Integration Management with SAP ECC

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- Sales process "test flight"

- Cost accounting

- Materials, materials management => BOM
- Work centres
- Routings

- Sales and operations plan => Independent demand
- MRP run

Purchase requisitions
Vendor master data
Info records
Vendor assignment
Purchase order
Goods receipt

**Planned production order**
Create order
Check order
Release order
Goods issue
Confirmation
Goods receipt
Order closure

Organisational Structure

Organisational Structure

Productive Client

Dev 1

Dev 2

QS

Error fixes
from SAP

Train-
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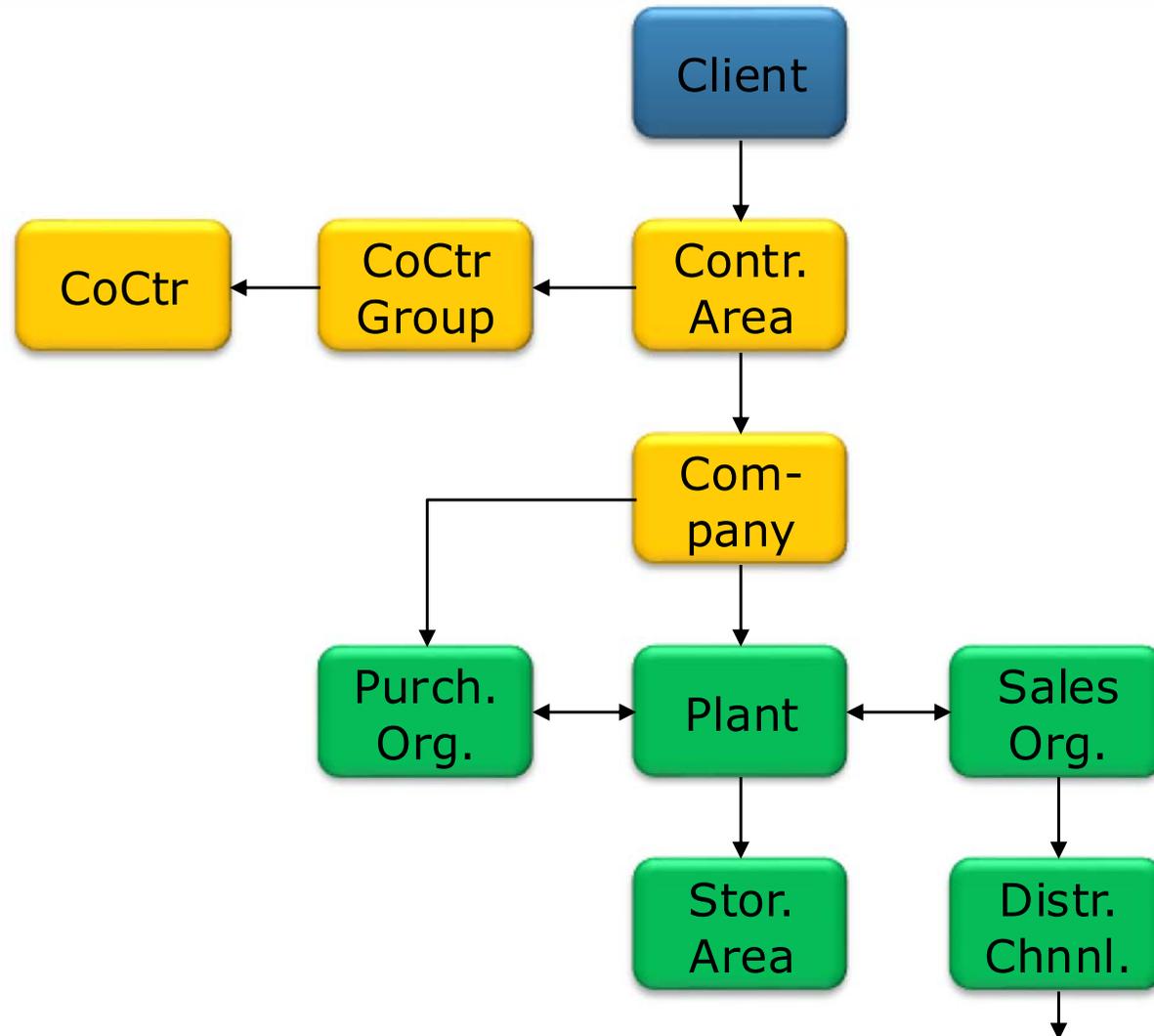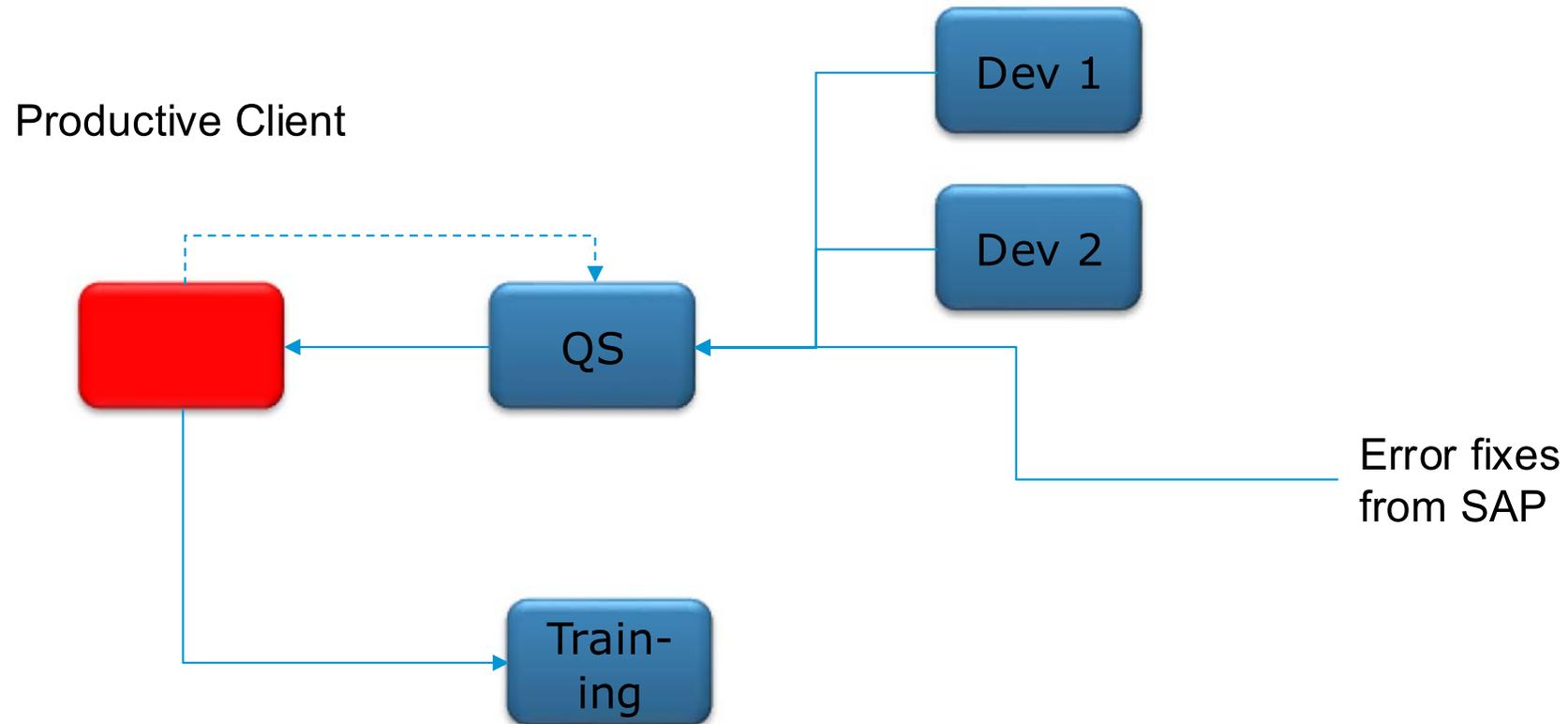
Overview

