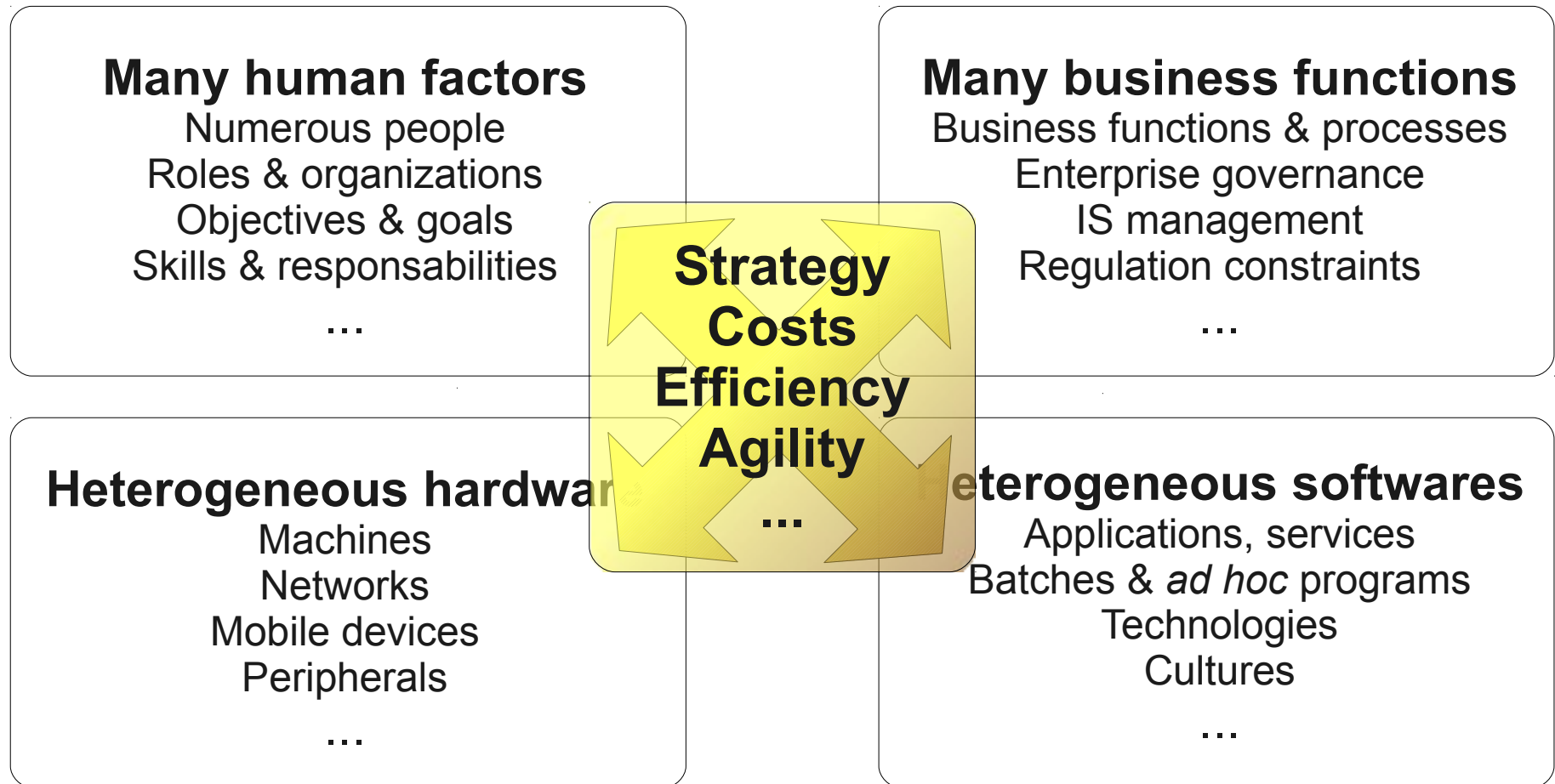




An innovative approach for mastering IS design

Praxeme Institute - Fabien Villard

We are building complex systems



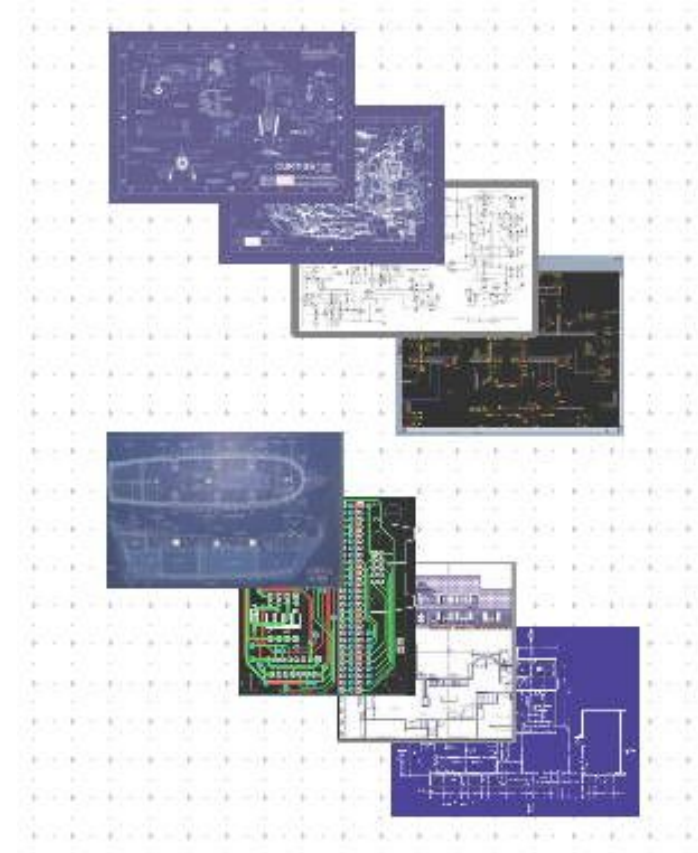
All components are linked together with feedback loops

