

Integration Architecture Tool Chain

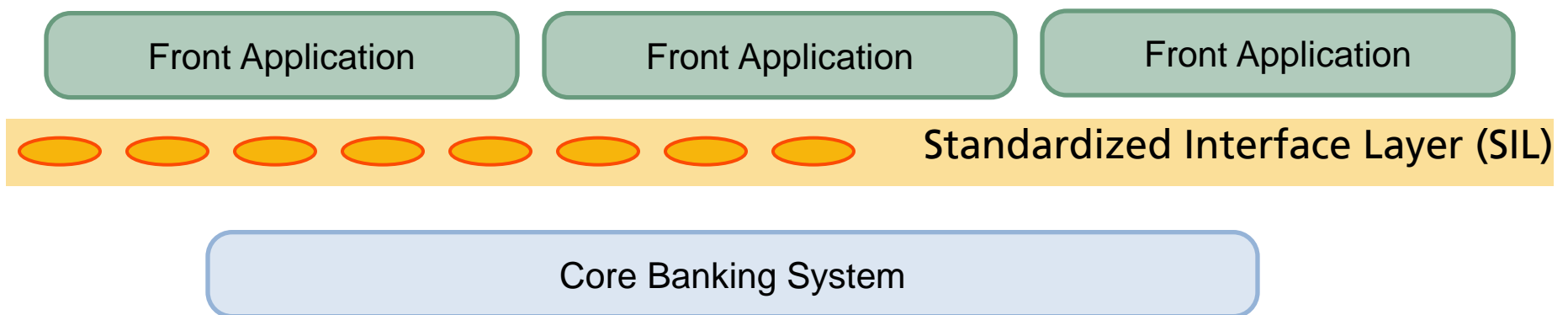
Eclipse Finance Day 2013

Robert Blust



Overall Mission

- Tool Chain enables the IT Organization to define, maintain and manage coarse grained interfaces for their applications.
- Interfaces are defined, managed and maintained in a platform independent way using code generators to provide platform specific implementations of these interfaces.



Standardized Interface Layer



- Supported Interaction Patterns

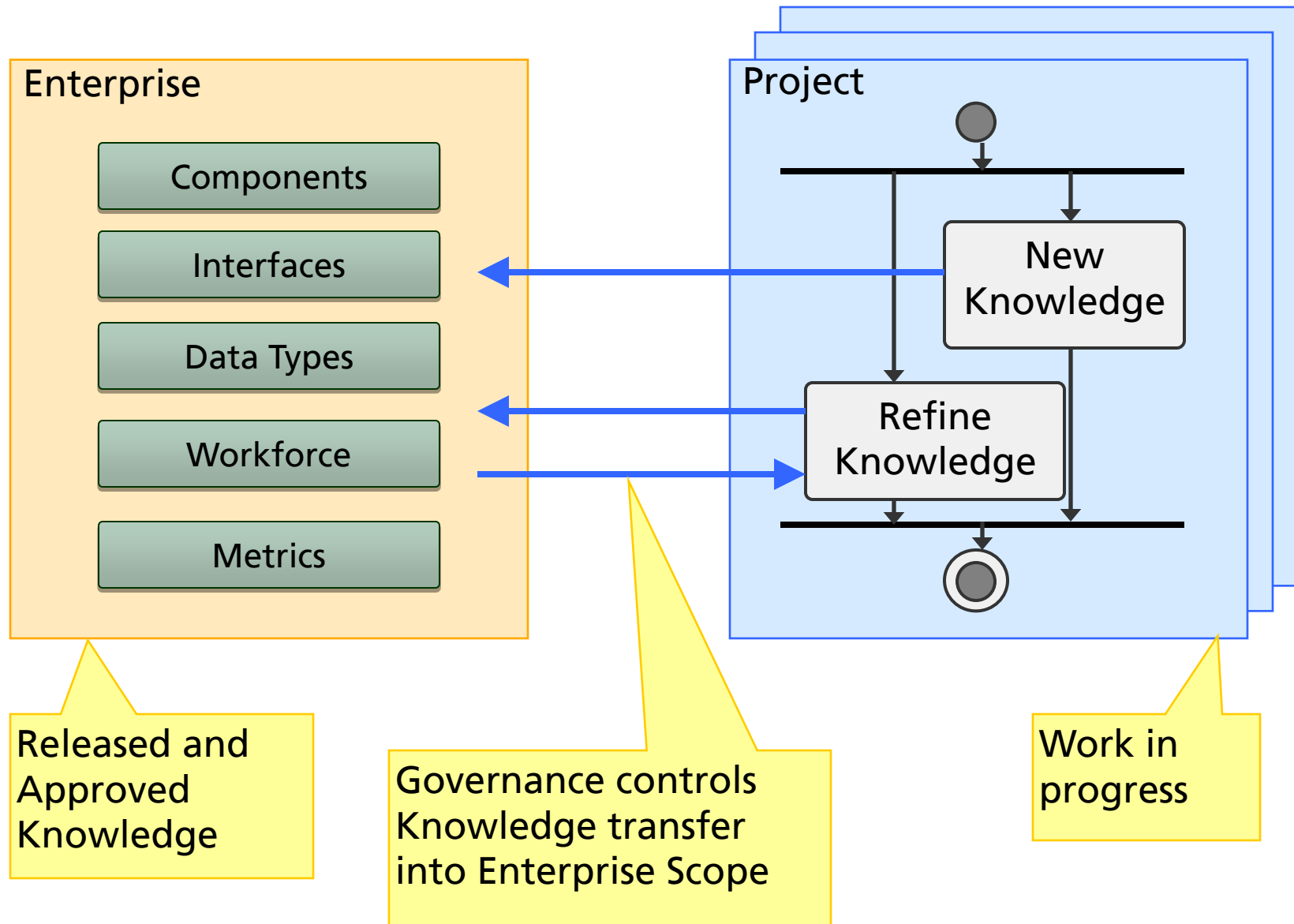
- Online Synchron
- Batch File Transfer
- Messaging