Operational process

Overview

Master data

Operational process

State-of-the-art Access Management

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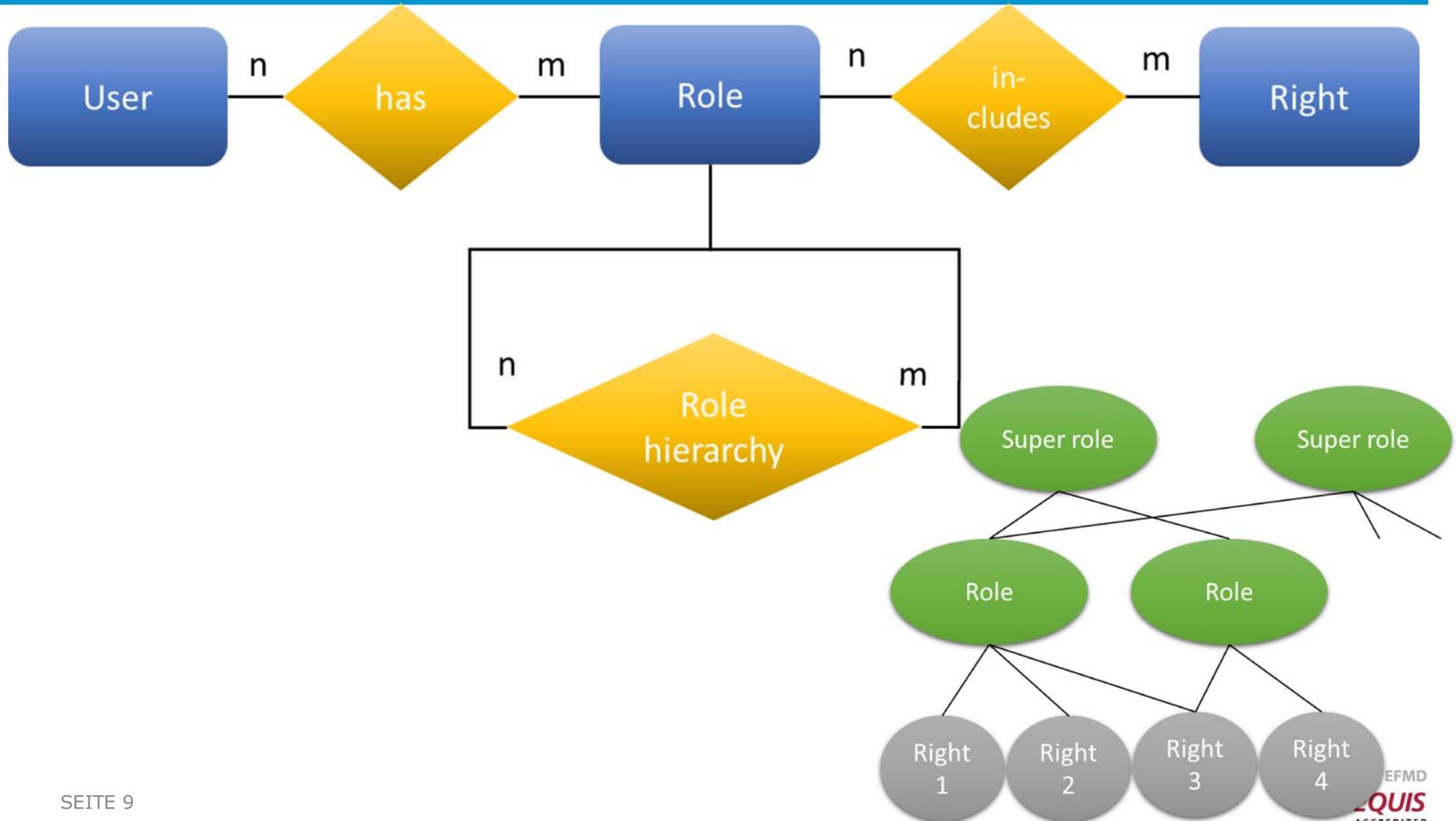
State-of-the-art Access Management
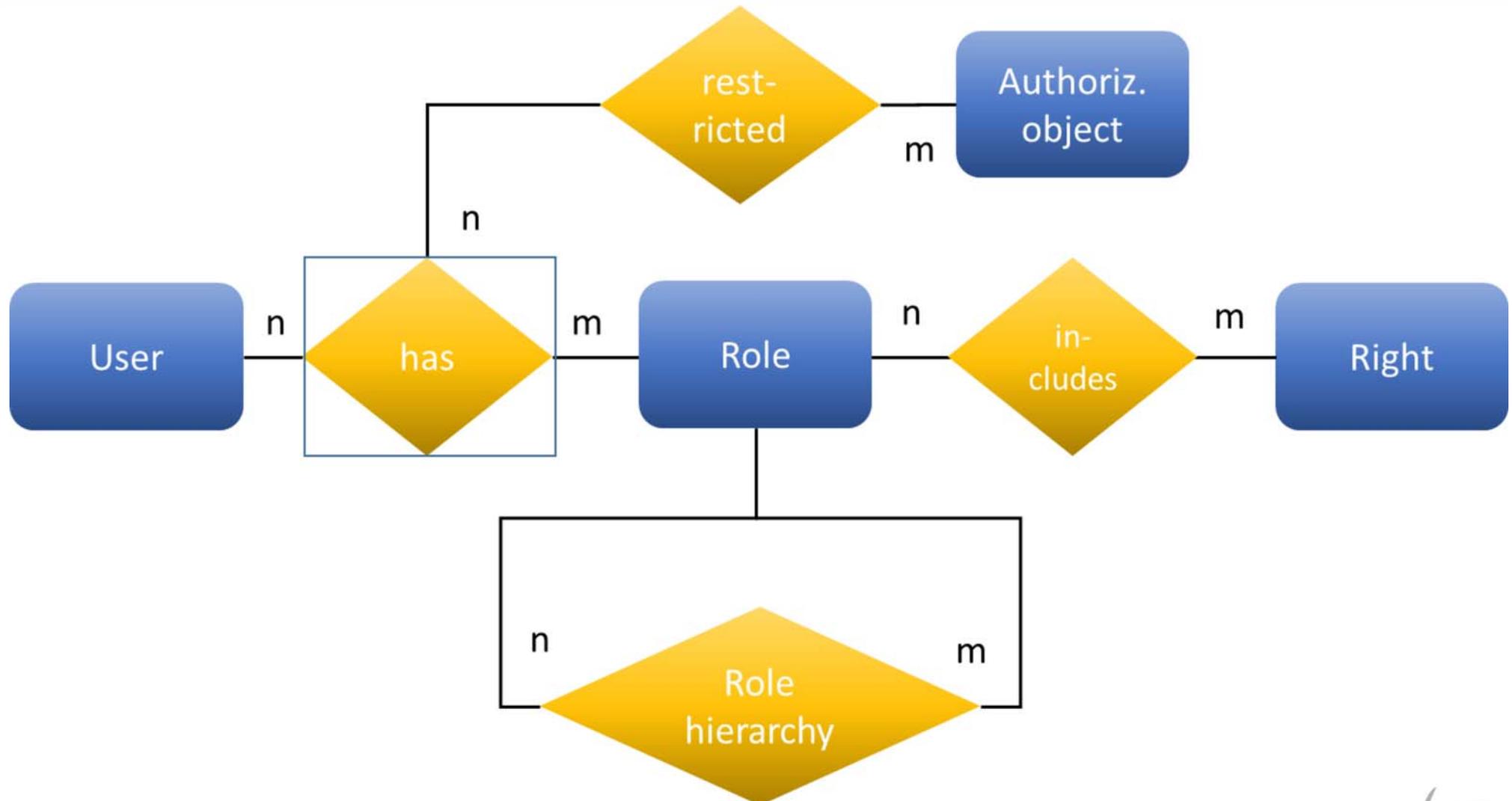
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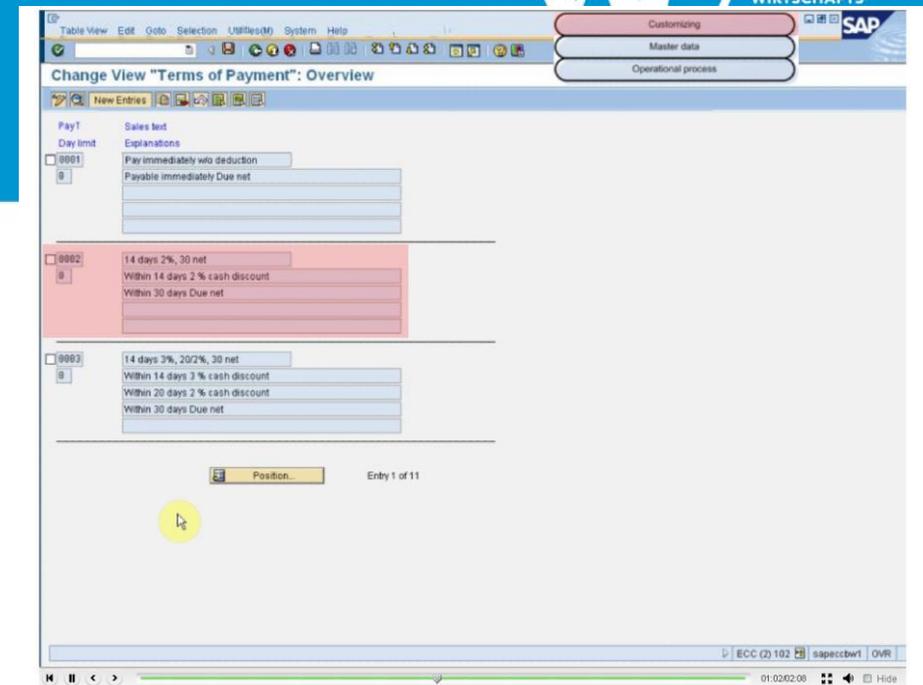
Overview

Planning

Implementation

Customizing

Master data

Operational process

Overview

pricing, avblty. check

customer, material

Customizing

Master data
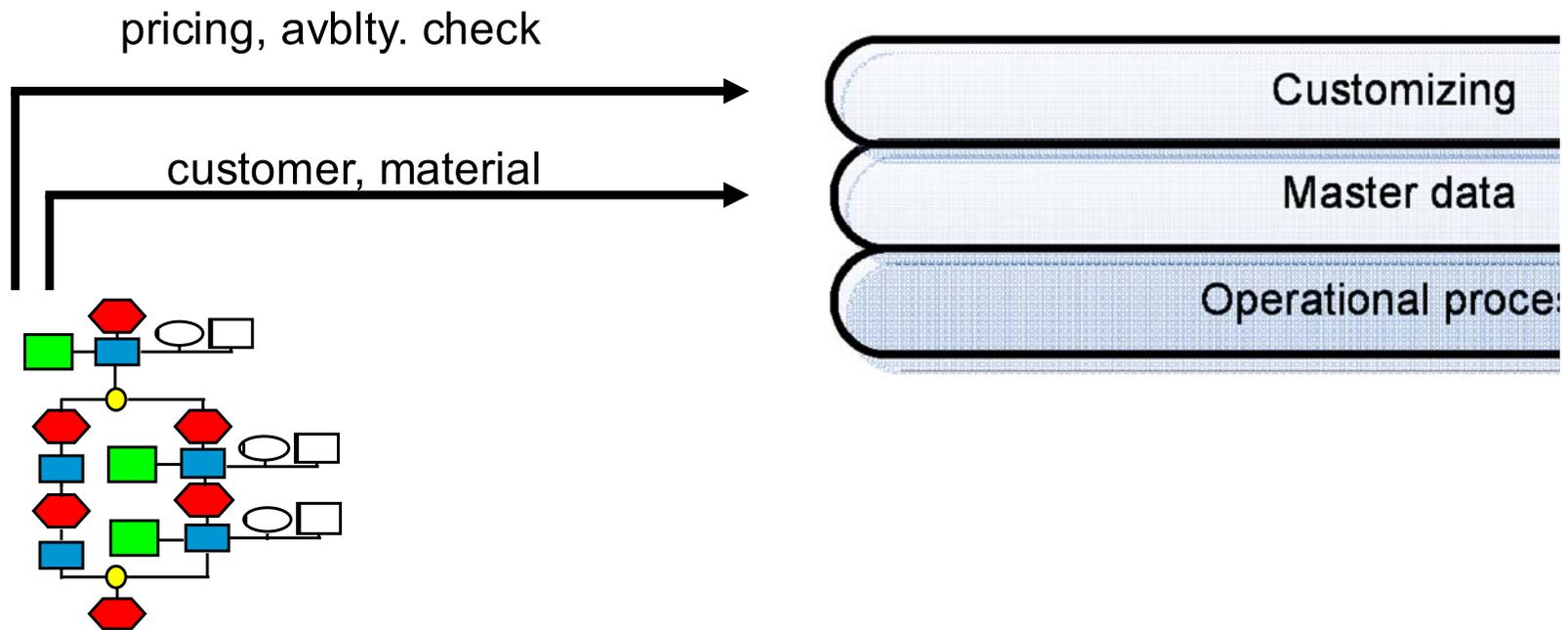
Operational proce

ECC Supporting the Implementation

- Master and operational data req. derived from chain

- According to implem. plan: do we have all data necessary along the chain?

