

# Workshop Normung und Standardisierung AUTONOMIK Berlin

## Use Cases

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## Use Cases - Verbindung von Idee und Realisierung



Fachexperte

UML Unified Modeling Language  
zur technologieneutralen  
Beschreibung von Interaktionen  
und von Akteuren

## Template als Vorlage oder Checkliste

1. Description of Use Case

1.1. Overview

Give brief general background related to the use case, for example about the project where the use case has developed for.

1.2. Areas of Use Case

Area	Start/End	Start/End	Start/End
Area 1	Start/End	Start/End	Start/End
Area 2	Start/End	Start/End	Start/End

1.3. Version Management

Version	Author	Change	Reason	Date
1.0	Author	Change	Reason	Date
1.1	Author	Change	Reason	Date

Additional notes as an example for the use case description: how the use case was developed, a process suggestion for use cases in development with the user.



## UML-Grafiken



IT-Experte  
System-Entwickler

## Aufbereitung der User Stories

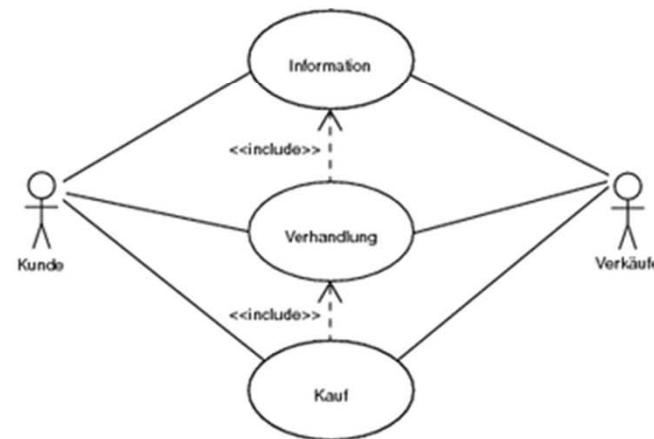


Aus den UserStories UseCases, Akteure, Rollen extrahieren:

