

Project System



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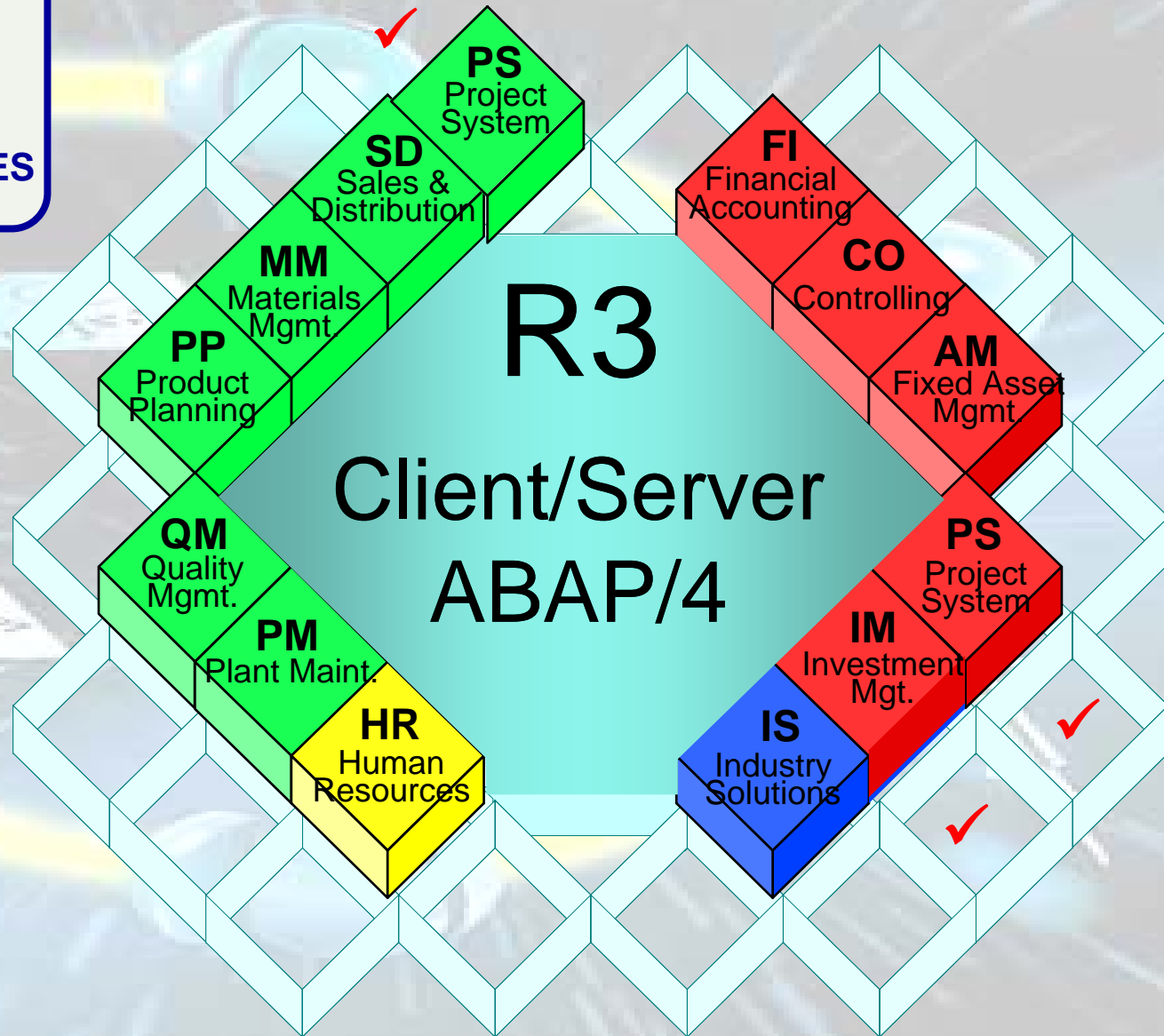
7. Period End Closing

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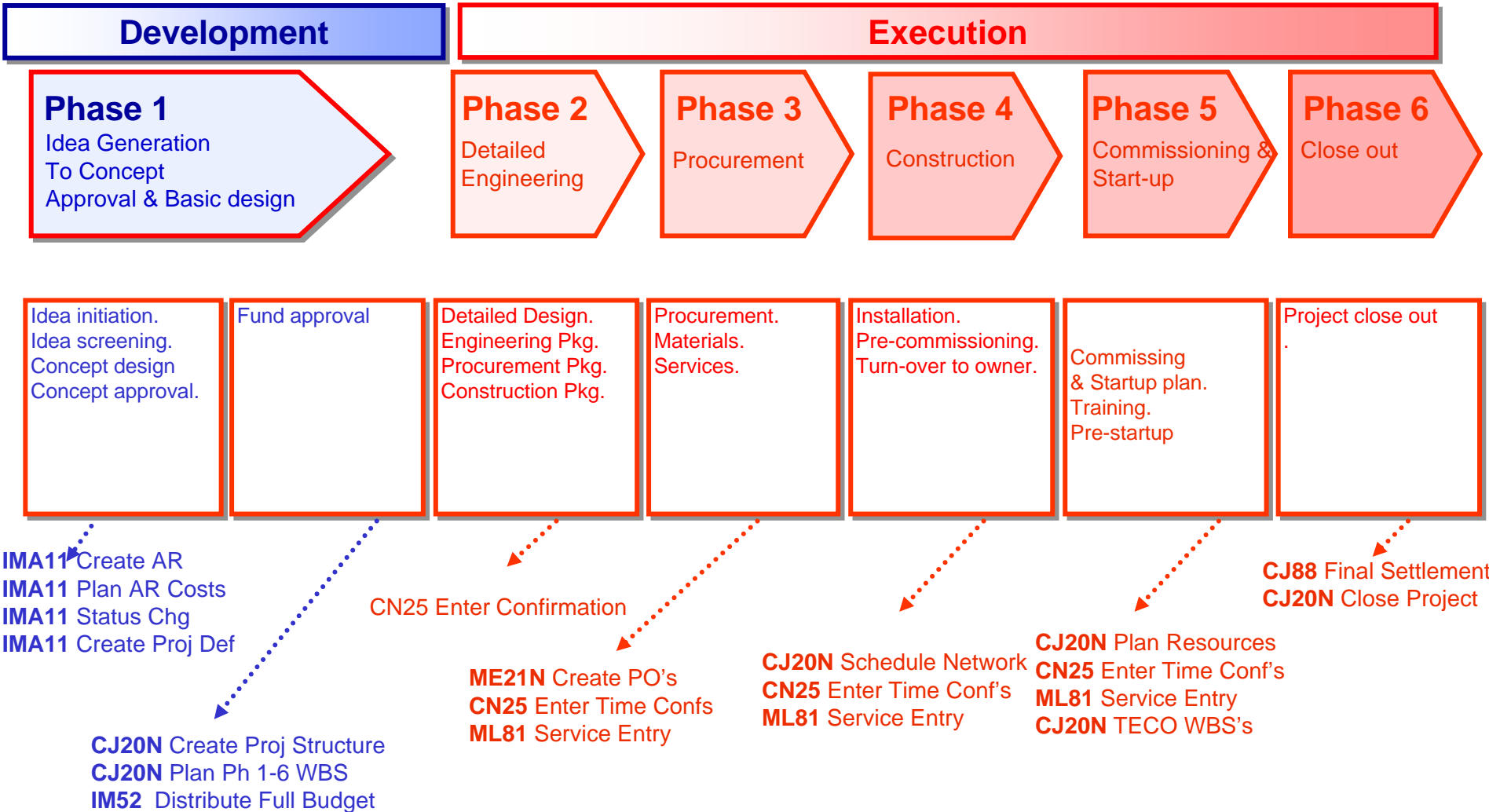
Organizational Units & Project Cycle

—

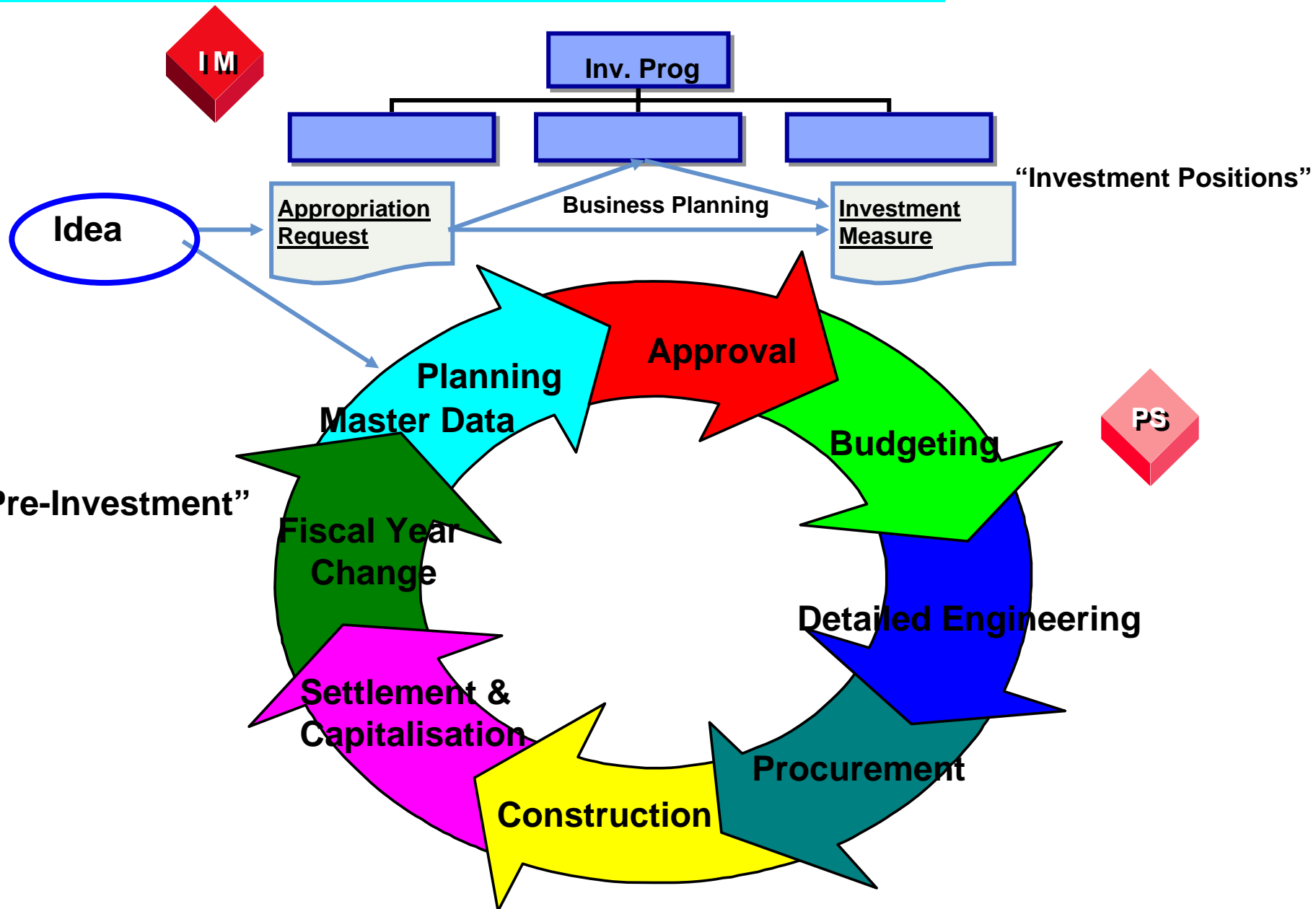
SAP Modular Structure: Overview



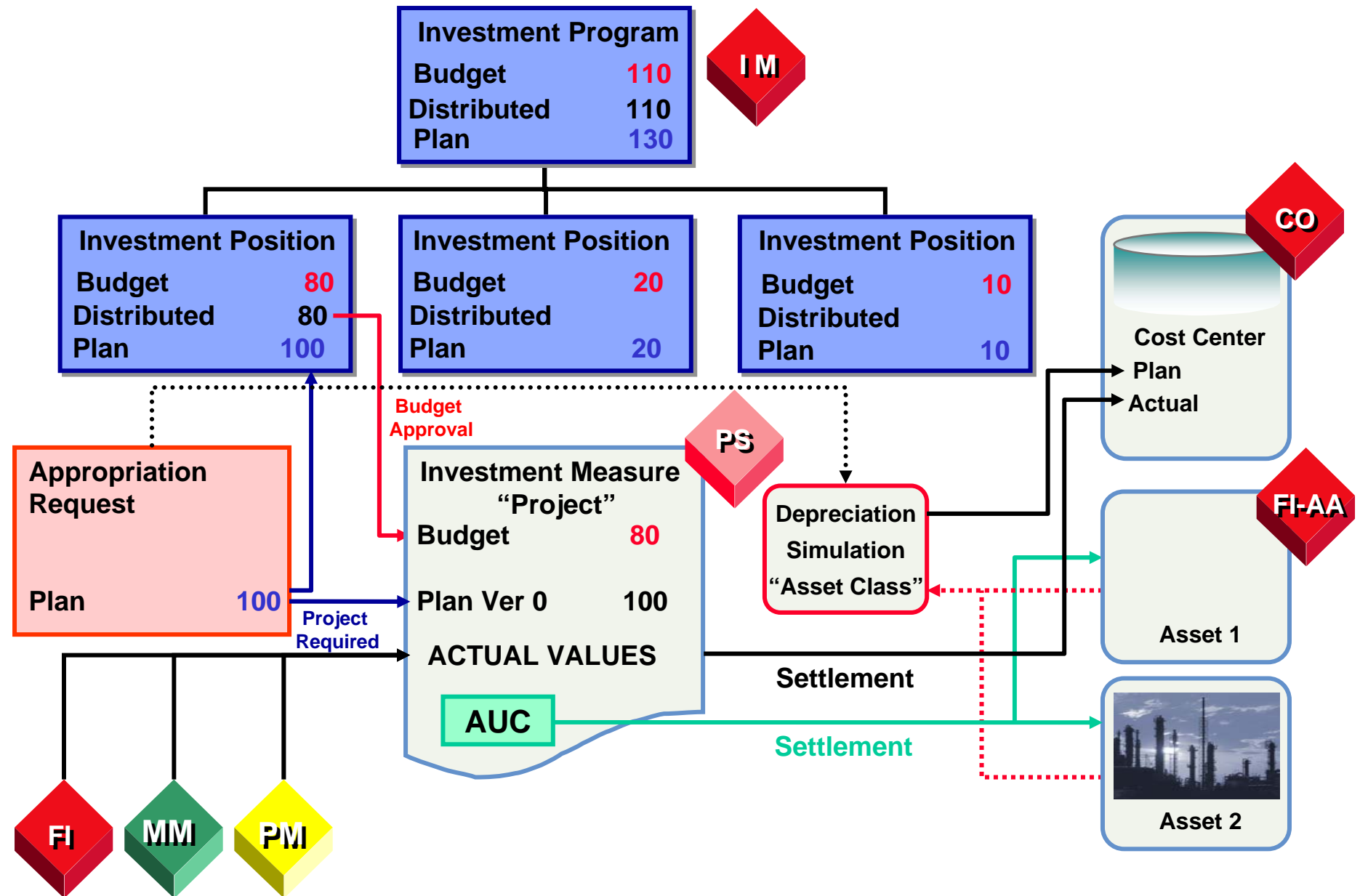
Project Execution Procedure



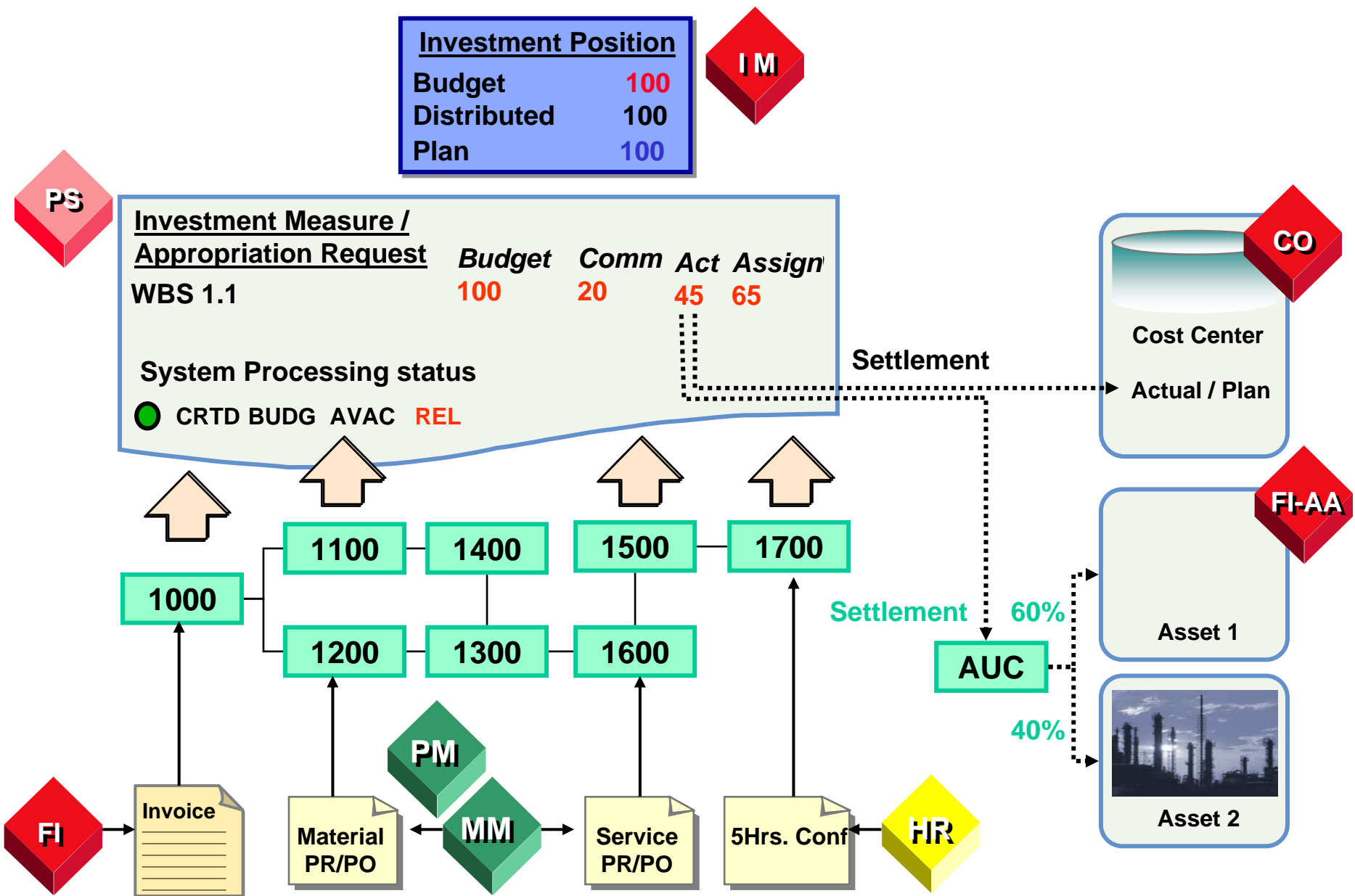
Sequence of Events in Projects



IM / PS Overview Animation



PS Integration Points Animation



Project Structure

—

Project Approach

- ◆ **Projects are planned and implemented using a phase approach. These are further summarized as Development and Execution.**
- ◆ **Cost planning, budgeting, approval, resource planning are some of the activities that are done for each phase separately.**
- ◆ **Main project is represented under the execution phase where the planning, budgeting, scheduling is carried out.**

Master Data in Project Systems

- ◆ Data that is stored in the database for long periods of time is referred to as master data
- ◆ Accurate master data reduces:
 - ☑ Creation time for controlling documents
 - ☑ Amount of errors in the controlling process

WBS elements

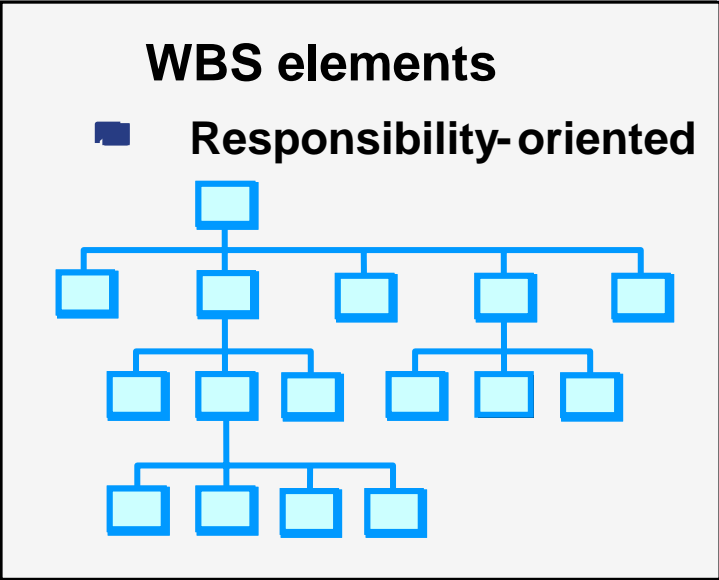
- Responsibility-oriented

```
graph TD; A[ ] --- B[ ]; A --- C[ ]; A --- D[ ]; A --- E[ ]; A --- F[ ]; B --- G[ ]; B --- H[ ]; B --- I[ ]; E --- J[ ]; E --- K[ ]; E --- L[ ]; D --- M[ ]; D --- N[ ]; D --- O[ ]; D --- P[ ];
```

WBS elements

- Responsibility-oriented

```
graph TD; A[ ] --- B[ ]; A --- C[ ]; A --- D[ ]; A --- E[ ]; A --- F[ ]; B --- G[ ]; B --- H[ ]; B --- I[ ]; E --- J[ ]; E --- K[ ]; E --- L[ ]; D --- M[ ]; D --- N[ ]; D --- O[ ]; D --- P[ ]; D --- Q[ ]; D --- R[ ];
```



Network / Activities

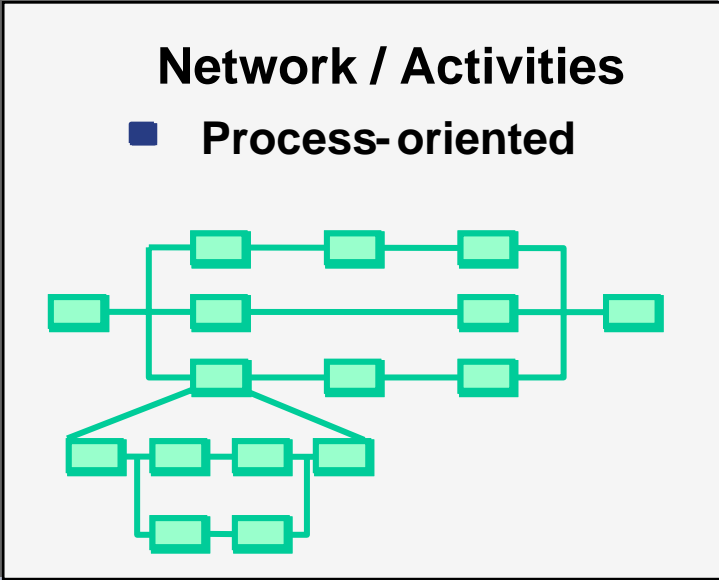
- **Process-oriented**

```
graph LR; Start[ ] --> Split(( )); Split --> P1_1[ ]; P1_1 --> P1_2[ ]; P1_2 --> P1_3[ ]; P1_3 --> Join(( )); Split --> P2_1[ ]; P2_1 --> P2_2[ ]; P2_2 --> P2_3[ ]; P2_3 --> Join; Split --> P3_1[ ]; P3_1 --> P3_2[ ]; P3_2 --> P3_3[ ]; P3_3 --> Join; Join --> End[ ]; P3_1 --> P3_1a[ ]; P3_1a --> P3_1b[ ]; P3_1b --> P3_1; P3_1b --> P3_2;
```

Network / Activities

- **Process-oriented**

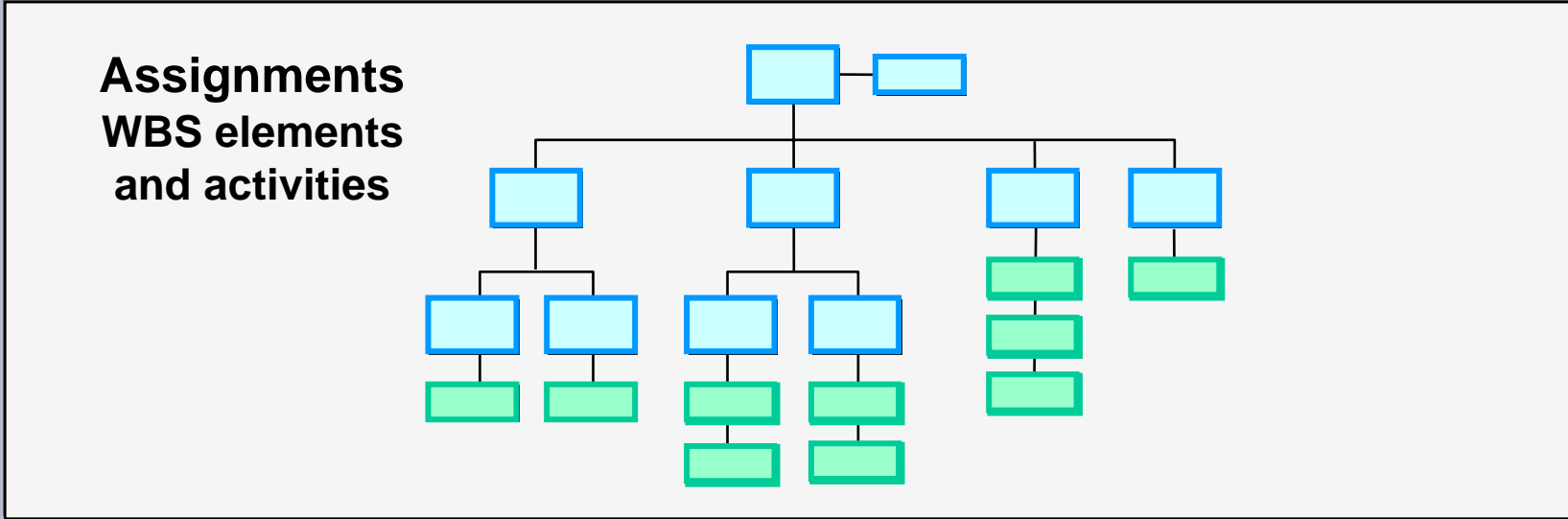
```
graph LR; Start[ ] --> Split(( )); Split --> P1_1[ ]; P1_1 --> P1_2[ ]; P1_2 --> P1_3[ ]; P1_3 --> Join(( )); Split --> P2_1[ ]; P2_1 --> P2_2[ ]; P2_2 --> P2_3[ ]; P2_3 --> Join; Split --> P3_1[ ]; P3_1 --> P3_2[ ]; P3_2 --> P3_3[ ]; P3_3 --> Join; Join --> End[ ]; P3_1 --> P3_1a[ ]; P3_1a --> P3_1b[ ]; P3_1b --> P3_1; P3_1b --> P3_2;
```



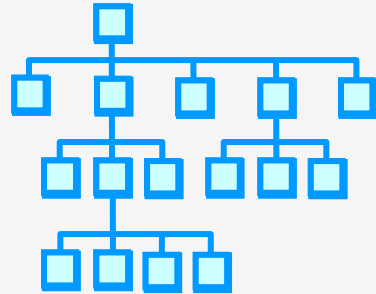
Assignments

WBS elements and activities

```
graph TD; Root[ ] --- Label[ ]; Root --- B1[ ]; Root --- B2[ ]; Root --- B3[ ]; Root --- B4[ ]; B1 --- B1_1[ ]; B1 --- B1_2[ ]; B1_1 --- A1_1[ ]; B1_1 --- A1_2[ ]; B1_2 --- A1_3[ ]; B1_2 --- A1_4[ ]; B2 --- B2_1[ ]; B2 --- B2_2[ ]; B2_1 --- A2_1[ ]; B2_1 --- A2_2[ ]; B2_2 --- A2_3[ ]; B2_2 --- A2_4[ ]; B3 --- A3_1[ ]; A3_1 --- A3_2[ ]; A3_2 --- A3_3[ ]; B4 --- A4_1[ ]
```



Master Data created in Project Systems

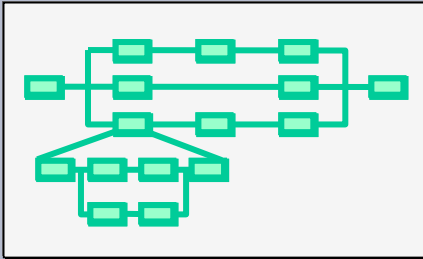


WBS Elements

Work Breakdown Structure

Individual structural element in a work breakdown structure (WBS) representing the hierarchical organization of an R/3 project. Describes either a discrete task or a partial one that can be further subdivided.