- Plan for customizing and data transfer from legacy systems

Overview

Customizing ← parameter settings

Master data ← legacy data

Operational process
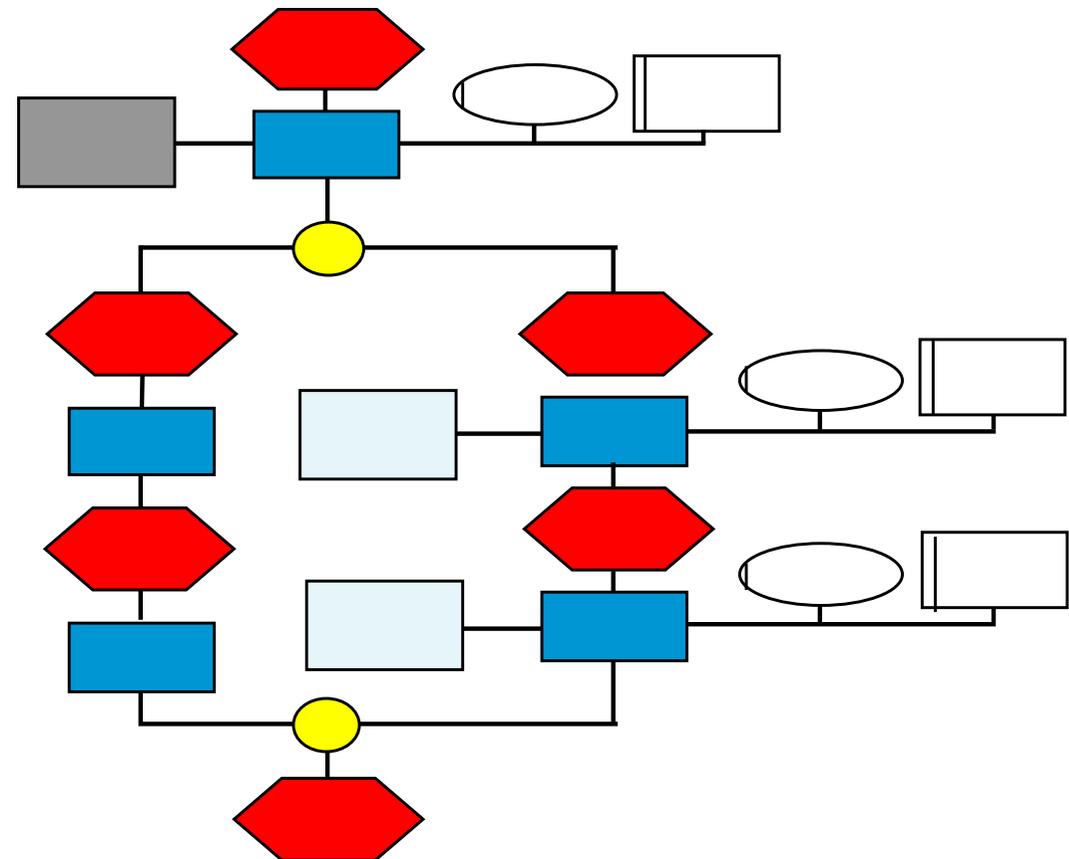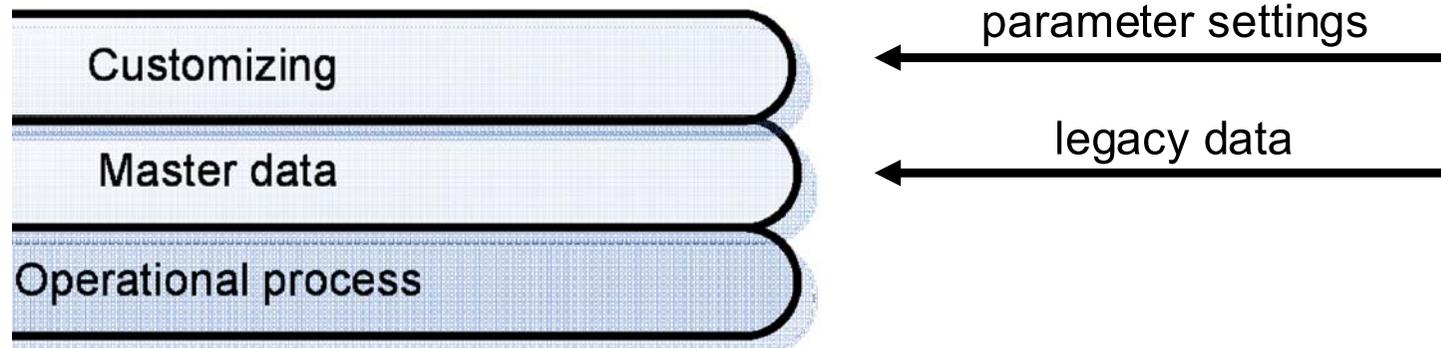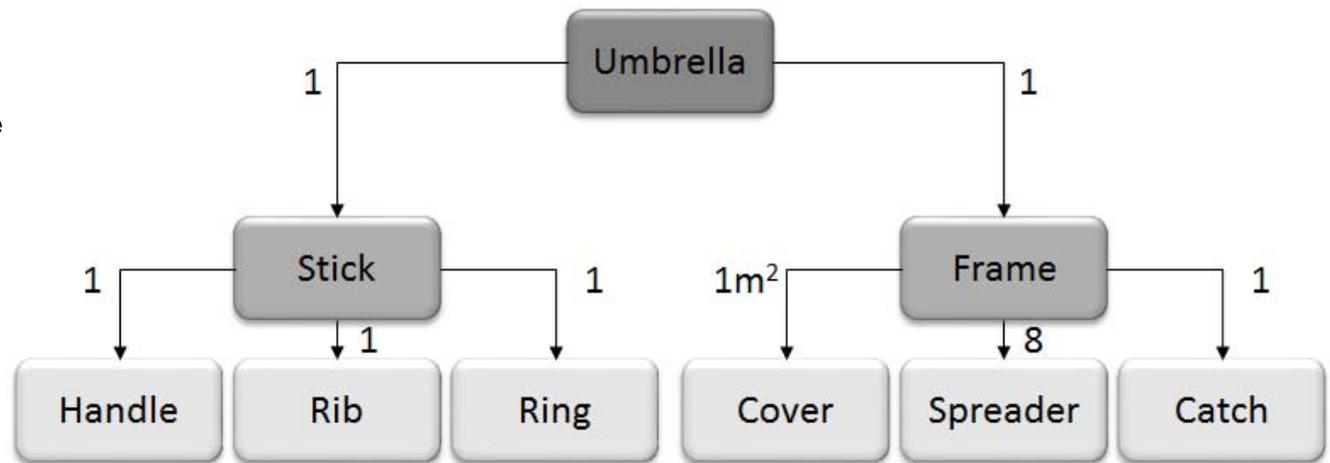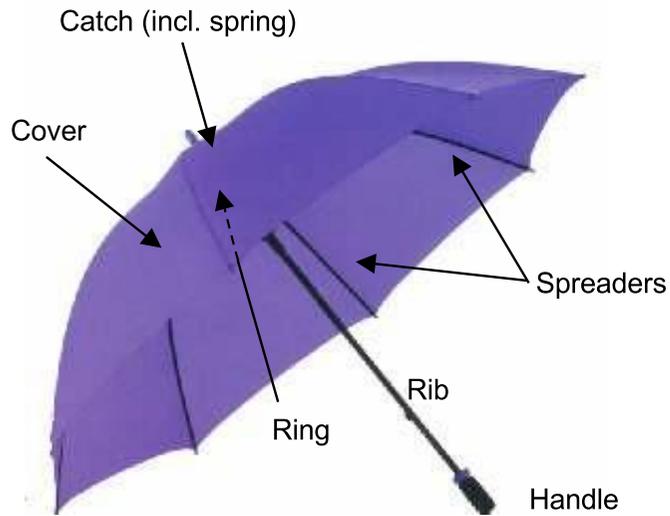
The Case Study

The Case Study

ROUTING STICK

WORK CENTER	SET-UP TIME	PROCESSING TIME	MATERIAL
wuxx-asby (Assembly)	15 min	10 s	Handle, rib, ring
wuxx-qa (Quality Assurance)	-	10 s	-

ROUTING FRAME

| WORK CENTER	SET-UP TIME	PROCESSING TIME	MATERIAL
wuxx-cut (Cutting)	10 min	10 s	Cover
wuxx-asby	10 min	20 s	Spreaders, catch
wuxx-qa	-	10 s	-

ROUTING UMBRELLA

WORK CENTER	SET-UP TIME	PROCESSING TIME	MATERIAL
wuxx-asby	10 min	10 s	Stick, frame
wuxx-qa	-	10 s	-

Cost Accounting
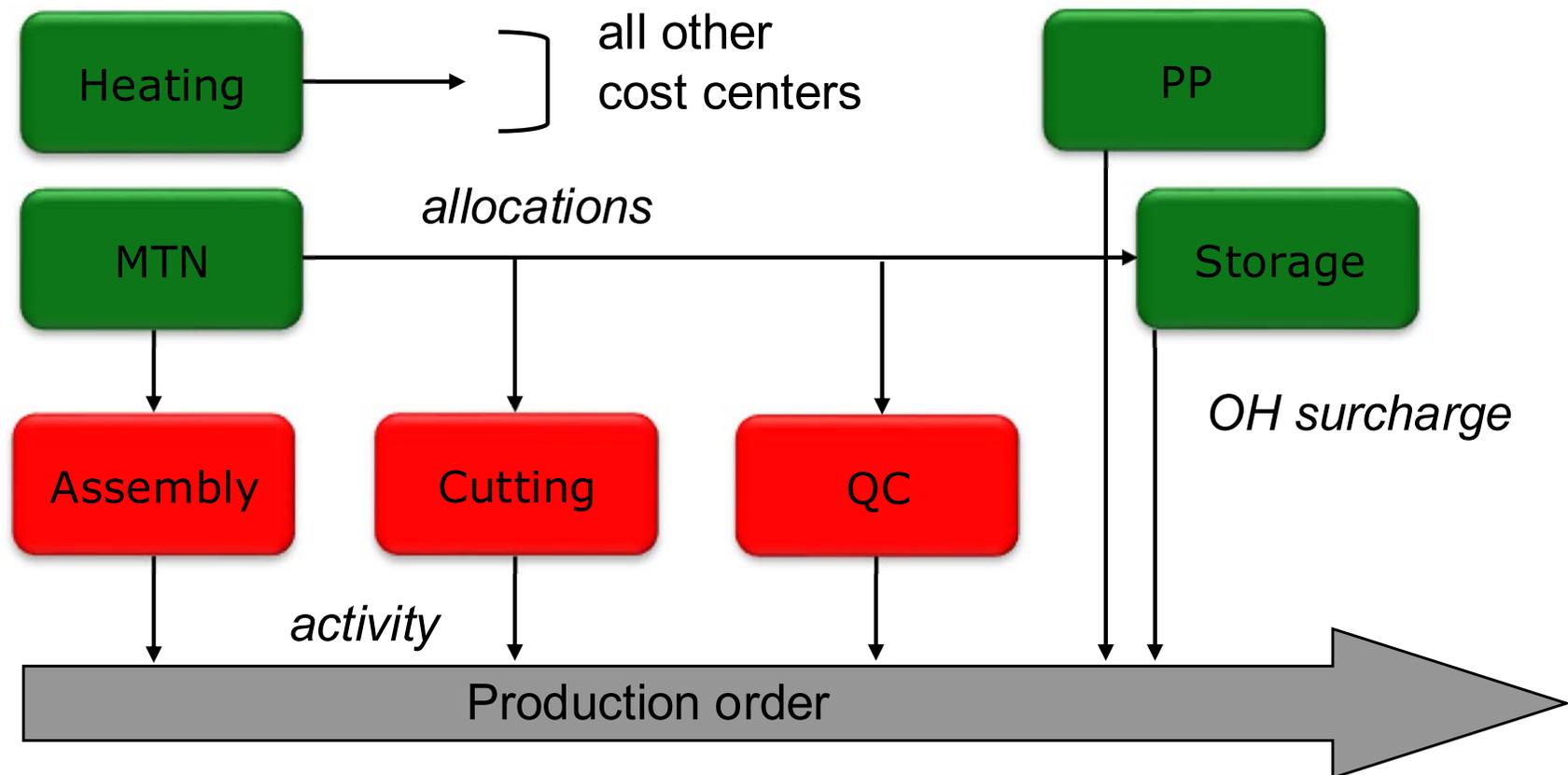
Primary cost planning

Wages and salaries:	Fixed EUR	Variable EUR	Total EUR
Assembly	48,000	12,000	60,000
Cutting	28,000	7,000	35,000
Q-Check	25,600	6,400	32,000
Heating			
Maintenance	32,000		32,000
Production planning	60,000		60,000
Storage	65,000		65,000
Social Security:	Fixed EUR	Variable EUR	Total EUR
Assembly	14,400	3,600	18,000
Cutting	8,400	2,100	10,500
Q-Check	7,700	1,900	9,600
Heating			
Maintenance	9,600		9,600
Production planning	18,000		18,000
Storage	19,500		19,500

Primary cost planning

Depreciation:	Original investment	Useful life	Annual depr. EUR
Assembly machine	200,000	n/a	n/a
Assembly tools	24,000	6	4,000
Cutting machine	45,000	n/a	n/a
Maintenance tools	7,000	10	700
	4,000	5	800
Prod. planning system	25,000	5	5,000
Storage building	180,000	25	7,200
Storage system	120,000	15	8,000
PC with control software	20,000	5	4,000

Useful life: Assembly 20,000 hrs, Cutting 22,500 hrs

Assembly and cutting 90% variable

Primary cost planning

| Other costs:	Total cost EUR	Comment
Assembly: **Minor assets** **Electricity**	700 2,500	Can be depreciated immediately
Cutting: **Minor assets** **Electricity**	1,200 1,900	
Q-Check: **Training** **Electricity**	2,000 500	
Heating: Heating costs	5,000	Long distance provider, no assets
Maintenance: **Electricity** **Training**	1,200 1,000	
Production Planning: **Electricity** **Software upgrade** **Training**	450 400 5,000	
Storage: **Electricity** **Repairs**	2,600 9,000	Can be deducted, no activation

In direct cost centers:

