Modellierung 2010
March 24 – 26, 2010 - Klagenfurt

The 1st International Open Models Workshop

THE 'CONCEPTUALIZATION PROCESS' IN OMI

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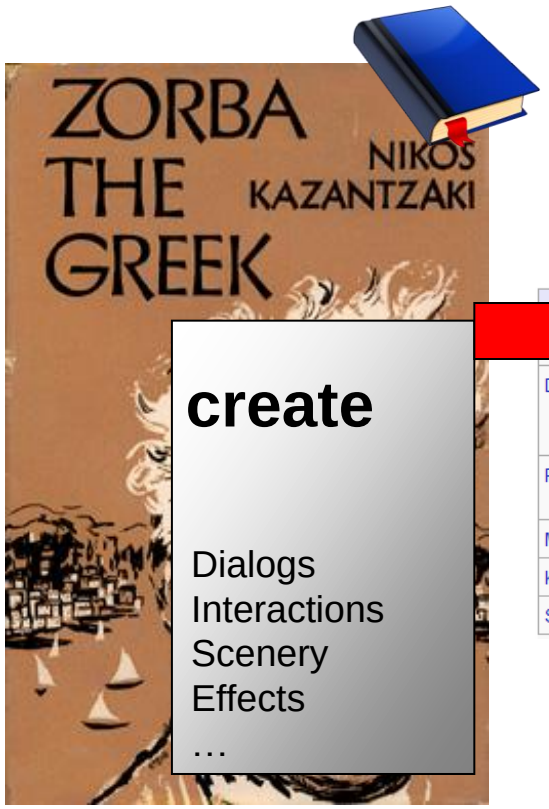
Conceptualization Method: A Metaphor "From Book to Movie"



create

Dialogs
Interactions
Scenery
Effects
…

/ Staff	
	Cacoyannis
Drehbuch:	Michael Cacoyannis (dem Roman von Niko Kazantzakis)
Produktion:	Michael Cacoyannis, Anthony Quinn
Musik:	Mikis Theodorakis
Kamera:	Walter Lassally
Schnitt:	Michael Cacoyannis

Filmdaten / Film Data	
Deutscher Titel:	**Alexis Sorbas**
Originaltitel:	**Zorba the Greek**
Produktionsland:	Vereinigte Staaten, Vereinigtes Königreich, Griechenland
Erscheinungsjahr:	1964
Länge:	142 Minuten
Originalsprache:	Englisch
Altersfreigabe:	FSK 12

Besetzung / Cast

- Anthony Quinn: Alexis Sorbas
- Alan Bates: Basil
- Irene Papas: Witwe
- Lila Kedrova: Madame Hortense
- Sotiris Moustakas: Mimithos
- Yorgo Voyagis: Pavlis

Meta-Modelling Framework:

"If we want to build modelling methods in machine language and if we are interested in supporting

this process named "conceptualization"

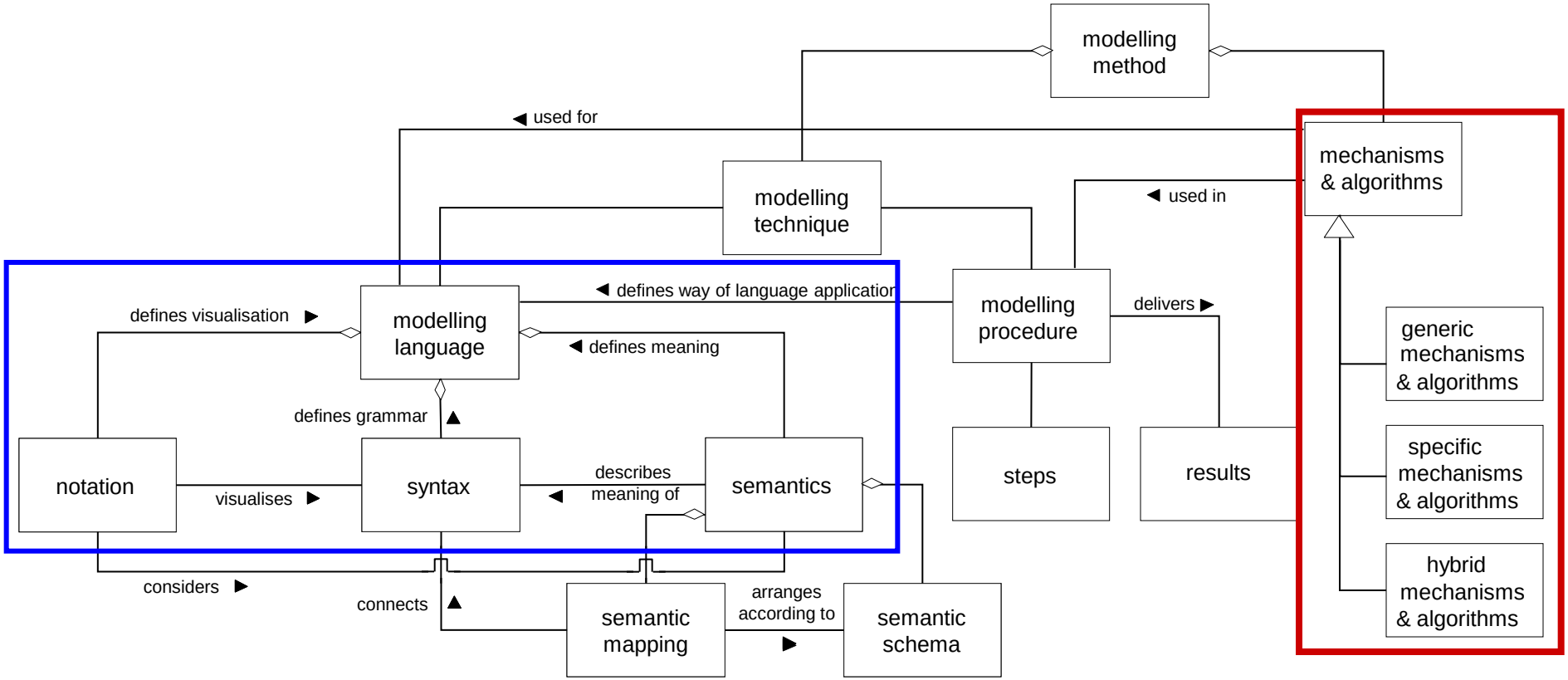
by meta-modeling frameworks, like ADOxx®,

