Megamodelling and Etymology

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Megamodelling and Etymology

- **Part 1:** *Meta-Muddle + meaning of 'model'*

- **Part 2:** Megamodelling and concepts

- **Part 3:** Megamodelling and Etymology

The Meta-Muddle

- **What is a model?**
  - Polysemic word
  - Depends on context
  - Leads to misunderstanding and confusion
  - <u>Two different senses used in the same sentence</u>

- **Is the model of a model a metamodel?**
  - Cannot answer without knowing what a 'model' is

The Meta-Muddle

- **Study of the etymology of 'Model'**

- **Four sources of knowledge:**
  - Encyclopedias
  - Dictionaries
  - Thesauri
  - Etymology

- **Four groups of meanings:**
  - Model-as-representation
  - Model-as-example
  - Model-as-type
  - Model-as-mold

Tracking the meaning

- **Encyclopedia**
  - A model of the knowledge of mankind

  - Model: "A 3-dimensional, typically small construction, *intended to illustrate, explain, or discover certain properties of its prototype, the subject that it represents.*"

Tracking the meaning

- ## Dictionary
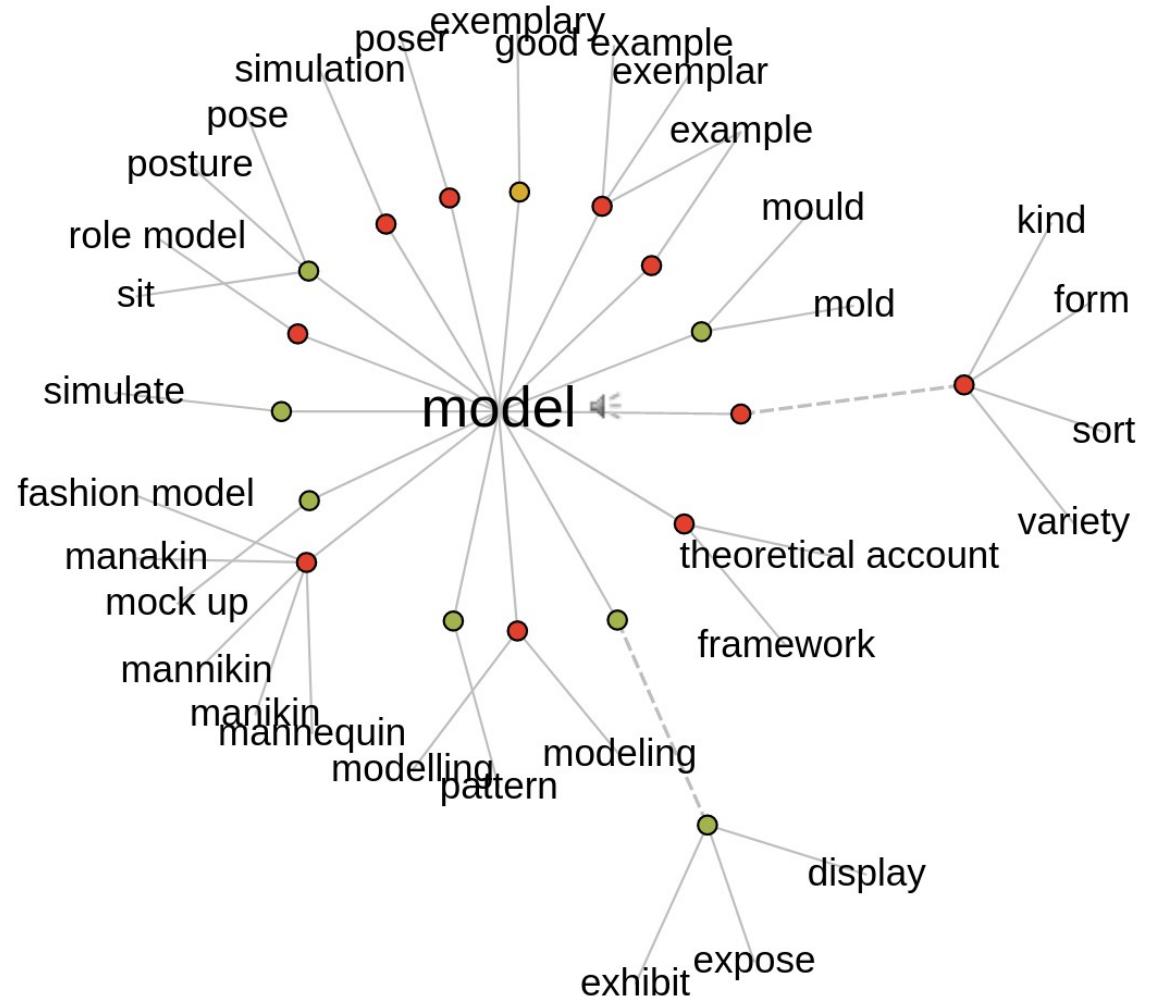 - A model of the language

mod·el 🔊 (mŏd′l)

n.

