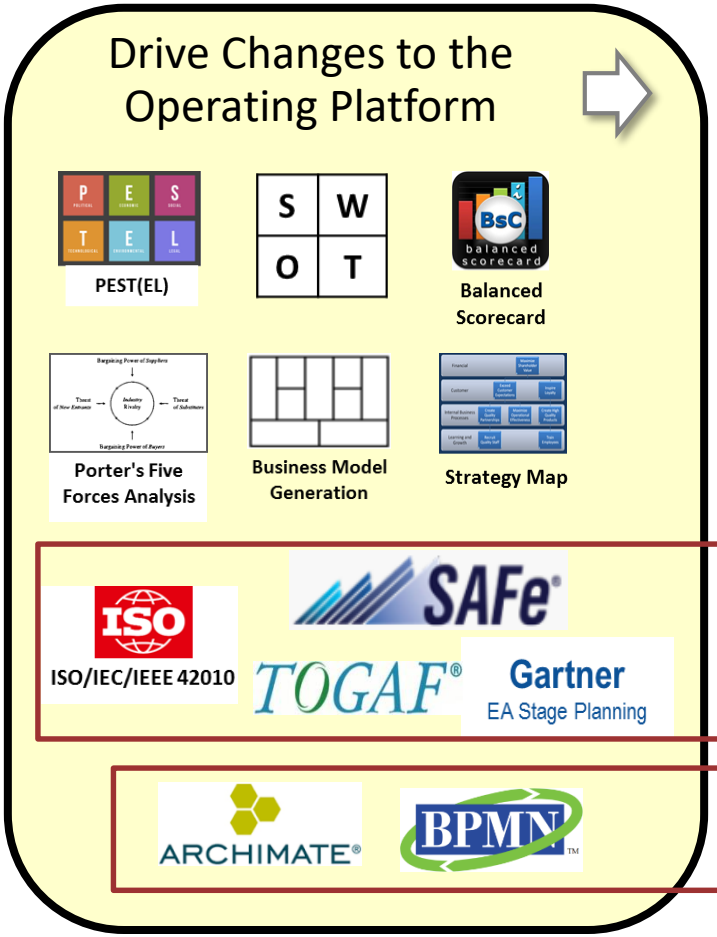


A Framework for Driving Transformations

We need a Framework for Driving Transformations…

Standards & Best Practices are very useful, but they are not actionable as a whole

Cross-discipline collaboration is not easy!



- Complementary but disconnected
- No common process
- No common metamodel
- Inconsistent terminology

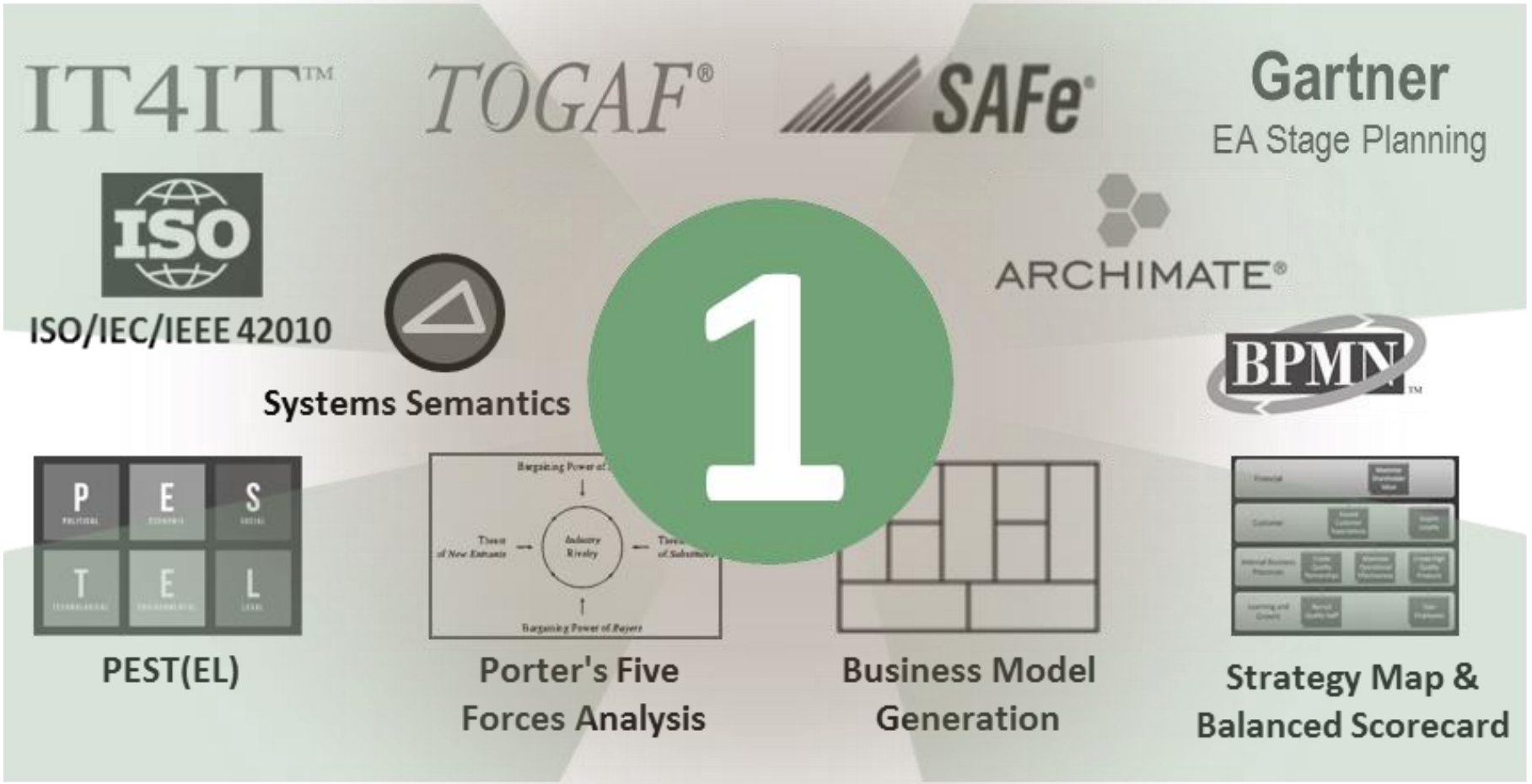
- Too high-level to be actionable out of the box

- Disconnected; Redundancies;
- Archimate: Poor Semantics; 1 level of detail

Agenda

1. Transformation Challenges
2. Architecture Framework Overview
3. Architecture Tools & Repository

Merged Standards & Best Practices



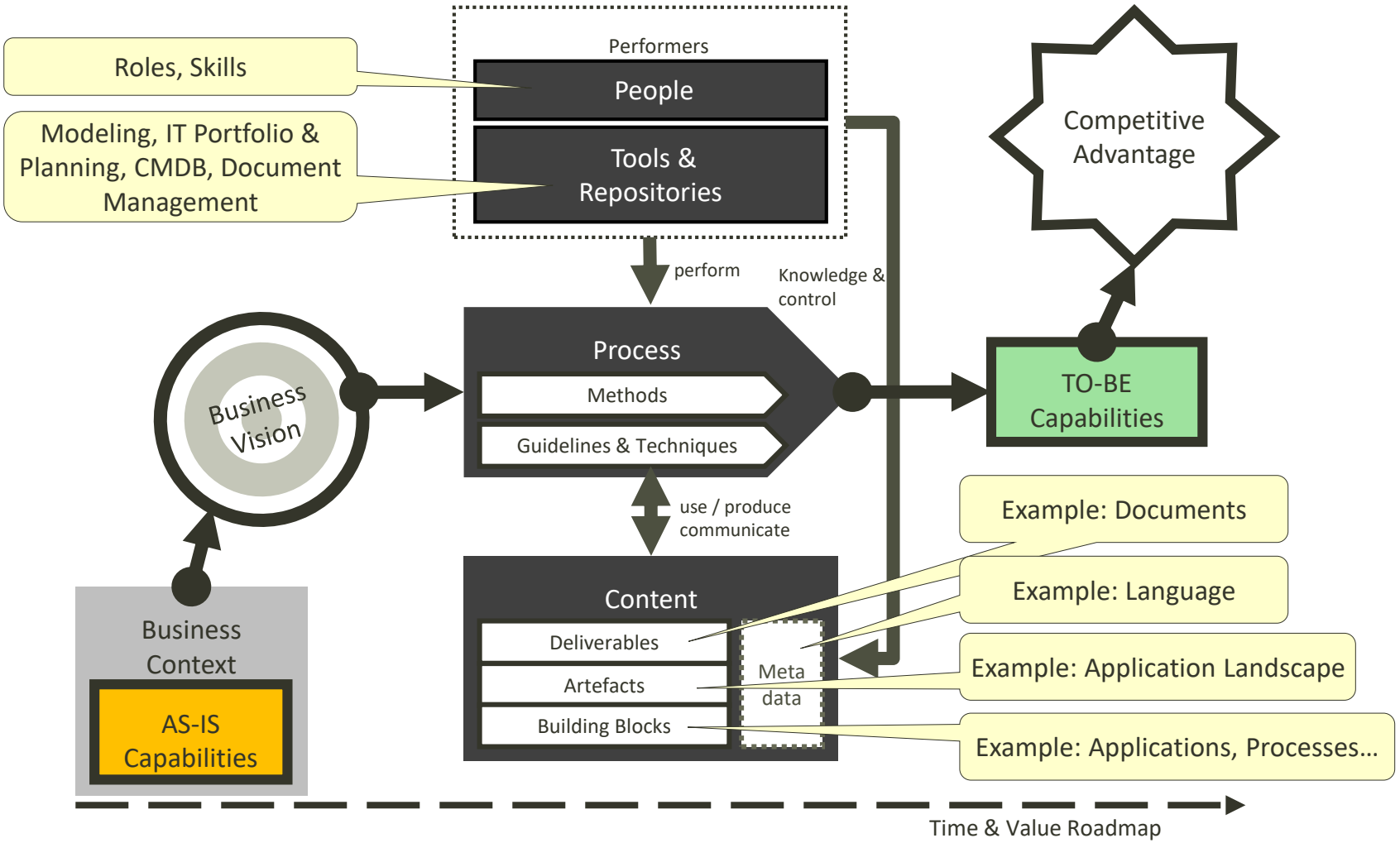
Links: TOGAF, SAFe, Gartner EA Stage Planning, ISO/IEC/IEEE 42010, Archimate, BPMN, UML, PESTEL Analysis, Porter's Five Forces Analysis, Balanced Score Cards, Strategy Map, Business Model Generation

