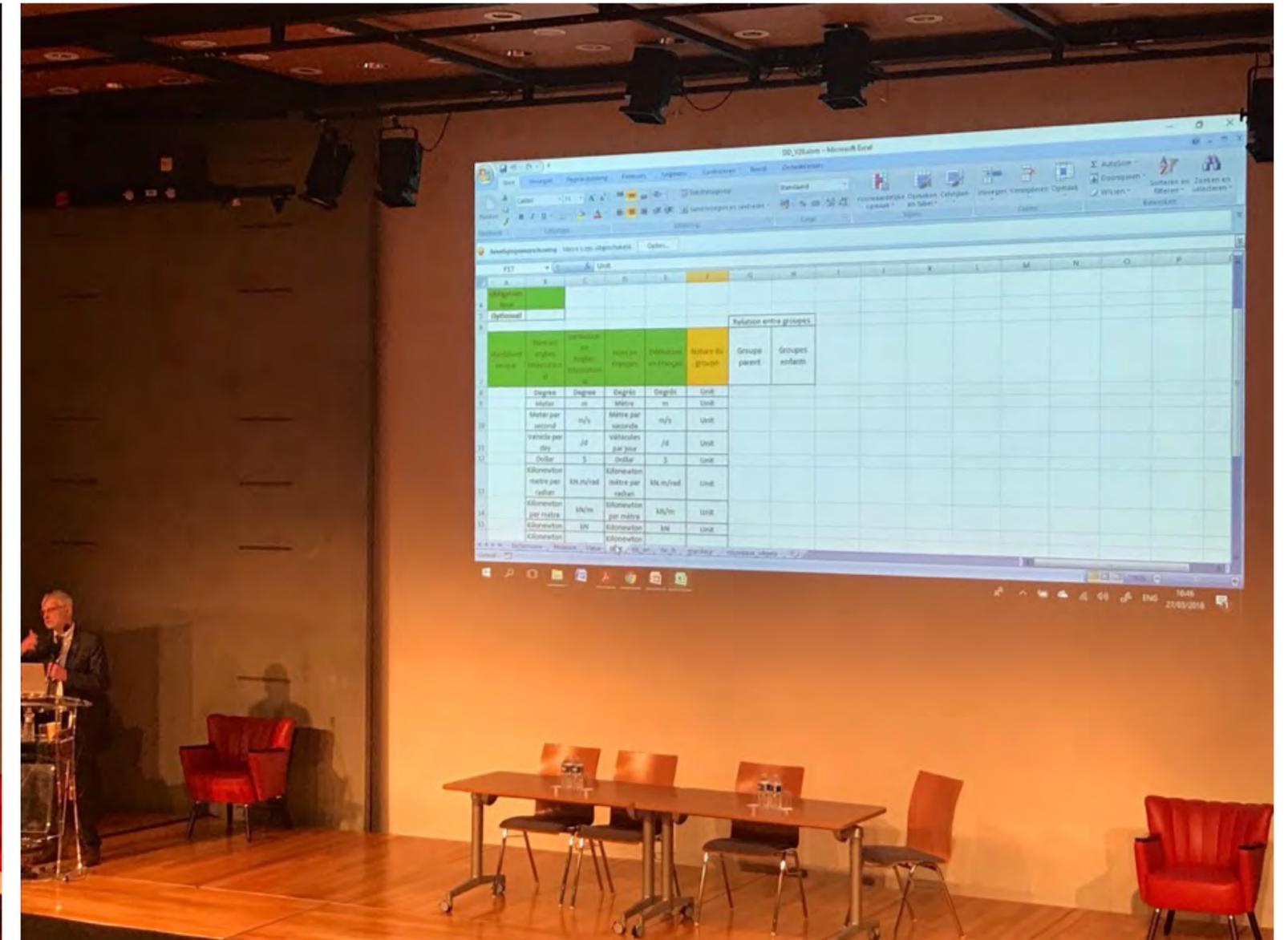
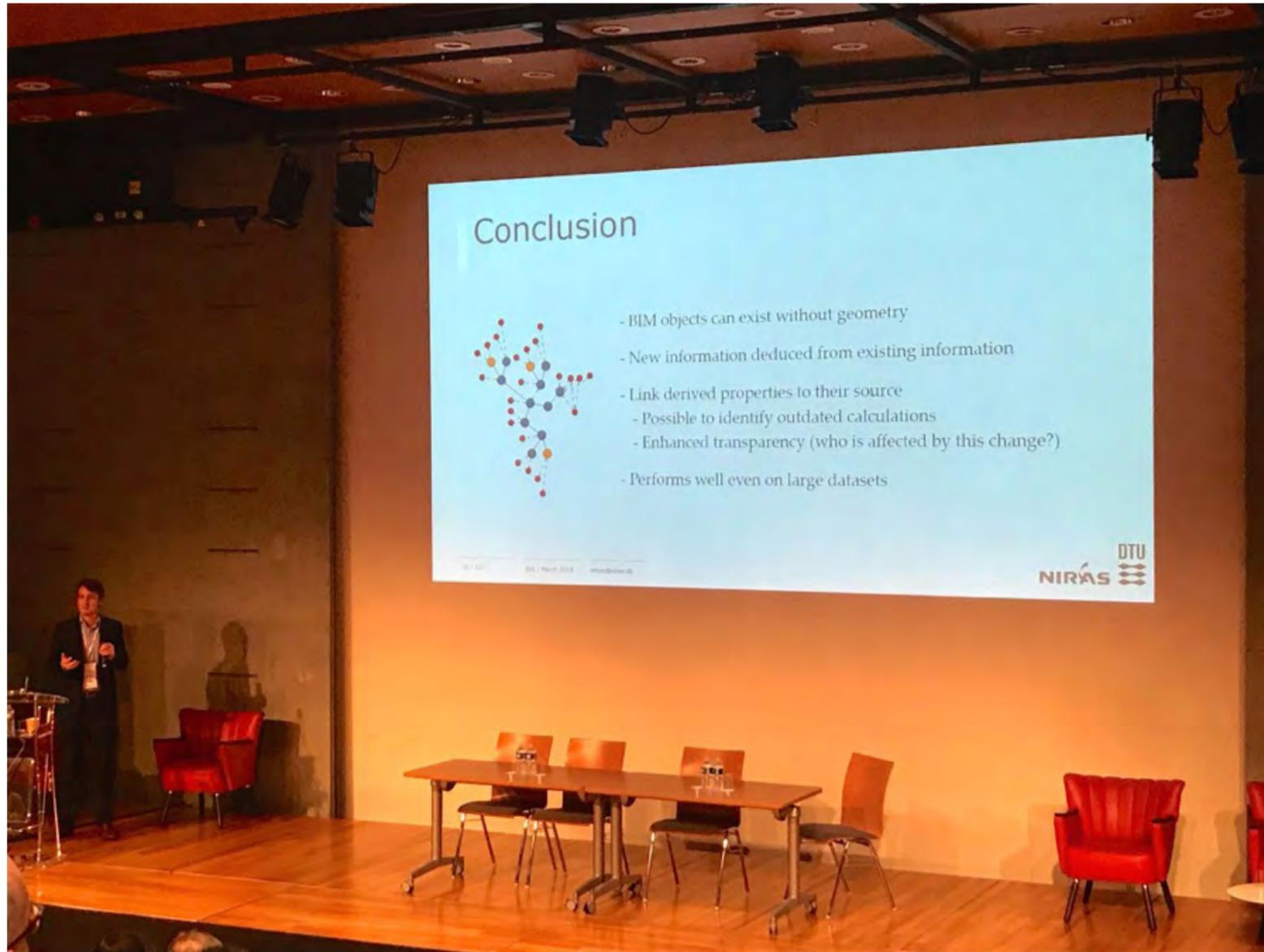


