The ADOxx® Metamodelling Platform: A Technical View

A Technical View

2nd OMI Workshop, Vienna

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The OMI Perspective
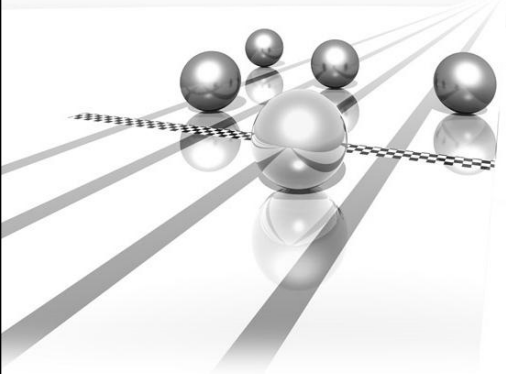
Agenda

The Open Model Initiative: The Focus
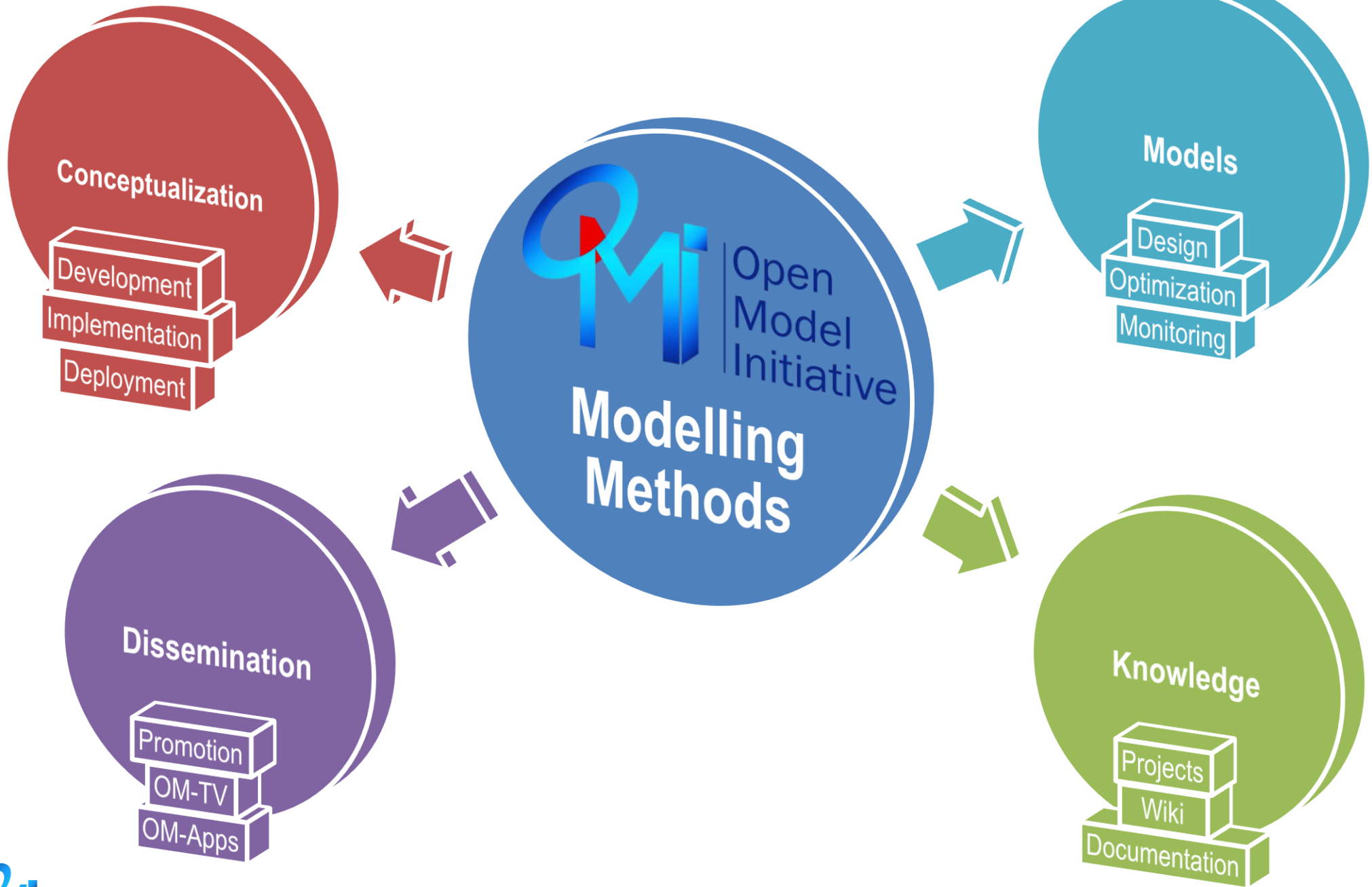
The Open Model Initiative: The Focus

