

A process oriented approach towards open university management software

Agenda

- how to get mutual understanding “what does the university do”? (or the software)
- internationalization of process descriptions
- interface practice (web services, ETL ...)
- example: HISinOne
- business models for cooperations

HIS

Hochschul-Informations-System GmbH

- non-profit organization
- jointly owned by the Federal Republic and the Länder of Germany

IT for Higher Education (172)

Information technology for higher education

Research on Higher Education (68)

Studying, teaching, research, funding

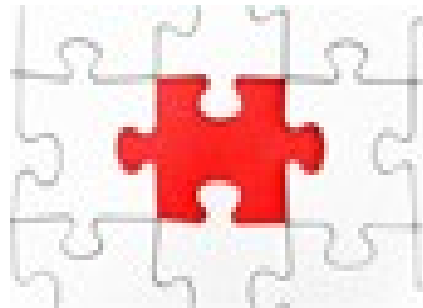
Higher Education Development (47)

Buildings, resources, organisation

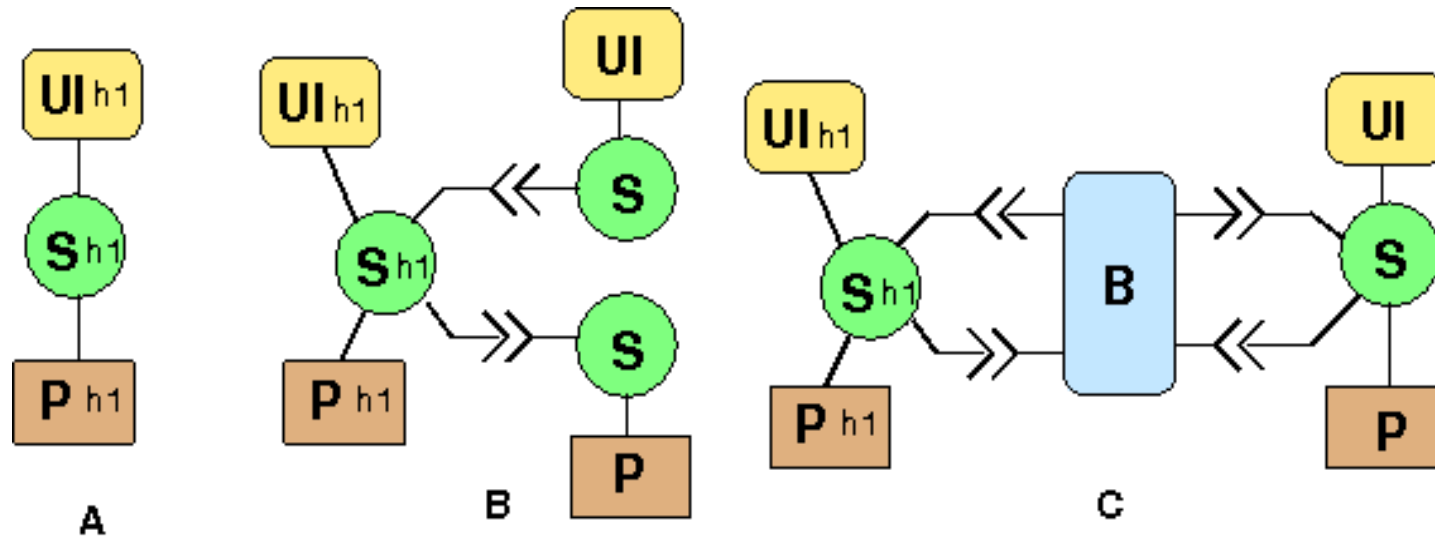


Situation and challenge

- many activities in Europe towards “new software for university management”
- is it possible to combine/integrate elements of these developments?



Is SOA the answer?



- each system brings own infrastructure:
 - technology, database and web services
 - mechanisms for customization and maintenance (upgrades ...)
 - complexity ++
 - performance --

First steps

- understand business processes
 - actors, products ...
- find their mappings in the software
 - workflows, dialogs, objects ...