LINKED DATA IN THE CONSTRUCTION INDUSTRY

DISRUPTION: SHIFT HAPPENS

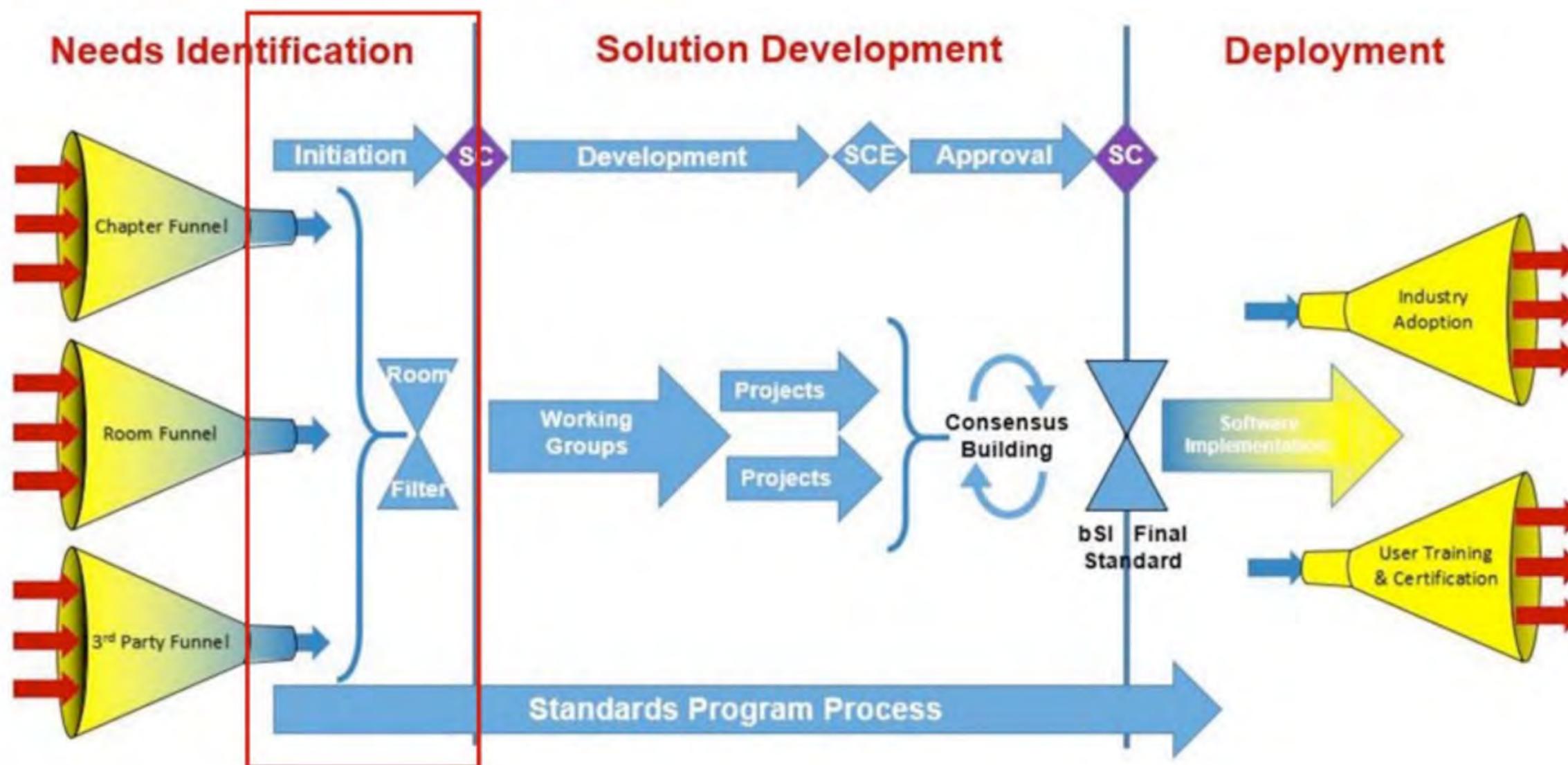


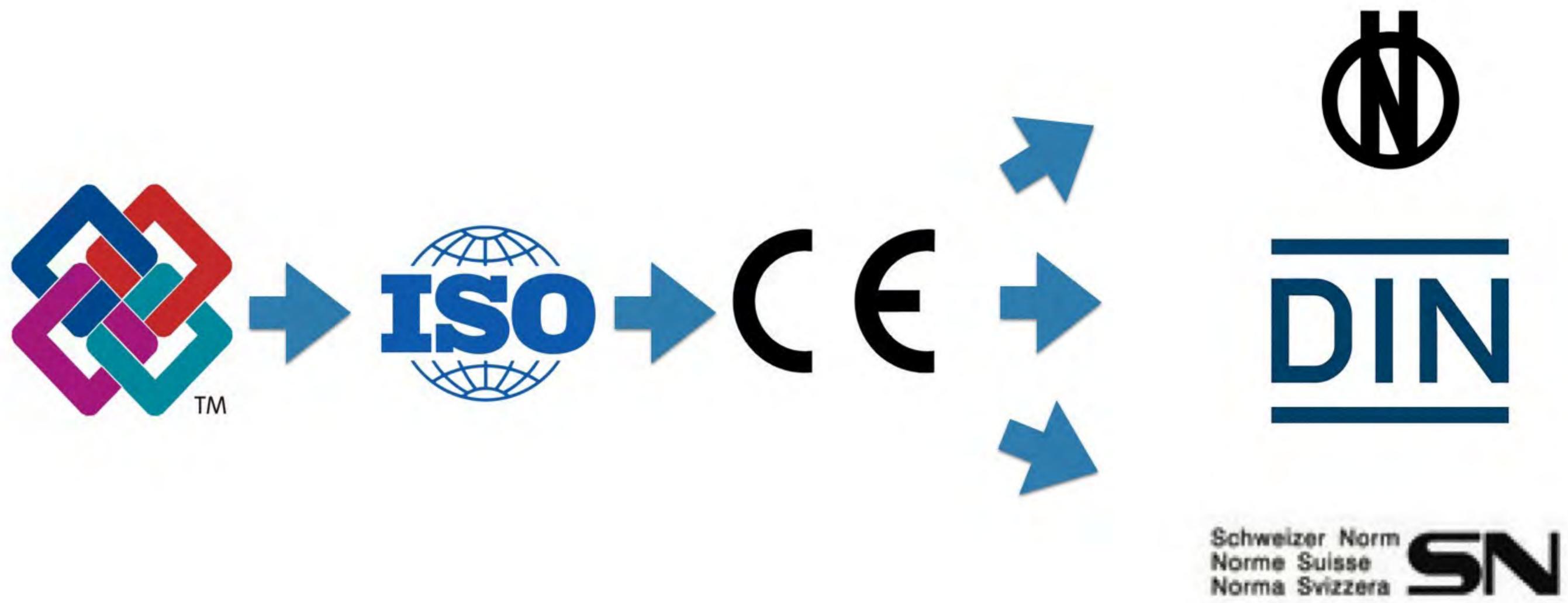
TWO WORLDS COLLIDING

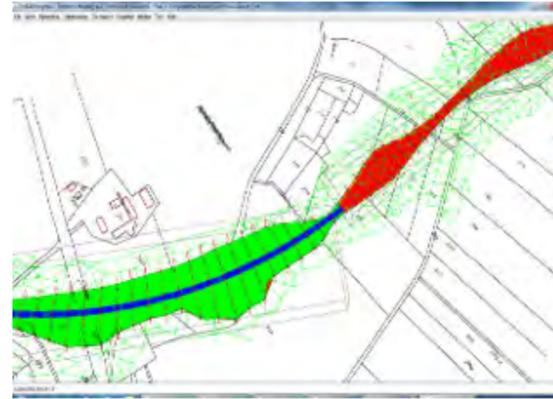


.IFC

Standards Process

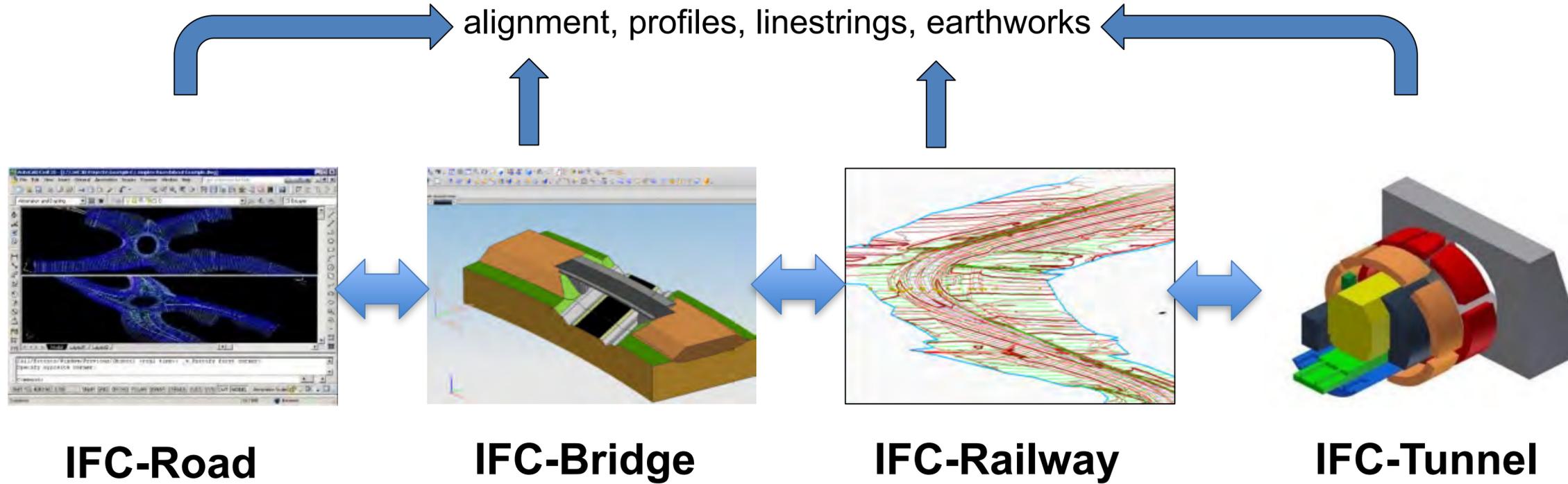






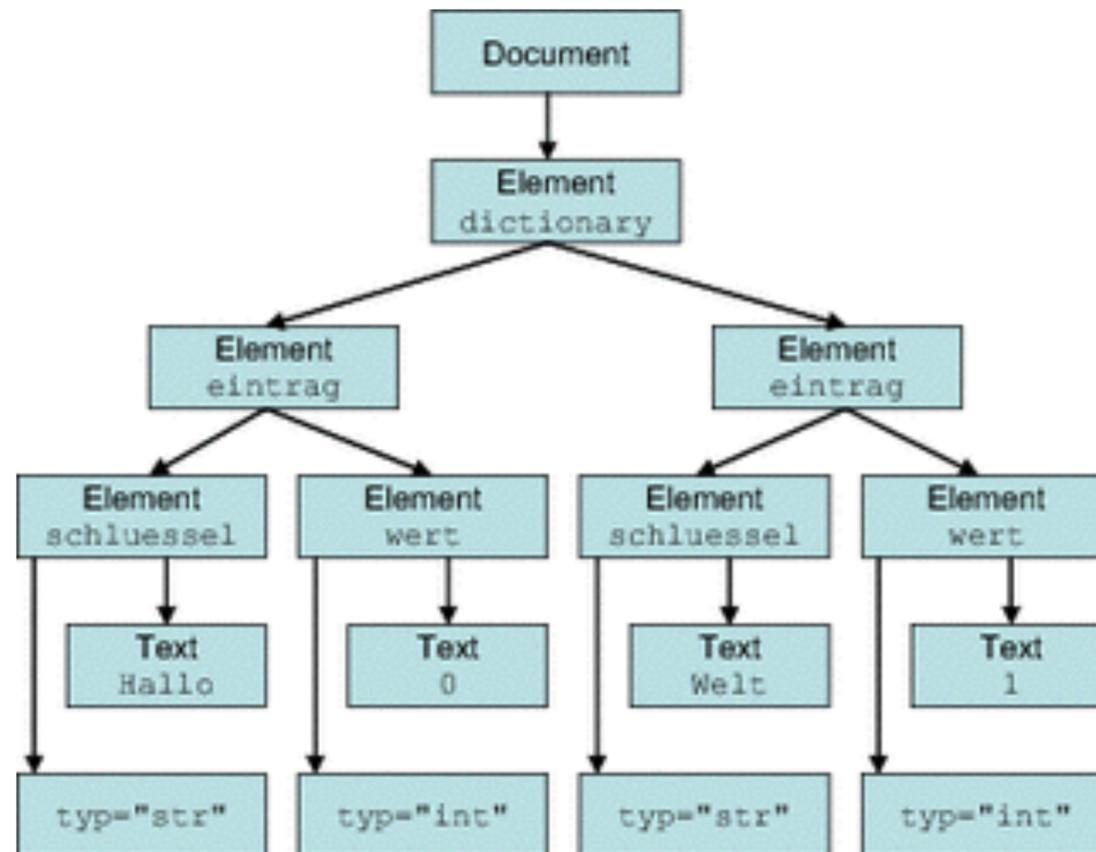
Overall architecture

alignment, profiles, linestrings, earthworks



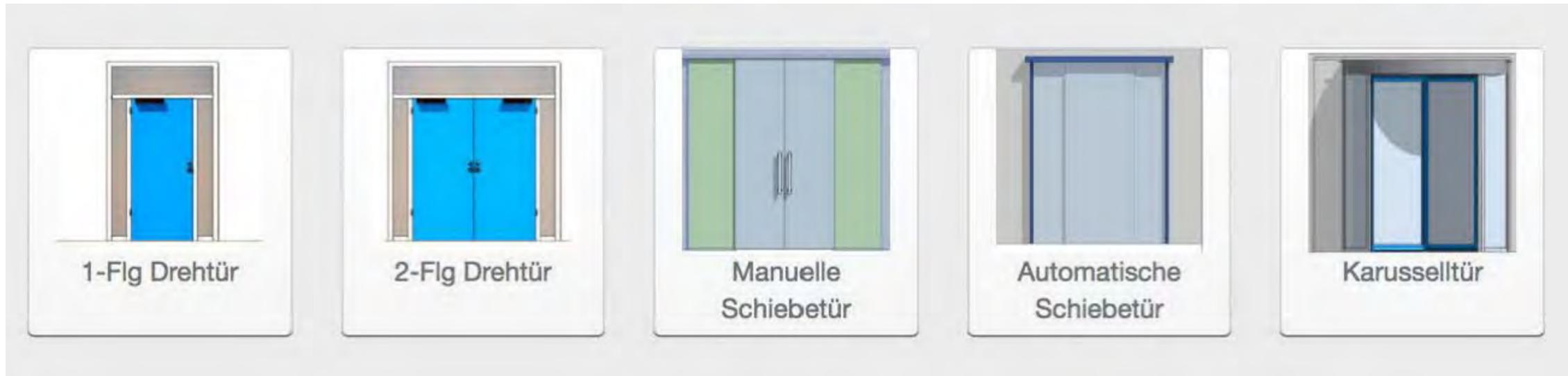
THE PROBLEM

The Idea



Tree: hierarchic and dichotomic

Example

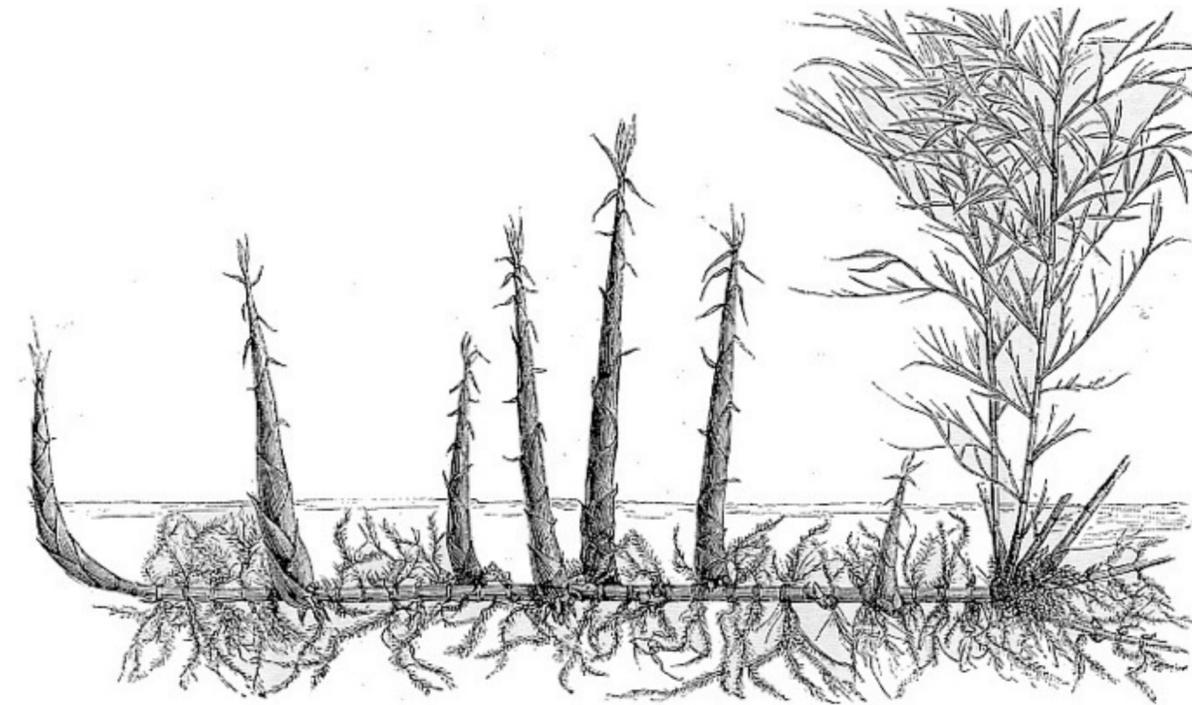
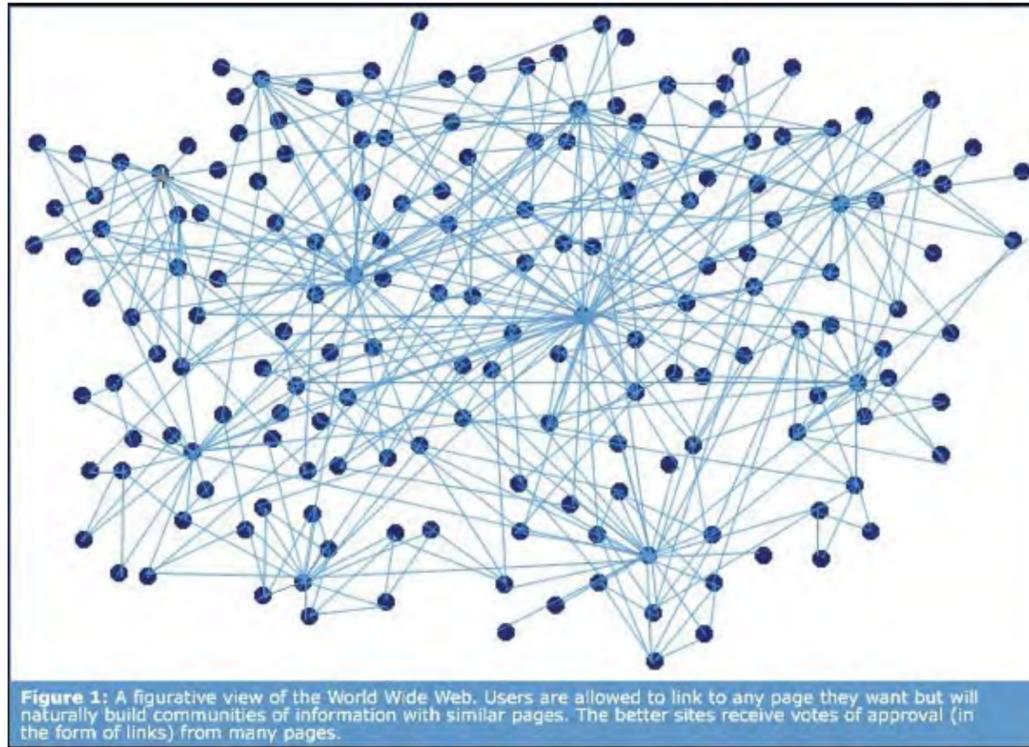


Produkt 2	Produkt 3	Produkt 4