Minor assets 50% variable
Electricity fully variable
Training fully fixed

Cost Accounting
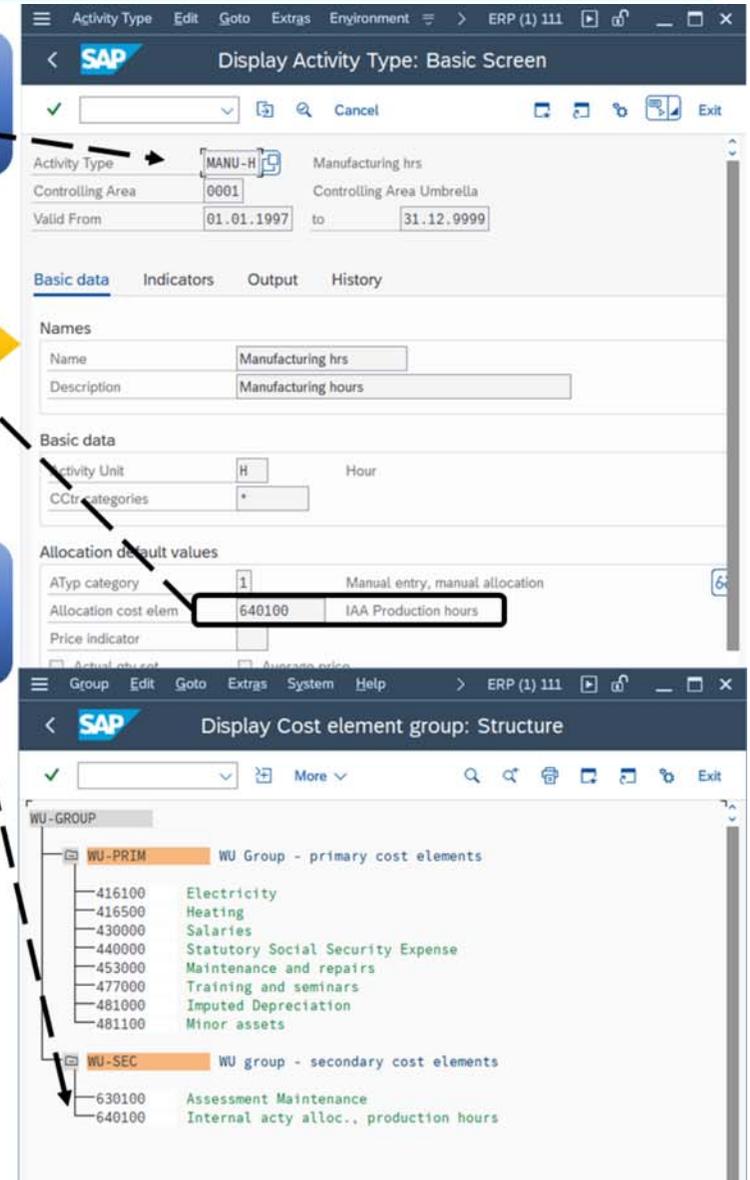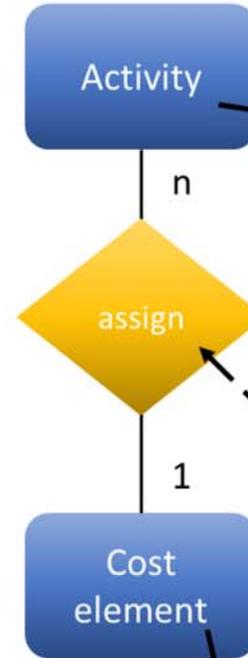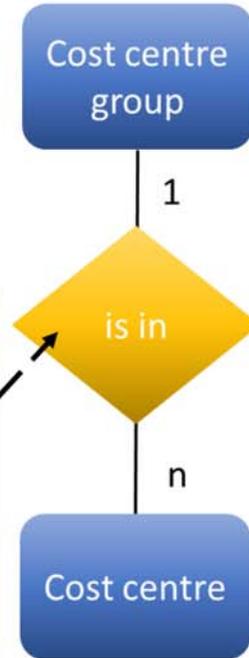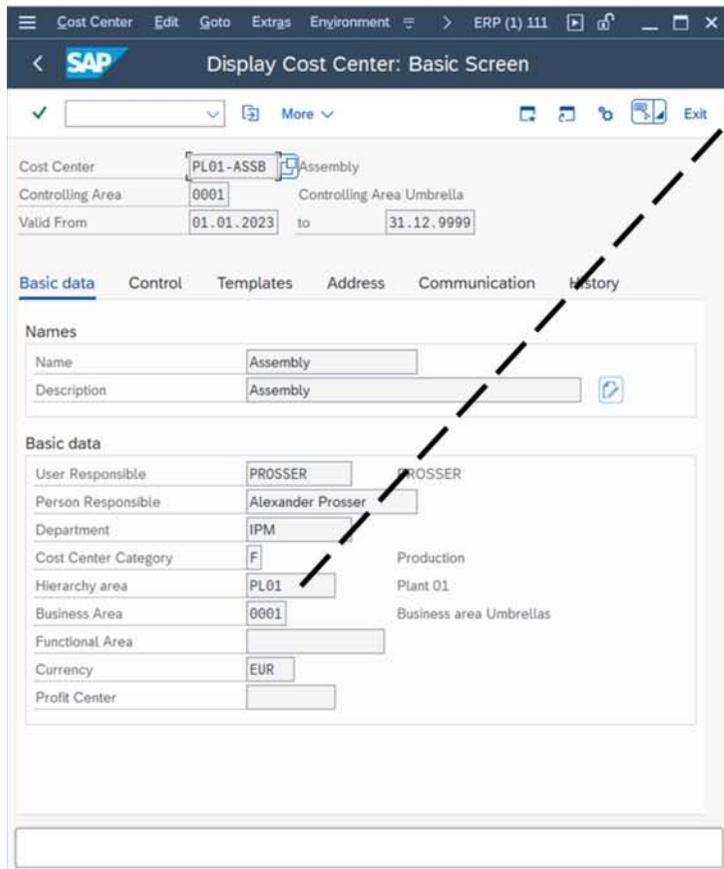
Cost Accounting
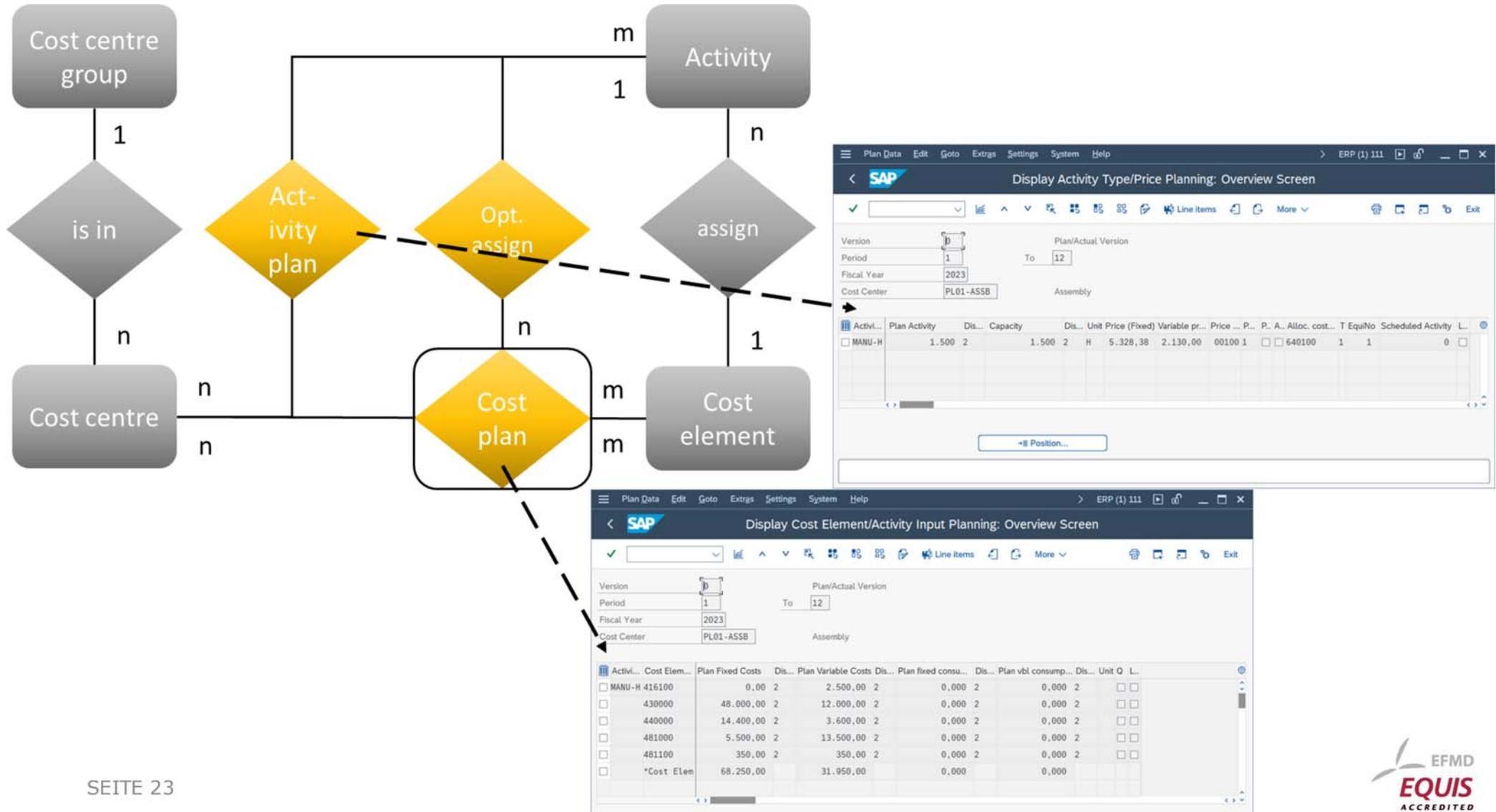
Service flow

Also activities

|	Hours uptime	m2
Assembly	1500	100
Cutting	1500	100
Q-Check	1400	50
Heating		
Maintenance		25
Production planning		25
Storage	2000	200

Consumption-based planning

Consumption-based planning

Consumption-based planning

$P(\mu-1\cdot\sigma \leq X \leq \mu+1\cdot\sigma) \approx 68{,}27\ \%$
$P(\mu-2\cdot\sigma \leq X \leq \mu+2\cdot\sigma) \approx 95{,}45\ \%$
$P(\mu-3\cdot\sigma \leq X \leq \mu+3\cdot\sigma) \approx 99{,}73\ \%$

$P(X \leq \mu+1\cdot\sigma) \approx 84{,}13\ \%$
$P(X \leq \mu+2\cdot\sigma) \approx 97{,}72\ \%$
$P(X \leq \mu+3\cdot\sigma) \approx 99{,}87\ \%$

34,13%   34,13%

13,59 %   13,59 %

0,13 %   2,14 %   2,14 %   0,13 %

$\mu-3\cdot\sigma$ $\mu-2\cdot\sigma$ $\mu-\sigma$ μ $\mu+\sigma$ $\mu+2\cdot\sigma$ $\mu+3\cdot\sigma$