The ADOxx® Metamodelling Platform

ADOxx® is a metamodelling development and configuration platform for creating domain-specific modelling tools.
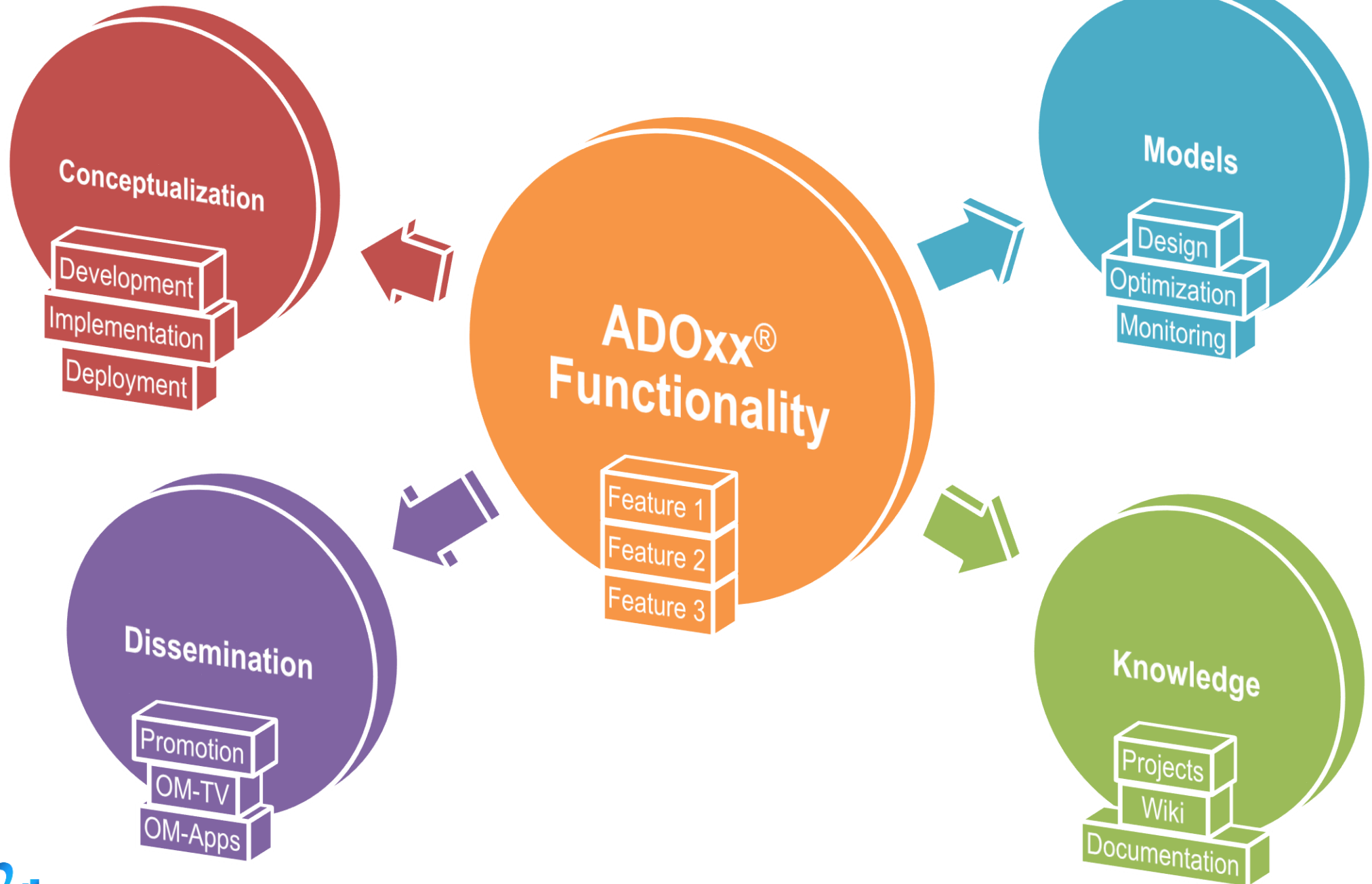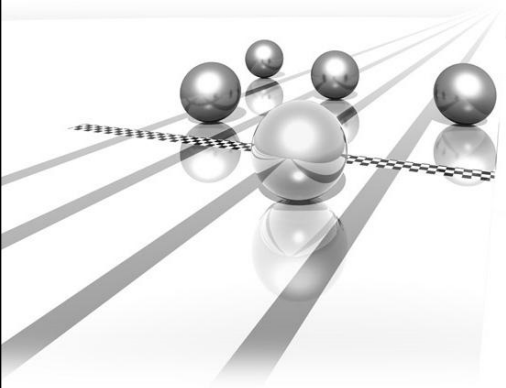
Agenda