Here “merging” means

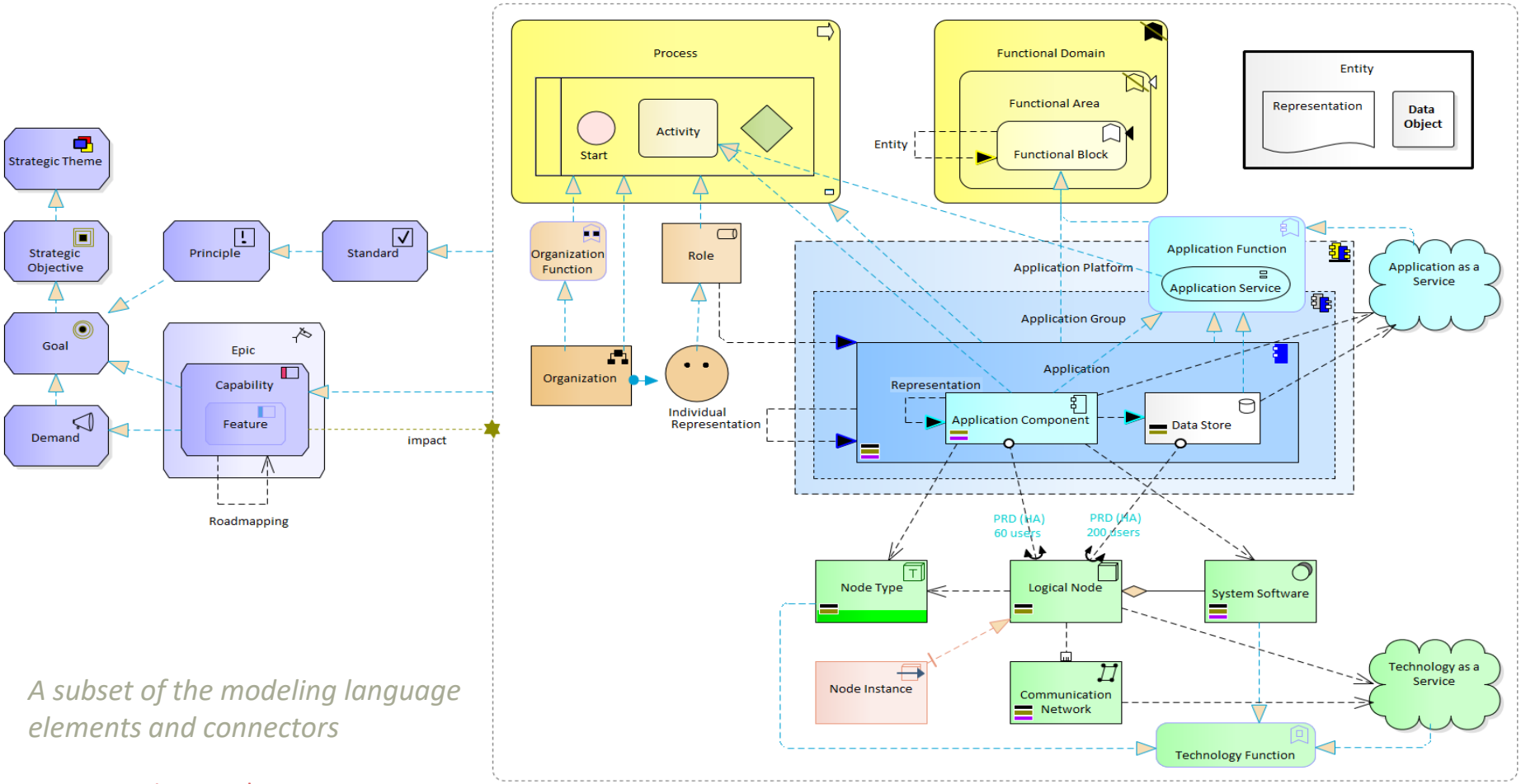
- Identify common concepts and gaps
- Define **one** end to end process
- Create **one** single language
- Implement the whole thing in **one** single tool

  that is already used by 750 000 users worldwide

All In One Architecture Framework



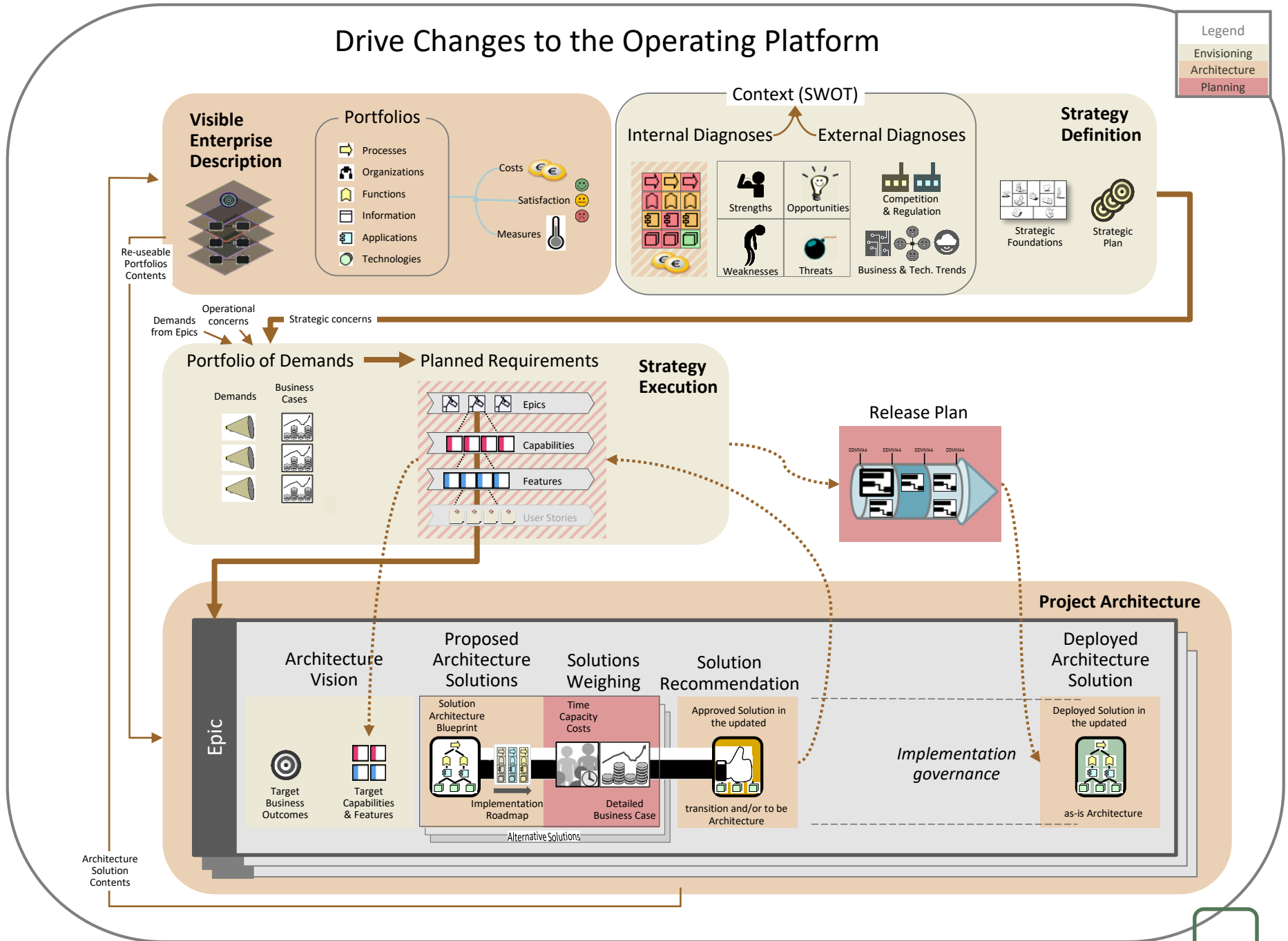
One Common Language Eases Collaboration Between Many Different Roles



A subset of the modeling language elements and connectors

You can navigate and zoom-into the metamodel details on-line…

Drive Changes to the Operating Platform



Viewpoints and Views (ISO/IEC/IEEE 42010)

The purpose of viewpoints and views:

1. Enable humans to comprehend complex systems
2. Separate concerns
3. Organize the elements of the problem and the solution around domains of expertise

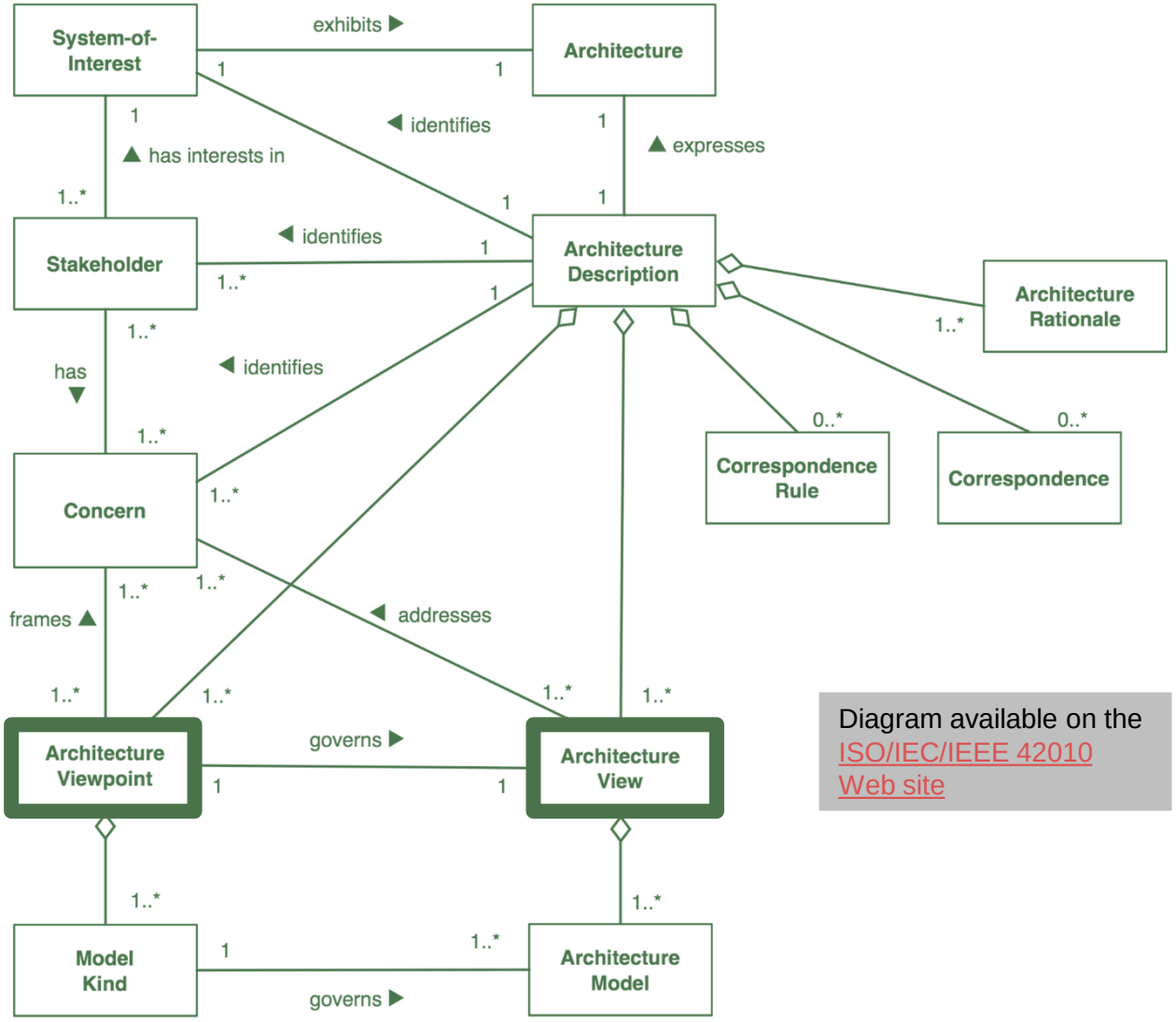
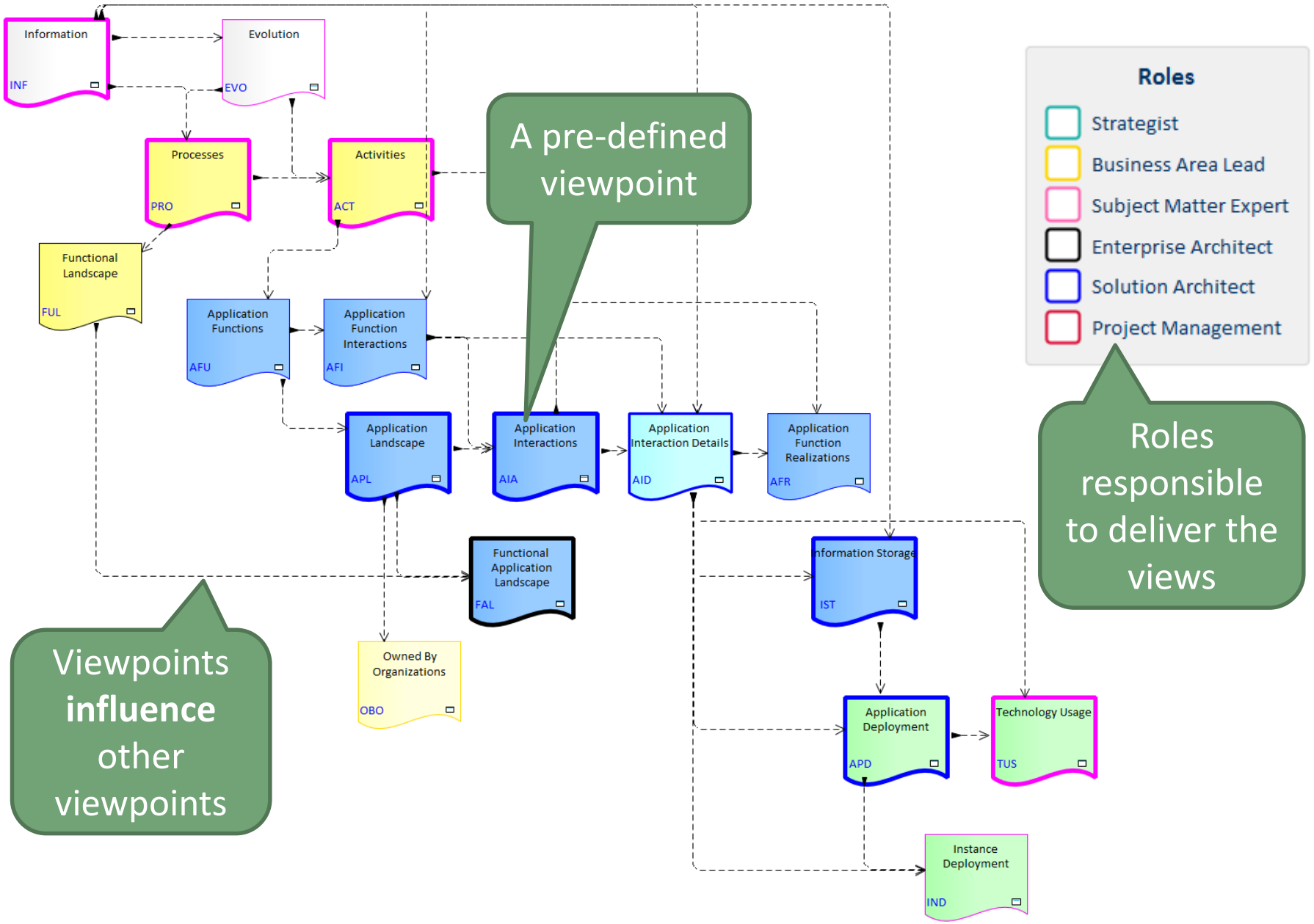