1. A small object, usually built to scale, that represents in detail another, often larger object.

2.
    a. A preliminary work or construction that serves as a plan from which a final product is to be made: *a clay model ready for casting.*
    b. Such a work or construction used in testing or perfecting a final product: *a test model of a solar-powered vehicle.*

3. A schematic description or representation of something, especially a system or phenomenon, that accounts for its properties and is used to study its characteristics: *a model of generative grammar; a model of an atom; an economic model.*

4. A style or design of an item: *My car is last year's model.*

5. One serving as an example to be imitated or compared: *a model of decorum.* See Synonyms at **ideal**.

6.
    a. One that serves as the subject for an artist, especially a person employed to pose for a painter, sculptor, or photographer.
    b. One that serves as the basis for a fictional character or place.

7. A person employed to display merchandise, such as clothing or cosmetics.

8. *Zoology* An animal whose appearance is copied by a mimic.
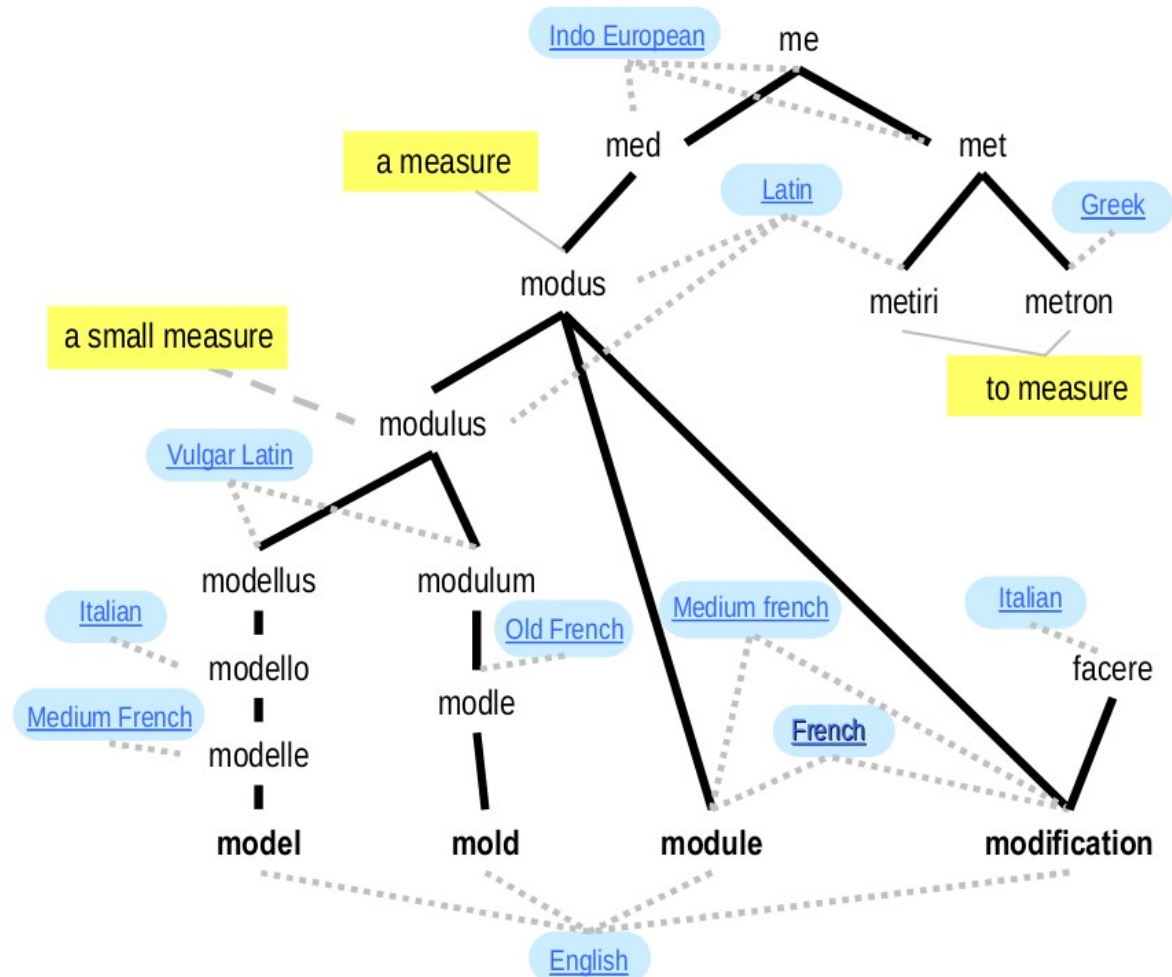
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Tracking the meaning