The definition of a standardized interface layer (SIL) is key.

Requires:

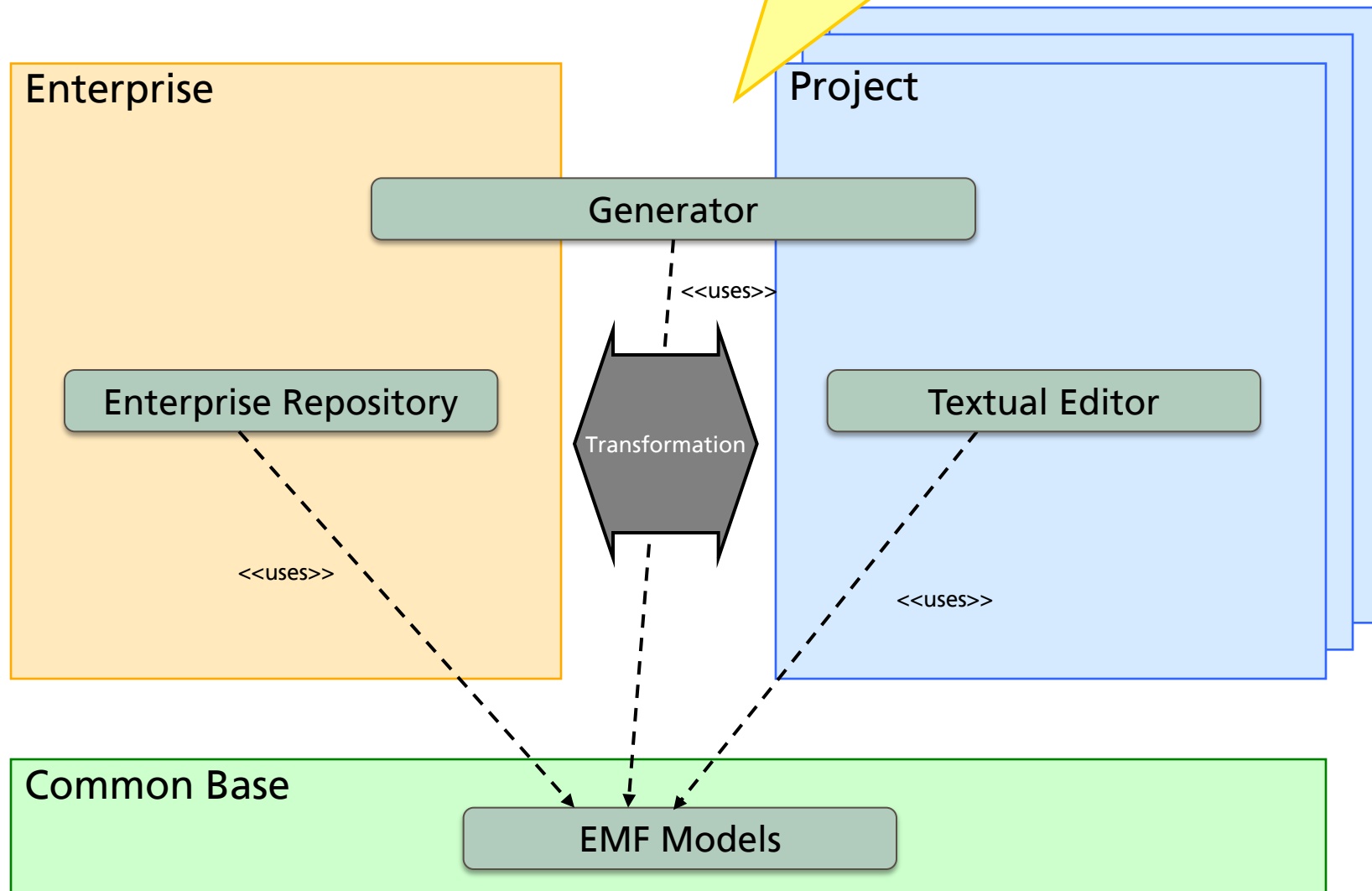
Governance and Design of relevant Interfaces at a global Enterprise Level