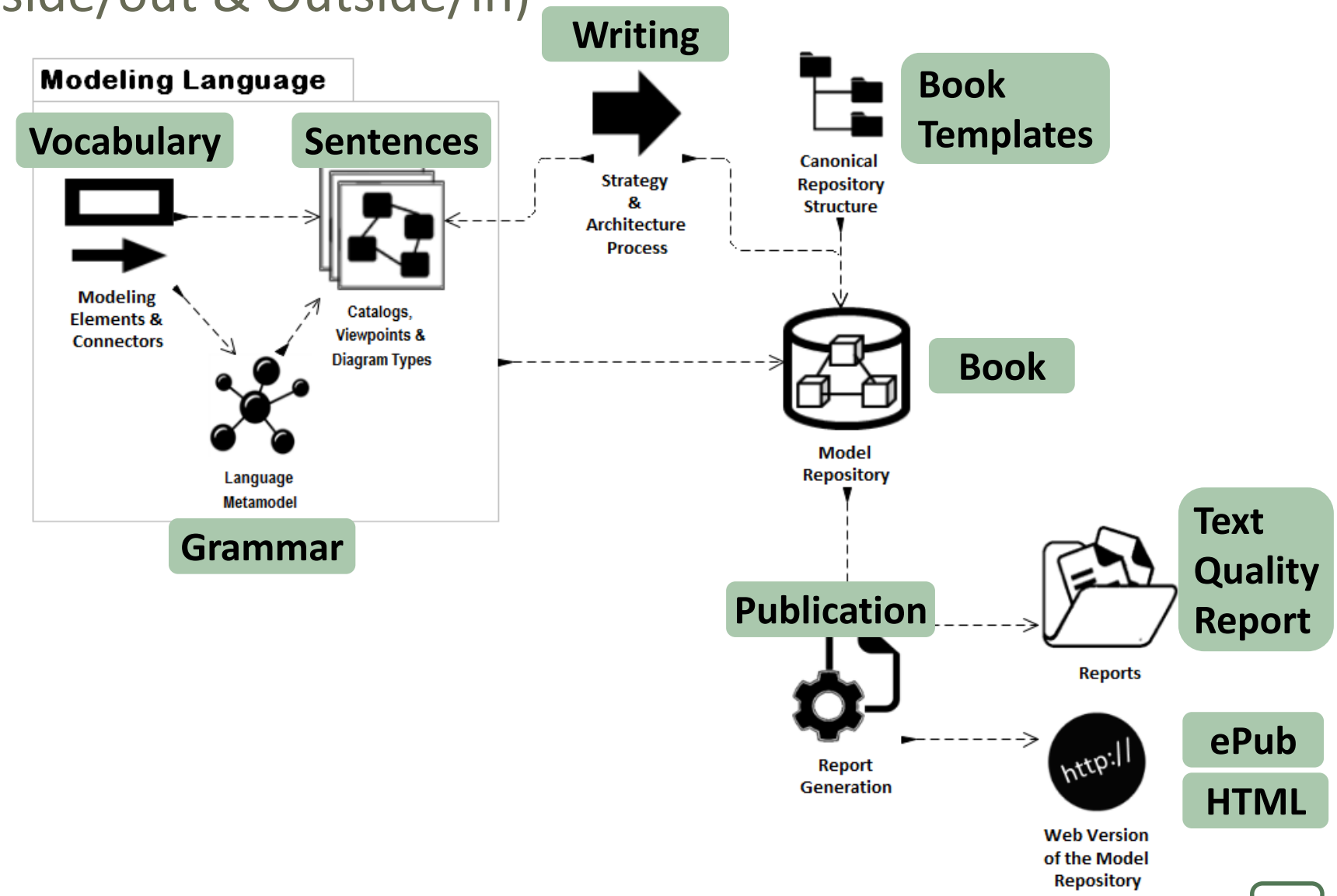
Diagram available on the ISO/IEC/IEEE 42010 Web site

Focus on IT Solution Architecture Viewpoints

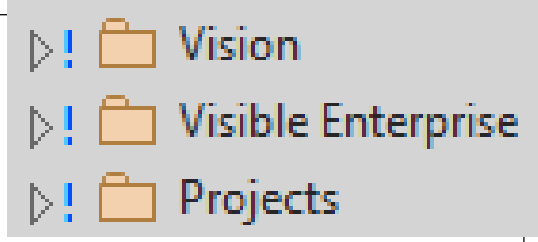


Labnaf : a coherent content, Fit4Purpose

(Inside/out & Outside/in)



The model repository is organized into 3 main sections…



Vision

Changes to the enterprise are envisioned

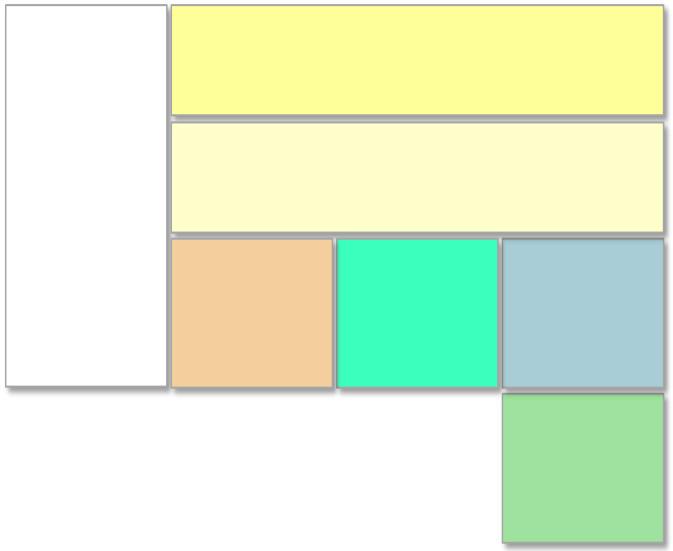
Projects/epics realize vision

Projects

Projects/Epics change the enterprise following vision

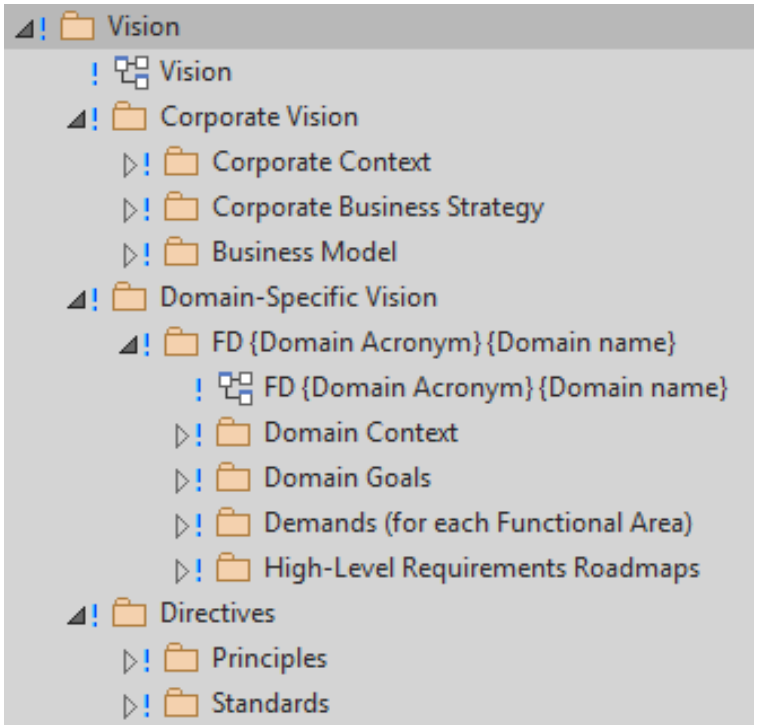
Visible Enterprise

Provides visibility and traceability on the enterprise‘s operating model across several perspectives



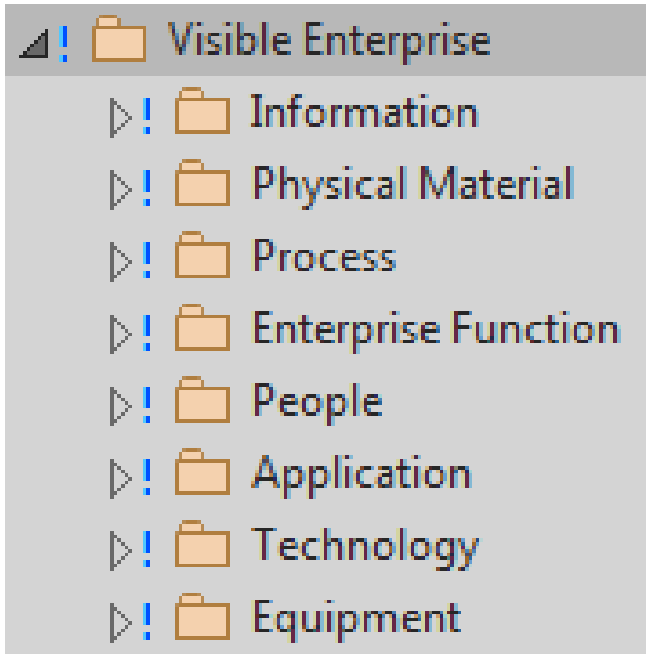
The **Vision** folder contains…

- The **Corporate Vision** describing the internal and external context, the corporate objectives and the business model
- The **Domain-Specific Vision** describing how the Corporate Vision cascades into functional domains in terms of goals, demands and target capabilities roadmaps
- **Directives** i.e. Principles and Standards

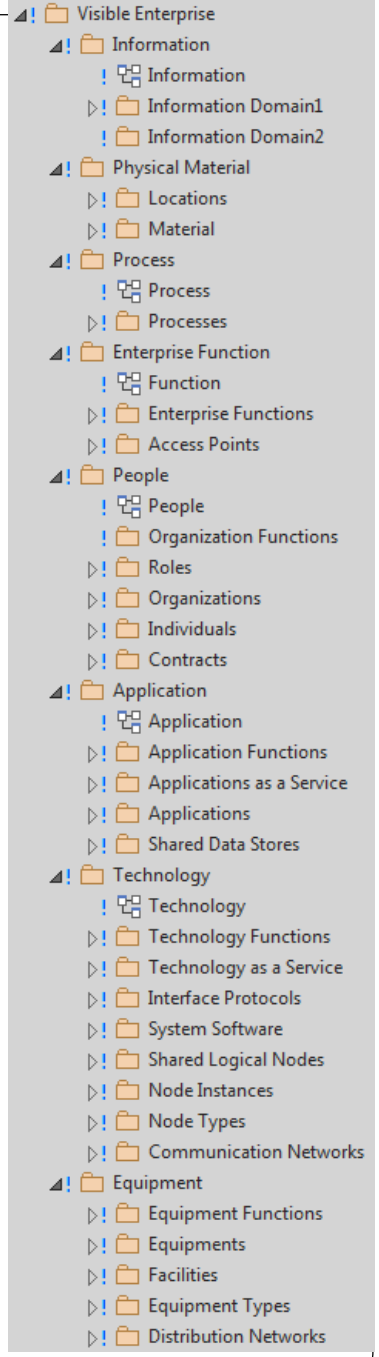


The **Visible Enterprise Description** folder contains…

- A set of architecture **portfolios**, each describing the enterprise following a specific perspective