Master Data created in Project System



Network / Activities

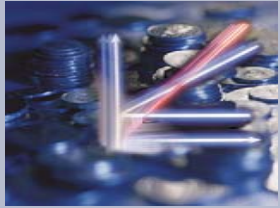
Networks

A network represents the flow of a project or of a task within a project.

During the life of a project, networks are used as a basis for planning, analyzing, controlling and monitoring schedules, dates and resources (such as people, machines, materials, documents and drawings). You can assign networks to a project.

A network is a special type of work order that has the same structure as production orders, maintenance orders, and inspection orders in the R/3 System.

Master Data used in Project Systems



Cost Center

Cost Center

The **cost center master** record represents the main organizational unit in Controlling. Each department units will have their own Cost center number. Each department will plan and monitor their yearly budget / expenditure on their respective cost centers.



Profit Center

Profit Center

Is an organizational unit in Accounting that reflects a management-oriented structure of the organization for the purpose of internal control. Profit Center groups are collections of Profit centers with similar characteristics.

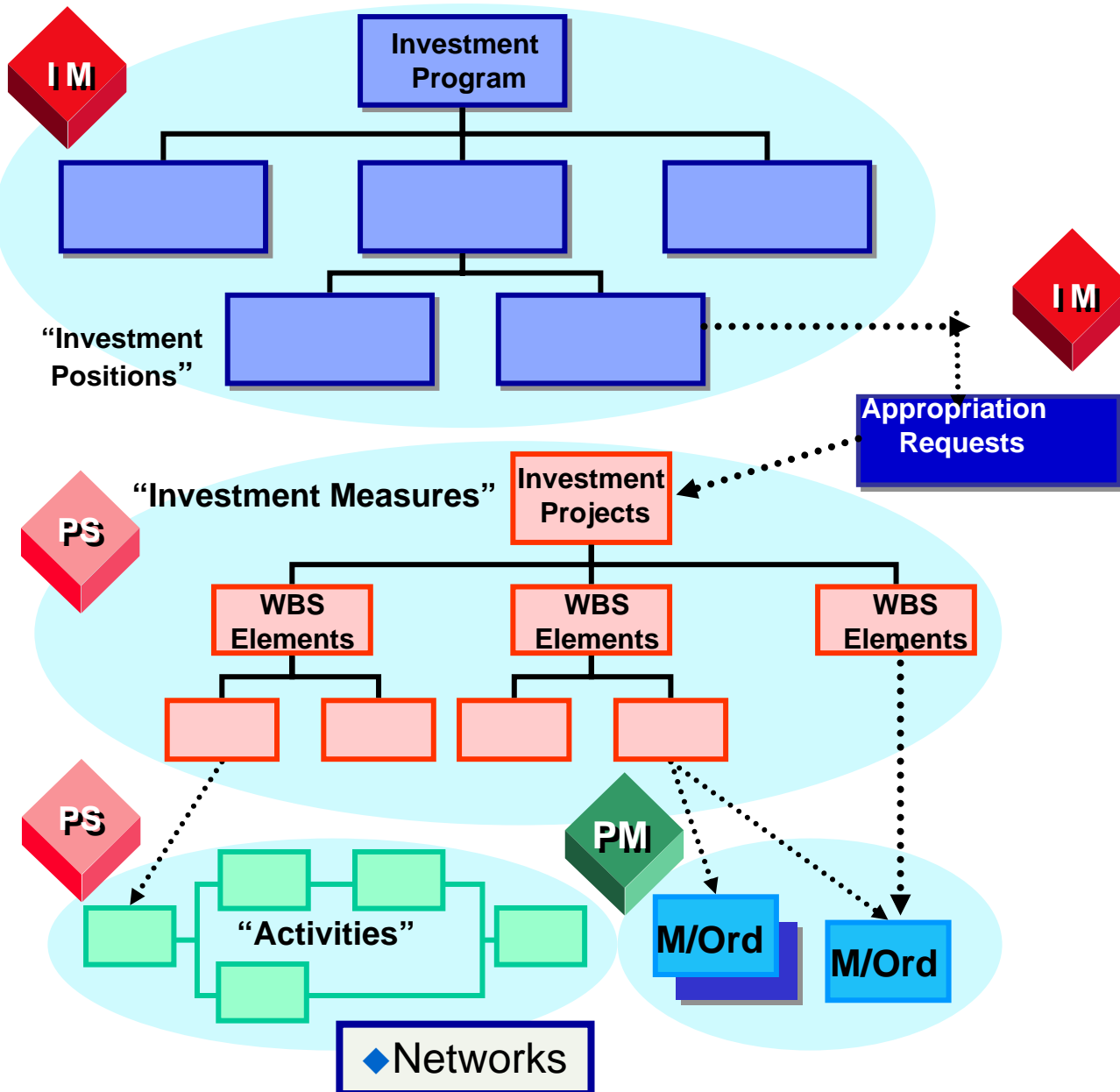


Activity Types

Activity Types

Activity types define the type of activity that can be provided by a cost center (work activity, machine hours, and so on).

Overview of Objects in PS



◆ Investment Programs

- ☒ Capital
- ☒ Expense

◆ Appropriation Requests

◆ Work Breakdown Structures

◆ Maintenance Orders

◆ Networks

Project Characteristics

Hierarchy of Parts



Accounting



Resources



Costs & Revenues



Purchasing



Controlling



Dates



Budgeting

Cross Departmental

Complexity & Uniqueness

Planning & Controlling

Contents

- ◆ **Master Data in Project Systems:**
 - ☑ **Work Breakdown Structures**
 - ☑ **Networks and Activities**
- ◆ **Status Control**
- ◆ **Tools**
 - ☑ **Table controls**
- ◆ **Project Versions**

What are Work Breakdown Structures used for?

Planning:

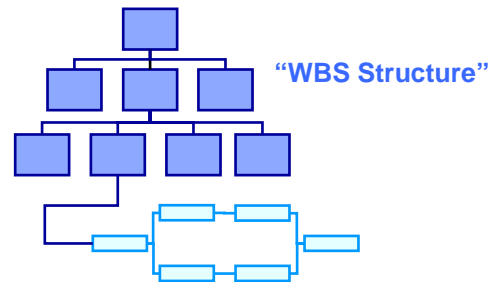
- ◆ **Planned Costs**

Dates:

- ◆ **Basic Dates**
- ◆ **Scheduled Dates**
- ◆ **Actual Dates**

Periodic Processing:

- ◆ **Overheads**
- ◆ **Settlement**
- ◆ **Earned Value Analysis**



Budget:

- ◆ **Original Budget**
- ◆ **Budget Updates**
- ◆ **Release Budgets**
- ◆ **Availability Control**

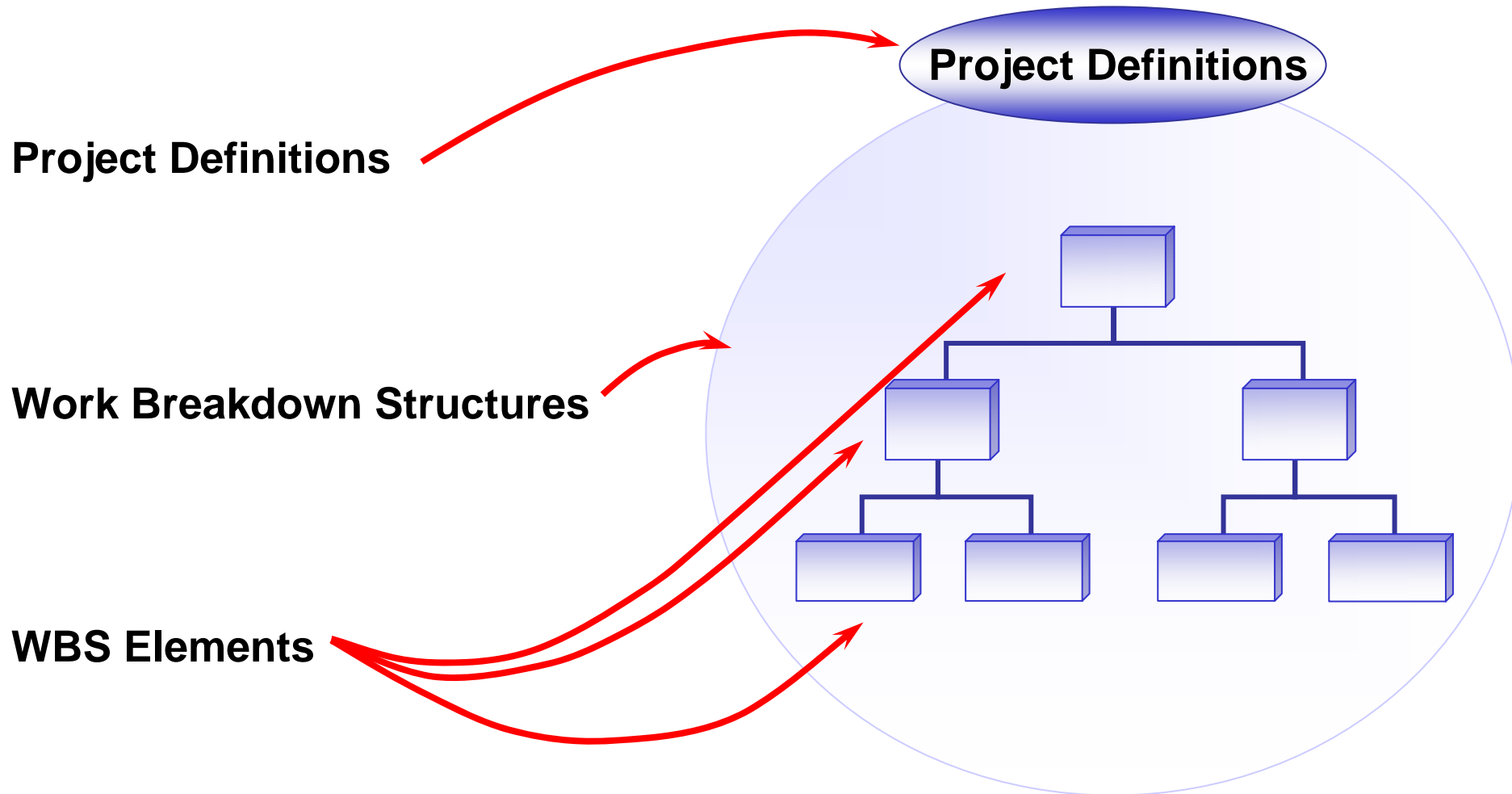
Execution:

- ◆ **Actual Costs**

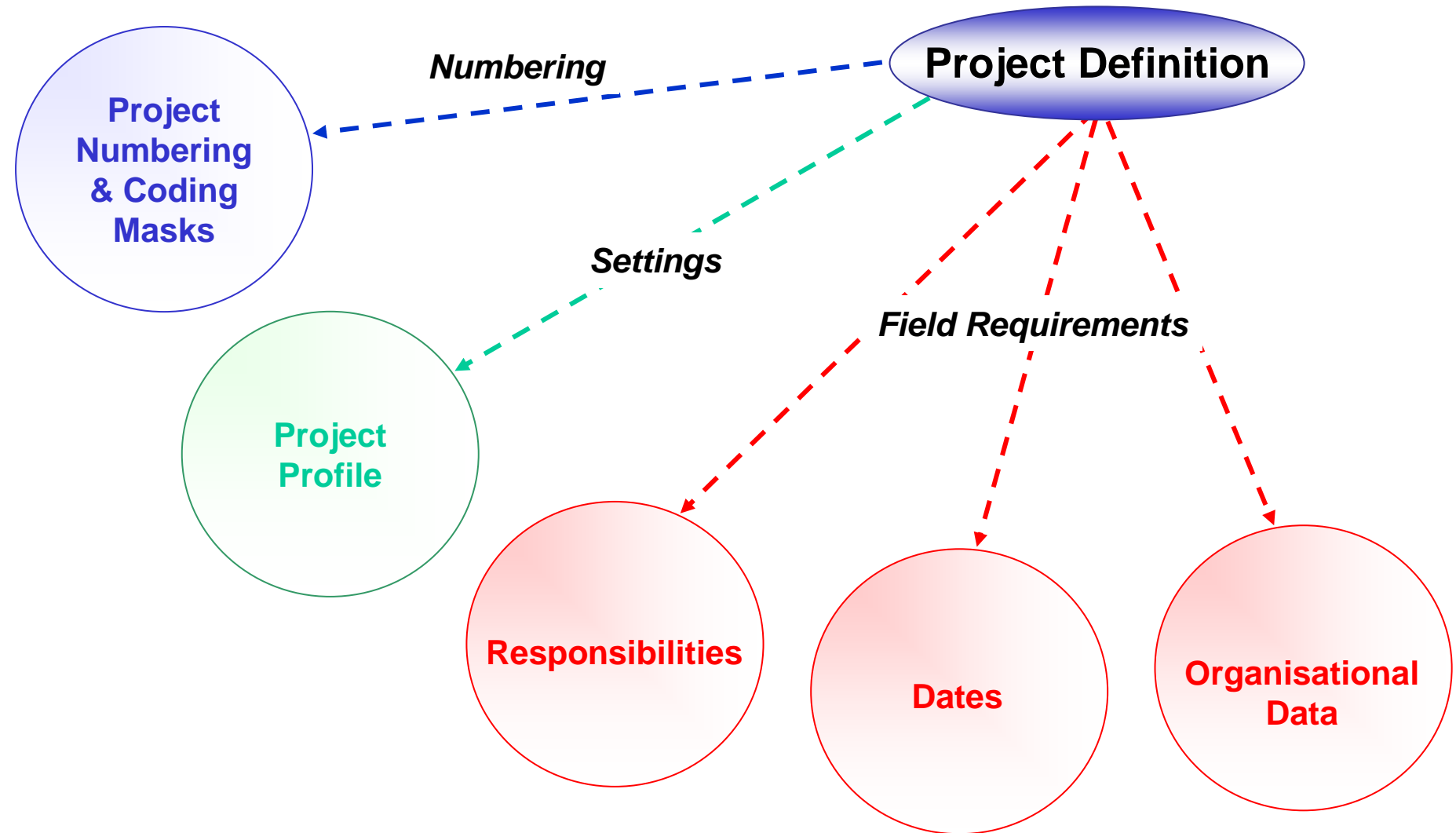
Commitments:

- ◆ **Purchase Requisition**
- ◆ **Purchase Order**

Project Definition and Work Breakdown Structure



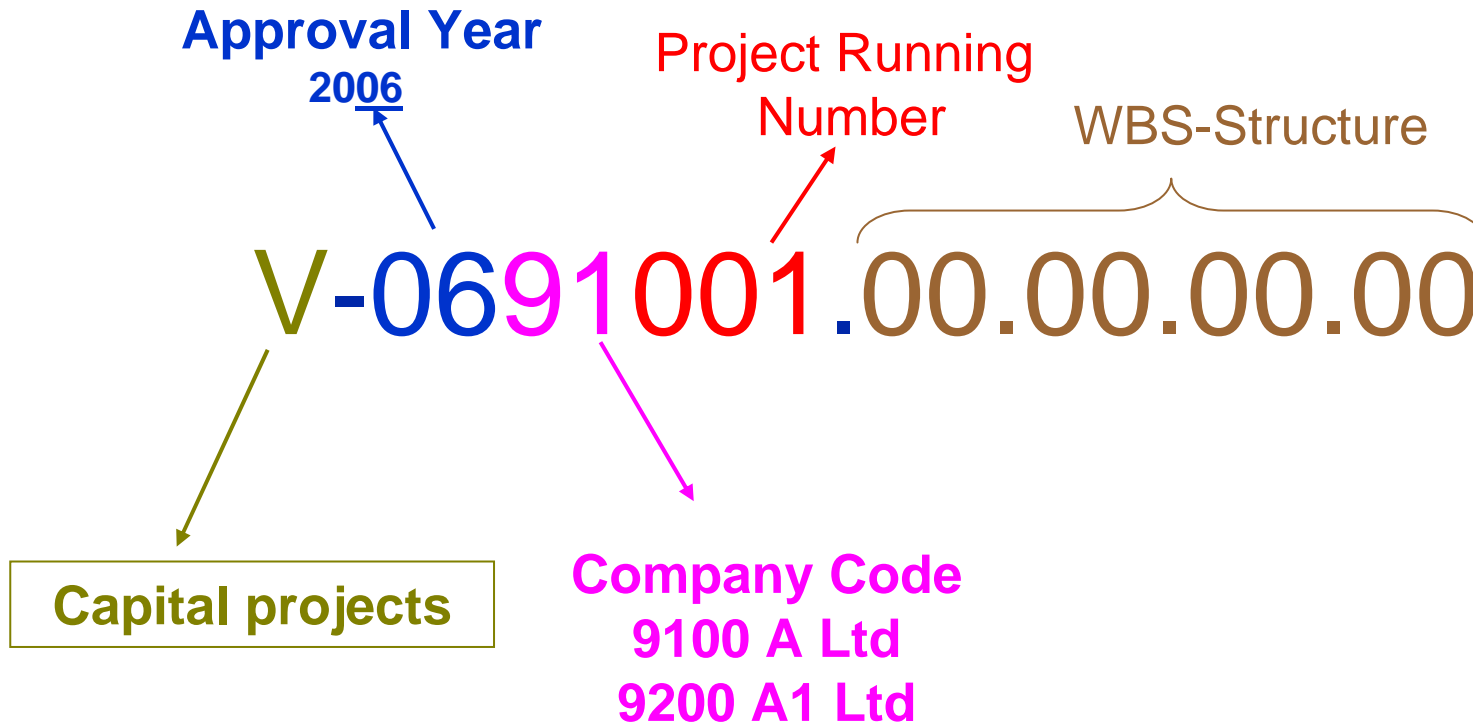
Project Definition



Project Numbering

◆ System Business Number Logic

- ☑ You can tell a lot about a project by its number!



Project Coding Mask

Identification and view selection

Project Def. V-0691001 EG-1 Plant Project

Detail: [Icon]

Overview(s): [Icon] [Icon]

Basic data Control data Administration Long txt

Status

System Status PREL [Icon]

User status

Project coding mask

Screen V-0000000.00.00.00.00 Mask ID

PrjID	Coding mask	Description	Lck	LkS
V	- 0000000.00.00.00.00	A Grp. Operative Project	[Icon]	[Icon]

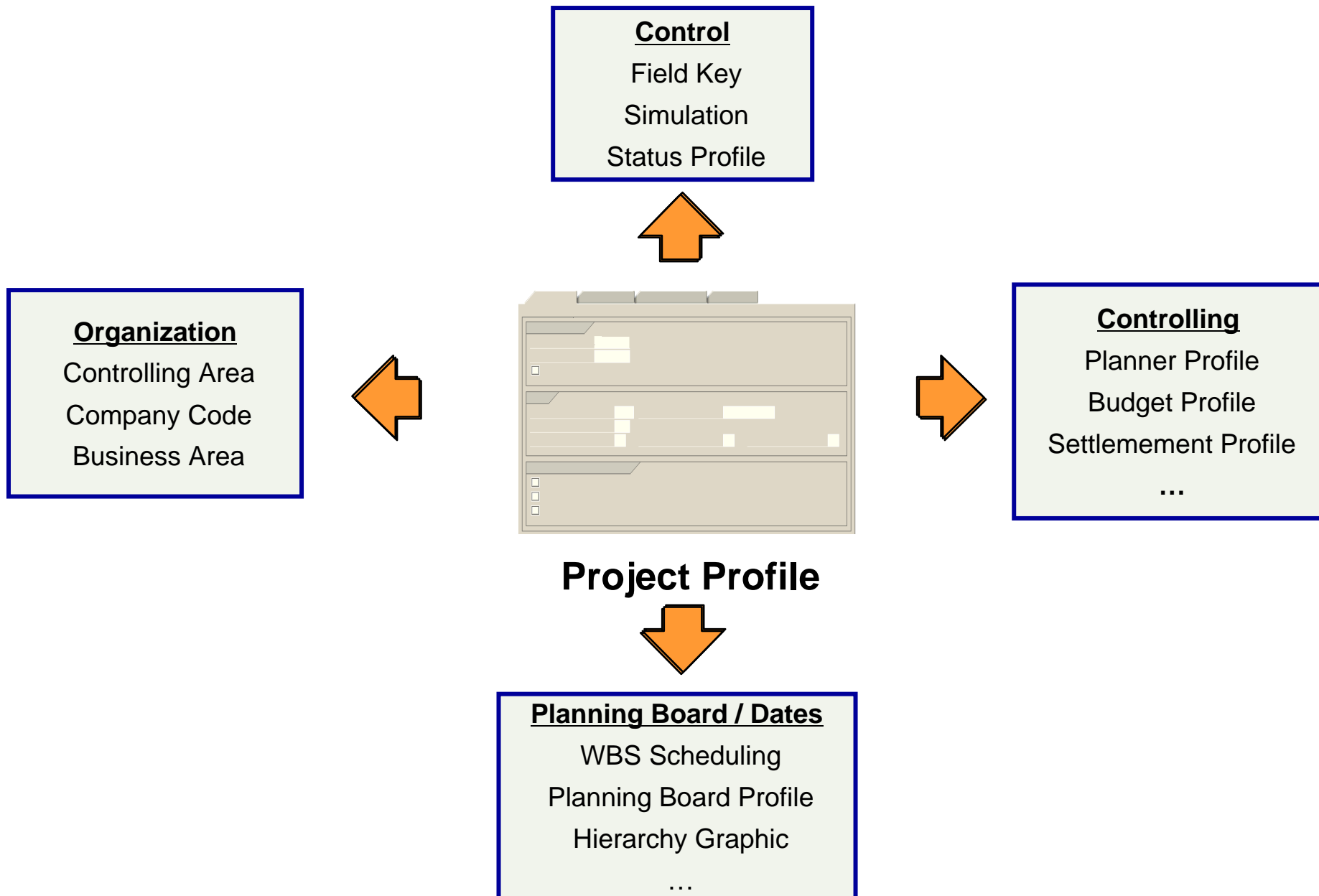
Key

Coding mask
0 = number

Lock for
operative WBS

Lock for
standard WBS


Project Profile



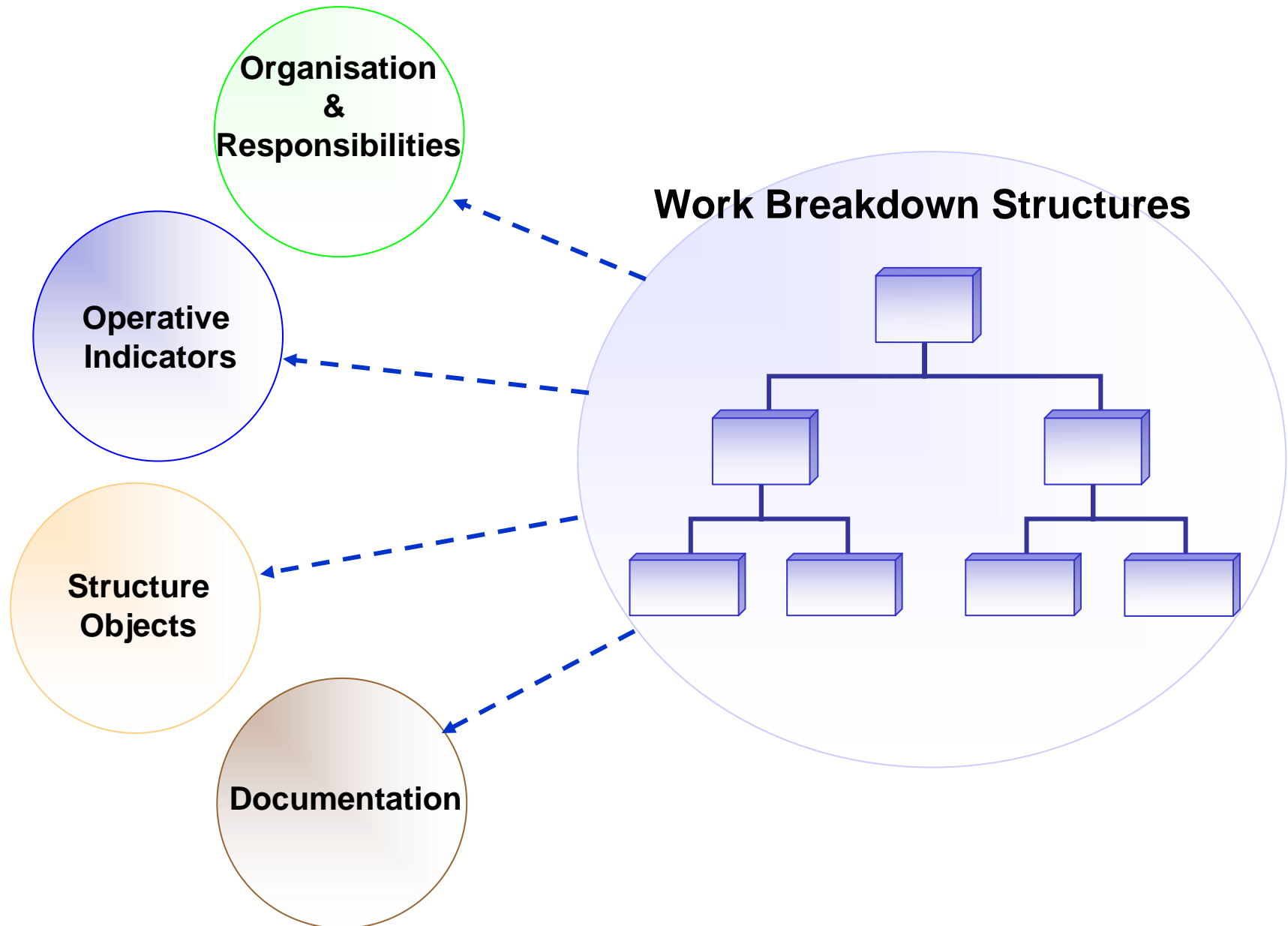
Project Field requirements – Project Definition

◆ Project Definition

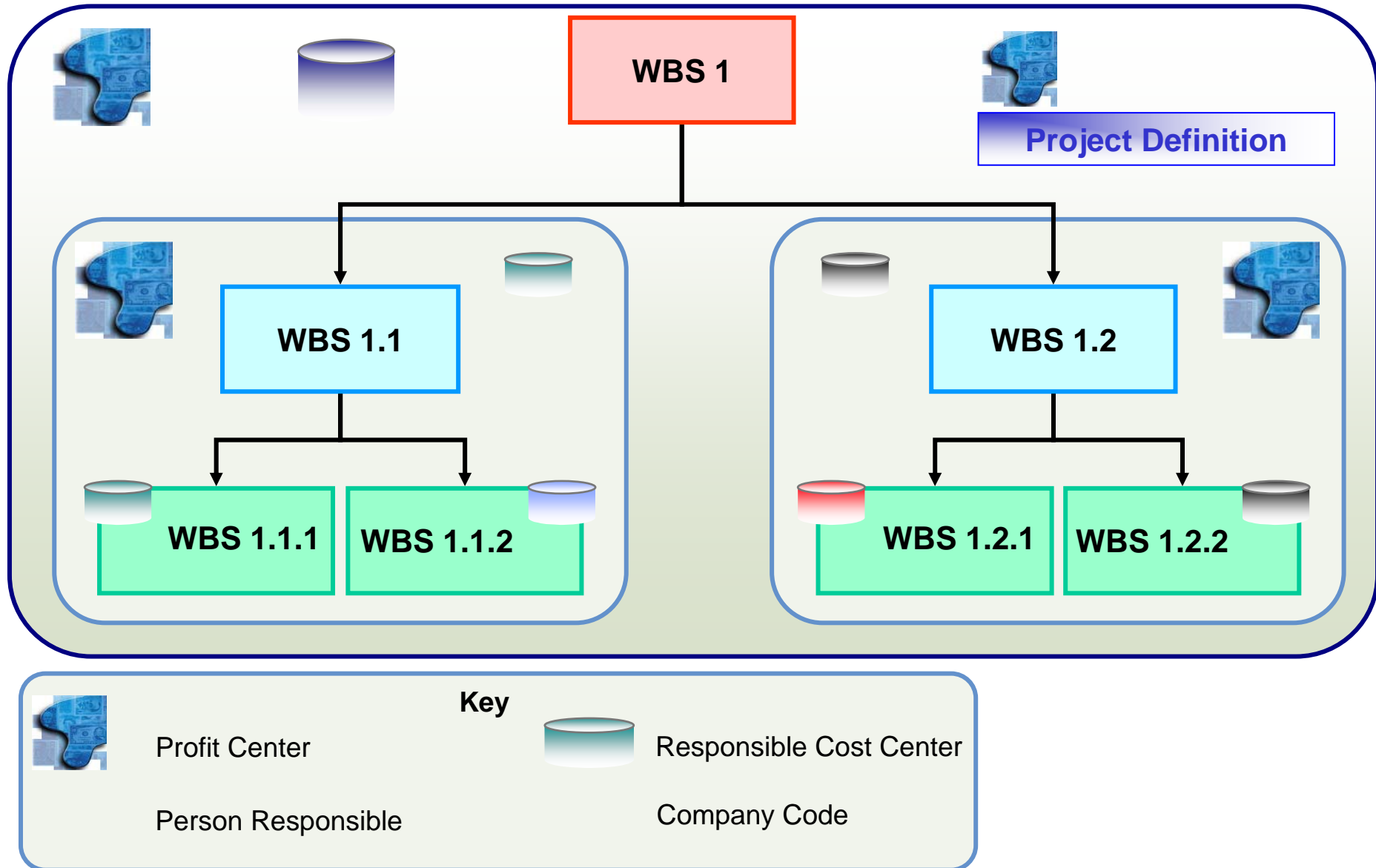
- ☒ Project Definition Description
- ☒ Person Responsible
- ☒ Applicant number
- ☒ Plant
- ☒ Finish Dates

