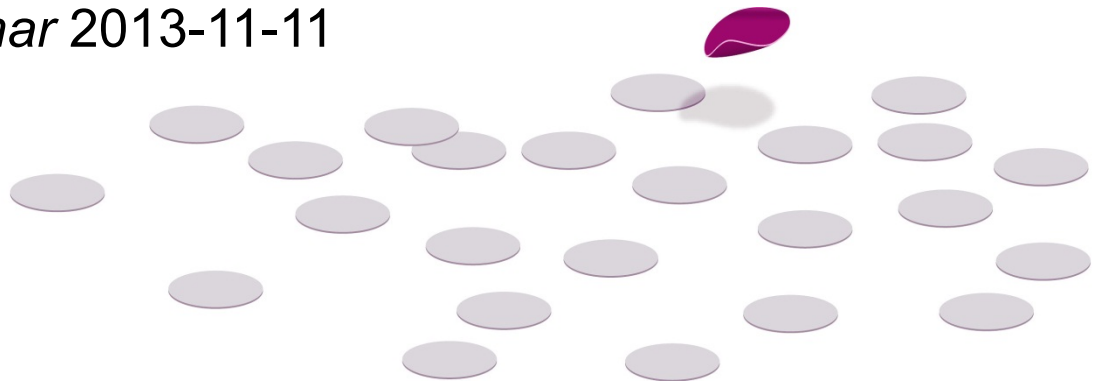


A guide for enterprise-specific design of EA models

Master's Thesis Markus Bauer – Final Presentation

sebis *Advanced Seminar* 2013-11-11





Title	A guide for enterprise-specific design of EA models Ein Leitfaden zur unternehmensspezifischen Ausgestaltung von EA Modellen
Supervisor	Prof. Dr. Florian Matthes
Advisors	Dr. Sabine Buckl (iteratec GmbH)
	Sascha Roth (sebis)
	Dr. Christian M. Schweda (iteratec GmbH)
Start	2013-05-15
Deadline	2013-11-15
Industry partner	iteratec GmbH (Unterhaching)



- Founded in 1996
- Located in Munich, Frankfurt, Hamburg, Stuttgart, Vienna and Zurich
- ~200 employees

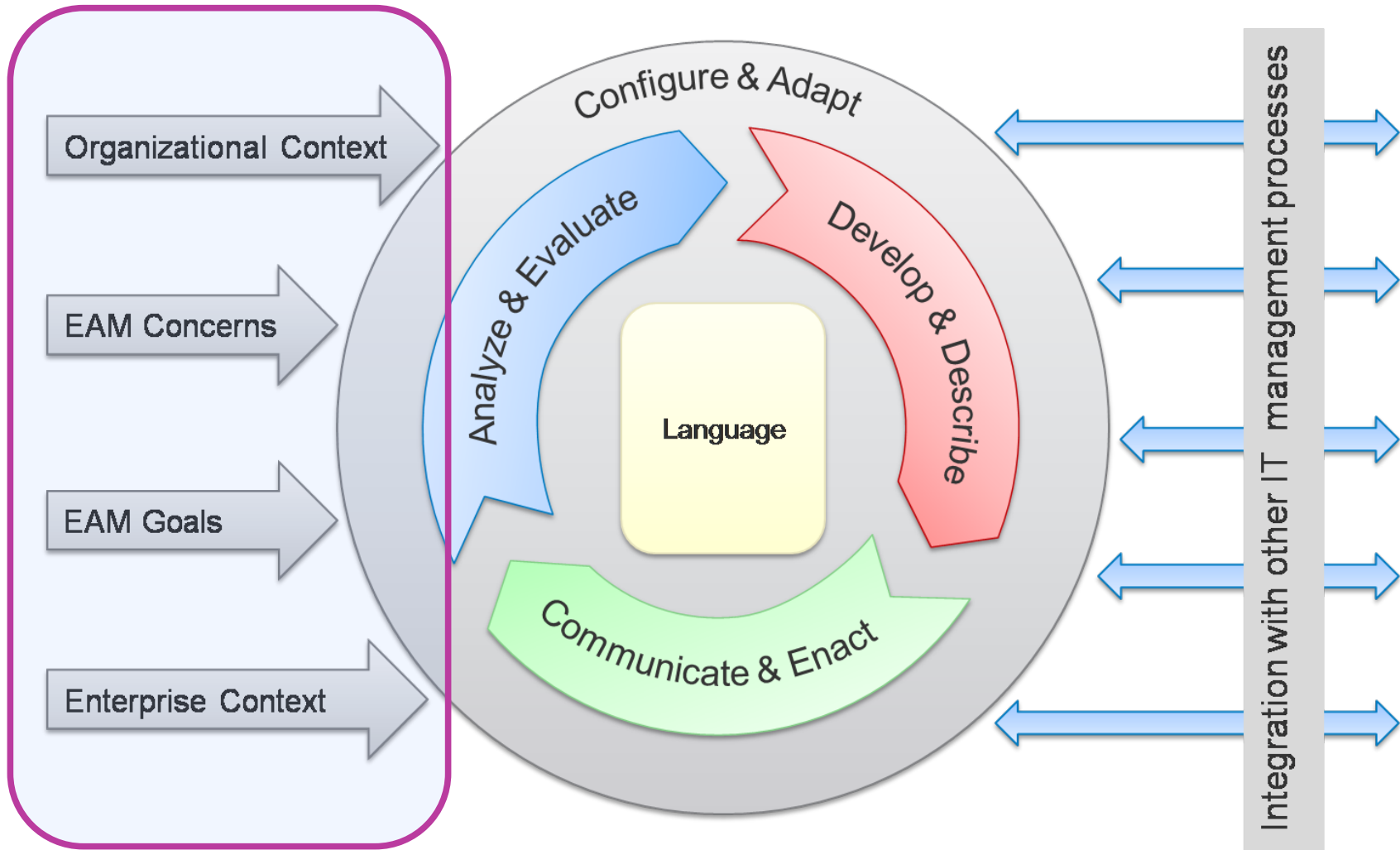
- Focus areas
 - ➔ Realization of IT-Projects
 - ➔ Technology-Consulting
 - ➔ **IT-Management-Consulting** (EAM introduction and consulting projects)
 - Best Practice EAM
 - iteraplan