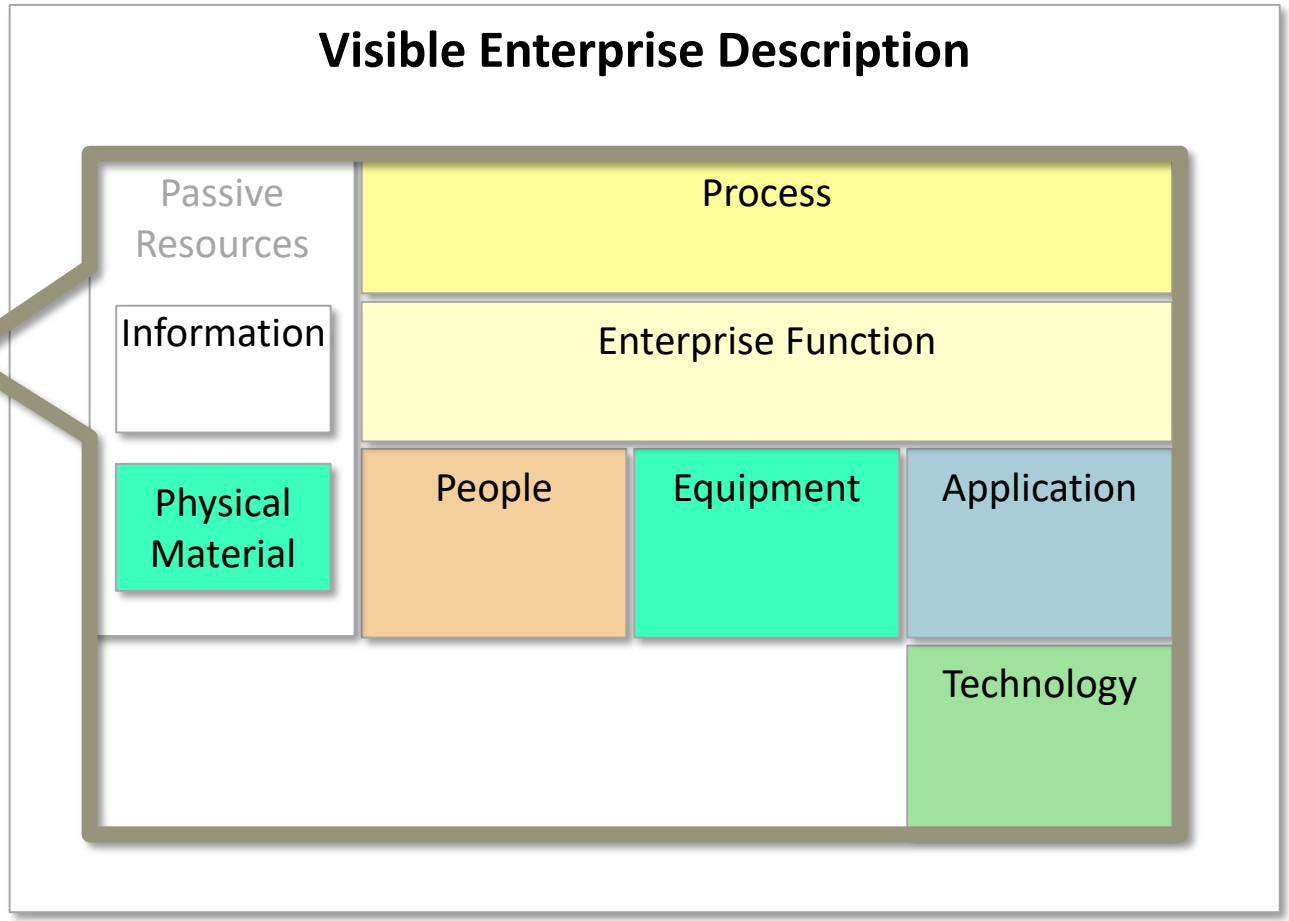


- Each portfolio in turn contains **catalogs** that contain elements and views **=>**



The **Visible Enterprise Portfolios** folders represent **architecture perspectives**

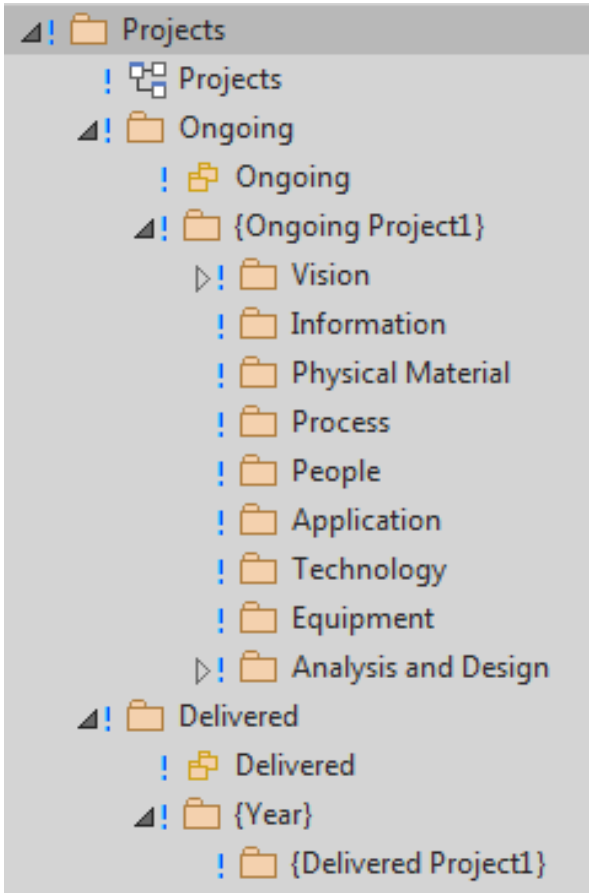
Architecture Perspectives



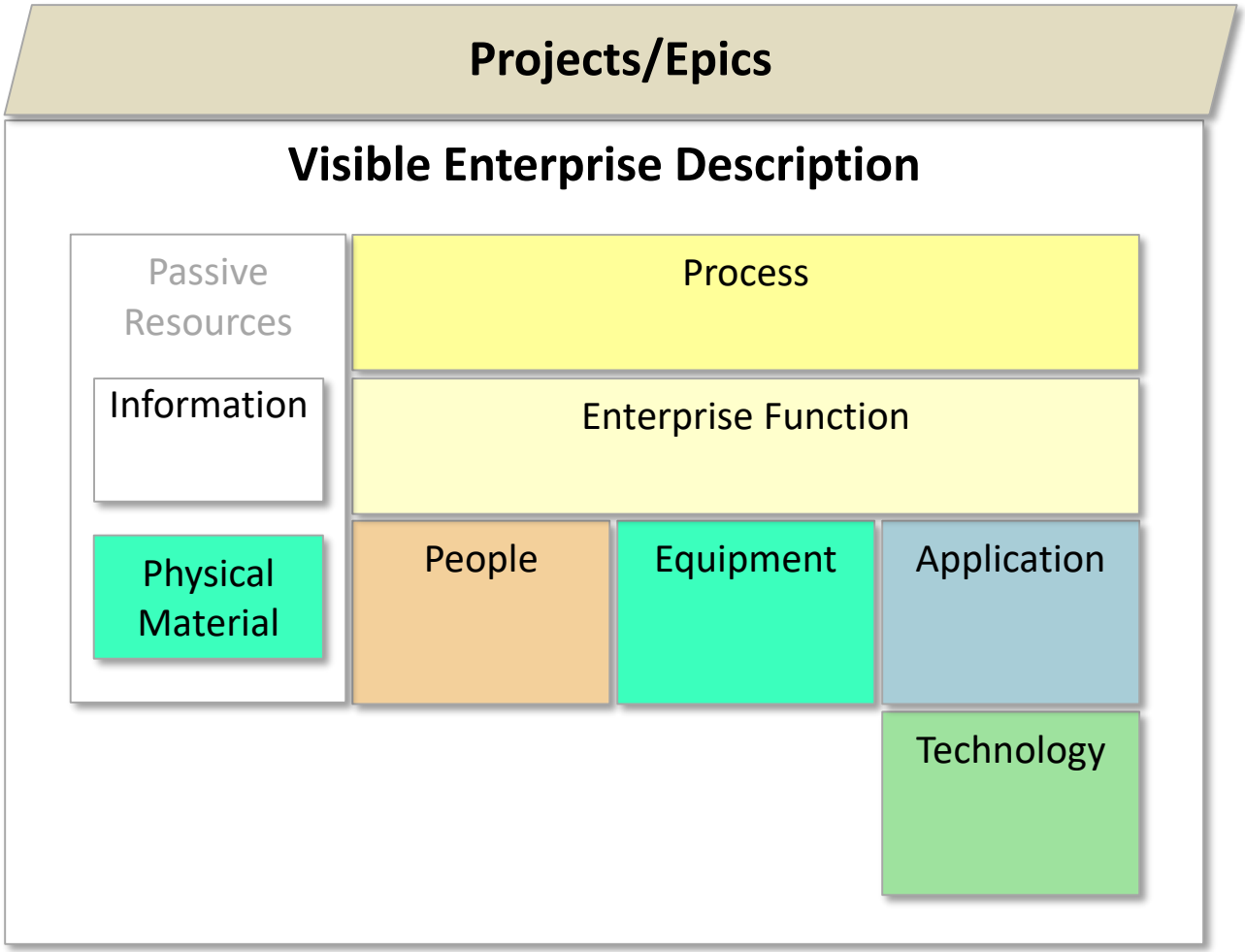
The **Projects** folder contains…

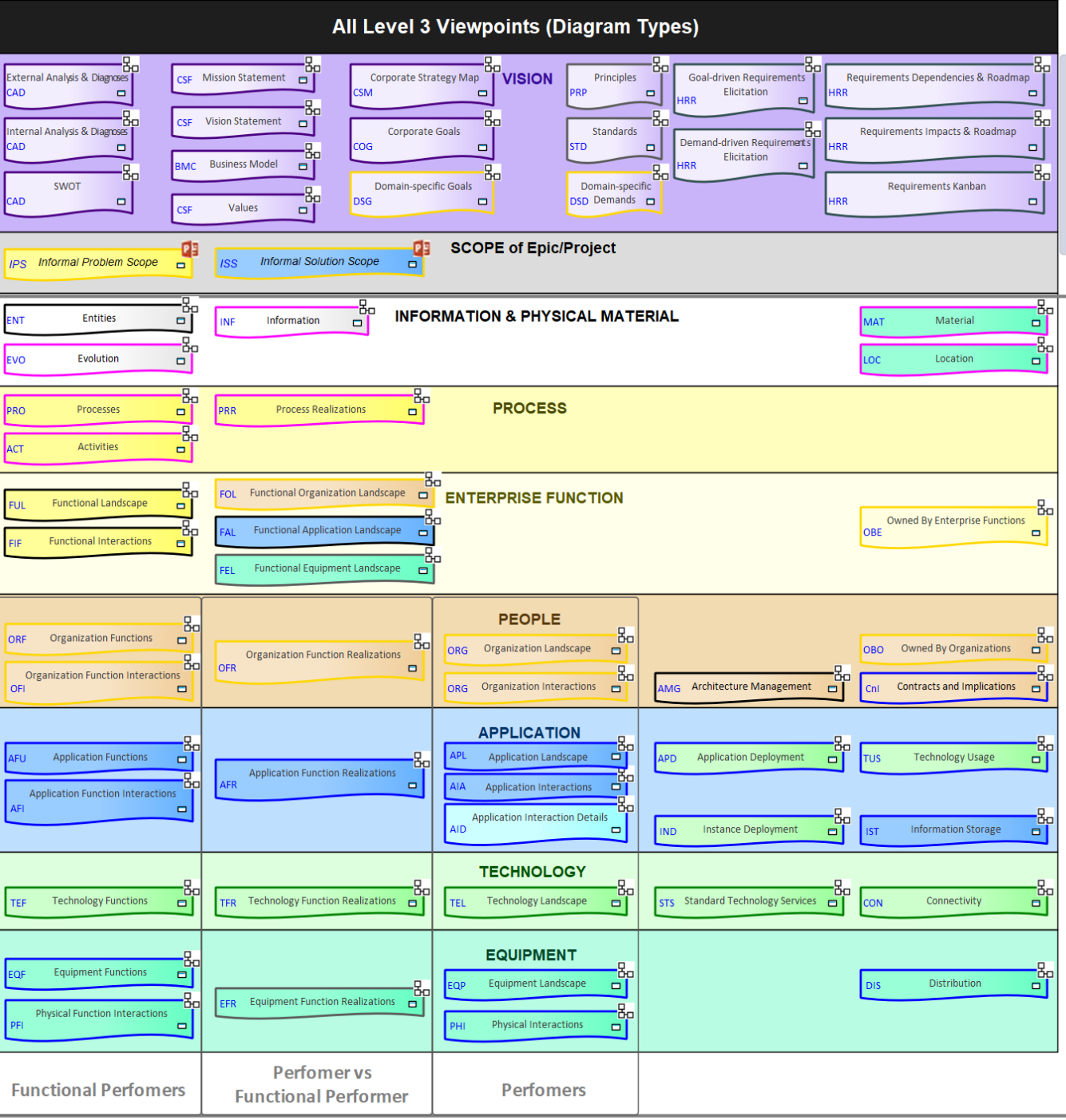
- Proposed and ongoing changes to the enterprise architecture models