1 Overview

2 ADOxx® Platform Functionality
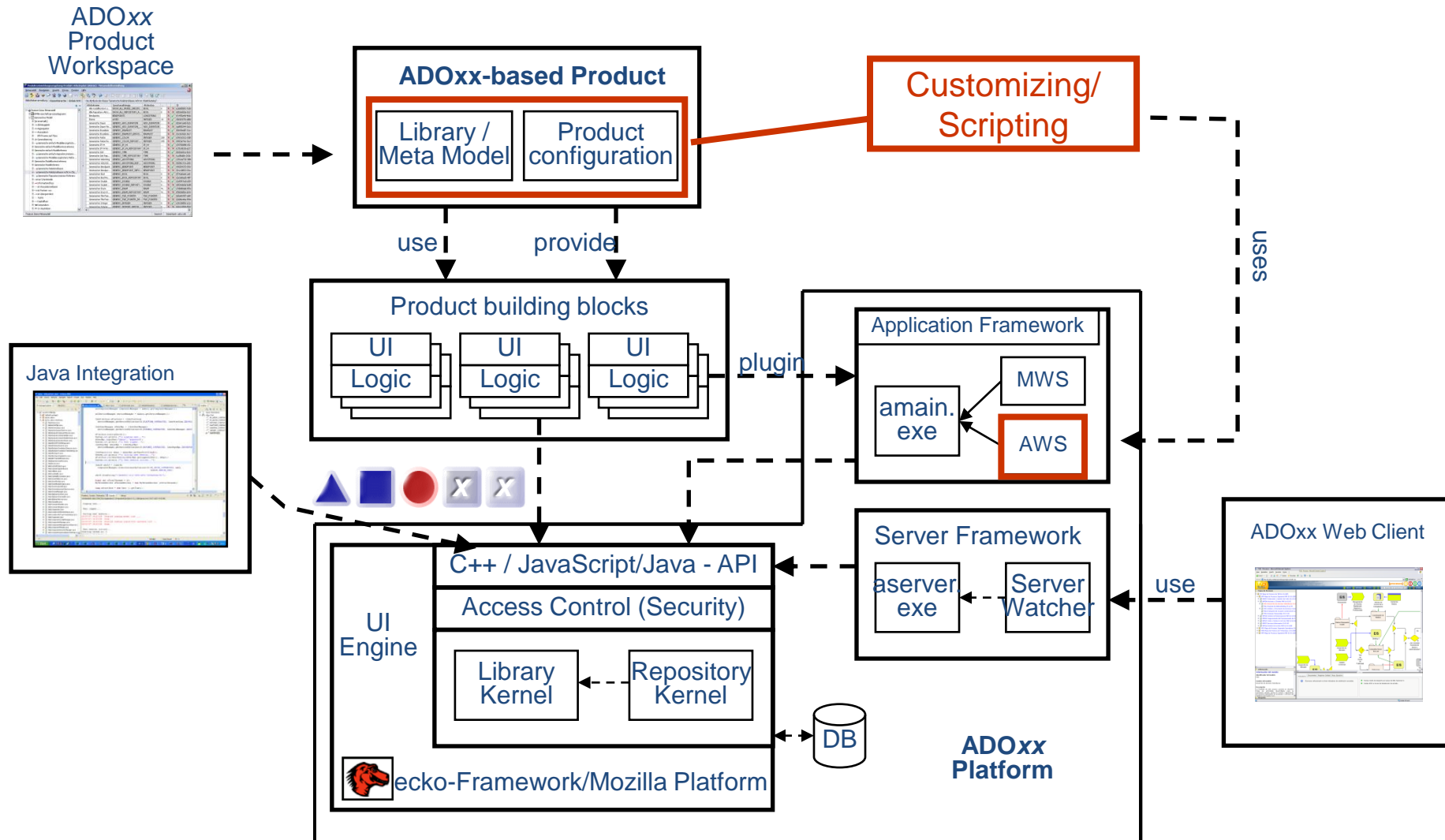
3 Modelling Method Implementation from ADOxx® Viewpoint