- Goals
- Course of action
- Results
- Outlook

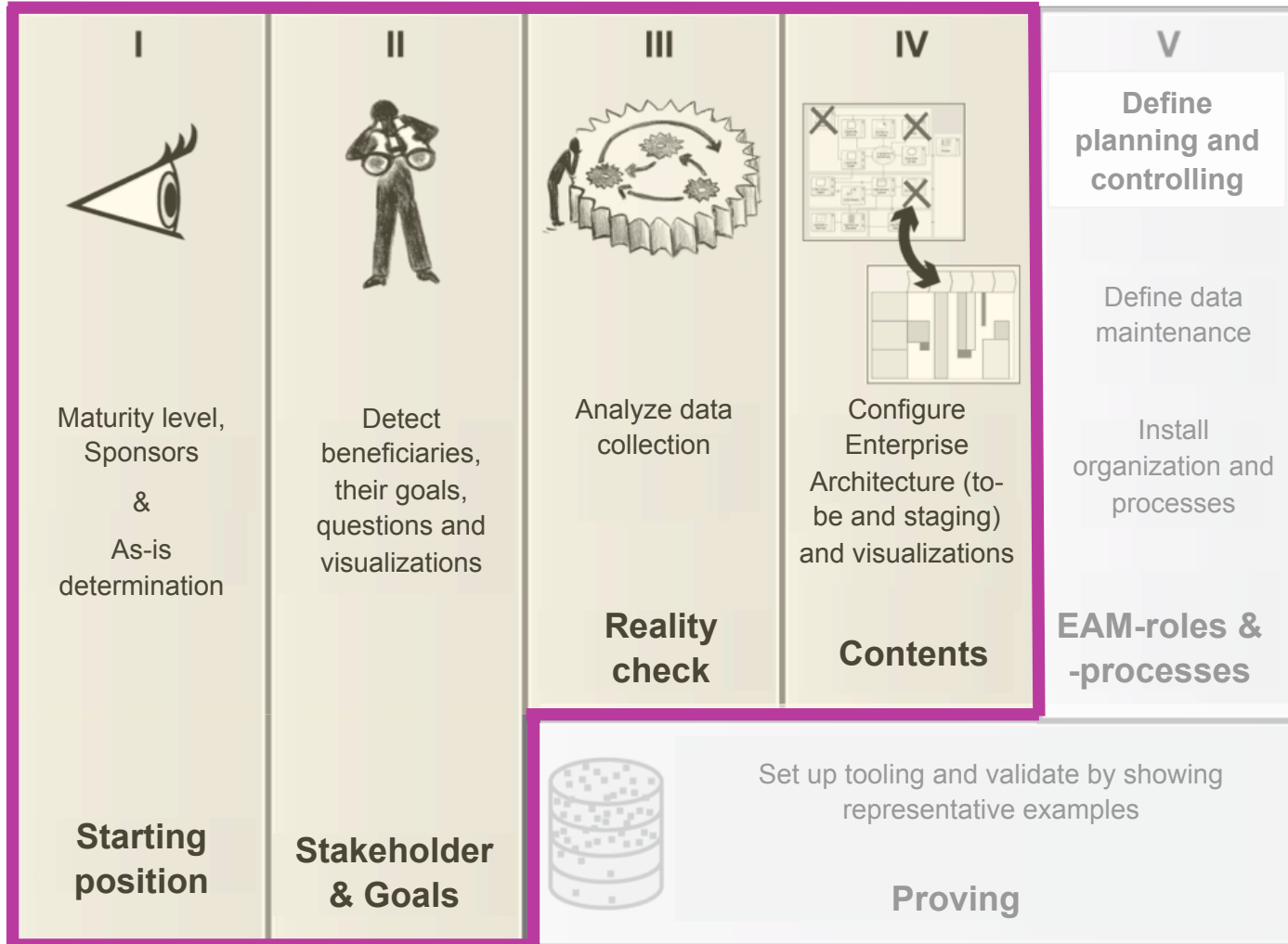
BEAMS

Enterprise specific EAM by composing



Best-Practice EAM

Enterprise specific EAM by ... ?



Source: [Ha13]

Research Goal(s)

Multidimensionality due to industry partner



- Identification of additional contingency factors of enterprise specific EAM
 - ➔ Structural model
 - ➔ Collecting instances