The folder structure is similar to the structure of portfolios that are used to describe the enterprise as a whole



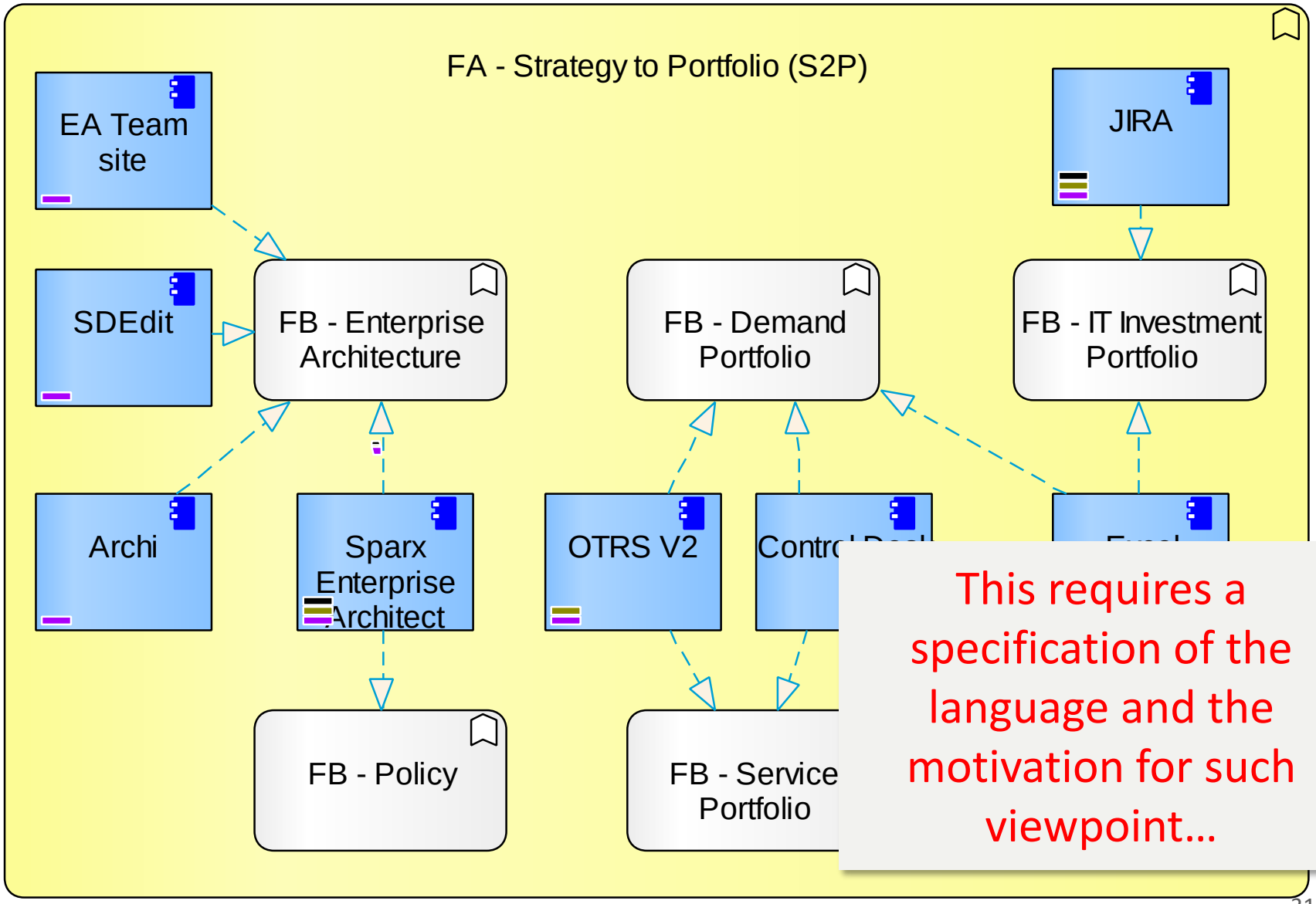
Project architecture work changes the content of the visible enterprise description



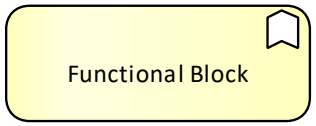


The different types of views (**viewpoints**) are also organized following architecture perspectives

Sample “Functional Application Landscape” View



Prescriptive language for "Functional Application Landscape" views



A Functional Block is a level 3 business function that belongs to some functional area.
The granularity and scope of a Functional Block is defined by identifying

- some homogenous set of information that the Functional Block is mastering
- a group of activities that fulfill the purpose of the functional block, that belong to some processes of same nature and that produce and use the information mastered by that Functional Block

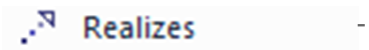
A business function is a behavior element that groups behavior based on a chosen set of criteria e.g. required business resources and/or skills, competencies, knowledge, etc.

Inspired by Archimate

An application

- Is a self-contained unit of functionality as perceived by end-users
- Can be clearly mapped to some functional blocks
- Has its own specific set of application attribute values
- Is used by and billable to one or several Organizations
- Is owned by a single Organization
- Can be part of an Application Platform or an Application Group
- Encapsulates Applications Components and Application Interfaces
- Can exist at one or many specific points in time called "plateaus". Possible plateaus are AS-IS, TRANSITION and TO-BE.

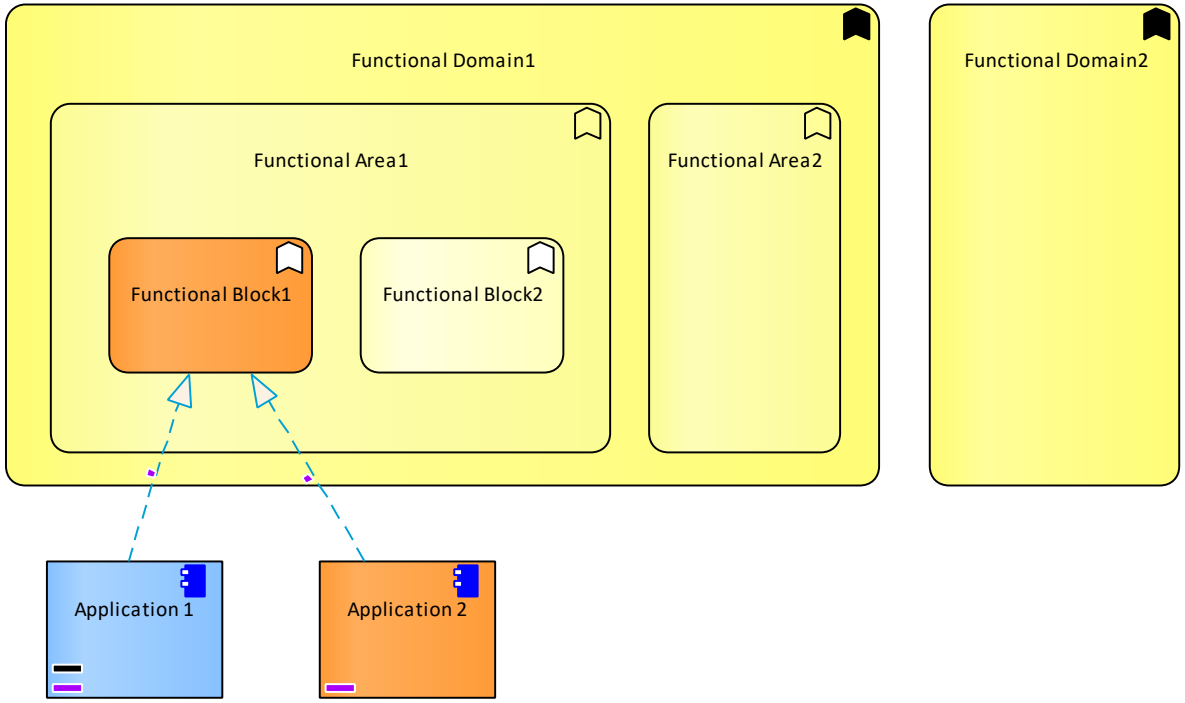
The name of an application component should preferably be a noun.



A **Realization** relationship indicates which concrete entities ("how") realize which abstract entities ("what"). The realization relationship is used in a business operational sense (e.g., a role realizes a swim-lane of activities), but also in an IT context (e.g., an application realizes a functional block).

Inspired by UML & Archimate

Motivation for creating "Functional Application Landscape" views



This answers the following questions

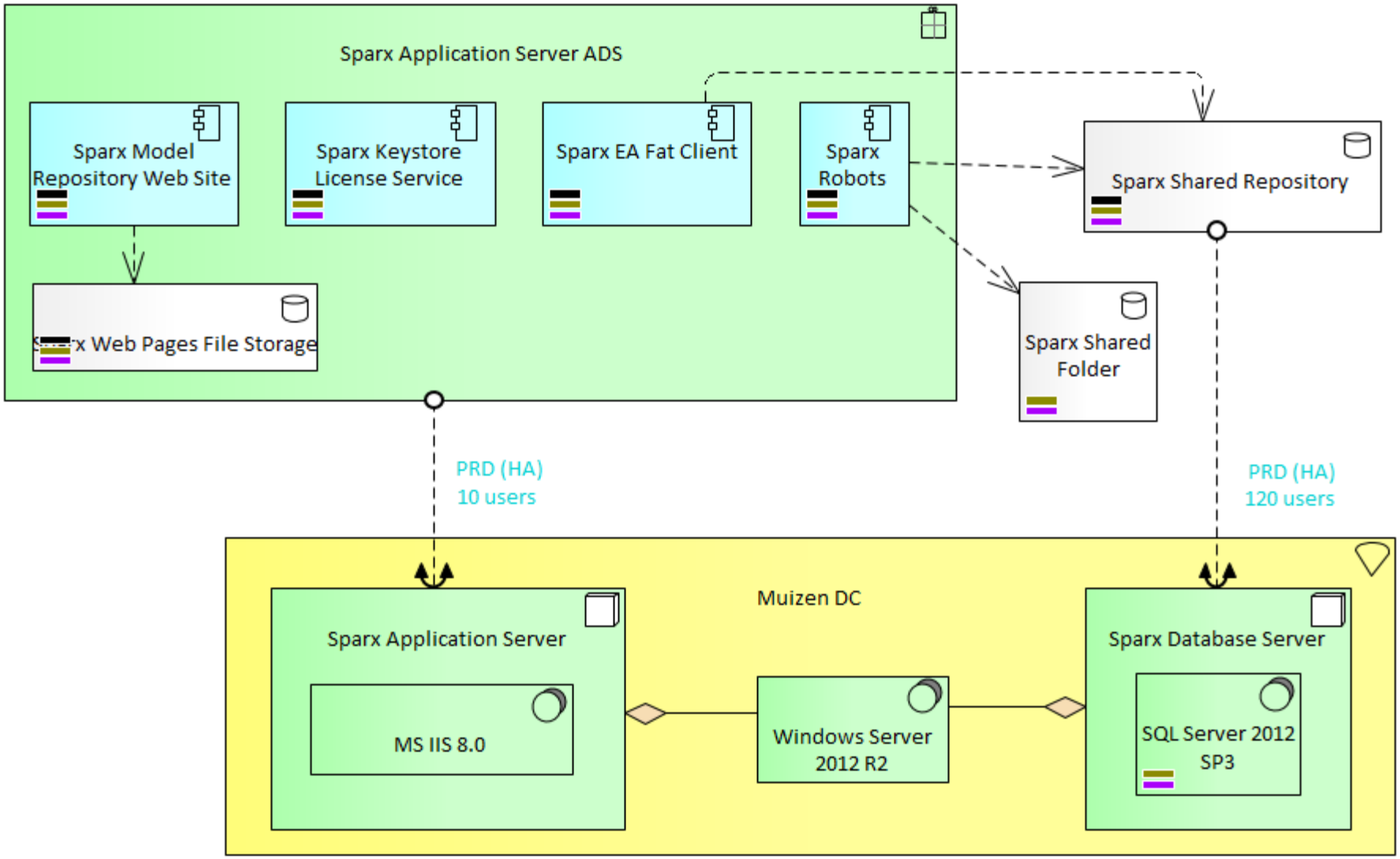
When used as part of the **Visible Enterprise Description**

- Which **applications** support which **functional blocks**?