IA Tooling – Context

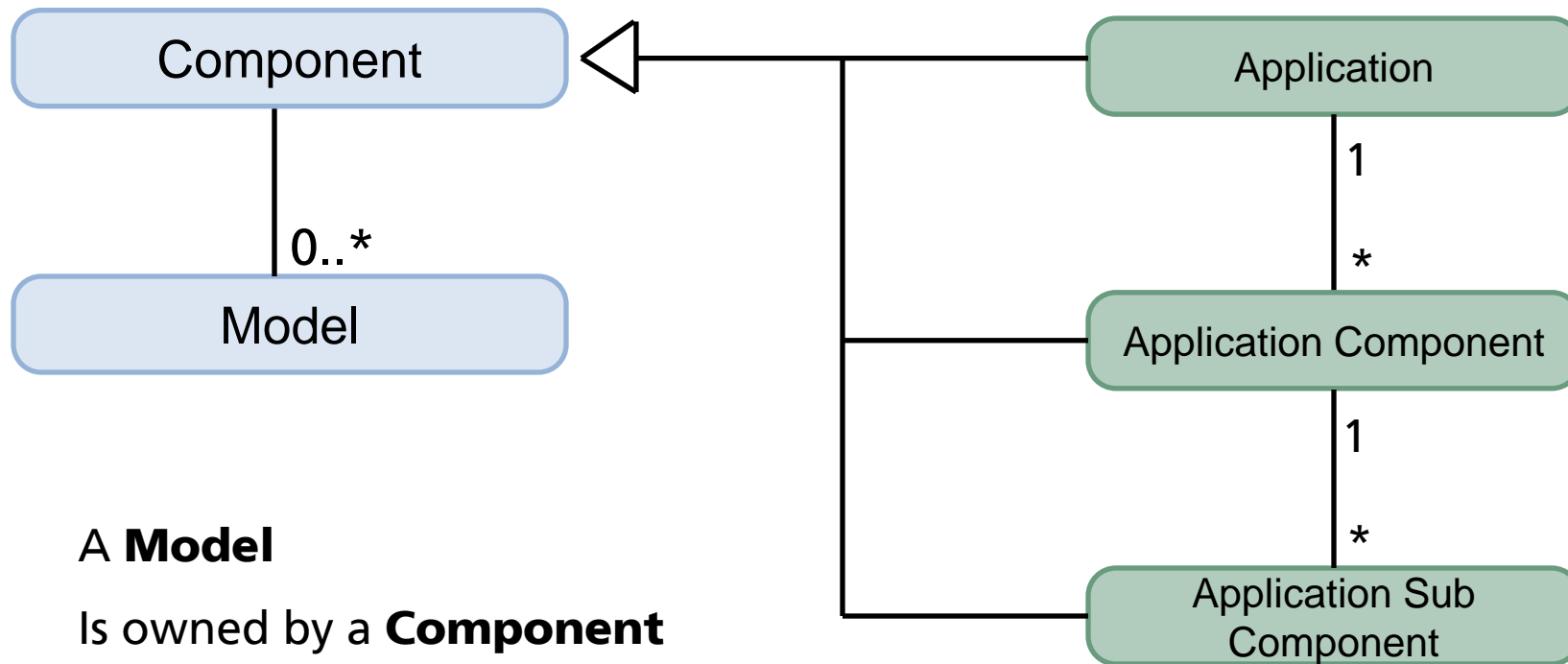


IA Tooling – Model Viewpoint

- Everything is based on EMF
- Models
- Editors
- M2M / M2T Transformation
- Repository



Model Ownership



A **Model**

Is owned by a **Component**
(part of UBS Component Model)

Requirements

