Evaluation of a Federated EA Model Management Framework: A Qualitative Study

Master-Thesis Oberseminar · Technische Universität München · 20.01.2014

Software Engineering for Business Information Systems (sebis)

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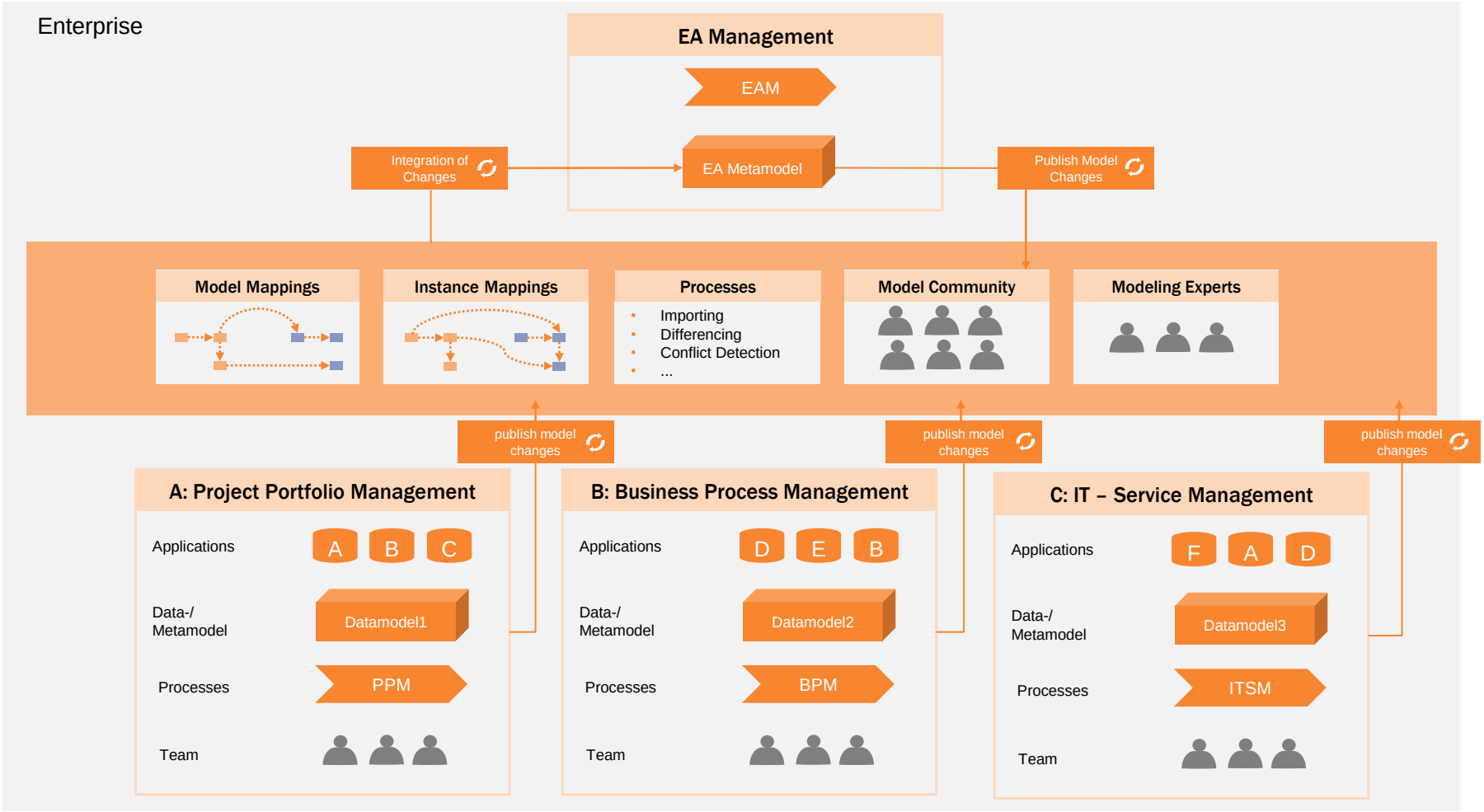
Agenda

- Introduction to Federated EA Model Management
- Research Question
- Aspects of the Research
- Research Approach
- Literature

Introduction to Federated EA Model Management
Information as a Key Success Factor for companies