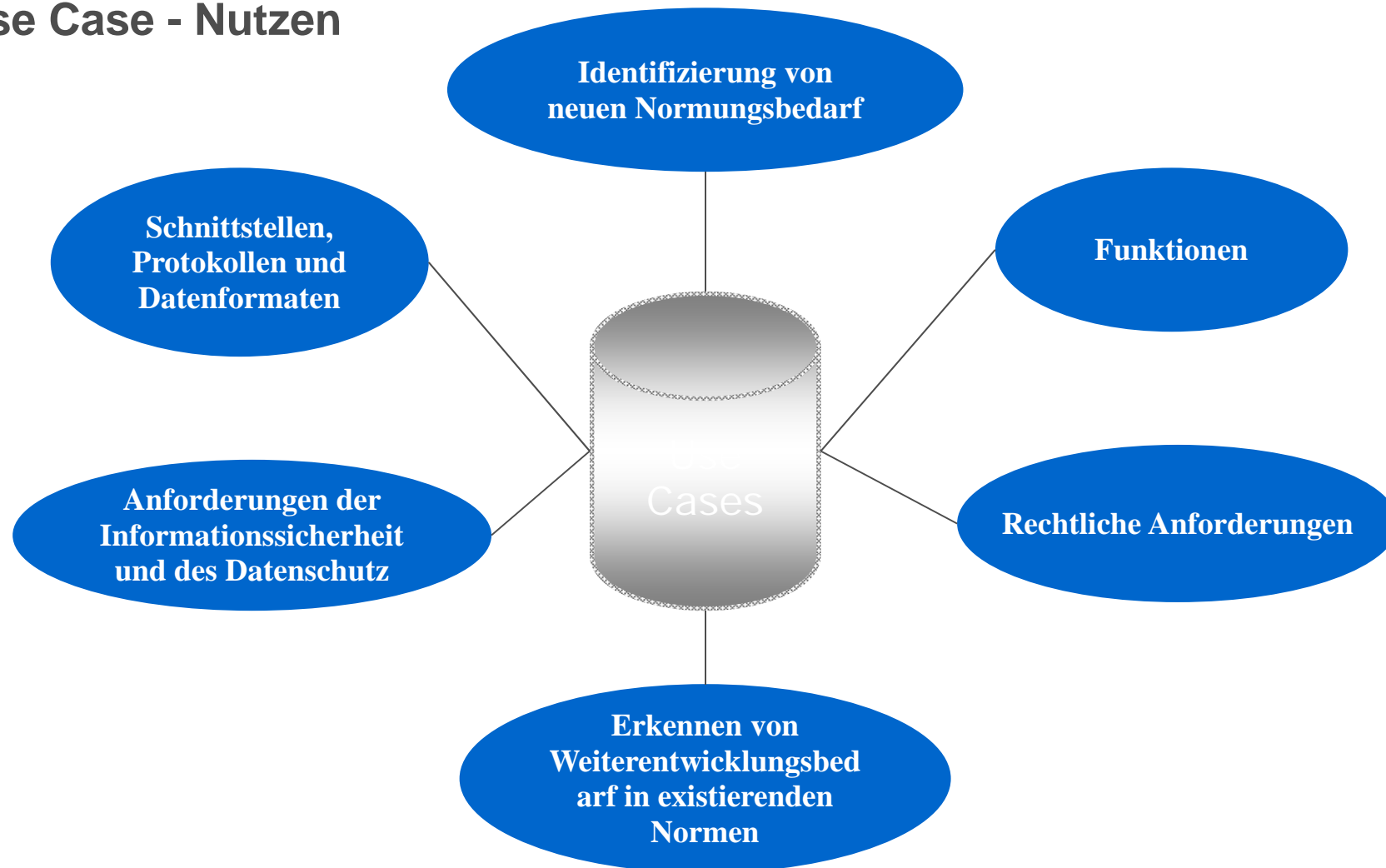
- Ein Bild (Use-Case-Diagramm) in dem die Akteure sichtbar sind („Prozesse“)

Diese werden ohne Kenntnis von