When used as part of a **Project Architecture**

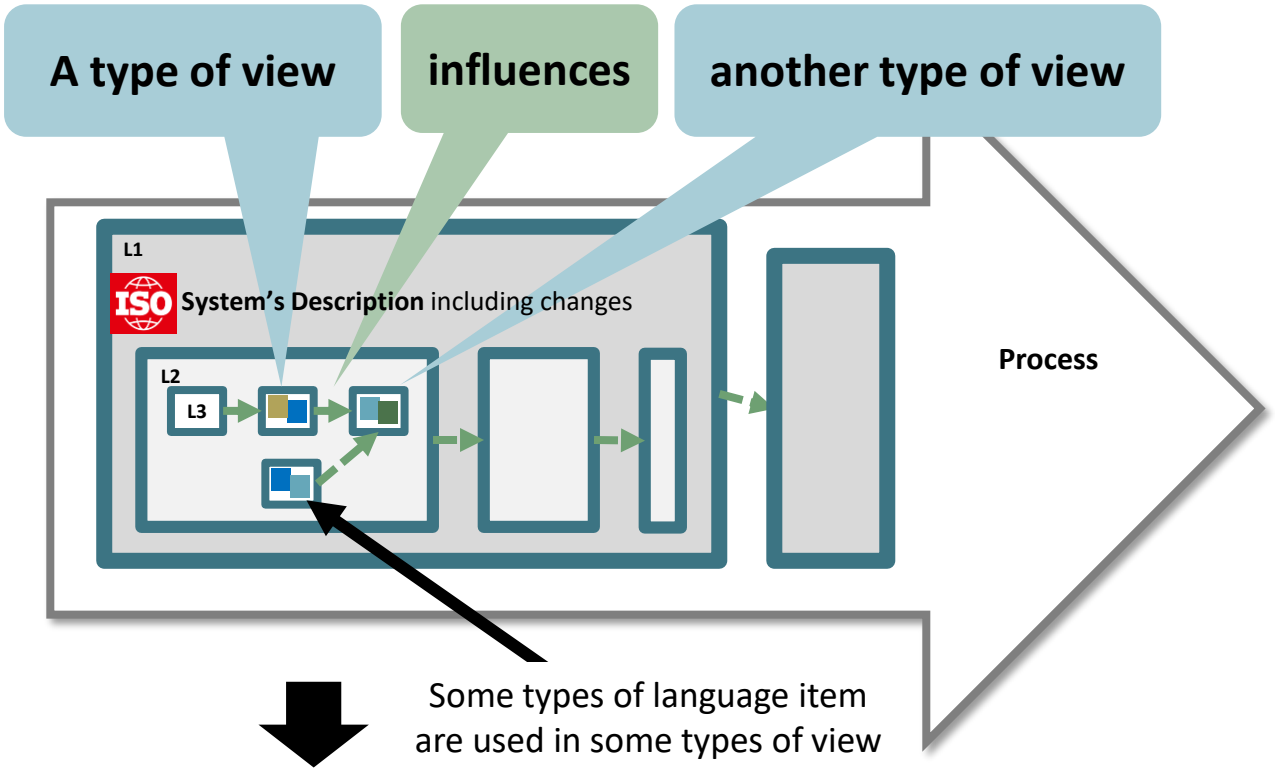
- Which **applications** are/will automate the **functional blocks** inside the scope of this project?

Sample “Application Deployment” View

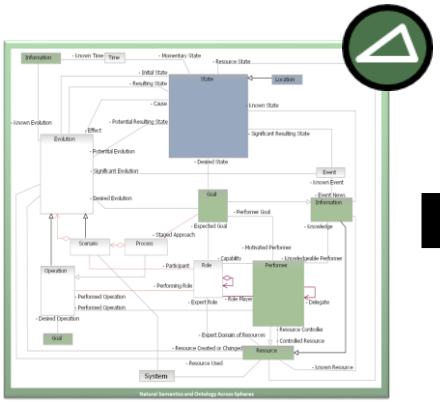


Views are created throughout the Process.

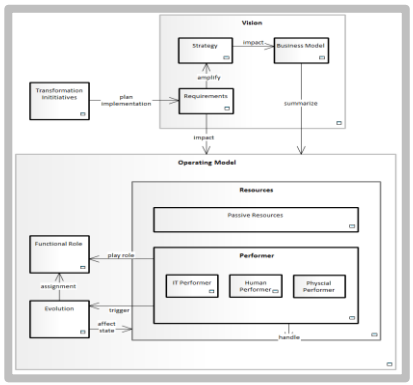
Each view uses some language items.



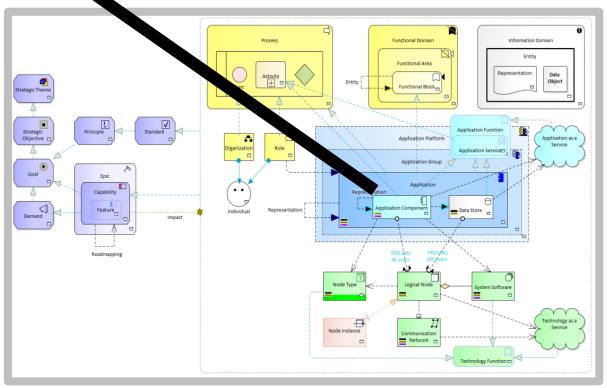
Some types of language item are used in some types of view



Systems Semantics
(Automation By Nature)

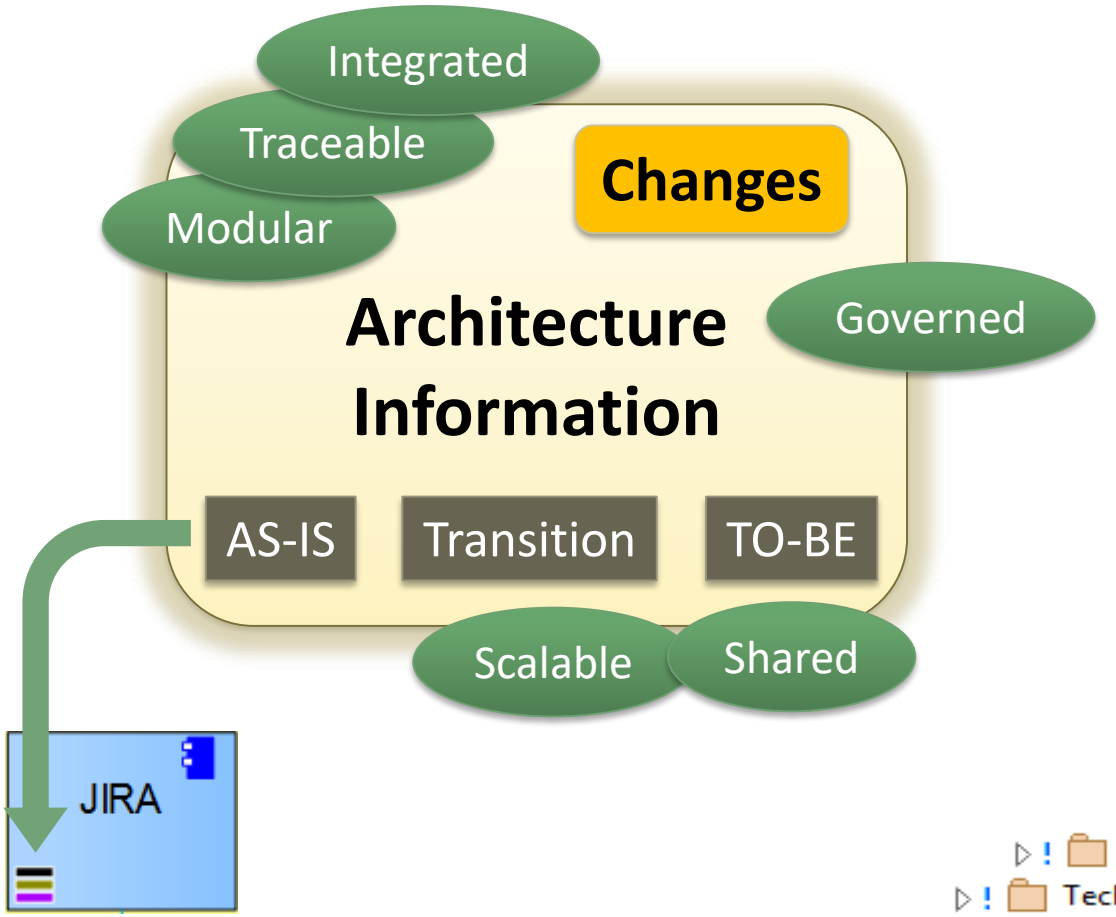


Conceptual Metamodel



Language Metamodel

Elements and diagrams are altogether organized in the repository following a **prescribed tree structure**



- Application
  - Application Functions
  - Applications
    - Application Platform1
      - APL - Application Platform1
      - Application Group1
        - AIA - Application Group1
        - APL - Application Group1
        - Application1
          - BOW - Application1
          - APL - Application1
          - AID - Application1
          - IST - Application1
          - APD - Application1
          - IND - Application1
          - Application Deployment Set1
          - Instance Deployment Set1
          - Application1 Database Node
          - Application1 Node
          - Application Component1
          - Application Component2
          - Data Store1
        - Application2
        - Shared Application Component2
        - Shared Data Store2
      - Application Group2
      - Shared Application Component1
      - Shared Data Store1
  - Shared Data Stores
- Technology