- ## **Thesaurus**
  - List words in groups of synonyms and related concepts

exemplary
poser   good example
simulation   exemplar
pose
example
posture
mould   kind
role model
form
sit   mold
simulate   model   sort
variety
fashion model
manakin   theoretical account
mock up   framework
mannikin
manikin
mannequin   modeling
modelling
pattern
display
expose
exhibit

Tracking the meaning

- **Etymology**
  - A model of the language dynamics

Megamodelling and Etymology

- **Part 1:** Meta-Muddle + meaning of 'model'

- **Part 2:** *Megamodelling and concepts*

- **Part 3:** Megamodelling and Etymology

Megamodelling

- **A model is:**
  - A simplification of a system
  - Built with an intended goal in mind
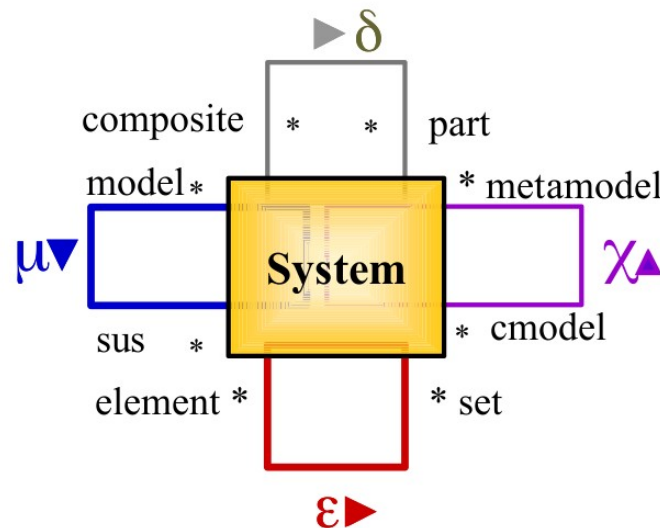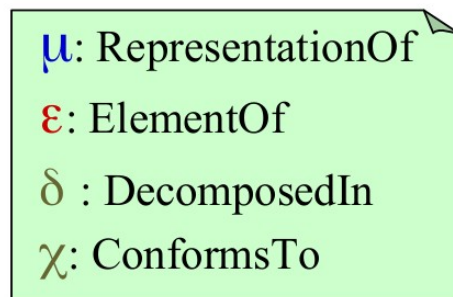 - Able to answer questions in place of the actual system