iteratec

KOMPETENZ,
DIE ENTLASTET

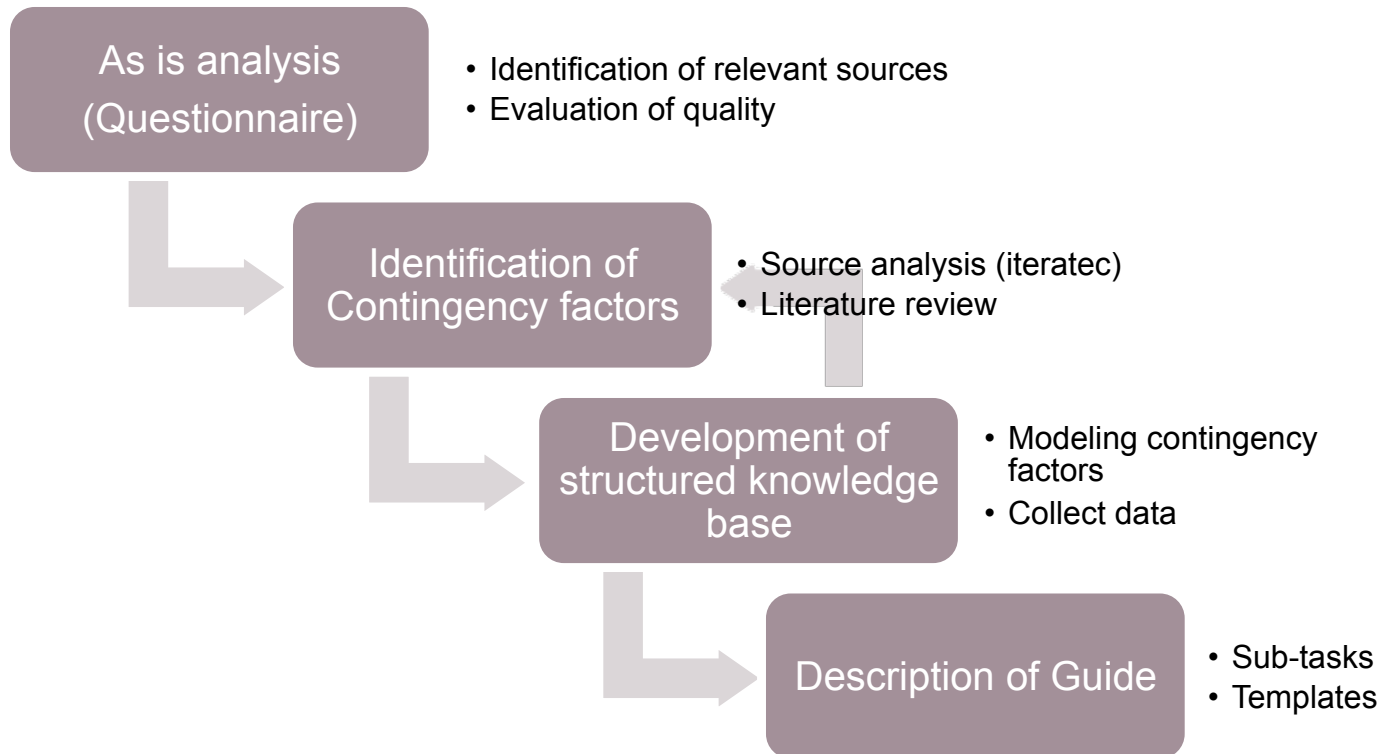
- Establish organized library of contingency factors at iteratec GmbH
- Describe guide for consultants how to use the library