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX
XXXXX XXXX	XXXXX XXXX	XXXXX XXXX
XXXXX XXX XX	XXXXX XXX XX	XXXXX XXX XX
XXX XXXX	XXX XXXX	XXX XXXX
XXXXXX XXXX	XXXXXX XXXX	XXXXXX XXXX
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX
XXXXX XXXX	XXXXX XXXX	XXXXX XXXX
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX
XXXXX XXXX	XXXXX XXXX	XXXXX XXXX
XXXXX XXX XX	XXXXX XXX XX	XXXXX XXX XX
XXX XXXX	XXX XXXX	XXX XXXX
XXXXXX XXXX	XXXXXX XXXX	XXXXXX XXXX
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX
XXXXX XXXX	XXXXX XXXX	XXXXX XXXX
XXXXX XXX XX	XXXXX XXX XX	XXXXX XXX XX
XXX XXXX	XXX XXXX	XXX XXXX
XXXXXX XXXX	XXXXXX XXXX	XXXXXX XXXX
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX
XXXXX XXXX	XXXXX XXXX	XXXXX XXXX
XXXXX XXX XX	XXXXX XXX XX	XXXXX XXX XX
XXX XXXX	XXX XXXX	XXX XXXX
XXXXXX XXXX	XXXXXX XXXX	XXXXXX XXXX
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX
XXXXX XXXX	XXXXX XXXX	XXXXX XXXX
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX
XXXXXX XXXX	XXXXXX XXXX	XXXXXX XXXX
XXXXX	XXXXX	XXXXX
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX
XXXXX XXX XXXX	XXXXX XXX XXXX	XXXXX XXX XXXX

Nominale Größen und Toleranzen << >>

Als Nominal einstellen

- 1. Rohbauöffnung
- 2. Baurichtmaß
- 3. Durchgangslichte
- 4. Türblatt-Maß