- **A metamodel is:**
  - A model of a modeling language
  - A model of a language of models
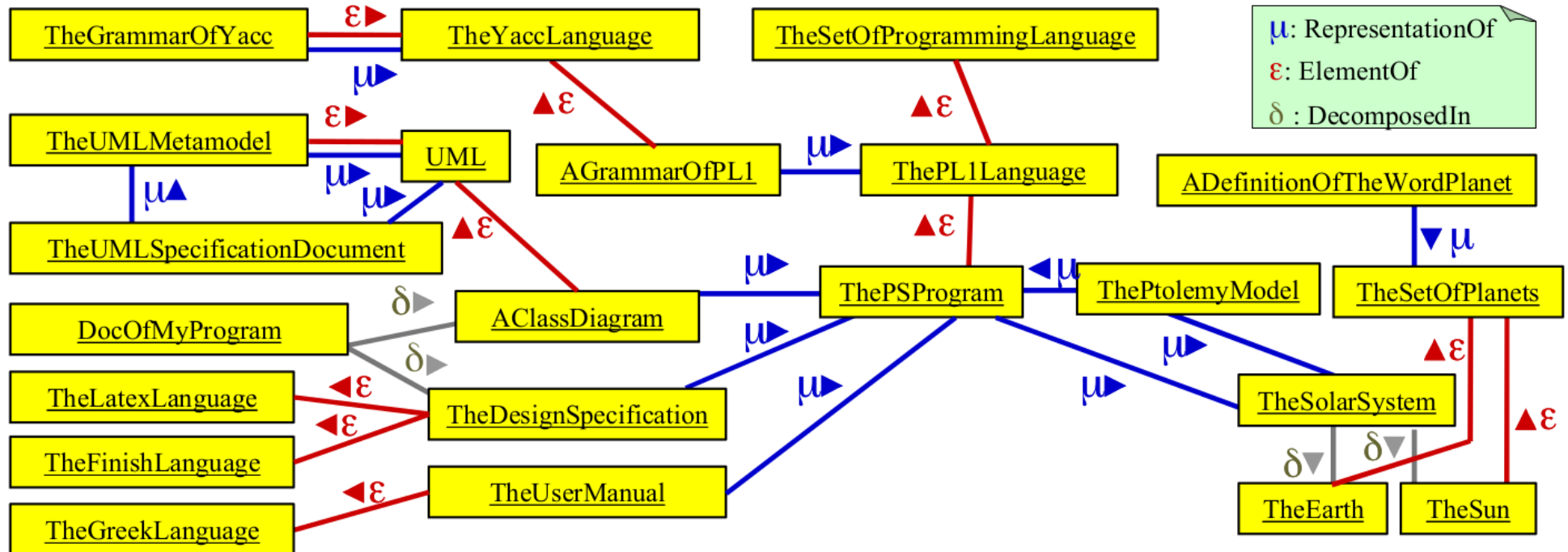
*Language = Set of sentences

Megamodelling

- **A megamodel is:**
  - A model whose elements represent models, metamodels and other global entities
  - Considers global relationships without considering their content
  - Represents complex arrangements without entering in details
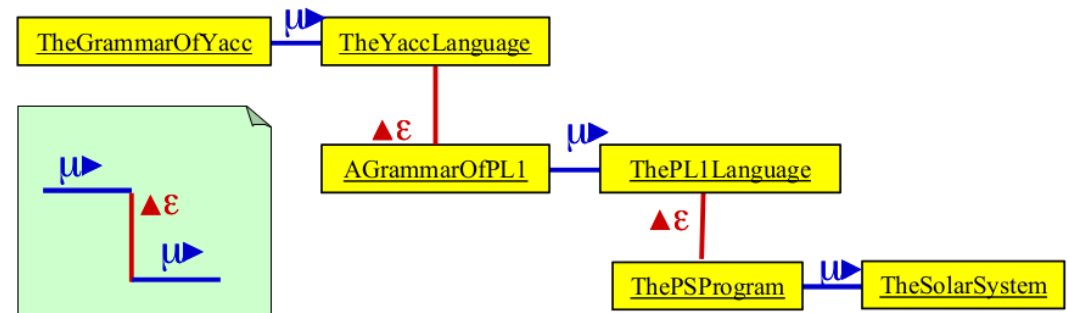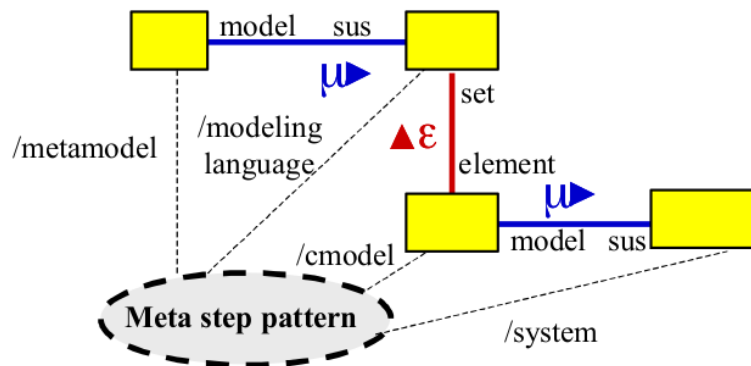 - Not tied to a technical space / domain
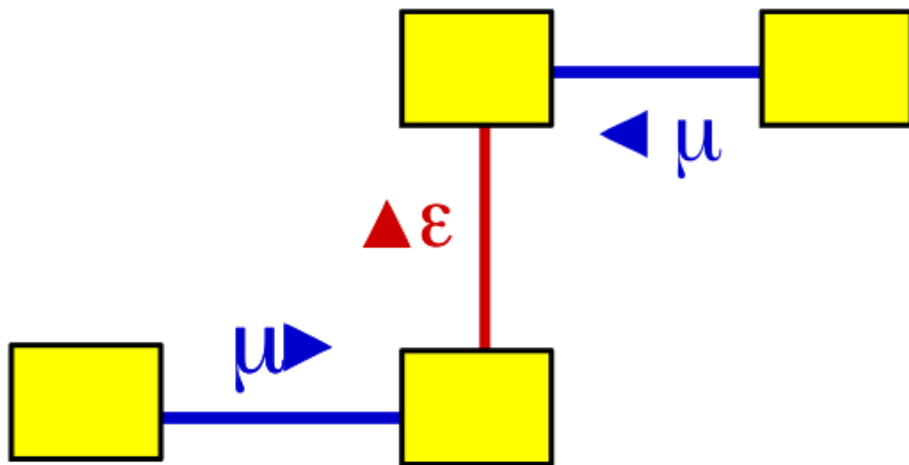
Megamodelling

