

# Process-based machine learning to analyse HEI compliance



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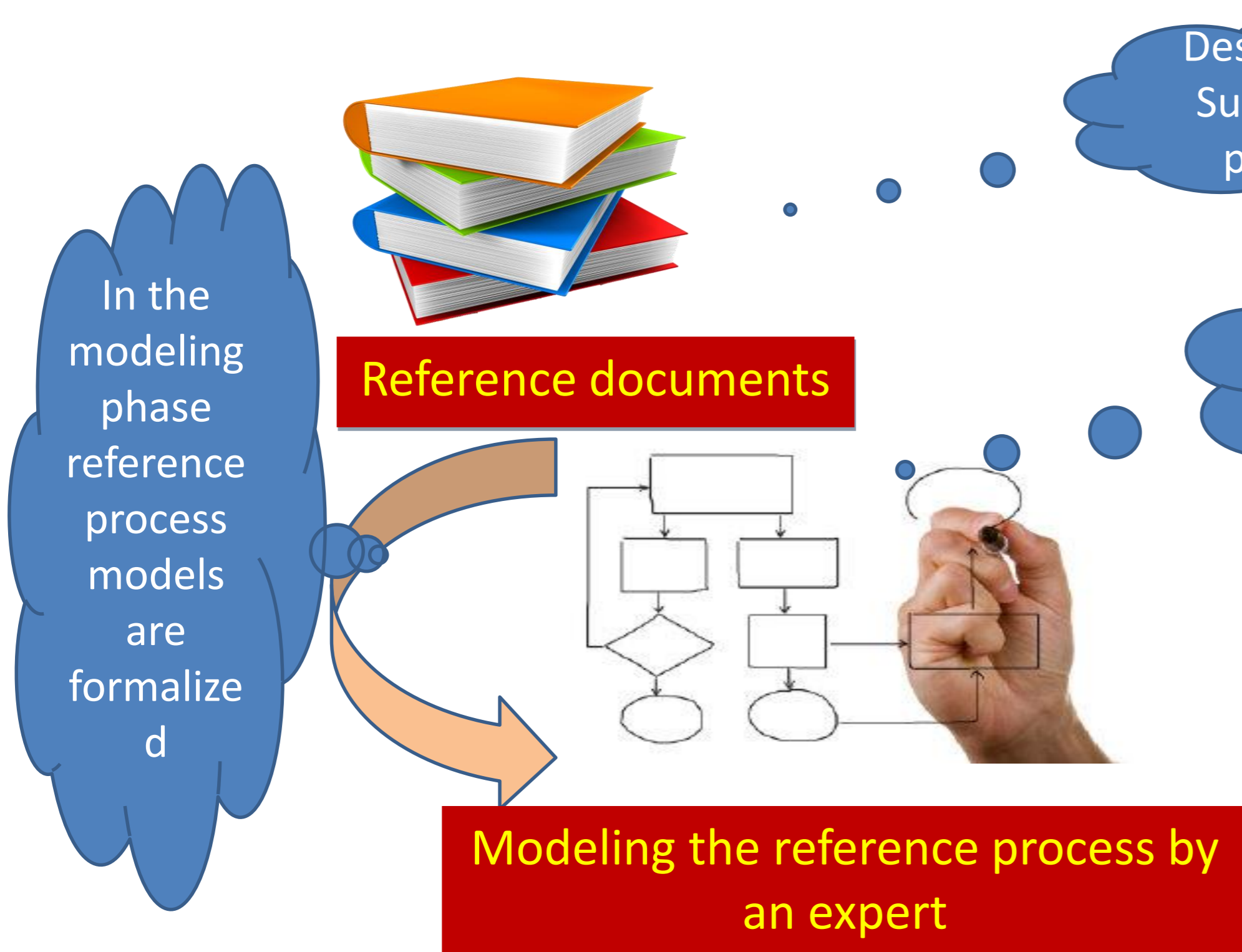
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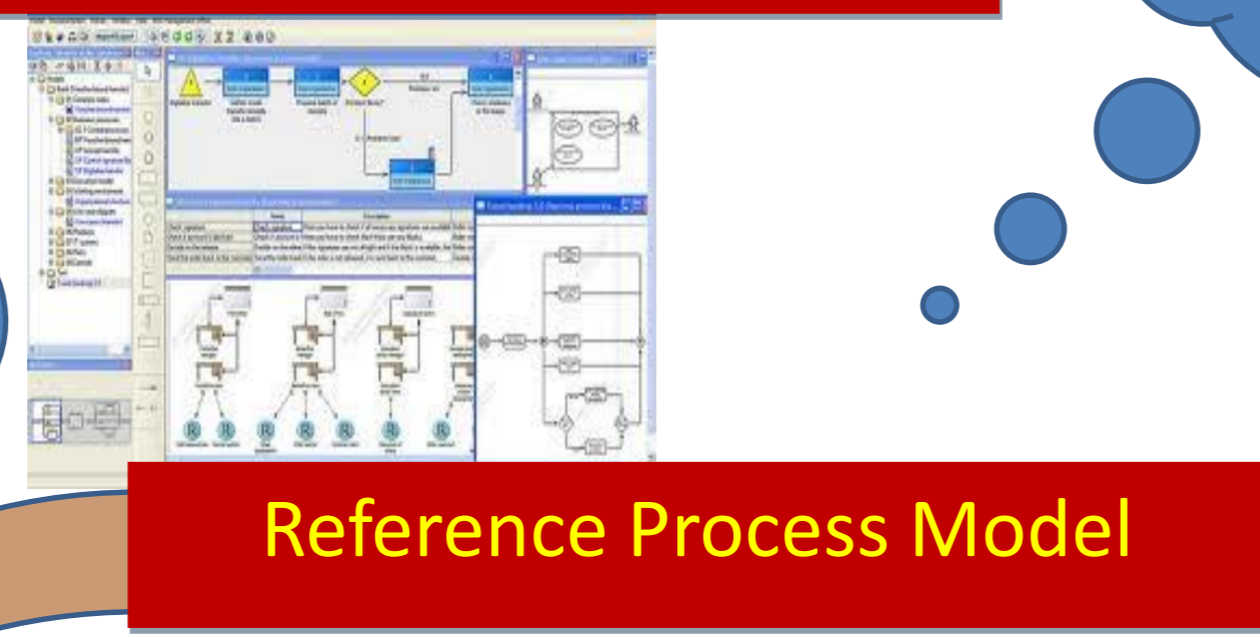
Description of Supply chain processes

For conceptualization several parameters have to be set or defined

Models are implemented by using ADONIS platform

Mapping the conceptual models to ontology concepts

The model transformation aims at preserving the semantics of the business model



| BPMN  | OWL structure  |
|---|--|
|   | <b>OWL classes</b>                                     |
| process   | super class of tasks<br>subclass of <u>Start Event</u> |
| task  | subclass of process                                    |
| <u>adonis:target</u><br>C_ROLE class                                | subclass of Roles                                      |
| <u>adonis:target</u><br>C_DOCUMENT class                            | subclass of Documents                                  |
| <u>adonis:target</u><br>C_INFRASTRUCTURE_ELEMENT<br>C_SERVICE class | subclass of <u>IT_system</u>                           |

Java-based transformation

**Problem statement**  
Technological innovations contribute to restructure business processes. This implies a strong pressure on workforce because they have to learn about these new technologies in time. Educational institutions must rethink their training programs and students must improve their competences including skills in the light of this transformation a process. A data warehouse approach is to consolidate labor market needs and forecast future competences.

Labor market needs consolidated in a data warehouse to analyze their trends

Competences extracted by the process-based machine learning algorithm