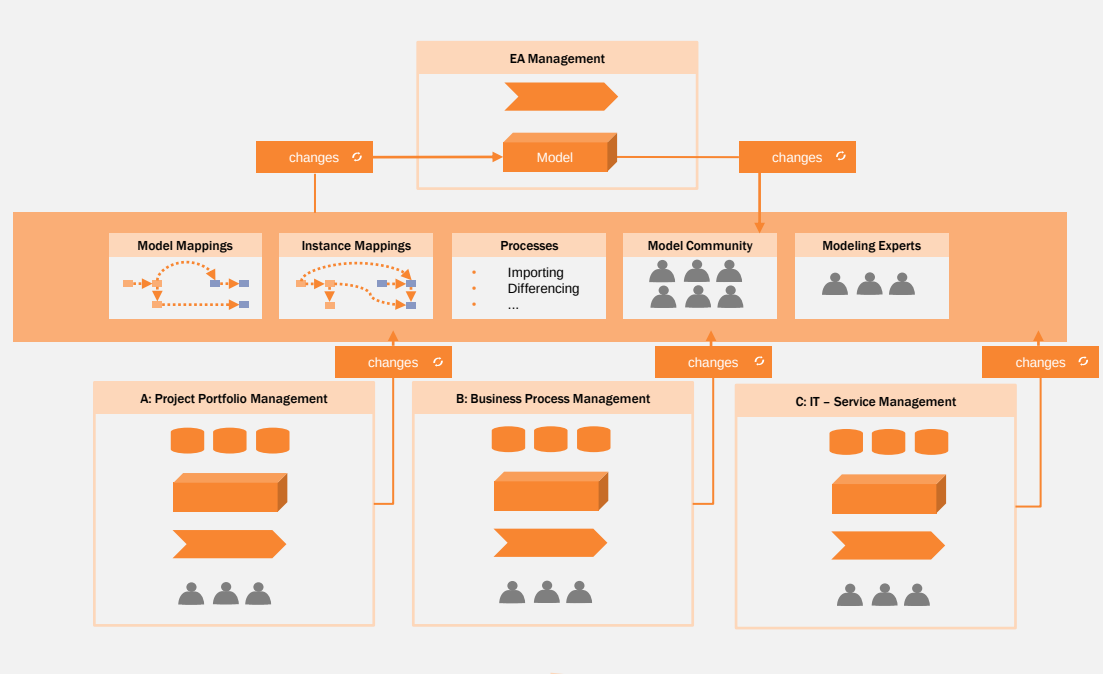
Nowadays supervisory wants to make management / strategic decisions, based on holistic information within the company

Introduction to Federated EA Model Management
Holistic view on information by integrating data models to one metamodel



To develop and maintain an integrated enterprise architecture model, additional activities (e.g. model mapping, data extraction) and organizational changes (e.g. role allocation, definition of policies) are needed.

Research Question
Identification of Governance specific characterstics



Our research will focus on governance specific aspects of federated EA management. These could be for instance:

1) **Role allocation:** Which roles are involved within the federated EA management? Which responsibilities are defined?
2) **Processes:** What kind of standard processes will be used to avoid technical issues? What kind of processes have to be conduced, when an issue occur?
3) **Policies / Standards:** To maintain such a complex EA model, all participants have to stick to defined policies and established standards. Which polices and standards are necessary? Which are a mandatory?
4) Are there further governance-specific “best-practices” that need to be established?

Research question	**Which Governance specific changes and structure are needed to develop and maintain a Federated EA Management?**

Aspects of the Research
Analysis of the Role Allocation

EA Team

Enterprise Architect

- Responsible for a specific part of the IT landscape
- Quality assurance, Consolidation of data, etc.

EA Coordinator

- Responible for EA model
- Gives holistic strategy and specificiation

EA Repository Manager

- Mainly responsible for technical issues
- Defines model mappings from Information source to EA Model

Modelling Expert

- Has special expertise in area of model theory and focus on model integration
- Cope with conflicts and patterns

General EA Stakeholder

EA Stakeholder

- Can be part of IT or business
- First contact between EA and community
- Can provide first information

Decision Maker

- Benefit from Federated EA by consuming the information
- Can influence EA Model