Basic data		Control data	Administration	Long txt
Status				
System Status	PREL			
User status				
Project coding mask				
Screen	V-00000000.00.00.00.00		Mask ID	
Responsibilities			Organization	
Person Respons	200	Jerry Jones		
Applicant no.				
Dates			Plant	
Start date	23.10.2006		CO area 9100	
Finish date	29.12.2006		Company code 9100	
Factory calend.	IN		Business area	
Time unit	DAY		Plant 9100	
Fcst start date			Location	
Finish date (F)			Functional Area	
			Profit Center 9999	
			Proj.currency INR	

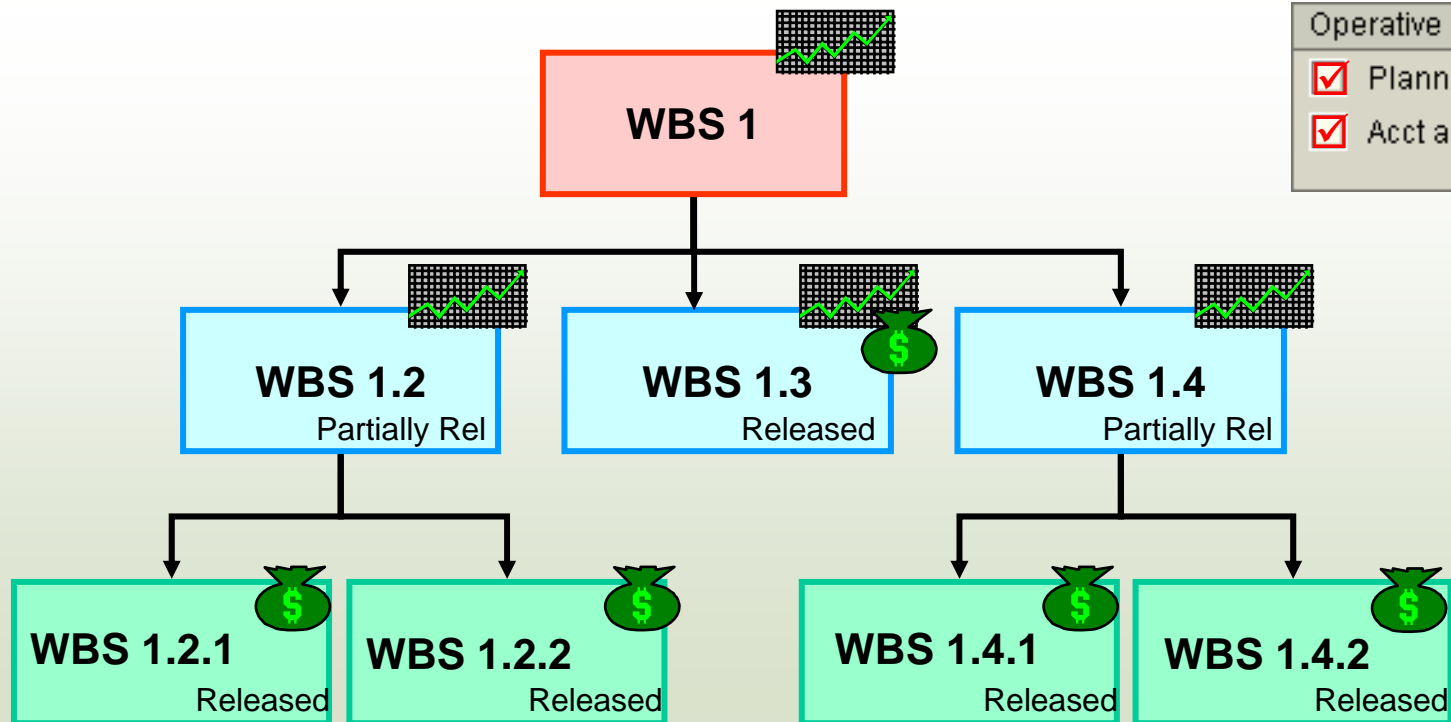
Project Definition and Work Breakdown Structure



WBS Organization and Responsibilities Animation

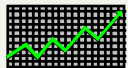


Operative Indicators and Attributes



Key

◆ Planning Element



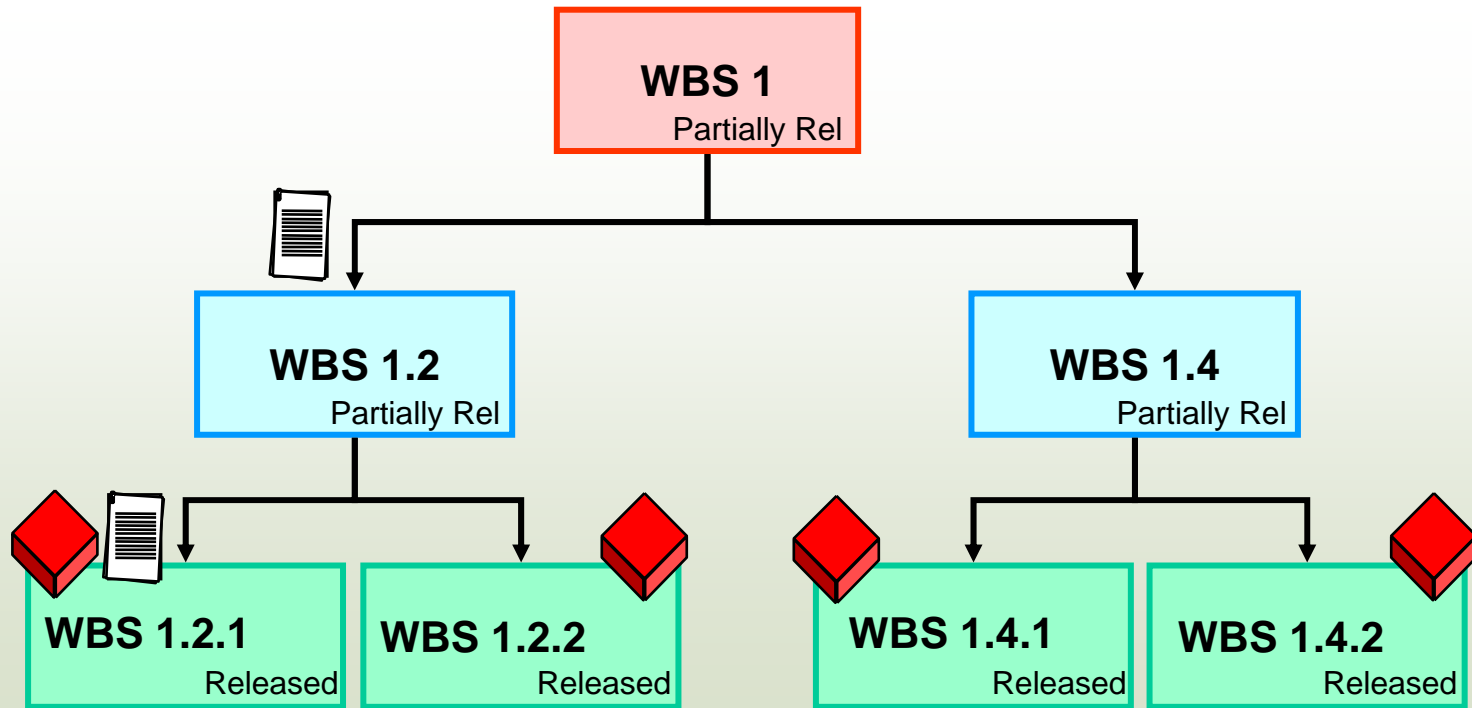
- ☒ For planning costs
- ☒ Plan/actual cost comparison

◆ Account assignment element



- ☒ For posting actual costs
- ☒ Network / Maintenance Order assignments

WBS Structure Objects



Key



◆ Project Milestone

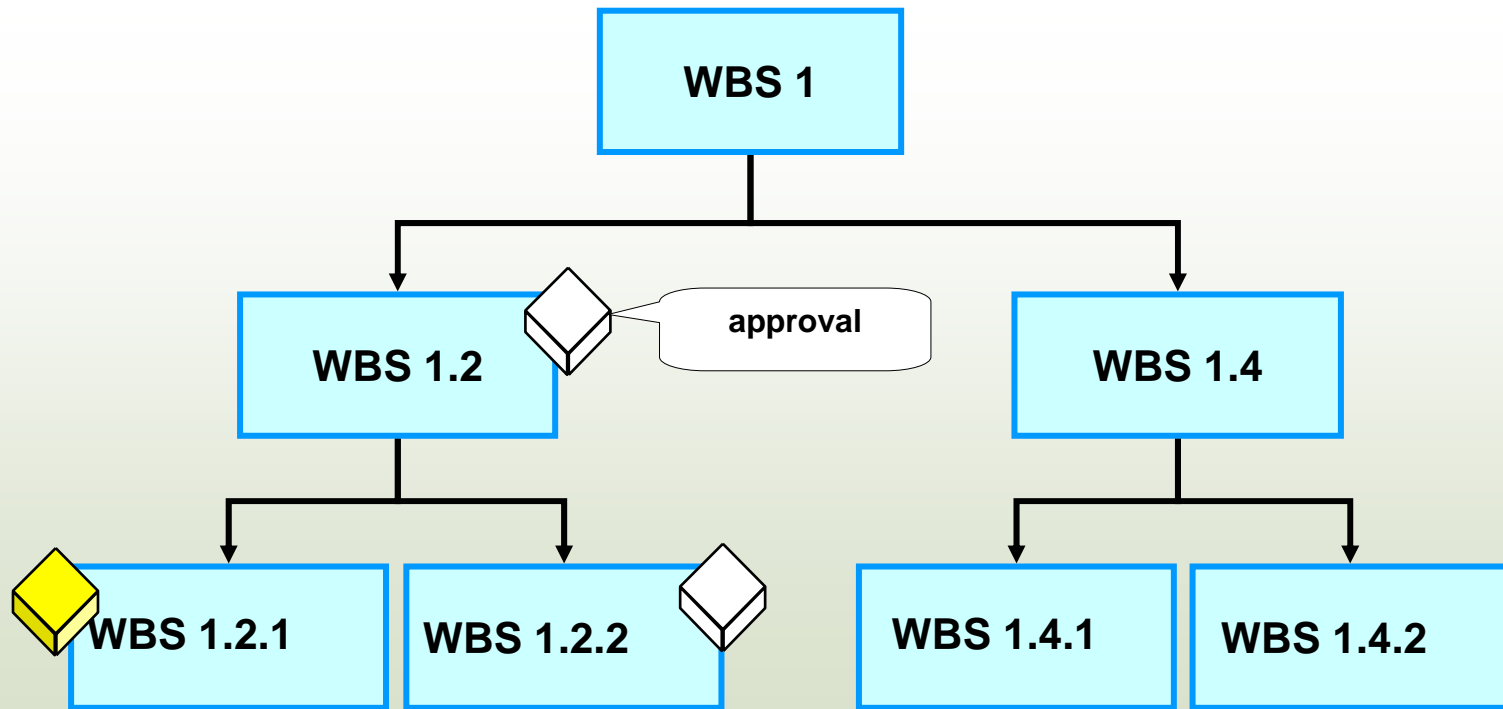


◆ PS Text Documents

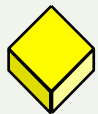
◆ Investment Program item

◆ Project Organization

Milestones in WBS



Key

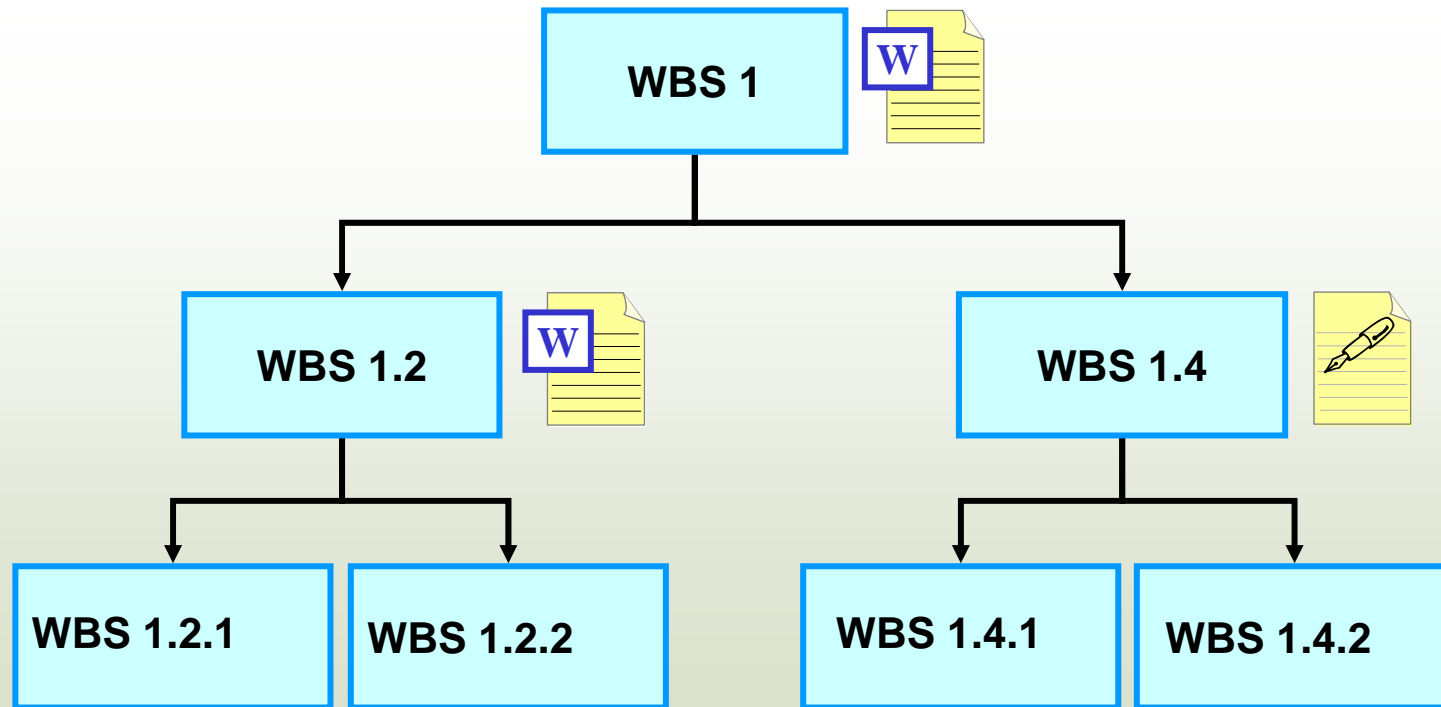


◆ Milestone Trend Analysis



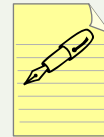
◆ For Informational / Reporting Purposes

Project Documentation



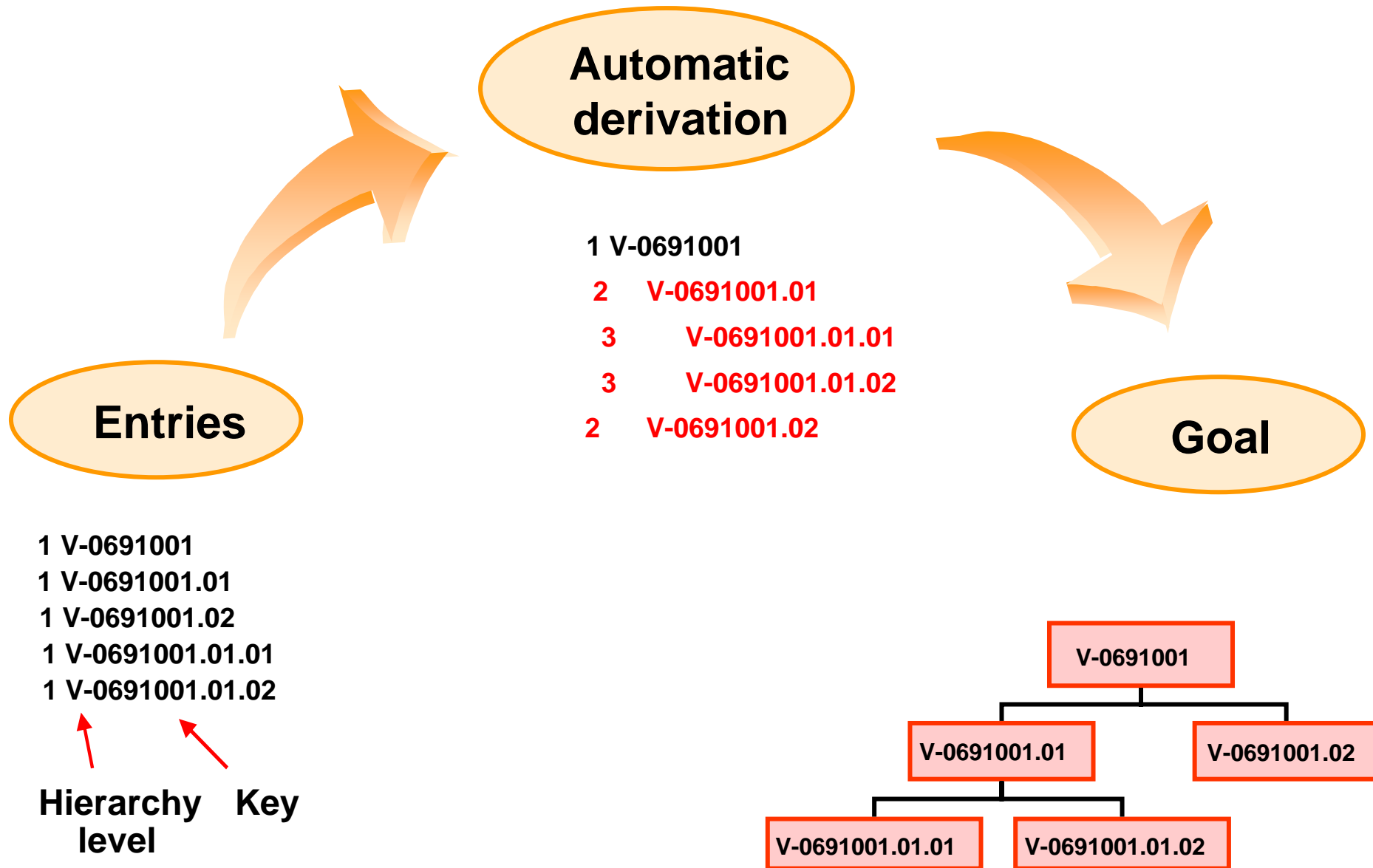
◆ **PS Text**
E.g.. Word Documents

Key



◆ **Long Texts**

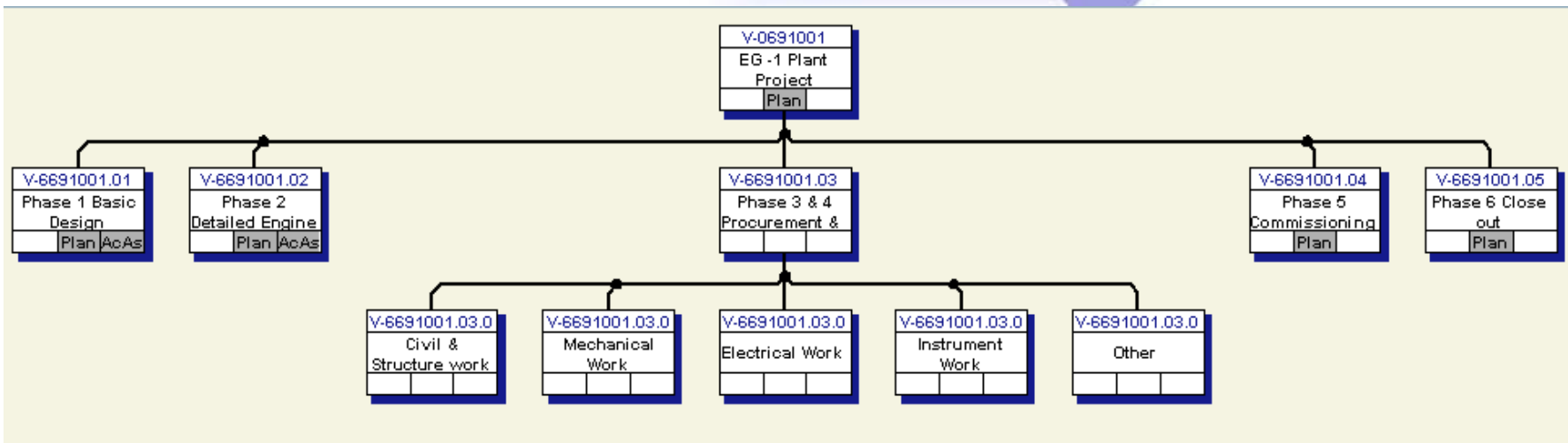
Derivation of the WBS hierarchy



Project Levels

◆ Project Levels:

- ✓ Each project must have a single Level 1 WBS
- ✓ Allows for ease of reporting at a project level
- ✓ Structure below Level 1 is determined by phase and other reporting requirements

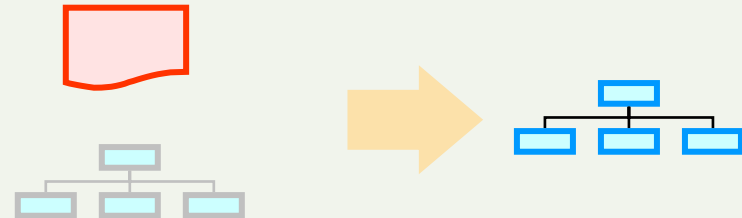


This is an example of a typical project structure

Project Creation and Maintenance methods

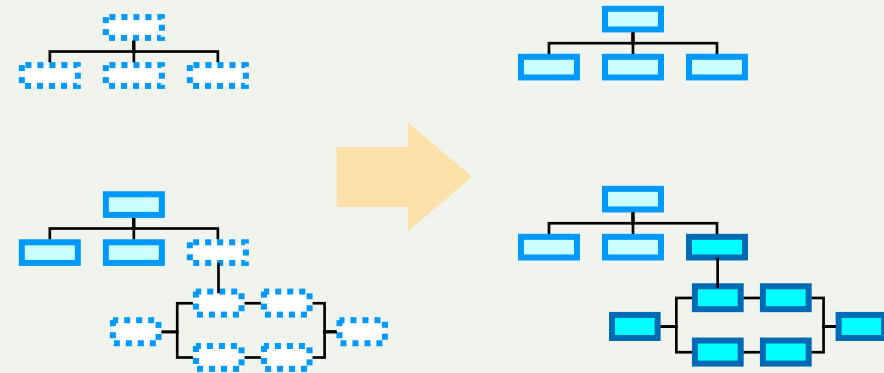
◆ INDIRECT

- ☑ Transfer from Appropriation Requests
- ☑ Transfer Simulation



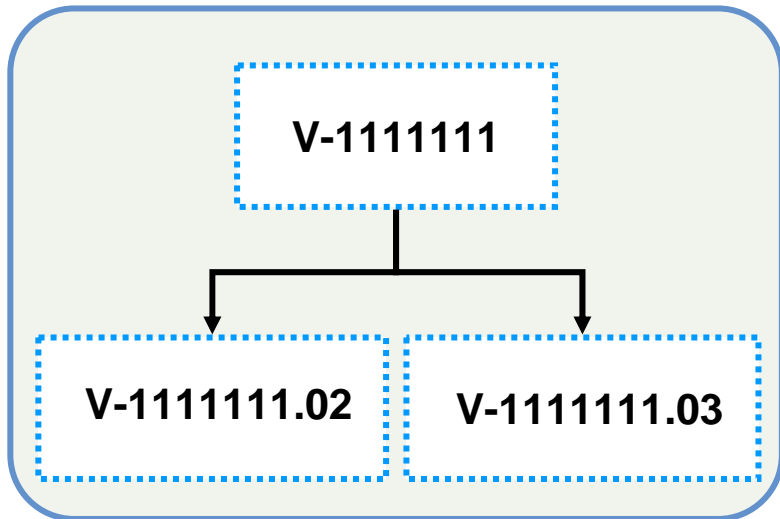
◆ PROCEDURE

- ☑ Copy a template
- ☑ Include (used most commonly)

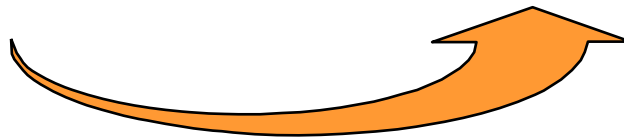
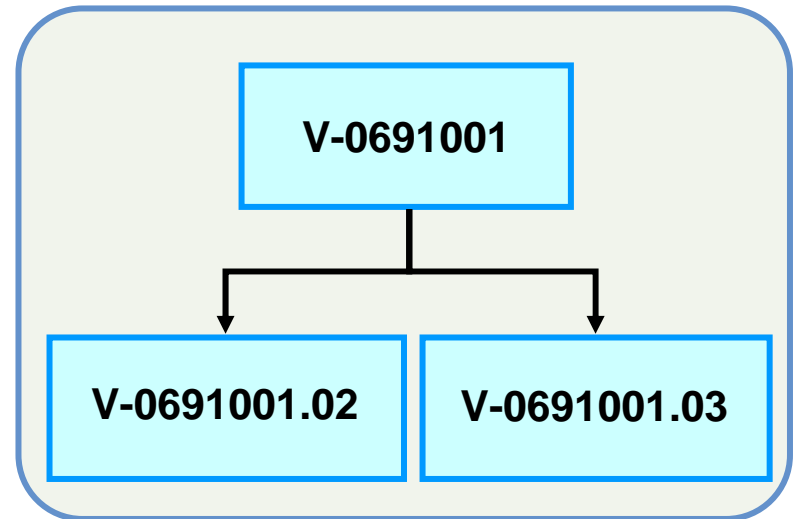


Templates and Work Breakdown Structures

Template

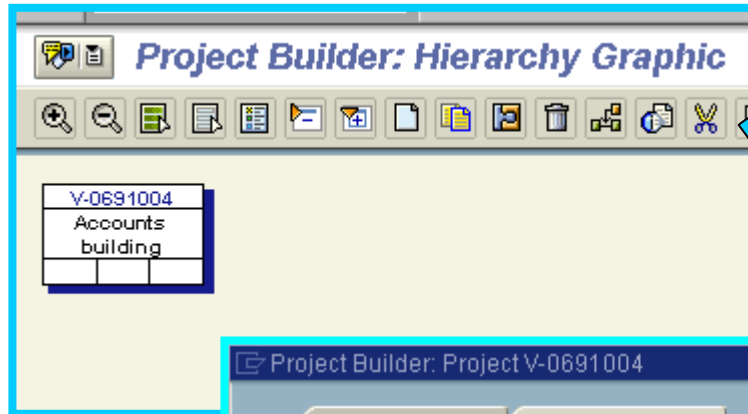


Operative

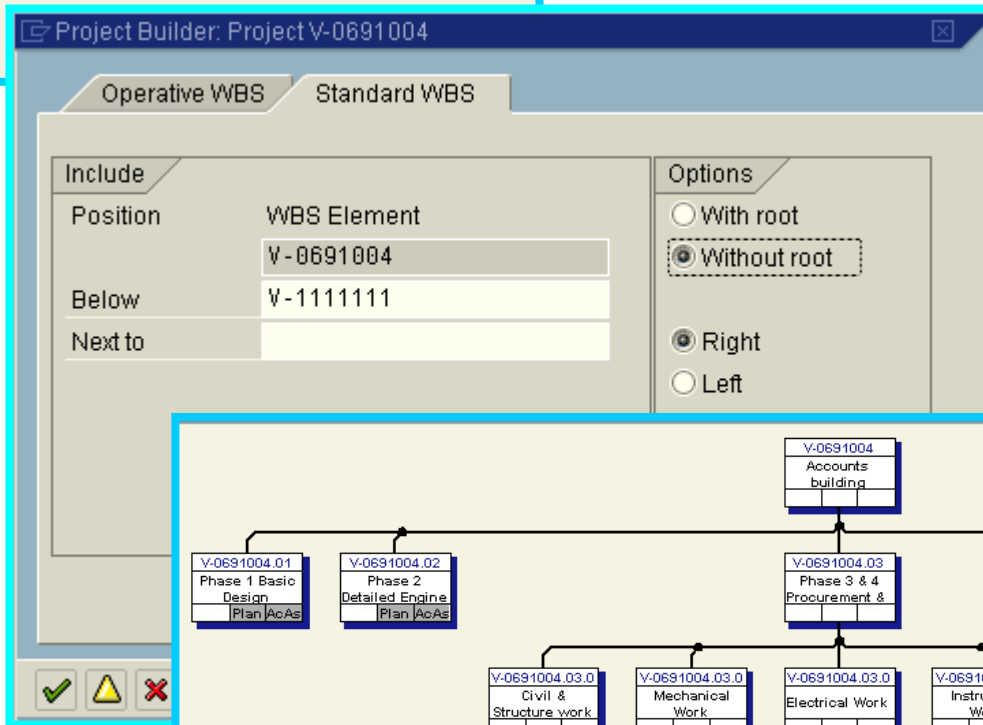
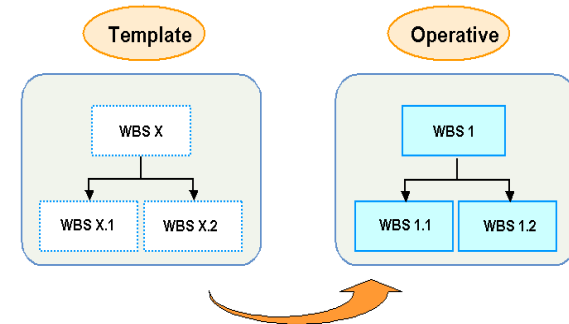