it is necessary to specify a **formal language**

not only for the **structure** but also for the **processing**."

Starting Point for the 'Conceptualization':

The "Regisseur" Meta-Modelling Framework



Karagiannis, D., Kühn, H.: „Metamodelling Platforms". In Bauknecht, K., Min Tjoa, A., Quirchmayer, G. (Eds.): Proceedings of the Third International Conference EC-Web 2002 – Dexa 2002, Aix-en-Provence, France, September 2002, LNCS 2455, Springer, Berlin/Heidelberg, p. 182 ff.

Conceptualization of a X-METHOD

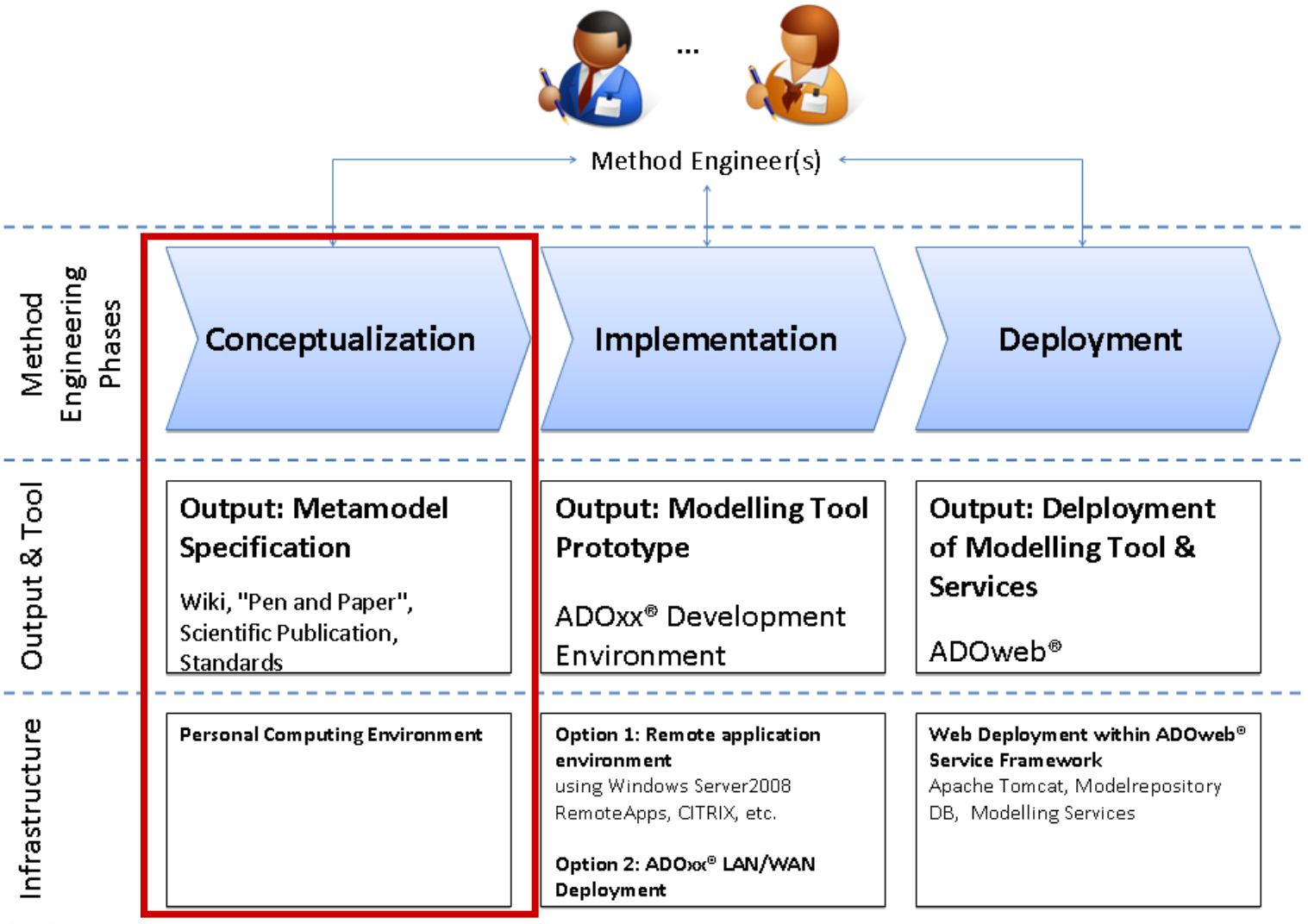
‘Conceptualization’ of a X – Method: Analysing & Studying (1)

What can a X - Method be?