Akteurs- und Rollennamen geschrieben

Gemeinsames Glossar erstellen

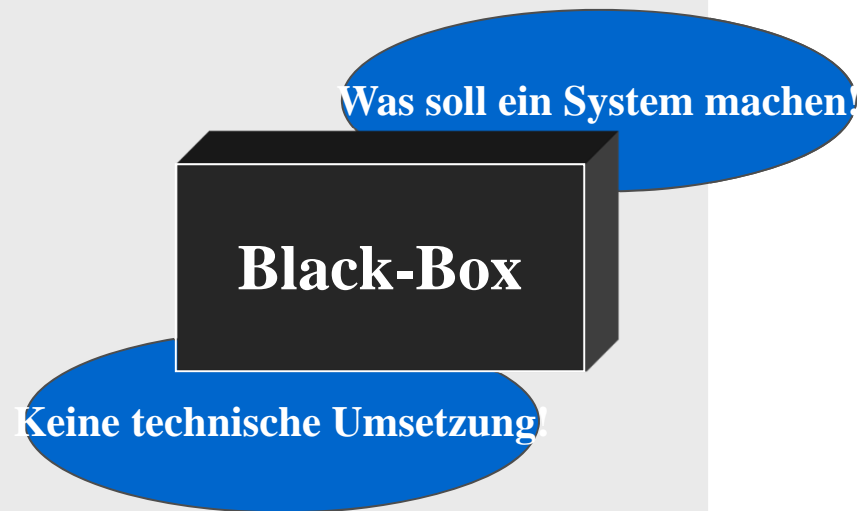
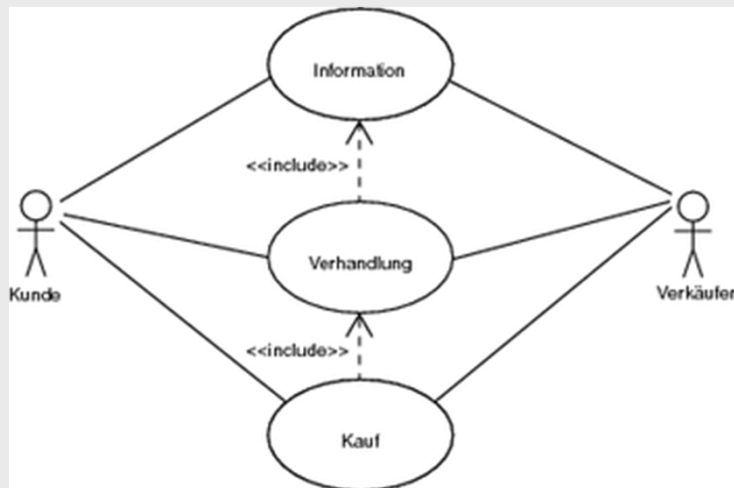


