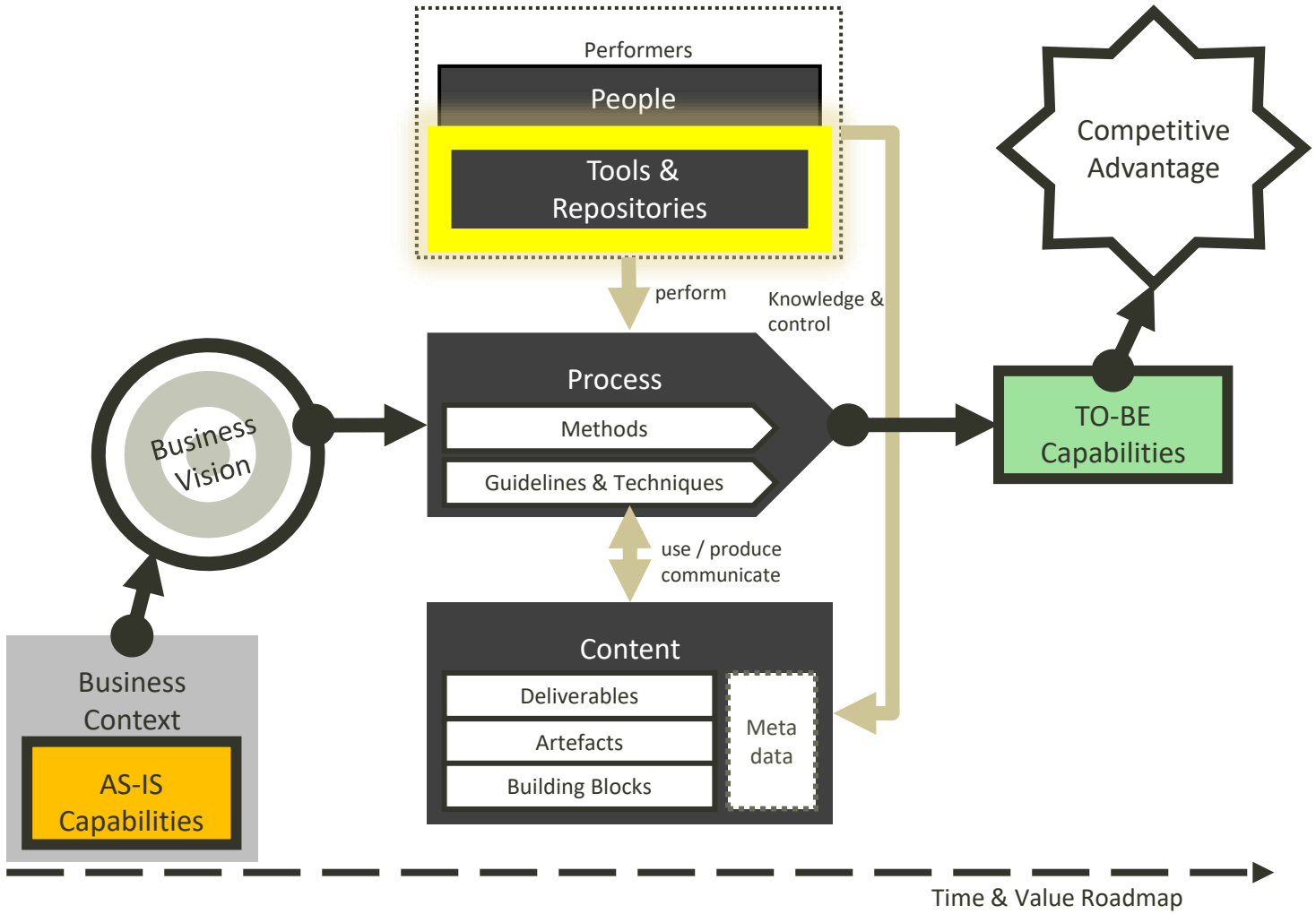
Unified Framework for Driving Transformations

Tools & Repository

Tools & Repositories



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EA Tools: State of the Industry (ct'd)

- EA tools are very expensive
- Focus is typically Modeling OR IT portfolio management
- Poor metamodel semantics. Hard to adapt the metamodel if the model is already there
- Limited number of skills for each tool
- Limited Modeling continuum across levels of details
- They do not articulate any end to end process from strategy down to portfolio

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Tool: How we resolved…

- Select a Modeling tool that is
  - Affordable
  - Reliable, scalable and secure
  - Very flexible, extensible, easy to configure and to integrate
  - Most common in the industry (750 K licenses worldwide)
  - Known by the largest number of modelers
- Integrate our language, a dynamic metamodel, diagram types and toolboxes in Sparx
- Define an Architecture Repository Organization
- Develop our Architecture Repository Guidance & Content Web Site
- Create robots (document and diagram generation, model validation, value calculation…)

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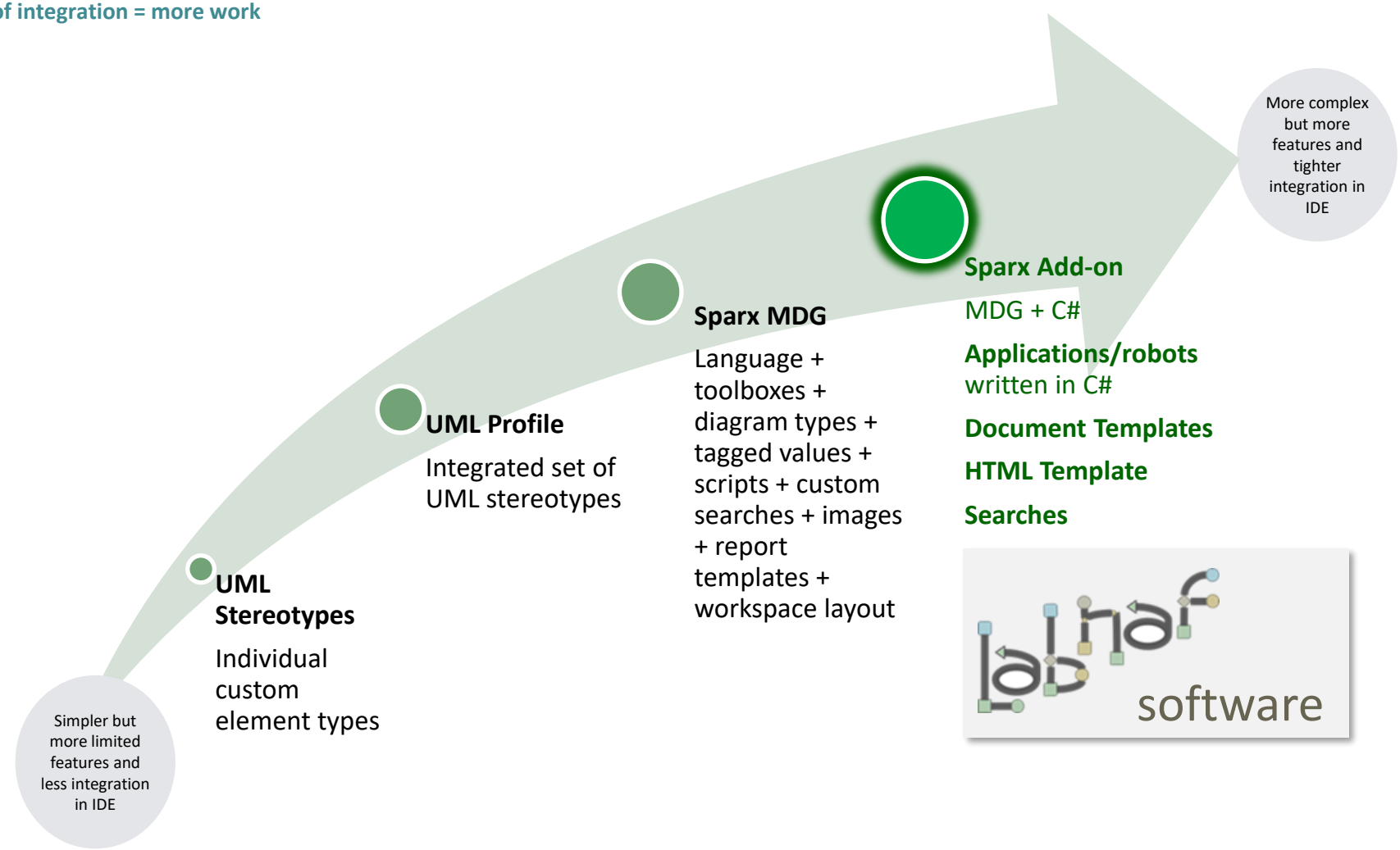
Sparx EA Software Development Kit (SDK)

Enables multiple levels of modeling solution development and integration

Higher level of integration = more work



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Functional

Labnaf is a **unified solution for driving transformations** (all architecture roles, strategy, security)

- Unified **transformation process**, **modeling language**, **metamodel**, **repository**, and **tools**
- Instant framework Customization
- Tools leverages the Sparx Systems development platform
- **Ready to go**

Technical

Sparx Systems provides a **technical platform** for **collaborative modeling and visualization**

- Reliable, scalable and secure; Very flexible, extensible, easy to configure and to integrate
- 1 million+ licenses worldwide; Known by the largest number of modelers

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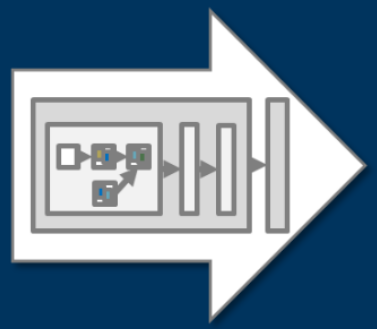
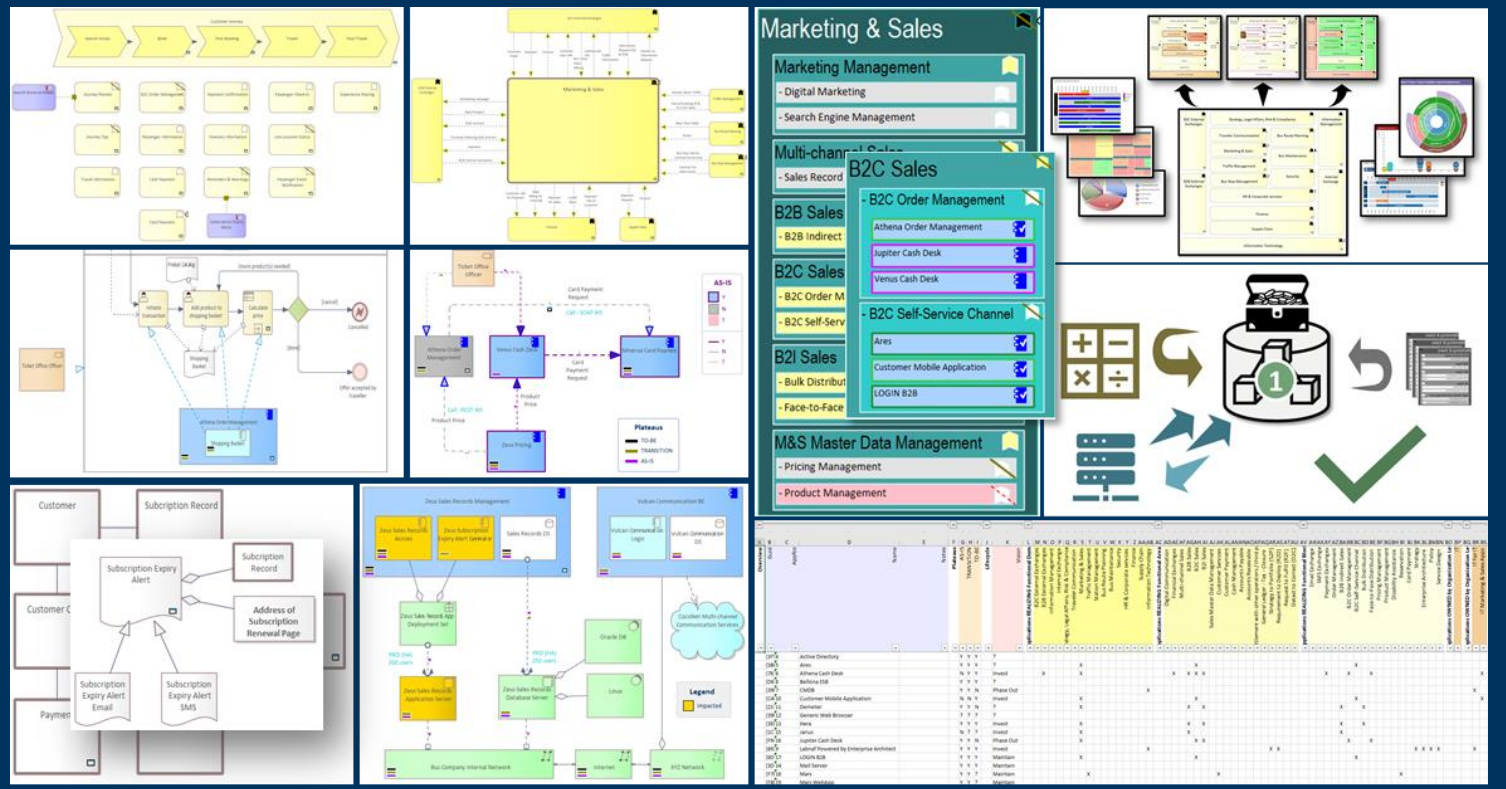
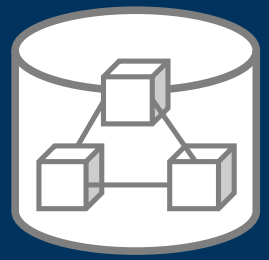
Labnaf Software Features







Powered by SPARX SYSTEMS Platform

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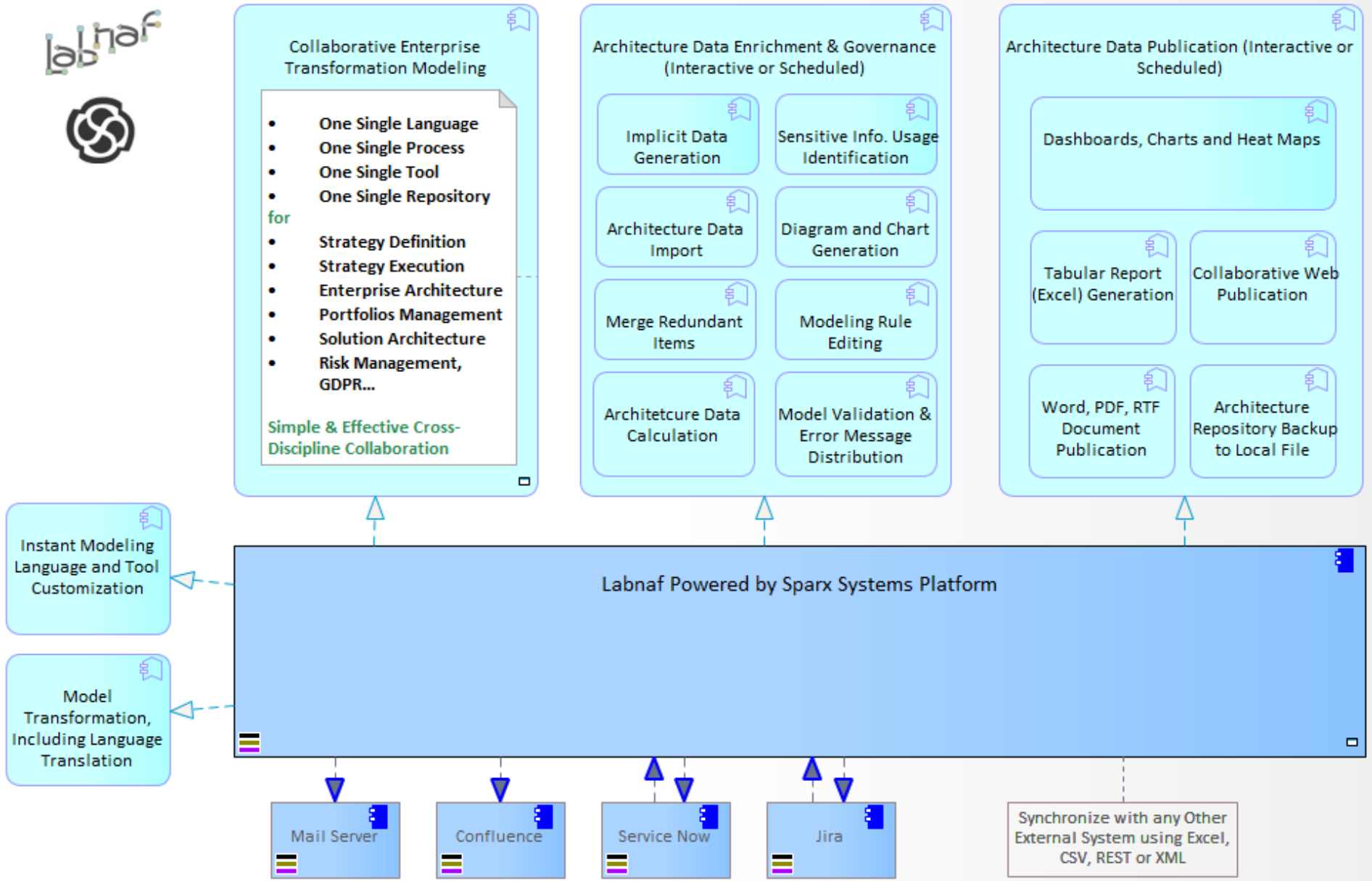
Collaborative Enterprise Visualization and Transformation From Strategy Down to the Code