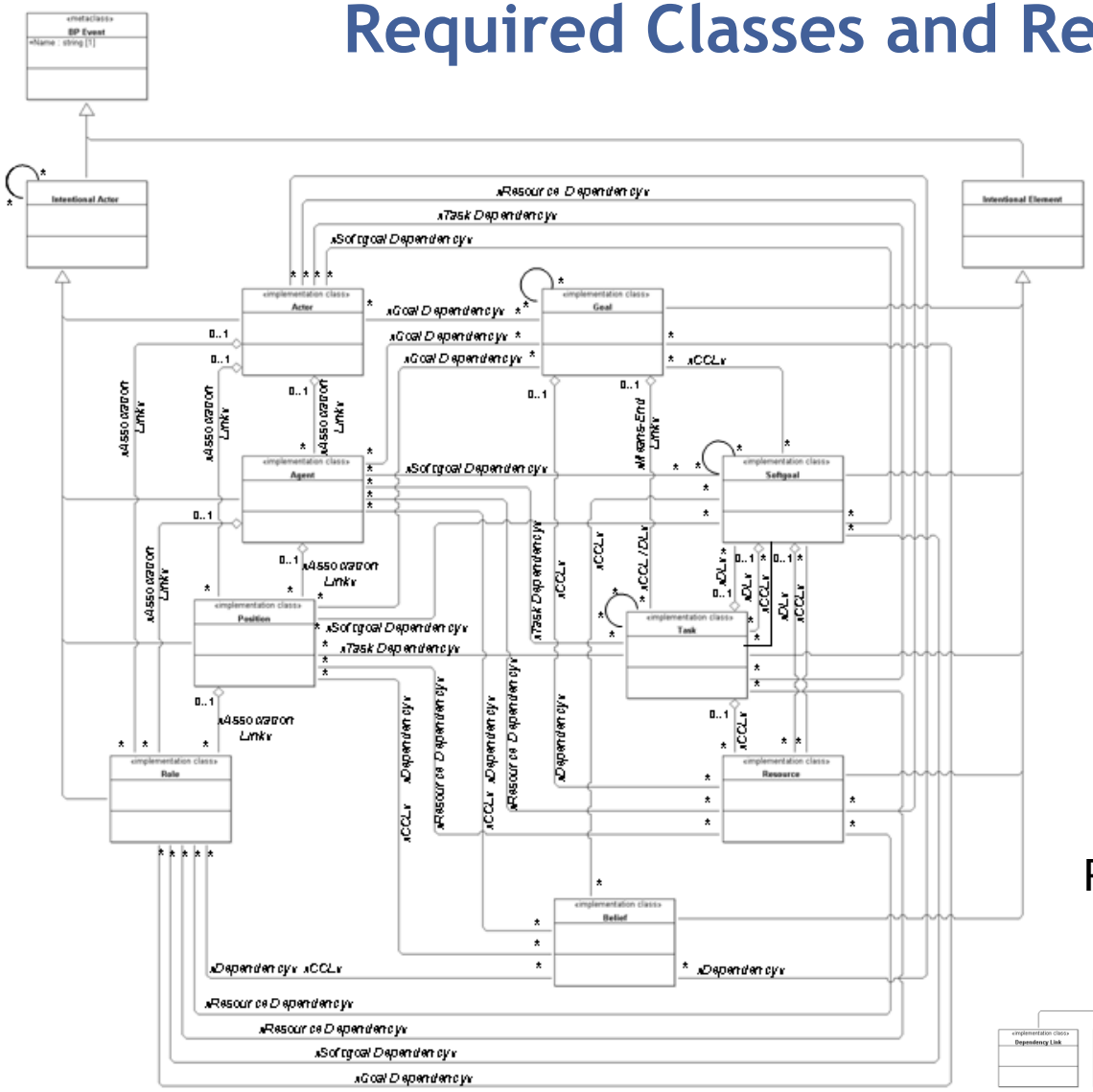
- which has been developed to show social relationships for their analysis and design
- which particular is helpful to understand complex relationships among actors with strategic intent
- which deals with human and IT resources
- Does not: aim to map and design the execution of certain steps in a certain temporal dimension
- which has been developed for …….