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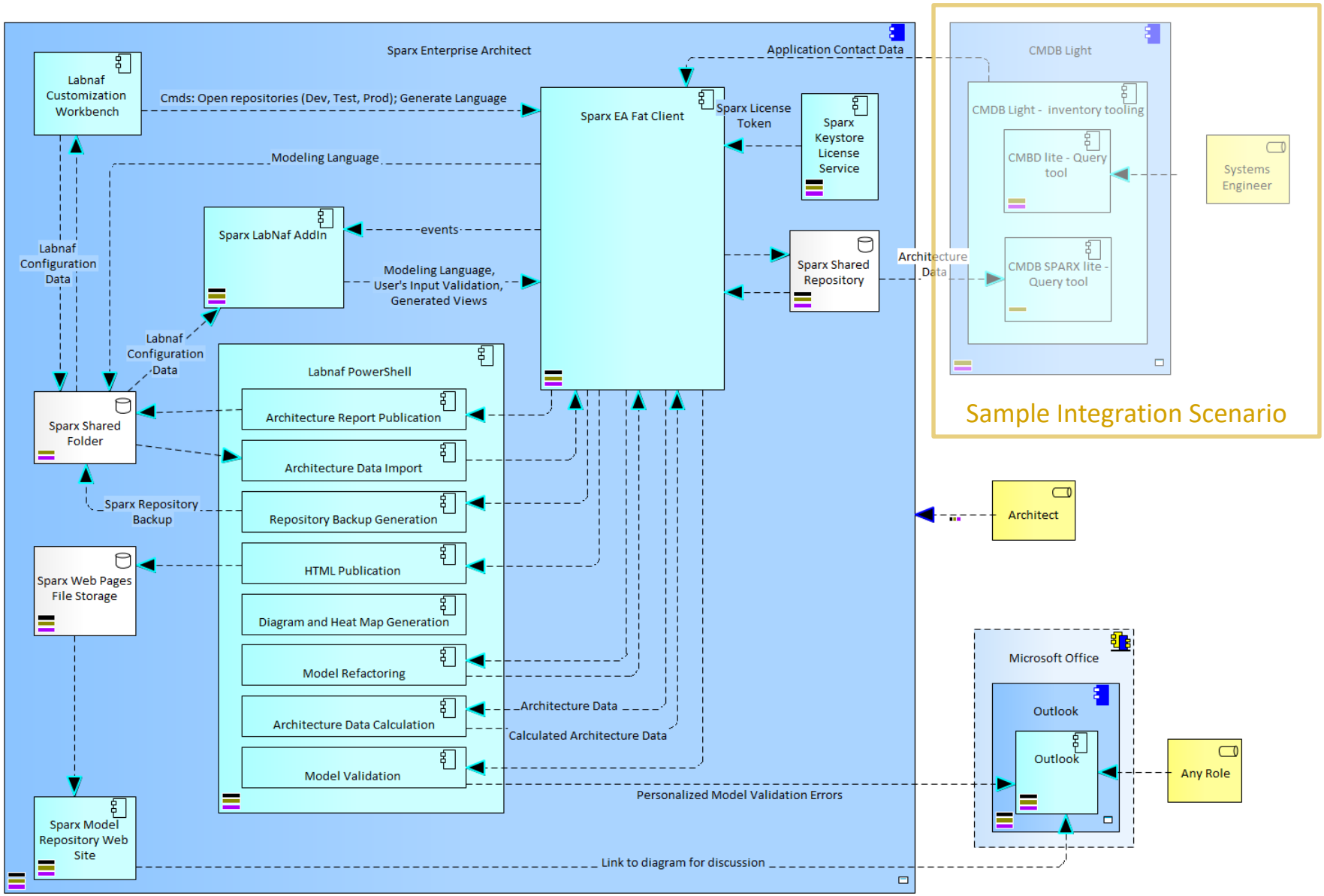
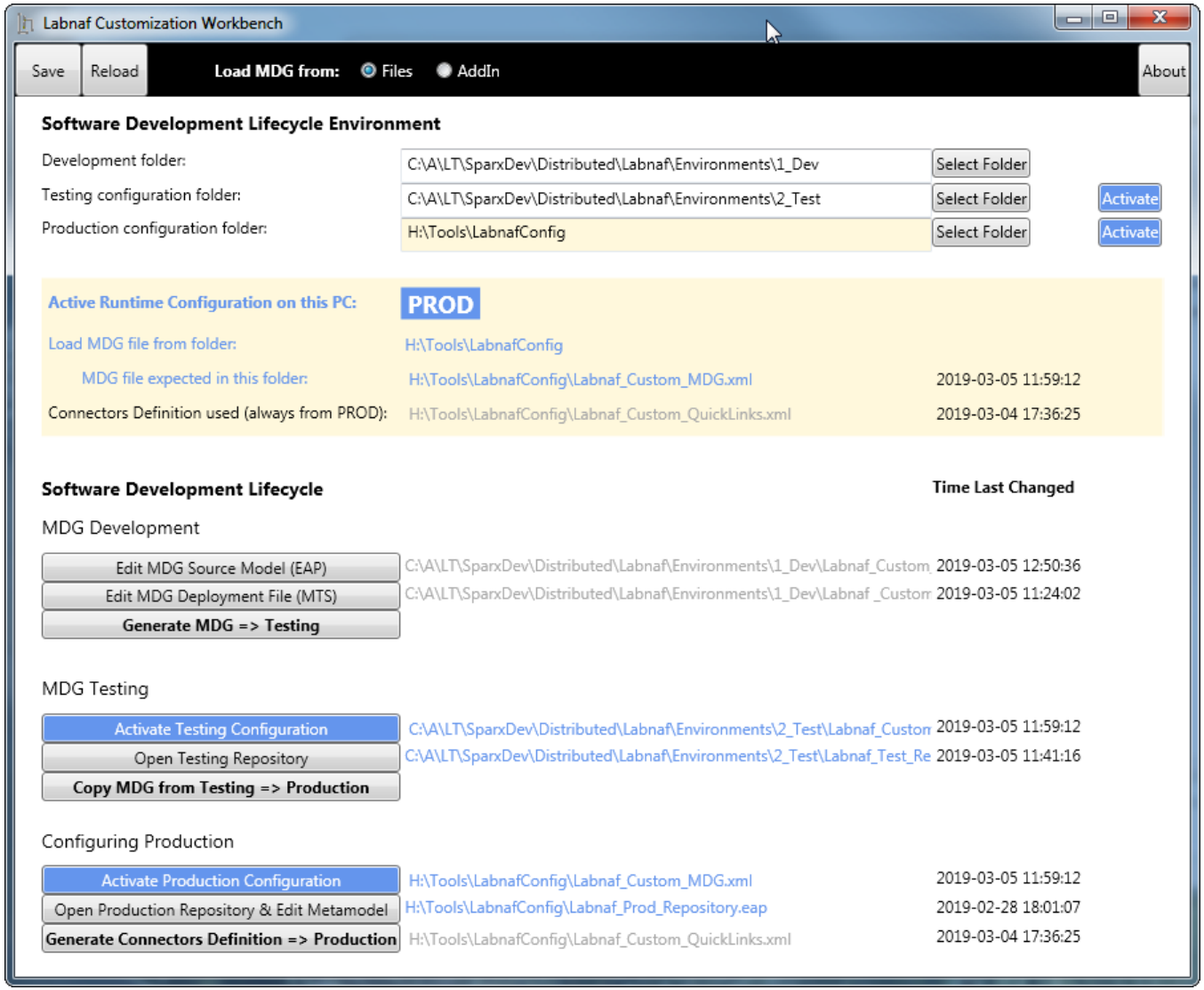
Sparx in the Application Portfolio



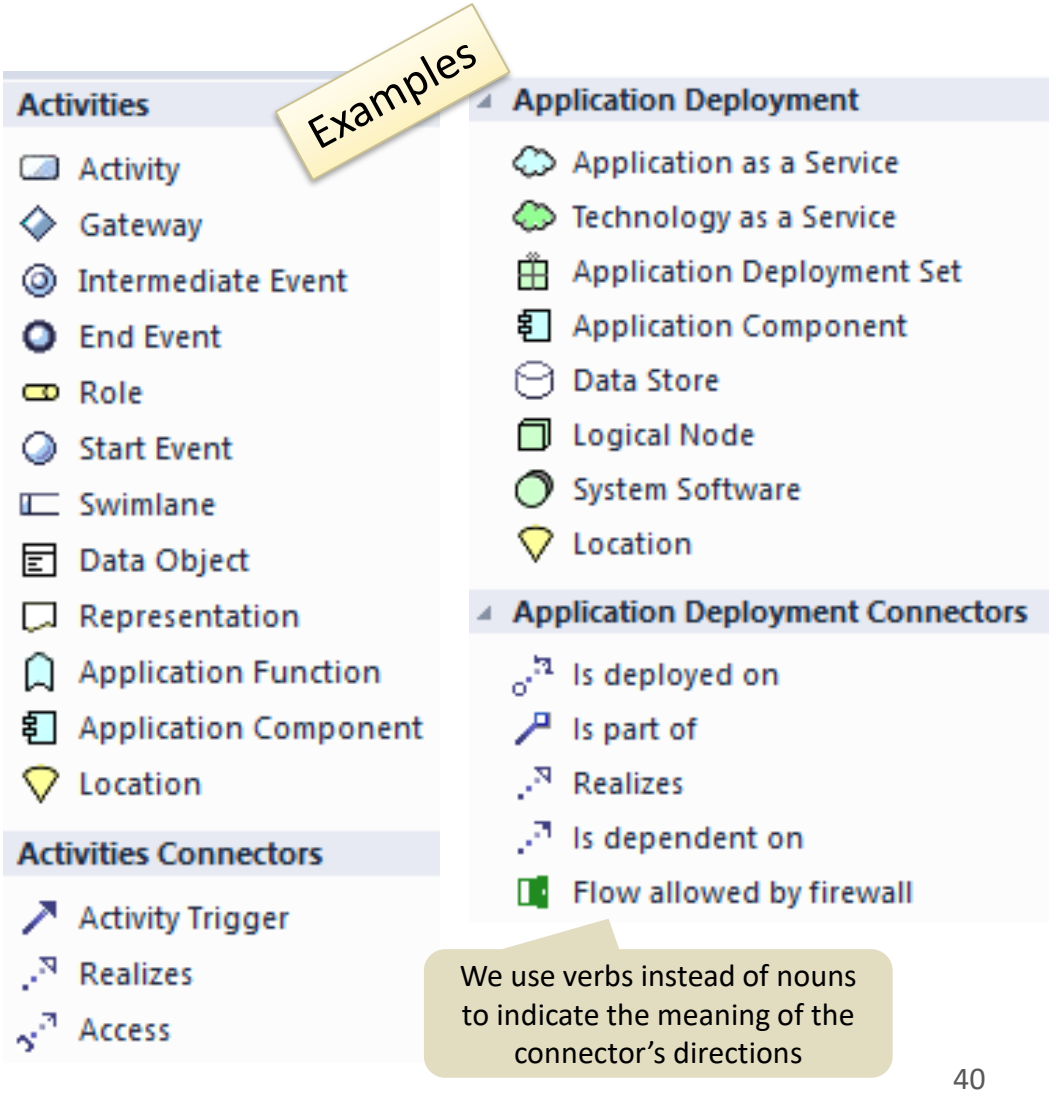
The Customization Workbench guides you throughout the customization lifecycle



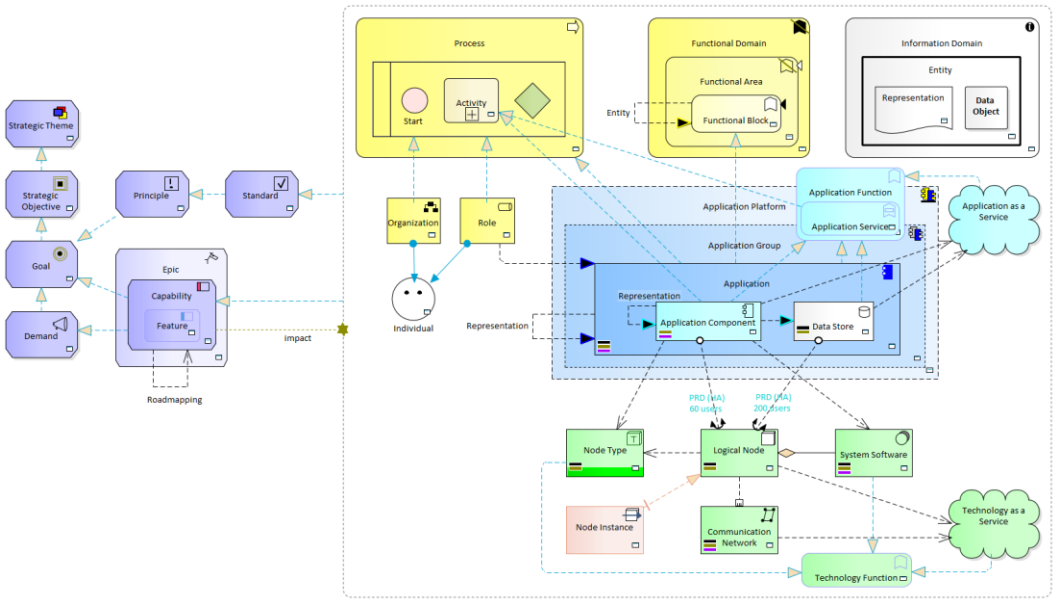
Each type of architecture view has its toolbox with element and connector types