Data Owner

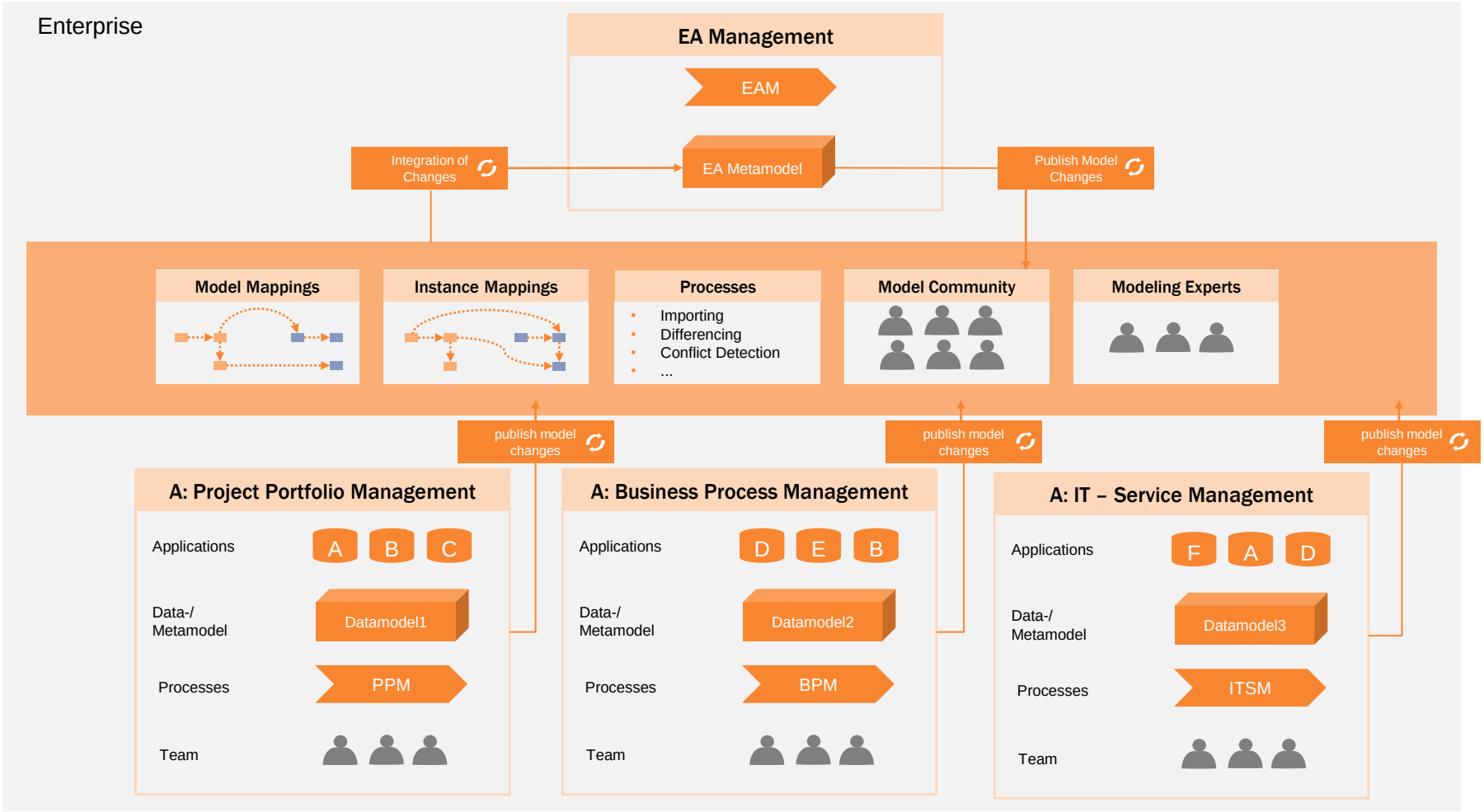
- Experts from a community and knows its meta model
- Helps with mapping and conflict processes