- **Structured Data Models**

- Describe
- Create
- Persist
- Enterprise Persistence
- Project Editing / Persistence

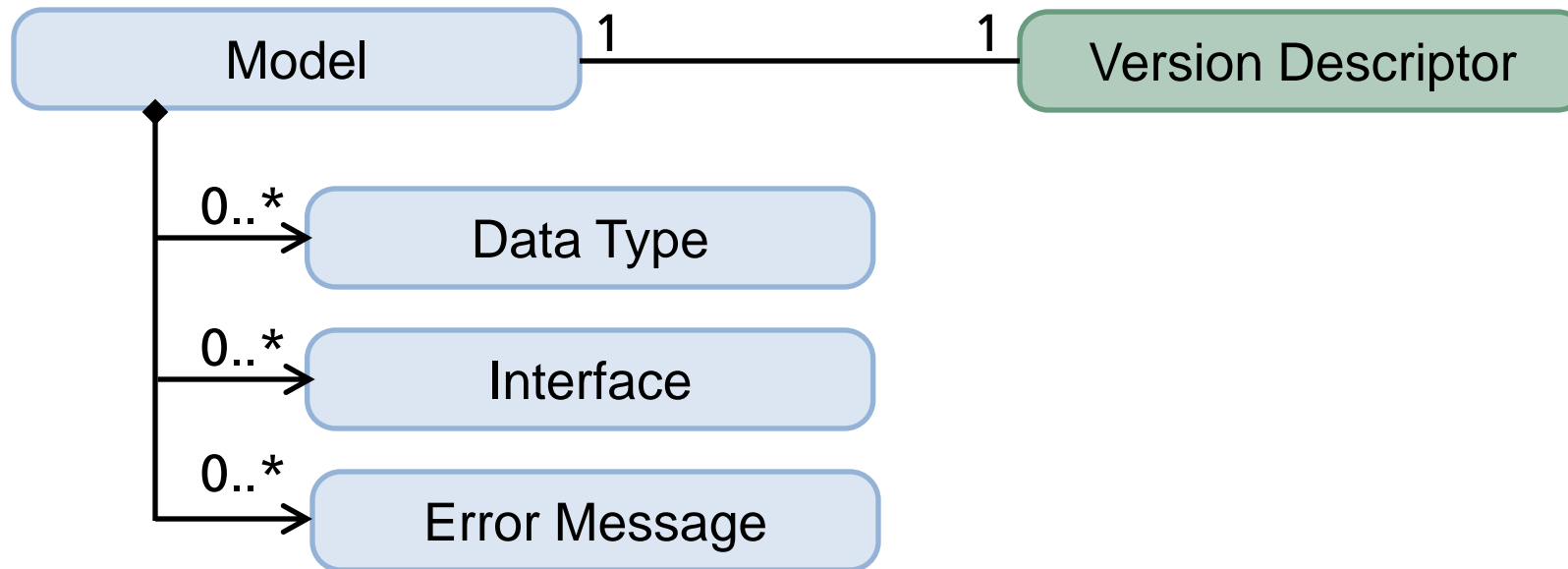


- **Model Ownership**

- Maintain Component Model on Enterprise Level
- Assign Model Ownership
- **Custom Manifest for Model Projects**