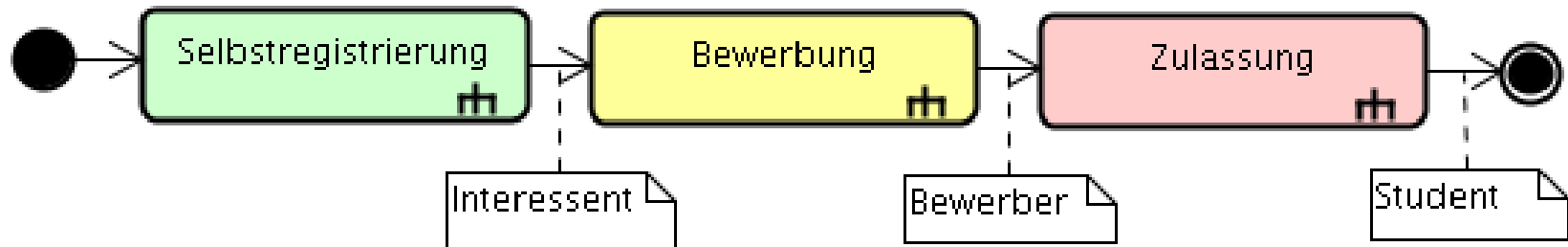


Process descriptions

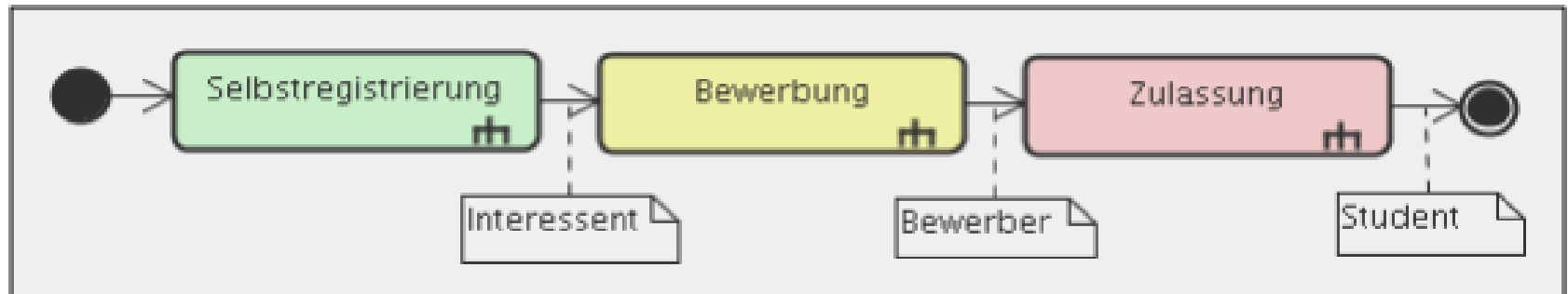
- BPMN – Business Process Modeling Notation 2.0
- UML – Unified Modeling Language 2.0