Megamodelling

- ## Mega-Patterns:

  - Recurrent pattern that defines a collaboration between some systems in a megamodel
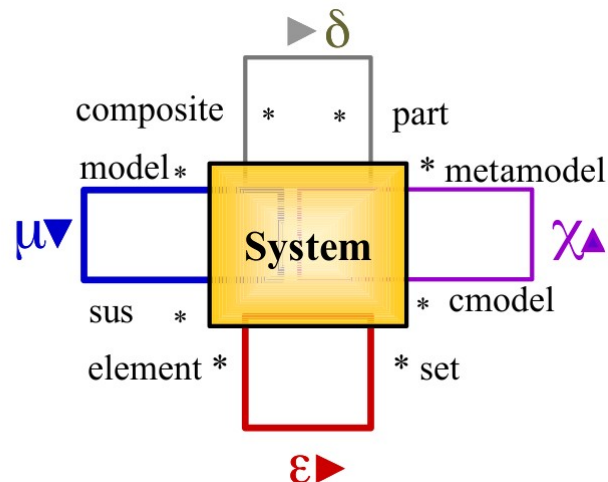
Megamodelling

S-Pattern

Megamodelling
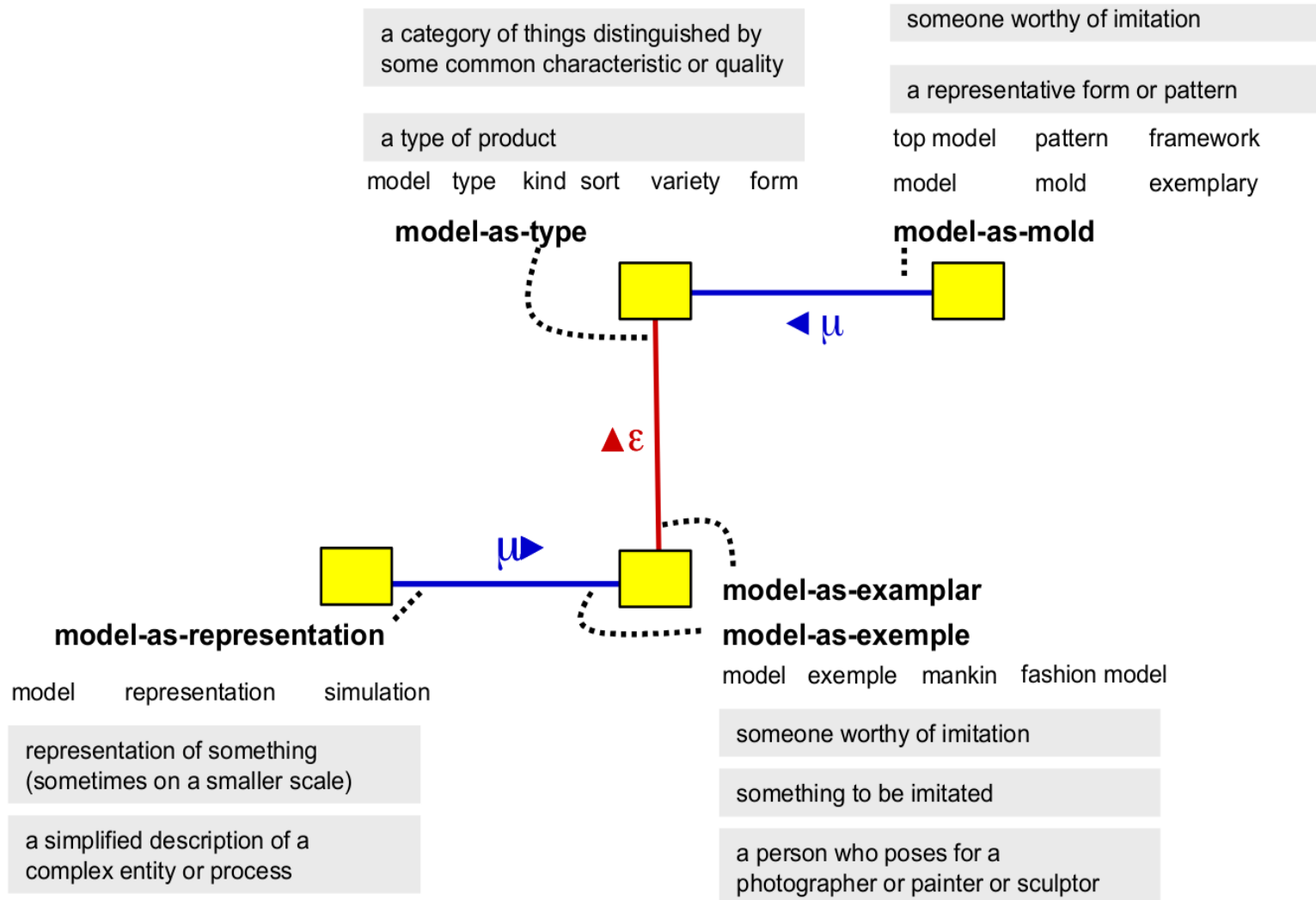
- **Key Principle:**
  - **Everything is a system!**
  - Being a model is **just a role**
  - Nothing is a model, but **Everything could serve as a model**
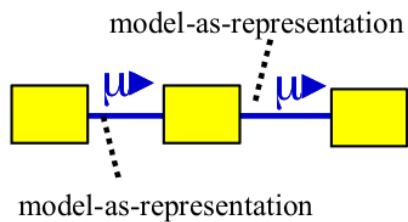
Megamodelling and Etymology

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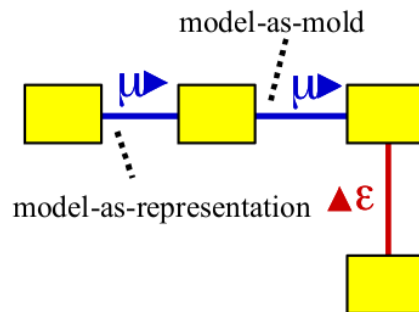
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Megamodelling and Etymology

a category of things distinguished by some common characteristic or quality

someone worthy of imitation