Rhizome: combinable and modifiable

Reality



THE SOLUTION (MAYBE)

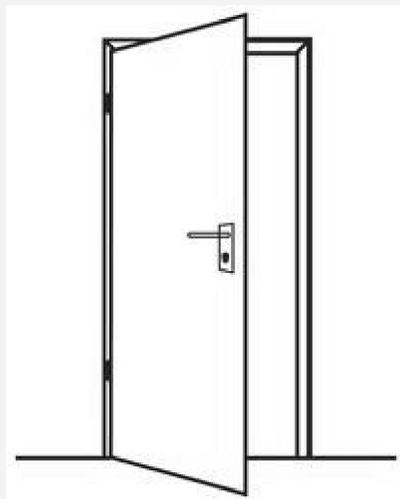
// equivalent to: turn(left).then(right)
turn left then right

// equivalent to: take(2.pills).of(chloroquine).after(6.hours)
take 2.pills of chloroquine after 6.hours

// equivalent to: paint(wall).with(red, green).and(yellow)
paint wall with red, green and yellow

// with named parameters too
// equivalent to: check(that: margarita).tastes(good)
check that: margarita tastes good

Searching Minimal Consensus



Eigenschaft "Oeffnungsart"
für "Tür" (allgemein)

Shell: Kern

Definition: Wie öffnet sich die Tür?