Include Template

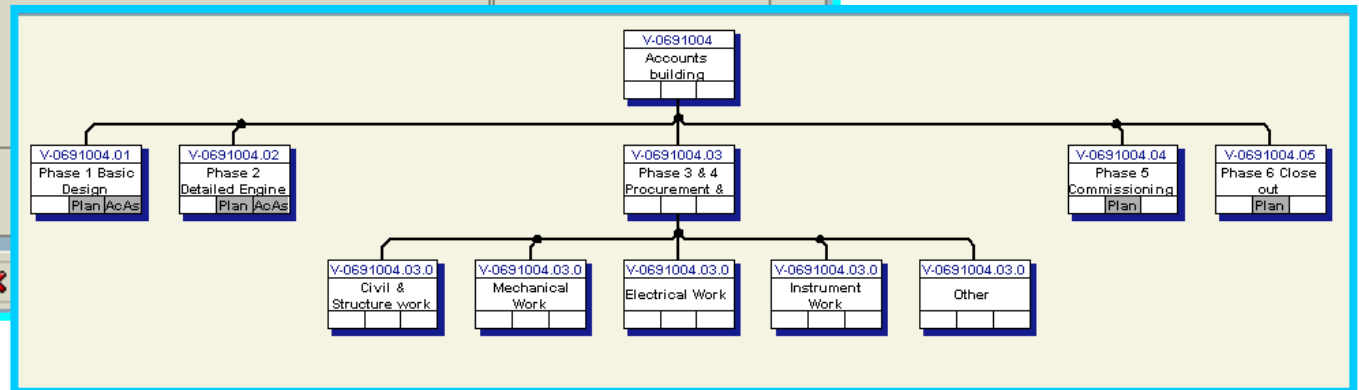
Start



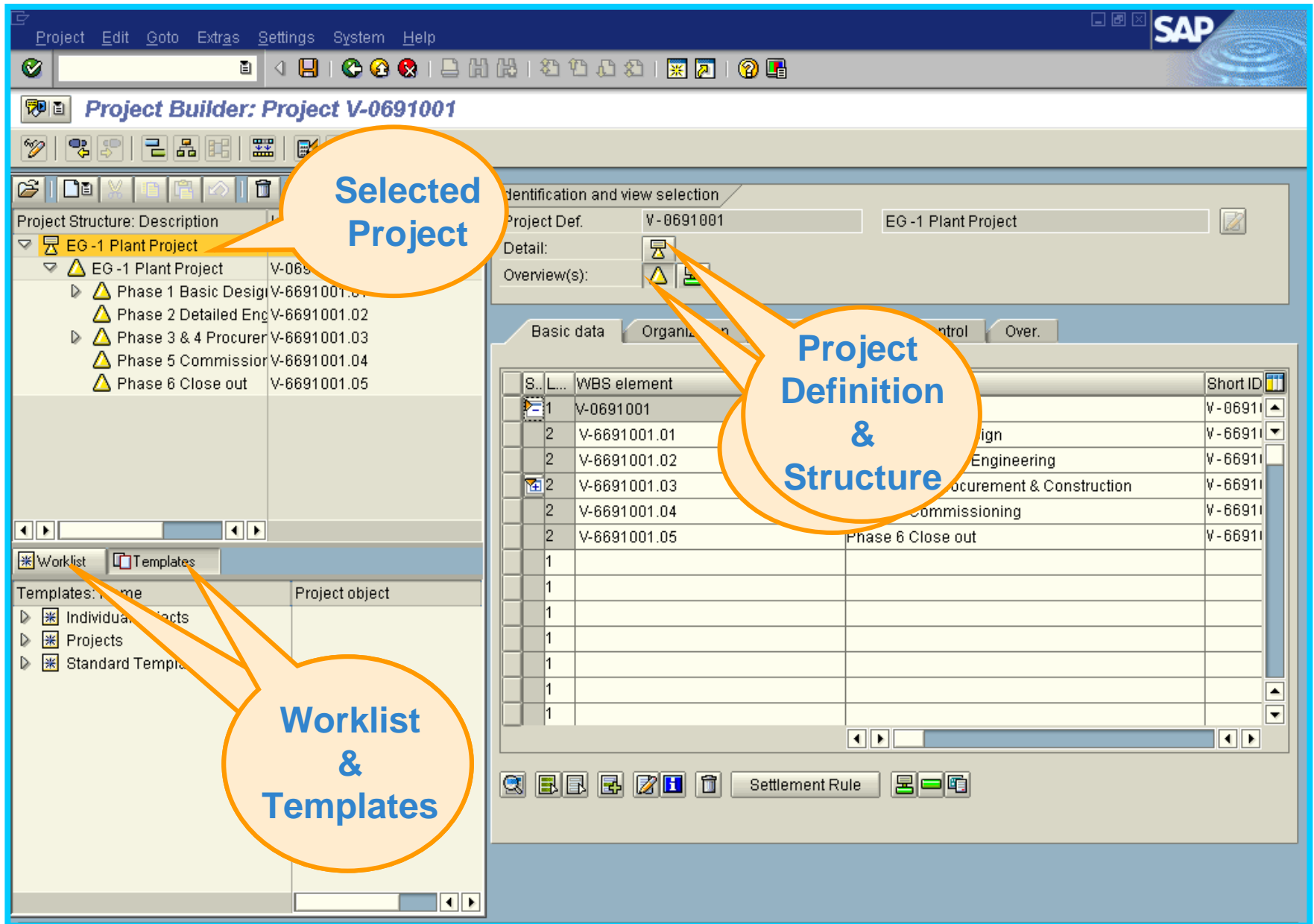
Include Template



Finish



Project Builder



Contents

- ◆ **Master Data in Project Systems:**

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- ☑ **Networks and Activities**

- ◆ **Status Control**

- ◆ **Tools**

- ☑ **Table controls**

- ◆ **Project Versions**

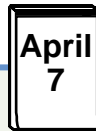
Networks

- ◆ **A key step in project planning is determining the sequence in which the activities will be performed.**
- ◆ **This involves determining which activities are dependent on each other and which activities require additional work or must be broken down even further.**
- ◆ **In Project Systems, this planning of processes and sequencing of activities is done using networks.**
- ◆ **A network consists of a network header and a series of activities either with relationships and, optionally milestones**

Activities and Networks - Functions

Milestones:

- ◆ Milestone Trend Analysis



Internal Activity:

- ◆ Internal Work
- ◆ Dates, Capacities
- ◆ Costs



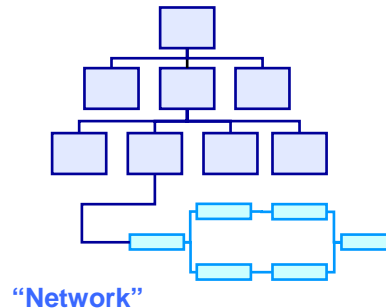
External Activity / Service:

- ◆ Dates
- ◆ Costs
- ◆ Commitments



Costs Activity:

- ◆ Dates
- ◆ Costs



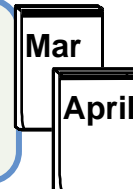
Material:

- ◆ Dates
- ◆ Costs
- ◆ Commitments

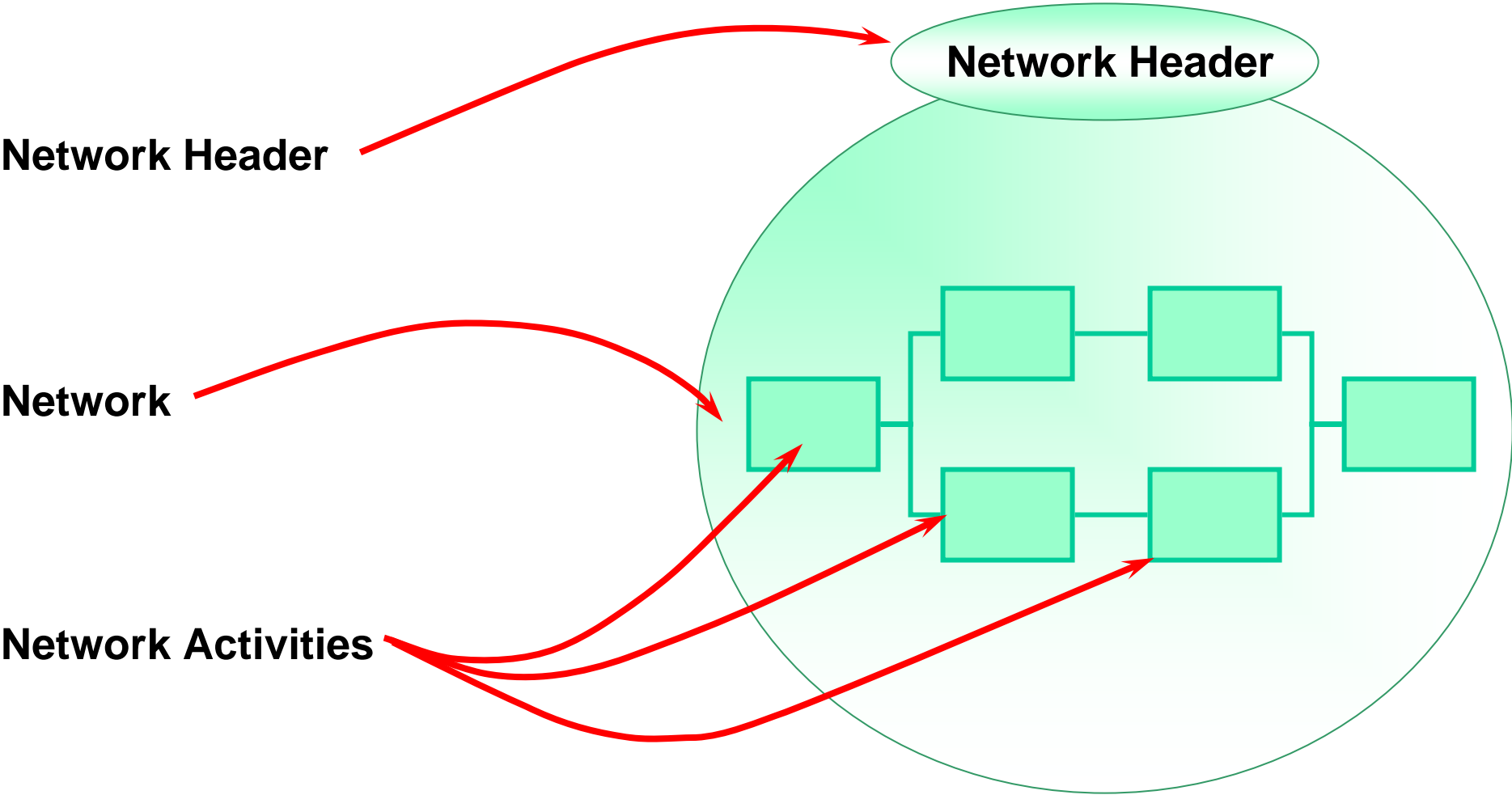


Periodic Processing:

- ◆ Overheads
- ◆ Settlement



Network Header and Activities



Project Field requirements – Network Header

◆ Network Header

- ☒ Description
- ☒ MRP Controller

The screenshot shows the SAP Network Header configuration interface. The 'Identification and view selection' section at the top contains the following fields:

Network	910900000000	Phase 1 Basic Design
Detail:		
Overview(s):		

Below this are tabs for 'Scheduling', 'Assignments', 'Control', 'Administr.', and 'Long txt'. The 'General' tab is active, showing the following fields:

Network Profile	Z900001	AM Network profile header acct.
Network Type	Z901	AM Network type header account
Plant	9100	
MRP Controller	Z91	Aditya
Priority		Executn factor 1

The 'Costing' tab is also visible, showing the following fields:

Costing Sheet	130000	Projects
CstgVariantPlan	PS02	Network - Plan
CstgVariantActl	PS03	Network - Actual
Overhead key		
Plan cost calc.	2	Determine plan costs

The 'Components' tab at the bottom shows the following field:

Res./Purc. req.	3	Immediately
-----------------	---	-------------

Red circles highlight the 'Phase 1 Basic Design' text in the Network field and the 'Z91' value in the MRP Controller field.

Activities and Activity Elements

◆ Four Types of Activities

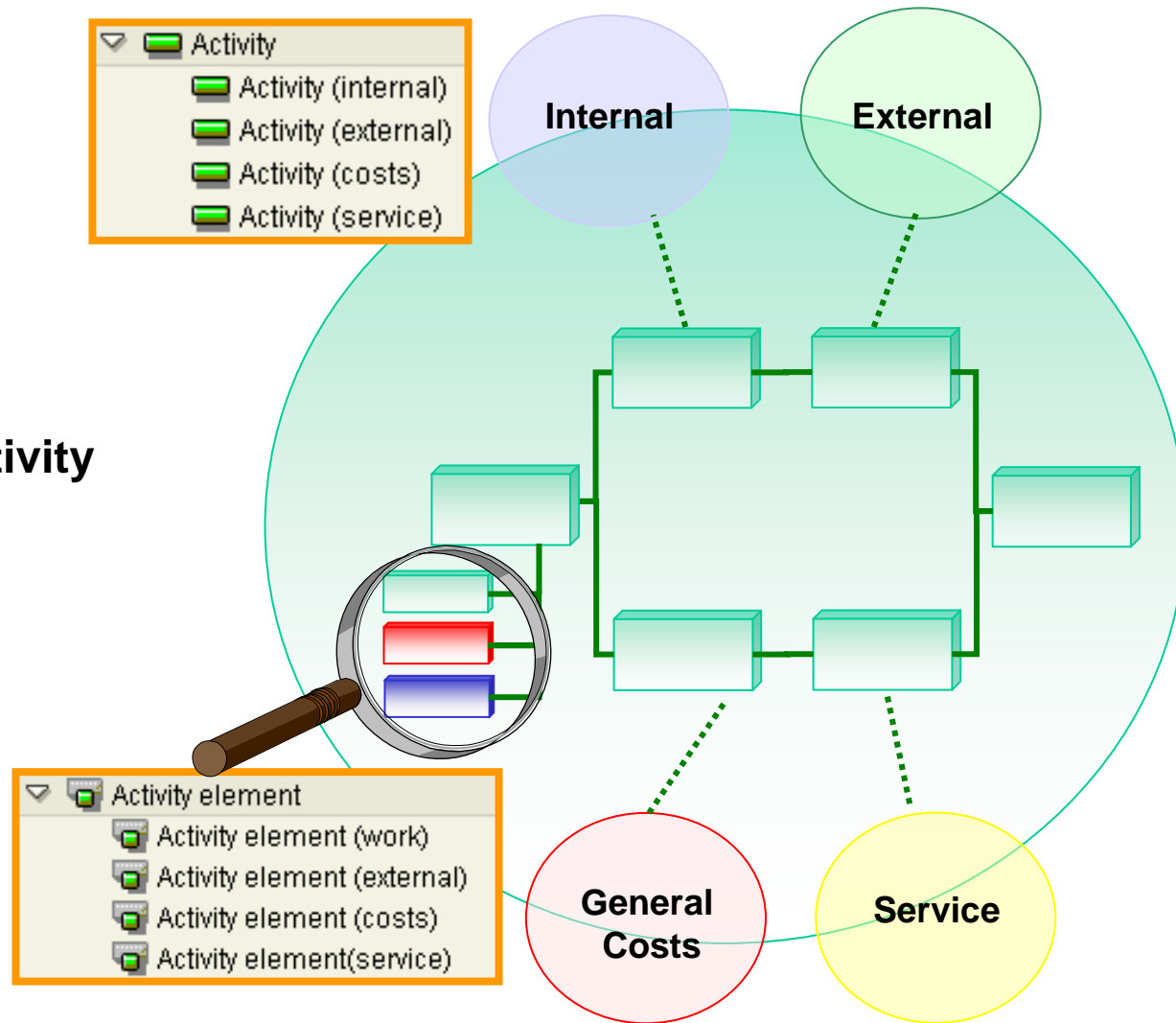
- ☒ Internal Processing
- ☒ External Processing
- ☒ Costs, services
- ☒ General Cost Activities

◆ Reference Dates from Activity

- ☒ Start or Finish

◆ Activity Elements

- ☒ Work
- ☒ External
- ☒ Costs
- ☒ Service



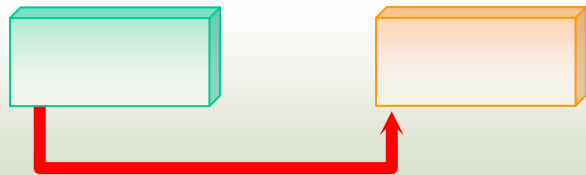
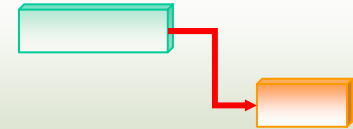
Relationships

Logical Sequence

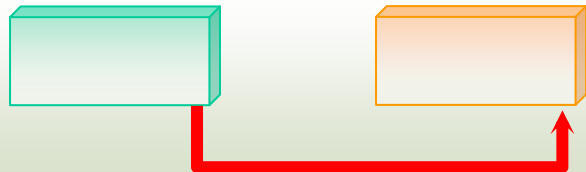
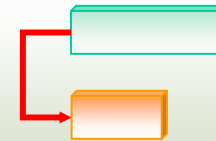
Time Sequence



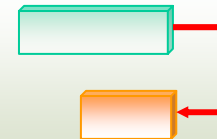
FS Relationship



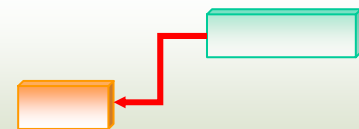
SS Relationship



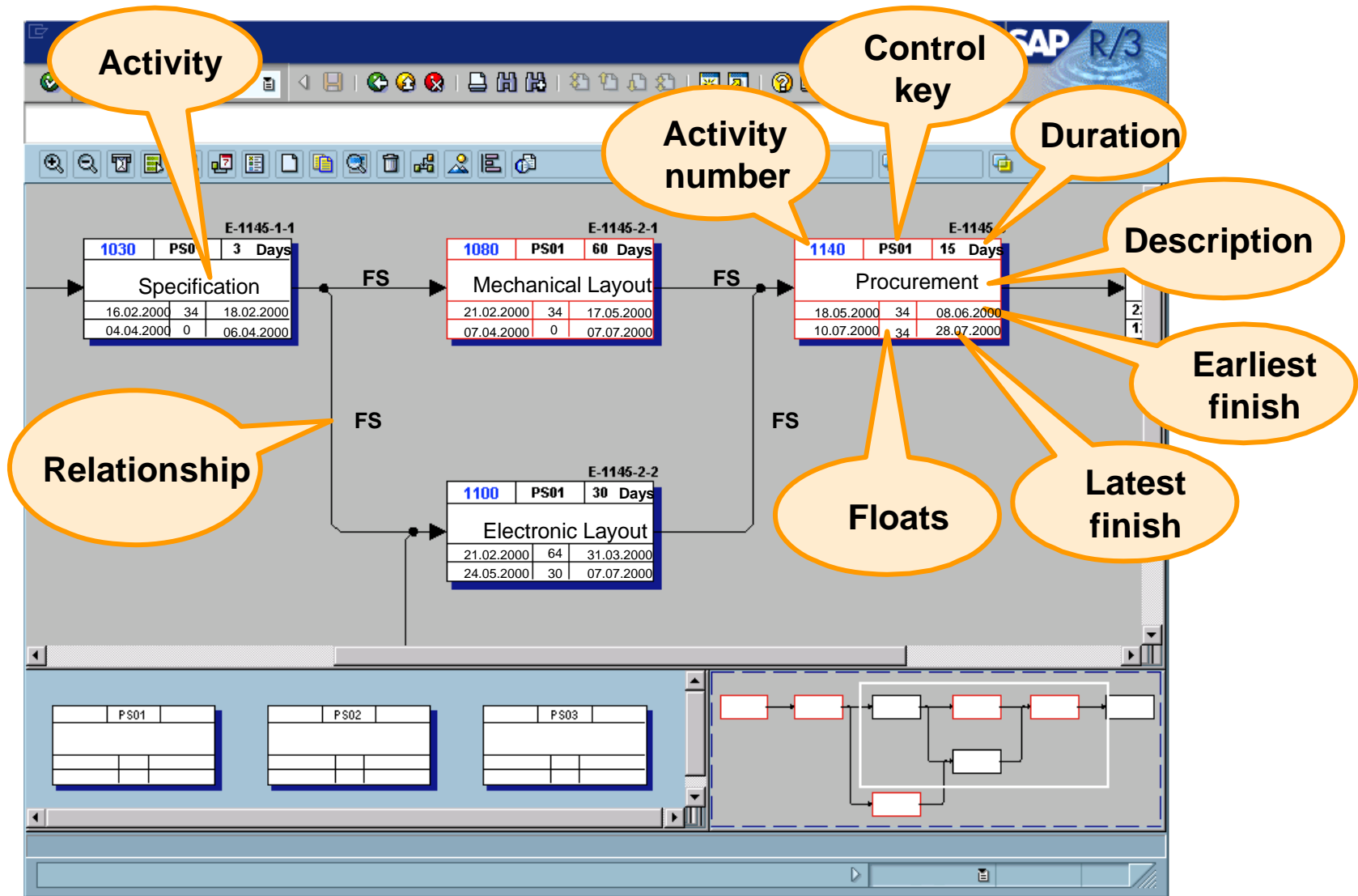
FF Relationship



SF Relationship



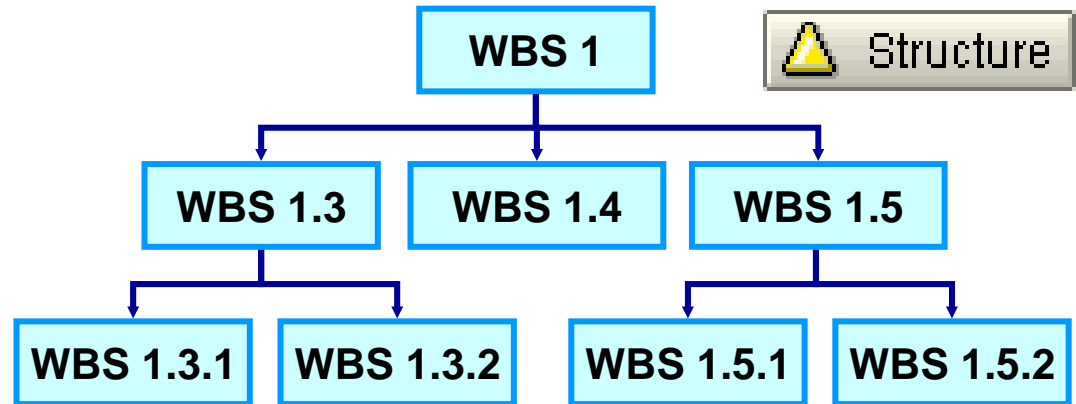
Network Graphic Details



Work Breakdown Structures & Networks compared

◆ WBS

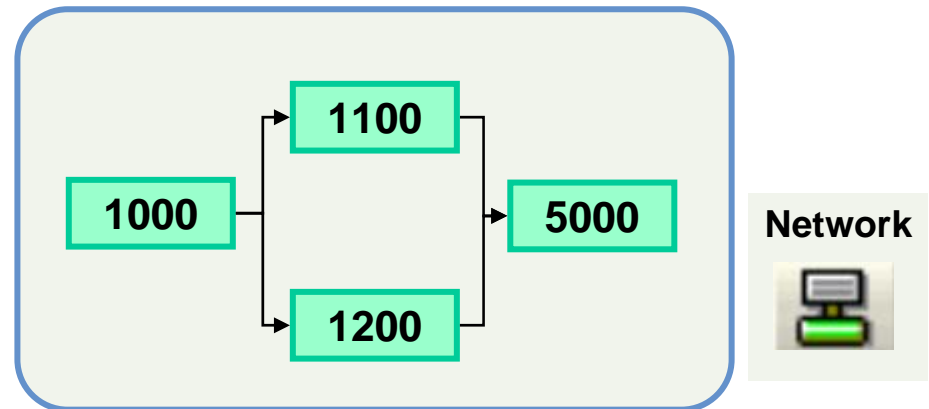
- ☑ Cost Control and Reporting
- ☑ Reflects Ownership



Versus

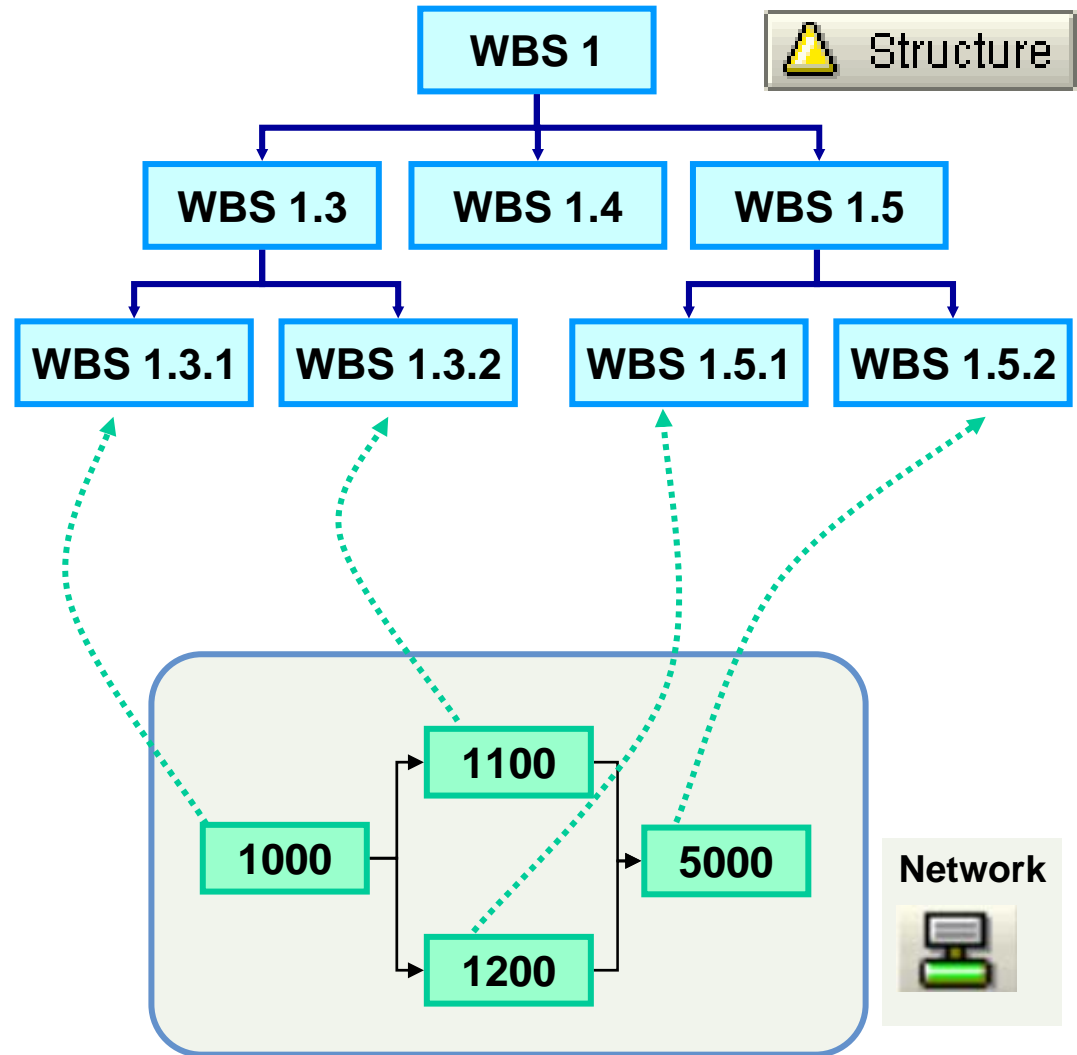
◆ NETWORK

- ☑ Work Control
- ☑ Reflects Execution



Activity Assignment to WBS

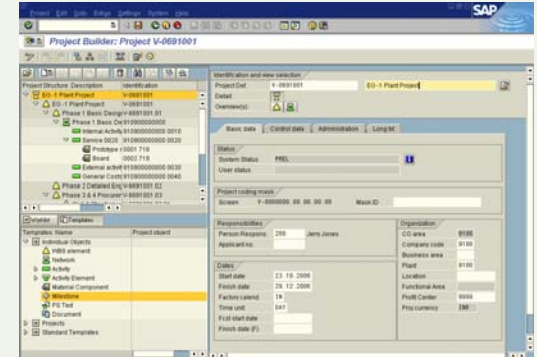
- ◆ Date Planning
- ◆ Cost Planning
- ◆ Generating Settlement rules



Different ways of creating Networks

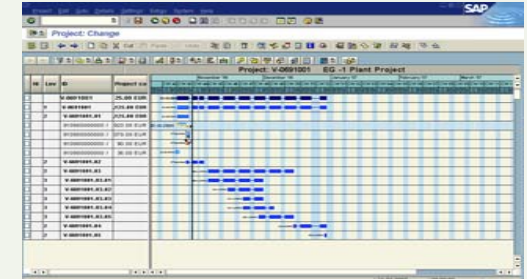
◆ DIRECT METHODS

- ☒ “Create” network directly
- ☒ Create via Project Builder



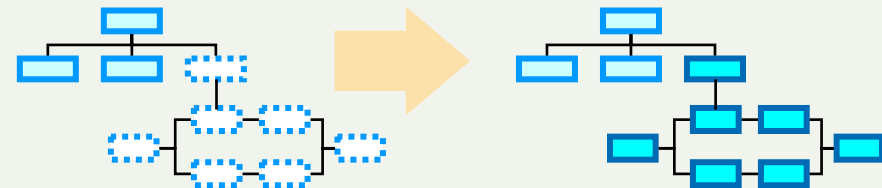
◆ INDIRECT

- ☒ Project Planning Board and Simulation
- ☒ “Create WBS with Activities”.