- Goals
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Course of action

Research method

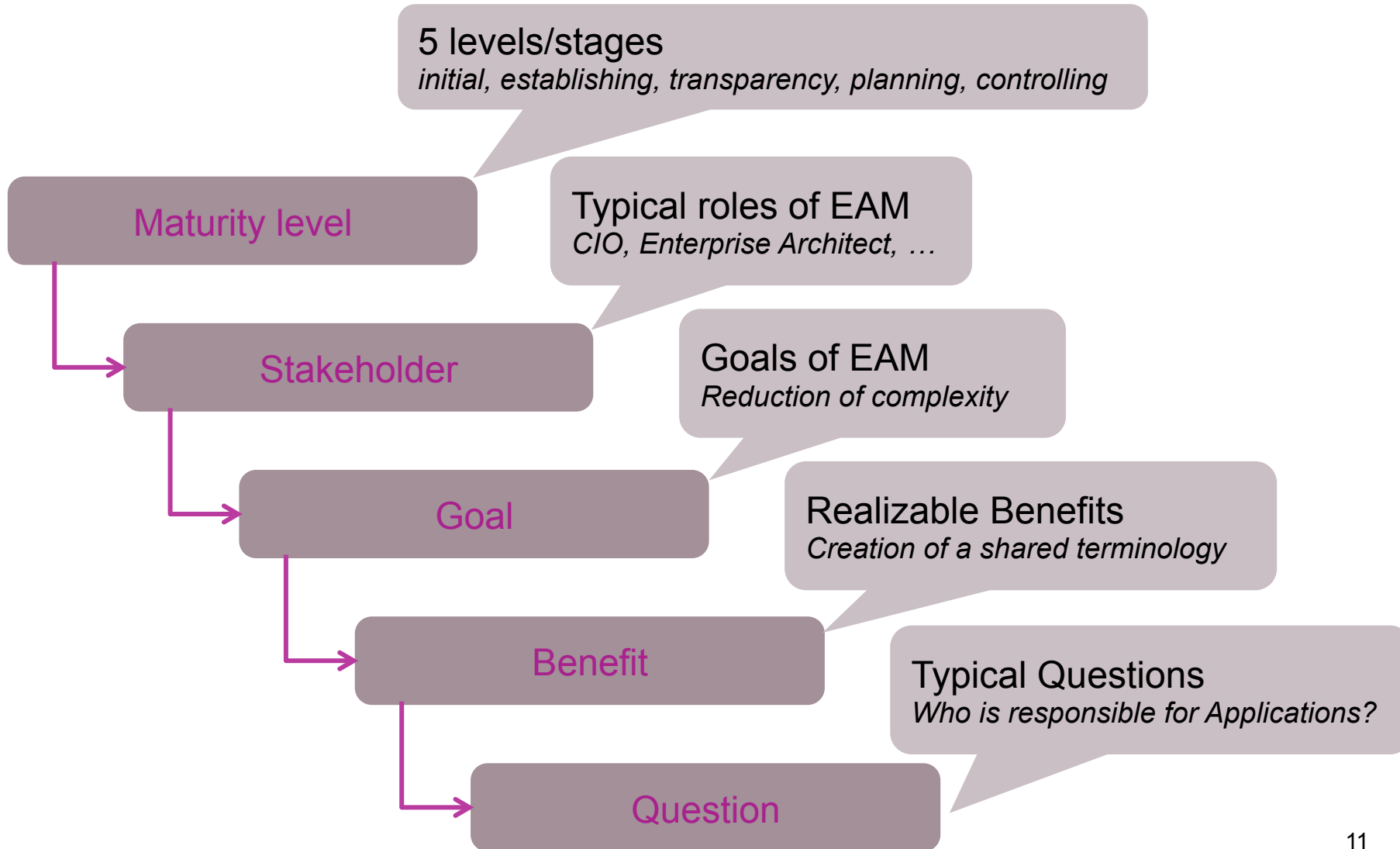




- Goals
- Course of action
- Results
 - Process in BPEAM
 - Modeling contingency factors
 - Dissolving variability of questions
 - Semantics of EA model
 - Prototypes
- Outlook

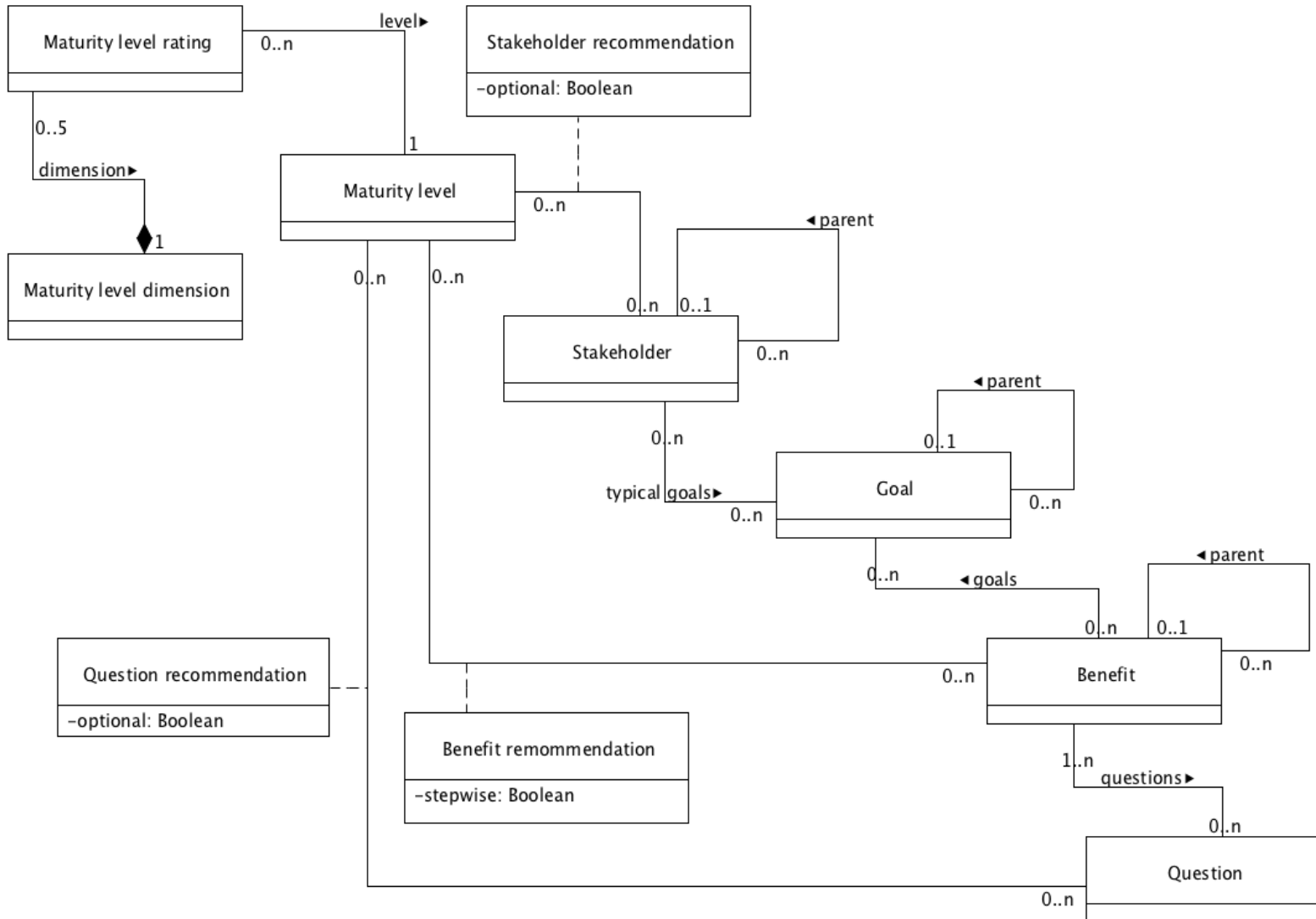
Structural Model - I

Steps and contingency factors of BPEAM



Model of contingency factors

Detailed relationships of identified concepts





- Goals
- Course of action
- Results
 - ➔ Process steps in BPEAM
 - ➔ Modeling contingency factors
 - ➔ Dissolving variability of questions
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 - ➔ Prototypes
- Outlook

