



FURTHER PROJECTS: BIM/CANADA, EKD/UK, MEMO/GERMANY



Agenda



BIM: THE BUSINESS INTELLIGENCE MODEL

Daniele Barone, Lei Jiang, Eric Yu, Daniel Amyot and John Mylopoulos



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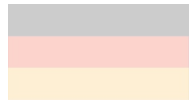


EKD: THE ENTERPRISE KNOWLEDGE DEVELOPMENT METHOD

Pericles Loucopoulos



Loughborough
University



MEMO: MULTI-PERSPECTIVE ENTERPRISE MODELLING

Ulrich Frank

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The Business Intelligence Model



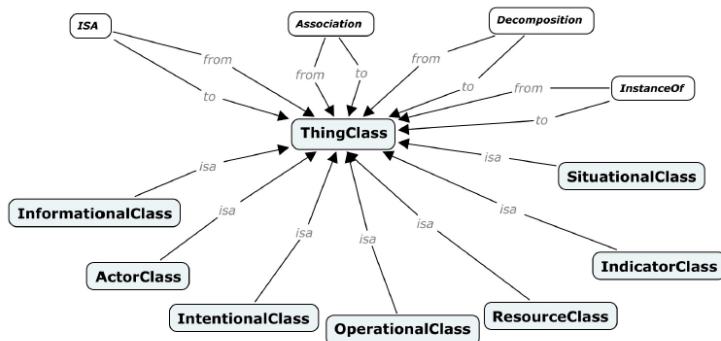
- Business Intelligence consists of a range of technologies intended to assist large organizations in determining the state and quality of their operations.
- Business Intelligence activities are meaningful in the context of an organization and its strategies, tactics and objectives, as well as in the broader (external) context, involving regulations, competitors, customers, markets, which highly influences the organization business.
- The **Business Intelligence Model (BIM)** provides a set of constructs for **modeling** and **analyzing** a business context consisting of goals, situations, processes, actors, influences, key performance indicators, and more. Please refer to the technical report <ftp://ftp.cs.toronto.edu/csrq-technical-reports/607/BIM-TechReport.pdf> for more information about BIM.



BIM and the ADOxx Platform: A Prototype



- We have implemented a **BIM prototype (BIM@ADOxx)** on the ADOxx platform. The prototype is currently hosted at the Open Models Initiative's site: <http://www.openmodels.at/web/bim/>.
- The current version of the prototype allows users to design **business schemas** that describe internal and external factors (and relationships among them) involved in the organization business, such as goals, processes, resources, etc.



A Fragment of
the BIM's Meta
Model



www.openmodels.at - Method Overview - Mozilla Firefox

www.openmodels.at - Method Overview

QMI OPEN | MODEL Initiative

Method Overview | Look & Feel | Community Board | Activities Blog | Members

ADOxx BIM BP bowen v1.00 20100520 - Edit class hierarchy

No Logo Available

Project Overview

- Method Overview
- Project Details
- References
- Contact
- Look and Feel
- Viewer
- Hands-On
- Community Board
- Activities Blog
- Members

In Use

- Online Use
- Remote Access
- Offline Use
- Remote Access

Development

Class hierarchy:

- Process_Constant_modelElement_
 - NewModel
 - ThingNeutral_
 - Intention
 - Process
 - Thing
 - Resource
 - Indicator
 - Operator
 - Description
 - Referenced Class
 - Referenced Model
 - Thing Type
 - User-defined Type
 - External tool coupling (t
 - fontcolor (Metamodel)
 - Position (Metamodel)
 - AnimRep (Metamodel)
 - AttrRep (Metamodel)
 - Class cardinality (Metamodel)
 - ClassAbstract
 - ClassName
 - ClassVisible
 - GraphRep (Metamodel)
 - HipT xt (Metamodel)
 - Model pointer (Metamodel)
 - Monochrome view (Metamodel)
 - VisibleAttrs (Metamodel)
 - WF_Trans (Metamodel)
 - External tool coupling (Metamodel)
 - fontcolor (Metamodel)
 - Position (Metamodel)
 - AnimRep (Metamodel)
 - AttrRep (Metamodel)
 - Class cardinality (Metamodel)