Data Steward

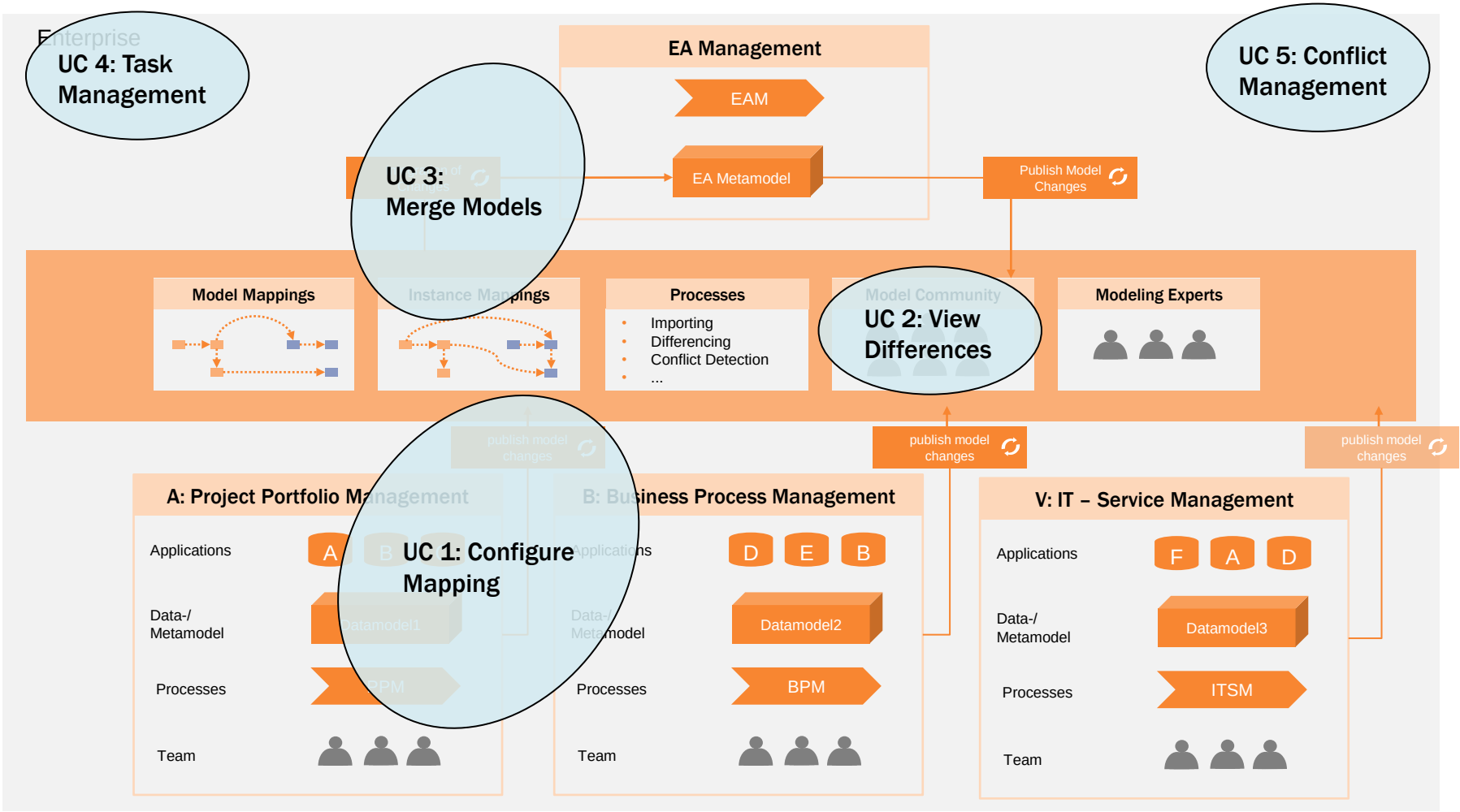
- Provides the Information to the EA Model

The role definition can be divided into EA Team and General Stakeholder. Each role has a specific responsibility. Our research will analysis the structure of the role allocation and the defined responsibilities within industry.

Aspects of the Research
Analysis specific Use Cases in industry (1/2)



Aspects of the Research
Analysis specific Use Cases in industry (2/2)



The figure represents comprehensive Use Cases. Further information (e.g. versioning, Standardization, unidirectional vs. bidirectional data transfer etc.) are also part of the research.