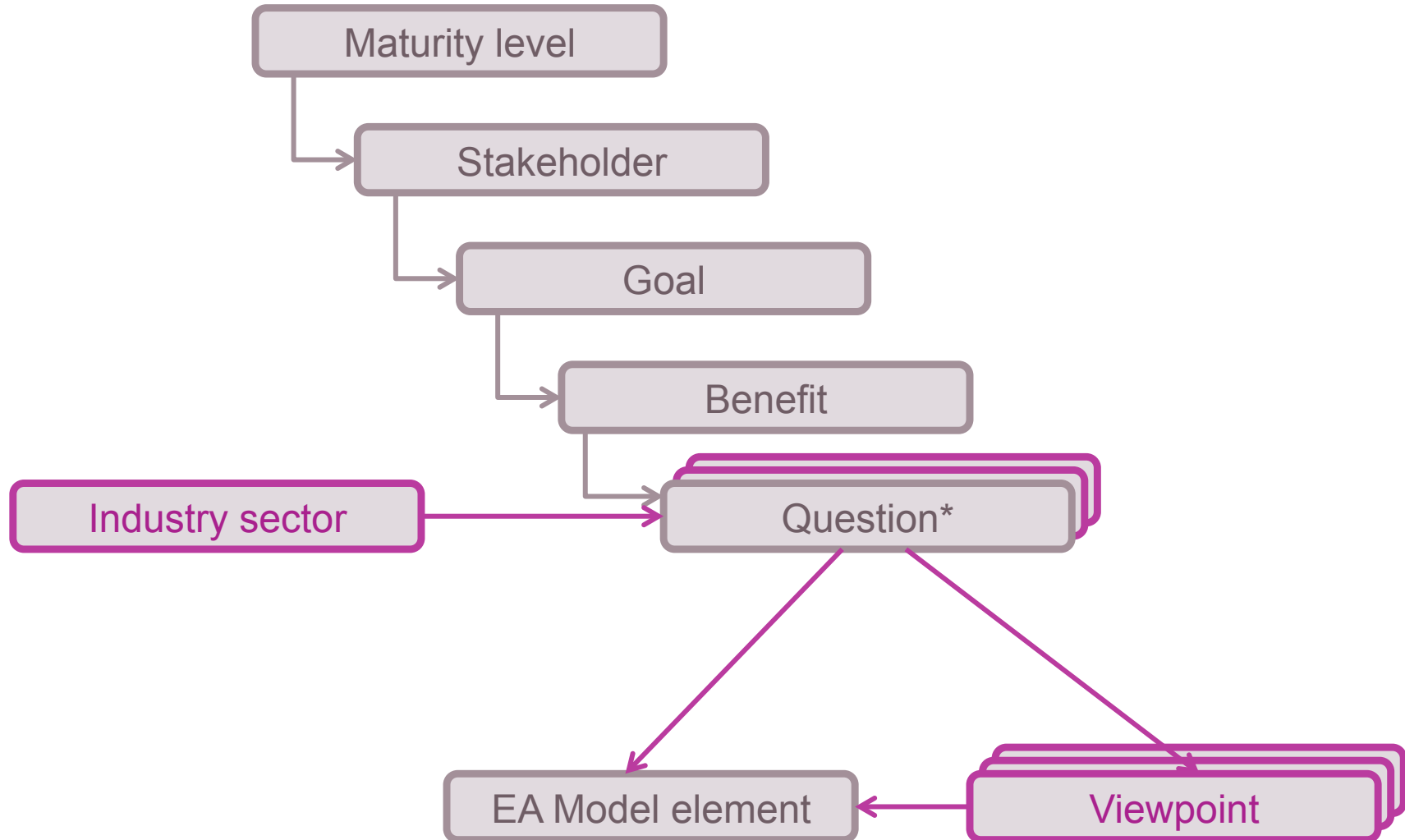
Variability in questions

- None
 - *Which Business Objects are there?*
- Internal type-variability
 - *How critical are Business Processes, Products and/or Business Functions for the enterprise?*
- External type-variability (alternatives)
 - *Which Business Functions are used by which **Business Processes** in which Business Unit?*
 - *... **Products** in which Business Unit?*

Literature review unfolded influence of contingency factor **industry type**

Structural Model - II

Expanding questions by integrating contingency factors



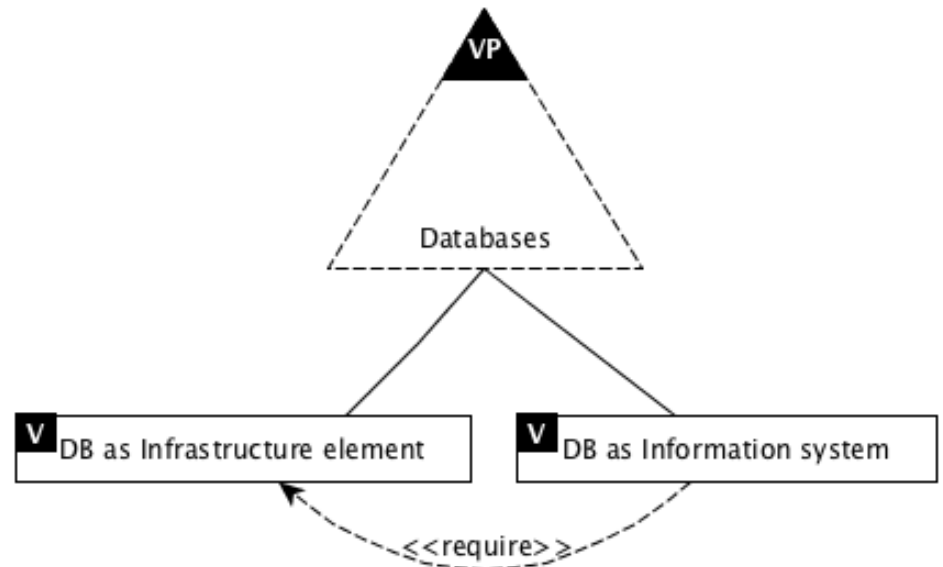
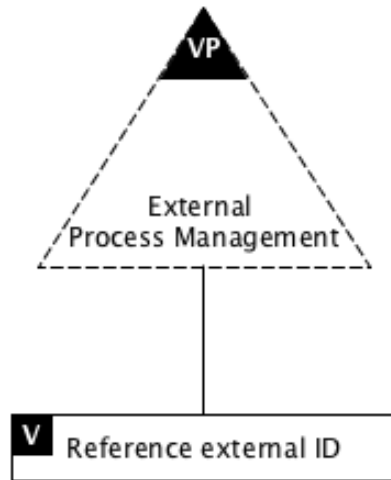