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On Premise or Cloud SaaS

Jira, Doors, Service Now, Confluence

Unified Solution for Driving Transformations

Instant Platform Customizations

Enterprise Transformation Platform

Architecture, Strategy, Integrated Portfolios, Information Risk, Incident and Unavailability Governance

Productivity Tools

automates 90% of your modeling, validation, integration, data enrichment, reporting and charting tasks

Sparx Systems SDK

Prolaborate

Pro Cloud Server API

Sparx Systems' Enterprise Architect

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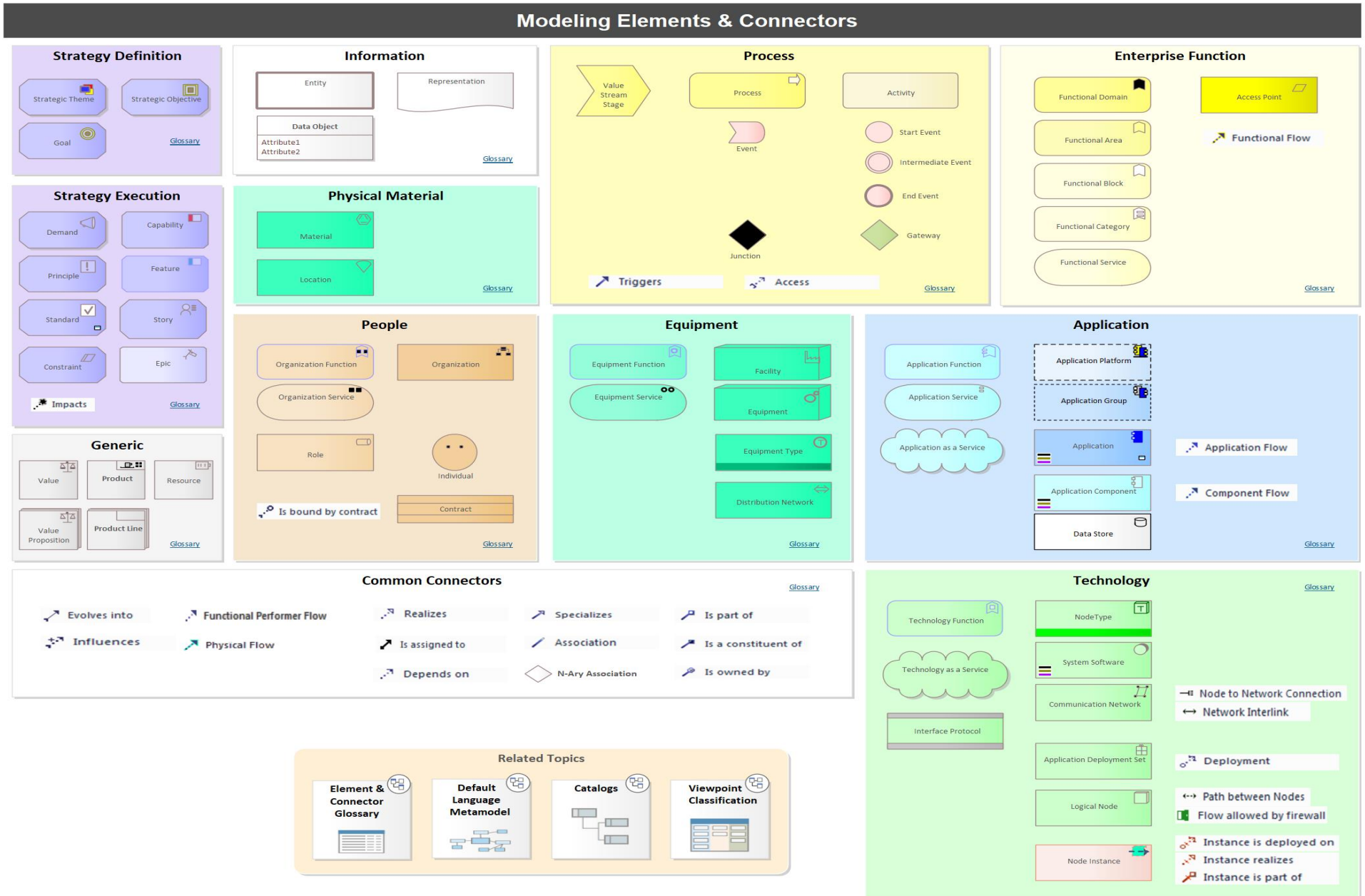
One Single Modeling Language & Terminology



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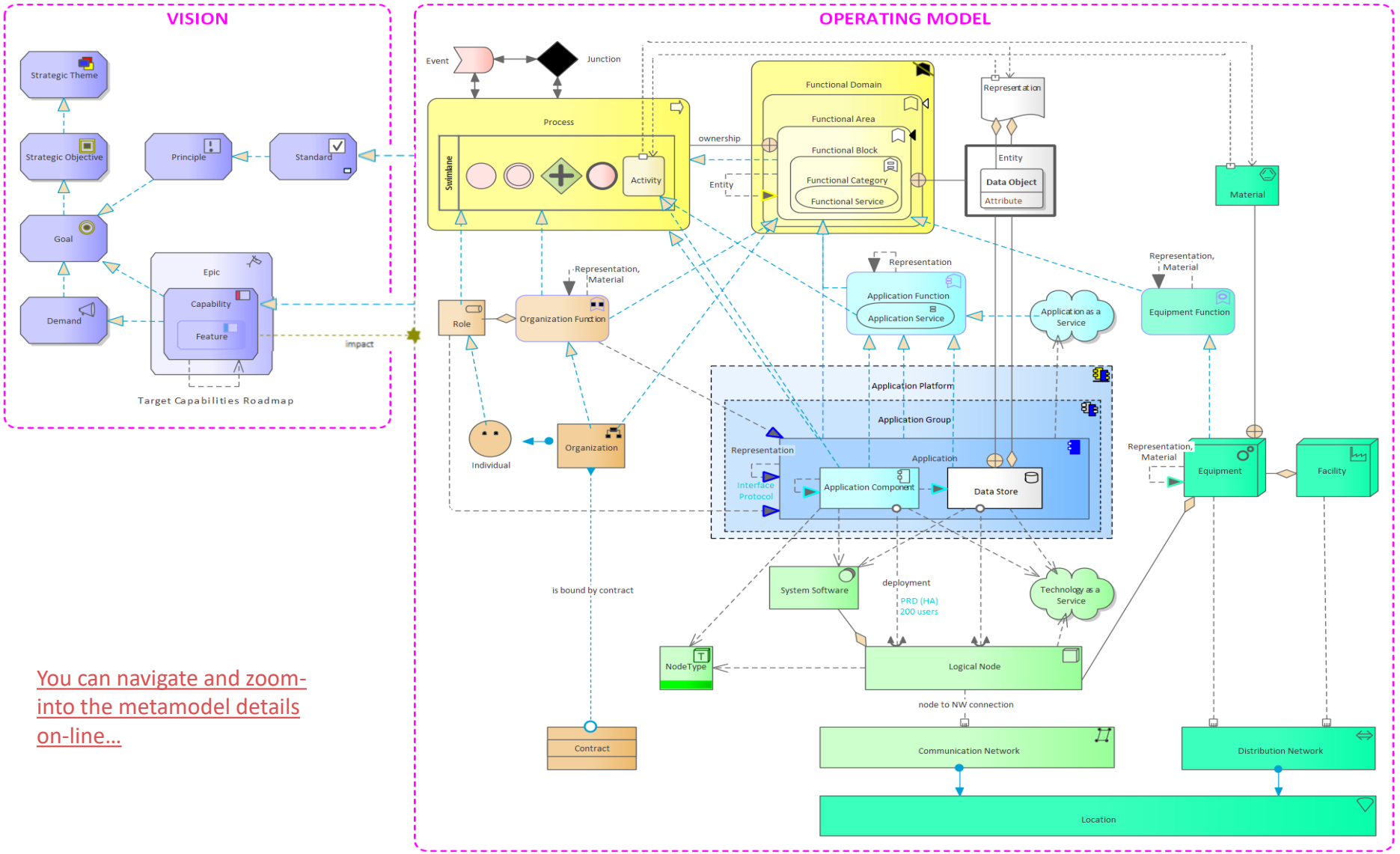
A subset of the language Metamodel



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

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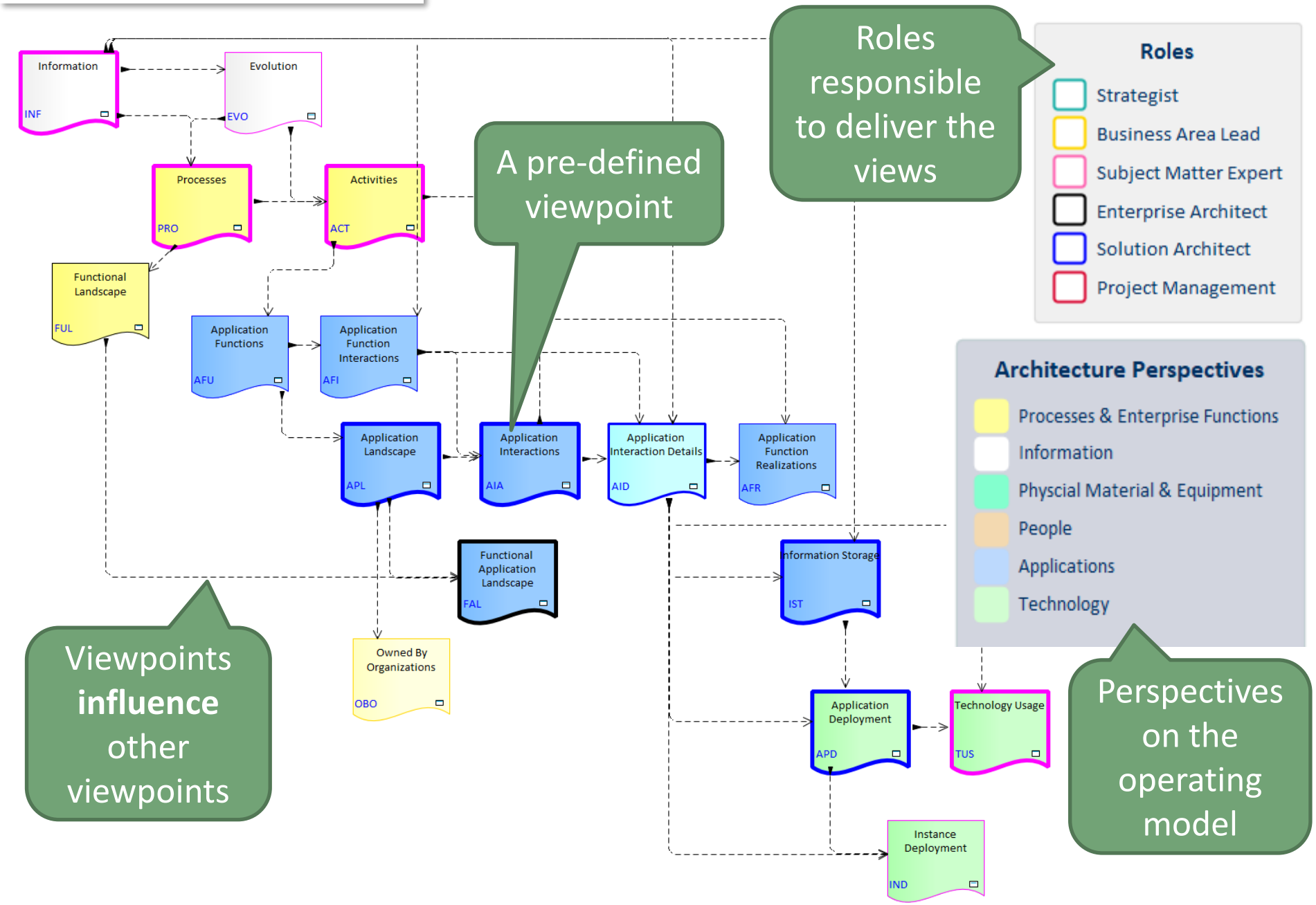
Viewpoints Level 3/3

Focus on IT Solution Architecture Viewpoints



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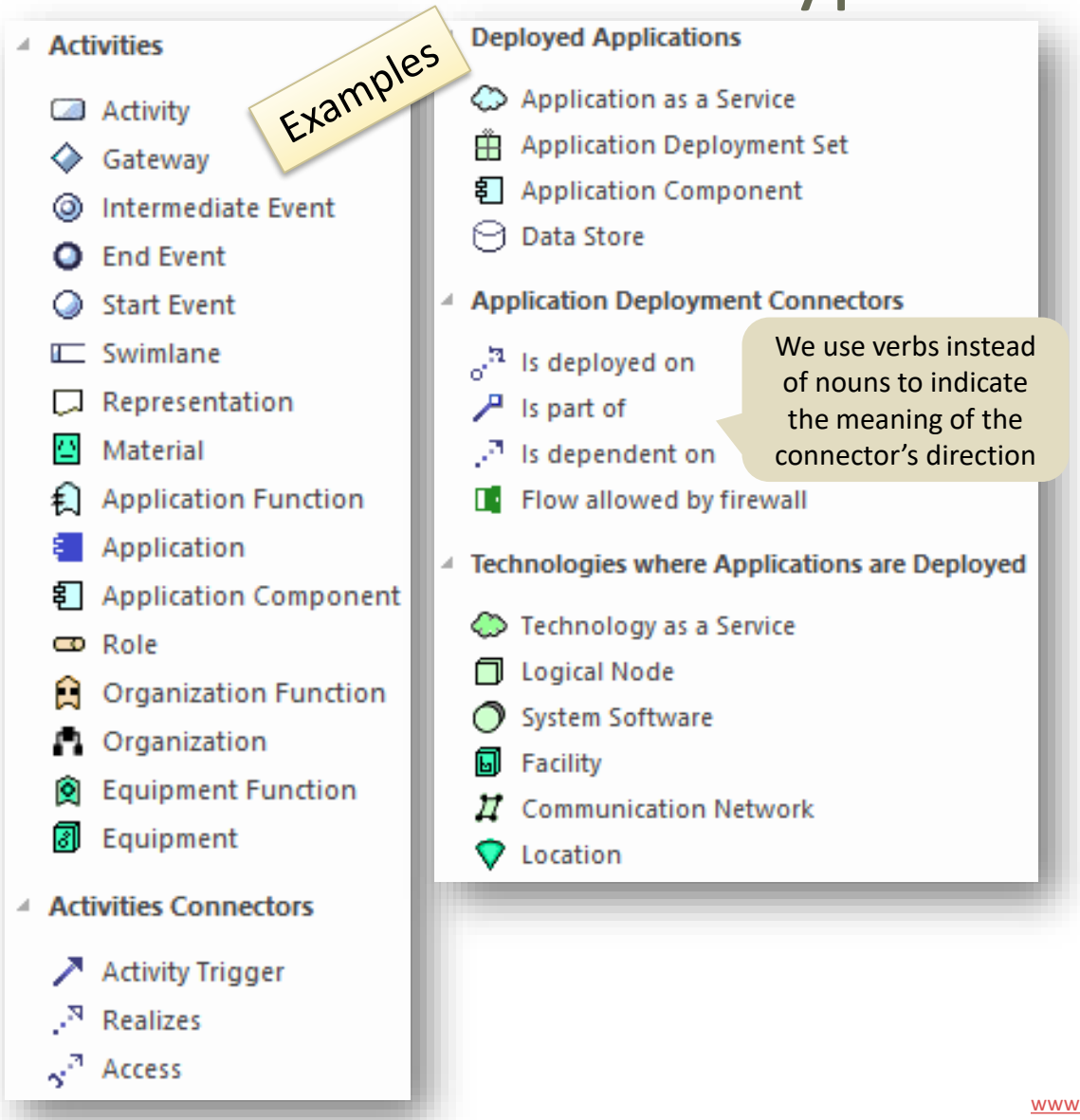
Each type of architecture view has its toolbox with element and connector types

Elements & Connectors

- Some are inspired by standards
- Some are proprietary



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Import

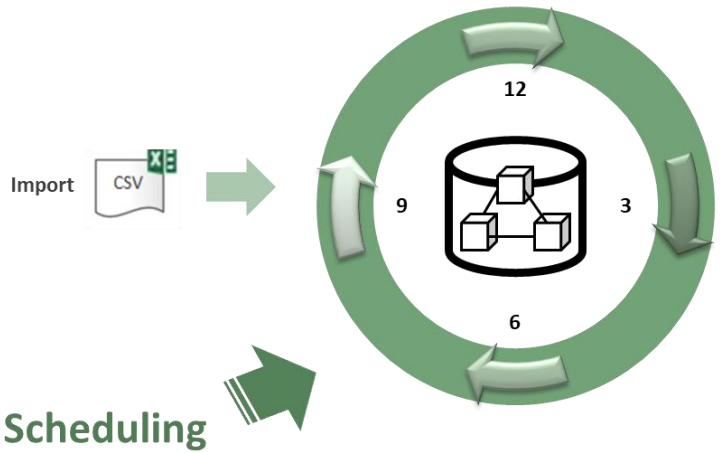
New elements with properties

	A	B	C	D	E	F	G	H	I
1	Type	Stereotype	Name	Notes	Code	AS-IS	TRANSITION	TO-BE	Vision
2	Component	LABN_Application	Active Directory		4	Y	Y	Y	?
3	Component	LABN_Application	Ares		5	Y	Y	Y	?
4	Component	LABN_Application	Athena Cash Desk		6	N	Y	Y	Invest
5	Component	LABN_Application	Bellona ESB		8	Y	Y	Y	?
6	Component	LABN_Application	CMDB		7	Y	Y	N	Phase Out
7	Component	LABN_Application	Customer Mobile Application		10	N	N	Y	Invest
8	Component	LABN_Application	Demeter		11	Y	Y	N	?
9	Component	LABN_Application	Generic Web Browser		12	?	?	?	?
10	Component	LABN_Application	Hera		13	Y	Y	Y	Invest
11	Component	LABN_Application	Janus		15	N	?	?	Invest
12	Component	LABN_Application	Jupiter Cash Desk		16	Y	Y	N	Phase Out
13	Component	LABN_Application	Labnaf Powered by Enterprise Architect		9	Y	Y	Y	Invest
14	Component	LABN_Application	LOGIN B2B		17	Y	Y	Y	Maintain