Erläuterung: wichtig, um z.B. Falltüren von Gartentürchen zu unterscheiden

technische Eigenschaft

Art: Aufzählung

Liste: einseitiges Drehen um seitliche vertikale Achse, zweiseitiges Drehen um seitliche vertikale Achse, Drehen um vertikale Mittelachse, Falten, Schieben, Klappen, usw....

Have we forgotten something?



Eigenschaft "Einbausituation"
für "Tür" (allgemein)

Shell: Kern

Definition: Kontext, in dem die Tür verbaut ist

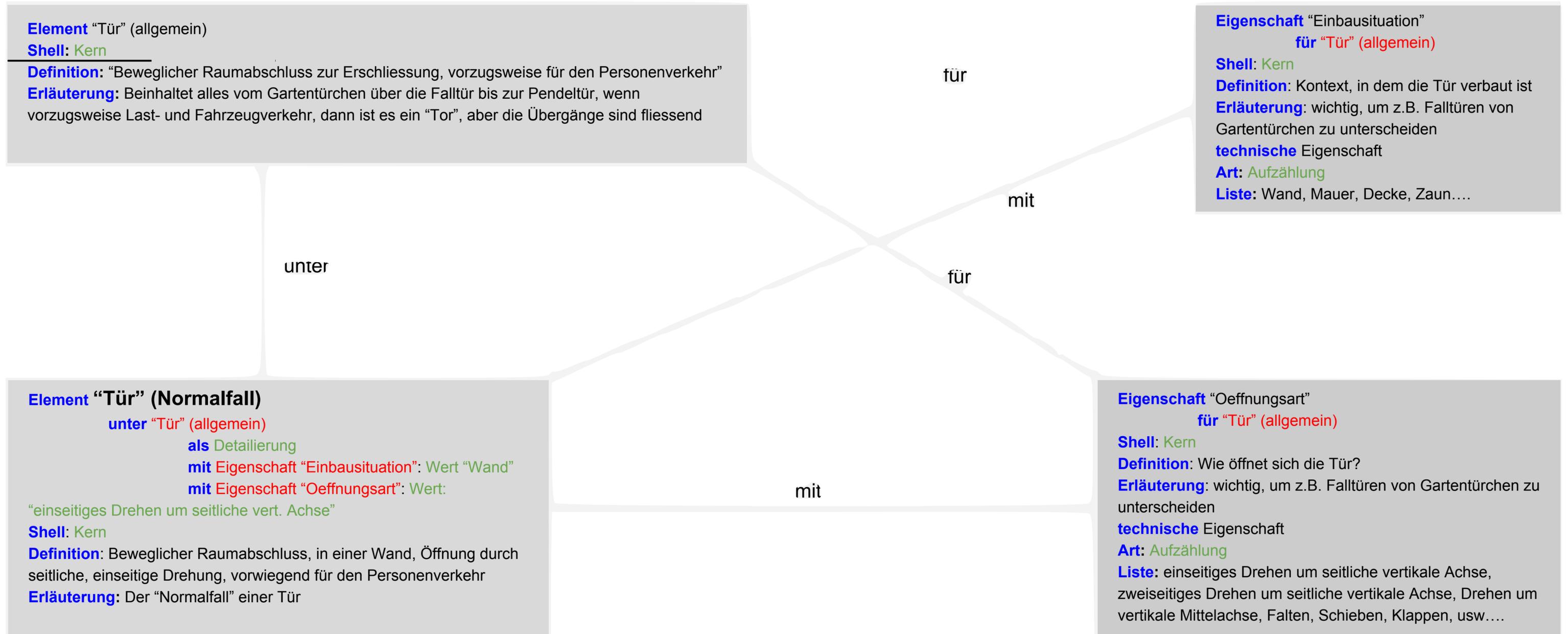
Erläuterung: wichtig, um z.B. Falltüren von Gartentürchen zu unterscheiden