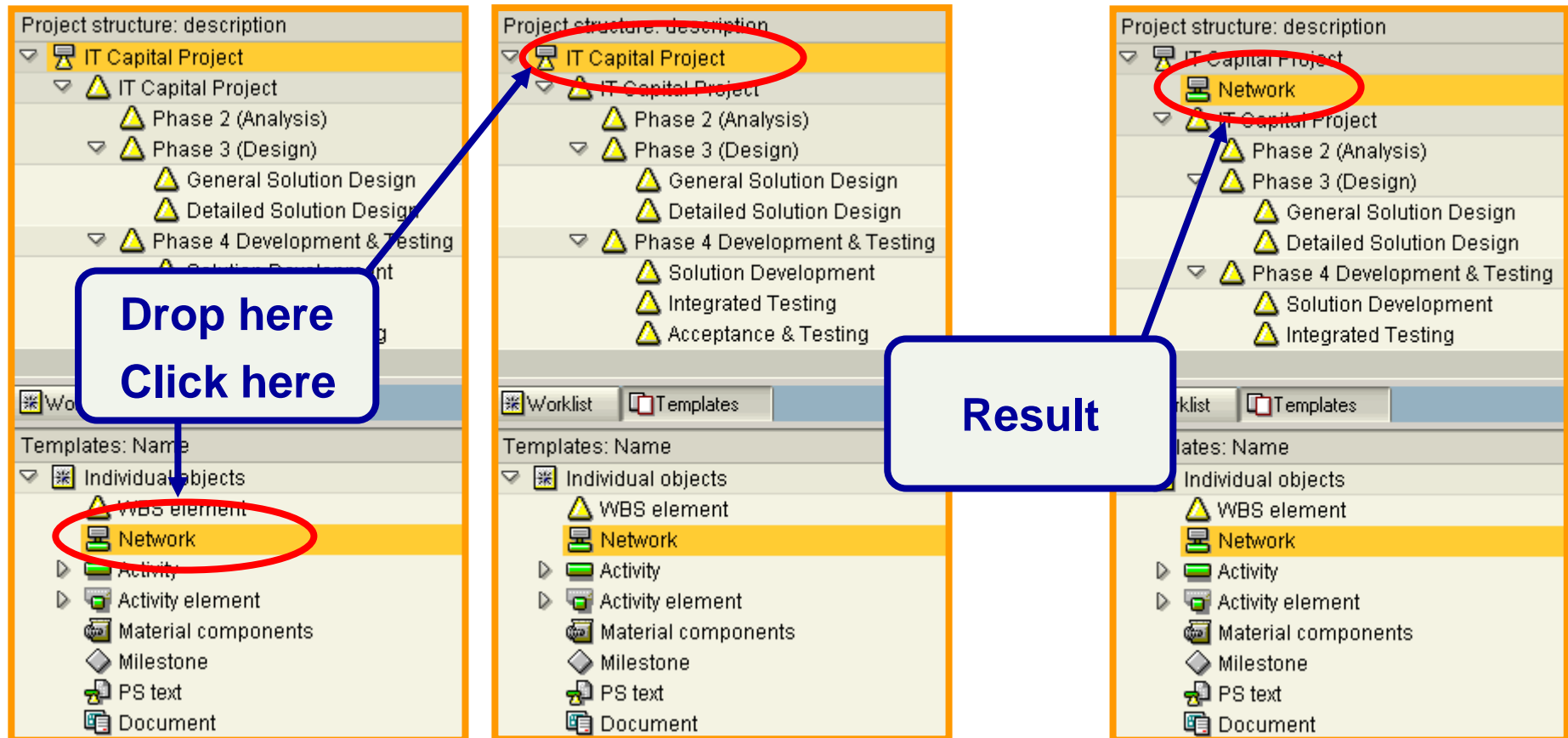


◆ PROCEDURE

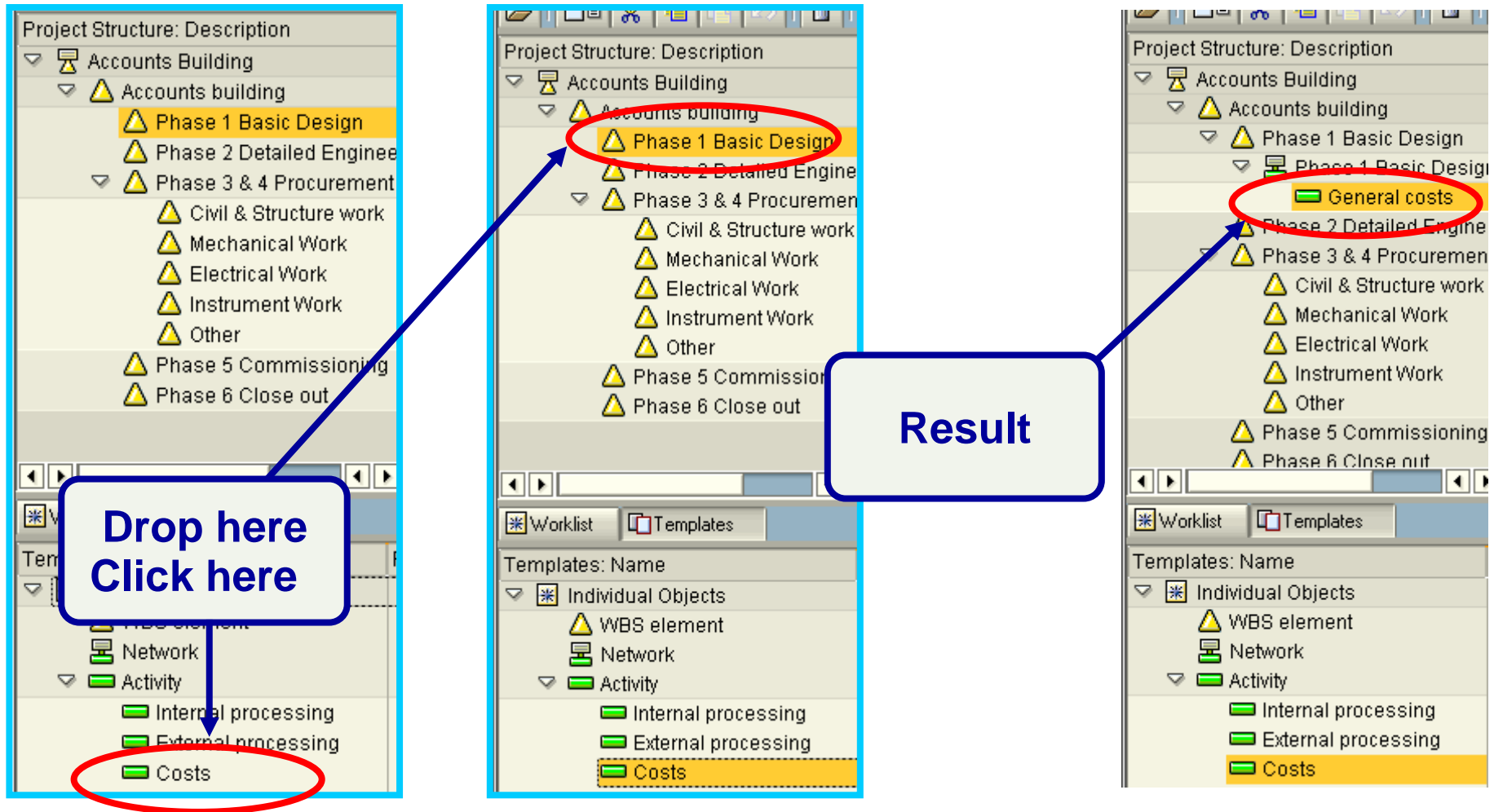
- ☒ Create manually or copy a template



Creating a Network Header Animation



Creating Activities



Contents

- ◆ **Master Data in Project Systems:**

- ☑ **Work Breakdown Structures**

- ☑ **Networks and Activities**

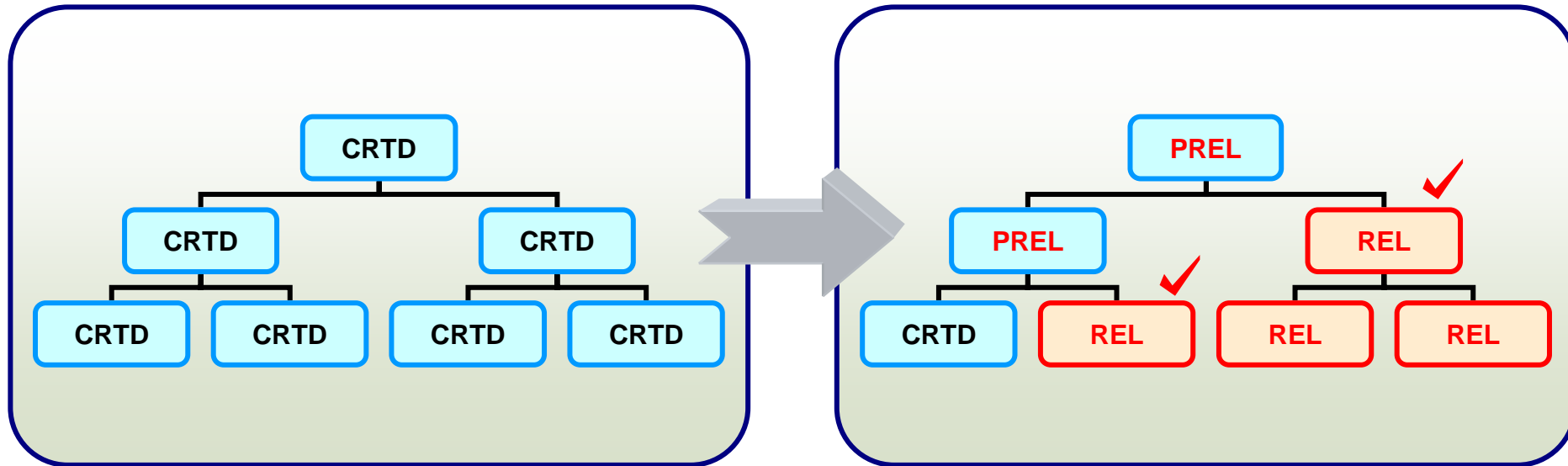
- ◆ **Status Control**

- ◆ **Tools**

- ☑ **Table controls**

- ◆ **Project Versions**

System Status and User Status control



◆ What is Status control used for?

- ☑ To allow or forbid certain business transactions.

◆ How?

- ☑ Status are activated manually or automatically by the system.

◆ Which elements?

- ☑ Project definition and WBS elements are affected.

◆ Why system and user status?

- ☑ User status adds detail to the system Status.

System Status's

SYSTEM STATUS

The following status are set by the system/user as the project goes through its different stages:

- ◆ CRTD Created (**Automatic**)
- ◆ REL Released (**Manual**)
- ◆ LKD Locked (**Manual**)
- ◆ UNLK Unlock (**Manual**)
- ◆ BUDG Project Budgeted (**Automatic**)
- ◆ AVAC Availability Control Activated (**Automatic**)
- ◆ ...



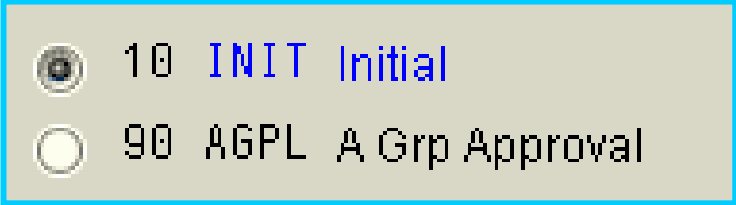
User Status is Optional (based on Client reqt.)

USER STATUS

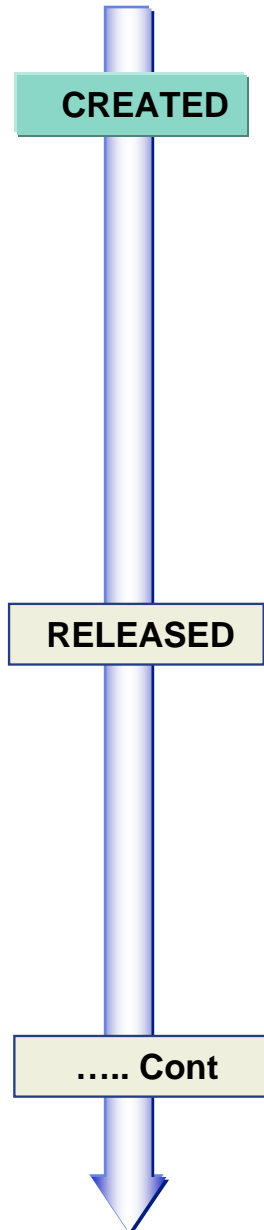
The following status are set by the user as the project goes through its different stages:

- ◆ 10 Initial
 - ☑ The appropriation request has this status when it is created
(Automatic).
- ◆ 20 A Grp Approval
 - (Automatic on approval)

Note : User status configuration and usage is totally based on client requirement and is optional

- 
- ☒ 10 INIT Initial
 - ☐ 90 AGPL A Grp Approval

System Status (1)



Created (CRTD)

☒ Use

- ✓ Initial system status for new WBS elements
- ✓ Allows project structuring, date and cost planning.
- ✓ Allows Budgeting

☒ Prerequisites

- ✓ The superior WBS element MUST have status Created

Released (REL)

☒ Use

- ✓ Allows costs and revenues to be posted to the project
- ✓ Passed onto lower level WBS elements

☒ Prerequisites

- ✓ Created must have been set

System Status (2)



TECHNICALLY COMPLETE

CLOSED

FLAGGED FOR DELETION

Technically Complete (TECO)

☒ Use

- ✓ For projects completed from a technical point of view.
- ✓ Allows costs and revenues to be posted to the project.

☒ Prerequisites

- ✓ Created or Released must have been set.

Closed (CLSD)

☒ Use

- ✓ Prevents actual postings.
- ✓ Prevents network creation.

☒ Prerequisites

- ✓ Released or Technically complete must have been set.

Deletion Flag (DLFL)

☒ Use

- ✓ Objects are deleted logically, but not physically.

☒ Prerequisites

- ✓ Allowed if all costs have been settled completely.
- ✓ Allowed if there are no reservations or commitments.

Contents

- ◆ **Master Data in Project Systems:**

- ☑ **Work Breakdown Structures**

- ☑ **Networks and Activities**

- ◆ **Status Control**

- ◆ **Tools**

- ☑ **Table controls**

- ◆ **Project Versions**

User Specific Table Control Settings

Diagram illustrating the steps to configure user-specific table control settings:

- 1 Column Width**: Indicated by a red double-headed arrow between the first and second columns of the table.
- 2 Move around**: Indicated by a red curved arrow pointing from the table to the 'Table Settings' dialog box.
- 3 User Settings**: Indicated by a blue arrow pointing from the 'Table Settings' dialog box to the 'Click Here' callout, which points to the user selection icon in the table header.

The 'Table Settings' dialog box shows the 'Maintain variants' section with the variant 'Jerry' selected and the 'Use as standard setting' checkbox checked. The 'Click Here' callout points to the user selection icon in the table header.

S...	L...	WBS element	Description	Acct	PE	System status	Short ID
	1	V-0691001	EG -1 Plant Project	<input type="checkbox"/>	<input checked="" type="checkbox"/>	REL BUDG AVAC	V-0691001
	2	V-6691001.01	Phase 1 Basic Design	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	REL BUDG ISBD AUC ...	V-6691001
	2	V-6691001.02	Phase 2 Detailed Engineering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	REL BUDG AUC AVAC	V-6691001
	2	V-6691001.03	Phase 3 & 4 Procurement & C...	<input type="checkbox"/>	<input type="checkbox"/>	REL BUDG AVAC	V-6691001
	3	V-6691001.03.01	Civil & Structure work	<input type="checkbox"/>	<input type="checkbox"/>	REL BUDG AVAC	V-6691001
	3	V-6691001.03.02	Mechanical Work	<input type="checkbox"/>	<input type="checkbox"/>	REL BUDG AVAC	V-6691001
	3	V-6691001.03.03	Electrical Work	<input type="checkbox"/>	<input type="checkbox"/>	REL BUDG AVAC	V-6691001
	3	V-6691001.03.04	Instrument Work	<input type="checkbox"/>	<input type="checkbox"/>	REL BUDG AVAC	V-6691001
				<input type="checkbox"/>	<input type="checkbox"/>	REL BUDG AVAC	V-6691001
				<input type="checkbox"/>	<input checked="" type="checkbox"/>	REL BUDG AVAC	V-6691001
				<input type="checkbox"/>	<input checked="" type="checkbox"/>	REL BUDG AVAC	V-6691001

Click Here

Save

Contents

◆ Master Data in Project Systems:

- ☑ Work Breakdown Structures
- ☑ Networks and Activities

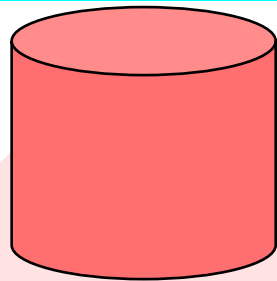
◆ Status Control

◆ Tools

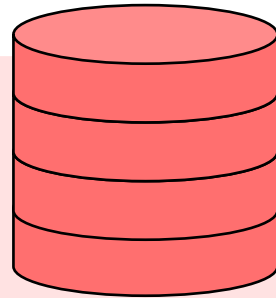
- ☑ Table controls

◆ Project Versions

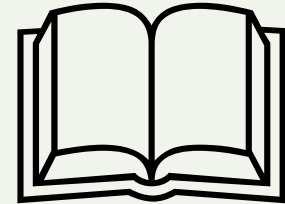
Versions in Project Systems



Versions



Project Version



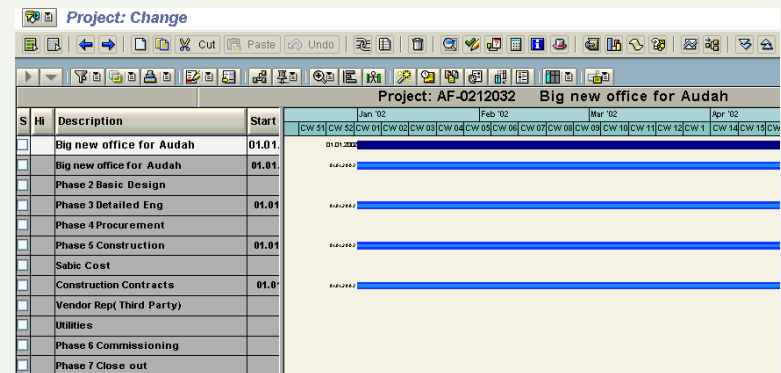
**“Project Snapshot”
Can't be changed!!!**



CO Plan Version

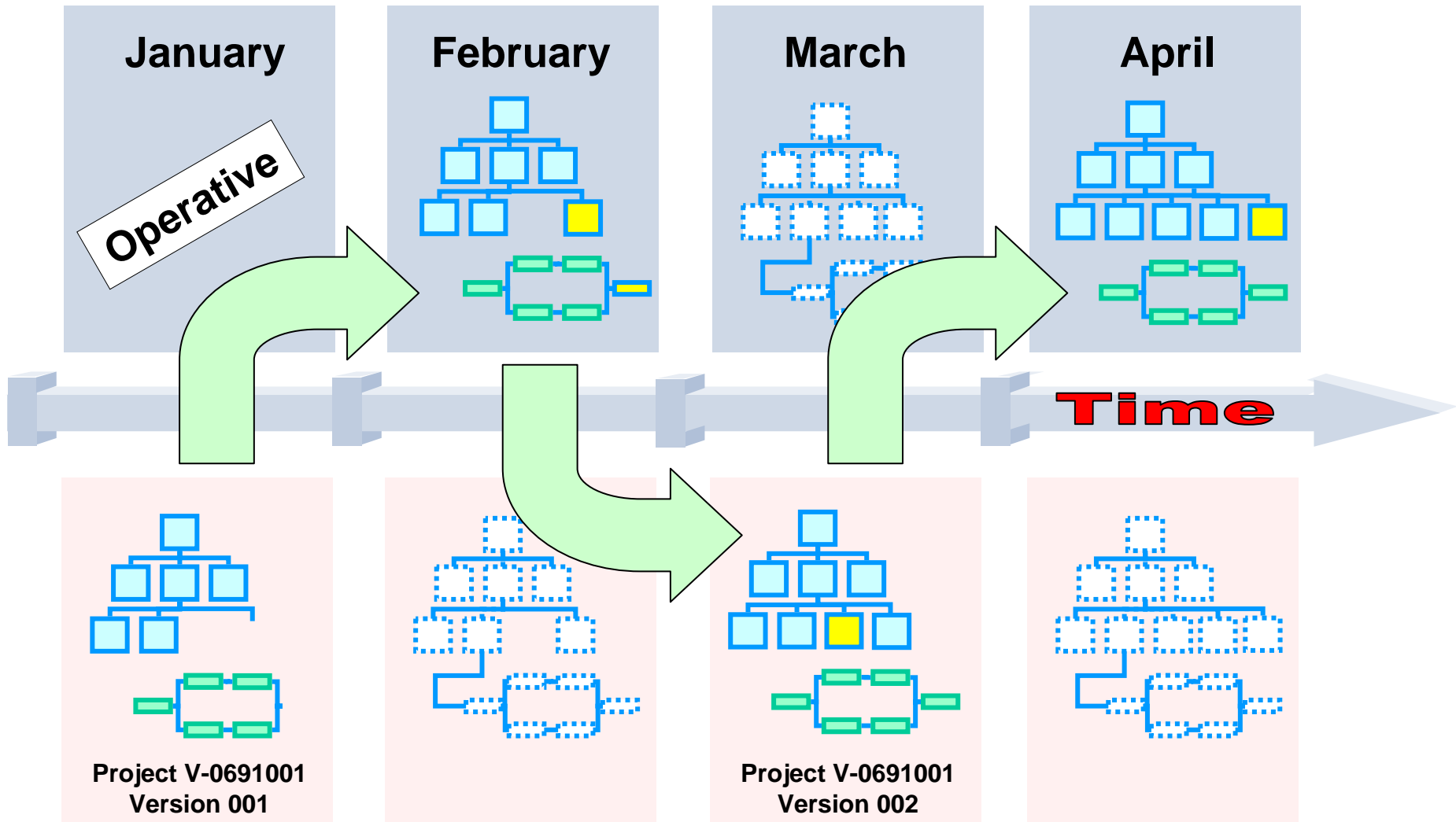


Simulation Version



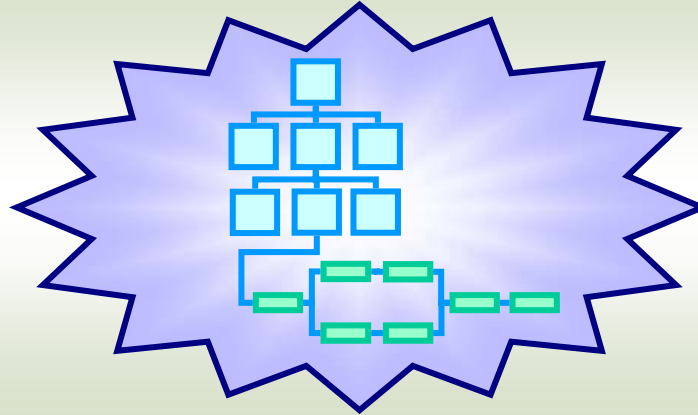
Can be changed!!!

Simulation

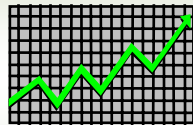


What are simulation versions used for?