Complexity is not specific to IS

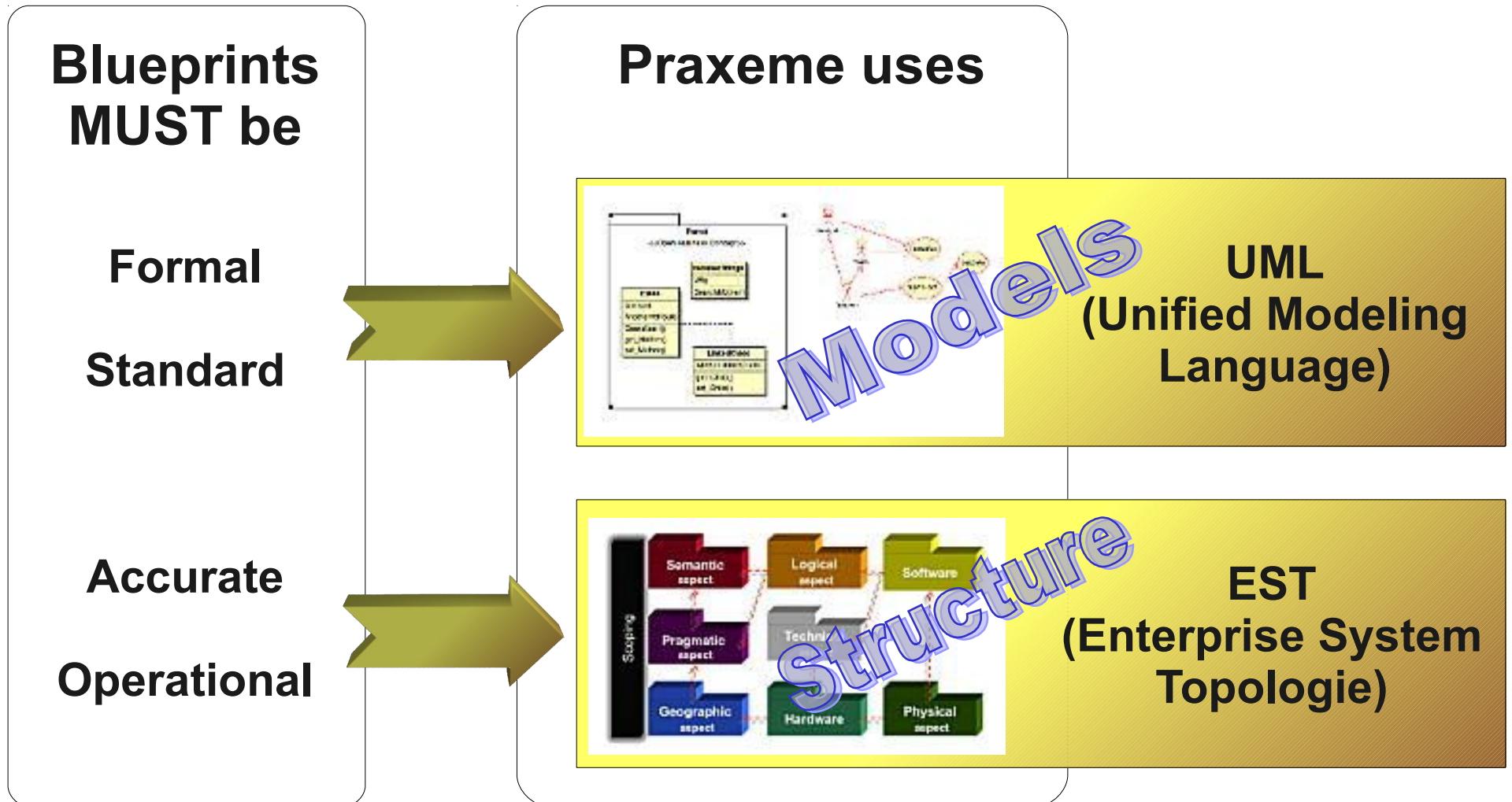
To design that



They use blueprints



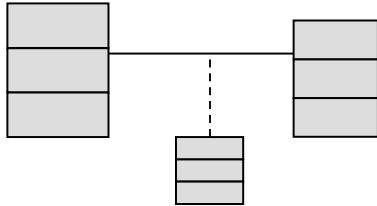
We also need blueprints



Business: the right description

Semantic aspect

Objects



*Business objects, real objects
(Information+Transformation+Action)*

Semantic modeling

Additional approach

- Move to genericity
- Add a solution to cope with complexity
- Objects are more stable