Model Versioning



A **Model**

Contains many **Data Types**

Contains many **Interfaces**

Contains many **Error Messages**

Contains **at least one Single Element**

Has a **Version Descriptor**

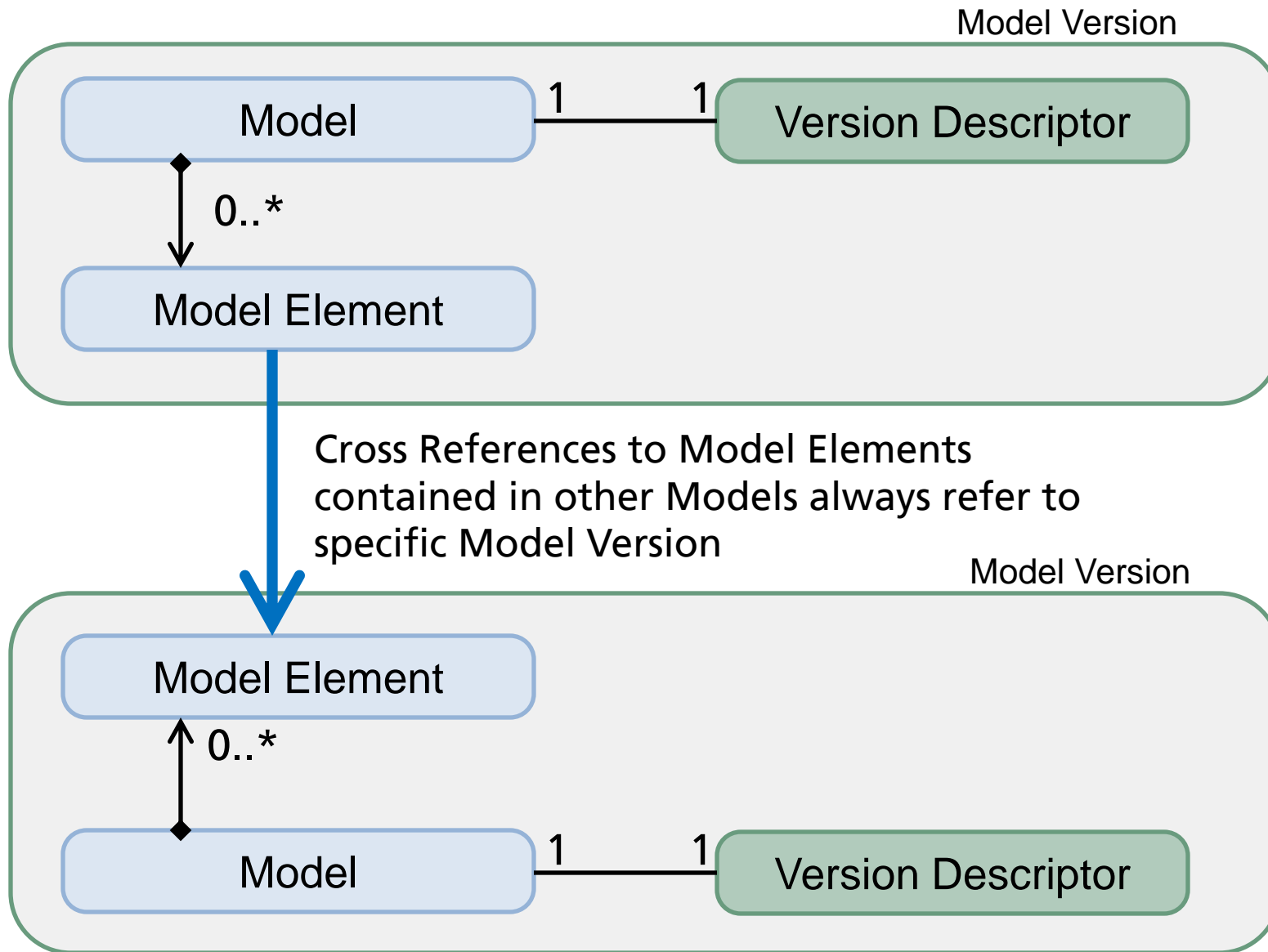
Requirements

- **Model Versioning**

- Descriptor for Model Version
- Release of Versioned Model
- Global Distribution of Versioned Models
- **Out of the box Maven usage → POM**

The logo for Apache Maven, featuring the word "maven" in a bold, lowercase, sans-serif font. The letter "a" is colored orange, while the remaining letters "m", "v", "e", "n" are black.The logo for Sonatype Nexus, consisting of a blue icon of three horizontal bars of varying lengths on the left, followed by the word "Nexus" in a black, sans-serif font.