a type of product

a representative form or pattern

model	type	kind	sort	variety	form

top model	pattern	framework
model	mold	exemplary

model-as-type

model-as-mold

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model-as-representation

model-as-examplar
model-as-exemple

model	representation	simulation

model	exemple	mankin	fashion model

representation of something (sometimes on a smaller scale)

someone worthy of imitation

something to be imitated

a simplified description of a complex entity or process

a person who poses for a photographer or painter or sculptor

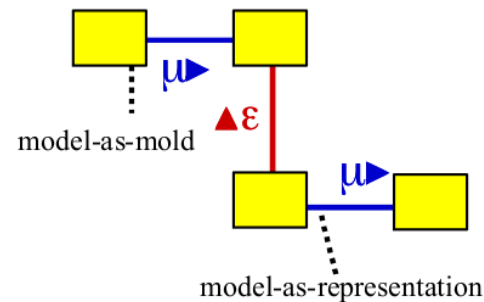# Megamodelling and Etymology

- **Is the model of a model a metamodel?**
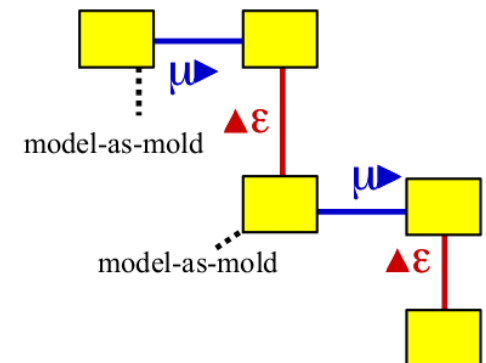 - – Not always!