Pragmatic aspect

Activities



*Actors & organisational entities
Process & use-cases*

Refers to



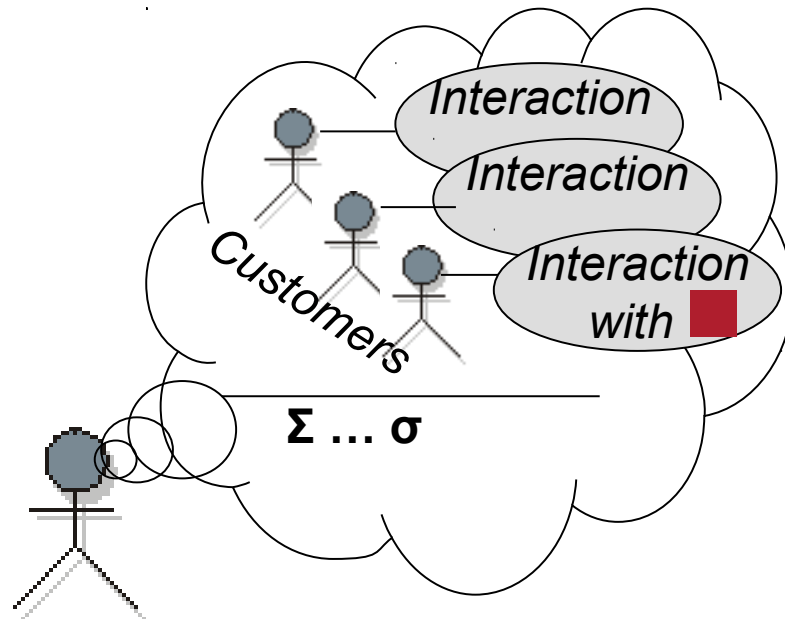
Approach by Activities

Classical approach

- Flawed with local variations
- Functional & hierarchical breakdown structure
- What do activities handle?

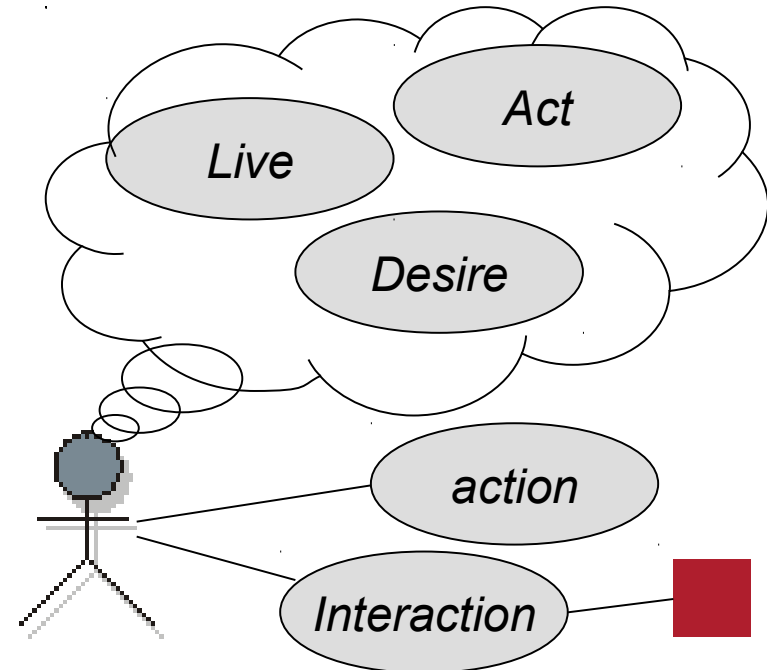
Example: What is a customer?

The insurer's point of view



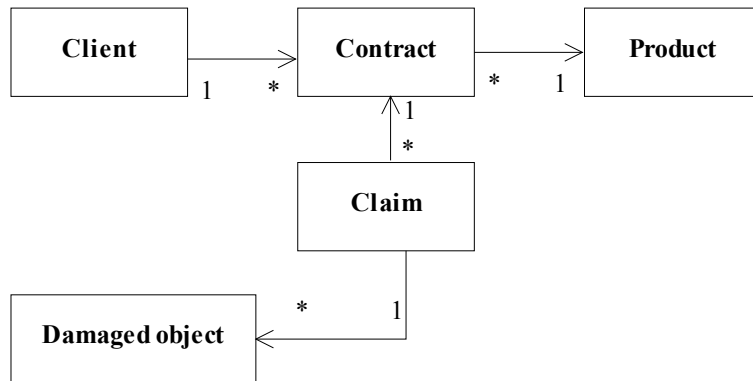
The insurer sees customers and their interactions with the company. "Customer" seems to be the core of the system