Properties of existing elements

Scheduled or On demand

	A	B	C	D	E
1	Guid	Criticality	Nb_Users	Pct_Unavailable	TCO
2	{3F9A5A7C-60C5-4e38-B107-F7BB64C1DAC6}	M	150	0	120
3	{5B0A6CBE-AD19-43a2-A142-F0974464E0A9}	L	20	8	430
4	{78169A07-6AE7-48a9-A2A7-FB048F78F998}	H	62	0	1250
5	{D67EC76A-23D7-4512-82C9-E5B2ED50A8C2}	M	62	0	69
6	{3908BC63-B69A-4edb-B29B-81D1344168FC}	M	5	2	258
7	{C4C33055-6CE7-4eae-ABB3-F68EDB82A4FA}	M	1600	0	5
8	{2316C3F0-D4F5-4391-AFB1-6F0CBFE3ACE5}	M	20	5	545
9	{3906D4EE-6470-4f74-A706-DA9A6CC19E8D}	M	130	0	62
10	{3E048B62-B905-41ec-8464-7CDC36594294}	M	8	10	867



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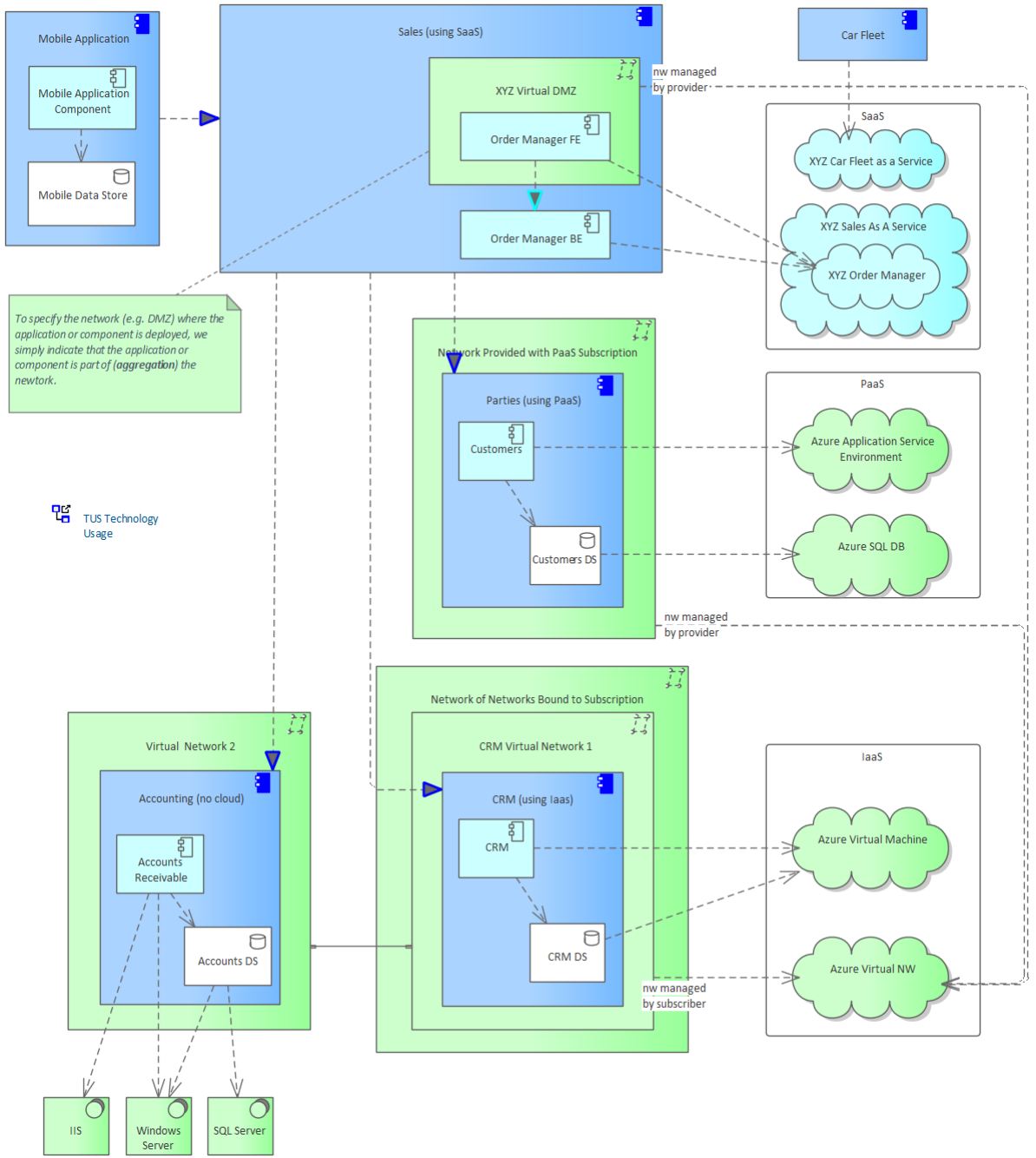
Model

- Cloud Computing
- Ecosystems
- IoT
- GDPR
- AI
- …



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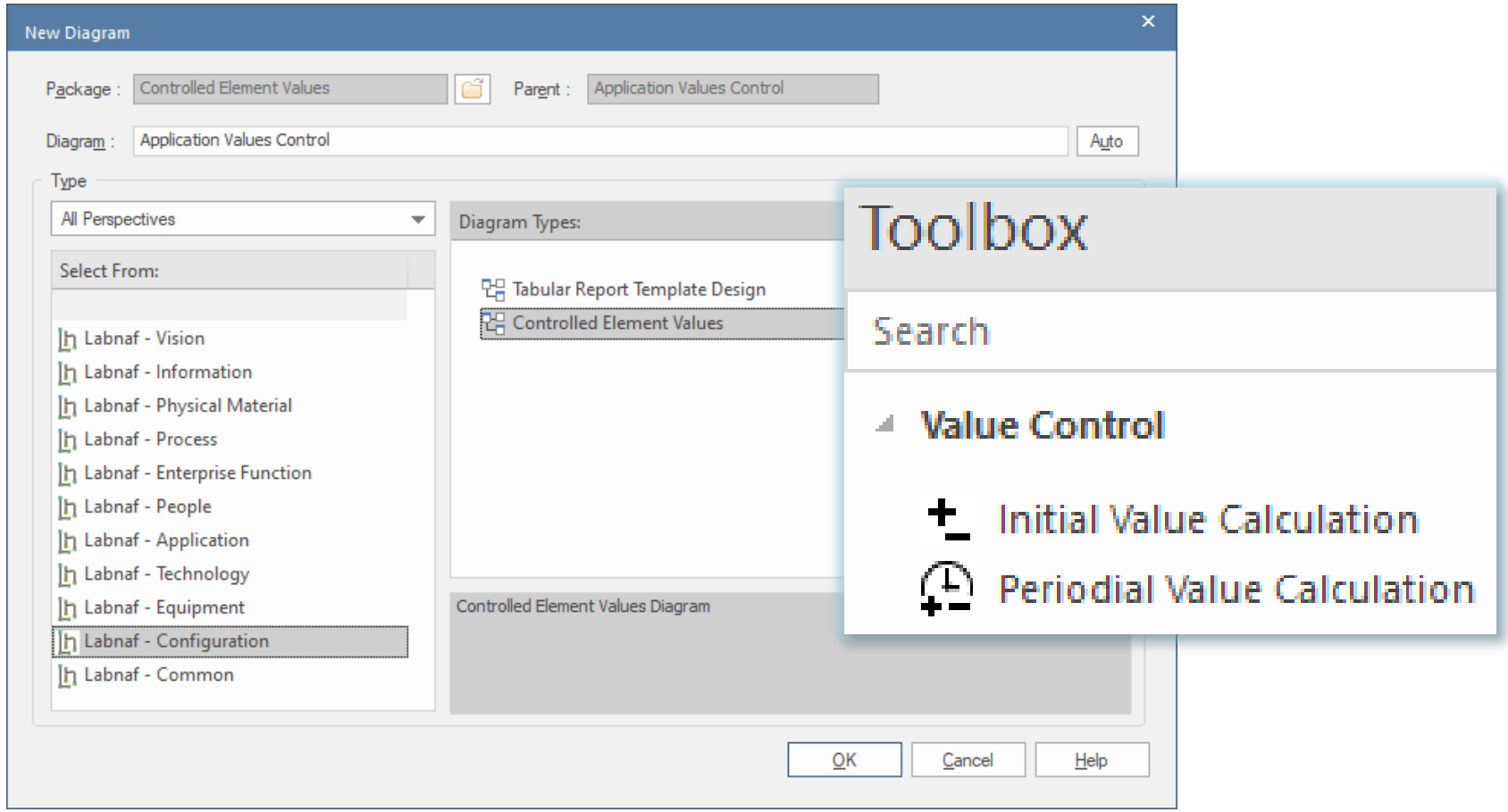
Calculate

Dynamically + Periodically

Model your value calculations



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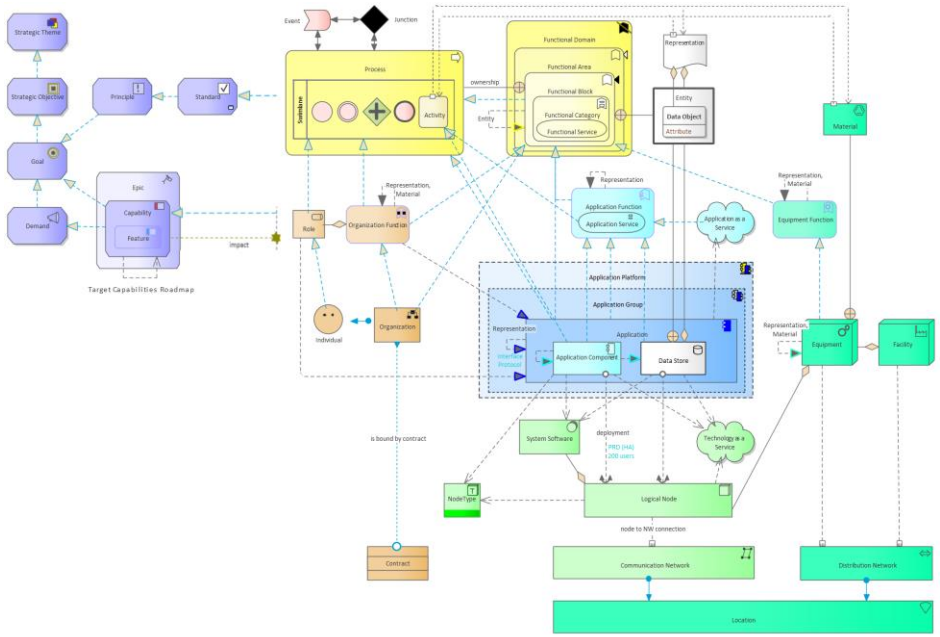
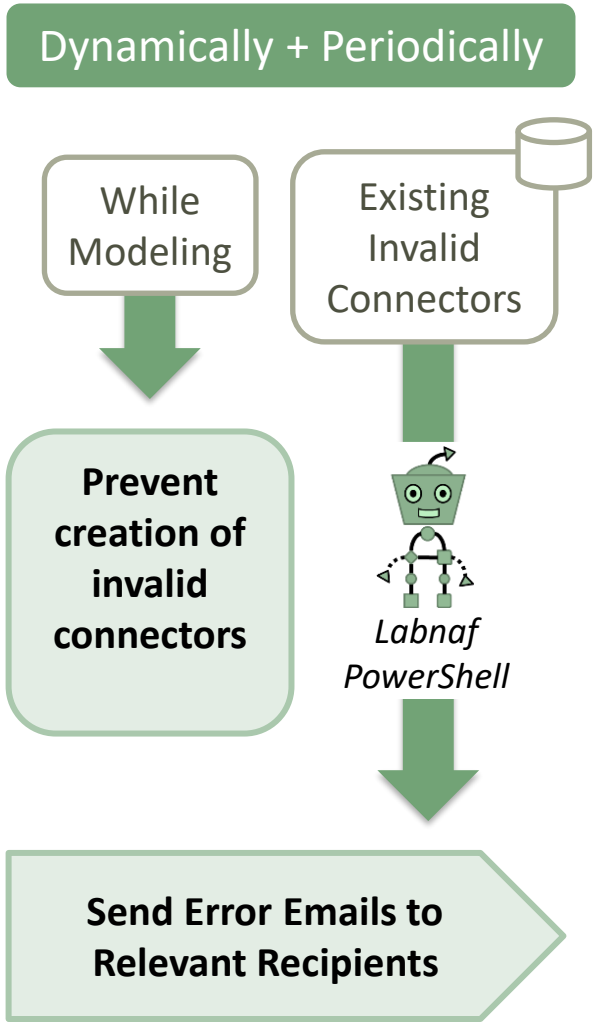
Validate





The language metamodel is used both for documentation & automatic model validation

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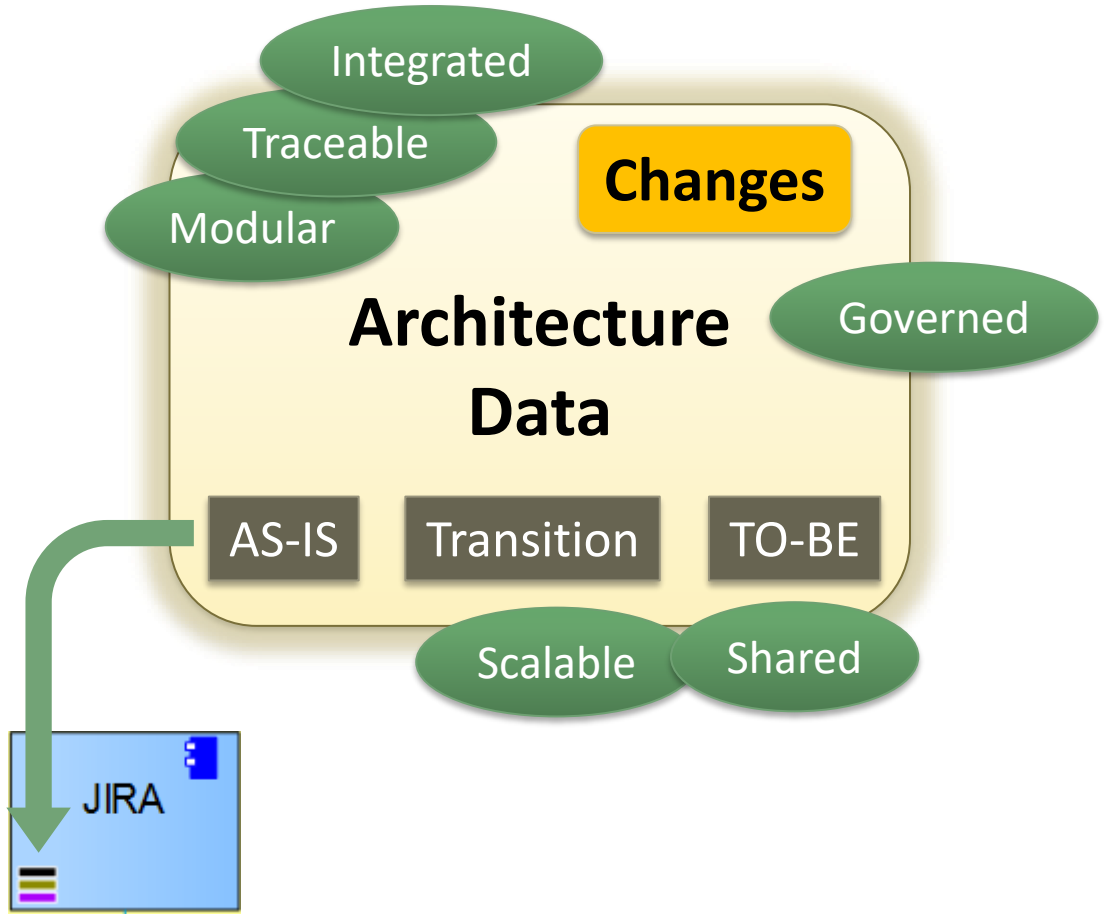
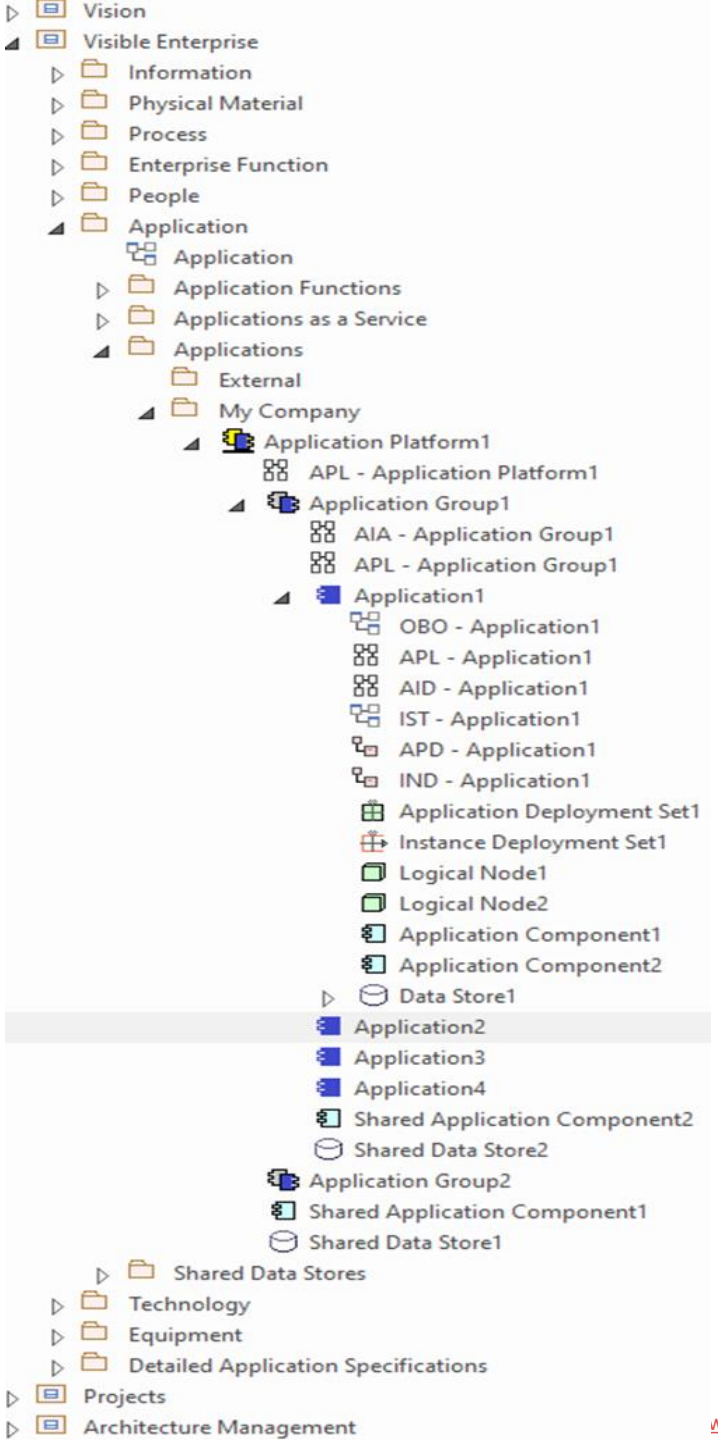
Organize & Scale