- Goals
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Modeling guidelines

Drawbacks with current documentation

- Catalogue of typical modeling challenges
- Semi formal description of solutions



- Problems:
 - ➔ Representation not ideal and
 - ➔ No link to described procedure

Restructuring Modeling guidelines

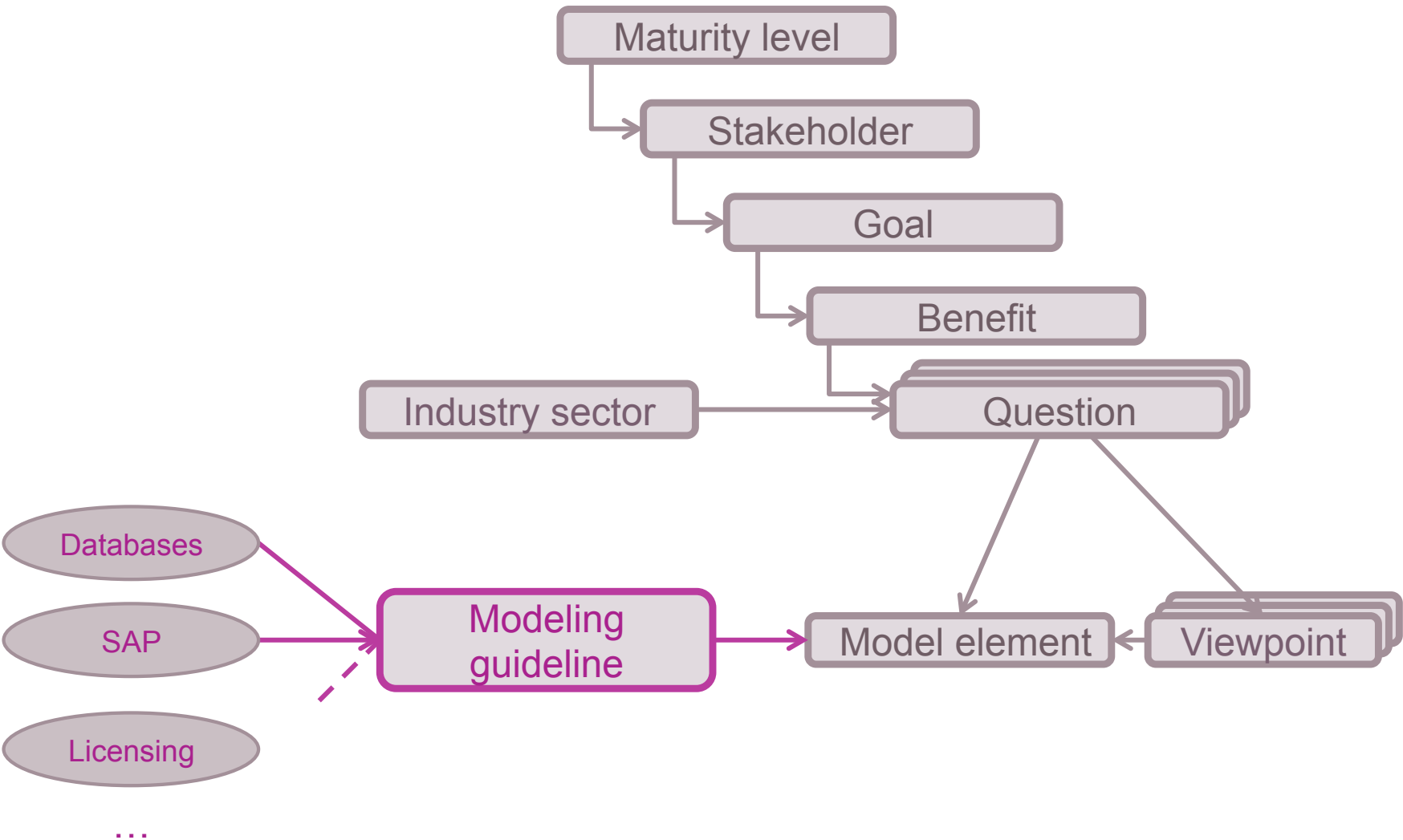
Standard template for categorization



Title:	Database Modelling
Variants:	<p>[1] Modelling DB as Infrastructure element only</p> <p>[2] Modelling DB as Infrastructure element and Information system</p>
EA Model elements:	<p>Types</p> <ul style="list-style-type: none">• Infrastructure element [1,2]• Information system [2] <p>Relationships</p> <ul style="list-style-type: none">• IS.uses:IE [2]
Diagram:	<i>See previous slide</i>
Decision:	DB is an important part of IS, implements business logic and is linked to other Systems [2]
Questions:	-