$P(X \leq \mu) = 50\ \% = P(X \geq \mu)$
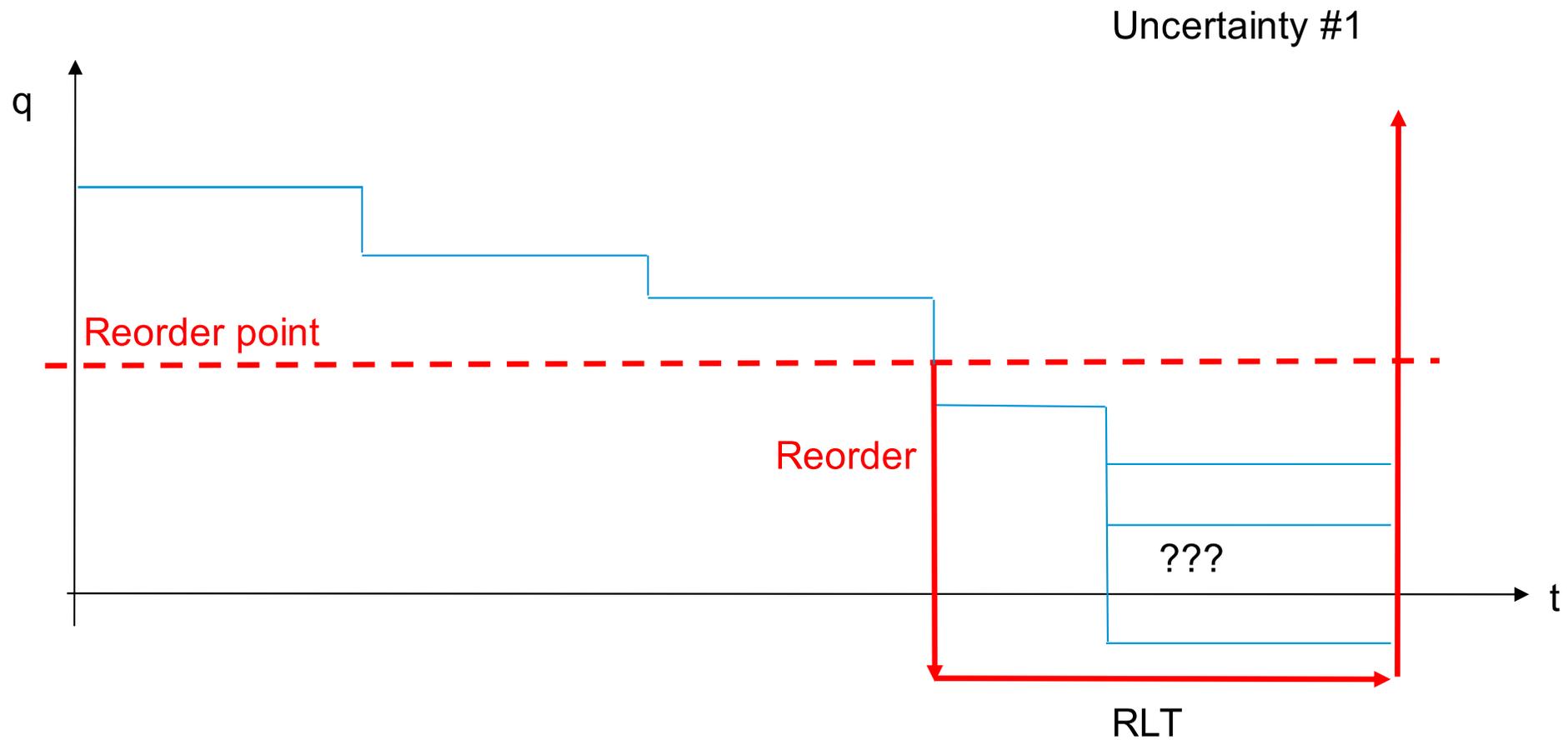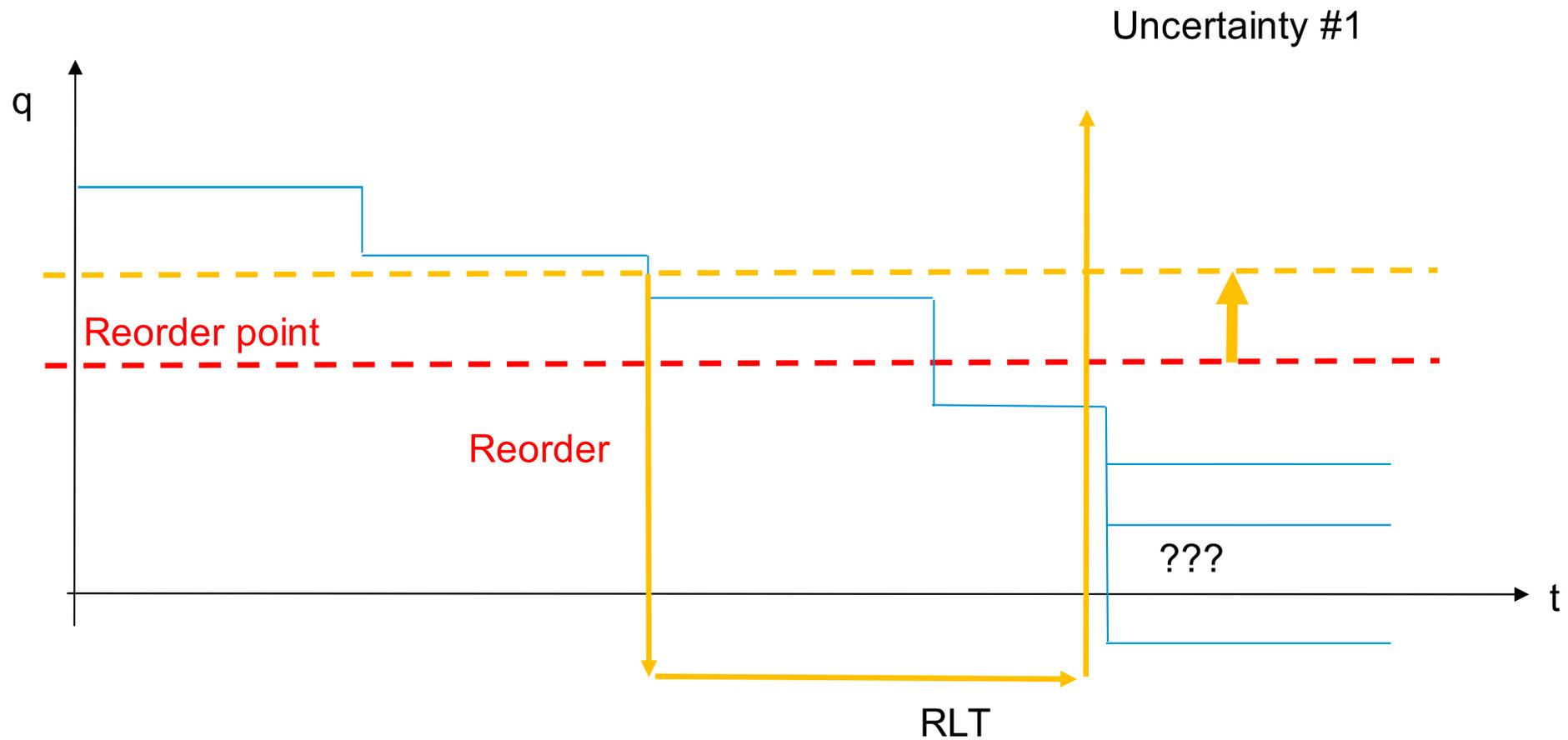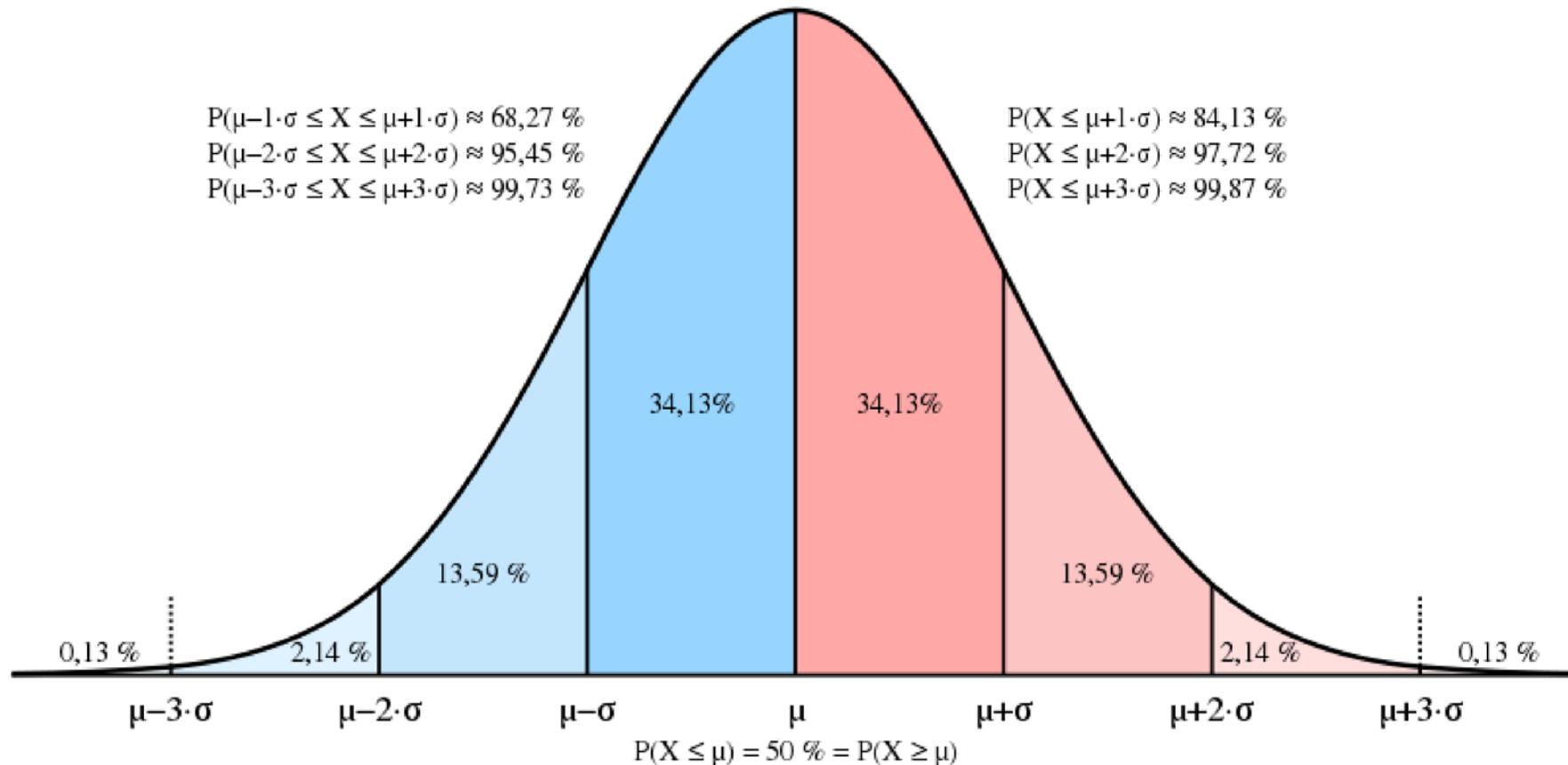
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Consumption-based planning

Scheduling margin key

DV ... Data view, one or more tabs in the material master

MRP

Materialstammtabelle

Material	Other fields
A	...
B	...
C	...
D	...
E	...