ADOxx®: **Functionality** View

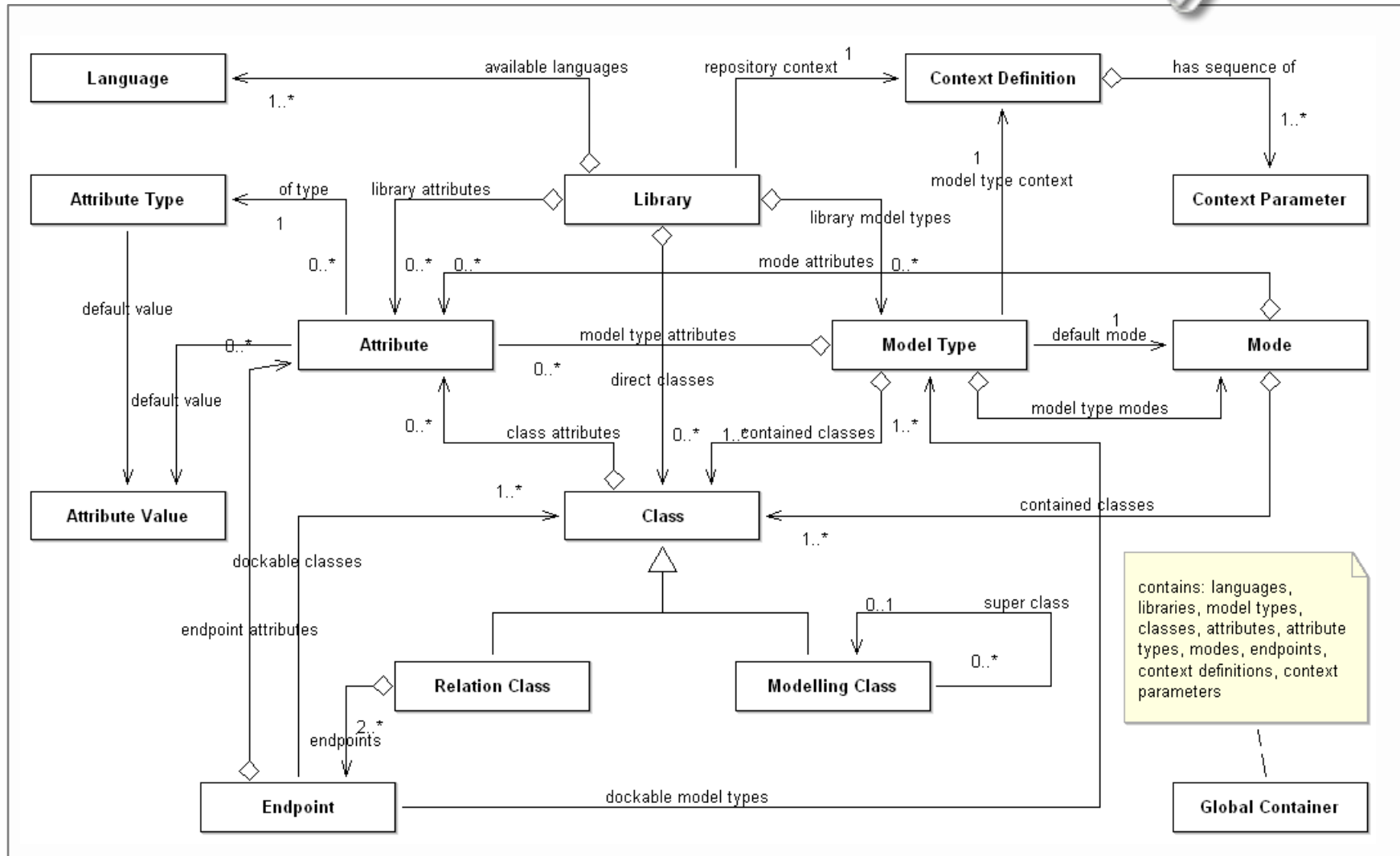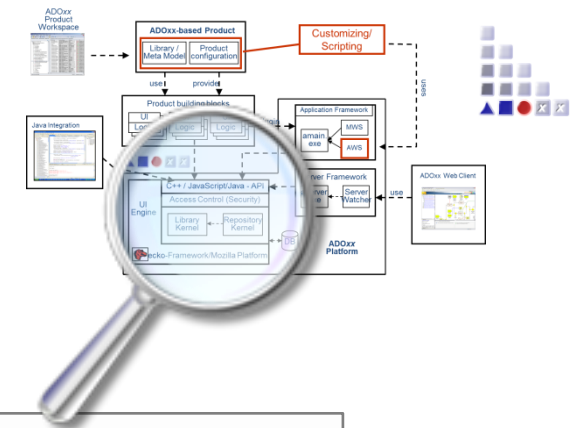|	
Scalability	▶ Openness ▶ Client-side and server-side components ▶ Multi-threaded
Multi Product Ability	▶ Extension Capabilities ▶ Component-oriented (incl. migrateable component settings)
Web-enabled	▶ Web Service interfaces using standards ▶ Web Client
Adaptability	▶ Metamodelling with a rich set of concepts ▶ Personalization, Scripting ▶ Multi-Level Customizing ▶ Event-based ▶ Flexible view concept
Extended Multi User Support	▶ Shared repository (incl. sophisticated search mechanisms) ▶ Role-based Access ▶ Extended Multi-Language Support and Unicode ▶ SSO support

ADOxx®: **Component-Oriented** View

ADOxx Product Workspace

ADOxx-based Product

Library / Meta Model	Product configuration

Customizing/ Scripting

uses

use   provide

Product building blocks

UI Logic	UI Logic	UI Logic

plugin

Application Framework

MWS

amain. exe

AWS

Java Integration

UI Engine

C++ / JavaScript/Java - API

Access Control (Security)

Library Kernel	Repository Kernel

DB

ecko-Framework/Mozilla Platform

Server Framework

aserver exe	Server Watcher

use

ADOxx Web Client

ADOxx Platform

MWS: Modelling Workspace, AWS: Administration Workspace

ADOxx®: Extract of the Meta-metamodel

ADOxx®: Development View

- ## Basic
  - – Examples: simple dialogs, menu structures
  - – Skills: AdoScript, JavaScript, XUL, selected ADOxx APIs, ADOxx architecture

- ## Advanced
  - – Examples: view development
  - – Skills: skills for standard scripting plus XML, SVG, general knowledge on DOM, deep knowledge on ADOxx APIs