astah

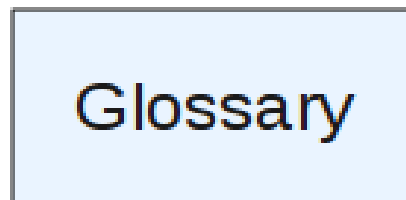
- ... Manufacturer-specific



„Internationalization“ of process descriptions

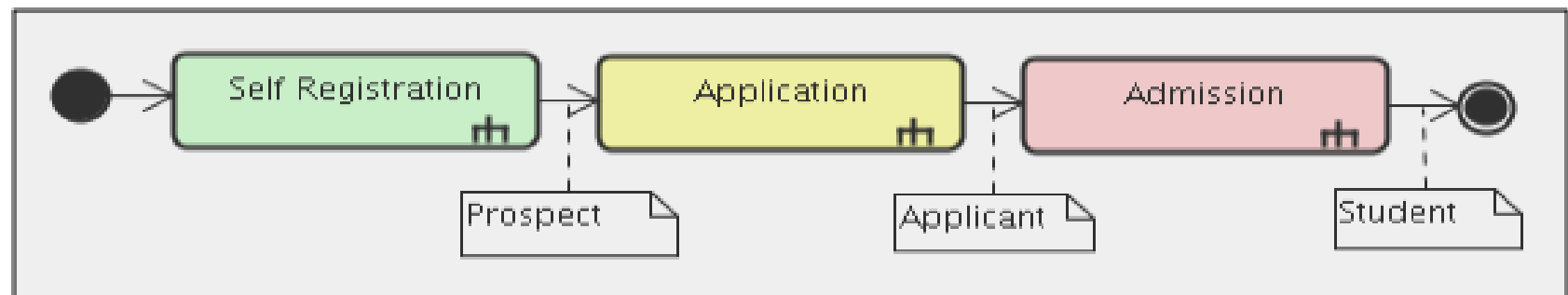


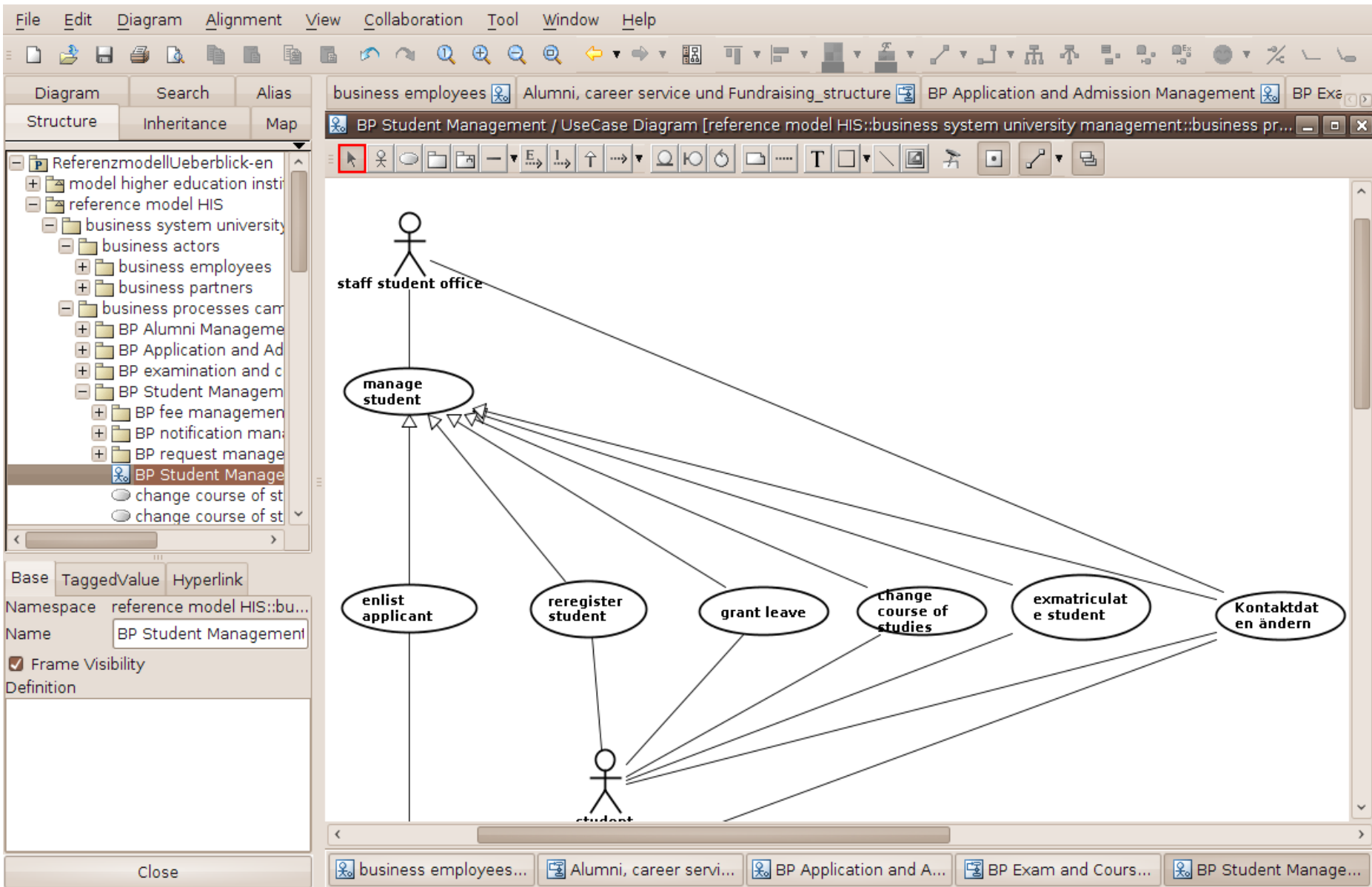
UML-Activity - XMI



→ Translation Substitution

UML-Activity - XMI



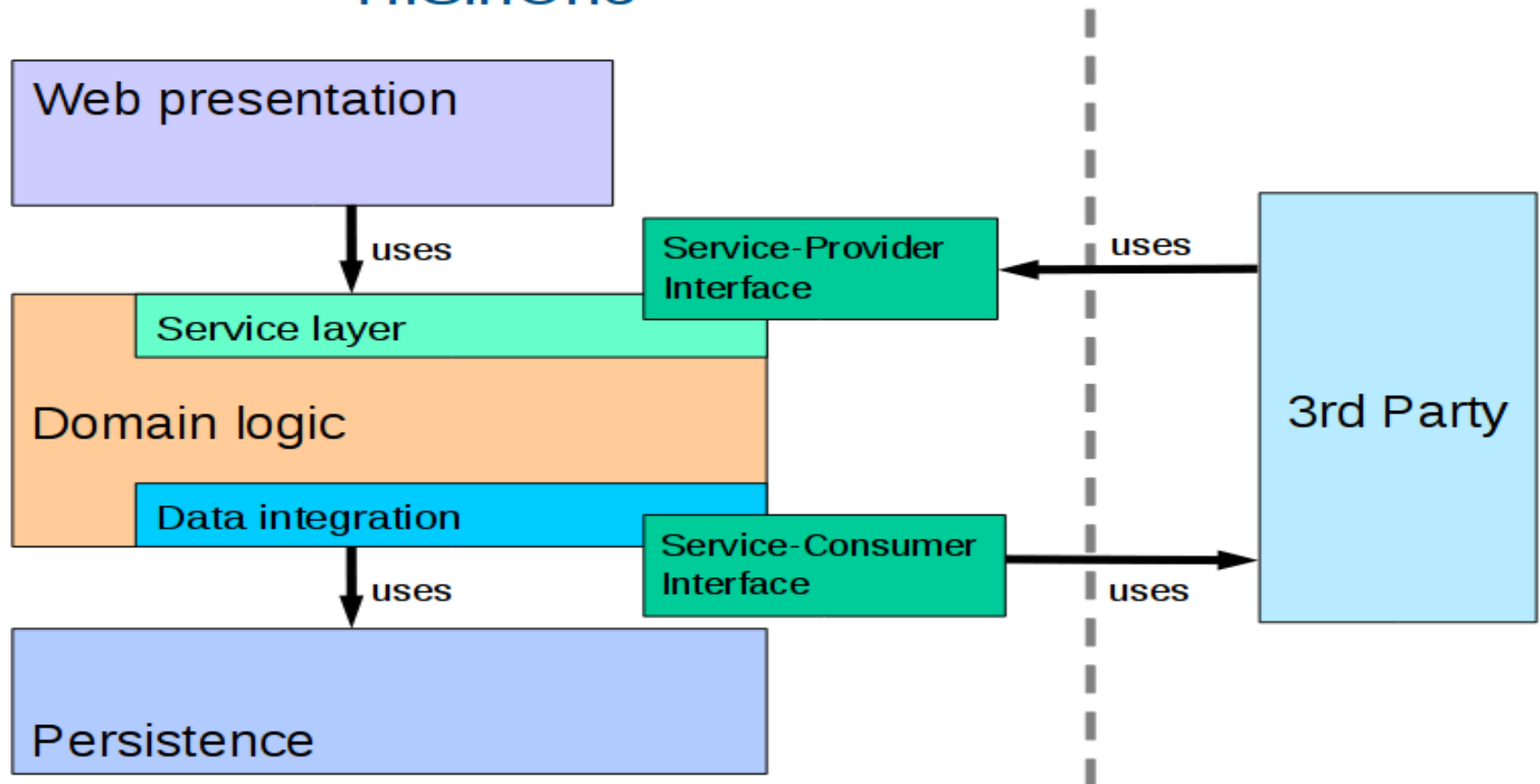


Getting the code pieces together

- important: identify process chains with clean and „slim“ interfaces
- unidirectional information flow (if possible)
- frequency and the initiating event
 - source process triggers transfer
 - periodically at fixed times
- interworking options:
 - Web services
 - ETL
 - dedicated exports/imports