Stücklistenbeziehung

Material_upper	Material_lower
A	B
A	C
D	E
D	C
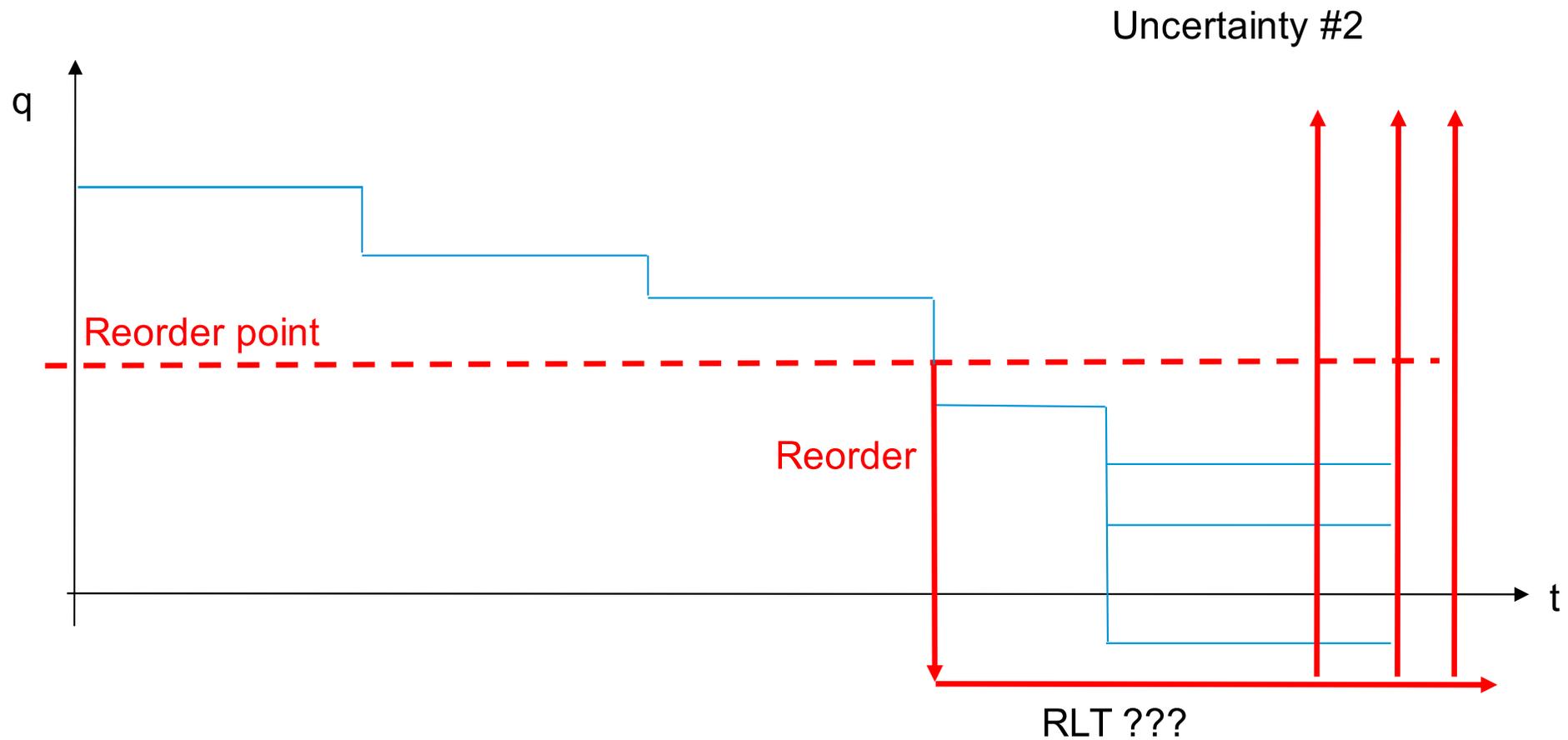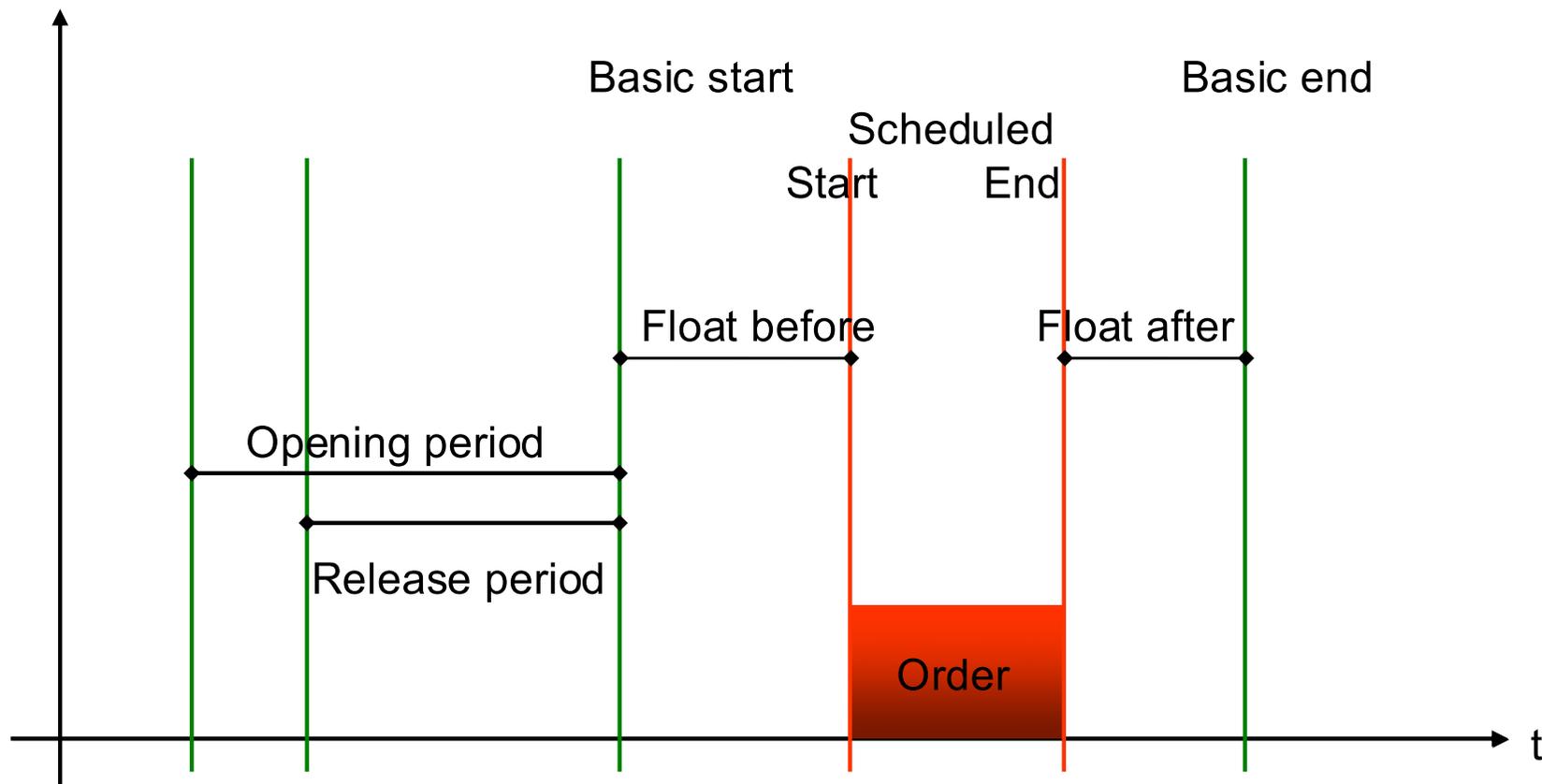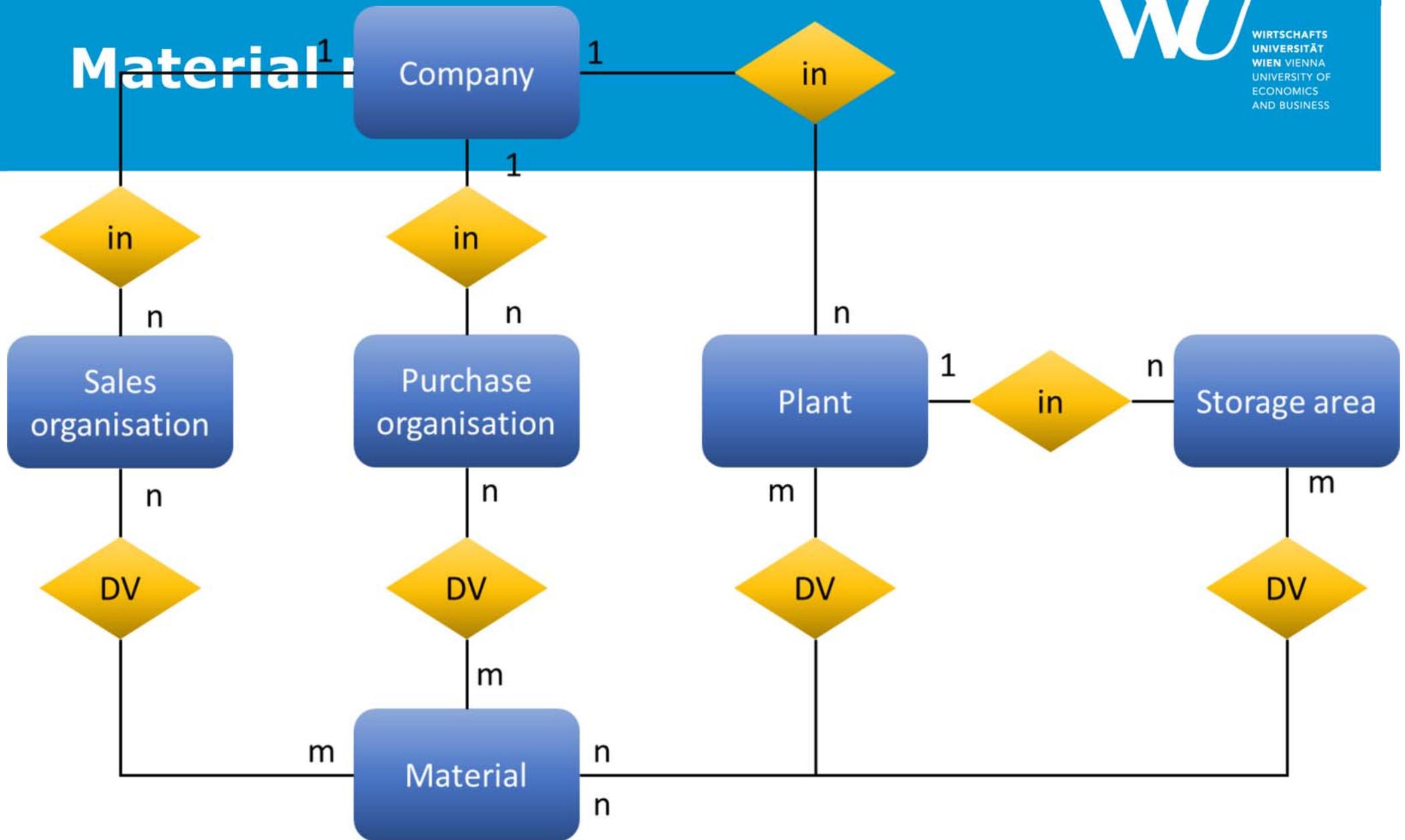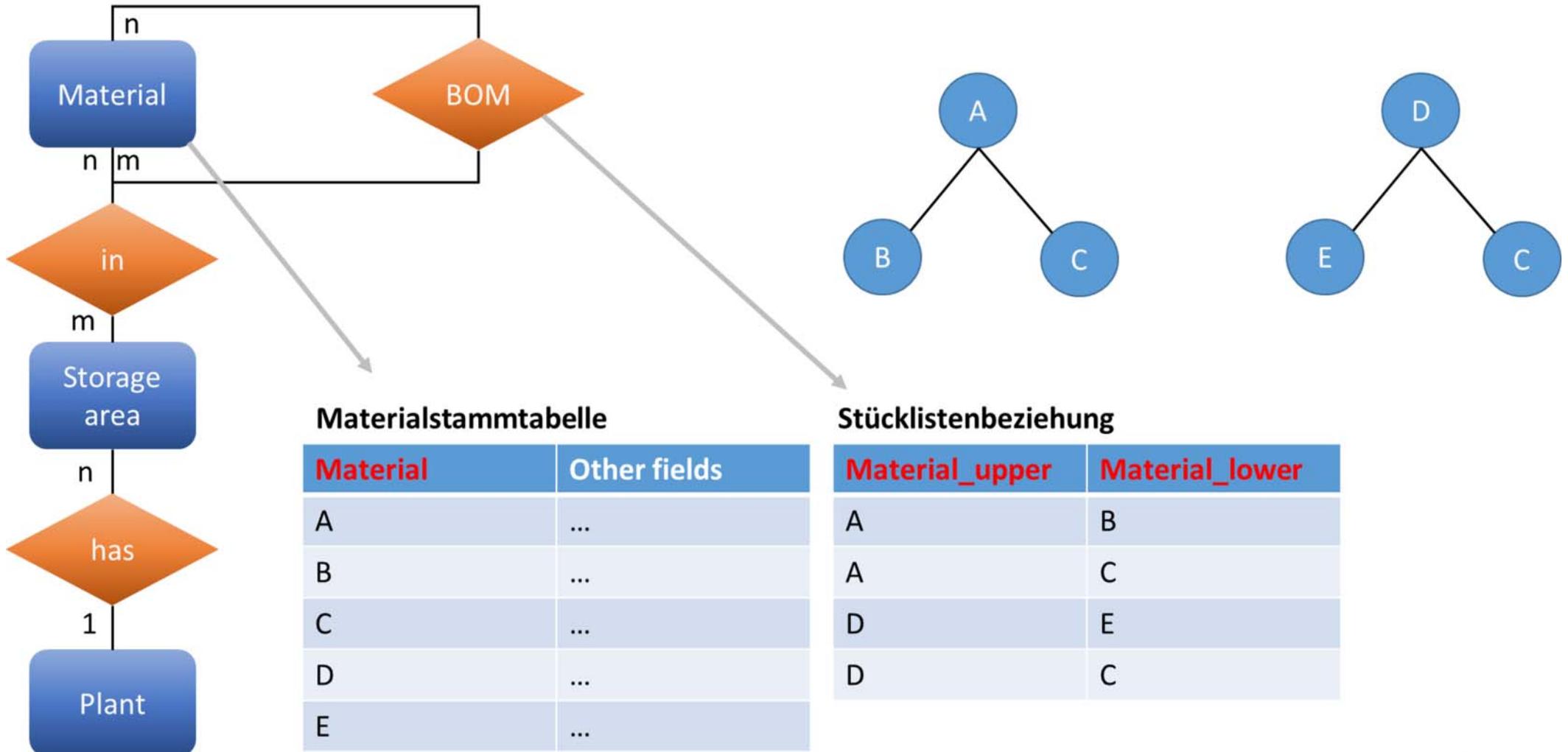
MRP
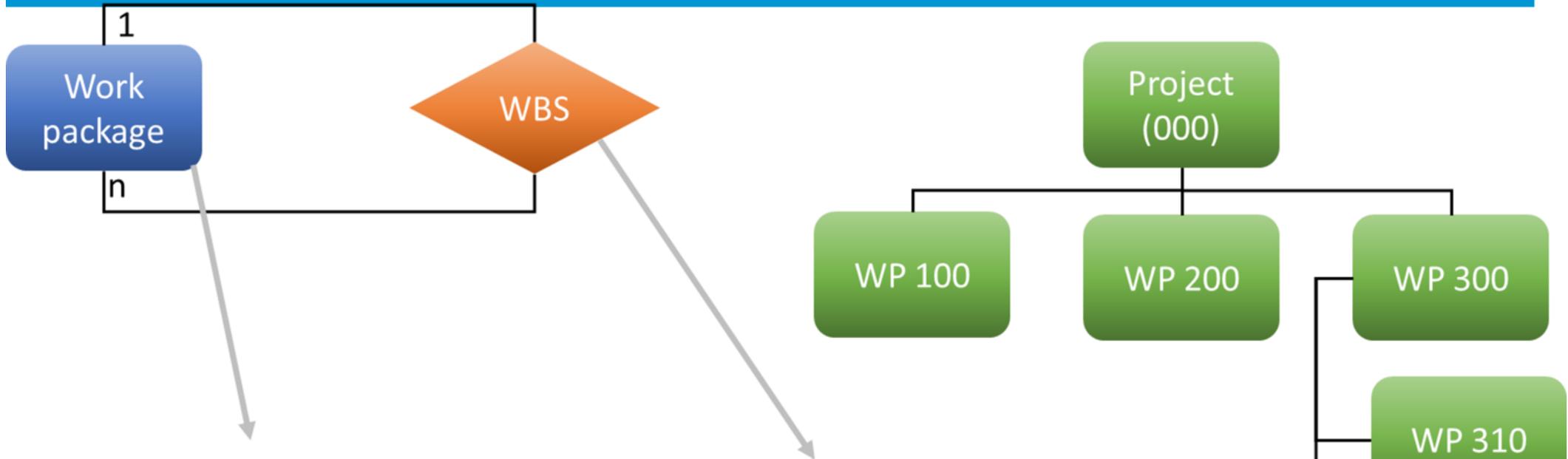
WP	Other fields	WP_upper
320	...	300
310	...	300
300	...	000
200	...	000
100	...	000
000	...	