- ## Add-On Development
  - – Examples: new publishing templates
  - – Skills: XML/HTML, XSLT, JS, FOP, Ext JS

- ## Plug-In Development and Extensions for Web Client
  - – Examples: web plug-ins,
  - – Skills: JS, Ext JS, HTML, Java (for server-side extensions)
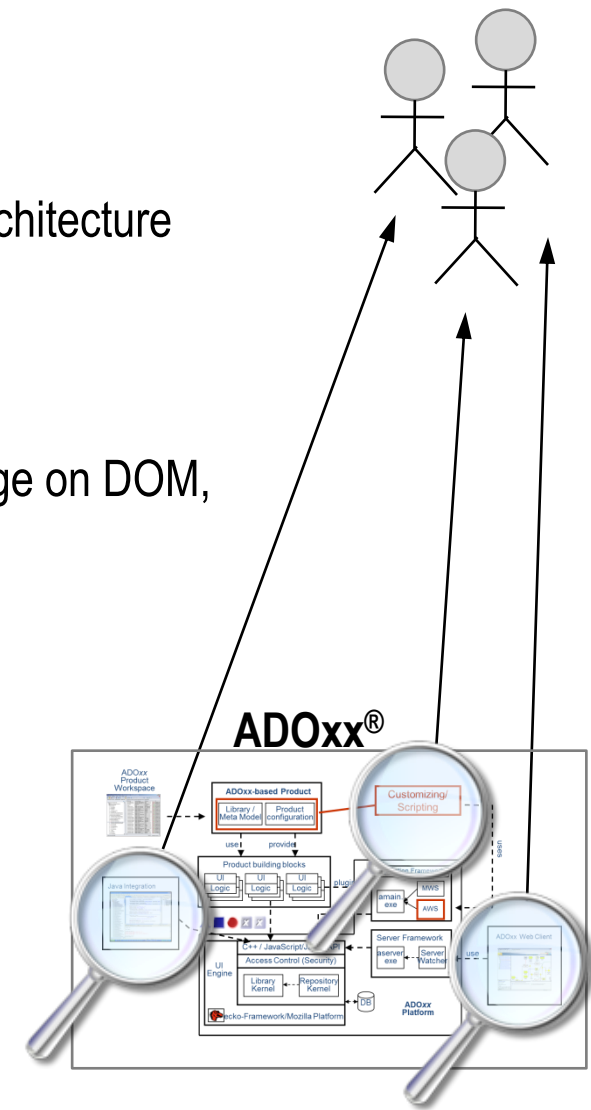
ADOxx®: Modelling Method Deployment Possibilities
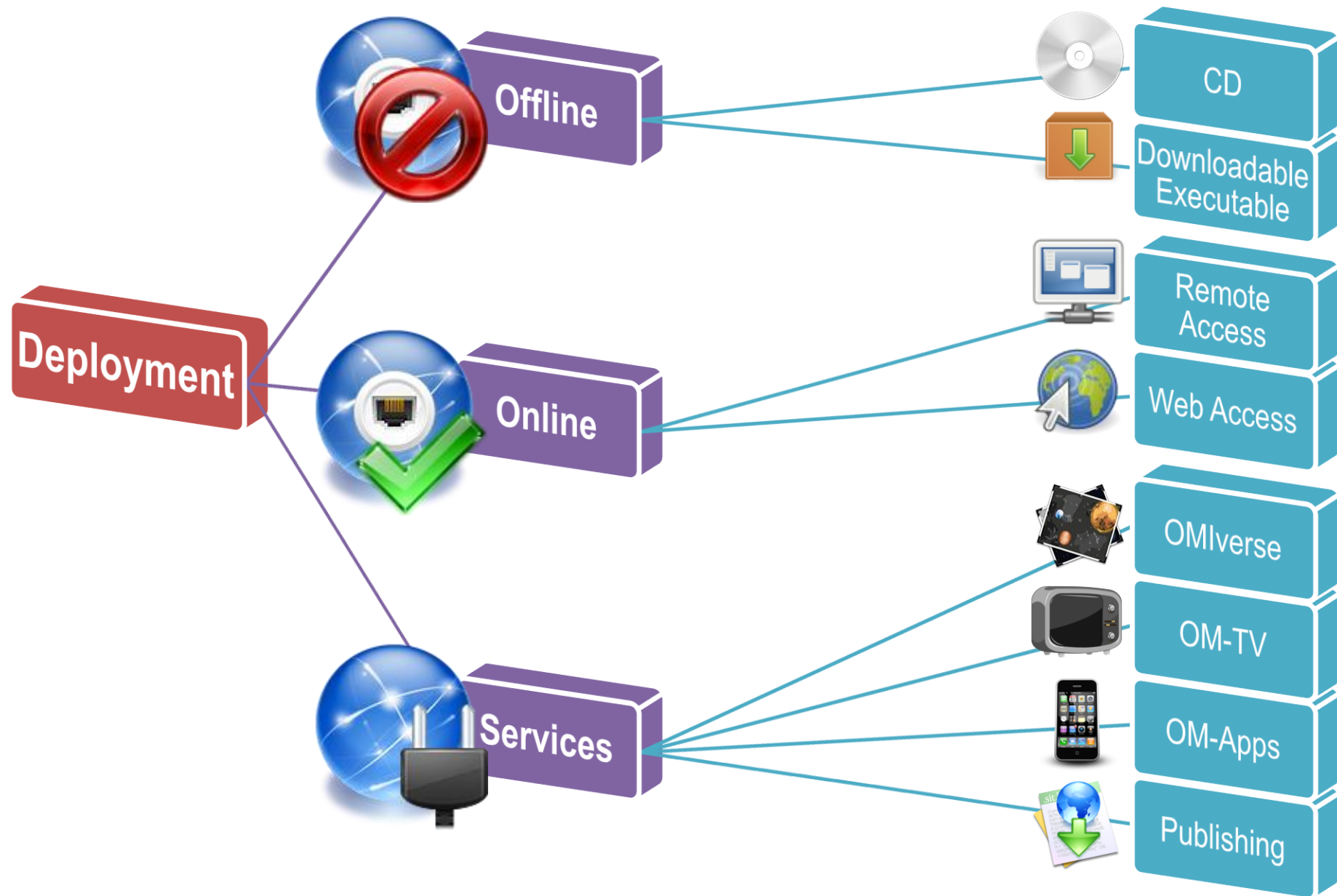
ADOxx®: **Deployment** Architecture
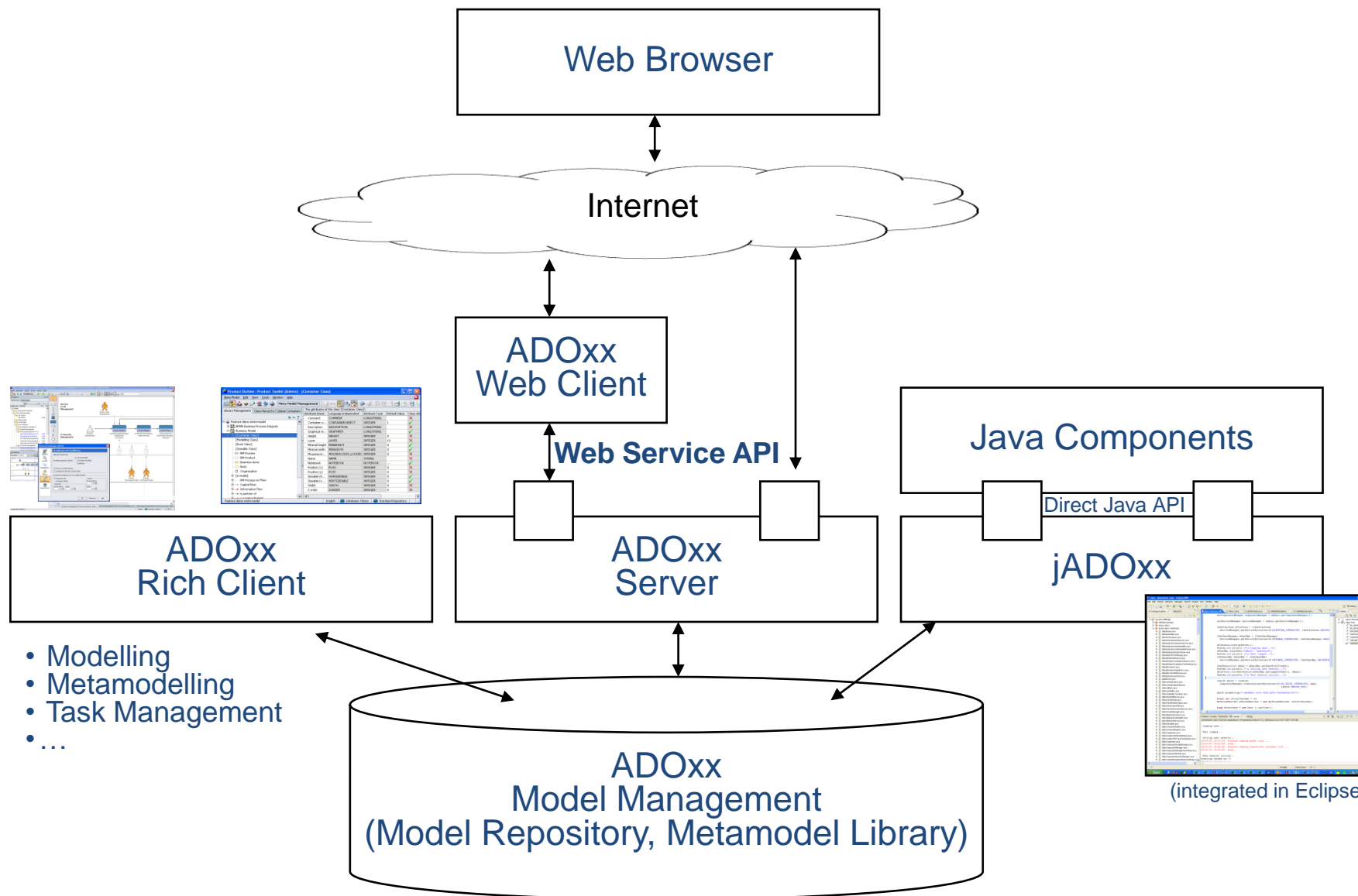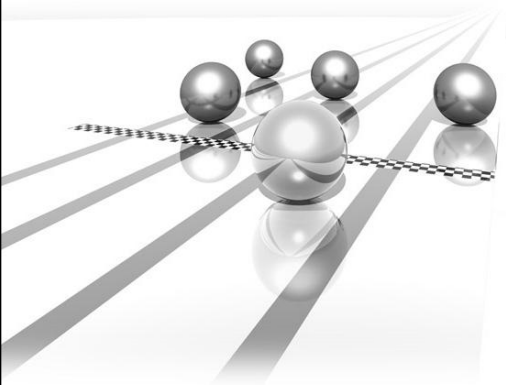
Web Browser