following prescribed **repository** structure





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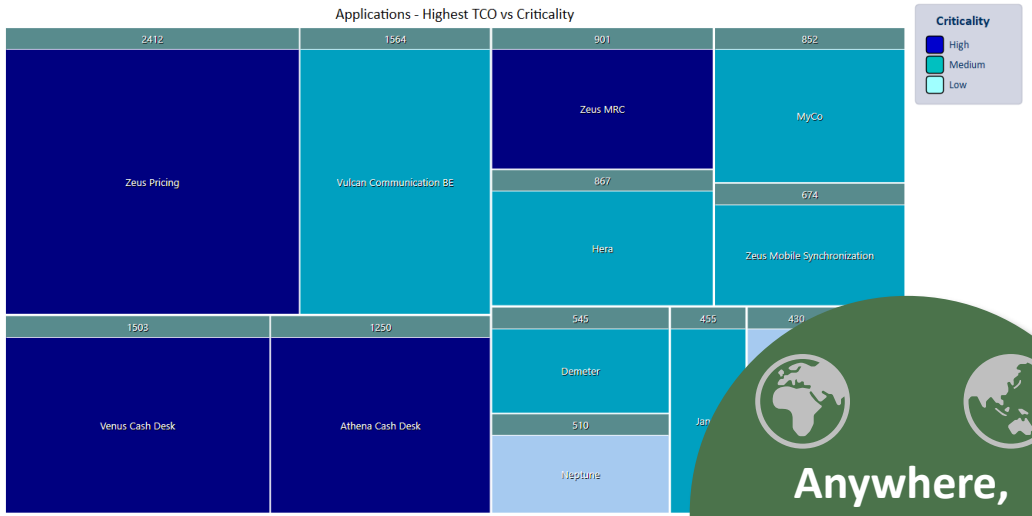
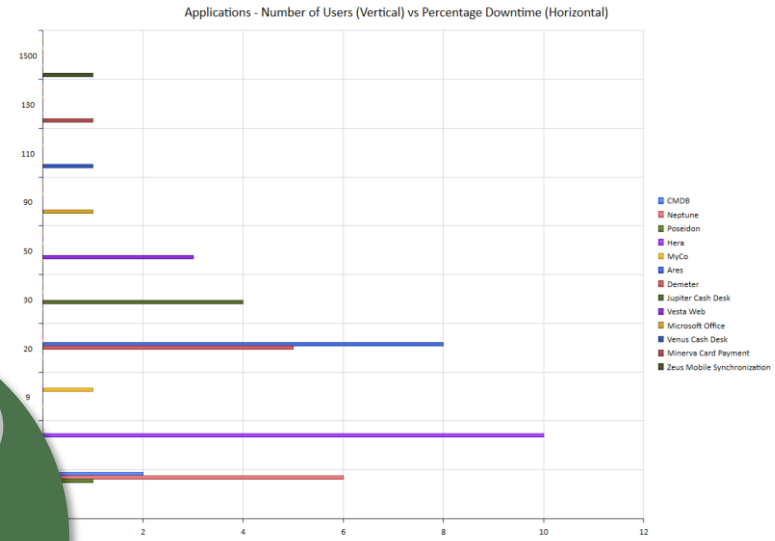
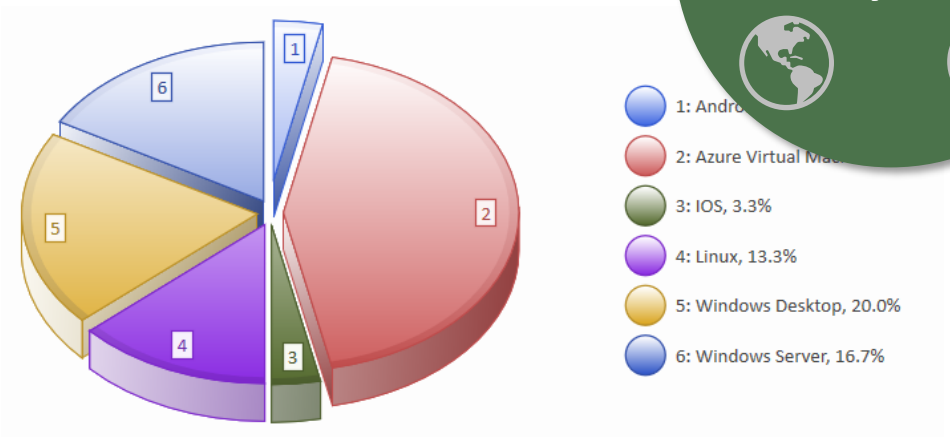
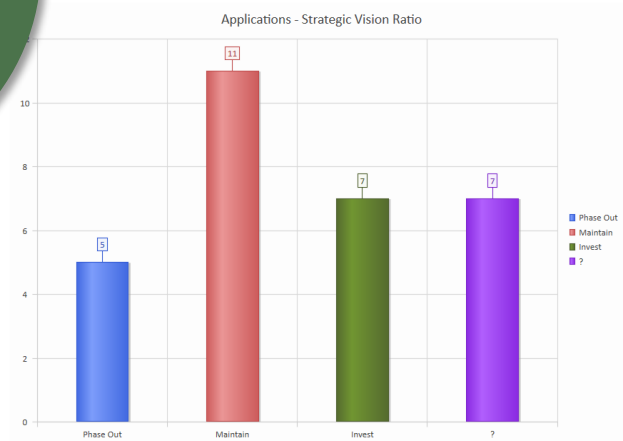
Check Out your Real-time Dashboards and Take Decisions









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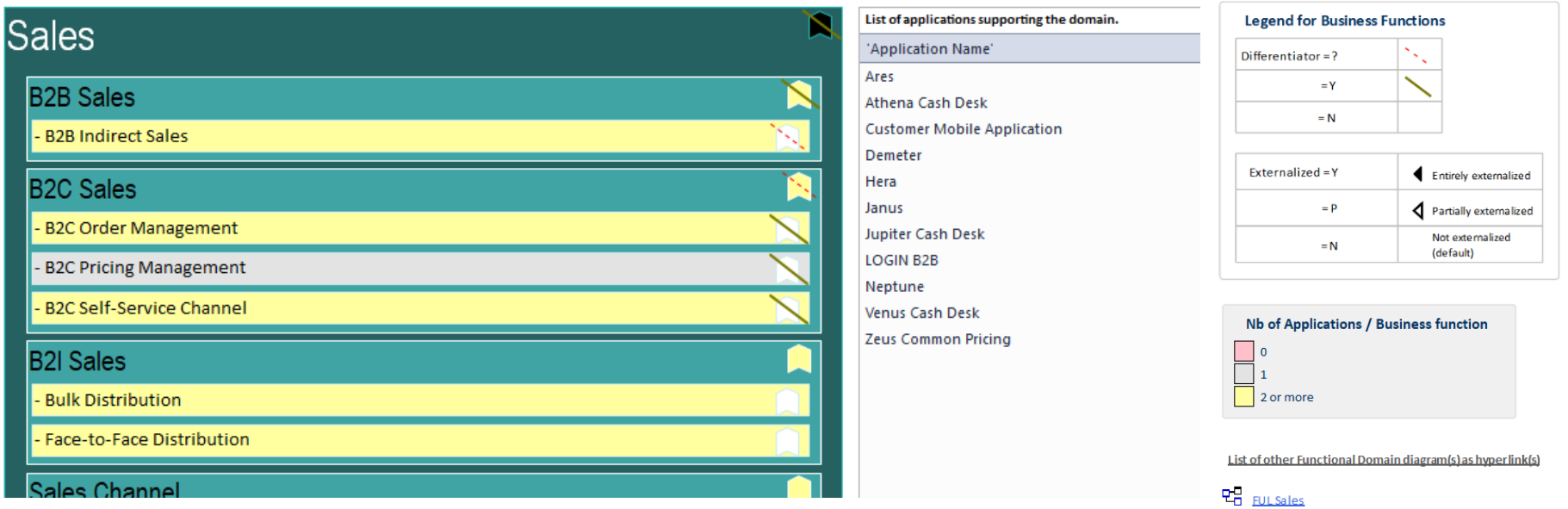
Generate diagrams

Scheduled or On demand

Real navigable model elements
(automatically resized following context)



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

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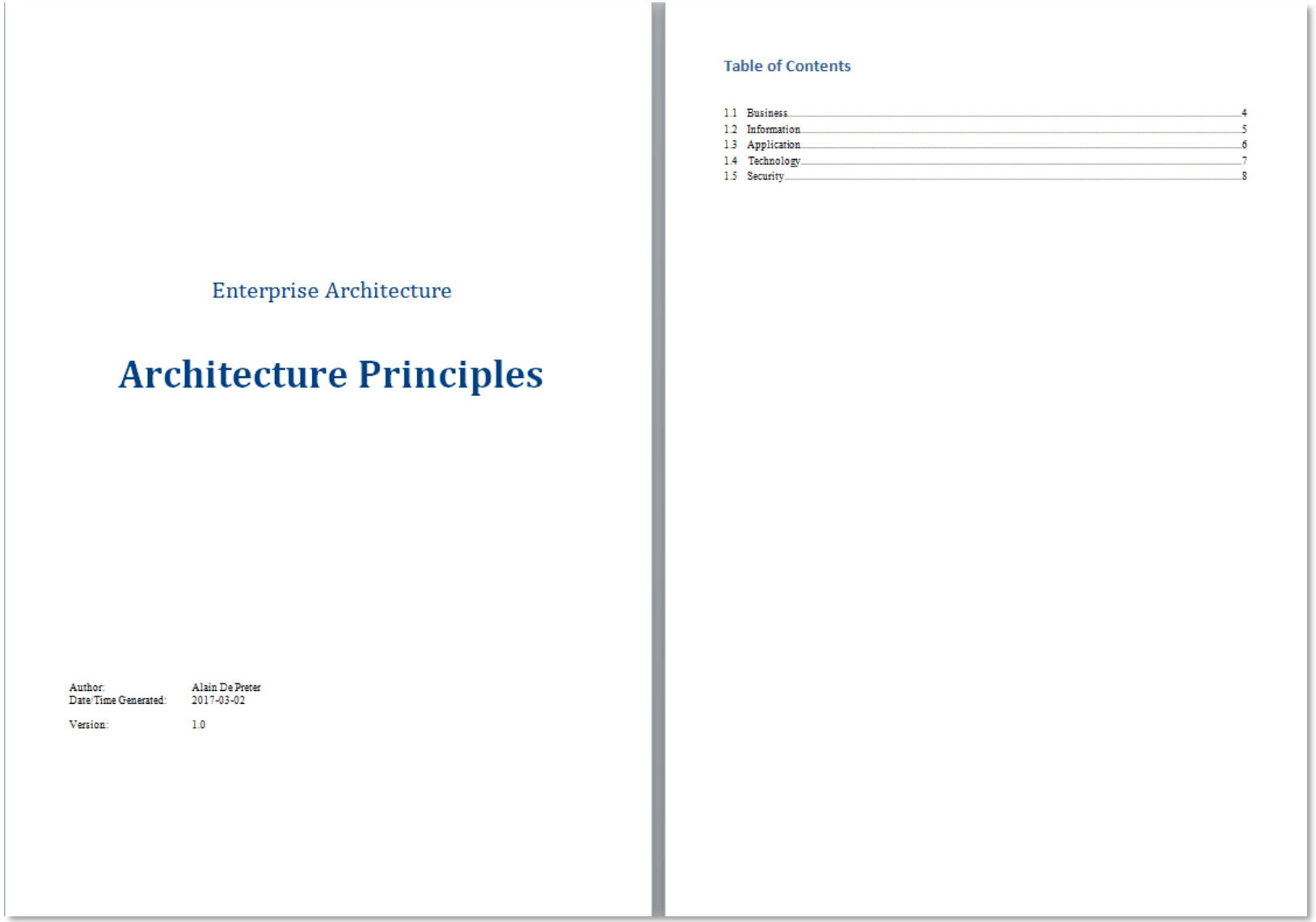
Generate Word, RTF and PDF documents

Scheduled or On demand

Templates are provided



Enterprise Architecture

Architecture Principles

Author: Alain De Preter
Date/Time Generated: 2017-03-02

Version: 1.0

Table of Contents

1.1 Business 4
1.2 Information 5
1.3 Application 6
1.4 Technology 7
1.5 Security 8

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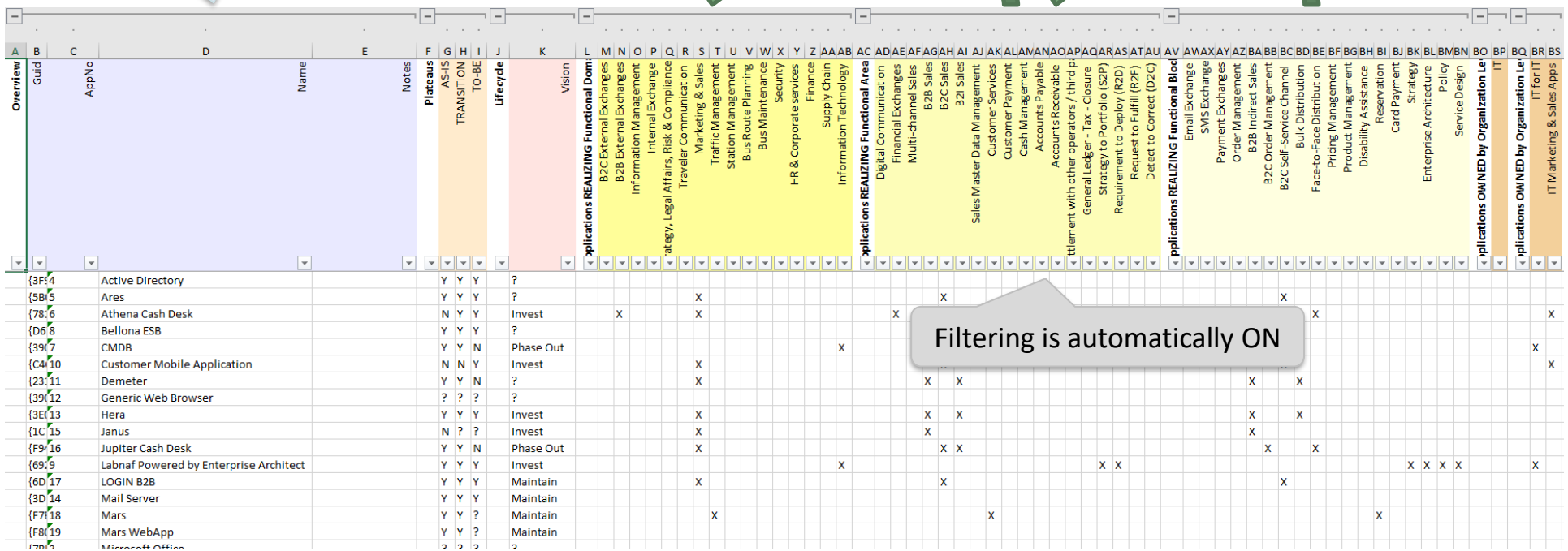
Generate Tabular Reports (Excel/CSV)

Scheduled or On demand

Reported collection of elements (e.g. applications) and relationships selected following any kind of rule

Element properties and/or tagged values with optional renaming and colored groupings

Specific connections in specific direction to specific types of elements.
Automatic connection **consolidation** into parent element relationships.