Longstring (I
Intermodel n
Intermodel n
Enumeration



Thing - GraphRep

```
Text:
GRAPHREP
AVAL set-default:"Unclassified" t:"Predefined Type"
AVAL set-default:"" ut:"User-defined Type"
AVAL set-default:"No" apt:"Apply Predefined Type"
AVAL set-default:"Apply User-defined Type" aut:"Apply User-defined Type"

PEN w:0.05cm
FONT "Arial" h:12pt color:black

IF (aut = "Apply User-defined Type")
FONT "Arial" h:10pt color:black
FILL color:white
RECTANGLE x:0cm y:0cm w:2.8cm h:1.4cm
```

View:

ADOxx Modeling Toolkit (Hans@emdom) - [Intention (Business Schema)]

Model Edit View Assessment Extras Window Help

Modelling

Modelling

Associati Desire Flow
Influence Derivate Fulfill
Involves Requires Measures
Involves Has Note

BIM

BIM

x)



BIM Modelling Tool on ADOxx (BIM@ADOxx)

BIM@ADOxx hosted on OPEN MODELS:

<http://www.openmodels.at/web/bim/>

OMI Project Status: UNDER DEVELOPMENT

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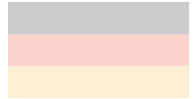


EKD: THE ENTERPRISE KNOWLEDGE DEVELOPMENT METHOD

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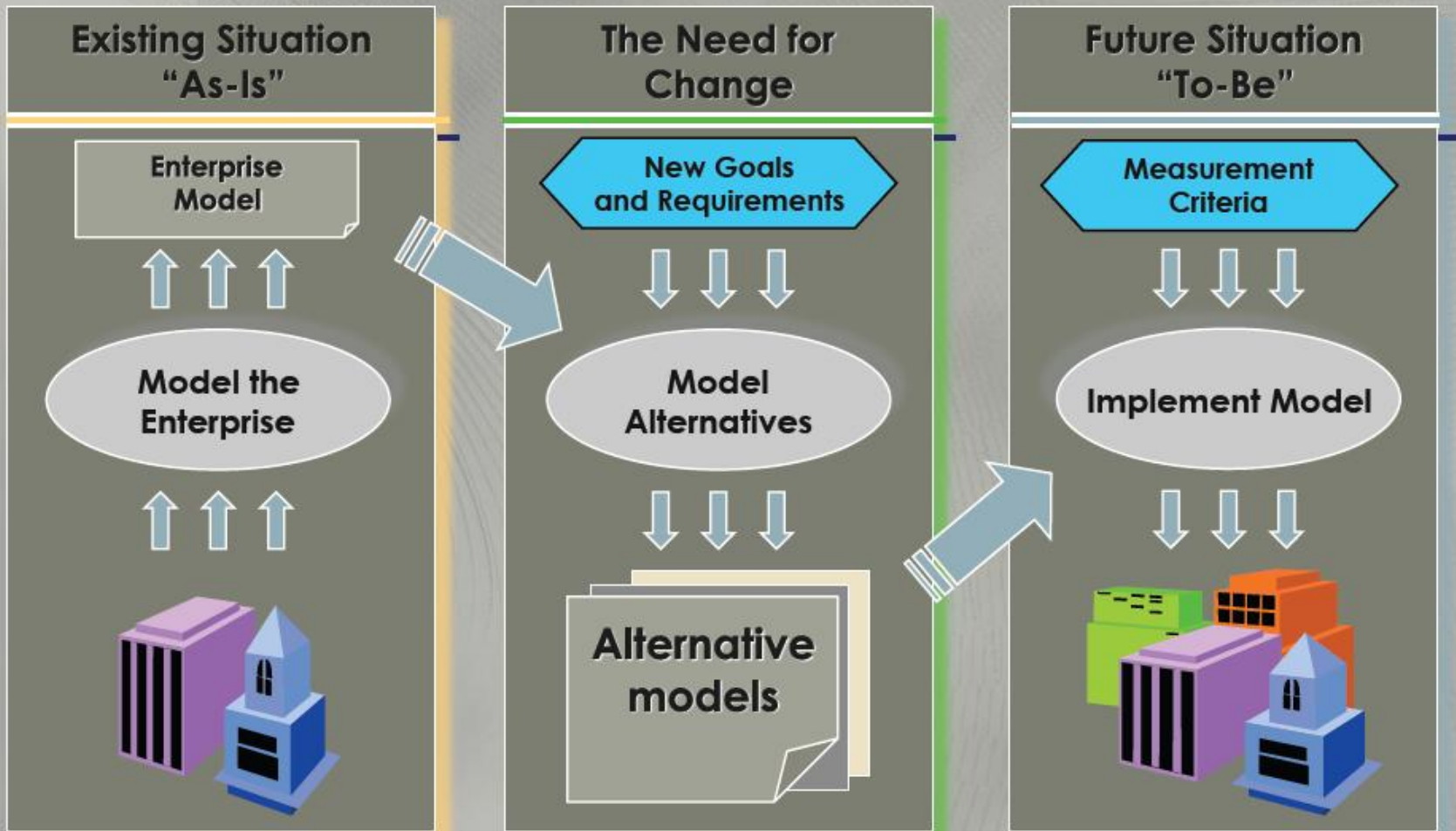
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EKD is a Method for ...