A person's point of view

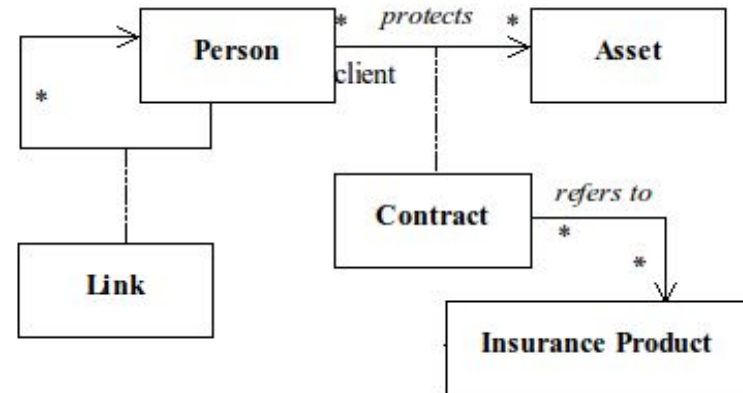


In reality a person never sees itself as a customer but as someone with a life, intentions and wishes and maybe with interactions

The insurer's model

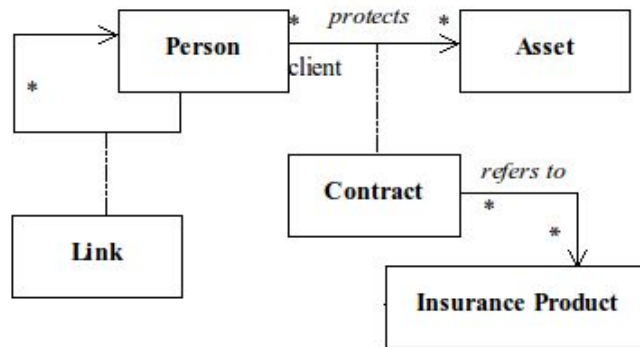


The person's model

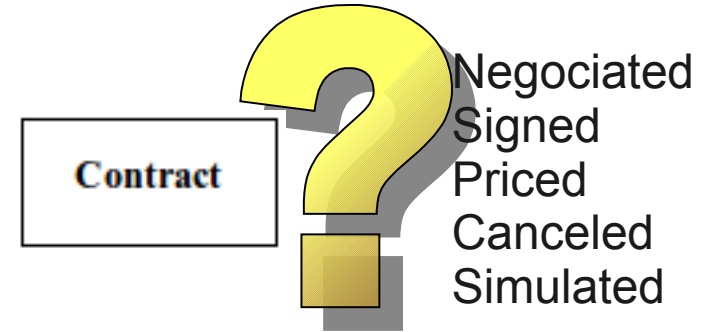


Customer becomes a class and leads the whole model. Only customers can be managed. A prospect for example is seen as a virtual client.

In real life, a **Person** *protects* an **Asset** by being the *client* in an interaction established by a **Contract**. A **Person** may have other roles, like an expert.



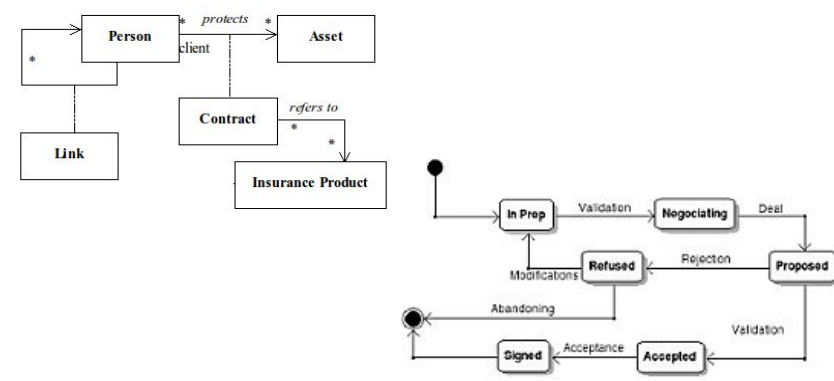
Class models define **what objects are** and the relations between them