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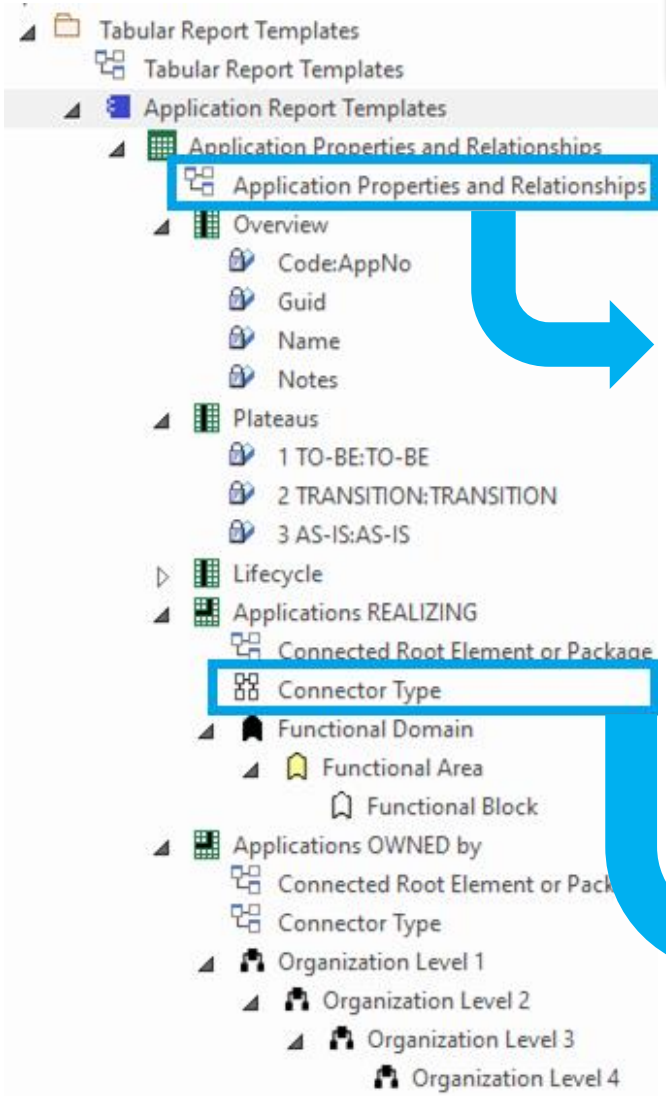
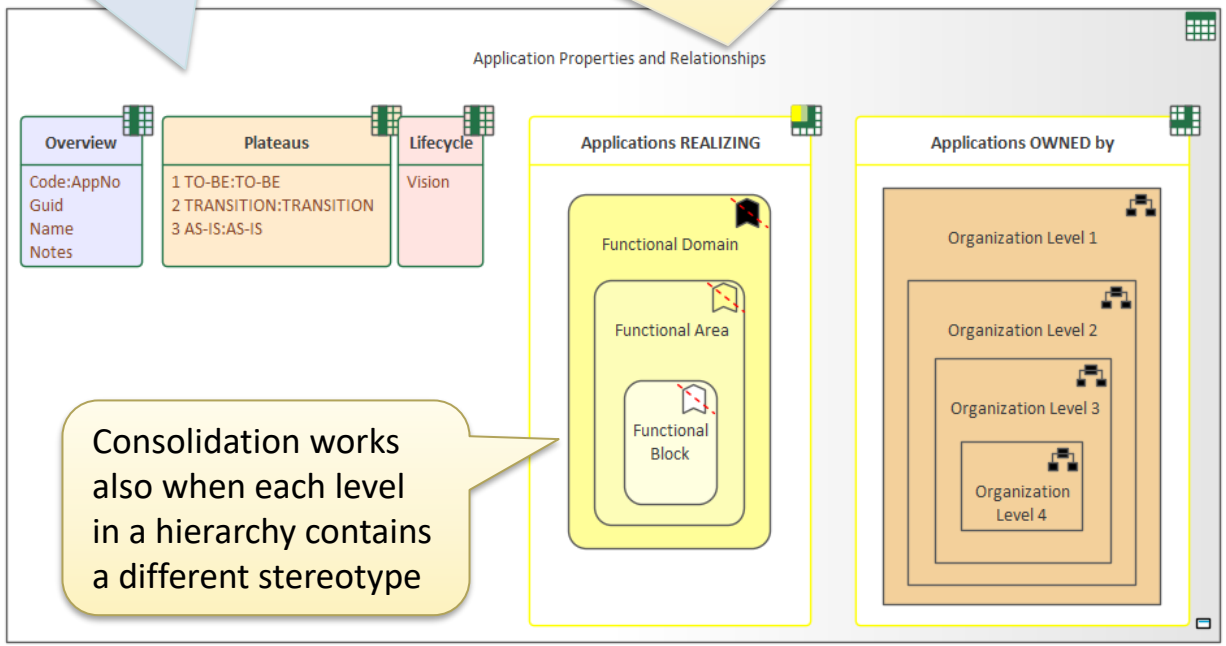
Generate Tabular Report (cont.)

Model your tabular report

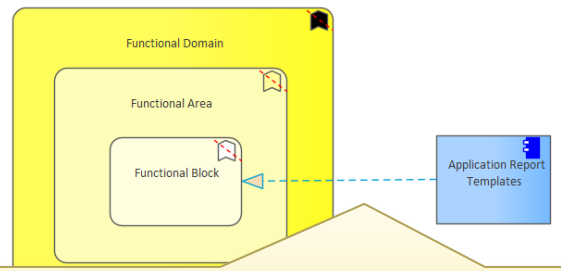


Model element properties and/or tagged values with optional renaming and colored groupings

Model specific connections in specific direction to specific types of elements.
Model automatic connection **consolidation** into parent element relationships



Consolidation works also when each level in a hierarchy contains a different stereotype



Model leaf element **connector** to be reported and consolidated

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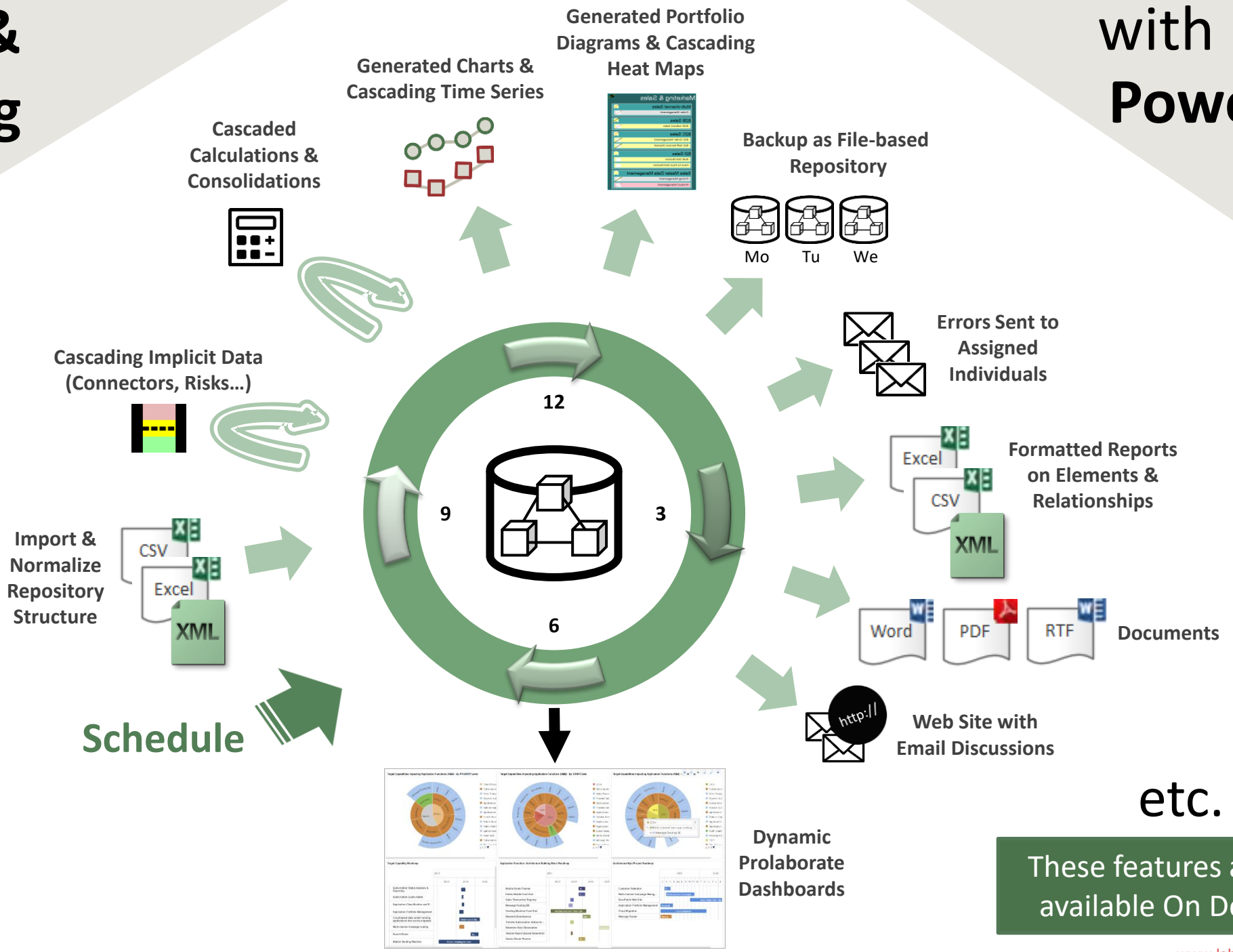
Scripting & Scheduling with Labnaf PowerShell



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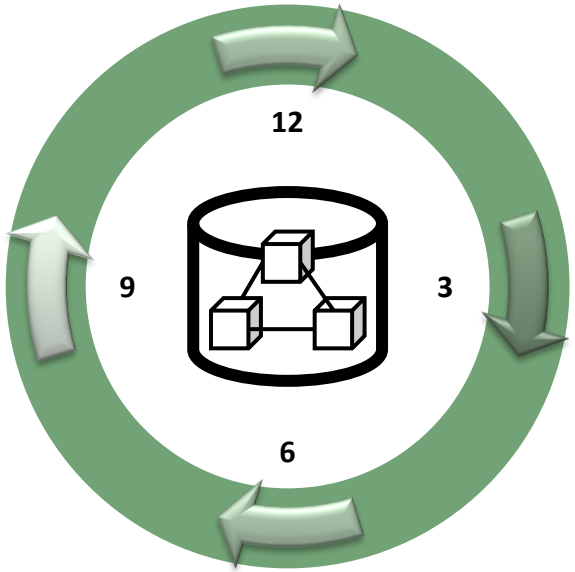
Scripting & Scheduling

- Configure & Test in the UI
- Script
- Schedule

Commands
AutoConnectorsDelete
AutoConnectorsGenerate
BackupToFile
CalculateTaggedValues
ClonePackage
CreatePackage
ExportToXmi
GenerateCharts
GenerateDiagrams
GenerateDoc
GenerateHTML
GenerateImplicitData
GenerateTabularReports
ImportConnections
ImportFromXmi
ImportTabularReport
MoveElementsToCalculatedParent
MoveElementsToPackage
MovePackagesToPackage
RenameItem
ScheduleCommand
SetDiagramProperty
SetProperty
SqlExportToCsv
Validate



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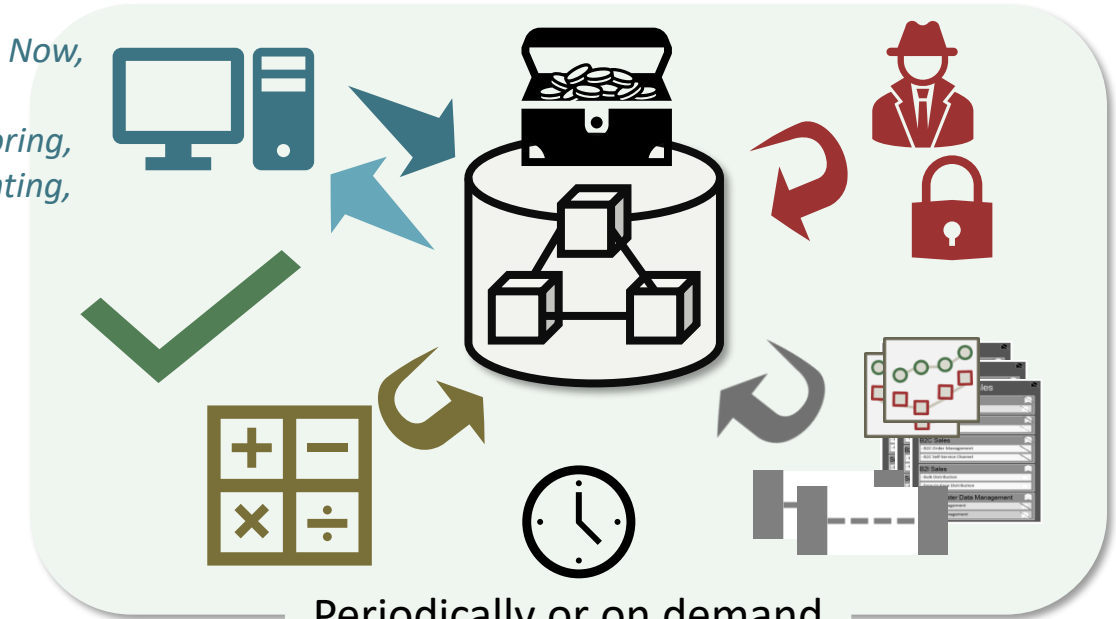
Data Enrichment & Distribution

Data is Automatically Enriched…

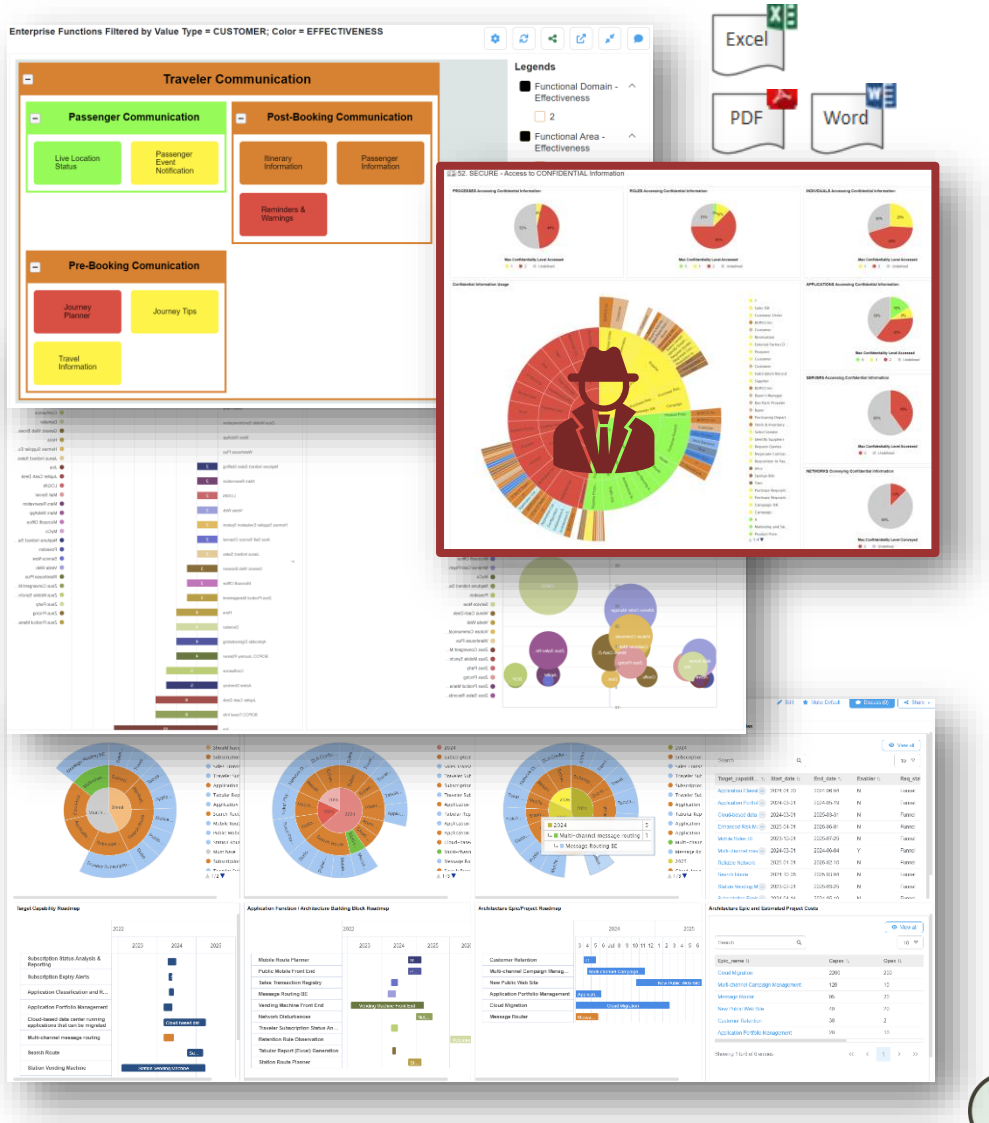
- Import data from different sources
- Validate & normalize the repository content
- Cascade calculation
- Generate implicit data, connectors, diagrams & charts
- Generate 360° analysis of sensitive data usage & risks
- Export to other systems and repositories