(a) model-as-representation of a model-as-representation
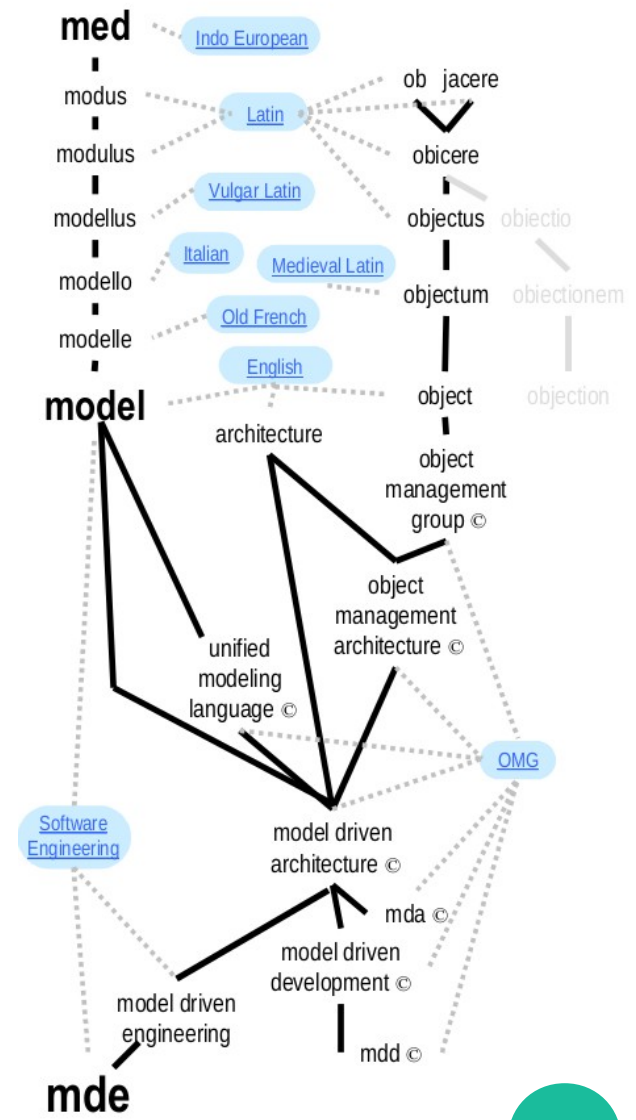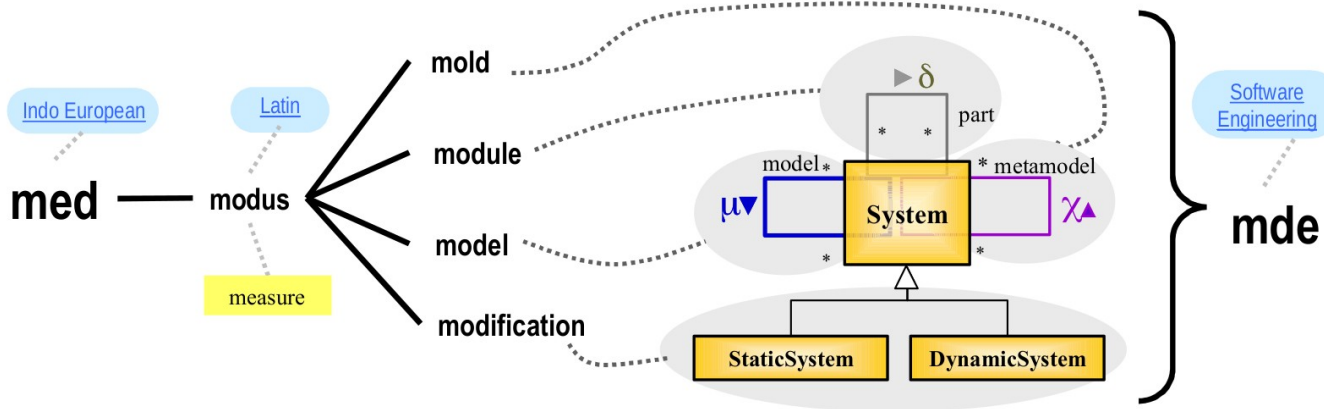
(b) model-as-representation of a model-as-mold

(c) model-as-mold of a model-as-representation

(d) model-as-mold of a model-as-mold

Megamodelling and Etymology

Questions?