## Use Case - Nutzen



## Use Cases - Anwendungsfällen

- Use Cases halten fest, was ein System tun soll.
- Akteure legen fest, wer oder was mit dem System umsetzen soll.
- Bereichen zuordnen



# Use Case - Template

## 1 Description of Use Case

### 1.1 General

Give some general background related to this Use Case, for example about the project where the Use Case was developed for.

### 1.2 Name of Use Case

ID	Domain <small>(see Annex A Selection List)</small>	Name of Use Case	Level of Depth <small>(Class: HighLevelUseCase DetailedUse Case)</small>
	Enter a name from the Domain list in Annex A	Enter a short name that refers to the activity of the Use Case itself. Example: "Determine energy balance on substation level"	Enter a level from the list in Annex A

ID will be filled later by the system or the administrator.

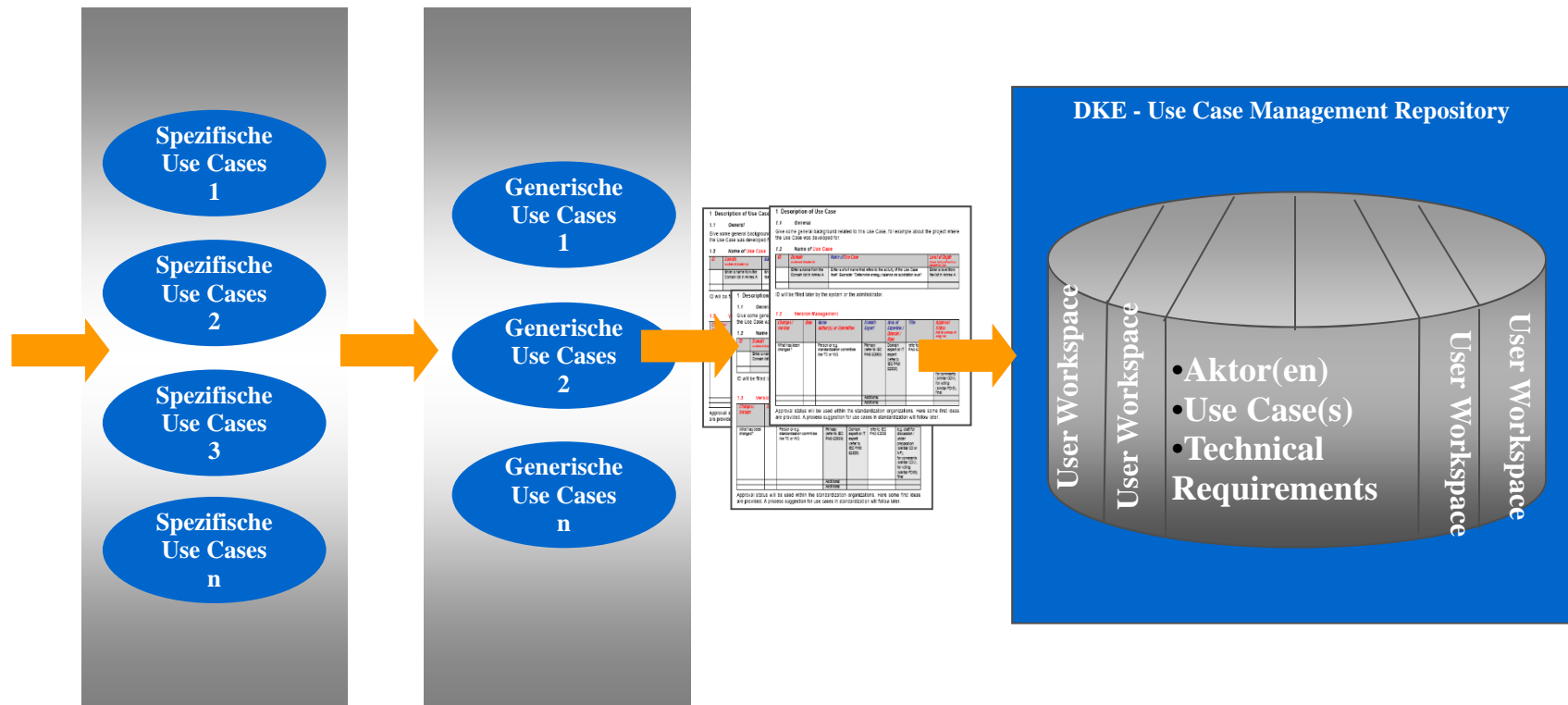
### 1.3 Version Management

Changes / Version	Date	Name Author(s) or Committee	Domain Expert	Area of Expertise / Domain / Role	Title	Approval Status <small>init. in comm. in exp. / int.</small>
What has been changed?		Person or e.g. standardization committee (like TC or WG)	Primary (refer to IEC PAS 62559)	Domain expert or IT expert (refer to IEC PAS 62559)	refer to IEC PAS 62559	e.g. draft for discussion / under preparation (similar CD or NP), for comments (similar CDV), for voting (similar FDIS), final
			Additional			
			Additional			

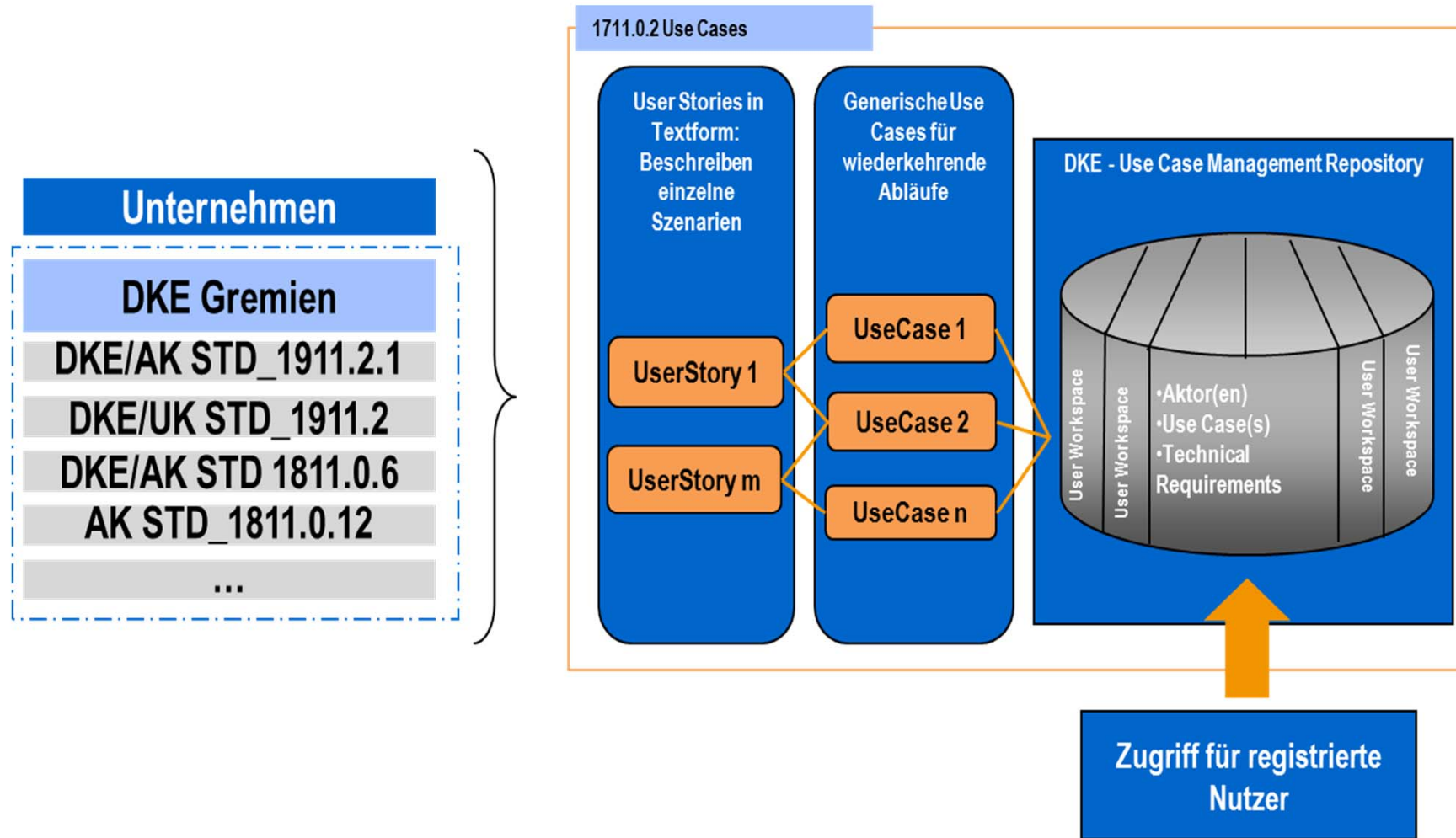
Approval status will be used within the standardization organizations. Here some first ideas are provided. A process suggestion for use cases in standardization will follow later.