Work package — 1 — WBS — n

Project (000)
— WP 100
— WP 200
— WP 300
  — WP 310
  — WP 320
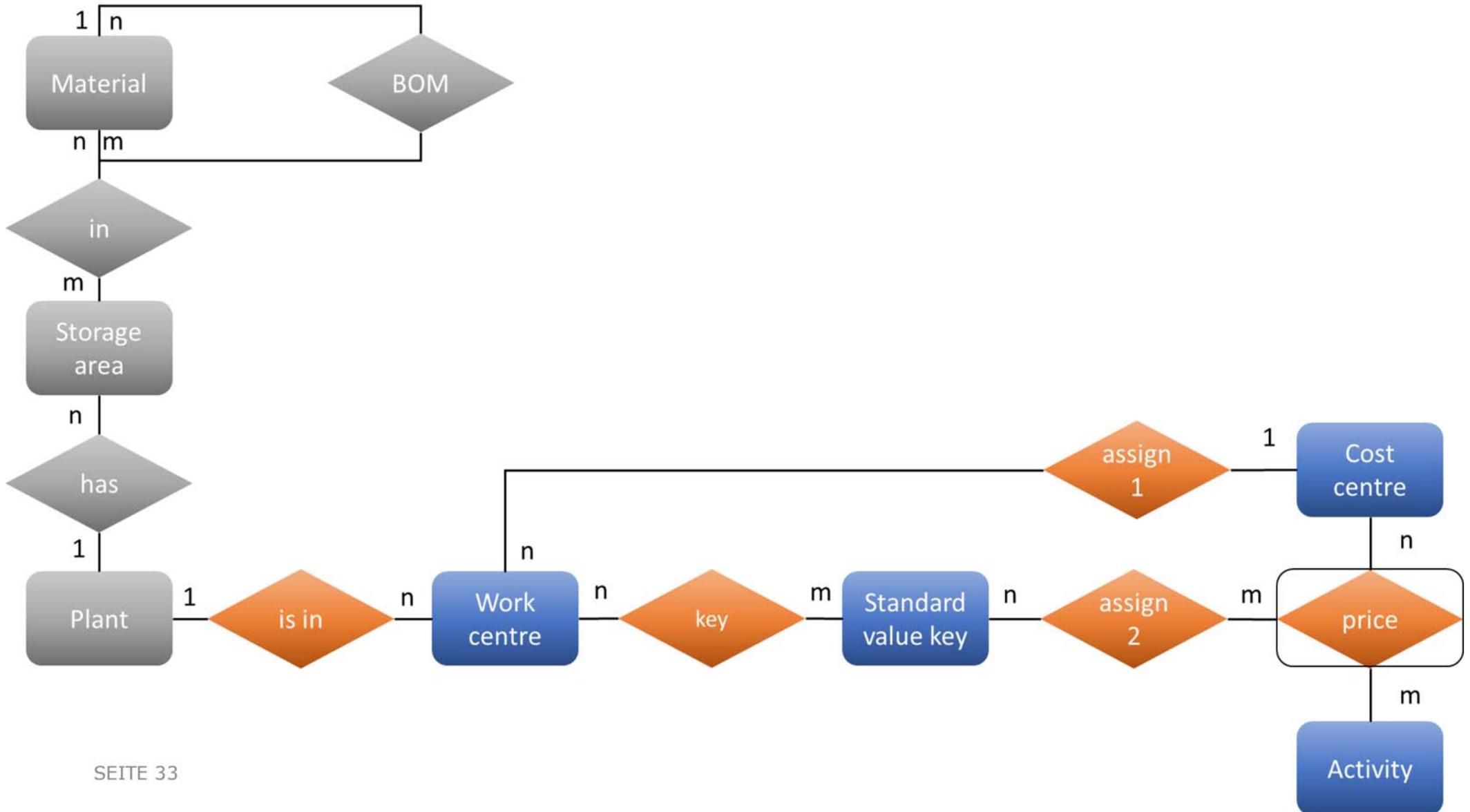
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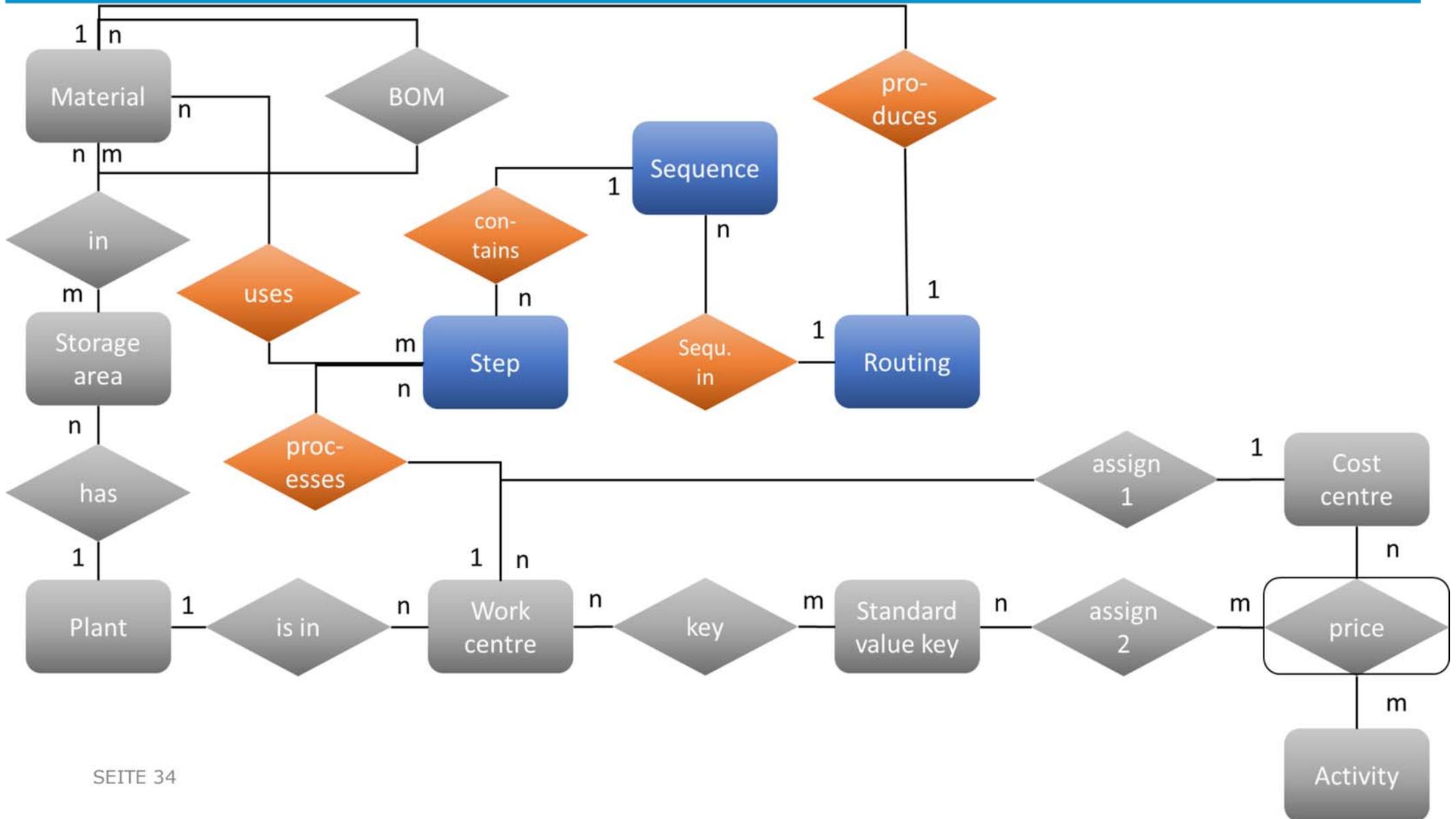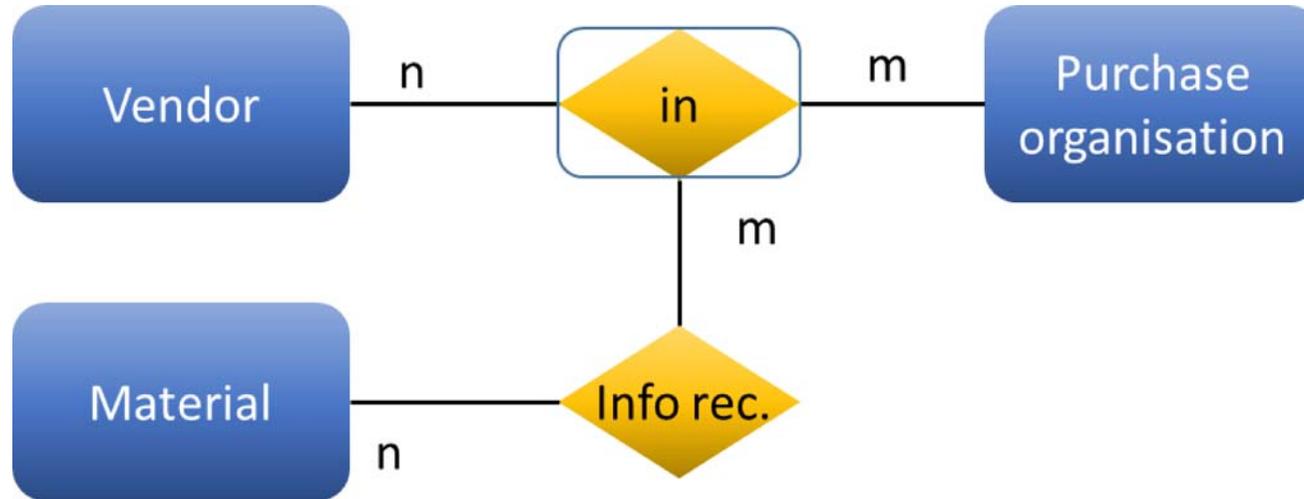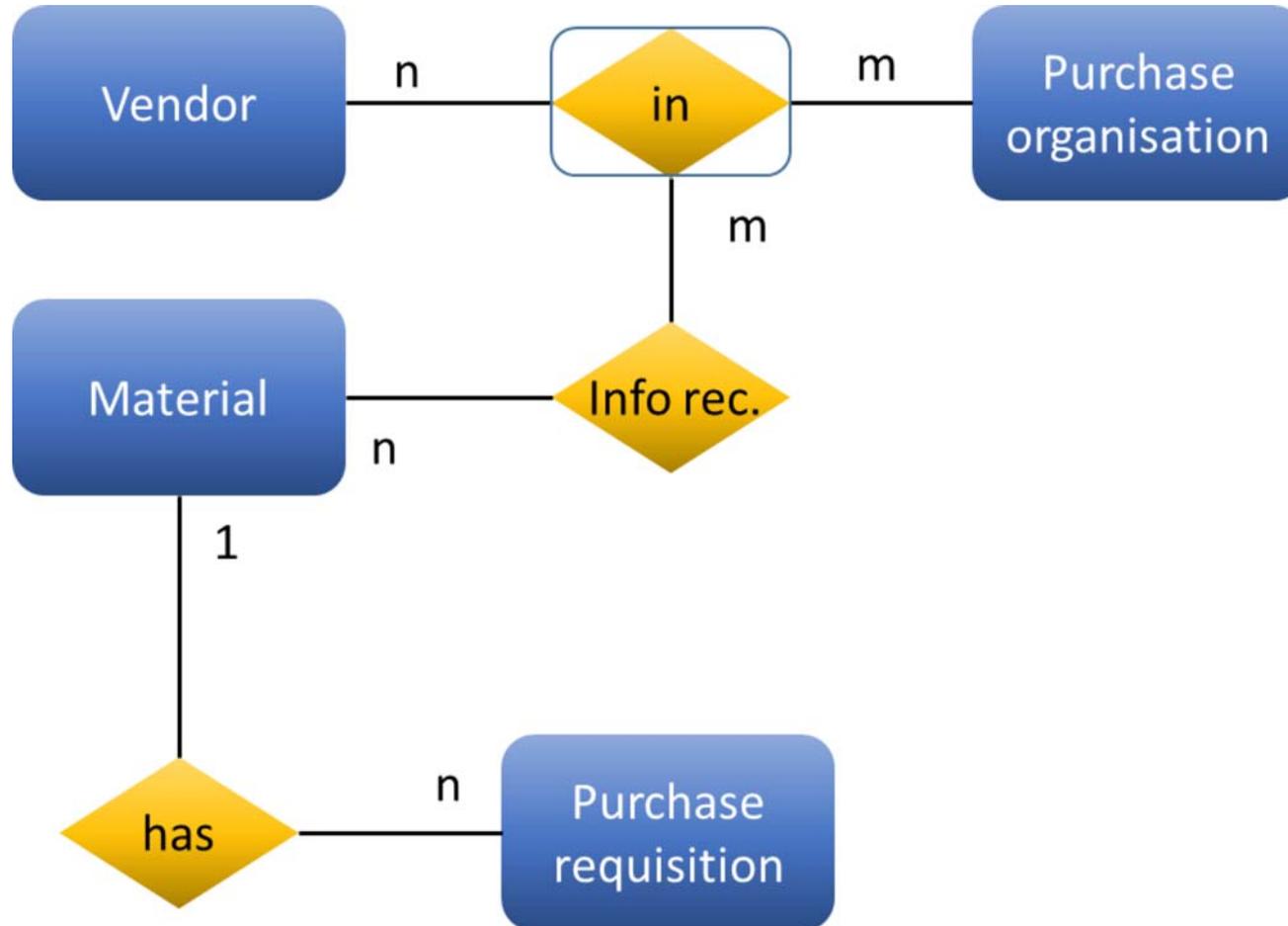
Procurement
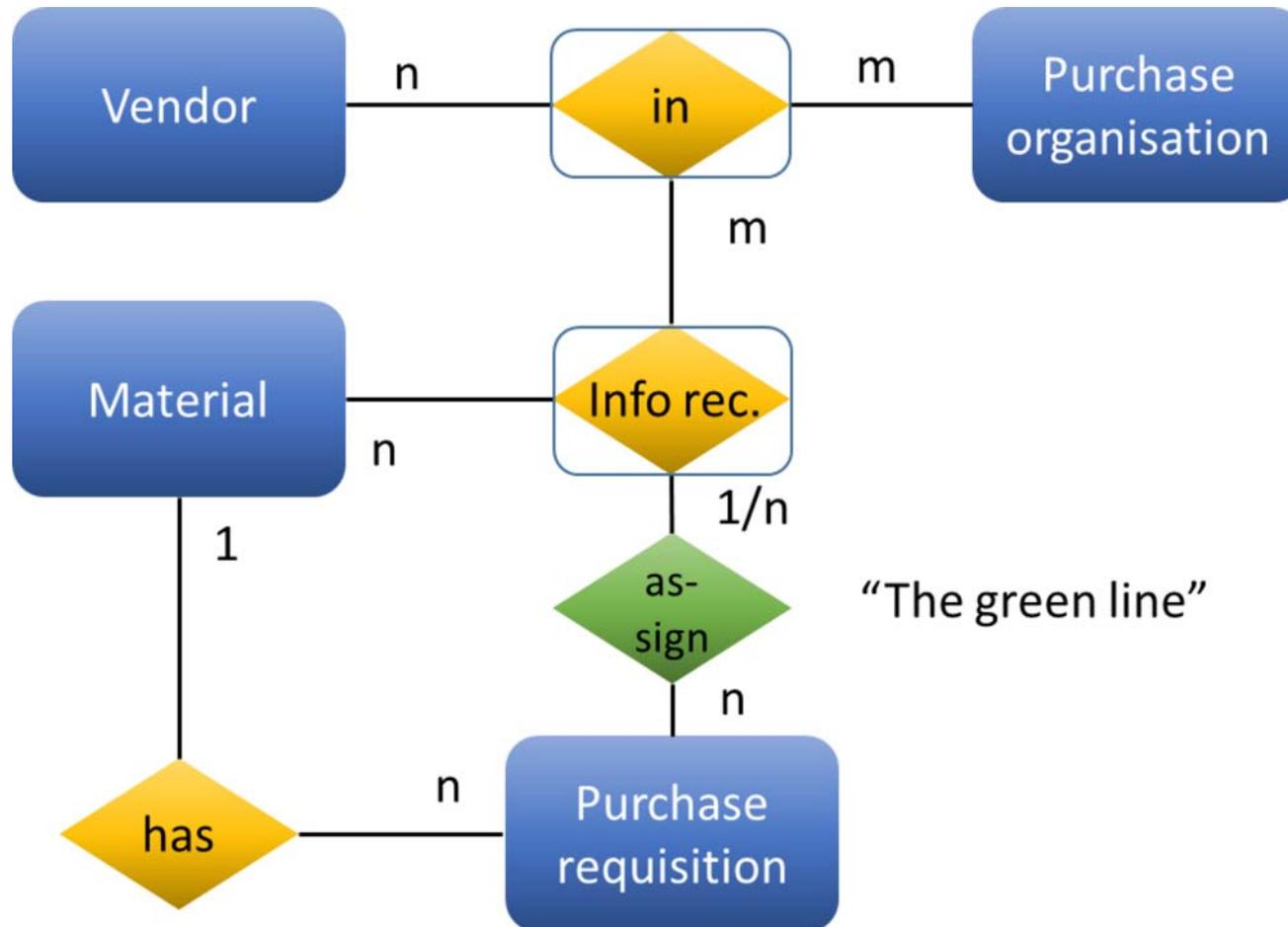
Procurement