Internet

ADOxx
Web Client

Web Service API

ADOxx
Rich Client

- Modelling
- Metamodelling
- Task Management
- …

ADOxx
Server

Java Components

Direct Java API

jADOxx

(integrated in Eclipse)

ADOxx
Model Management
(Model Repository, Metamodel Library)

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ADOxx®: Metamodelling Hierarchy

Class Hierarchy

Method Level

Model Types
(Metamodels as Projections
from Class Hierarchy)

2a

XML

Method Definition
(Import/Export)

1

2b

Integration

3

JavaScript

Script Library

Instanciation

4

6

Model Definition
(Import/Export)

5 Usage

XML

Models in
Model Catalog

Objects and Relations
in Object Catalog

Model Level
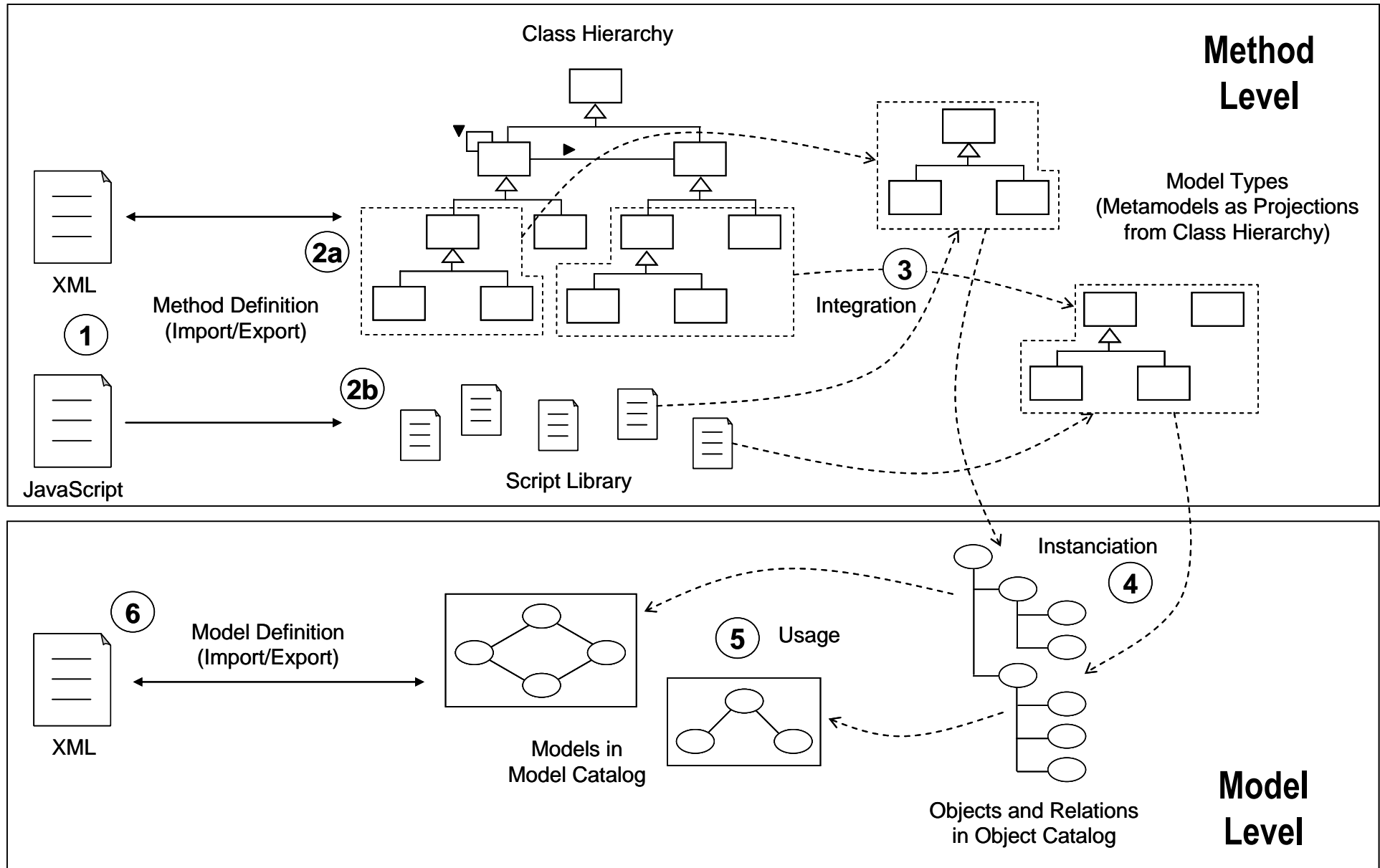
Source: Kühn, H.: Methodintegration im Business Engineering (PhD Thesis, in German), University of Vienna, 2004, p. 212