technische Eigenschaft

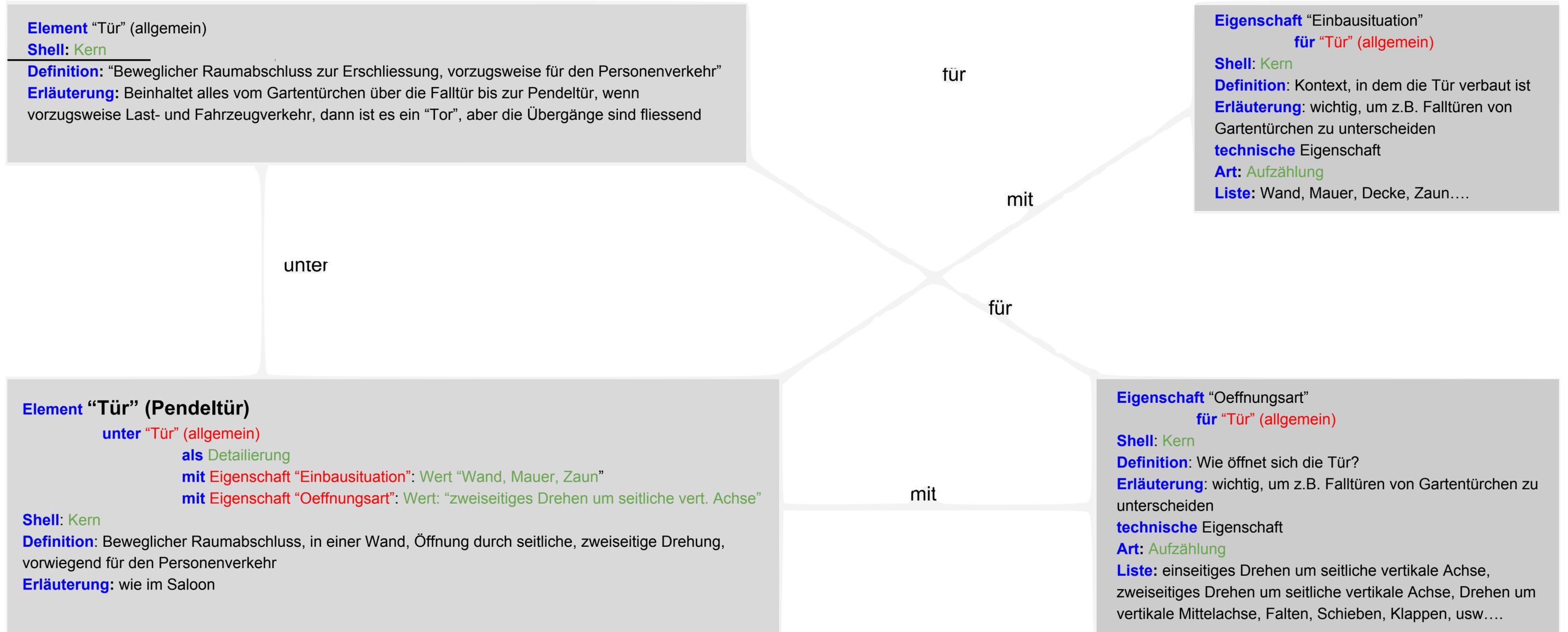
Art: Auswahl aus geschlossener Liste

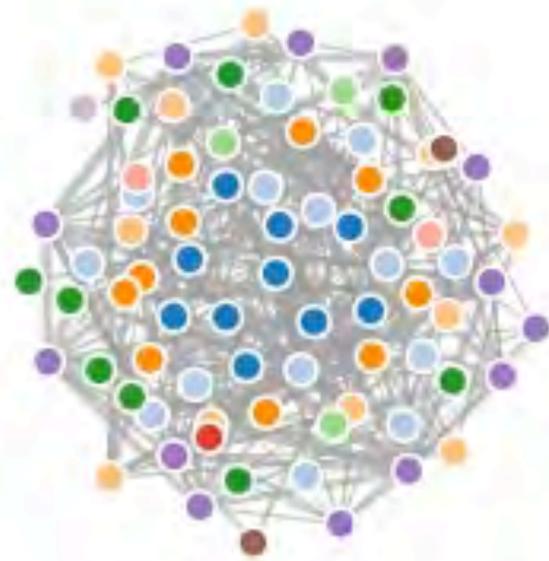
Liste: Wand, Mauer, Decke, Zaun....

One Domain



and another...

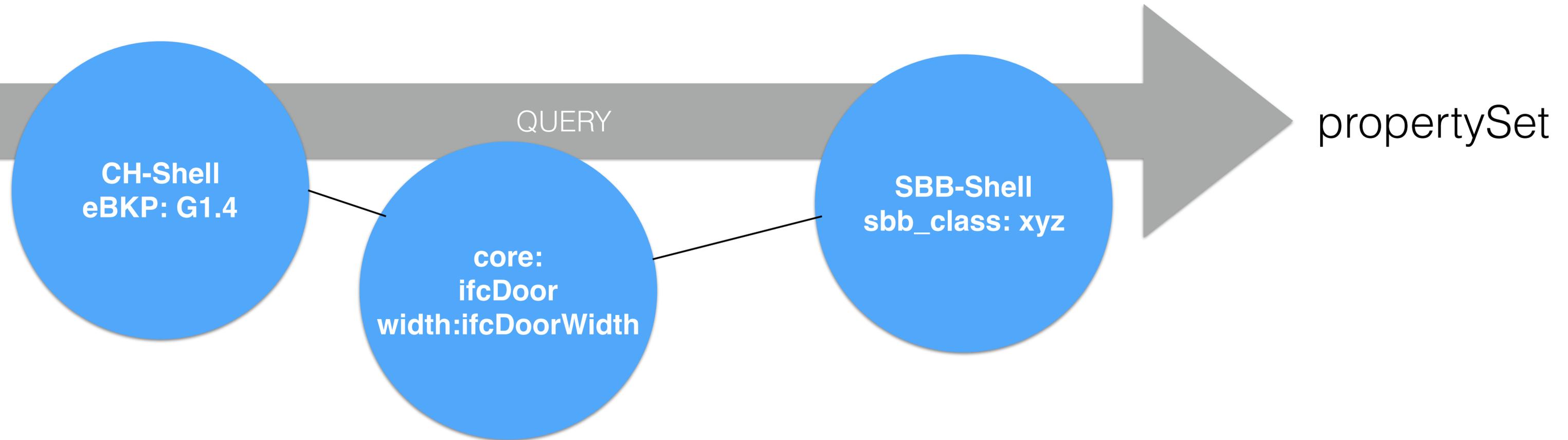




DOING SEMANTIC FIRST:

IFC IS A BYPRODUCT

QUERY THE RESULT AS A PROPERTY SERVER



**DON'T TRY TO BE SMART,
TRY TO BE USEFULL!**

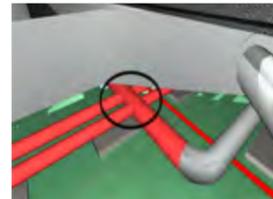
business punk

WHY TUNNEL?

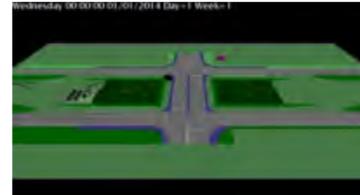
WE HAVE USECASES



Visualization



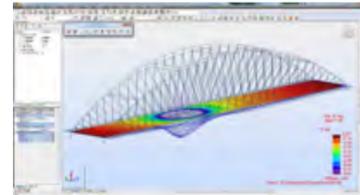
Coordination / Collision Detection



Construction Sequence Modeling



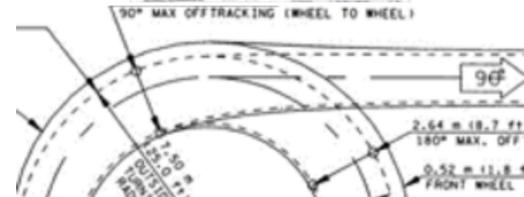
Quantity Take-Off



Structural Analysis



Drawing Generation



Code Compliance Checking



Machine control

WE HAVE THE PLATFORM TO DO ALREADY

The screenshot displays the 'Use Case Management' interface. On the left, a sidebar contains navigation options: 'STARTSEITE', 'ÜBERSICHT', and 'BIBLIOTHEKEN' with sub-items 'A) PLANEN', 'B) BAUEN', and 'C) NUTZEN & BETREIBEN'. The main content area is titled 'Übersicht' and features a table with columns for 'Titel', 'Status', and 'Freigabe | Verfügbarkeit' (Stufe 1, Stufe 2, Stufe 3).