THE 'CONCEPTUALISATION PROCESS' IN OMI

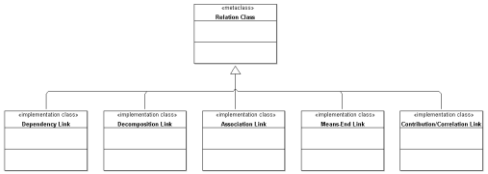
Conceptualization Phase



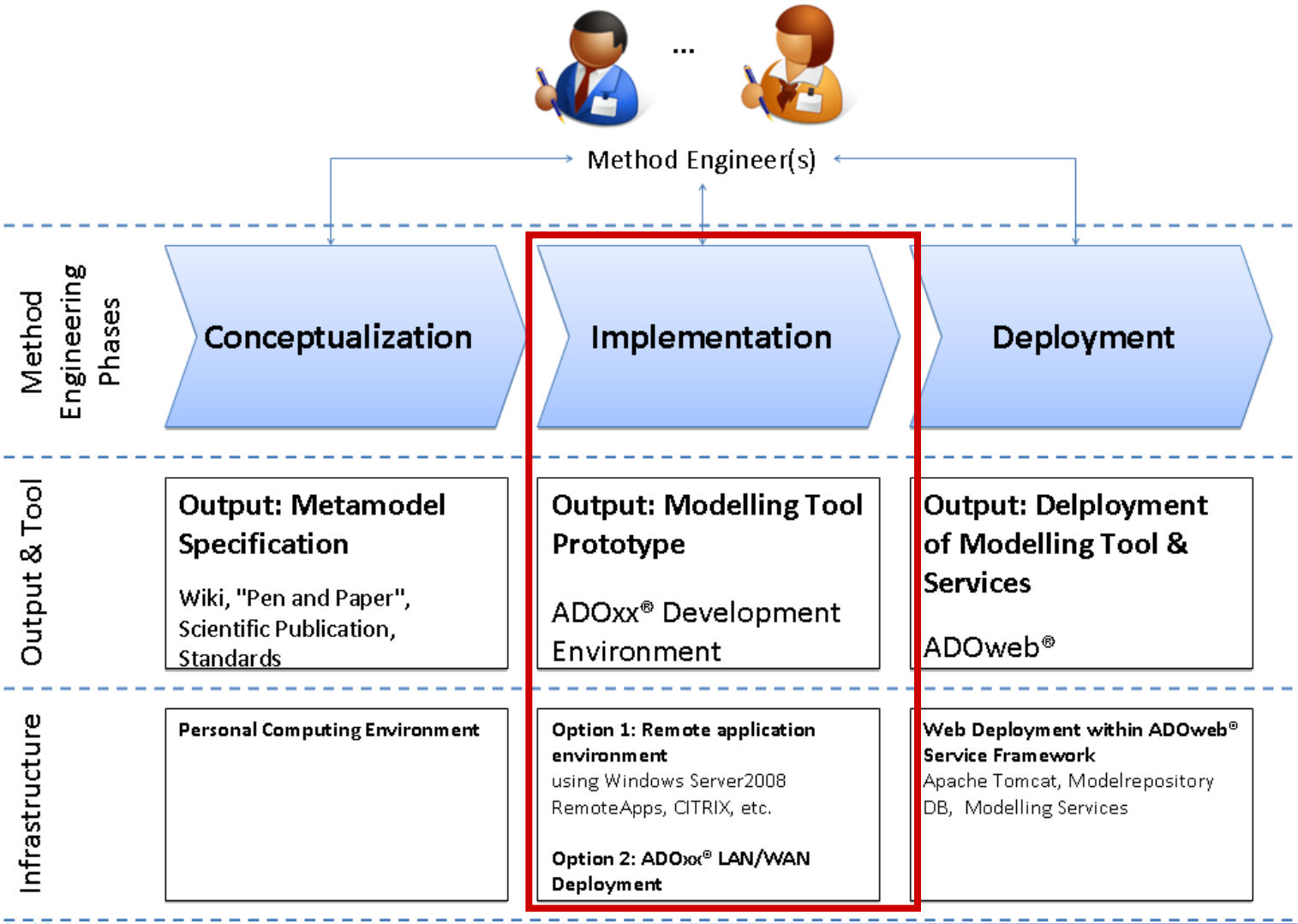
(2) 'Conceptualization' for the ADOxx® Platform
Required Classes and Relations of *X*