Service Now, CMDB, Monitoring, Accounting, HR…



Periodically or on demand

and Presented in Dashboards & Reports



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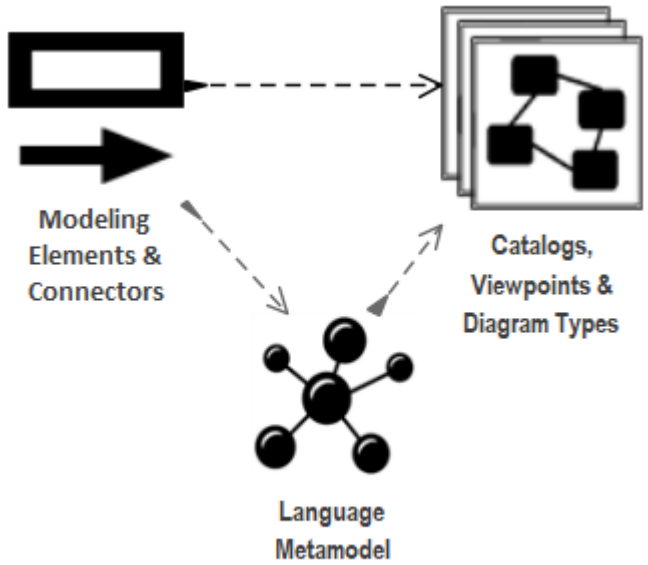
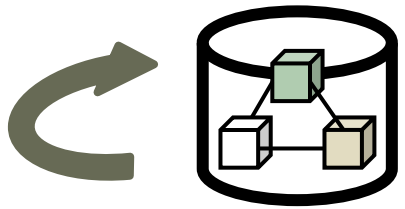
Labnaf Framework Customization

1. Customize the language following your organization requirements



2. Adapt existing repository content



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Labnaf Customization Tools => Categories of Customization	Labnaf AddIn: Instant Metamodel Manager	Labnaf AddIn: Instant Metadata Manager	Customization Workbench
Metamodel	*Customizable metamodel expressed using the Labnaf Language and stored in the production database.*		
Select active metamodel (standard, customized standard, or user-defined metamodel)	Y		
Add/Delete connectors to a metamodel	Y		
Upgrade standard metamodel to a new version of Labnaf, while keeping your own customizations	Y		
Generate documentation/diagram about your metamodel customization	Y		
Element Properties			
Create custom property types		Y	Y
Upgrade properties to a new version of Labnaf and keep/restore your own customizations		Y	
Rename/Delete property types		Y	Y
Synchronize property sets in existing elements		All props	MDG props
Add custom properties to the **Tags** Tab		Y	N
Add Labnaf Properties to the **Element** Tab		N	MDG-defined
Create named property groups		N	MDG-defined
Connector Properties			
Create custom connector properties		N	MDG-defined
Elements and Connectors			
Add/Delete element and connector types		N	MDG-defined
Toolboxes and Diagram Types/Viewpoints			
Add/Update/Delete Toolboxes		N	MDG-defined
Add/Update/Delete Diagram Types/Viewpoints		N	MDG-defined
Change Shapes		N	MDG-defined
Change Icons		N	MDG-defined

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Labnaf provides two options for language customization

1. Instant Metamodel Manager and the Instant Metadata Manager

The **Instant Metamodel Manager** and the **Instant Metadata Manager** are provided by the Labnaf AddIn i.e. directly in the modeling environment.

Using these tools, you can

- use the standard built-in metamodel, customize it, or create your own user-defined metamodel from scratch,
- visualize, create, rename, delete and synchronize element properties,
- automatically merge new versions of Labnaf with your own metamodel and metadata (properties) customizations.

2. Customize the Labnaf MDG Using the Customization Workbench

This is used for **advanced customizations**.

The **Customization Workbench** is used for customizing the Labnaf MDG including, properties/tagged values, element types, connector types, toolboxes, diagram types, and metamodel (still using the Labnaf end user language itself).

To activate this customization mode, start the Customization Workbench, and select the "Load MDG from Files" option. *This overrides the above features on (1).*

In this case Labnaf still automatically merges the new Labnaf metamodel version with your own customizations, since Labnaf metamodels are entirely controlled by Labnaf .

But for the other parts of the language specifications, which are defined in the MDG, you need to rely on Sparx tools.

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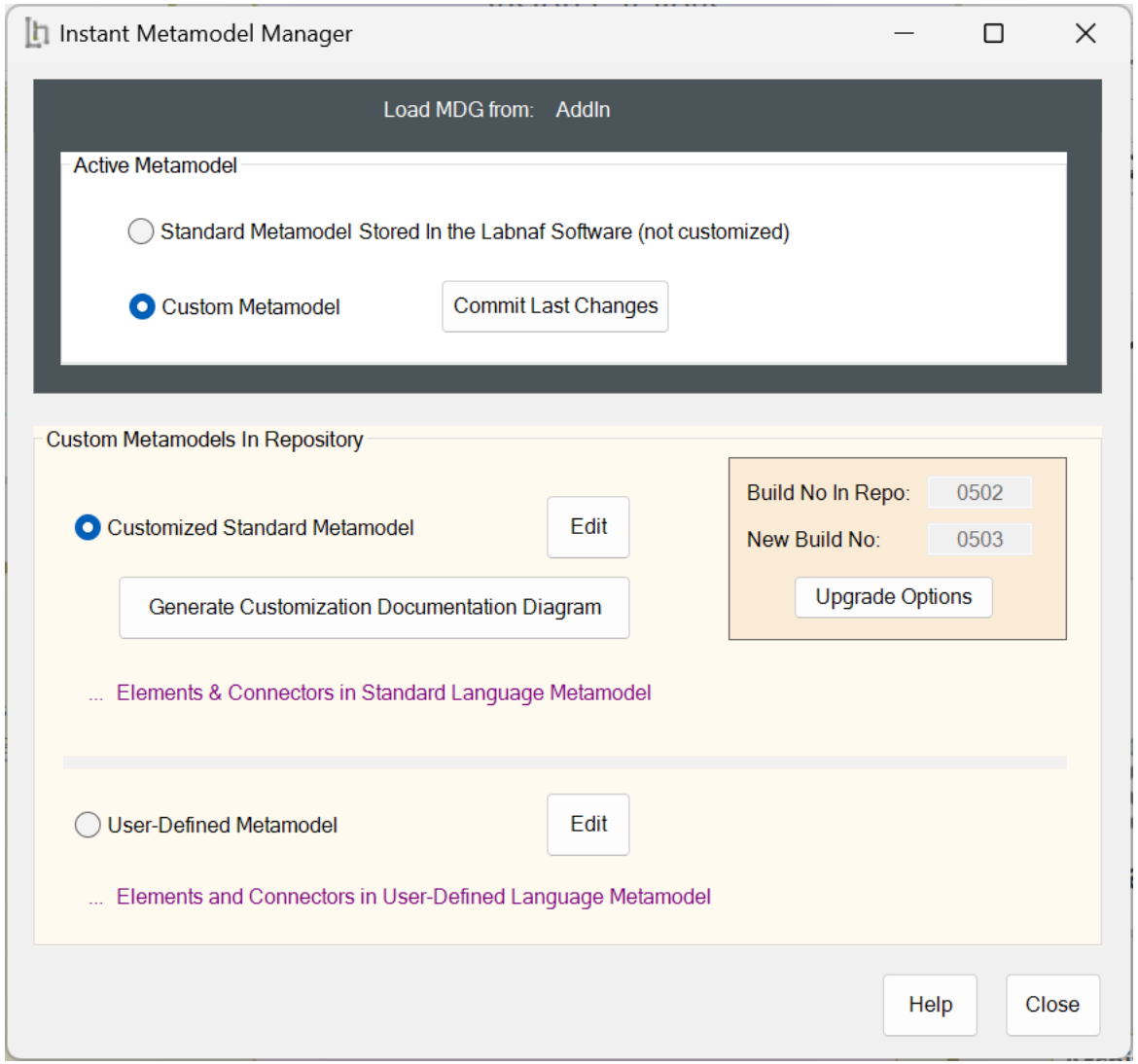
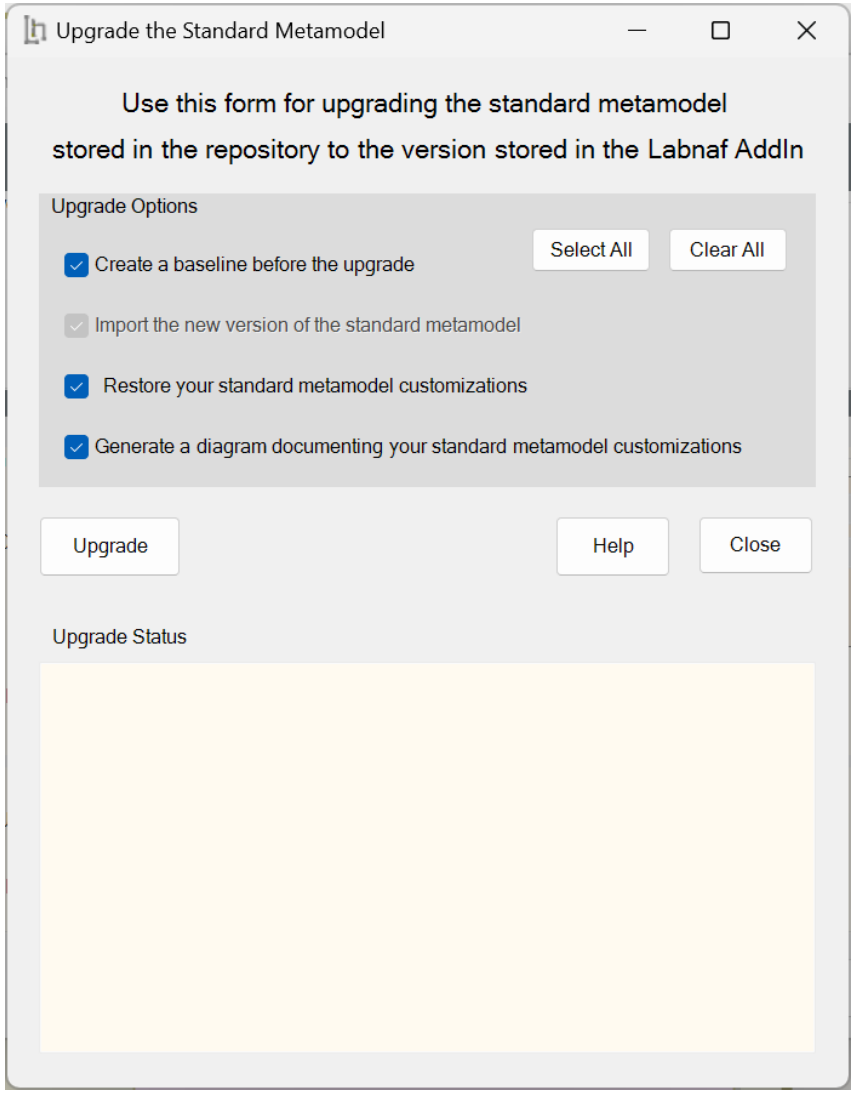
Instant Metamodel Manager

Customization from the Labnaf Add-In





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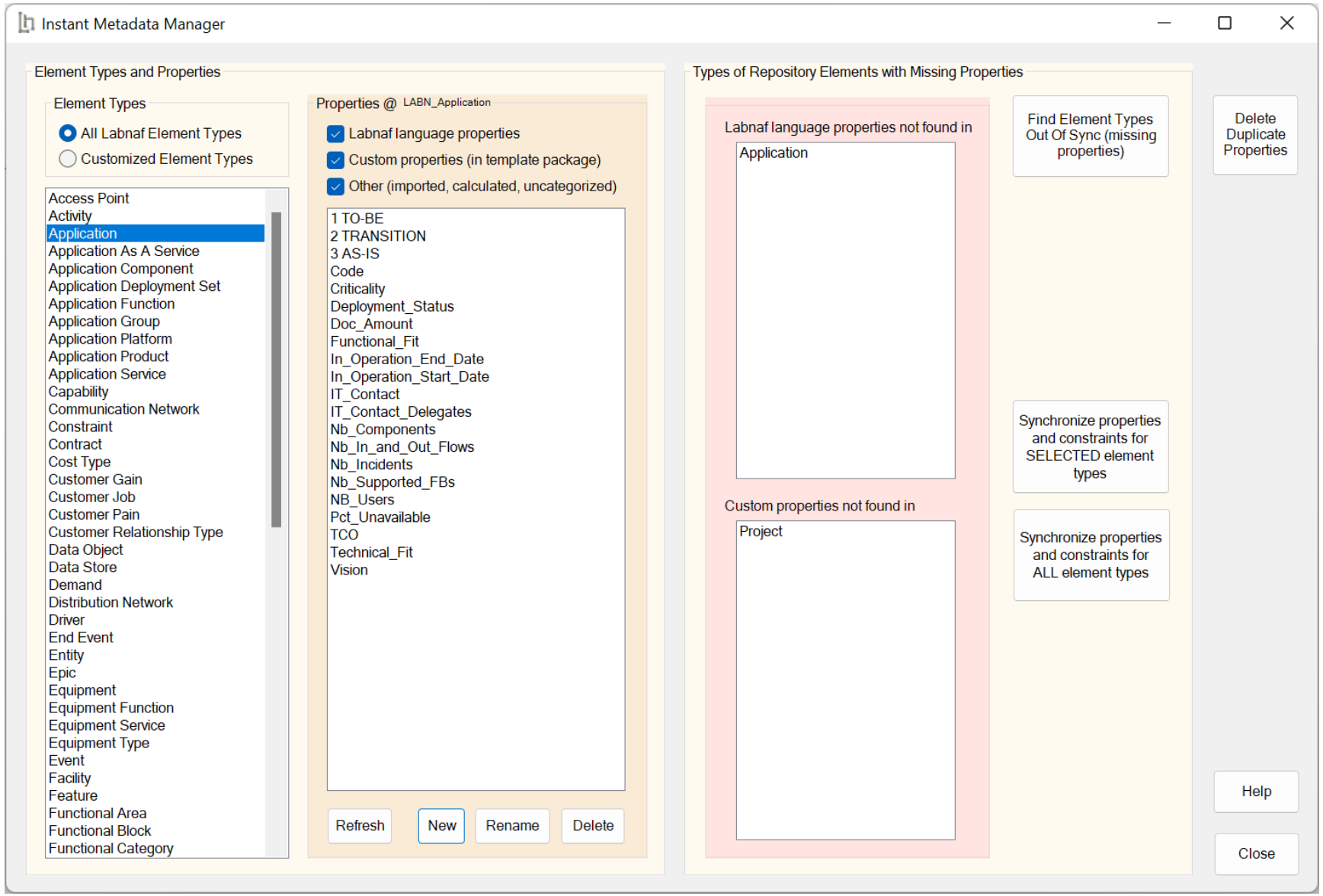
Instant Metadata Manager (for element properties)

Customization from the Labnaf Add-In



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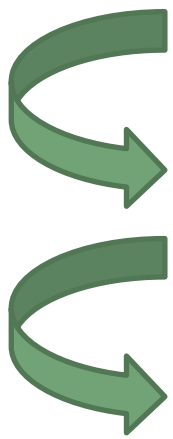
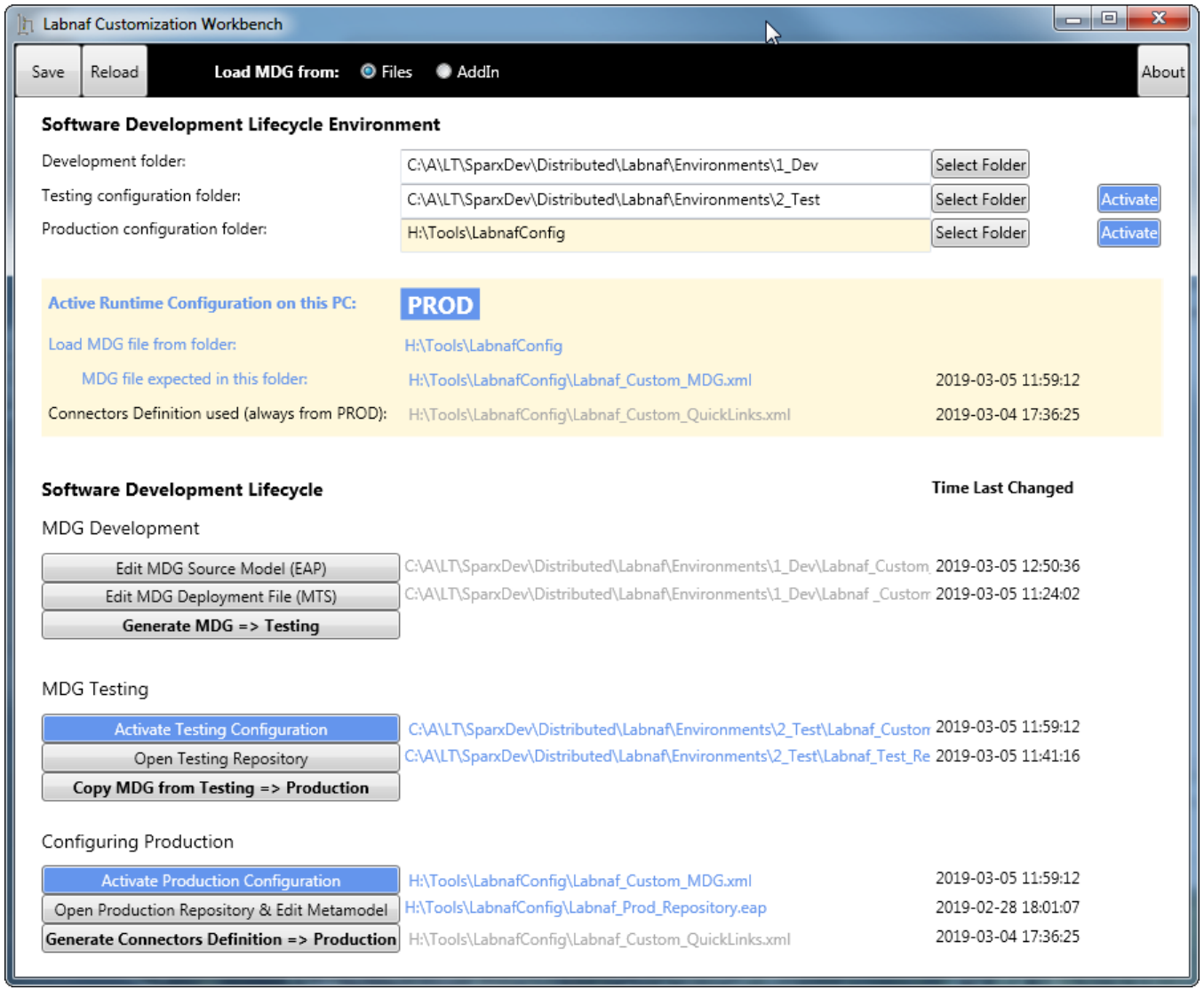
Advanced customizations of the modeling language **(MDG)** using the **Labnaf Customization Workbench**