Procurement
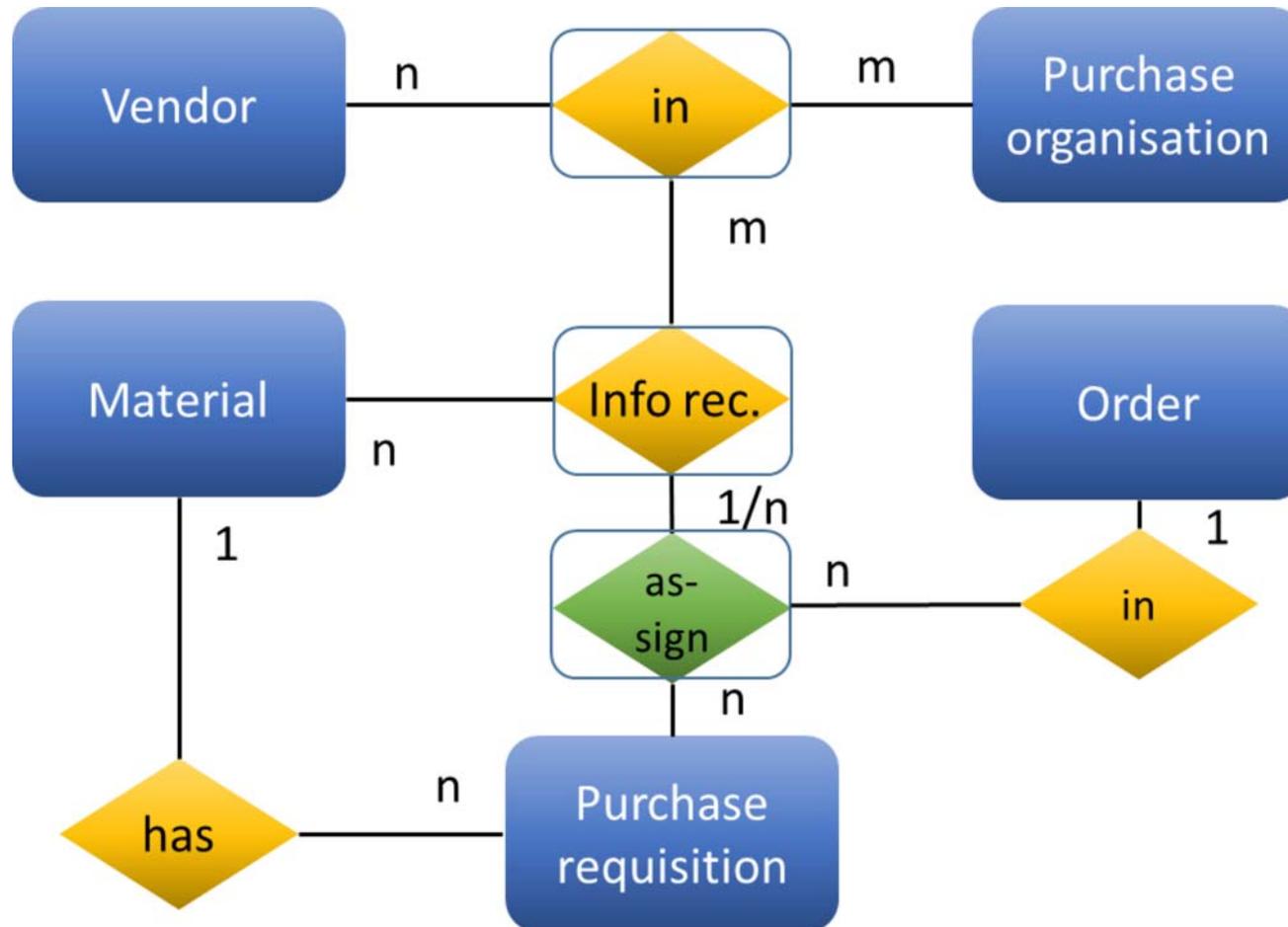
Production

```
                    Order release

                    Goods issue

                    Confirmation

   Goods receipt                        OH/actual

                                        Settlement
```

Production

Order release

Goods issue

Confirmation

Goods receipt

OH/actual

Settlement

Cost Accounting