Relations classes



THE 'CONCEPTUALISATION PROCESS' IN OMI
Implementation Phase



(2) 'Conceptualization' for the ADOxx® Platform

Ascertainment of Notation

Notation -> Graphical representation of objects/relations

Depending on the definition of the respective class – here ***Actor …***


```
GRAPHREP layer:0 sizing:keep-aspect-ratio
  AVAL set-default: "without" b: "Boundary"
  AVAL set-default: "down right" rb: "Representation of boundary"
  AVAL i: "Order"
  AVAL set-default:"x" p:"Referenced actor"
  AVAL sub:"Referenced actor"

    PEN w:0.05cm color:dodgerblue endcap:flat join:round
    IF (bl = "dashed" AND ka="no")
      PEN w:0.05cm color:dodgerblue endcap:flat join:round style:dashdot
    ELSIF (ka= "yes" AND bl="solid")
      PEN w:0.1cm color:red endcap:flat join:round
    ELSIF (bl = "dashed" AND ka="yes")
      PEN w:0.1cm color:red endcap:flat join:round style:dashdot
    ENDIF

    IF (rb = "top right" AND b = "with")
      CLIP_ELLIPSE x:3.0cm y:-3.0cm rx:3.88cm ry:3.88cm
      GRADIENT_RECT x:-3.88cm y:-7.88cm w:10.8cm h:10.8cm style:downdiag color1:white
color2:aliceblue
      FILL style:null
      CLIP_OFF
      ELLIPSE x:3.0cm y:-3.0cm rx:-3.88cm ry:3.88cm layer:0 sizing:keep-aspect-ratio

    ELSIF (rb = "down right" AND b = "with")
      CLIP_ELLIPSE x:3.0cm y:3.0cm rx:3.88cm ry:3.88cm
      GRADIENT_RECT x:-3.88cm y:-3.88cm w:10.8cm h:10.8cm style:downdiag color1:white
color2:aliceblue
      FILL style:null
      CLIP_OFF
      ELLIPSE x:3.0cm y:3.0cm rx:-3.88cm ry:3.88cm layer:0 sizing:keep-aspect-ratio
    ENDIF
...
```

PEN w:0.05cm
color:dodgerblue
endcap:flat join:round

… in ADOxx® the **Notation** of the **Class** is realized in the **"Graphrep".**

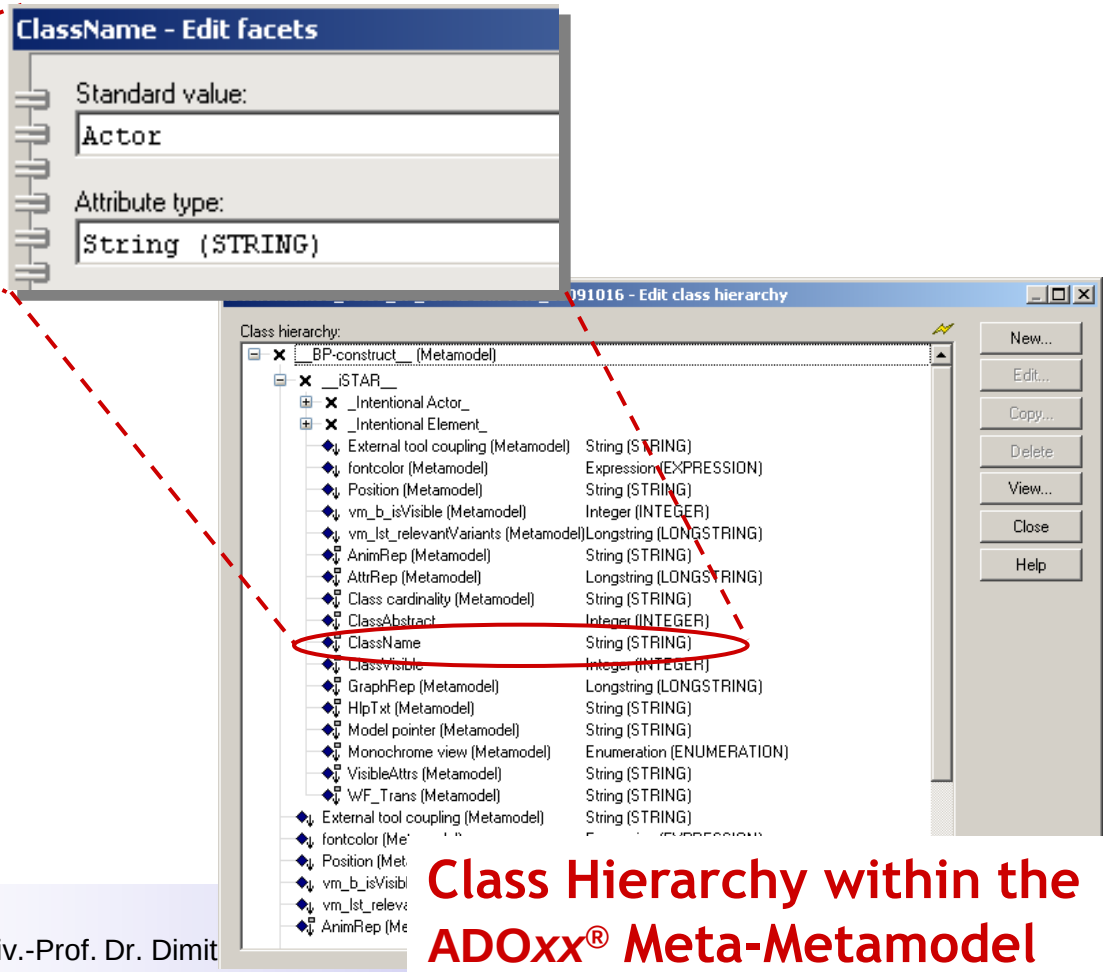
(2) 'Conceptualization' for the ADOxx® Platform