This is not enough: **transformations and changes** are not described

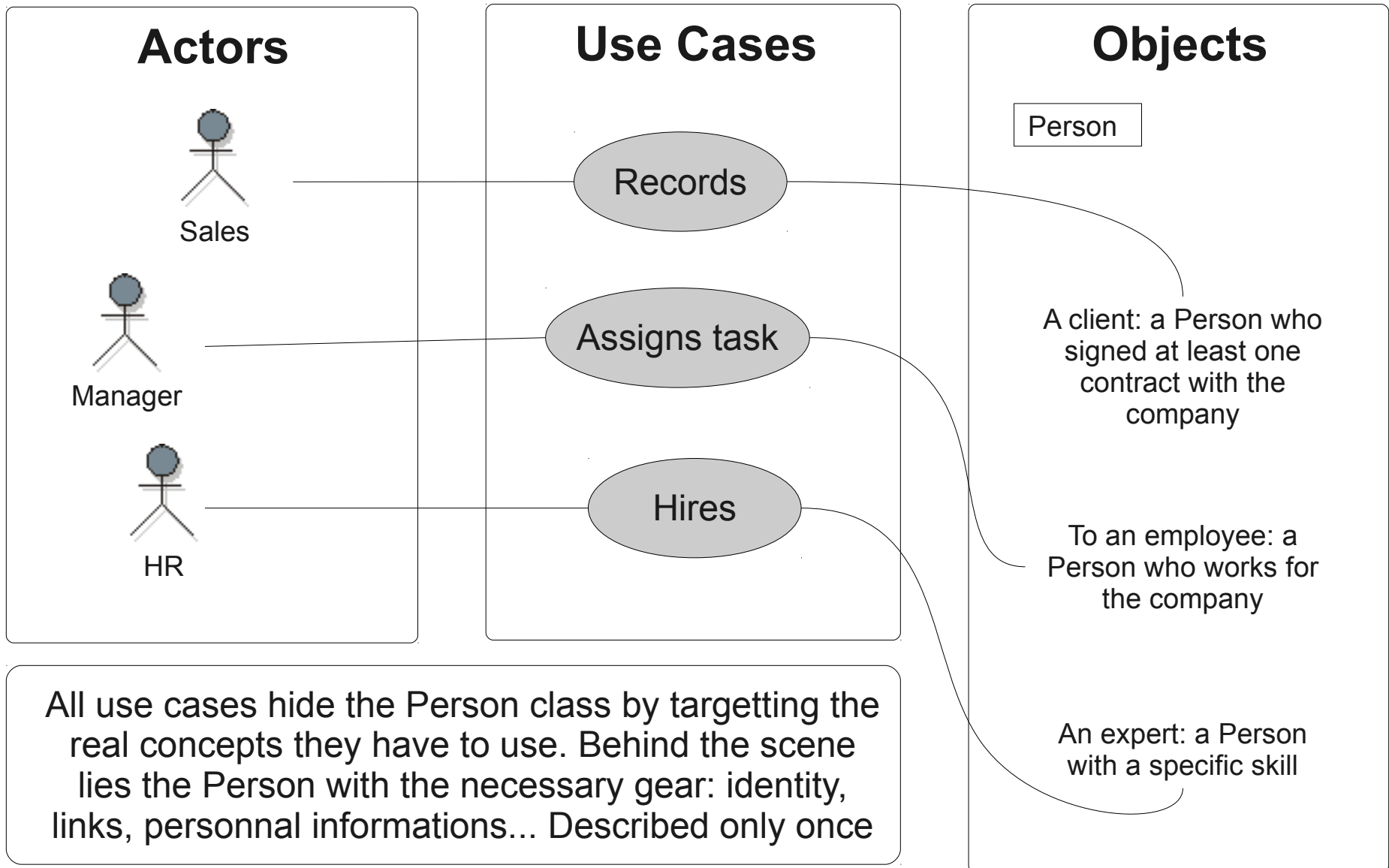


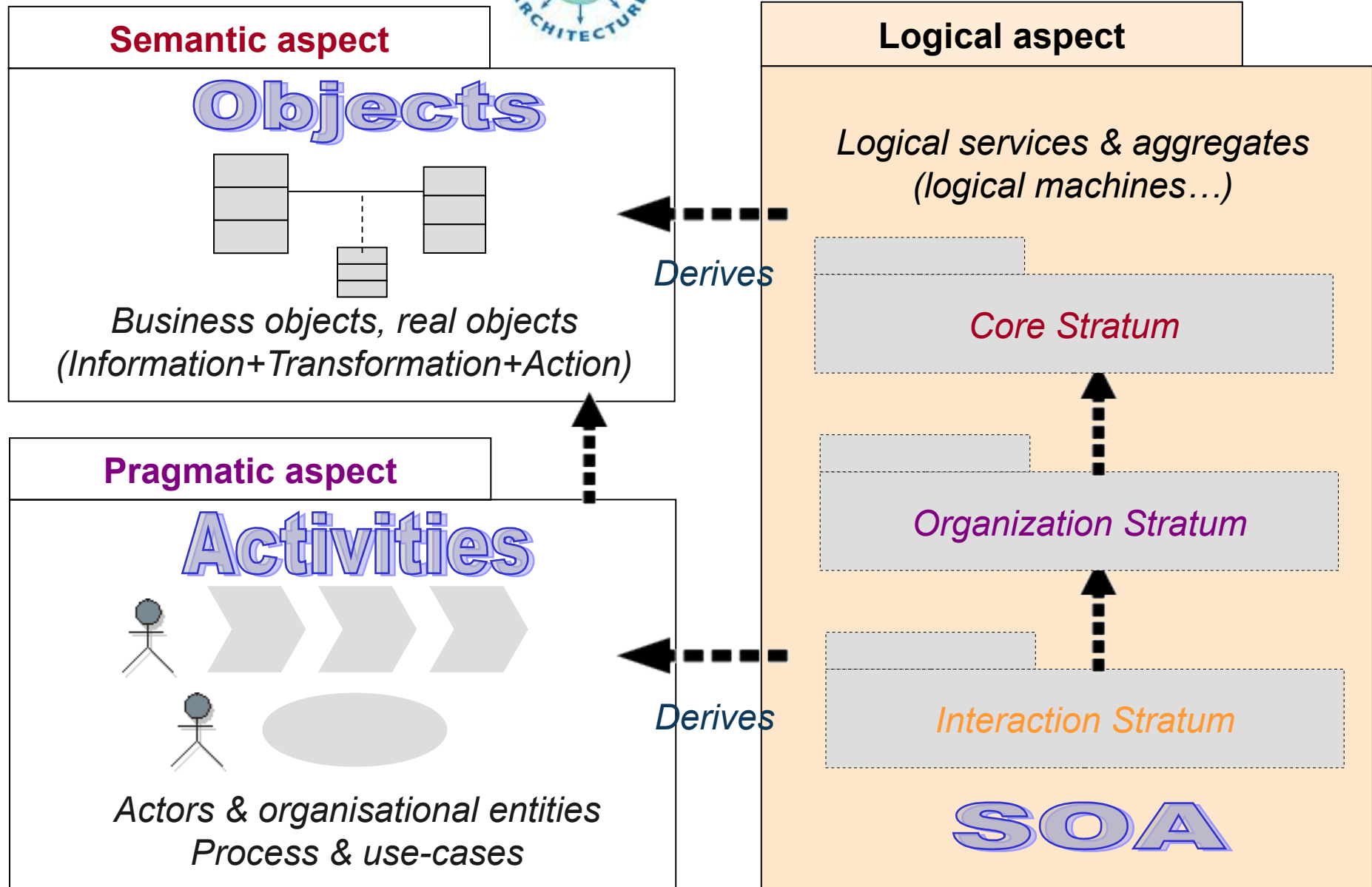
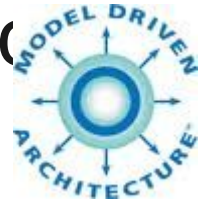
A state machine describes transformations an object can undergo