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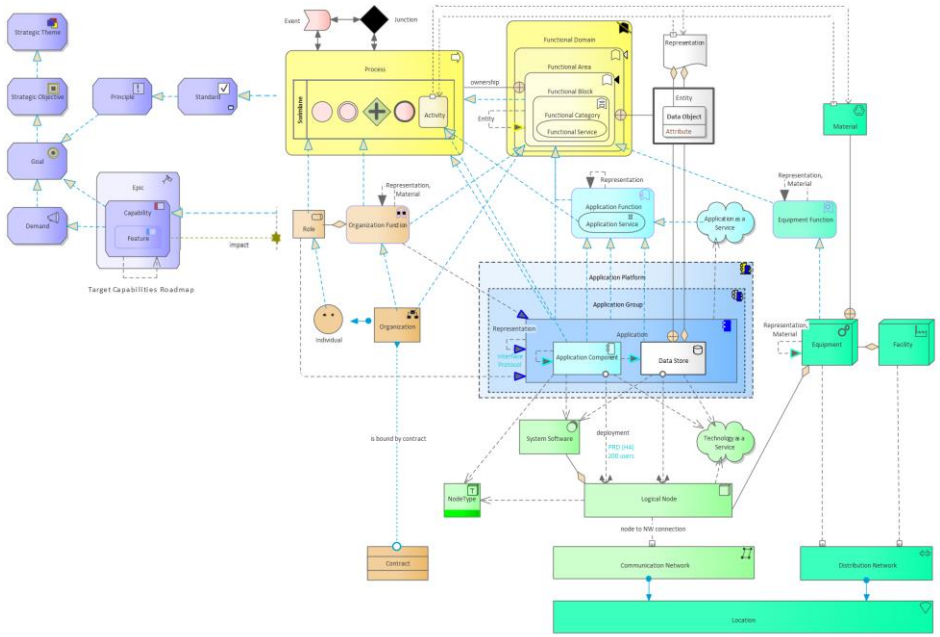
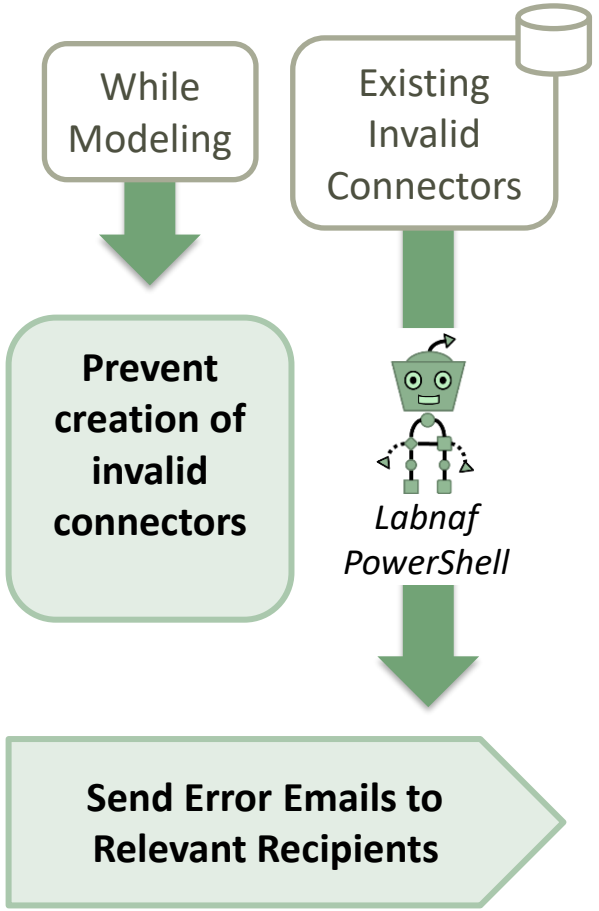
The Language Metamodel is used both for documentation & automatic model validation





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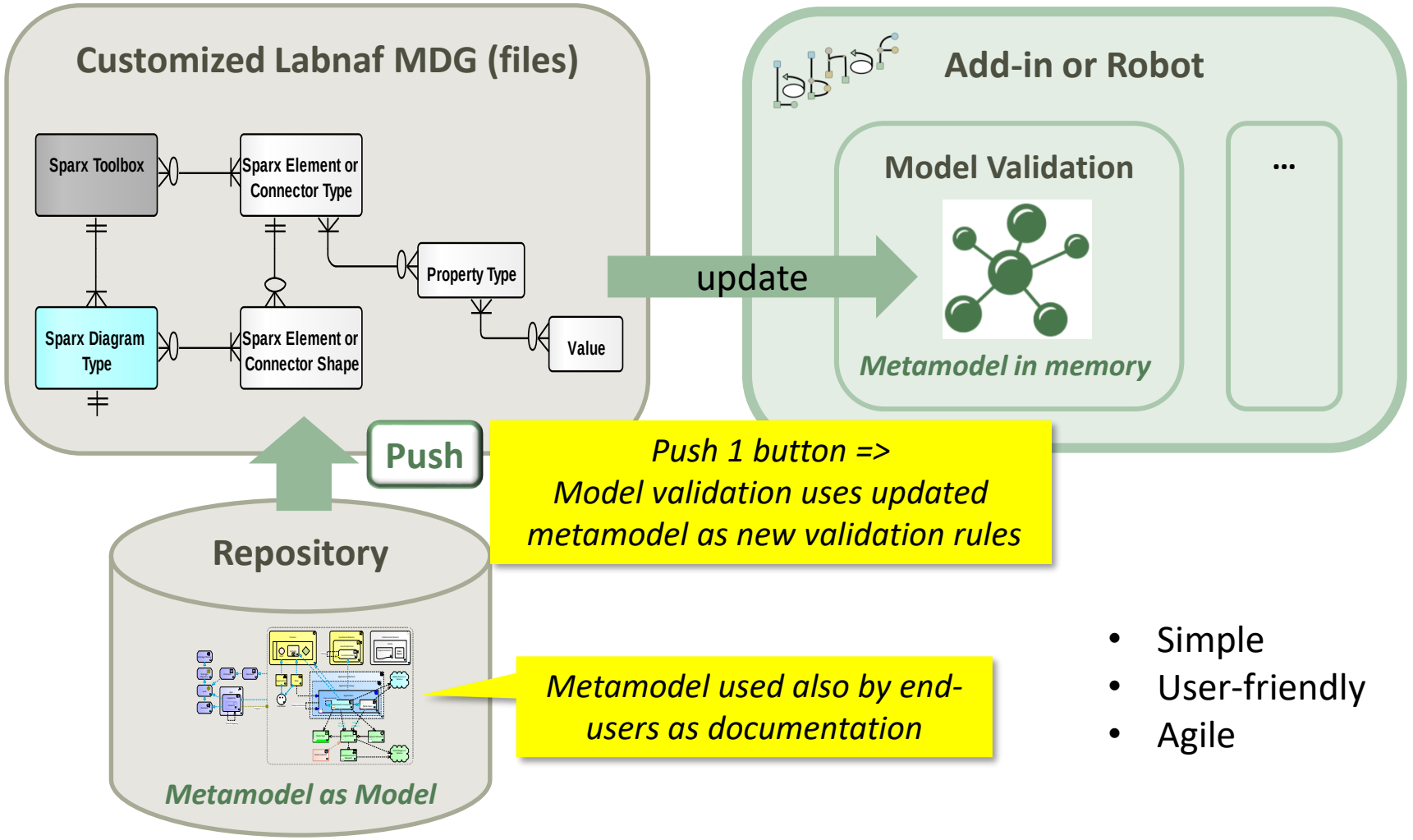
The default metamodel (stored in the Labnaf Addin and used for validation) can be very easily updated



- Simple
- User-friendly
- Agile

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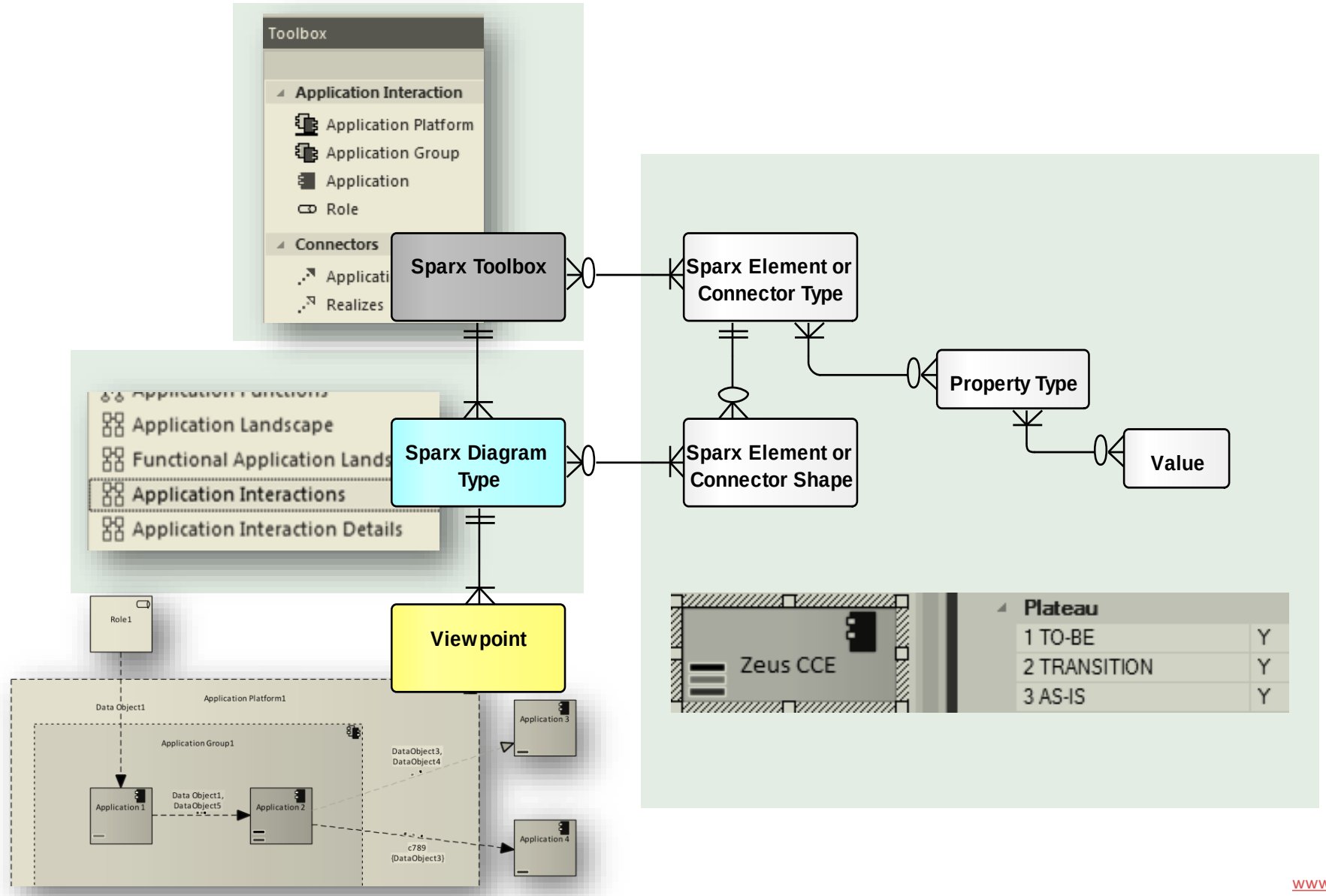
Other items that can be designed and configured by using the Customization Workbench



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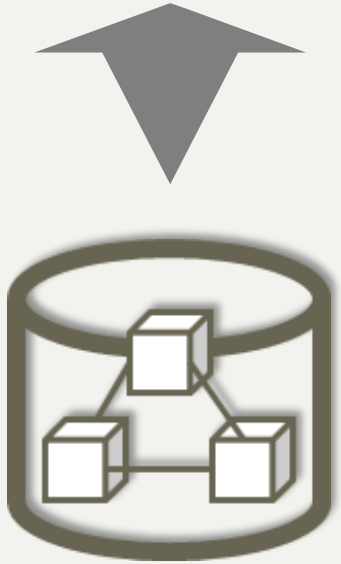
Transform any language…

We all speak the same language

… in any direction

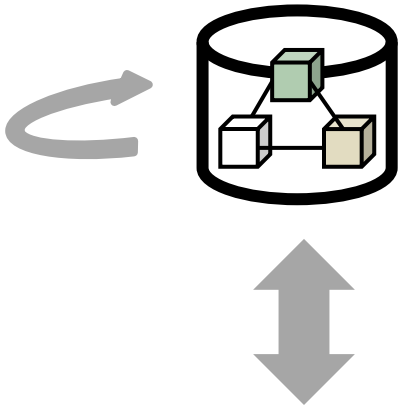
One **Single**
Strategy & Architecture
Modeling **Language**



You are never locked in Labnaf !

The Language Transformer adapts ANY language in any existing repository content

- **Change Element Type**
- **Change Connector Type**
- **Change Diagram Type**
- **Change Diagram Types defined in Csv**
- **Tagged Value Rename**
- **Tagged Value Delete**