Ascertainment of Syntax

Syntax -> Object and relation definition

… the **Syntax** of the **Class** is realized depending on **definition** of the **method** and the given Syntax of the ADOxx® Meta-Metamodel in the **"Attrep"**.

```
NOTEBOOK
CHAPTER "General"
ATTR "Name"
ATTR "Order"
ATTR "Boundary"
ATTR "Representation of boundary"
ATTR "Boundary lines"
CHAPTER "Description"
ATTR "Description"
ATTR "Comment"
ATTR "Representation of name"
ATTR "Font size"
CHAPTER "Further Details - Benefits"
ATTR "Referenced actor"
ATTR "Display name and reference"
ATTR "Key actor"
ATTR "Main skills and competence"
ATTR "Responsibility" lines:5
CHAPTER "Furhter Details - Constraints"
ATTR "Constraints" lines:5
ATTR "Costs"
GROUP "Availability"
ATTR "Available from"
ATTR "Available till"
ENDGROUP
```

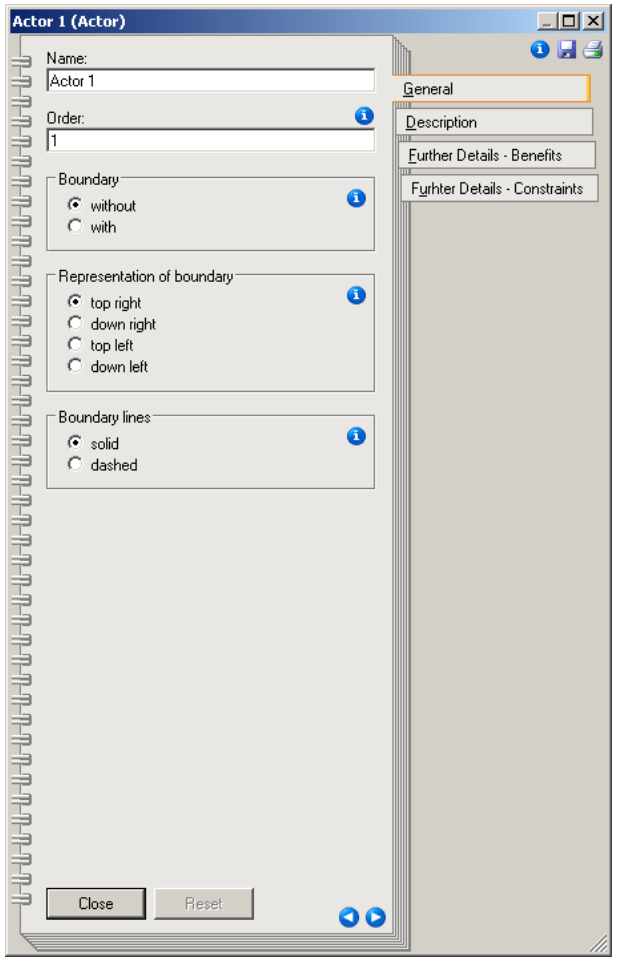


Class Hierarchy within the ADOxx® Meta-Metamodel

(2) 'Conceptualization' for the ADOxx® Platform

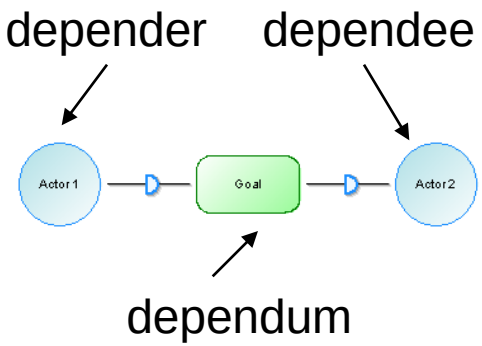
Ascertainment of Semantics

Semantics -> Object and relation characteristics definition

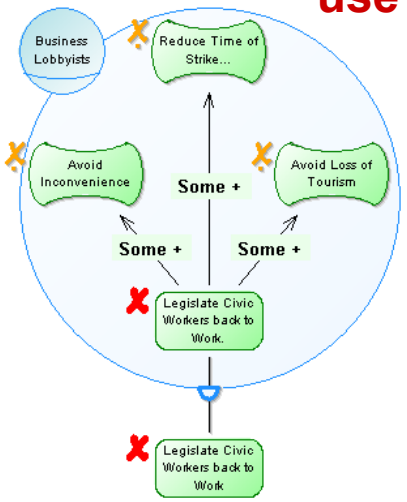


… the **Semantics** of the **Class** are expressed by the **values of the defined Class Attributes** and by the respective **use** depending on the rules as determined by the **method developer**.

'rules'



'use'



Horkoff, J.; Schwab, M.; June 2009

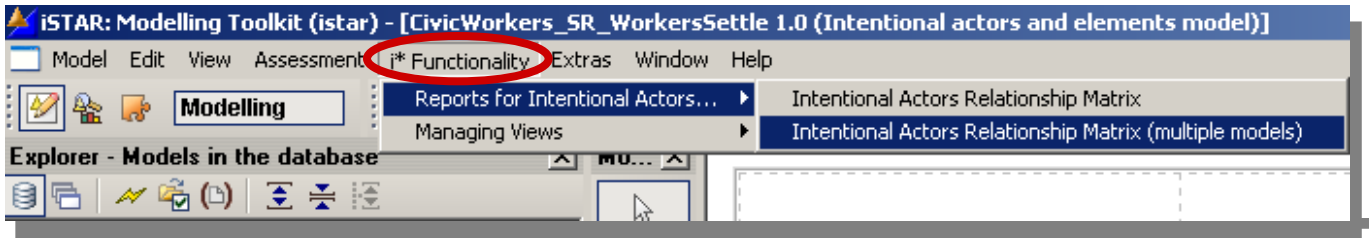
(2) 'Conceptualization' for the ADOxx® Platform