Research Approach
Qualitative Research Approach with Constructional Focus

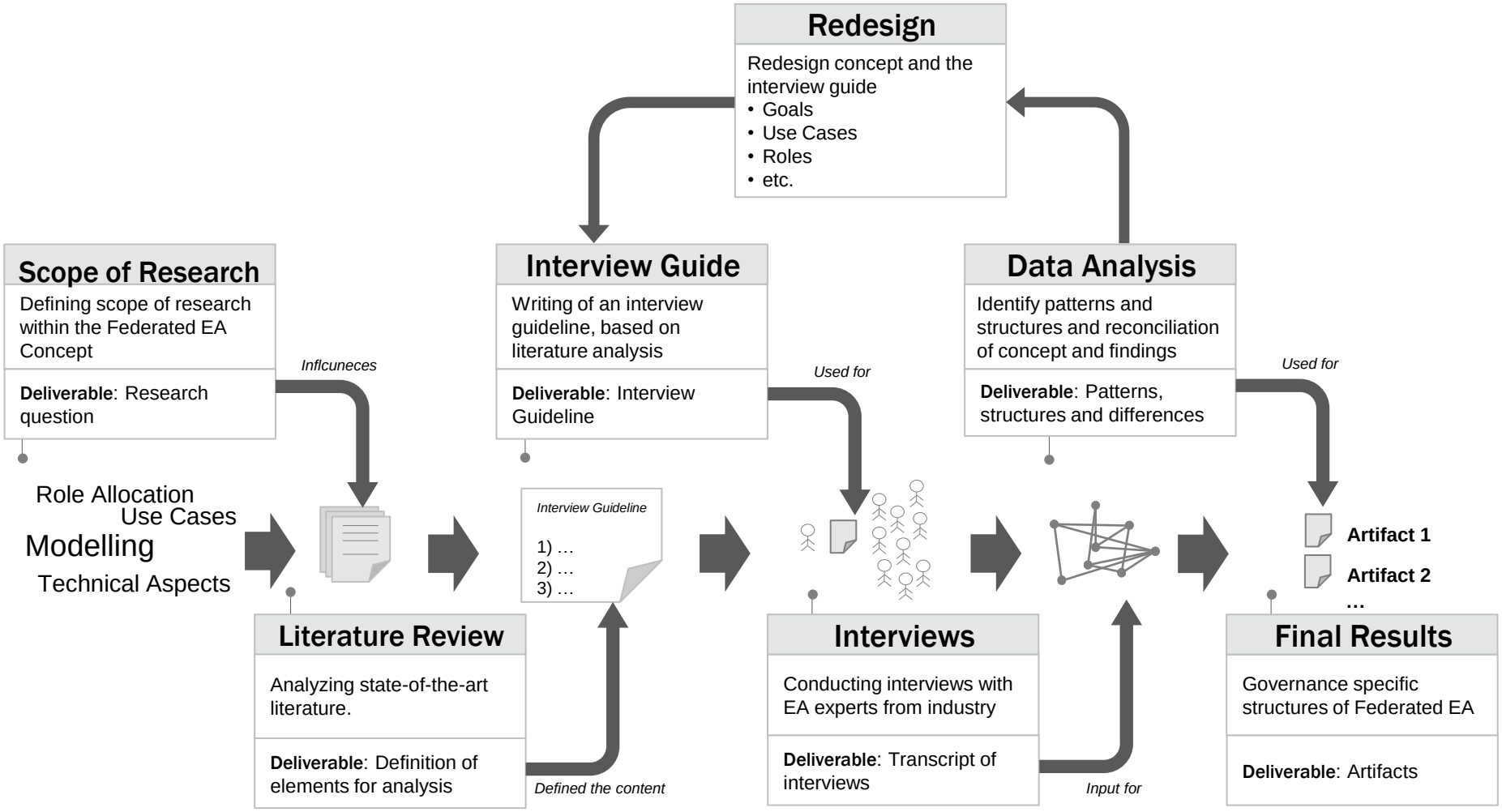
Characteristics

		Quantitative Approach	Qualtitative Approach
1	**Principal**	Identification of patterns by analyzing large samples of the origin information	Identification of patterns by analyzing small samples of the origin information in detail.
2	**Application Field**	Measurement and quantification of facts (e.g. countable values)	Interpretation of coherences and complex methods (e.g. concepts).
3	**Method**	○ Quantitative Methods ○ Mass Surveys	○ Conducting expert interviews ○ Shadowing

		Behavioristic Focus	Constructional Focus
4	**Research Question**	Aim for answering how and why a concept works	Aim for answering how well a concept works
5	**Research Result**	Theories	Artefacts
5	**Activities**	○ Construction of theories ○ Review of theories	○ Construction of artifacts ○ Review of artifacts
5	**Research Objective**	Focus on the truth	Focus on the usability

In our research we want to analyze the concept of the federated EA Management and identify specific artifacts by conducting expert interviews in the industry.