Selected Characteristics: Metamodel Management

Definition and maintenance of classes, relations, model types, and attributes. These can be packaged to libraries. Various libraries can be managed within one database.

Selected Characteristics: Dynamic Metamodelling, Event-based

14 Event Categories
221 Events

ADOxx®: Method Building Blocks
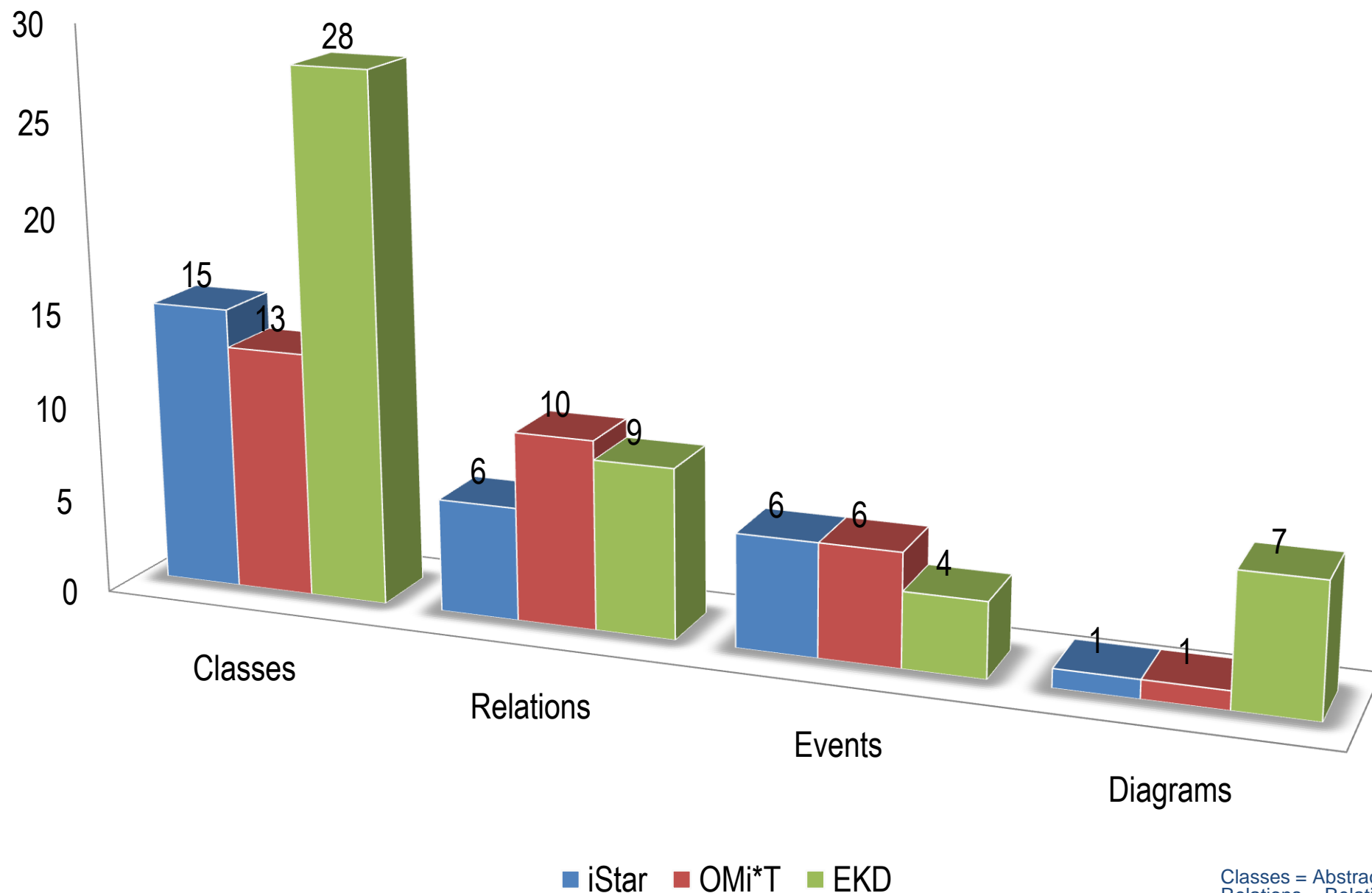
Classes = Abstract + Normal
Relations = Relational Classes
Events = On Event Calls
Diagrams do not include Modes.

Questions?

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