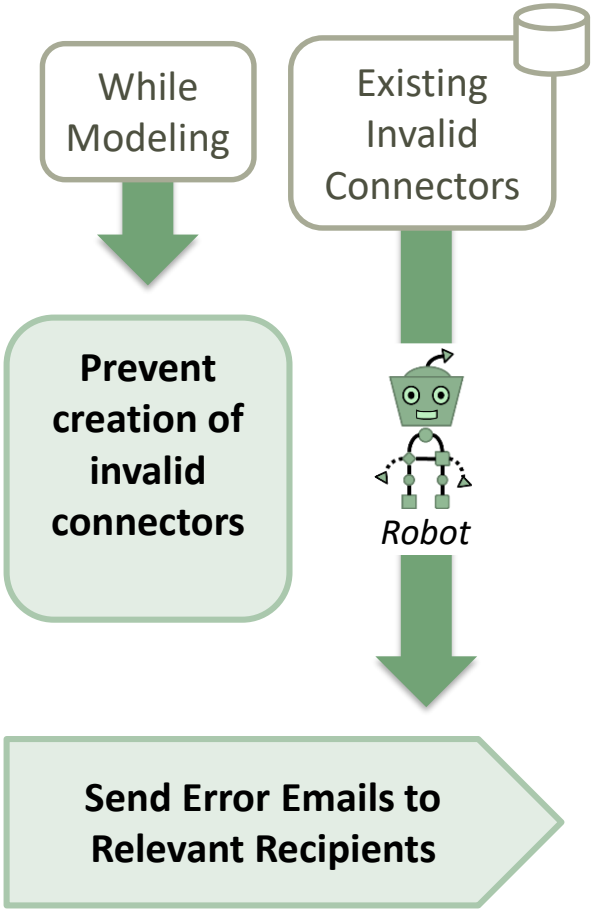
Elements & Connectors

- Some come from standards
- Some were adapted
- Some are proprietary

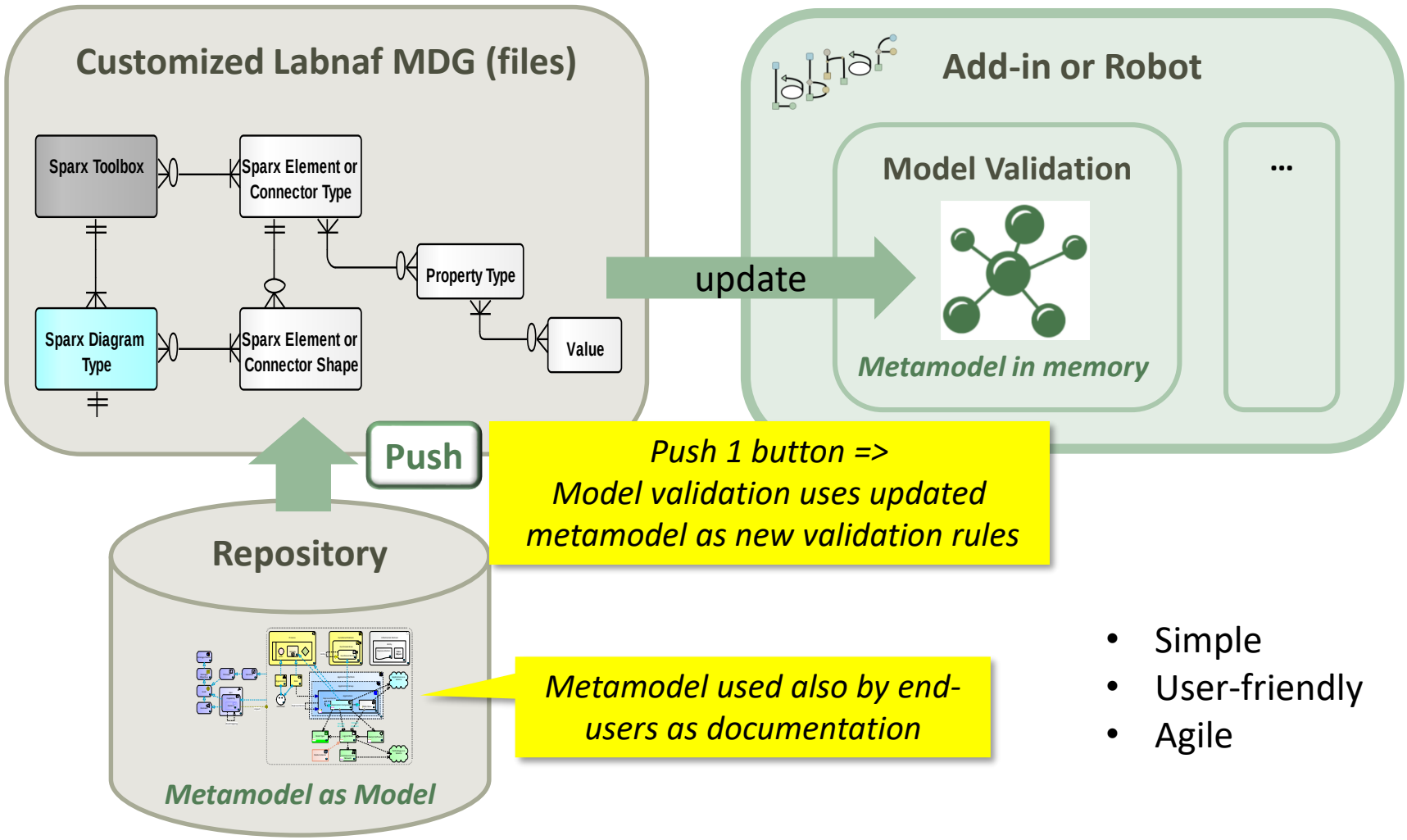


The Language Metamodel is used both for documentation & automatic model validation



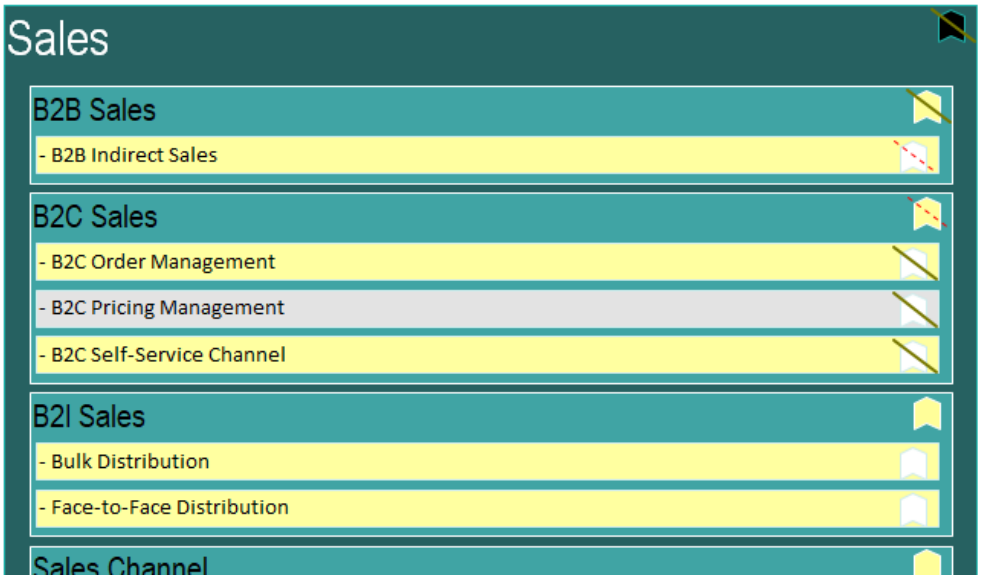


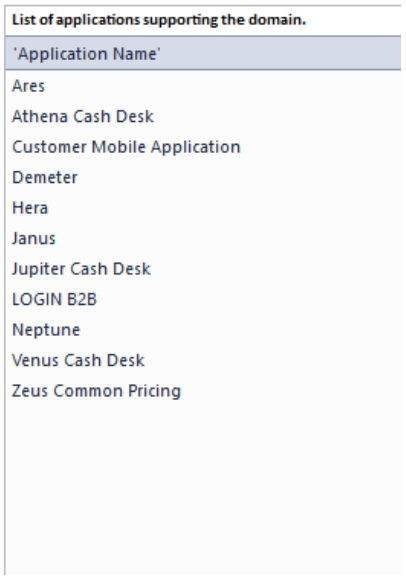
The default metamodel (stored in the Labnaf Addin and used for validation) can be very easily updated

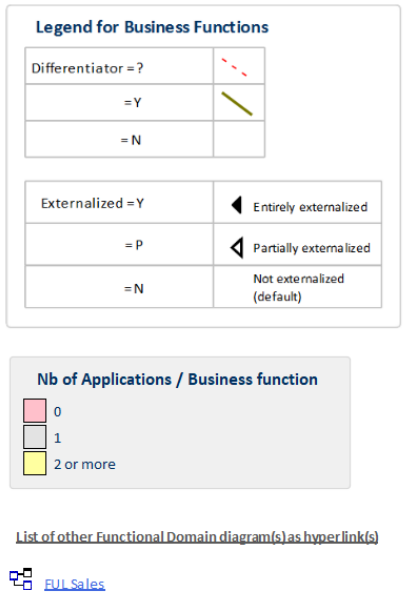


- Simple
- User-friendly
- Agile

Many key diagrams are generated every night following diagram templates

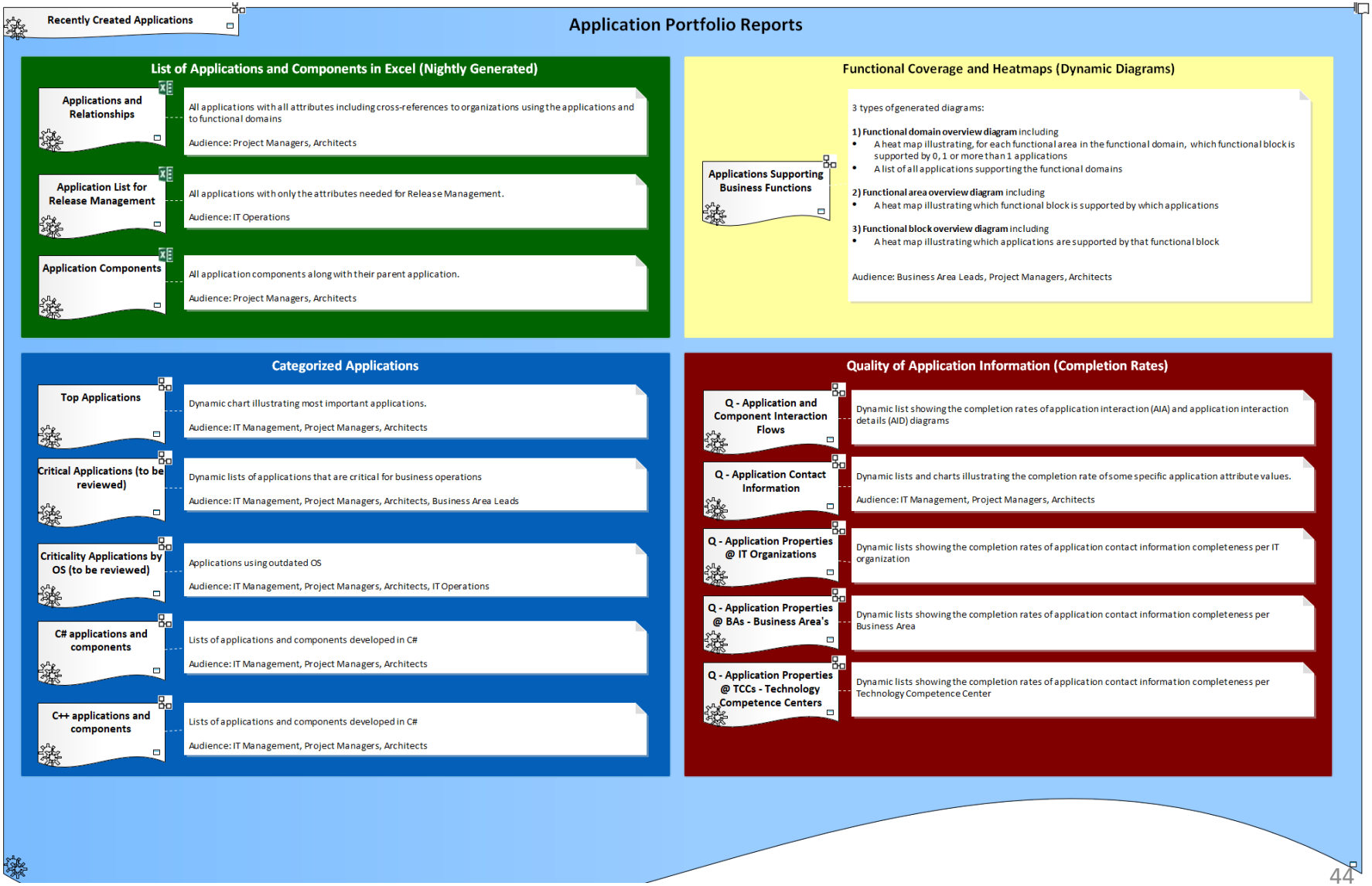






- Time Savings
- Cost savings
- Diagram completeness
- Consistent diagram layout

Generated Application Portfolio Reports



Value proposition

We play many different roles, but…

We speak the same language

We share the same information in the same repository

We follow the same process and we use the same tool

We collaborate effectively

For further information …

Educational material and trial version of the software are available here:

www.Labnaf.one

Thank you!

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