Model Cross References



Requirements

- **Model Cross References**

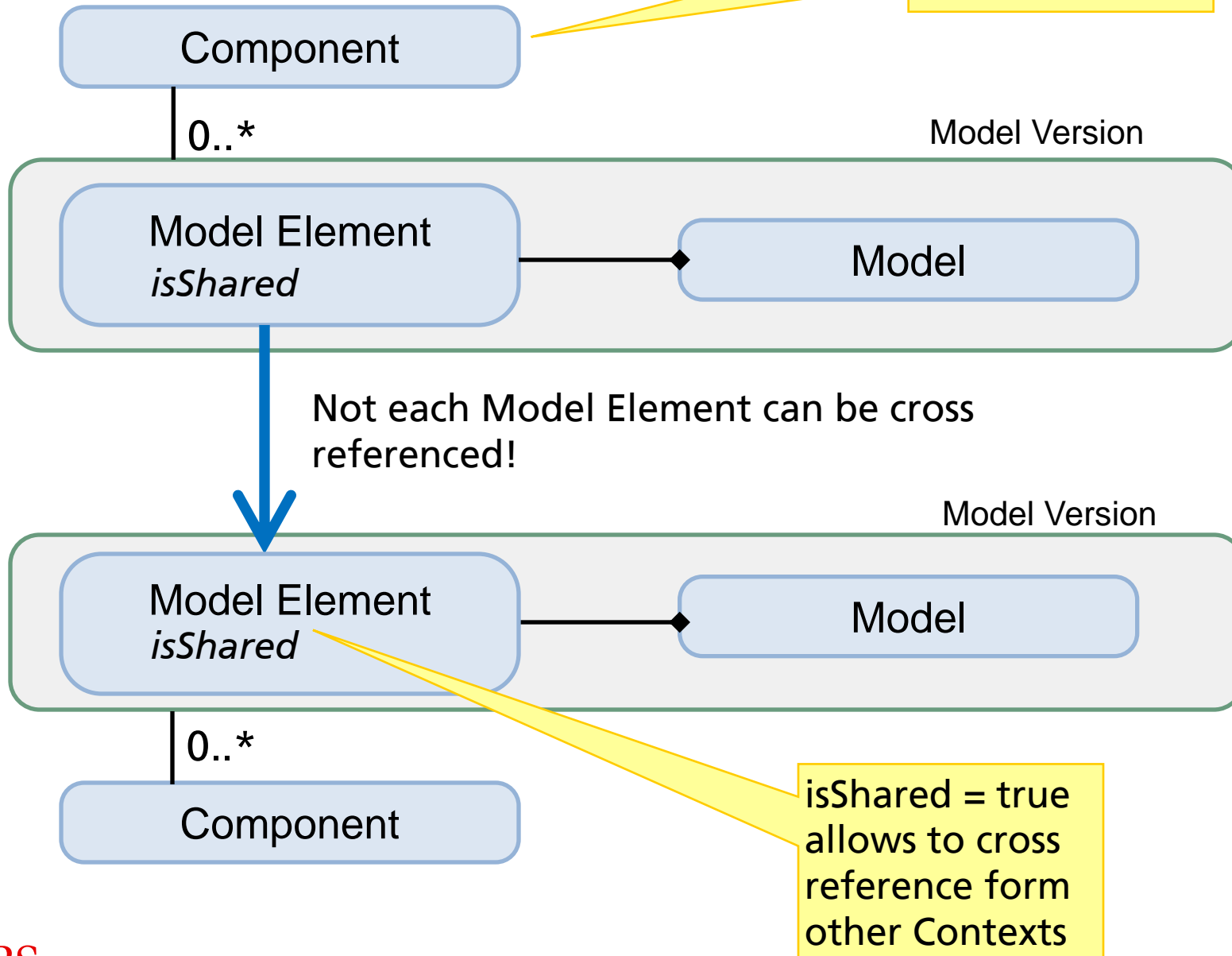
- Dependency Management
- Dependency Resolving

→ **Out of the box Maven usage** → POM

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Restricted Model Cross References

Ownership defines the Context



Requirements

- **Restricted Model Cross References**
 - Xtext Scoping Feature
 - **Custom Scope Provider works with custom Manifest for Model Projects**



Abstract

- UBS Integration Architecture Tool Chain
 - The Tool Chain enables the IT Organization to define, maintain and manage coarse grained interfaces for their applications. These interfaces are defined, managed and maintained in a platform independent way using code generators to provide platform specific implementations of these interfaces.
 - The talk will give an overview about the concepts and how they are implemented using Eclipse and Open Source Technologies.
 - Clear separation of Interface Definition, Implementation and Instantiation
 - Versioning, Ownership and Cross References of Artifacts
 - Continuous Integration

Contact information

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Robert Blust works as an IT Architect for UBS WM&SB IT and is responsible for the strategic tool landscape supporting the software development lifecycle.