Discovering

Deliberating

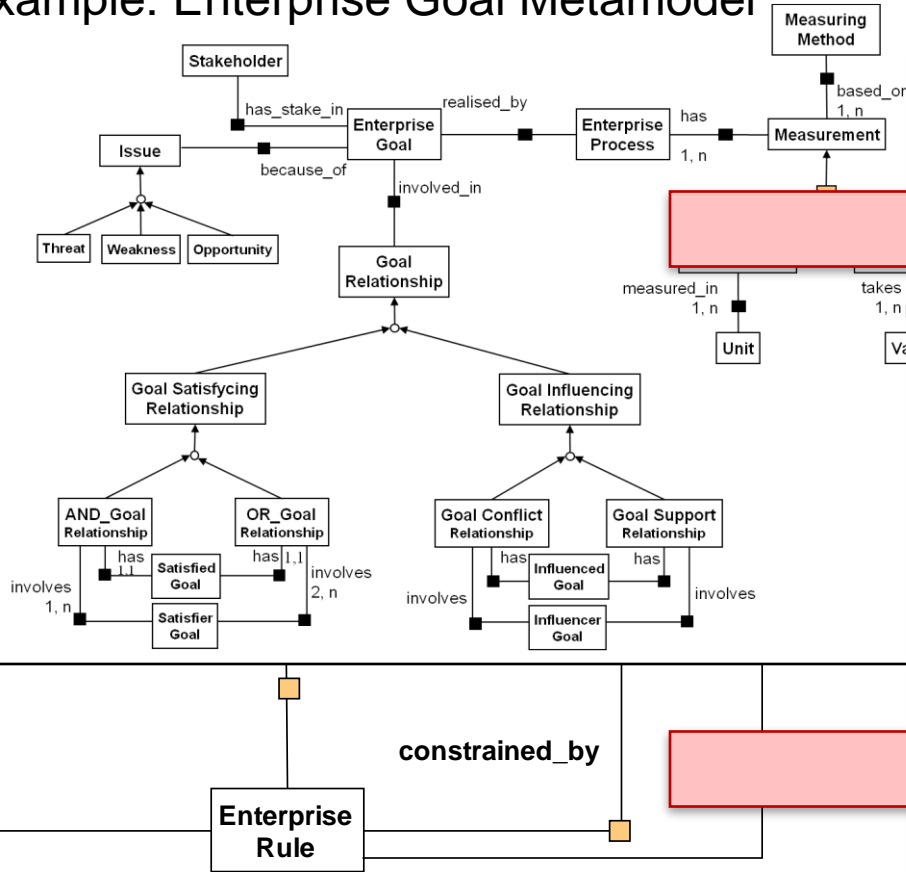
Designing

Invited Talk by Prof. Loucopoulos; December 2010; University of Vienna;



EKD Conceptualisation Results

Example: Enterprise Goal Metamodel



Enterprise Goal

Enterprise Role

constrained_by

constrained_by

Enterprise Rule

Logical Relation of EKD Submodels



QMI OPEN | MODEL
www.wikimethods.org Initiative

The EKD Approach / Method
Conceptualization Concept for
ADOxx® 1.0



DRAFT Version 0.2

Based on:
"Using the EKD Approach: The Modelling Component", version 2.02, Prof. P. Loucopoulos, V. Kavaki, N. Prekas, C. Rolland, G. Groz and S. Nurcan.