Structural model - III

Modeling guidelines for defining semantics





- Goals
- Course of action
- Results
 - Process steps in BPEAM
 - Modeling contingency factors
 - Dissolving variability of questions
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Organized library

Detailed descriptions in Wiki



- Kontingenzfaktoren
 - 1 Scope
 - 2 Branche
 - 3 Reifegrad
 - 3.1 Reifegradstufe
 - RG1 - Initial
 - RG2 - Im Aufbau
 - RG3 - Transparenz
 - RG4 - Planung
 - RG5 - Steuerung
 - 3.2 Reifegraddimension
 - 4 Stakeholder
 - S3 - CIO / IT Verantwortlicher
 - 5 Ziele
 - Z1 - IT/Geschäft im Griff**
 - Z2 - Risiken angemessen managen
 - 6 Nutzen
 - 7 Fragestellungen



Z1 - IT/Geschäft im Griff

[Bearbeiten](#)

Hinzugefügt von [Markus Bauer](#), zuletzt bearbeitet von [Markus Bauer](#) am Nov 06, 2013 ([Änderung anzeigen](#))

Ziel: *IT/Geschäft im Griff*

ID	Z1
Name	IT/Geschäft im Griff

Stakeholder (*typische Ziele*)

ID	Name
S2	Business-Verantwortlicher
S3	CIO / IT-Verantwortlicher
S4	Controller
S8	IS-Verantwortlicher
S12	Leiter Organisation
S13	Partner und Lieferant
S14	Projektleiter
S16	Unternehmensarchitekt
S17	Unternehmensführung
S19	Verantwortliche für Compliance und Sicherheit

Guide

Provided templates for each step

- Embedding knowledge of all sources
- Implement logical linkage between contingency factors and model elements
- Enables pre-selection

	A	B	D	E
1		Reifegrad	Empfohlene Einbindung	Tatsächliche Einbindung
2		Im Aufbau		
3				
4		ler		
5	1	Projektleitung	optional	
6	2	Verantwortliche für Compliance oder Sicherheit	nein	
7	3	Projektportfoliomanager / Projektportfolio-Controller	ja	
8	4	Business-Planer / Business Analyst	nein	
9	5	Controller	ja	ja
10	6	Leiter Organisation	optional	
11	7	Business-Verantwortlicher	ja	
12	8	Projektleiter	optional	
13	9	CIO / IT-Verantwortlicher	ja	
14	10	IT-Strategie	ja	
15	11	IS-Verantwortlicher	nein	
16	12	Partner und Lieferant	nein	
17	13	Unternehmensarchitekt	optional	
18	14	Geschäftsarchitekt	nein	
19	15	IS-Bebauungsplaner	optional	
20	16	IT-Architekt	optional	
21	17	Infrastruktur-Architekt		
22	18	IT-Innovationsmanager		
23	19	Verantwortlicher für den Betrieb und PC-Infrastrukturen		



- Goals
- Course of action
- Results
- Outlook



- Identified contingency factors of enterprise specific EA models
- Collected instances and modeled dependencies



- Designed structured knowledge base (Wiki)
- Described guide for deriving EA models
 - ➔ Detailed description of procedure
 - ➔ Templates for supporting steps



- Include structured knowledge base in training of consultants
- Implement standardized project handling
 - ➔ Templates and/or tools for project handling/documentation
 - ➔ Wiki area as a knowledge base
- Rerun evaluation of knowledge and information quality

... any questions?