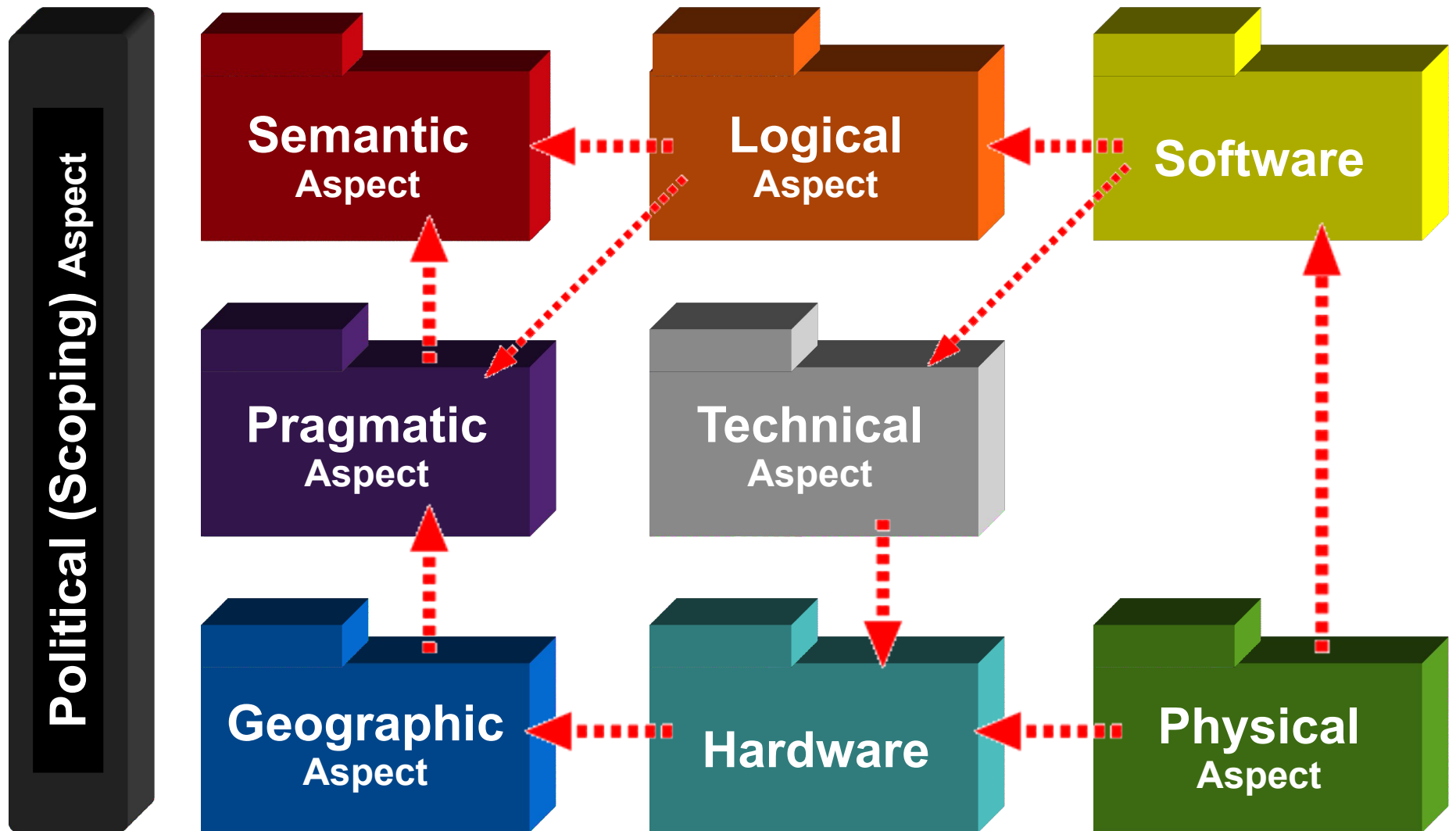
Class models and state machines describe the being and the changing

Use Cases consequences





Enterprise System Topologie (EST)