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EKD Project on OMI

Enterprise Knowledge Development

- Goal Diagram
- Actor-Role Diagram
- Role-Activity Diagram
- Class Association Diagram
- Event Trace Diagram
- State Transition Diagram
- Rules Diagram

EKD Project

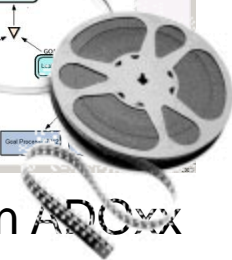
EKD Metamode

EKD hosted on OPEN MODELS

<http://www.openmodels.at/web/ekd/>

OMI Project Status: UNDER DEVELOPMENT

EKD Modelling Tool on ADONIS



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Multi-Perspective Enterprise Model

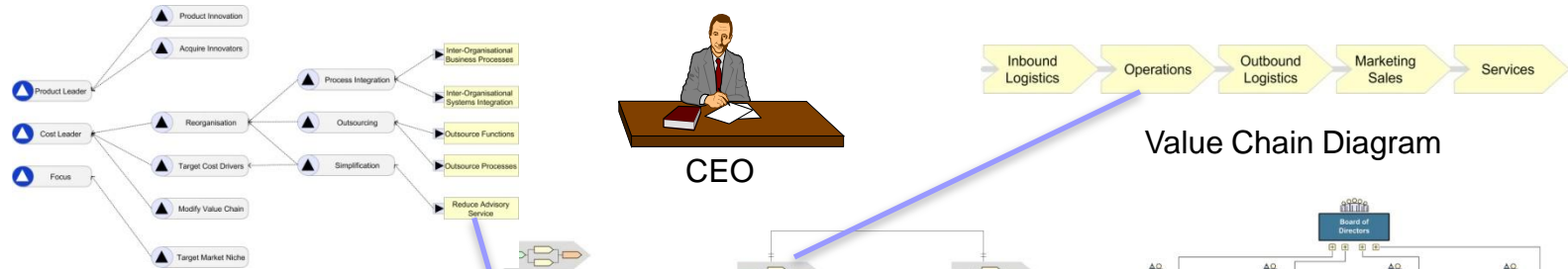
An enterprise model integrates at least one conceptual model of the information system (e.g. a data model) with at least one conceptual model of the relevant action system (e.g. a business process model).

A multi-perspective enterprise model differentiates between various explicit perspectives, which will usually correspond to professional views. These perspectives are represented in models constructed with domain-specific modelling languages (DSML).



Enterprise Model: Integration of Perspectives

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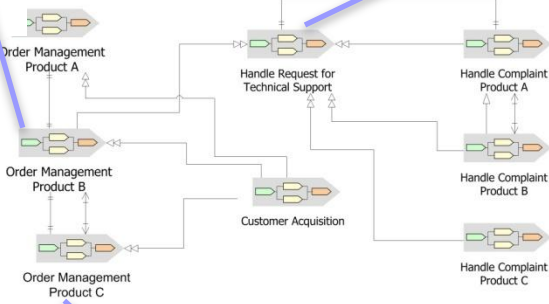