Ascertainment of Mechanisms & Algorithms

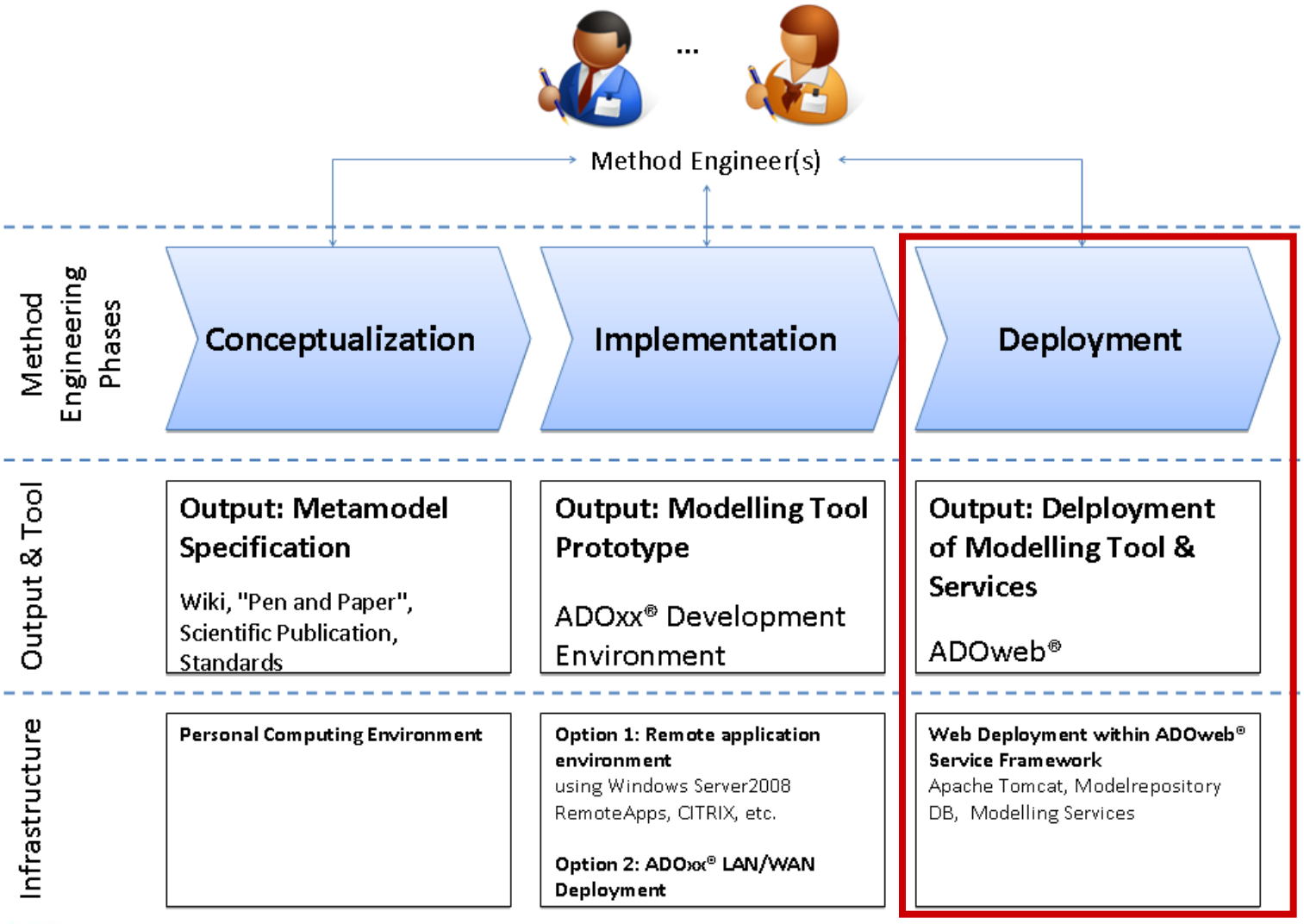
- **AdoScript** is the macro language of the ADOxx® platform
- it is procedural

- Allows **easy access** to almost all functionalities of the ADOxx® platform, like
  - New menus
  - Model-specific cardinality checks
  - Realization of new interfaces
  - Specific program calls
  - etc.