Labnaf,
ArchiMate,
BPMN,
SysML,
UML,
SOMF,
…
ANY language

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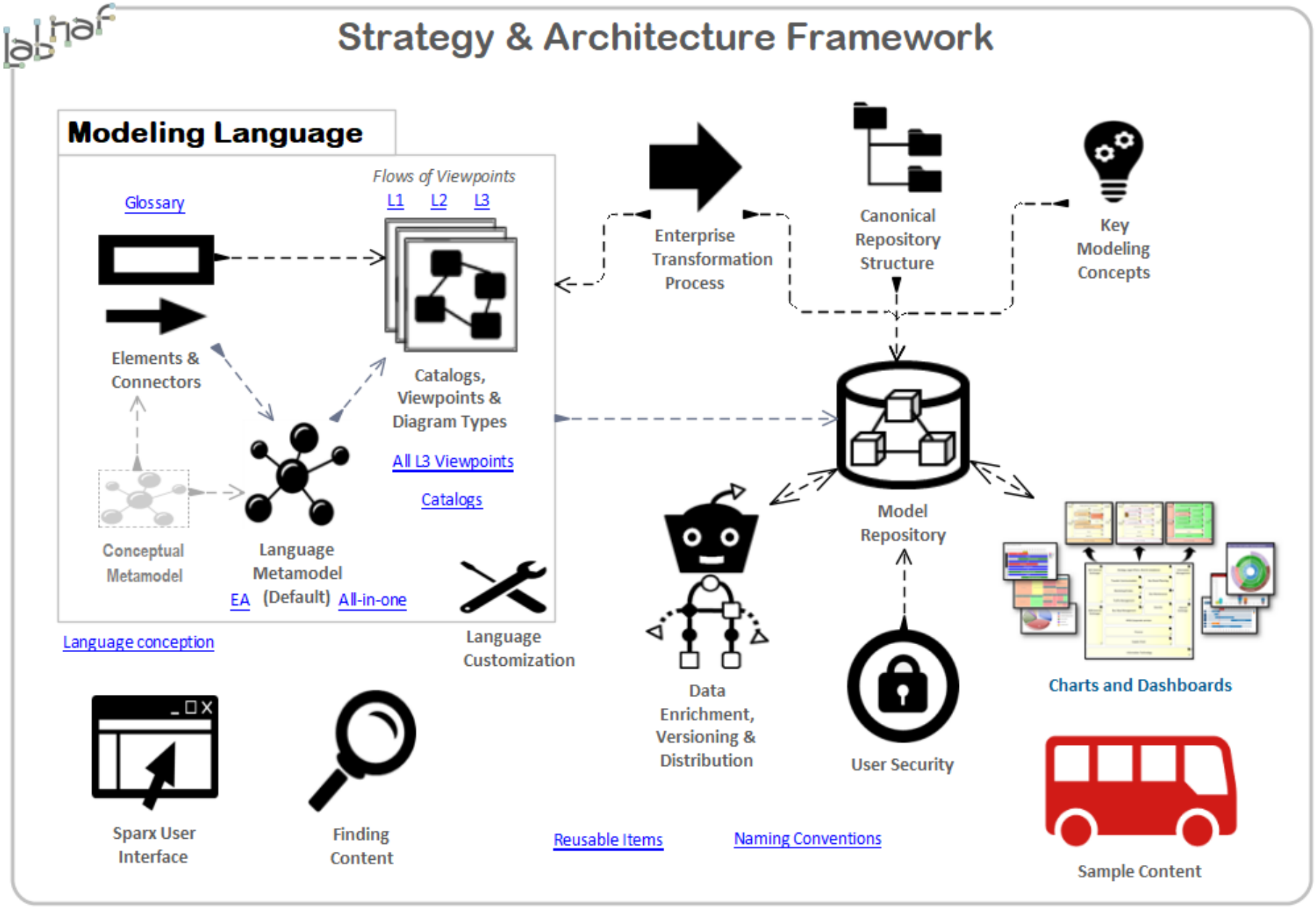
Guidance Web Site

www.labnaf.one/guidance



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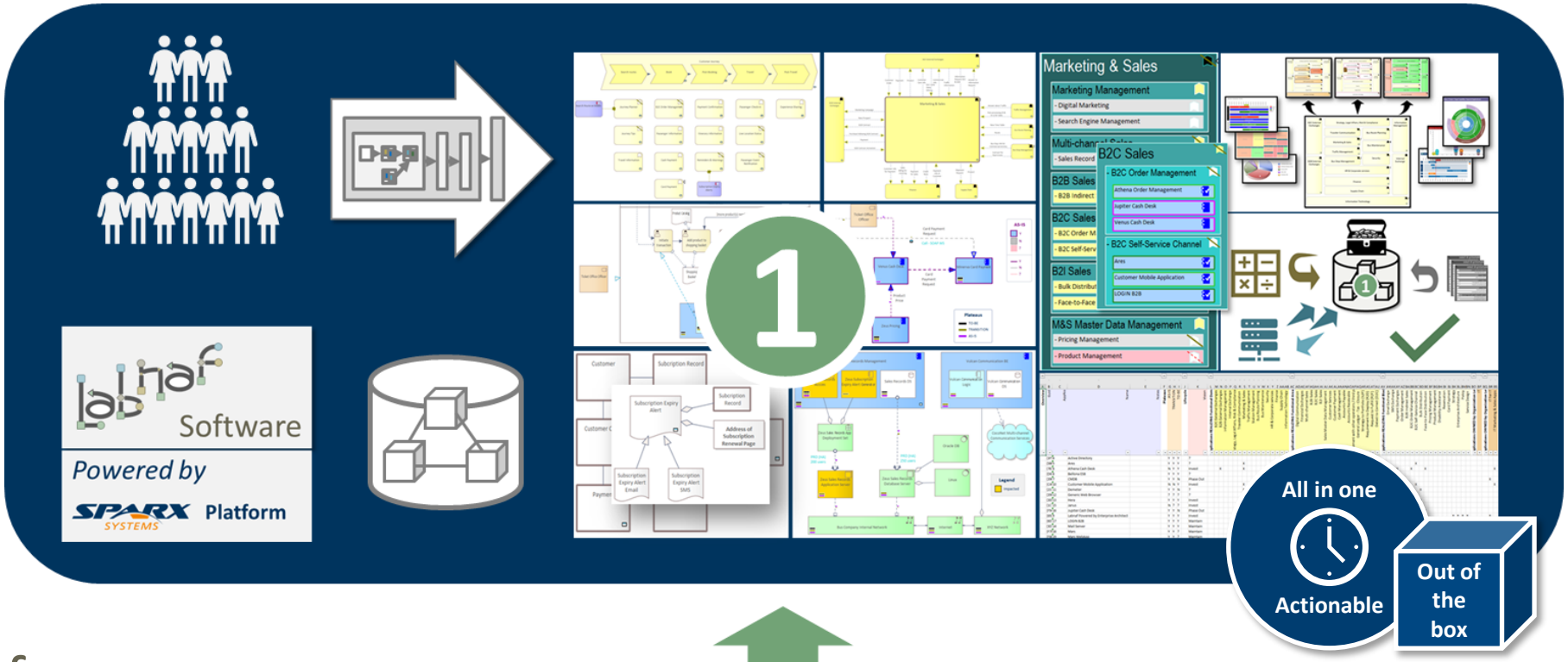
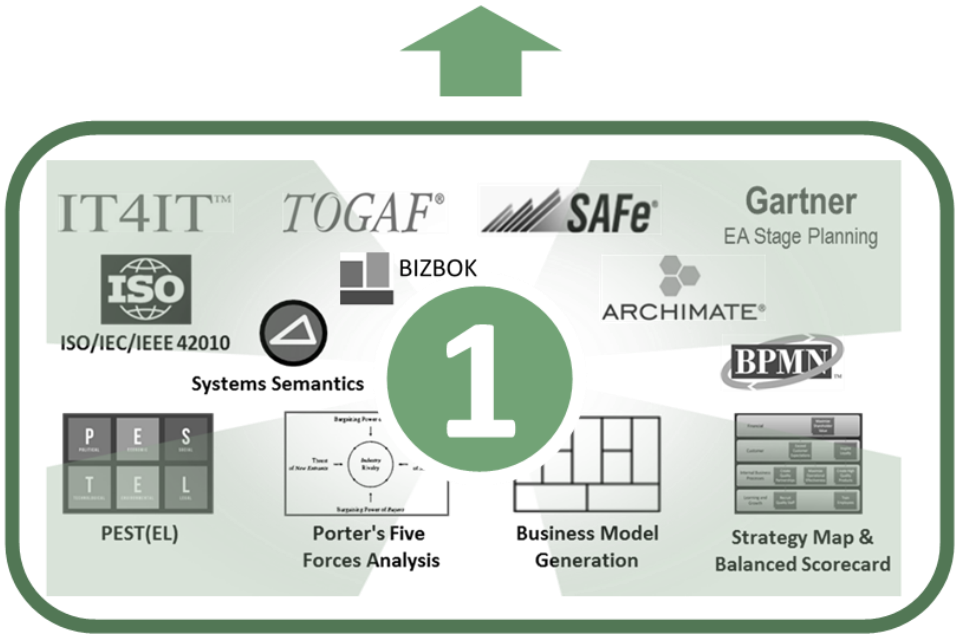


All in one and

Unified Framework for

Driving transformations

Actionable out of the box



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BACKUP SLIDES

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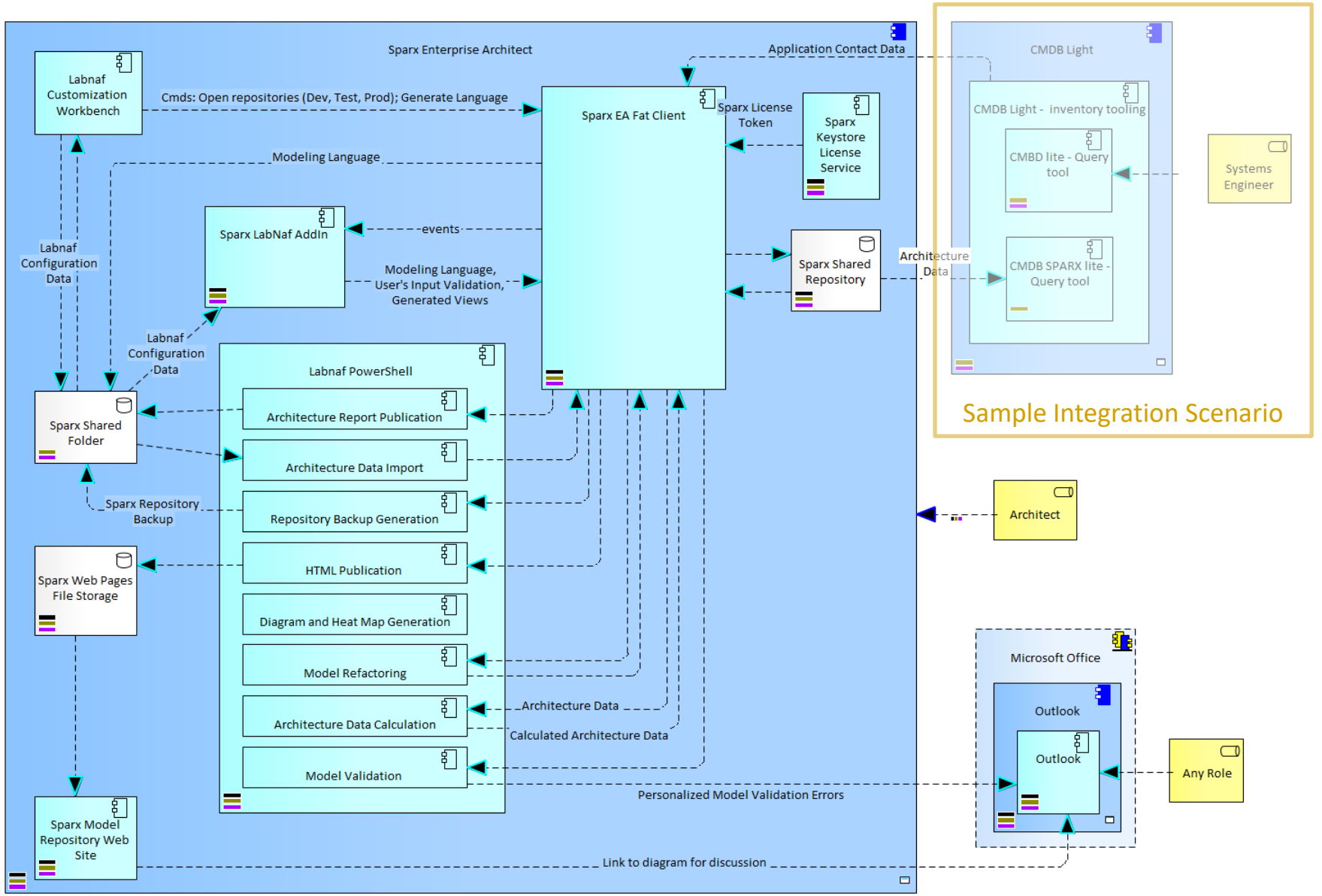
Sparx in the Application Portfolio



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Sparx EA - What's in the box

Many model repository options

- **Local** Microsoft **Access** database
- **Shared** database: **SQL Server**, MySQL, Oracle…
- Possible **version control:** Subversion, CVS, TFS…

Many languages & Toolboxes

- (Too) Many languages
- No integration of standards
- Scope / domain-specific
- Switch between many complex toolboxes

Sparx SDK

- Tailoring the tool for an organization
  - Language
  - IDE
  - document generation
  - web publication
  - …

What users don't want

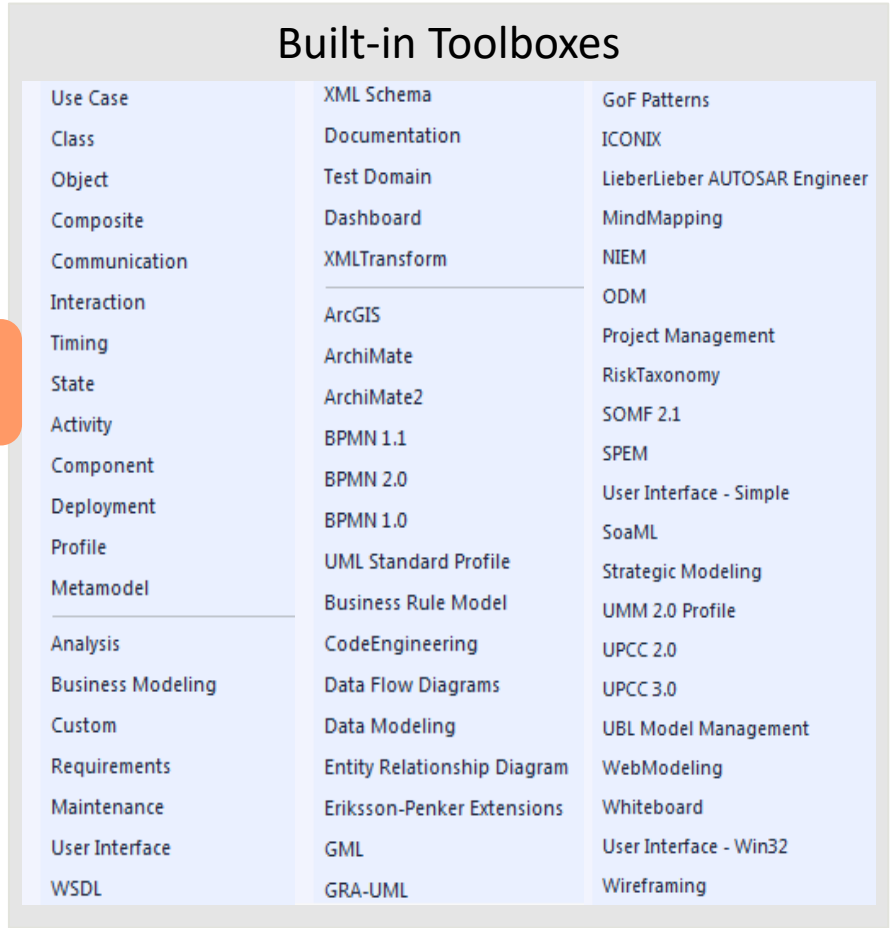

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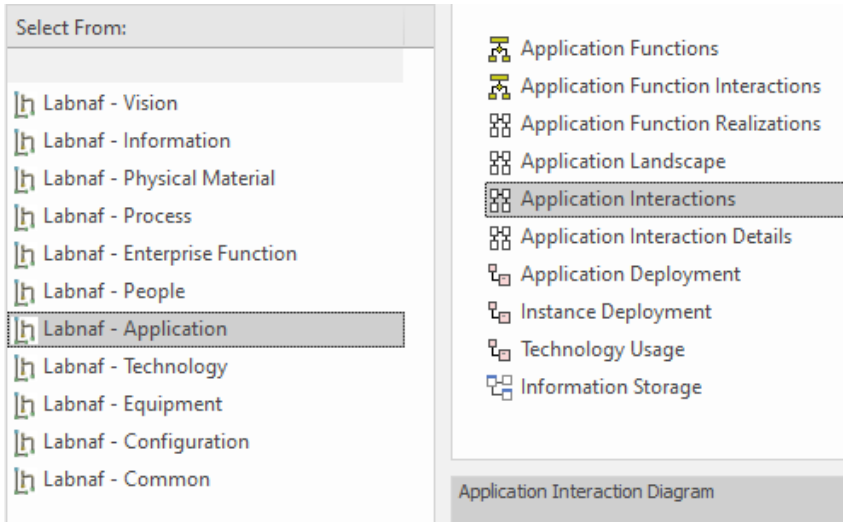
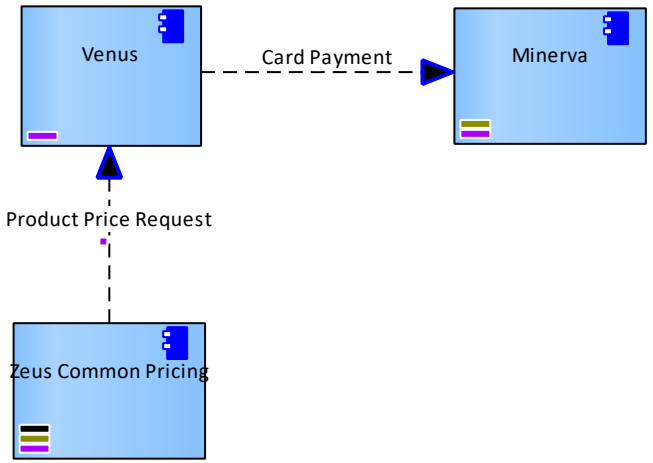
Diagram Types

What we want

When you select New diagram / … the following list of Labnaf perspectives and diagram types appears



A Labnaf diagram type addresses a specific strategy or architecture viewpoint



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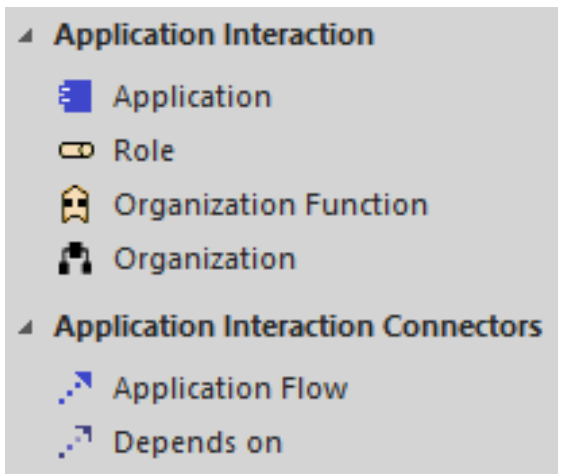
Toolboxes

What we want

Each diagram type has its own toolbox.

Each diagram-specific toolbox only contains the elements and connectors that are relevant to this diagram type.

Toolbox for the diagram type "Application Interactions"



All elements and connectors used

(These are not actual toolboxes)

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