Strategy Net

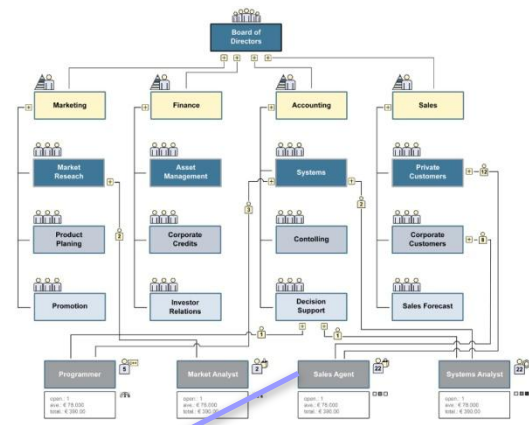
Value Chain Diagram



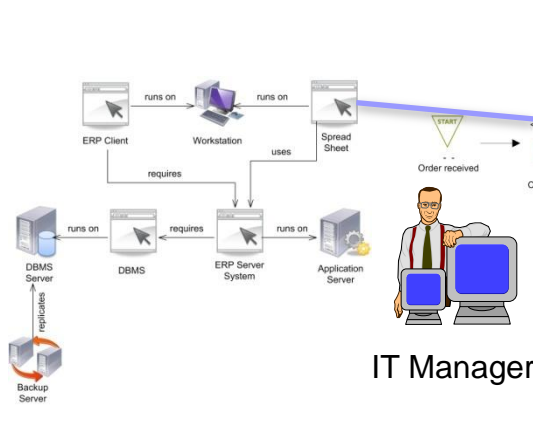
Line Manager



Business Process Map

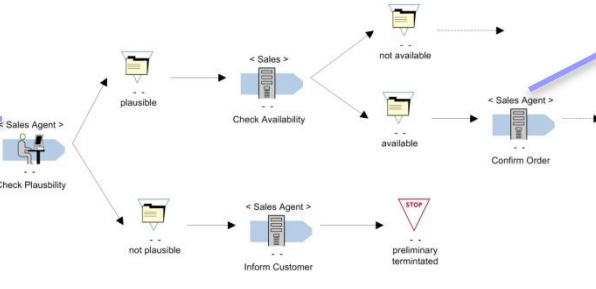


Organisational Chart



IT Resource Diagram

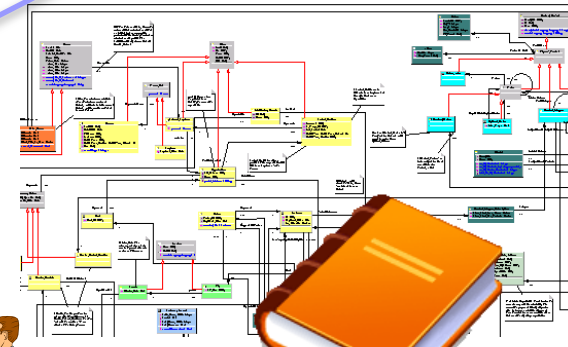
IT Manager



Business Process Diagram



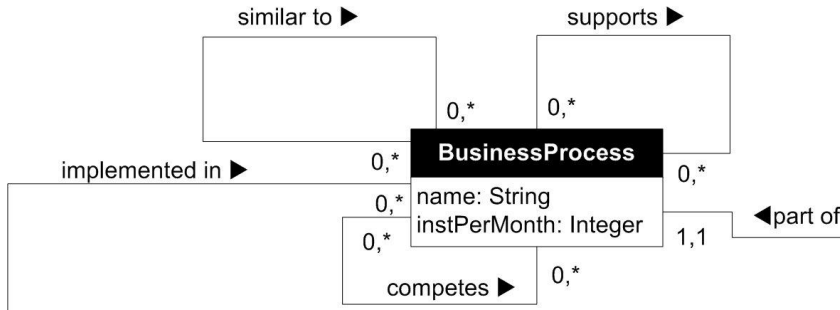
Software Developer



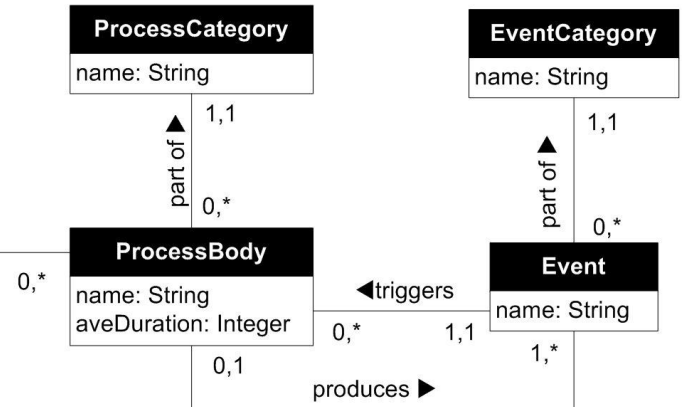
Object Model

Integration of Meta Models (simplified)