Titel	Status	Freigabe Verfügbarkeit		
		Stufe 1	Stufe 2	Stufe 3
Kostenermittlung auf der Basis des elementbasierten Baukostenplans eBKP-H	Ausblick	Draft	Draft	In Bearbeitung
3D-Kollisionsprüfung geometrisch - hard clashes	Beispiel	Freigegeben	Freigegeben	Draft
Planungs- und Baubegleitendes Raumbuch	Beispiel	Draft	Draft	In Bearbeitung
Planung, Aufbereitung und Überführung von Informationen für Instandhaltung und Betrieb	Beispiel	Draft	Draft	In Bearbeitung
Dokumentenmanagement (DMS)	Beispiel	Draft	Draft	In Bearbeitung
Grundlagen der modellbasierten Mengenermittlung	Beispiel	Draft	In Bearbeitung	In Bearbeitung

Below the table, a detailed view of a use case is shown. It includes a search bar, a language dropdown set to 'Deutsch', and a revision box:

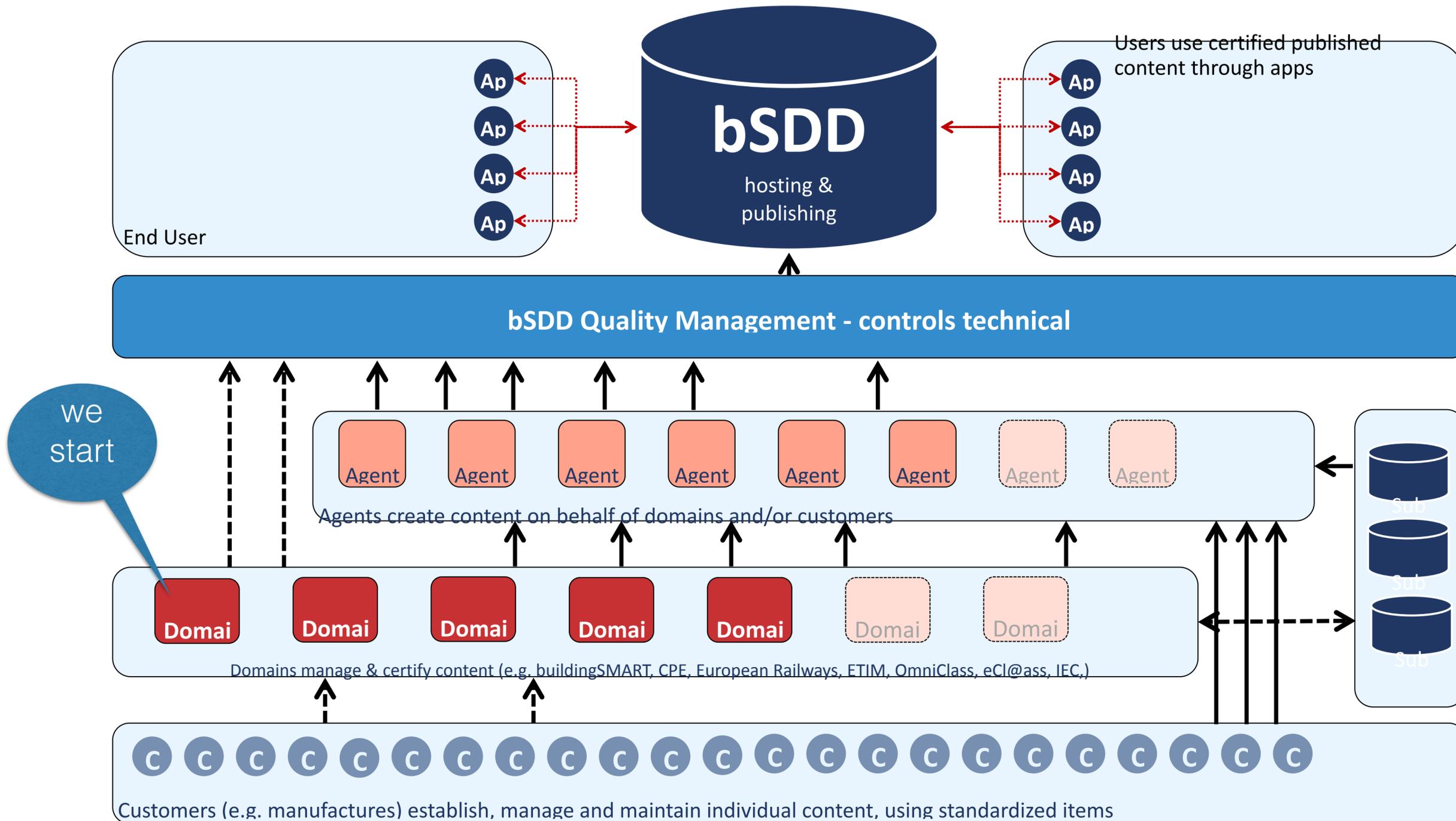
Revision : Rev 2.0
 Status : Ausblick
 Stufe 1: Draft
 Stufe 2: Draft
 Stufe 3: In Bearbeitung
 Geändert am: 10.04.2018, 13:00

The background text of the detailed view discusses 'elementbasierten Baukostenplans' and 'Kostenkontrolle und der...'. At the bottom of the interface, there are links for 'Datenschutz' and 'Impressum'.

WE CAN USE WHATS ALREADY OUT THERE

DDSD

WE CAN USE WHATS ALREADY OUT THERE



WE HAVE DOMAIN EXPERTS (59 EXPERTS FROM 25 COMPANIES)



NO ONE CARES ABOUT TUNNEL

TUDO, OR ACTIONS TO BE TAKEN

- 1. Provide Use Cases and agree on them *(started)*.**
- 2. Get ifc5.0 Underground Construction (aka Tunnel) started and funded. *(Get ITA experts and LOD enthusiasts together: network)***
- 4. Turn way how ifc is produced upside down= Bottom UP
Use LOD and state of the art development and take whats already out there.
*(Proof of concept till Autum 2018)***
- 5. Spread and use the way on other projects
*(start to do business: like building company shells and run property servers)***

PHILIPP DOHMEN

DISRUPTION: SHIFT HAPPENS