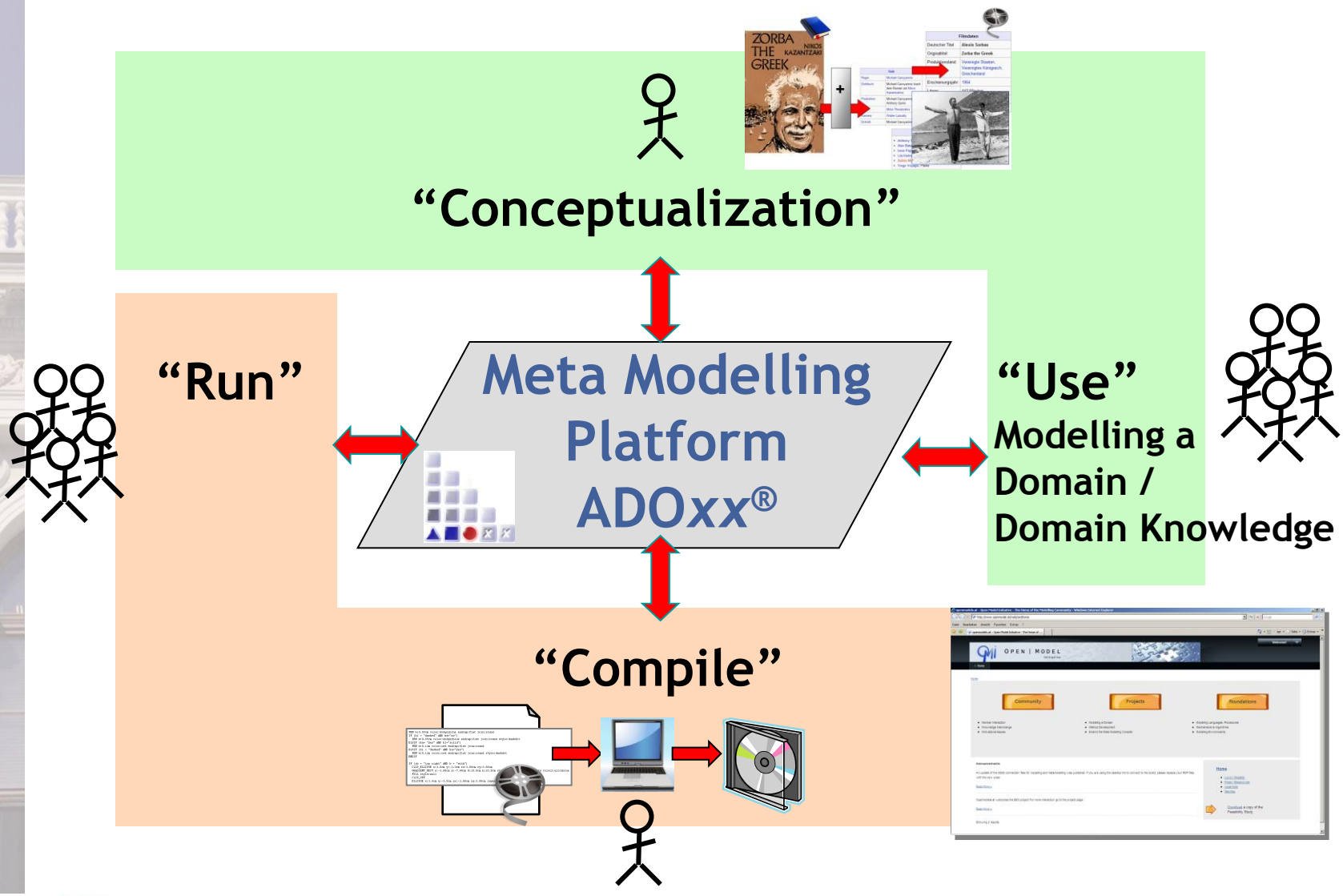
```
#----------------------------------------
#
# ADOxx(R) iSTAR
#
# University of Vienna, DKE, 2009
#
#----------------------------------------
SETL idlist_modelids:("")

IF (oneModelOnly = 1)
{
#---------------------------------
#--Check if model is loaded
#---------------------------------

 SEND "GET_ACTIVE_MODEL" to:"Modeling" answer:modelid
 IF (modelid = "")
 {
  CC "AdoScript" INFOBOX (g_str_ui_IAR_matrix_info1)
  EXIT
 }
#---------------------------------
#--Check if active model is of type Strategic Dependency Model
#---------------------------------

 SETL id_model:(VAL modelid)
 CC "Core" GET_MODEL_INFO modelid:(id_model)

 IF (modeltype != mod_type8)

 {
  CC "AdoScript" INFOBOX (g_str_ui_IAR_matrix_info2)
  EXIT
```



THE 'CONCEPTUALISATION PROCESS' IN OMI
Deployment Phase



The ADOxx® Plattform: Utilisation

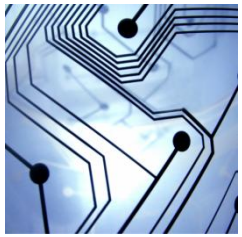


The Project: The Open Models Initiative - OMI

OPEN | MODEL
Initiative

Open Model Community

Open Model Projects



Open Model Frameworks

Promoted by the Federal Ministry for Transport, Innovation and Technology

Selected Issues

What could be the scientific challenge of an Open Model Initiative?

- How to attract the scientific community?
- How to tackle scientific research issues? like
  - > Model Transformation
  - > Design KM Modelling Language
  - > ….
  - > …… till to

Conceptualization of "services" within Models

Thank you for your attention!

Any further questions?

Please contact:

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