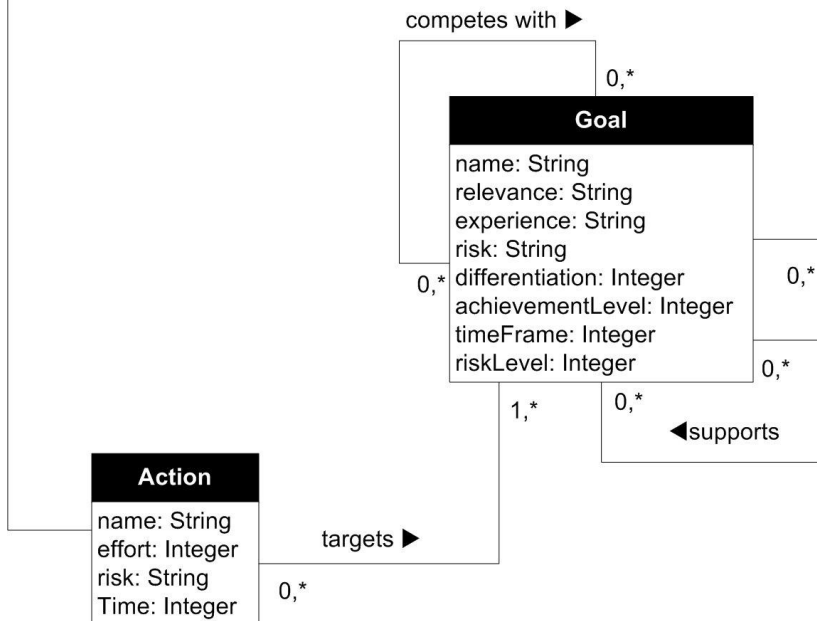
Business Process Map



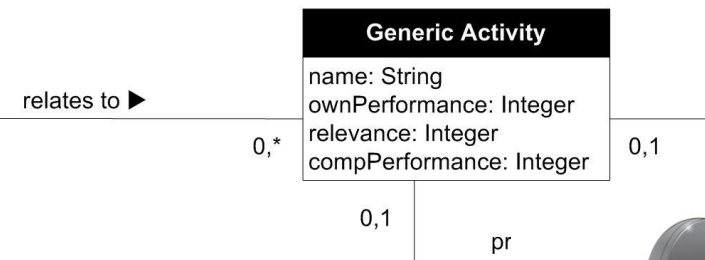
Business Process Diagram



Strategy Net

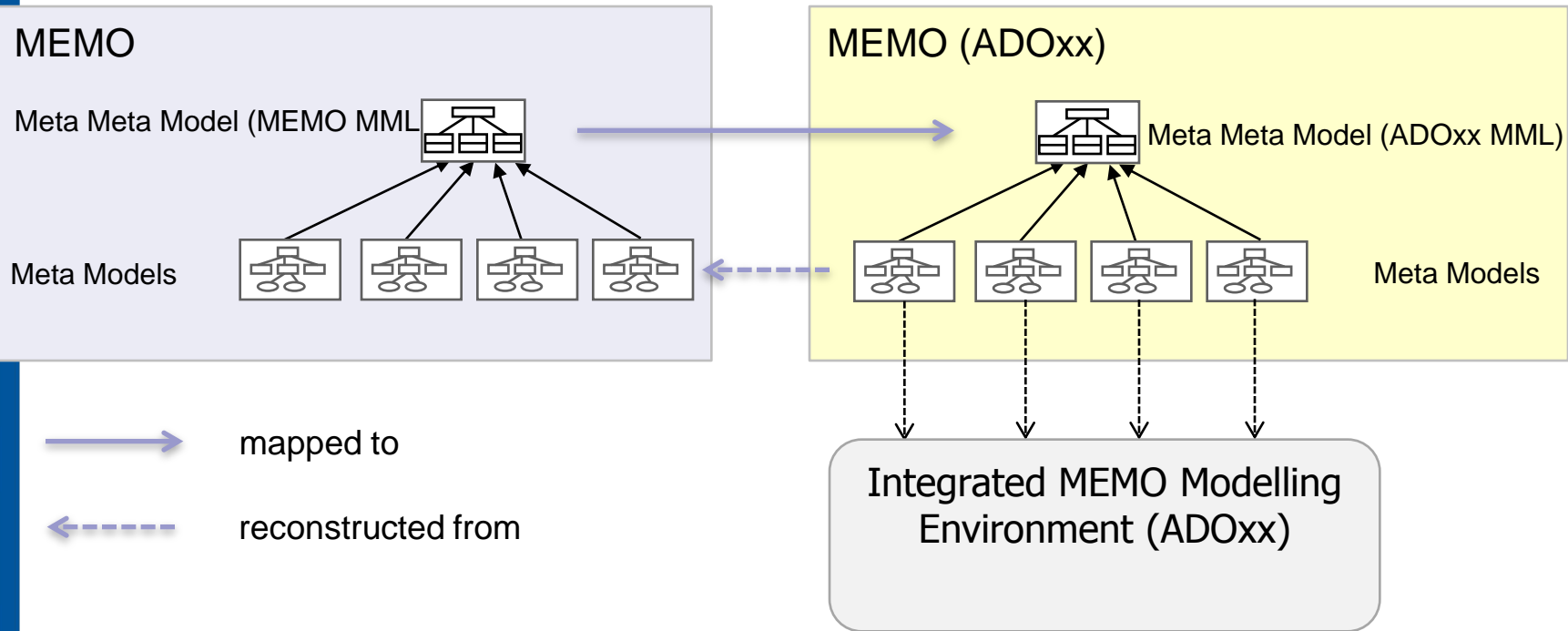


Value Chain



Reconstructing MEMO with ADOxx

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Advantages: Reduce time from language specification to tool implementation by using ADOxx meta modelling features and by reusing ADOxx features.





THANK YOU FOR YOUR ATTENTION!