Backup



Interviews and Questionnaire

Importance and Quality of sources

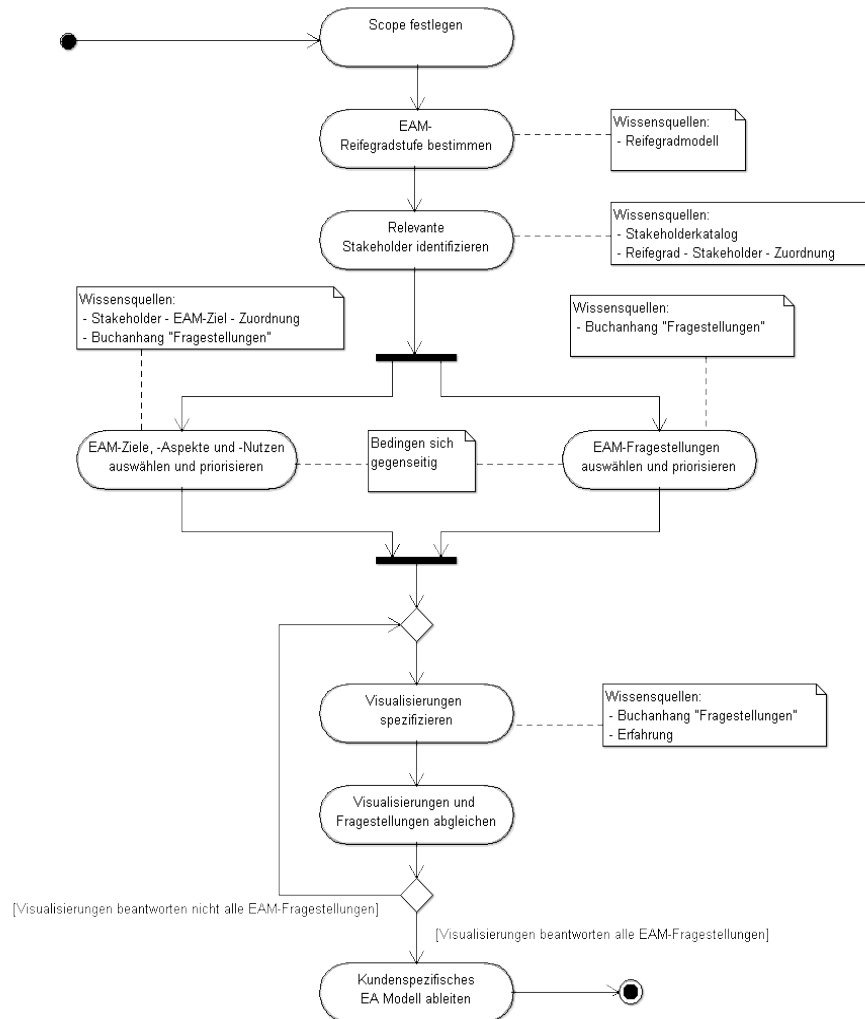


Source	Rank - Frequency of consultation	Value
EAM-Bücher	1	2,82
Modellierungsrichtlinien	2	2,71
Buchanhang „Fragestellungen“	3	2,18
Best Practice EAM und iteraplan Schulung	4	1,89
Projektabschlussdokumentation	5	1,67
EAM-Show-Cases	6	1,60

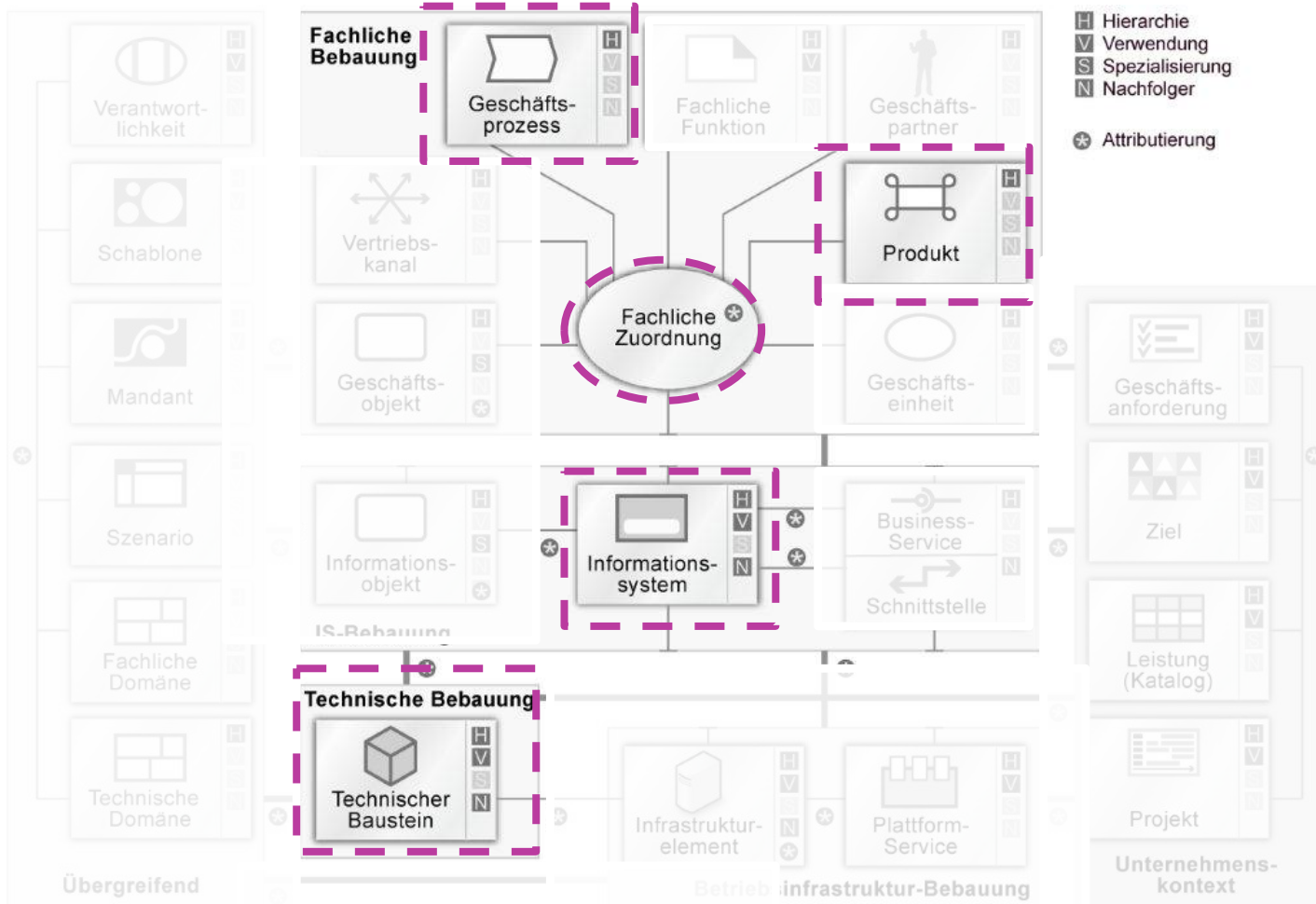
Quelle	Rank – KIQ	KIQ
EAM-Bücher (iha)	1	3,17
Modellierungsrichtlinien	2	3,11
Buchanhang "Fragestellungen"	3	3,03
Best Practice EAM und iteraplan Schulung	4	2,84
EAM-Show-Cases	5	2,57
Projektabschlussdokumentation	6	2,52

Step by step guide

UML activities linked to information sources and templates



Iteraplan & Best Practice EAM by Inge Hanschke



Additional relationships

- H** Hierarchy
(e.g.. Process A is part of Process B)
- V** Usage
(e.g. Tomcat Application Server uses Java Runtime Environment)
- S** Specialization
(e.g. Customer_UK is a special form of Customer)
- N** Predecessor/Successor
(e.g. Version 1.2 is successor of Version 1.1)