**Update
Operative Project**



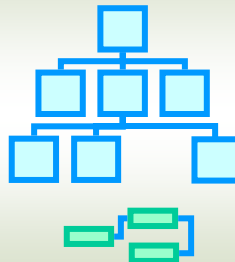
Comparisons



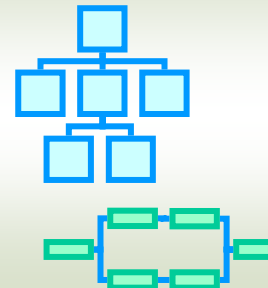
November 2002						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Create

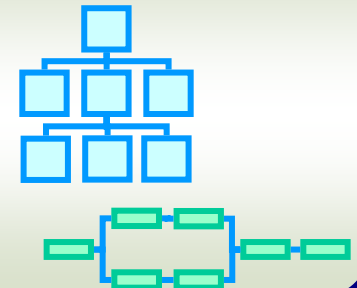
SIM 001



SIM 002



SIM 003



Planning & Budgeting

—

Business Scenario

- ◆ **Cost planning is carried out during the planning phases and is reviewed through reports during subsequent review.**

Planning versus Budgeting

Planning

◆ Cost-oriented (cost elements, plan versions, period values)

◆ Easily changed; line items created if desired

◆ No availability check

➔ **"FUNDS REQUESTED"**

Budgeting

◆ Funds-oriented (original, supplements, returns, annual values)

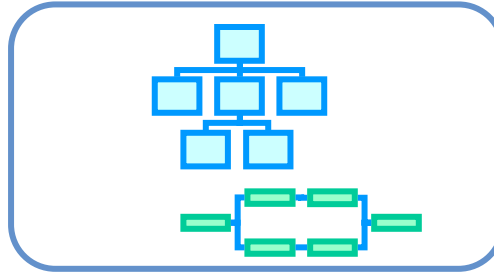
◆ Binding values; line items for each change

◆ Availability check: Warning at 95%
Error message at 105%

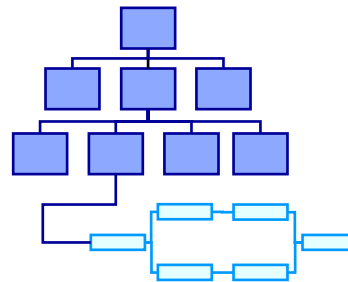
➔ **"APPROVED FUNDS"**

Aspects of Planning

Project Structures:



Costs:



Dates:

October 2002						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

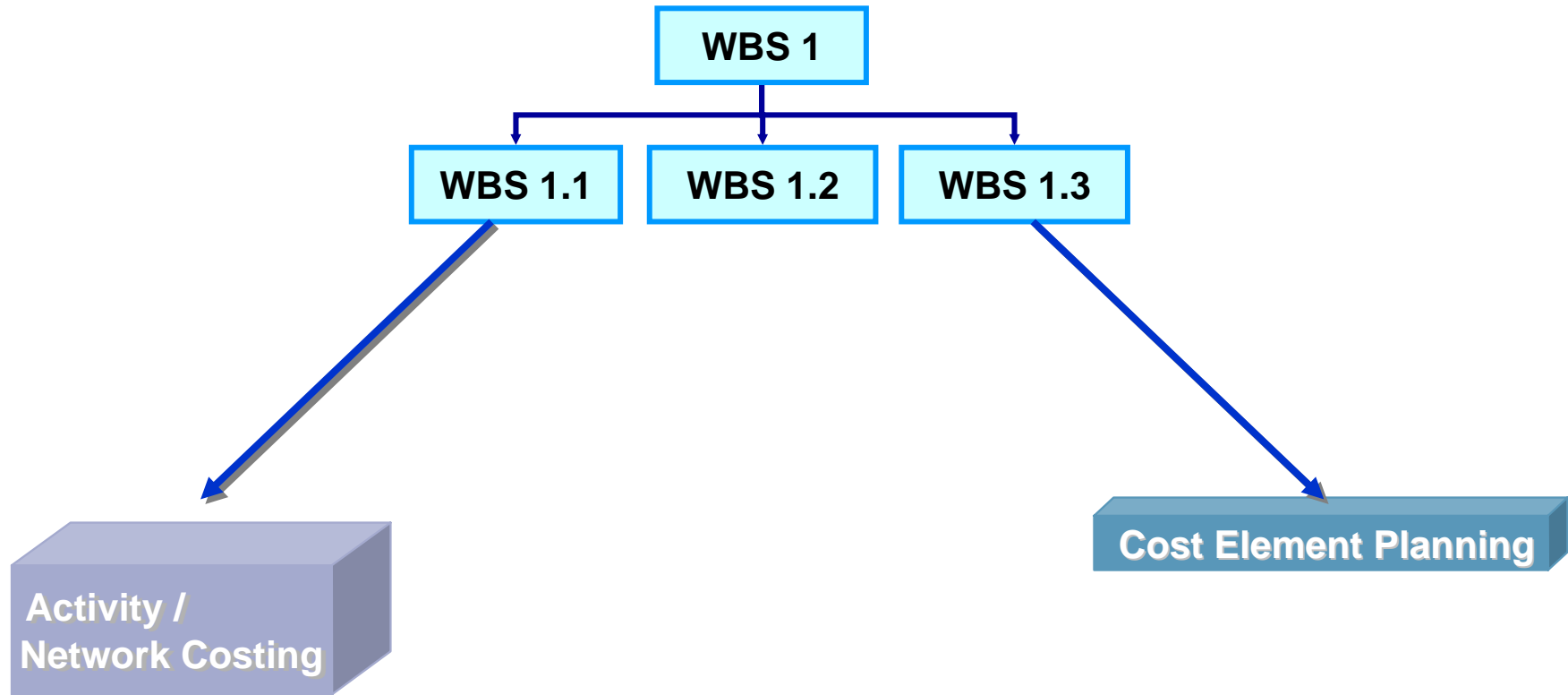
Resources:



Contents

- ◆ **WBS Cost Element Planning.**
- ◆ **Planned Costs in Networks.**
- ◆ **Budgeting.**
- ◆ **Commitment Management & Availability Control.**

Cost Planning in Projects



WBS Cost Element Planning

Primary costs

Change Cost Planning: WBS Element Overview					
<div> Annual Overview Primary Costs Activity Input</div>					
Proj. Def.		V-0691001		EG-1 Plant Project	
Period		2006			
Views in		0 Controlling area currency			
Annual Values					
	Lev	WBS element	Cost plan	Tra...	Distributable
	1	V-0691001	2,000,000.00	INR	36,000.00
	2	V-6691001.01		INR	
	2	V-6691001.02		INR	
	2	V-6691001.03		INR	
	3	V-6691001.03.01		INR	
	3	V-6691001.03.02		INR	
	3	V-6691001.03.03		INR	
	3	V-6691001.03.04		INR	
	3	V-6691001.03.05		INR	
	2	V-6691001.04		INR	
	2	V-6691001.05		INR	

	A	B	C	D	E
1	Version	000		Plan/Act - Version	
2	Period	001	To	012	
3	Fiscal Year	2006			
4	WBS Element	V669100101000000		Phase 1 Basic Design	
5	Trans. Currency	INR		Rupee	
6	Cost Element		Total PlanCost	Distribution k	Total plan cost
7	400000	Raw Material	0 2		0 2
8	400013	Others Mater	0 2		0 2
9	400700	Packaging M	0 2		0 2
10	415000	Ext. procur. c	0 2		0 2
11	420003	Salaries & W	0 2		0 2
12	420004	Transport Allo	0 2		0 2

Contents

- ◆ **WBS Cost Element Planning.**
- ◆ **Planned Costs in Networks.**
- ◆ **Budgeting.**
- ◆ **Commitment Management & Availability Control.**

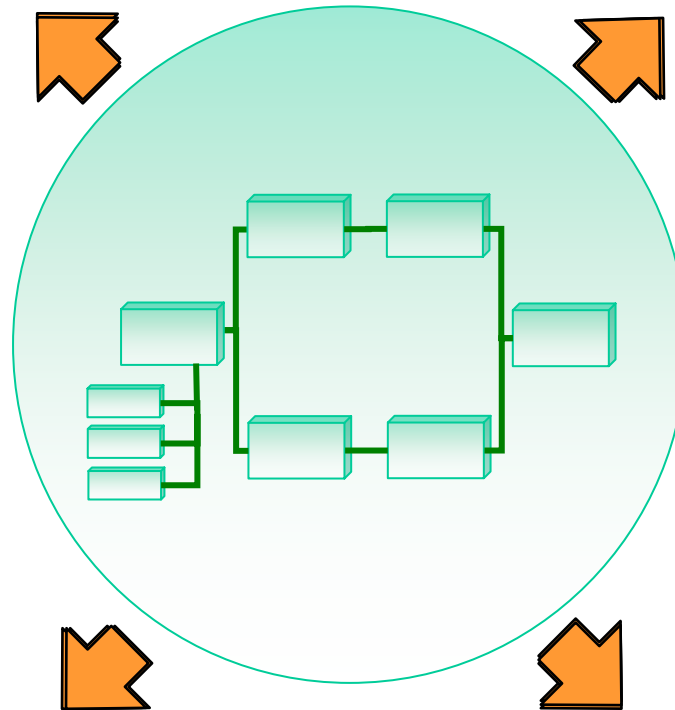
Network Activities

Internal Processing:

- ♦ Work / Services performed inhouse

External Processing:

- ♦ Purchasing of work / services



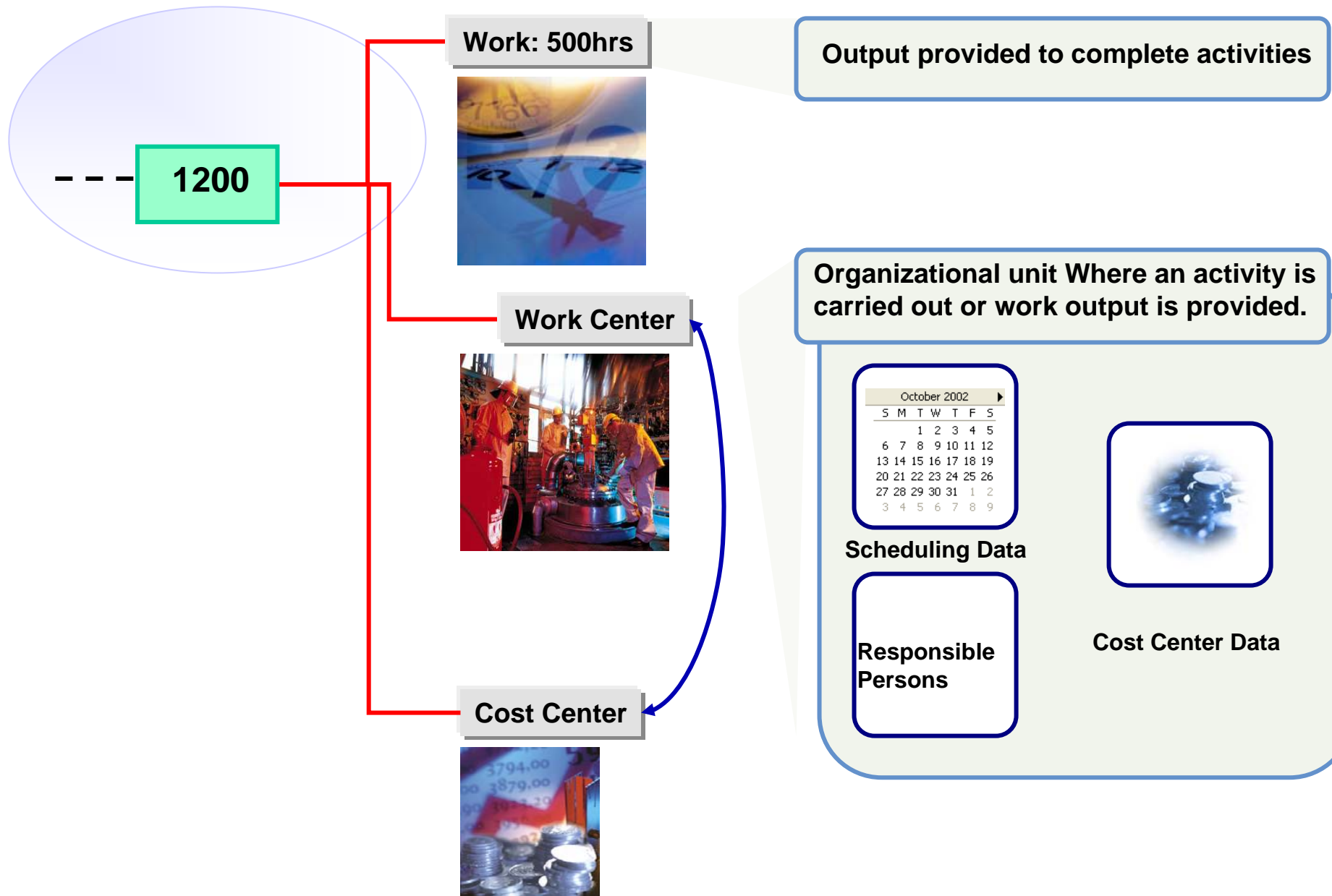
Costs Activity:

- ♦ Planning of additional primary costs

Services:

- ♦ Purchasing of services with service specifications

Internal Processing



External Processing



--- 1300

Description

Material Group

Purchasing Group

Quantity & Unit

Price per Unit

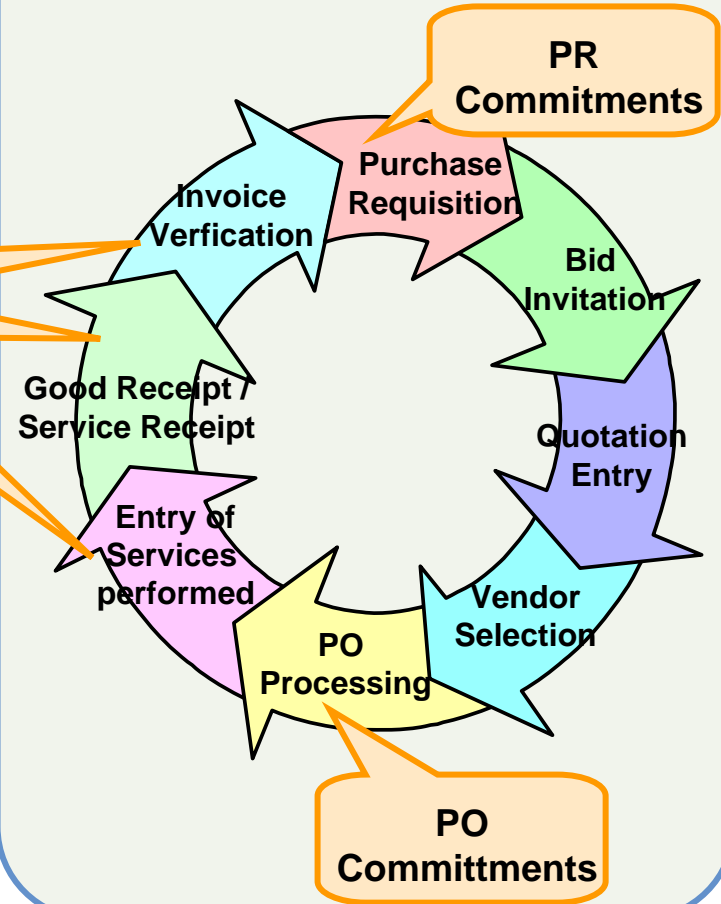
Vendor 1000

Purchase Order



Work Performed by a third party (Vendor)

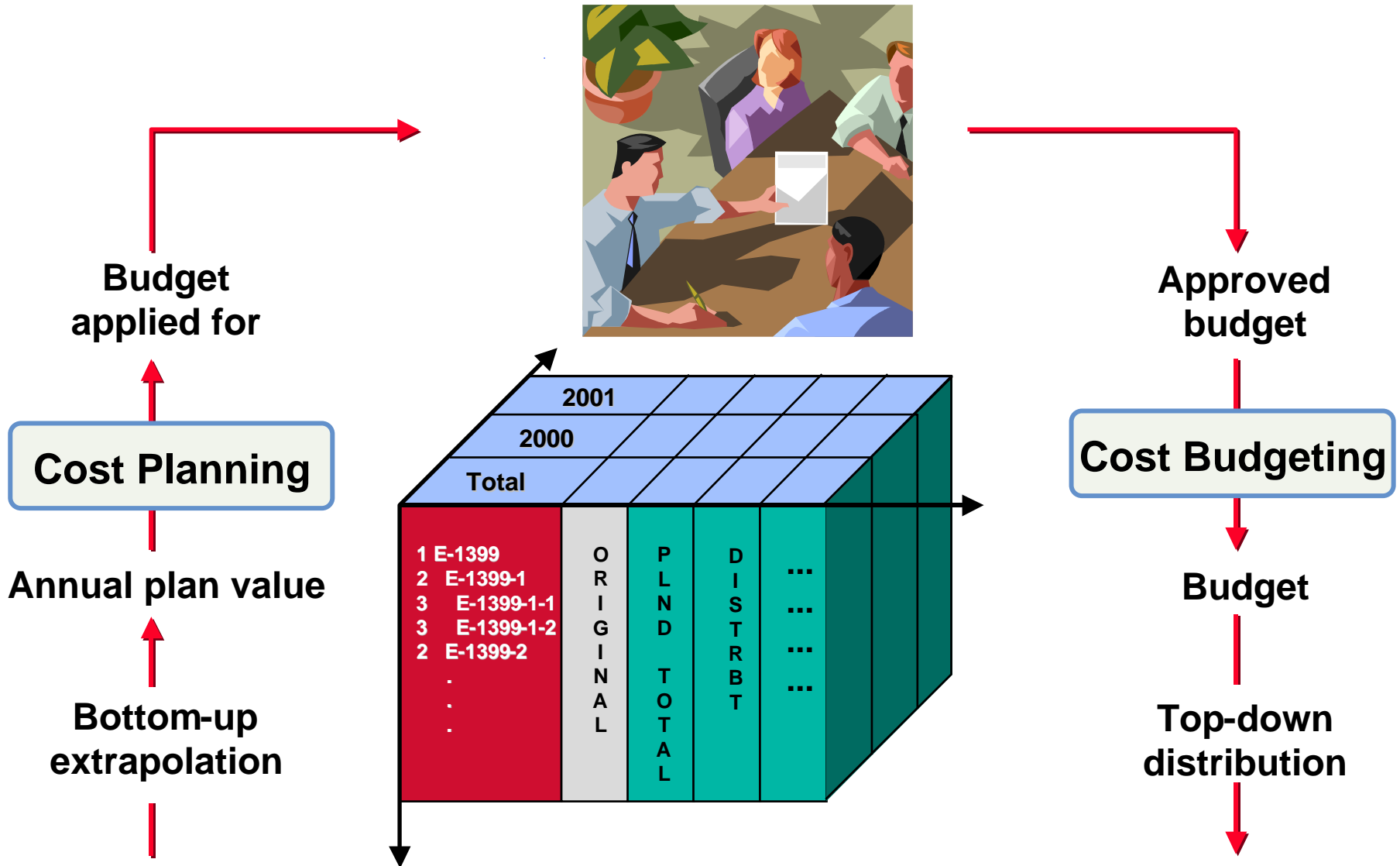
Actual Costs



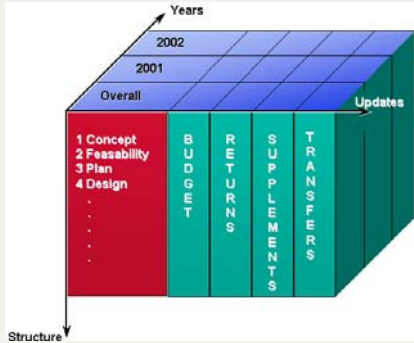
Contents

- ◆ **WBS Cost Element Planning.**
- ◆ **Planned Costs in Networks.**
- ◆ **Budgeting.**
- ◆ **Commitment Management & Availability Control.**

Cost Planning and Budgeting

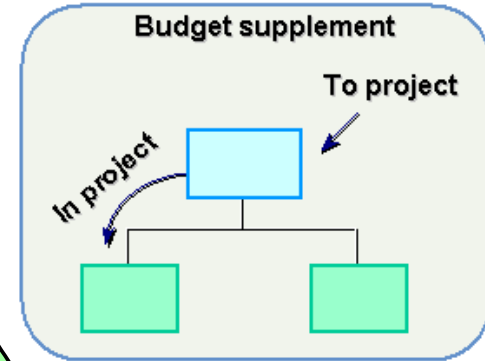
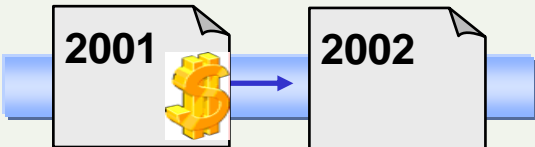


Budgeting Overview



Budget Values

Budget Carryforward



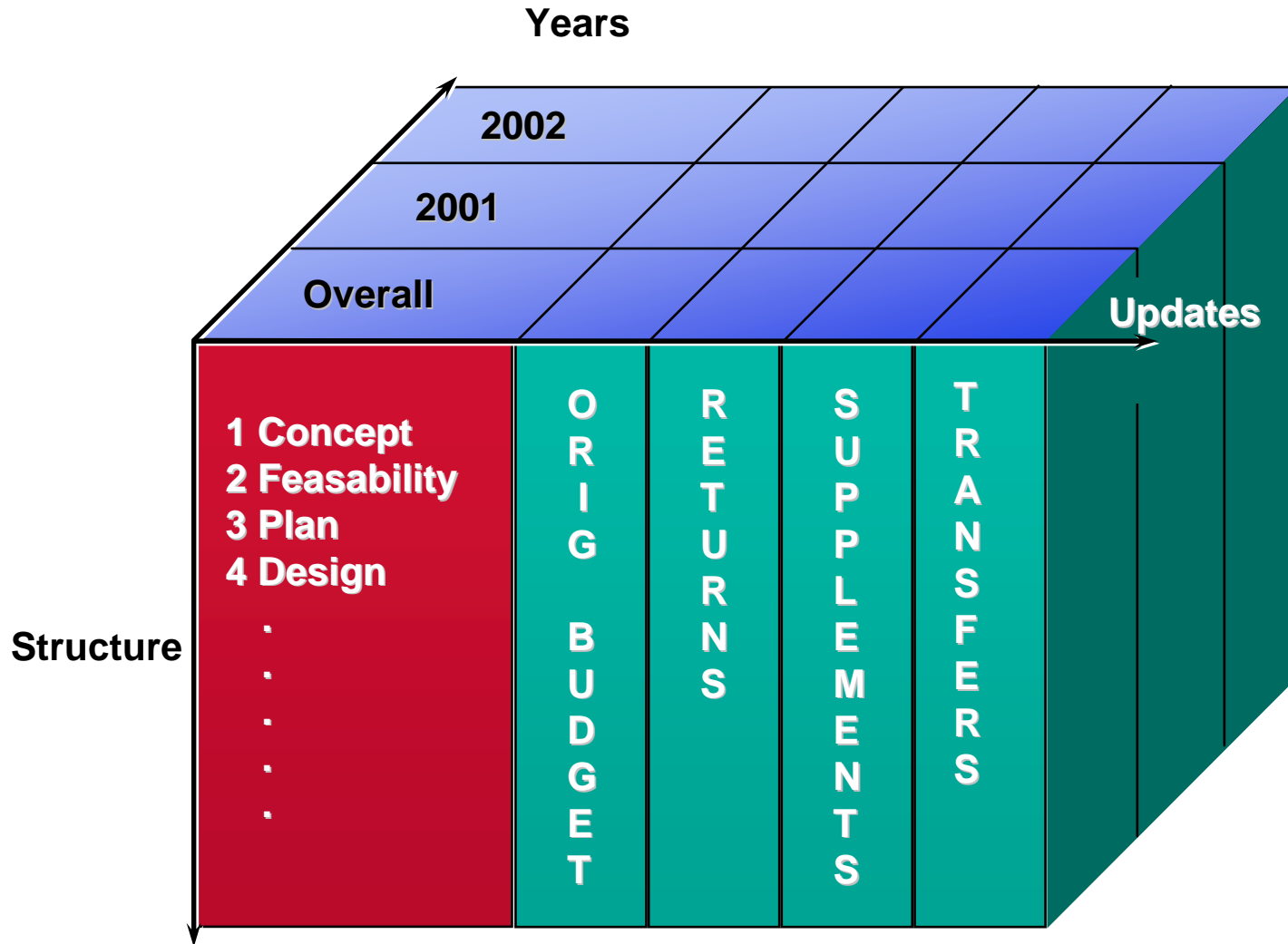
Budget Updates

Release Budget

Availability Control:

- ☒ Against Current Budget
- ☒ Against Budget Releases

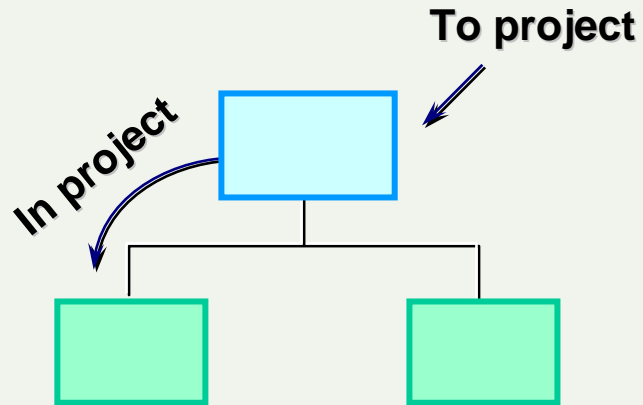
Budget Values



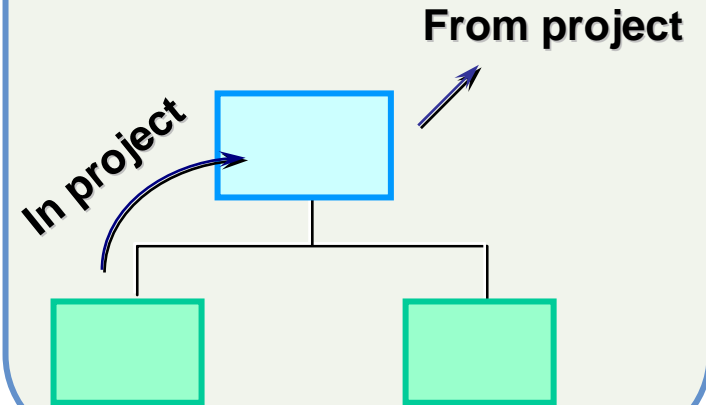
NOTE: Current Budget = OB + Suppl – Ret +/- Transfers

Budget Updates

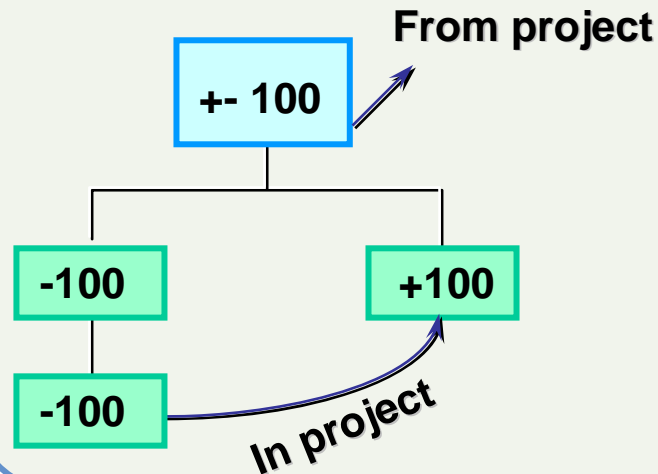
Budget supplement



Budget return



Budget transfer



Budget Management

WBS: V-06910001

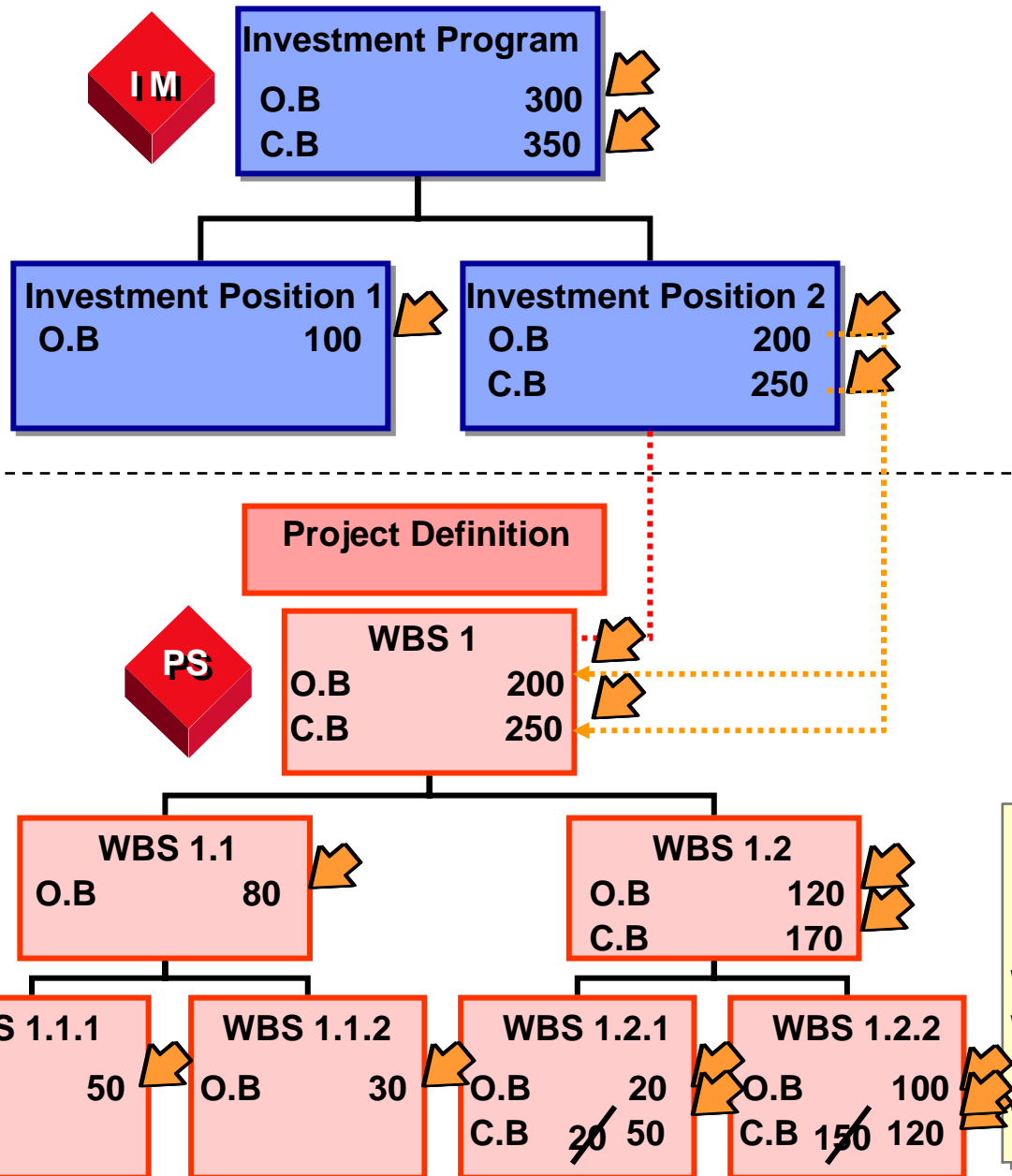
	Original Budget	Current Budget
Overall	5,000	7,000
2002	2,000	3,000
2003	3,000	4,000

Budget Line Items

Order	400010	Trade Fair	
Document	Year	Activity	Amount
030000001	2002	Original	2,000
030000200	2002	Supplement	3,000
030000306	2002	Return	(2,000)
Total	2002		3,000

NOTE: CB = OB + Suppl – Ret +/- Transfers

Budget Update Simulation



◆ Auto Link level 1 Capital Project to lowest IM position

ORIGINAL BUDGET

- ☒ Set IM Original Budget
- ☒ Distribute Original Budget
- ☒ Allocate Original Budget

BUDGET SUPPLEMENT

- ☒ Supplement IM EUR 50
- ☒ Distribute Supplement to PS
- ☒ Allocate Budget Supplement

BUDGET TRANSFER

- ☒ Transfer EUR 30 from WBS 1.2.2 to WBS 1.2.1

Budget Updates Report

	C.B	O.B	Supp	Trn	Ret
WBS 1	250	200	50		
WBS 1.2	170	120	50		
WBS 1.2.1	50	20		30	
WBS 1.2.2	120	100	50	-30	