- IEC 62559 „Anwendungsfallmethodik“
- für die allgemeine Anwendung in verschiedenen Fachbereichen und Systemen entwickelt
- Template
  - Name des Anwendungsfalls;
  - Autor
  - Datum
  - Schilderung
  - Akteure
  - etc.

## Kleines Bild – Große Schritte



## DKE-Arbeitskreis 1711.0.2 Use Cases





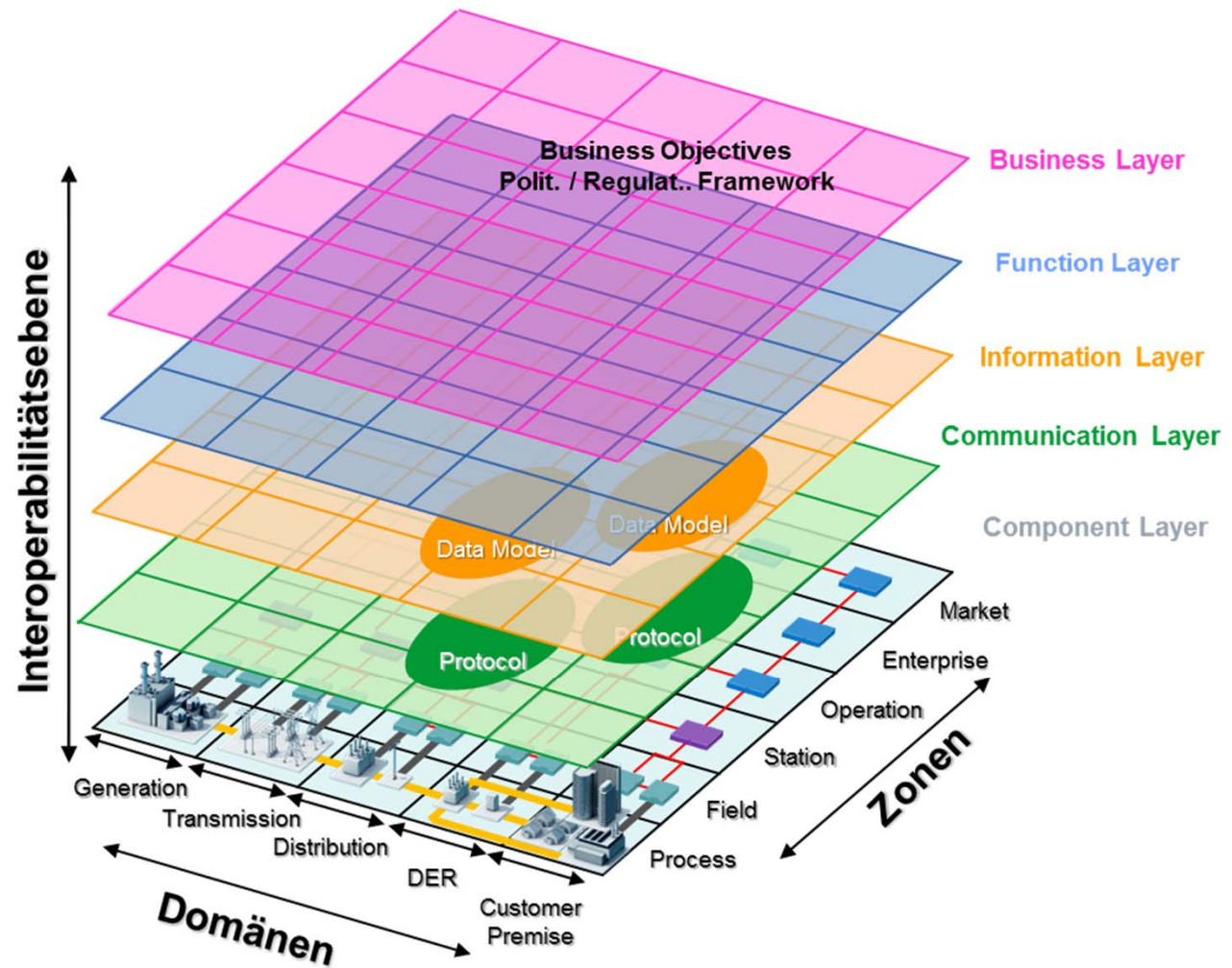
**„Umfeld“**  
Geschäftsmodelle und  
gesetzliche  
Rahmenbedingungen

**„Warum“**  
Funktionen, Use Cases

**„Was“**  
Semantik und Daten

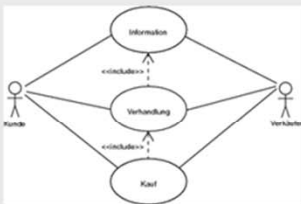
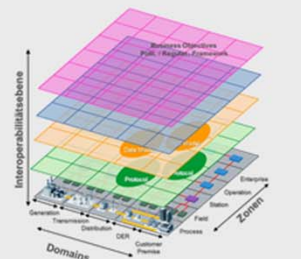
**„Wie“**  
Netzwerk und Protokolle

**„Basis“**  
Stecker



# Anwendung- Smart Grid EU-Mandat M/490

## Smart Grid - Use Case - Methodology



1. Description of Use Case

1.1. Example

Low energy service integration: User in the use case, for example a device that serves the use case and provides the

1.2. Name of the Use Case

Use Case ID	Use Case Name	Actor	Priority	State	Complexity	Dependencies
UC1	Information	Customer	High	Active	Low	UC2
UC2	Negotiation	Customer	High	Active	Medium	UC1, UC3
UC3	Purchase	Customer	High	Active	High	UC2

1.3. Actor or Role Description

Actor/Role	Description
Customer	Person who uses the system
Device	Low energy service integration