Political Aspect

Strategies, business goals, objectives, ecosystem constraints, regulation

Semantic Aspect

Captures the being of reality

- In terms of objects and applying an Object Oriented Approach
- All the being without technical or organizational details

Does describe

- Real life objects with their information and relations
- Object Statuses representing transformations
- Business Rules

Does not describe

- Actors and organizational details
- Actions on objects (Processes and use cases)
- Know-how and recipes on how to deal with business

Pragmatic Aspect

Captures the actions

- Processes
- Use Cases
- A slightly different definition of Use Case compared to RUP

And the organization

- Enterprise organization constraints and choices
- Organization rules (« règles d'organisation »)
- Actors, roles and persons

Geographic Aspect

Includes a lot of unmodifiable data

- More constraints than innovation opportunities
- But must be modeled nevertheless

Locations

- Headquarters
- Specialized locations
- Machine rooms...

Role and duty repartition

Links between locations

- Transportations
- Digital links
- Phones, faxes...

Logical Aspect

Last non technical representation

- Architecture style (SOA, EDA...)
- Derived from Semantic and Pragmatic models
- Strict derivation rules

Decoupling aspect

- Business oriented aspects (upstream)
- Technical oriented aspects (downstream)

Complete system description

Defined architecture style

- SOA is one of the possible styles

Rigorous structure

- Stratum, polarization, separation of concerns

Downstream Aspects

Software Aspect

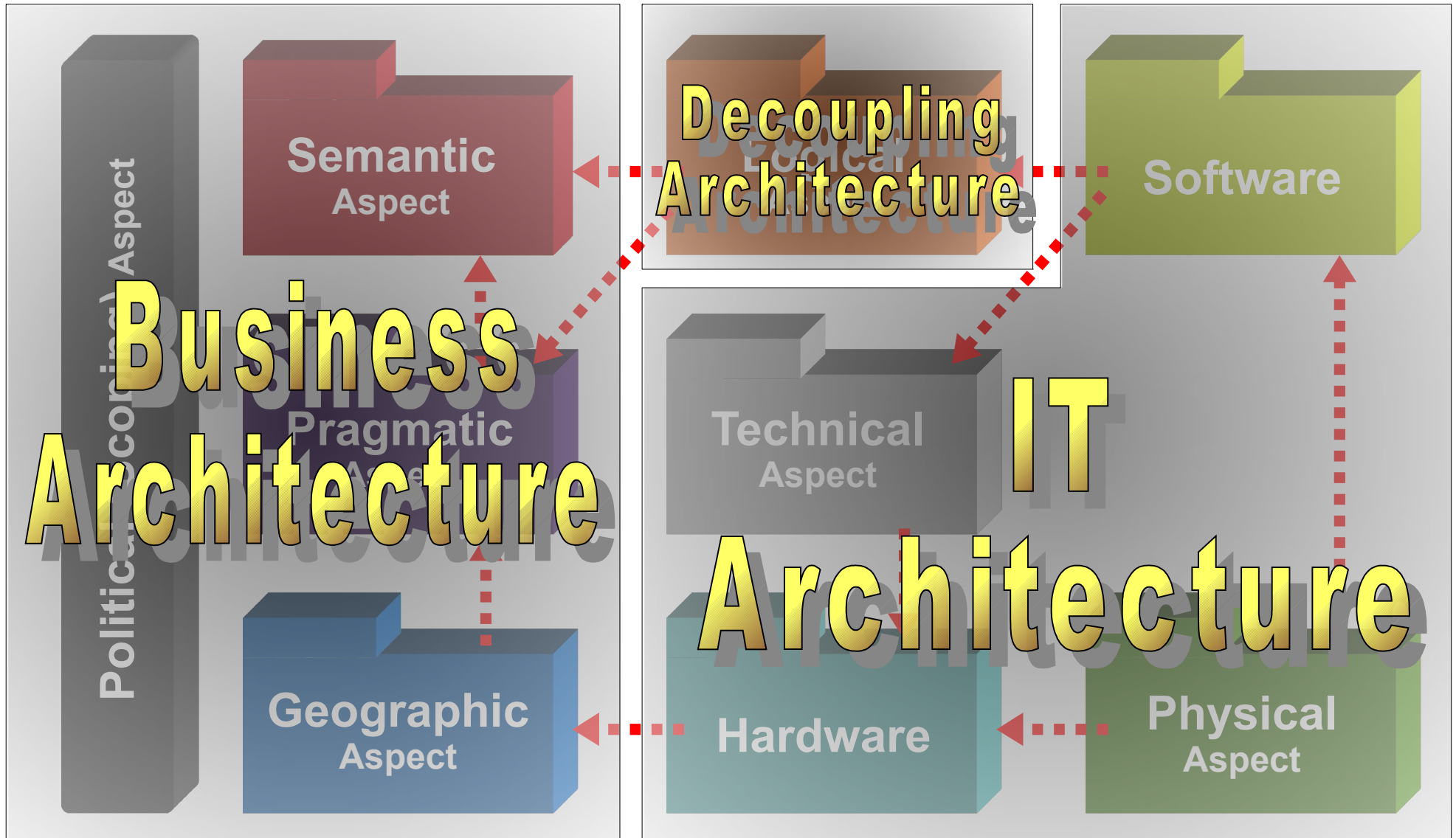
- Pseudo code and algorithms
- Source code
- Binaries
- Configurations
- Versions