Releasing the Budget

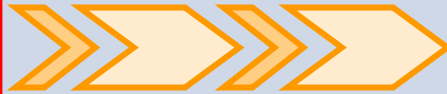
Budget 10m



Add 1 m



Release
EUR 2 m



Release
EUR 3 m

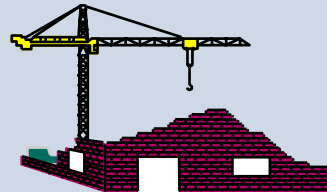
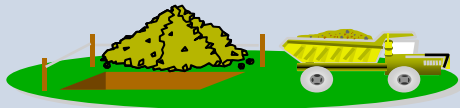
Add 5 m



Release
EUR 8.0 m



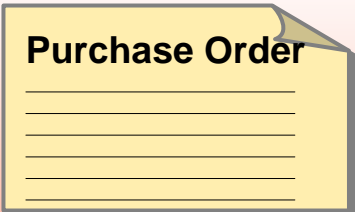
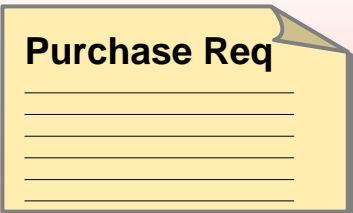
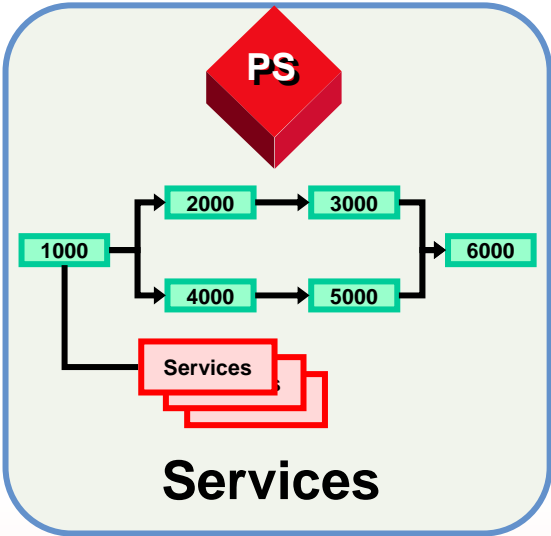
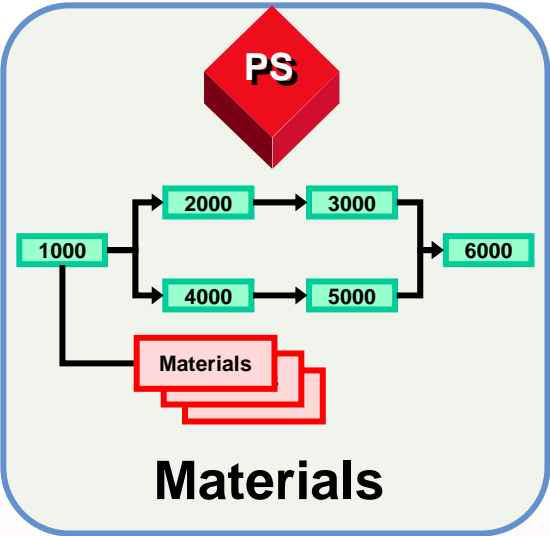
Budget 10m



Contents

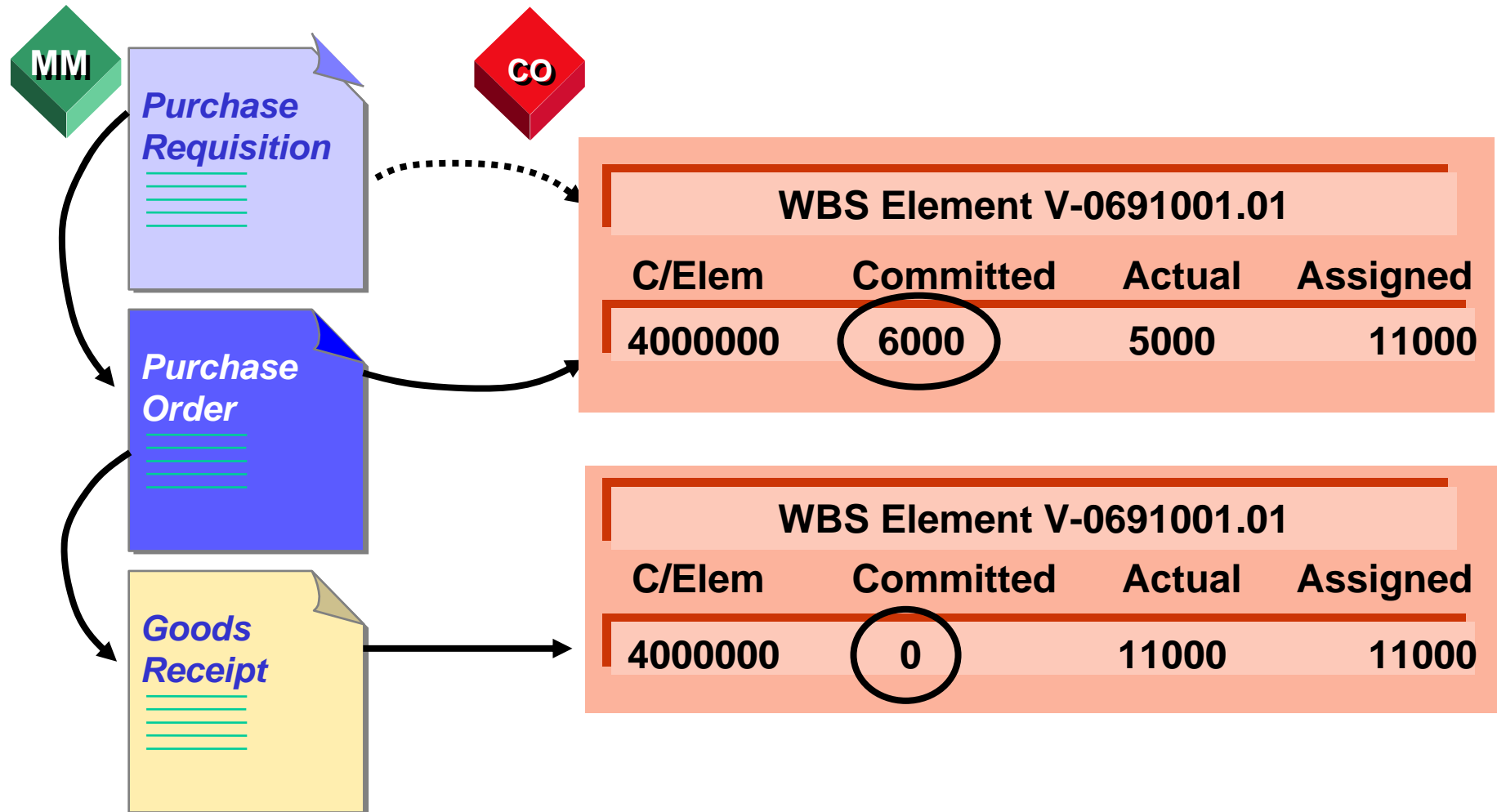
- ◆ **WBS Cost Element Planning.**
- ◆ **Planned Costs in Networks.**
- ◆ **Budgeting.**
- ◆ **Commitment Management & Availability Control.**

Commitment Management (1)



WBS Element V-0691001.01			
C/Elem	Committed	Actual	Assigned
4000000	6000	5000	11000

Commitment Management (2)



Availability Control

WBS 1.1.1

	Budget	Comm	Actual
Total	50	10	40
2002	30	5	25
2003	20	5	15

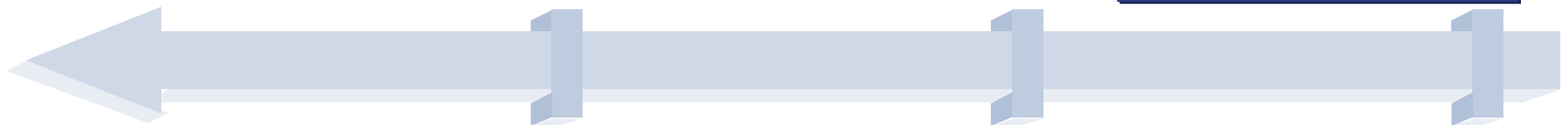
No more Funds available!!

Availability check

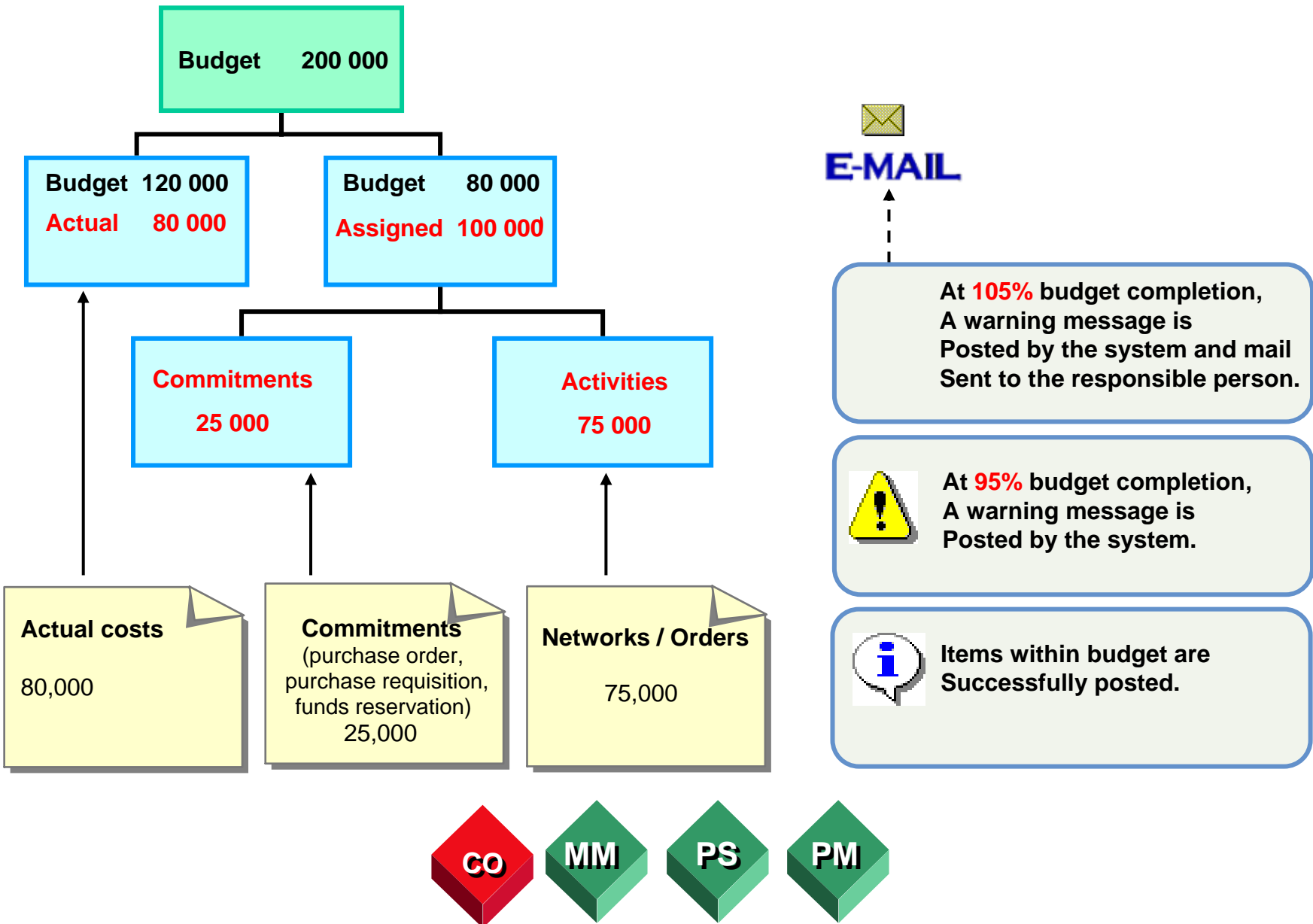
Business Events

Invoice

Purchase order
Purchase Requisition



Availability Control Simulation



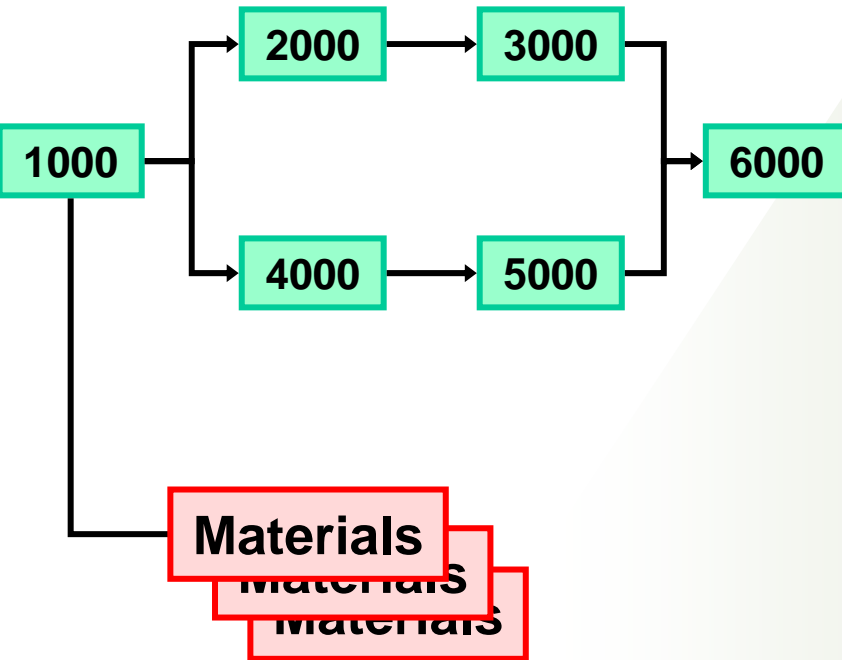
Materials & Services

—

Business Scenario

- ◆ **During Project Execution, both materials and services are procured. Materials are managed in plant stock.**
- ◆ **Project managers are interested in:**
 - ☑ **Stock used on your project. (Stock controlling)**

Integration with MM



Definition

Material required for performing an activity or for manufacturing a product.

Item Category

"Plant Stock"

"Non Stock"

Stock Item
"L"

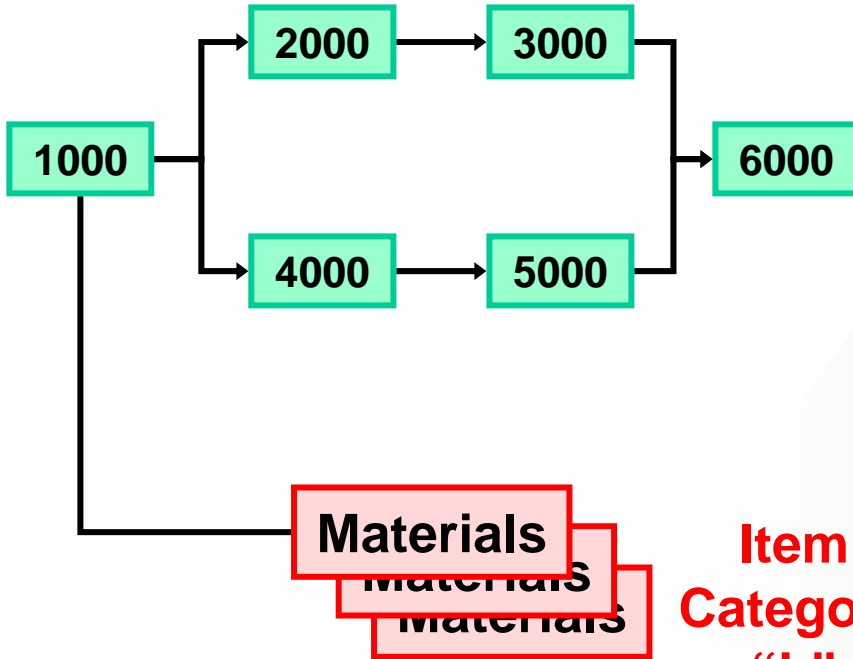
Non-Stock
Item "N"

Reservation

Purchase Req.

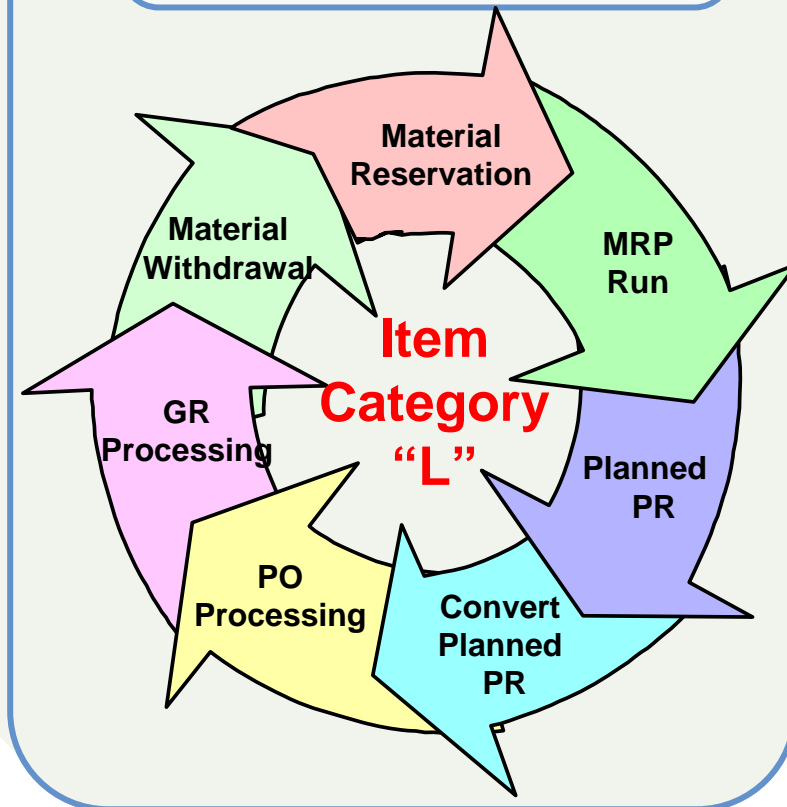
MM

Procurement of Stock Items

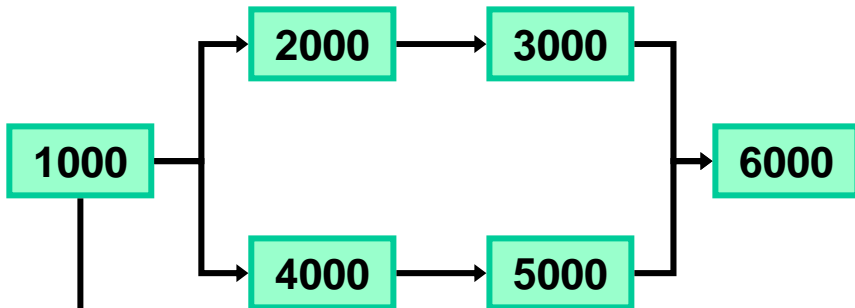


Definition

Material components procured to stock. Reservations are generated for stock items.



Procurement of Non Stock Items



Materials

Materials

Materials

**Item
Category
"N"**

Actual
Costs



Definition

Material procured directly by means of an activity

PR
Commitments



PO
Committments

Account Assignment Category

The screenshot displays the SAP Material Master interface. The main window shows the 'Identification and view selection' section with the following data:

Material	718	/	9100	Prototype materials
Item Category	N			
Detail:				
Overview(s):				



Below this, the 'Item' section shows 'p001' and 'Item text'. The 'General data' tab is active, showing 'Purch. data' and 'Proc. para'. The 'Purchasing data' section shows 'Purch.req.' with the value '10008625 / 10'.

A callout window titled 'Item category (bill of material) (1) 8 Entries' is open, showing a list of item categories. The 'Restrictions' tab is active. The list is as follows:

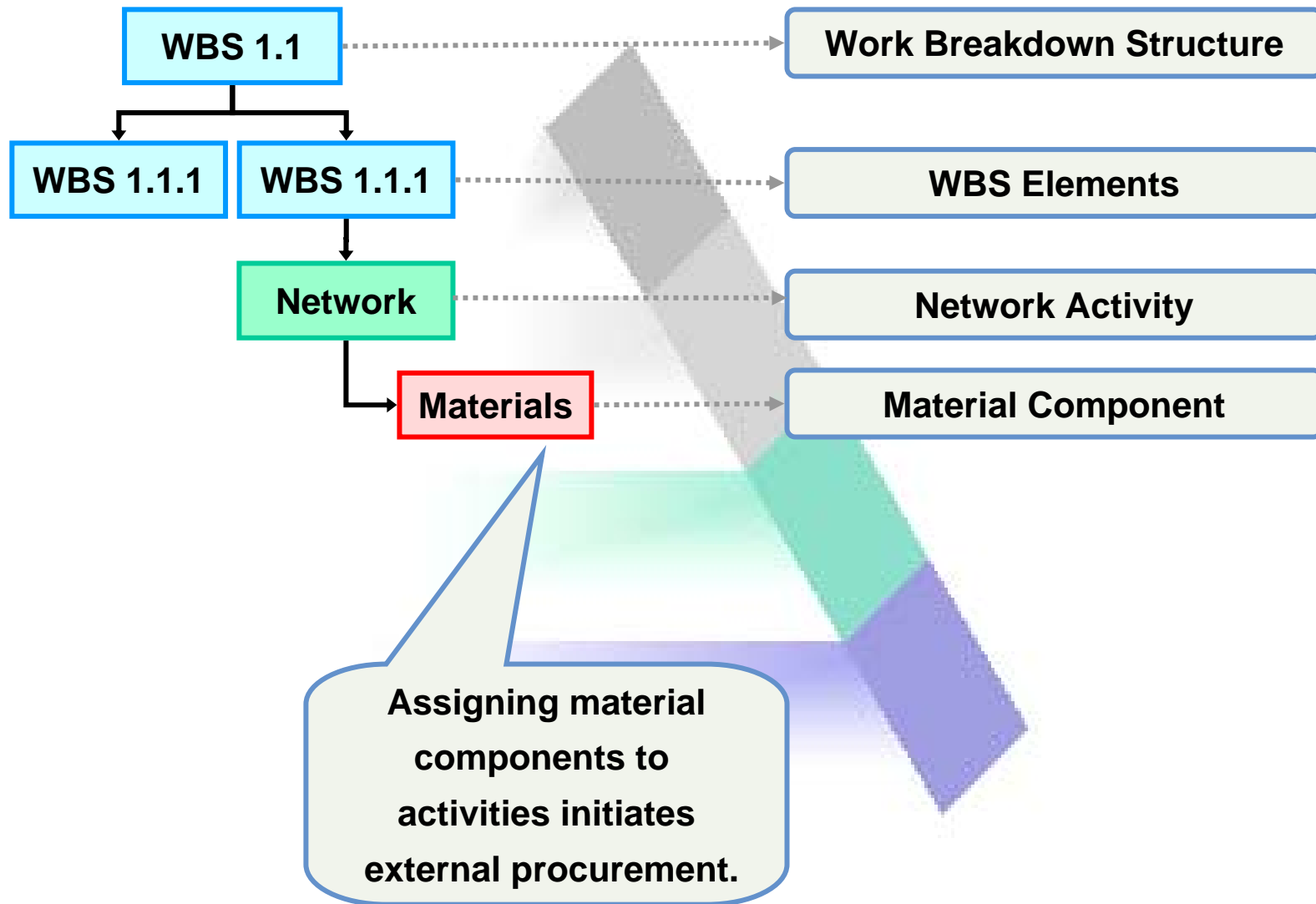
ICT	Item category text
D	Document item
I	PM structure element
K	Class item
L	Stock item
M	Intra material
N	Non-stock item
R	Variable-size item
T	Text item

The 'Non-stock item' (N) is highlighted in yellow.

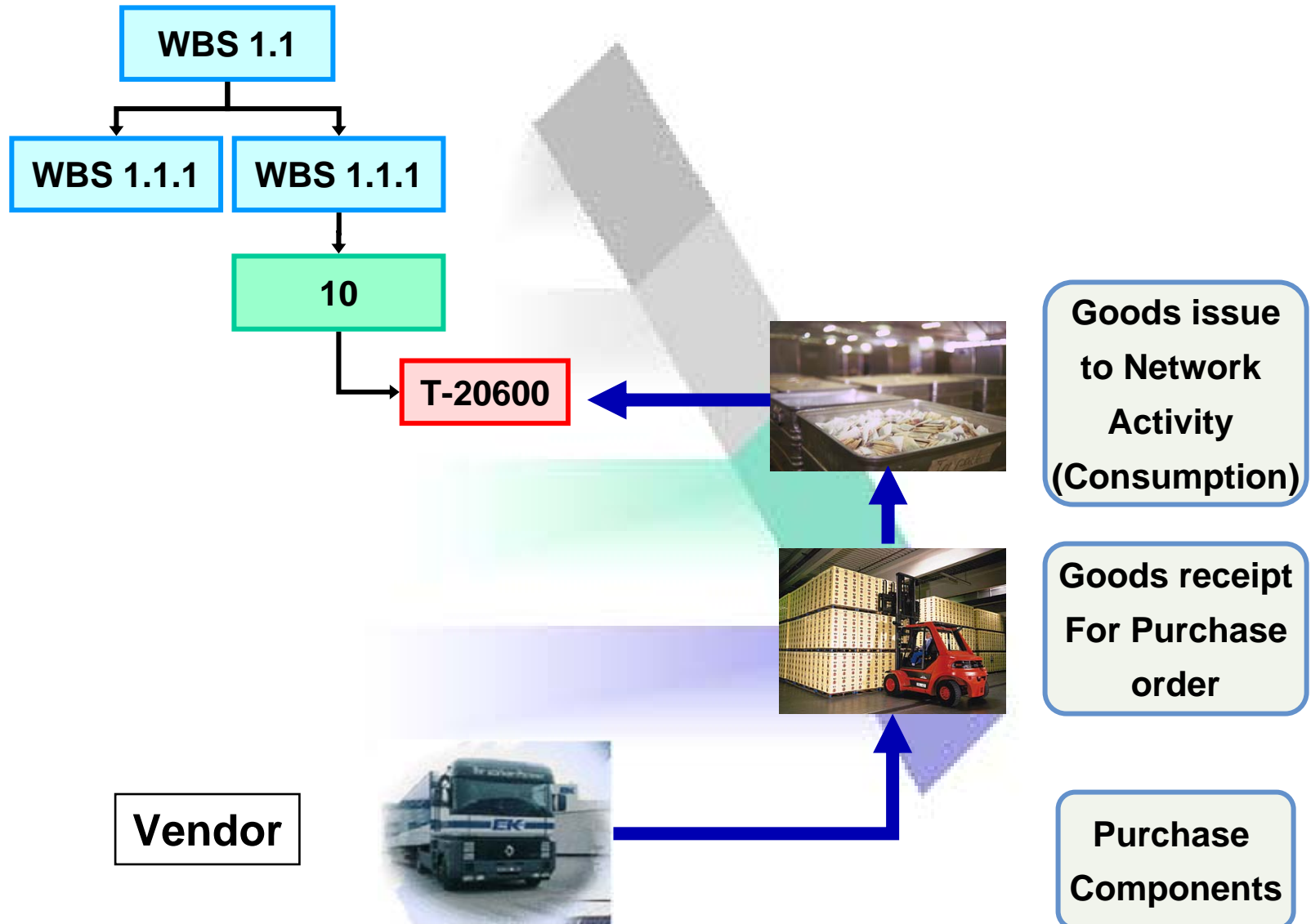
Account Assignment Category "L" Non Stock

Identification and view selection			
Material	719	/	9100 Board
Item Category	L		
Detail:			
Overview(s):			
Item	p002	Item text	Board
General data Proc.param Long txt			
General Data			