Since 2009 he leads a growing team realizing the vision of an integrated tooling platform based on the Eclipse Modeling Framework with a strong focus on model based engineering, scalability and collaboration.

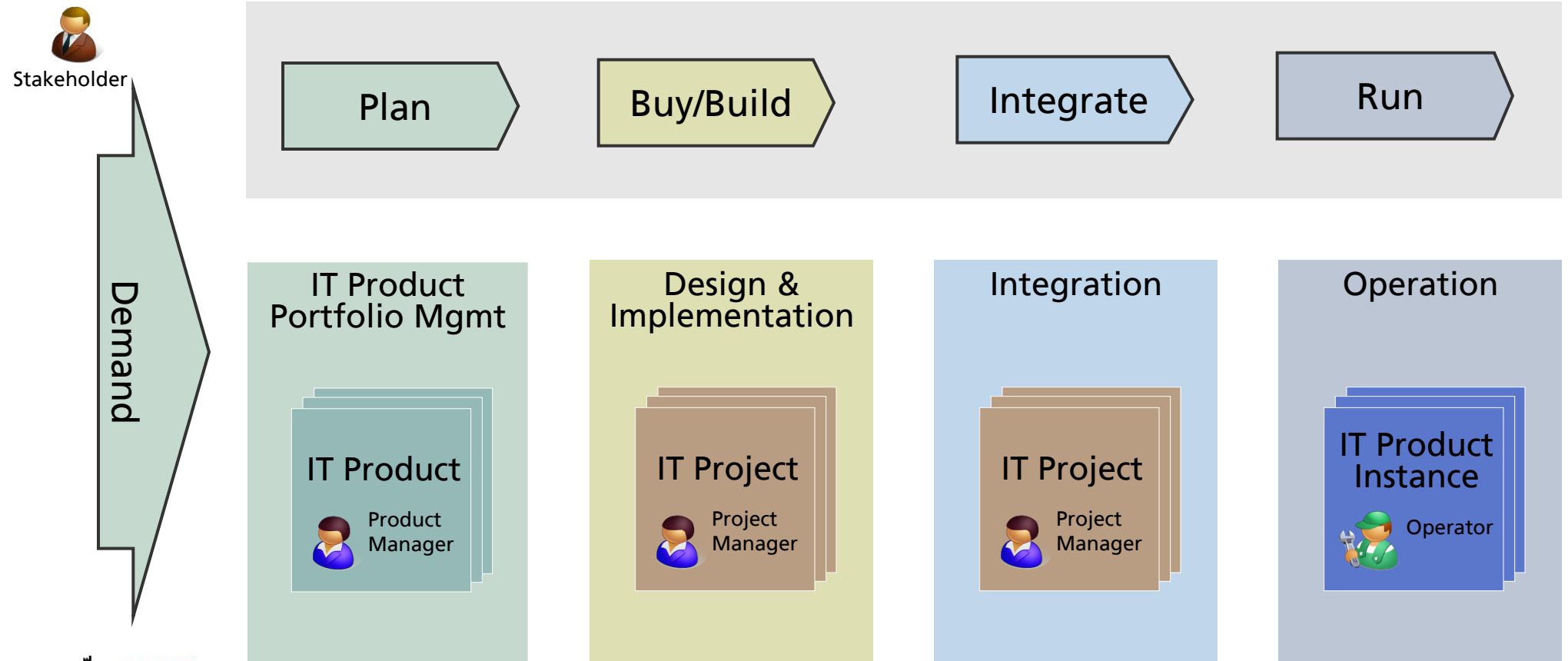


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Vision

Model-Based Engineering

- **Capture & Preserve knowledge as models**
 - Along the IT Supply Chain



IA Tooling – Common Base