1.4. Use Case Realization

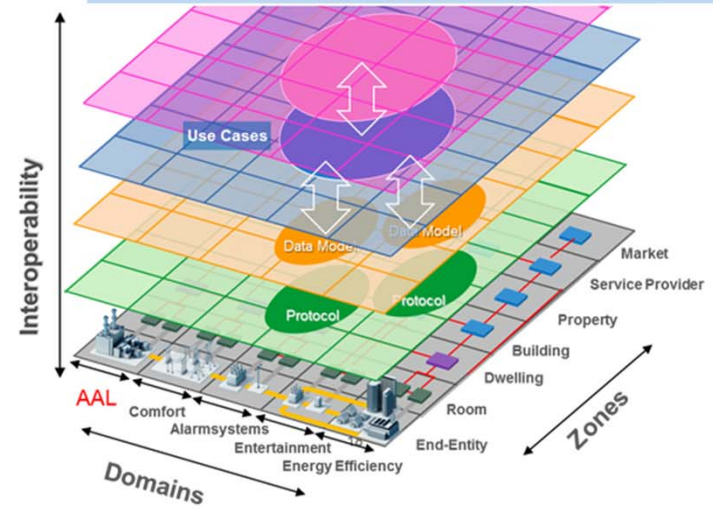
Step	Actor/Role	Action	Condition	Exception
1	Customer	Request information		
2	System	Provide information		
3	Customer	Start negotiation		
4	System	Execute negotiation		
5	Customer	Execute purchase		
6	System	Complete purchase		