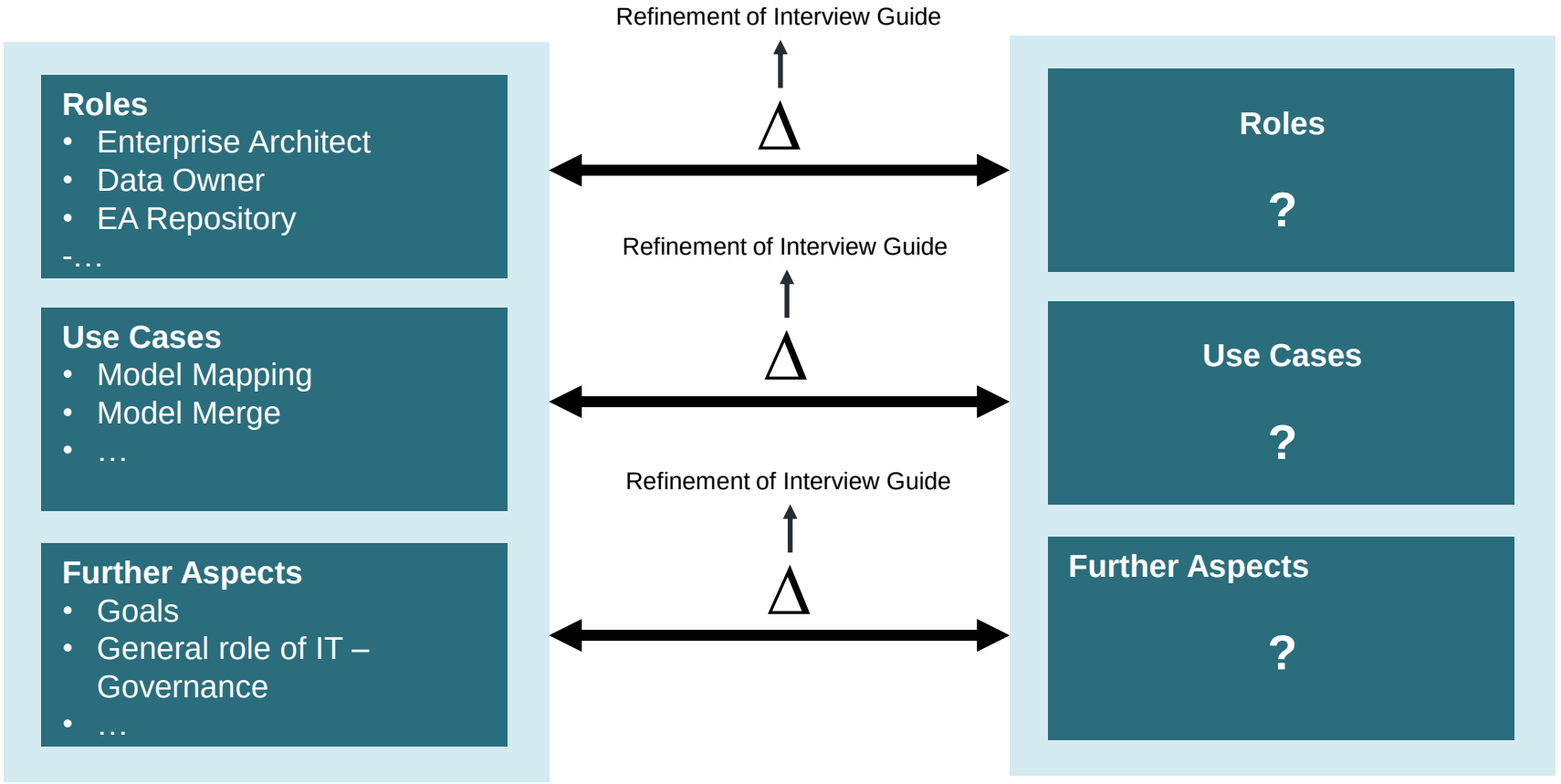
Research Approach
Qualitative Research Approach



- Goals of Federated EA

- Use Cases
- Roles

- General Role of IT – Governance
- Incentives
- Type of Data Transfer
- Standardization
- Versioning
- Automated vs. Manual Data Transfer
- Cases of Federeted EA
- …


Concept
Interview Results
Refinement of Interview Guide
Δ
Refinement of Interview Guide
Δ
Refinement of Interview Guide
Δ
Roles
• Enterprise Architect
• Data Owner
• EA Repository
-…
Use Cases
• Model Mapping
• Model Merge
• …
Further Aspects
• Goals
• General role of IT – Governance
• …
Roles
?
Use Cases
?
Further Aspects
?

Literature (1/2)

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Thank you for your attention!

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