Material Aspect

- Machines (physical and virtual)
- Networks
- Software commodities (DBMS, Grid, Virtualization Systems, ERPs...): enterprise dependant
- Phones, multi-media devices
- Printers and other peripherals

Physical Aspect

- Deployment procedures
- UDDIs management
- Configuration Management Databases



Initiative for an Open Method



Non for profit organization

Creative Commons publishing

Collaborative work

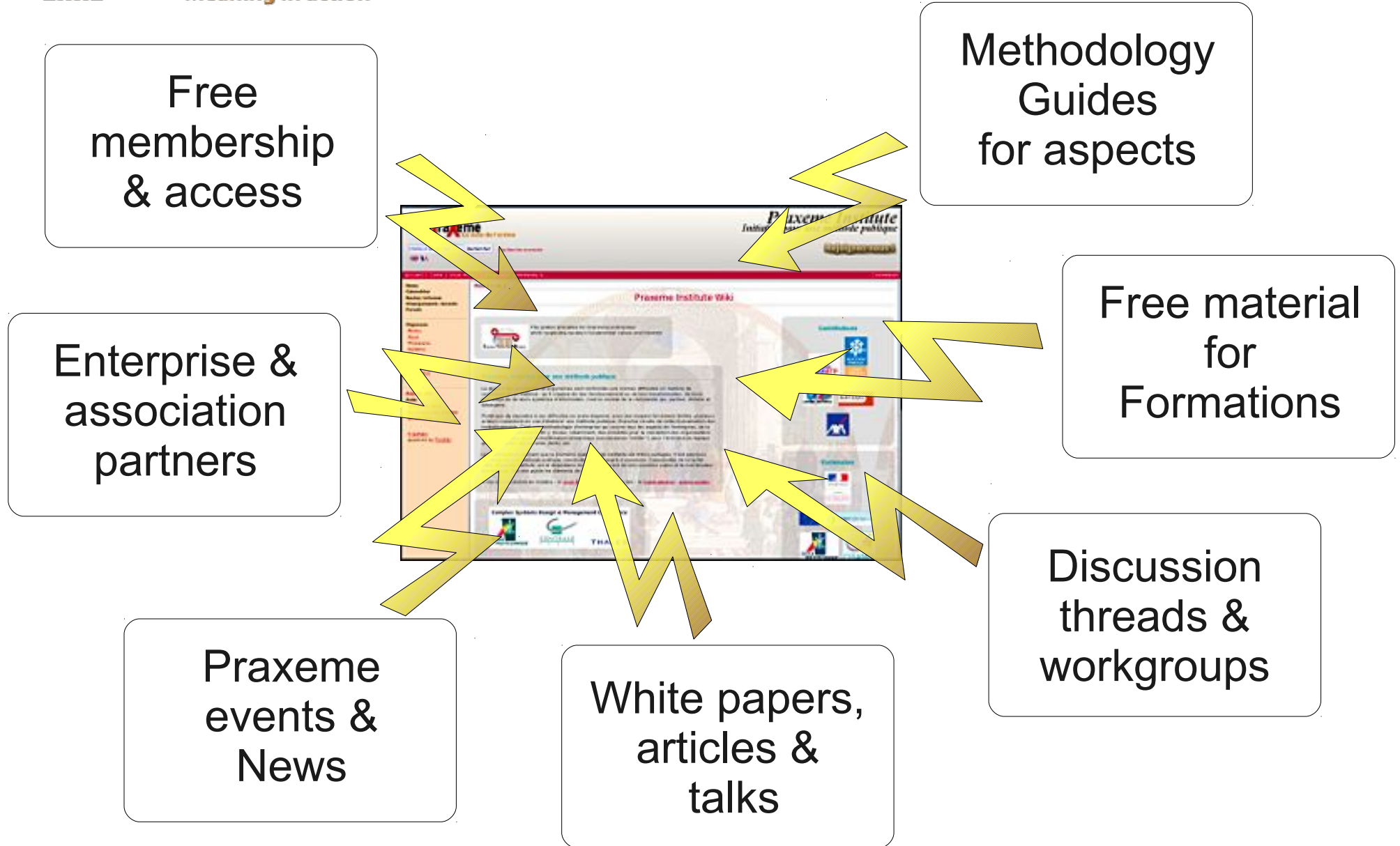
Multi-linguale effort [fr] [en]

<http://www.praxeme.org>

Symposium 2010 - December 16th

<http://www.praxeme.org/index.php?n=News.Symposium>

On the web side



Web site : <http://www.praxeme.org>

Starting documents :

- White paper <http://www.praxeme.org/index.php?n=Syllabus.SLB02-WhiteBook>
- General guide <http://www.praxeme.org/index.php?n=Modus.GeneralGuide>

This presentation will be published under the Creative Commons licence
It has been prepared with Praxeme Institute material also available under CC

Don't hesitate to **contact us** :

- fabien.villard@praxeme.org
- infos@praxeme.org

The symposium with enterprises feedbacks

- December the 16th
- Details & free registration <http://www.praxeme.org/index.php?n=News.Symposium>