1.5. Use Case Realization

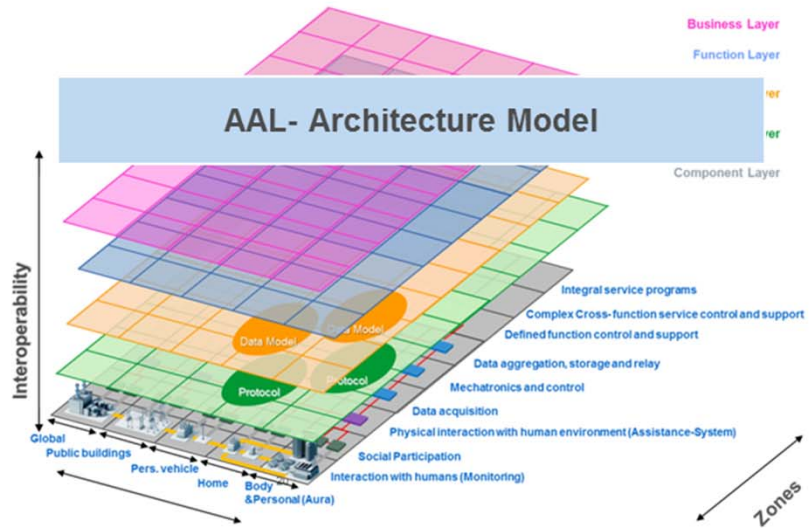
1.6. Use Case Realization



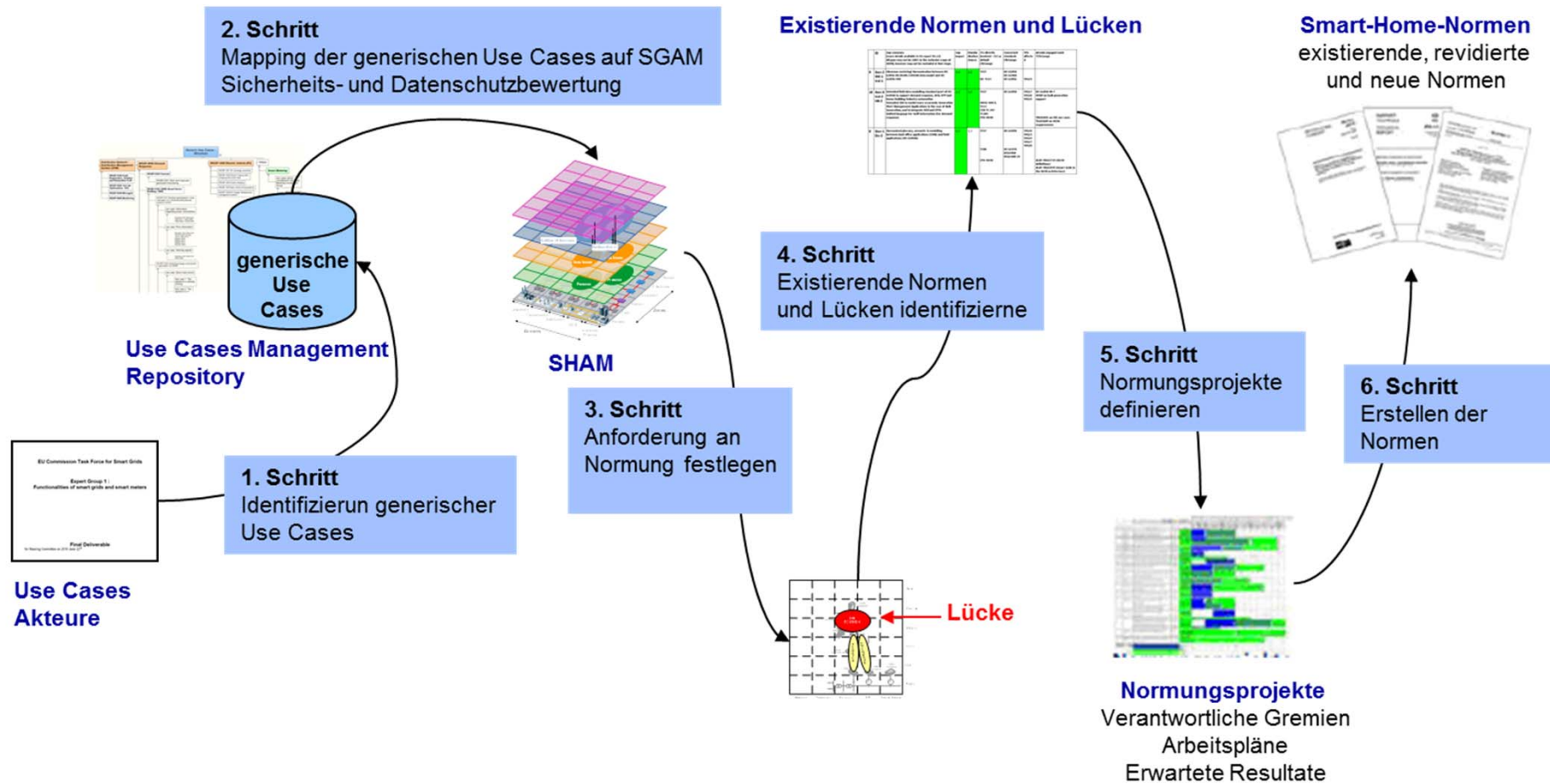
## Smart Home + Building – Architecture Model



## AAL- Architecture Model



# Normungsprozess Smart Home + Building



## Vorteile des methodischen Einsatzes von Use Cases / Referenzarchitektur

- Einführung in das System und Übersicht relevanter Normen
  - Übersicht für Einsteiger
  - Übersicht für Normenexperten, da verschiedenste Sektoren und Branchen betroffen
  - Anwendungsunterstützung: Ableitung einer Liste von relevanten Normen (Selection Guide)
- Vollständigkeit / Identifikation von Normungslücken
- Basis für
  - weiteres Software-Engineering
  - Test Use Cases
- Management von Normungsarbeit
  - Koordination von Normungsgremien und anderer Beteiligter, insb. bei gremienübergreifenden Themen
  - Anforderungsdefinition an die Normung / normungsunterstützend: Interoperabilität, Terminologie, IT-Sicherheit, Datenschutz, Sicherheit, Gebrauchstauglichkeit, ...
  - Priorisierung anhand von Use Cases (Funktionalitäten)
- Neuer Systemansatz von IEC / System Resource Group (SRG), System Evaluation Group (SEG)



# Vielen Dank für Ihre Aufmerksamkeit

VDE – Netzwerk Zukunft

**Ihre Ansprechpartner:**

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