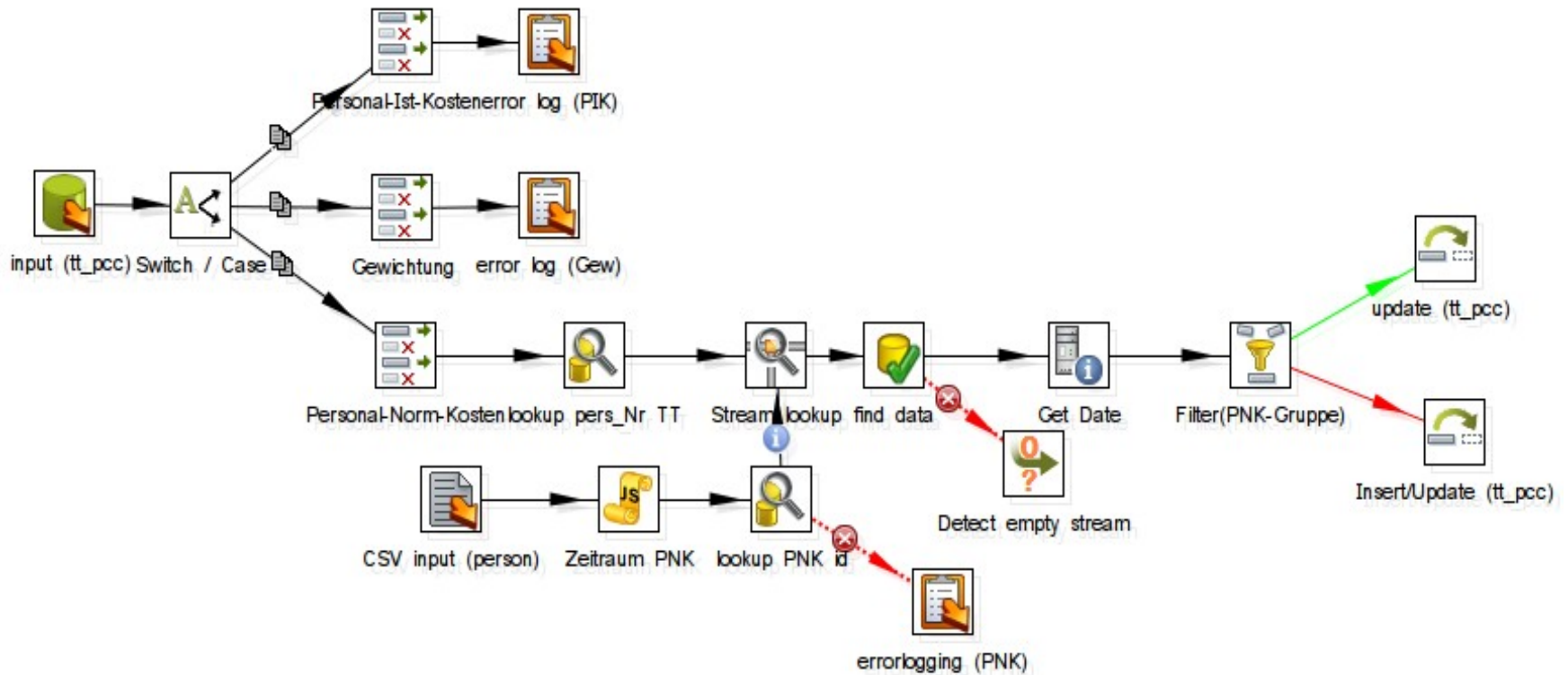
Web services

HISinOne



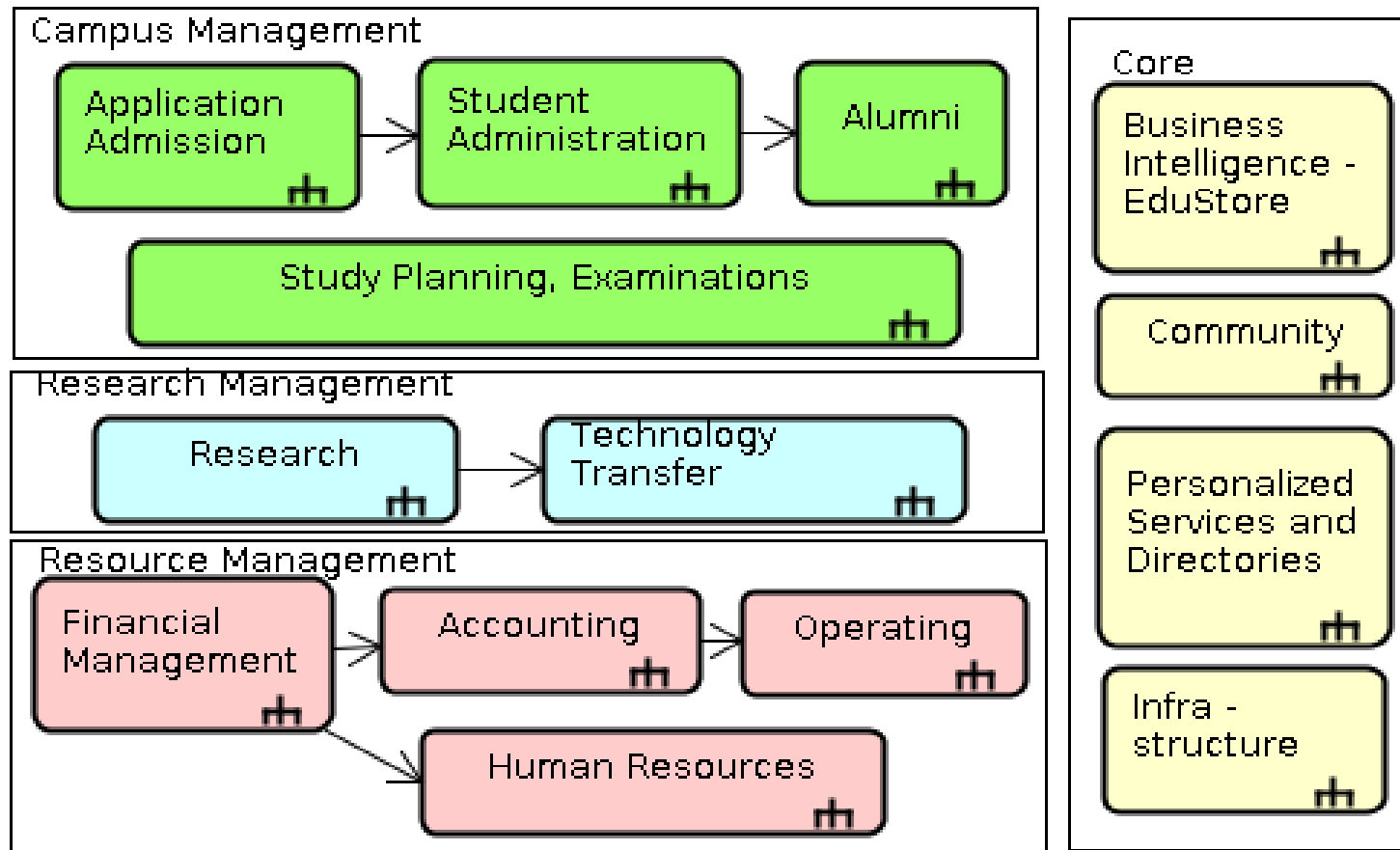
ETL – Extract, Transform, Load

Pentaho Data Integration (kettle)



The „big picture“

Functional architecture of HISinOne



Business models for cooperations

- sustainability of the developments
- open source/community source
- fair participation in funding for future developments and continued service



Finally...

- Useful cooperations require more than sharing code
- share the understanding of the involved processes



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