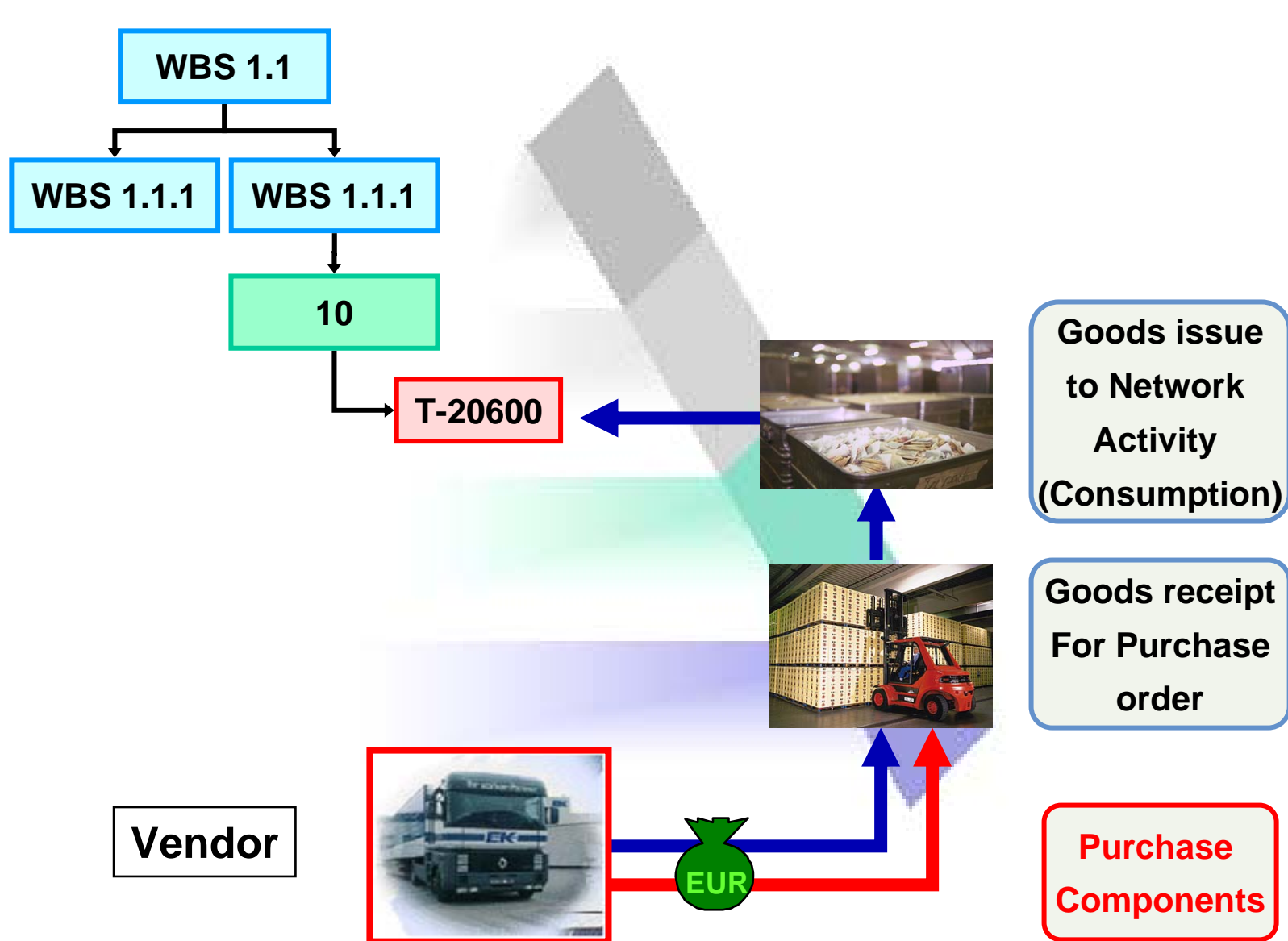
Project Structure



Procurement Steps



Procurement Steps – Purchase Order



Purchasing Components

Act/Com/Total/Plan

As of: 30.10.2006 Page: 2 / 6 Column 1 / 4

Variation: Object

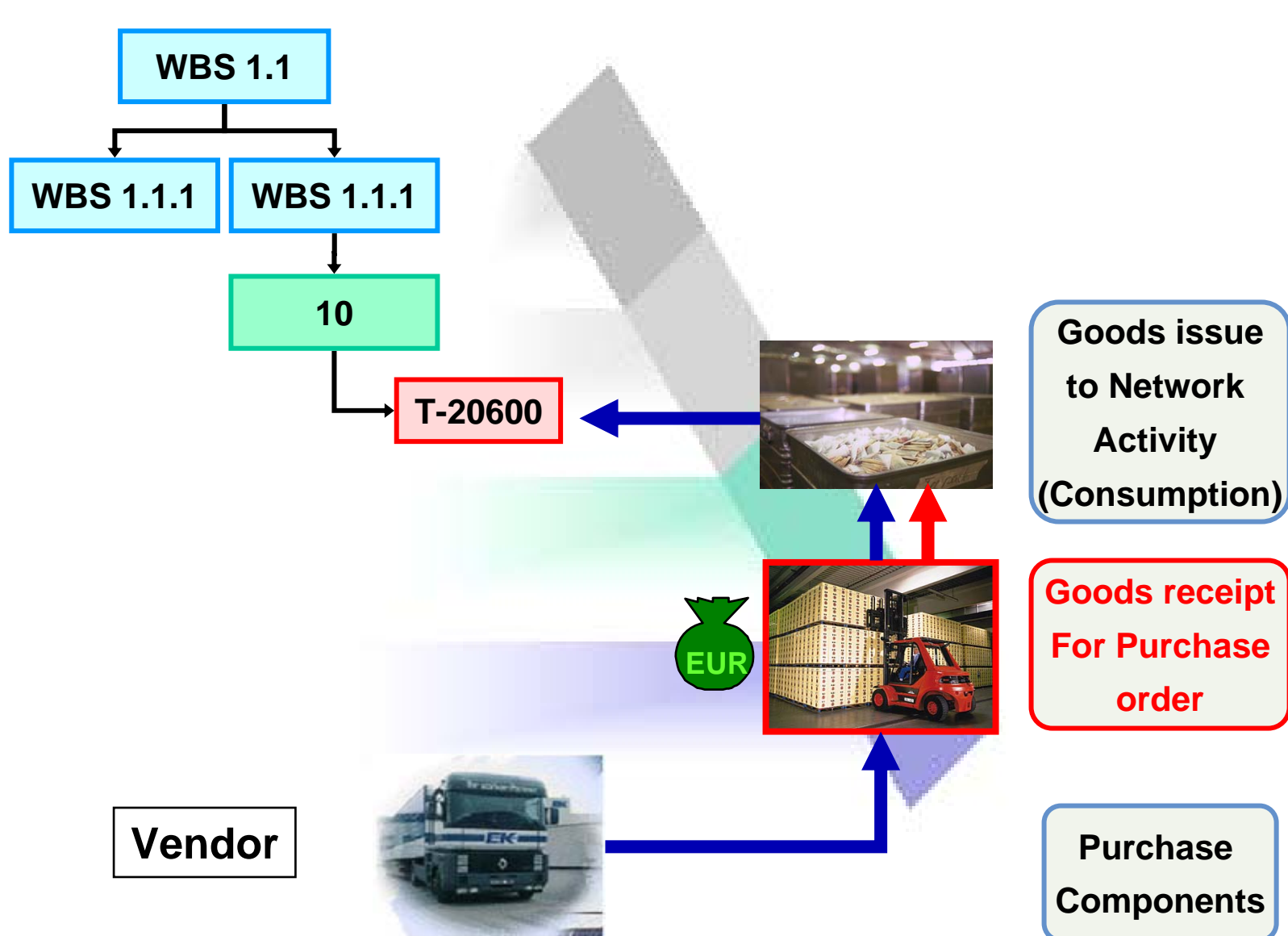
- PRJ V-0691001 EG -1 Plant Project
 - WBS V-0691001 EG -1 Plant Pro
 - WBS V-6691001.01 Phase 1**
 - WBS V-6691001.01 Phase 1
 - NWA 910900000000 001
 - NWA 910900000000 002
 - NWA 910900000000 003
 - NWA 910900000000 004

Object WBS V-6691001.01 Phase 1 Basic Design
Person responsible Jerry Jones

Cost elements	Actual	Commitments	Total	Plan
430002 Spares Materials - D	272.73		272.73	270.
430004 Outside Services				36.
440503 Outside Services Legal Fees		1,918.18	1,918.18	1,899.
466001 Capitalized Labors Regular	2,040.00		2,040.00	
466002 Capitalized Materials	272.73		272.73	
943204 Proj Eng services	2,040.00		2,040.00	1,920.
* All cost elements		1,918.18	1,918.18	4,125.

Purchase order commitments

Procurement Steps – Goods Receipt



Purchasing Components

Act/Com/Total/Plan

As of: 30.10.2006 Page: 2 / 6 Column 1 / 4

Variation: Object

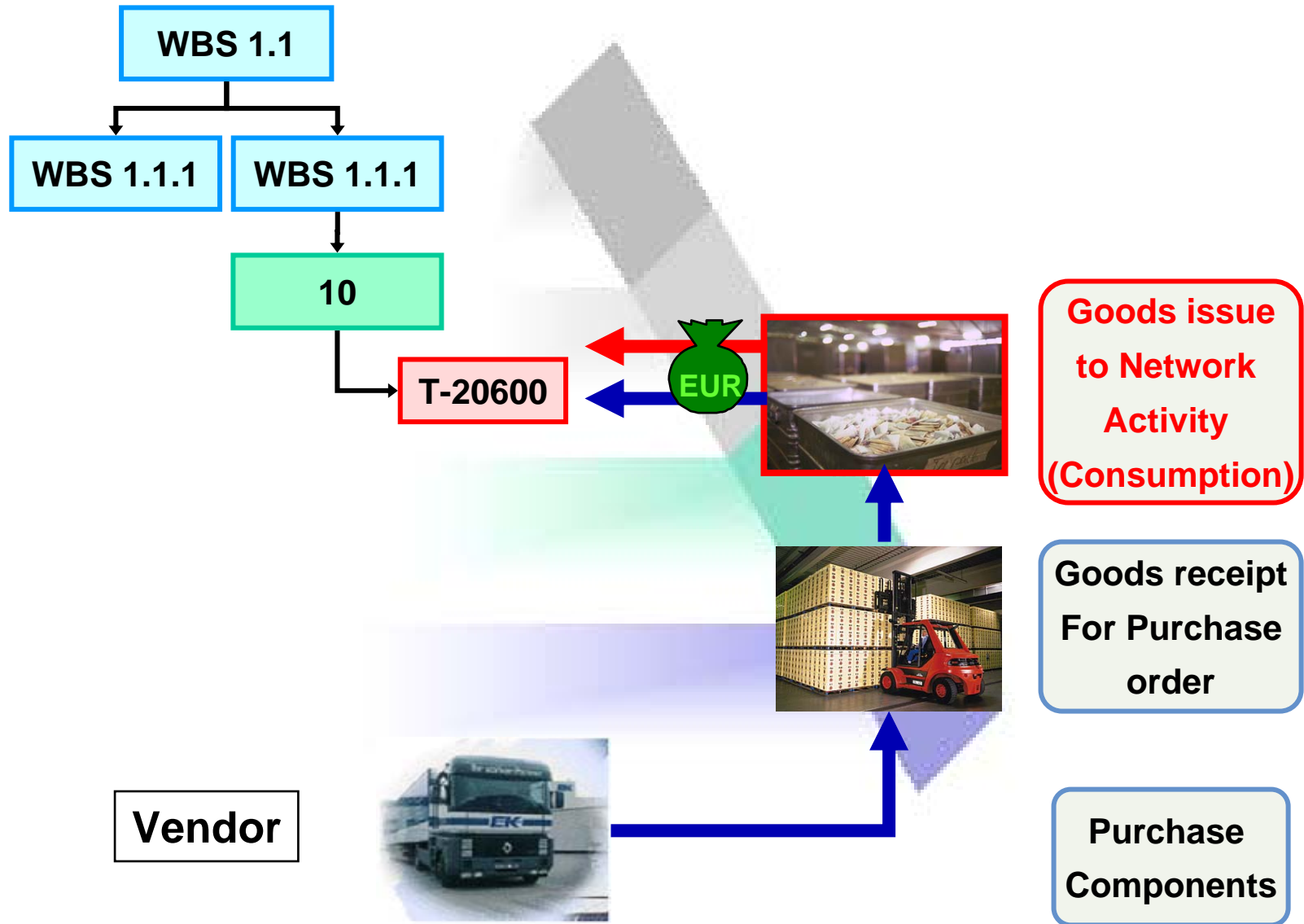
- PRJ V-0691001 EG -1 Plant Project
 - WBS V-0691001 EG -1 Plant Pro
 - WBS V-6691001.01 Phase 1
 - WBS V-6691001.01 Phase 1
 - NWA 910900000000 001
 - NWA 910900000000 002
 - NWA 910900000000 003
 - NWA 910900000000 004

Object WBS V-6691001.01 Phase 1 Basic Design
Person responsible Jerry Jones

Cost elements	Actual	Commitments	Total	Plan
430002 Spares Materials - D	272.73		272.73	270.
430004 Outside Services				36.
440503 Outside Services Legal F		1,918.18	1,918.18	1,899.
466001 Capitalized Labors	2,040.00-		2,040.00-	
466002 Capitalized Mat	272.73-		272.73-	
943204 Proj Eng	2,040.00		2,040.00	1,920.
* All cost		1,918.18	1,918.18	4,125.

The goods receipt reduces the commitment and posts it to actual

Procurement Steps – Goods Issue



Scheduling

—

Business Scenario

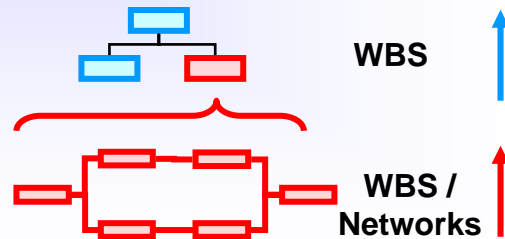
- ◆ **You have created a project structure, you are now required to see if your project can be completed on time. Schedule your project to find the answer.**

Dates

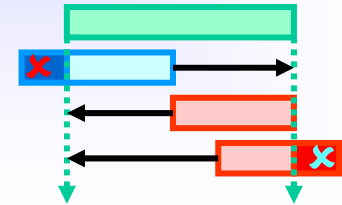
◆ Sets of Dates

- ☑ Basic Dates.
- ☑ Forecast Dates
- ☑ Actual Dates

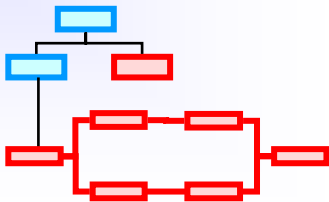
Check Dates



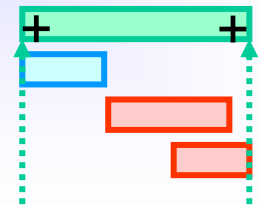
Inherit



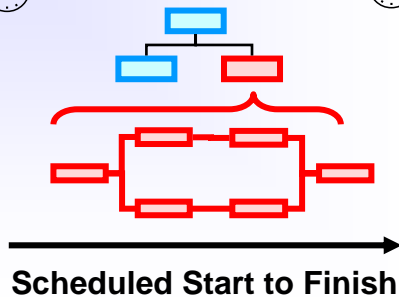
Planning form



Extrapolate



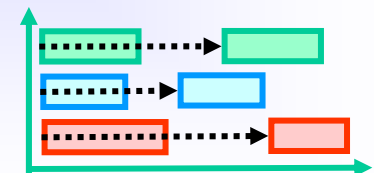
Scheduling



Planning different calendars

October 2002		October 2002						
		S	M	T	W	T	F	S
October 1				1	2	3	4	5
S	M	T	W	6	7	8	9	10
		1	2	13	14	15	16	17
6	7	8	9	20	21	22	23	24
13	14	15	16	27	28	29	30	31
20	21	22	23	3	4	5	6	7
27	28	29	30	1	2			
3	4	5	6	7	8	9		

Shift



Project Dates

◆ Project Definition

- ☑ **BASIC DATES**

◆ WBS Elements

- ☑ **BASIC DATES**
- ☑ **FORECAST DATES**
- ☑ *Scheduled Dates*
- ☑ Actual Dates

◆ Network Header

- ☑ **BASIC DATES**
- ☑ *Scheduled Dates*
- ☑ Actual Dates

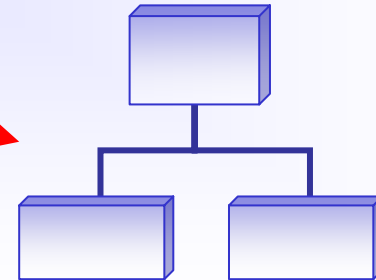
◆ Network Activity

- ☑ **CONSTRAINTS**
- ☑ *Earliest scheduled dates*
- ☑ *Latest scheduled dates*
- ☑ Actual Dates

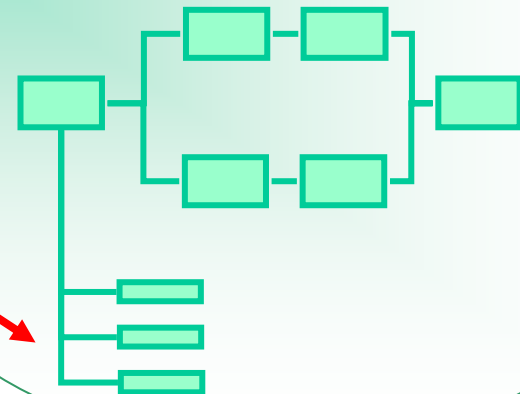
◆ Activity Element

- ☑ *Earliest scheduled dates*
- ☑ *Latest scheduled dates*
- ☑ Actual Dates

Project Definitions



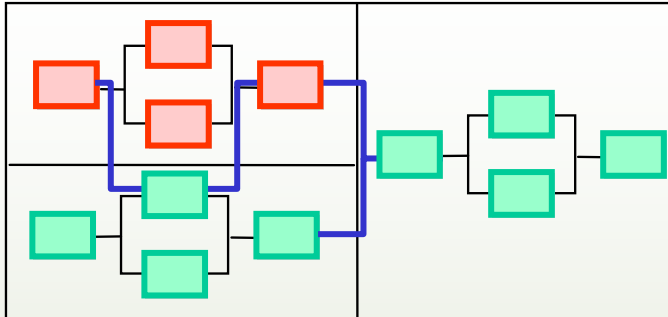
Network Header



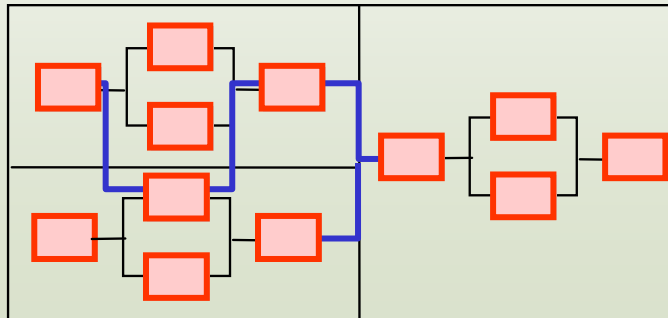
BOLD – Manual Planning Dates *Italics* – Automatic Dates

WBS / Overall Network Scheduling

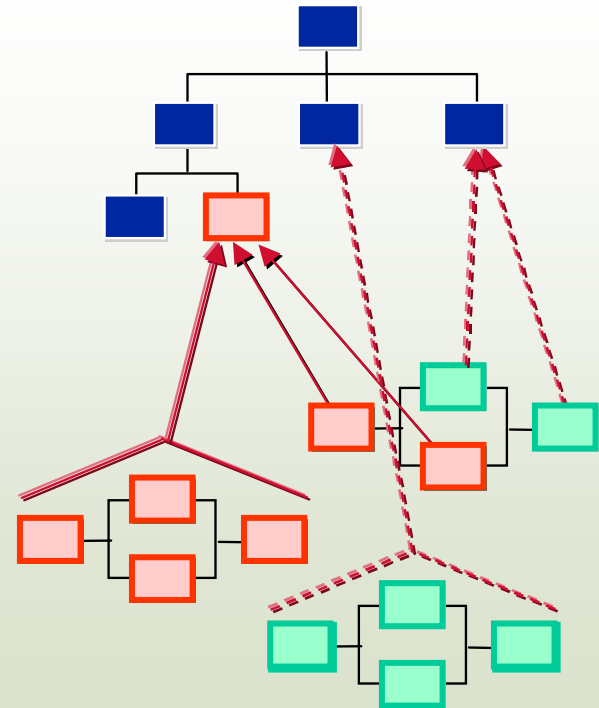
Network scheduling



Scheduling of the overall network

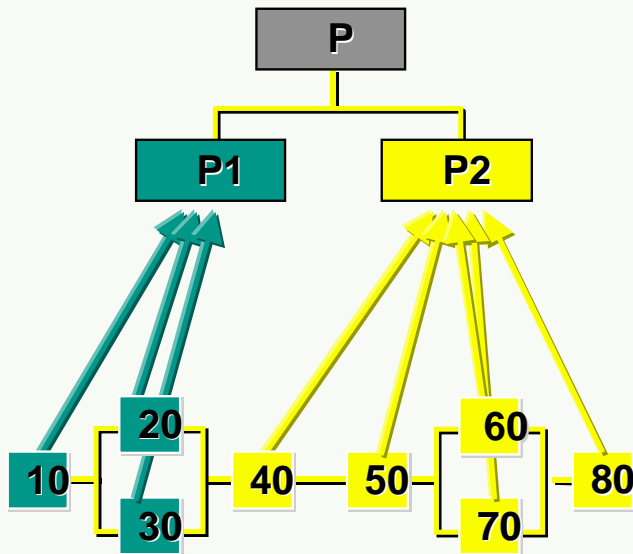


WBS scheduling

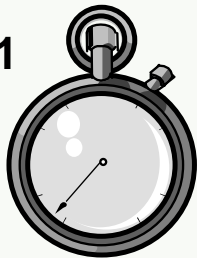


Bottom-Up planning

WBS

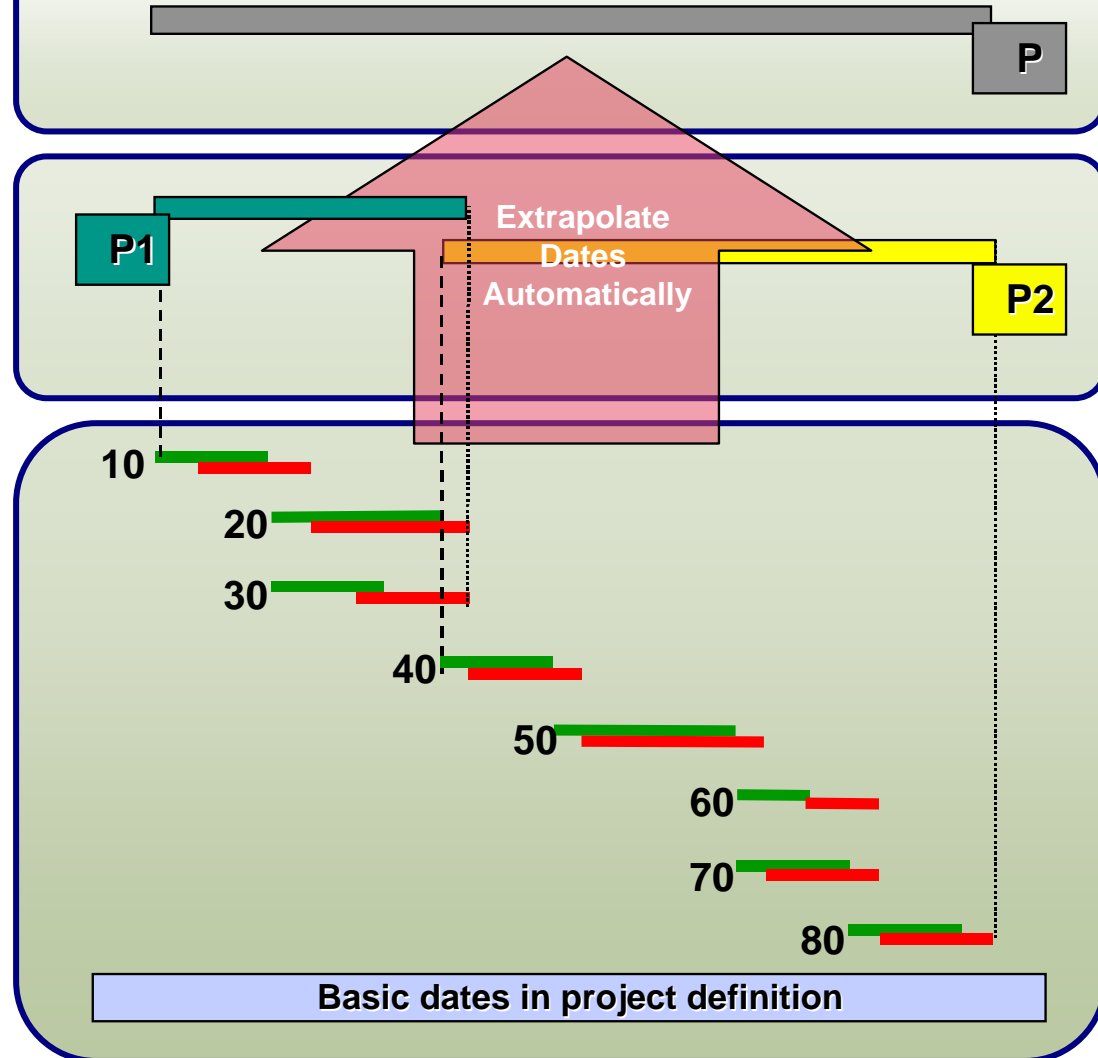


Network 1

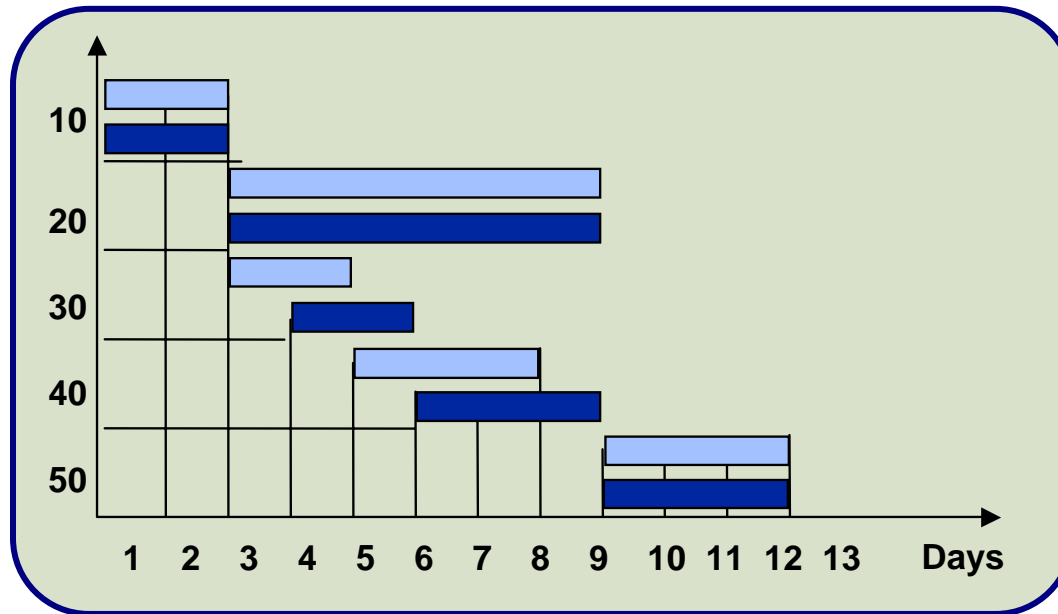
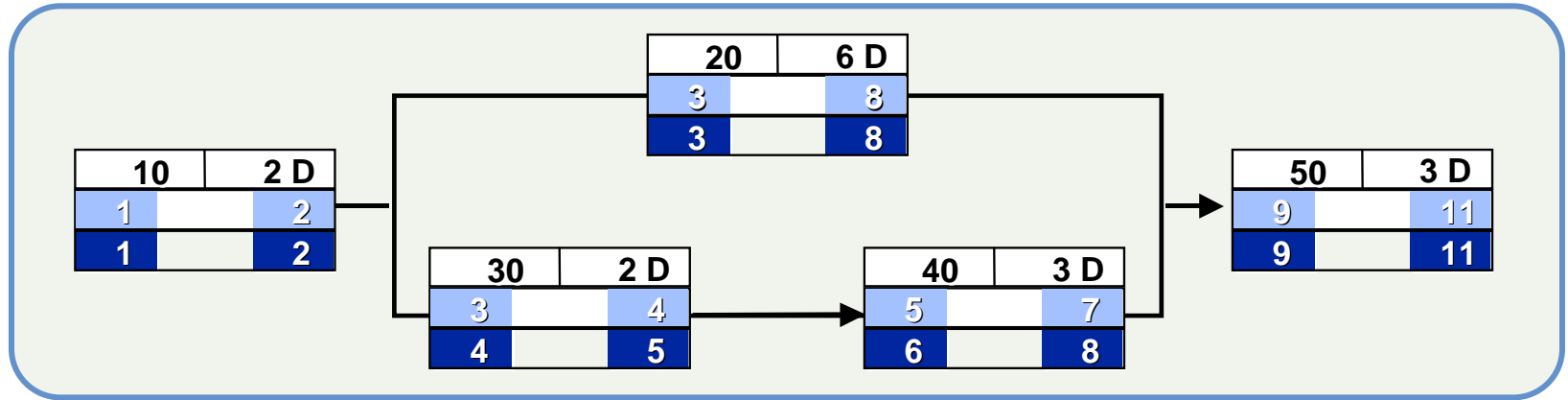


Network 2

Project planning board



Example of scheduling



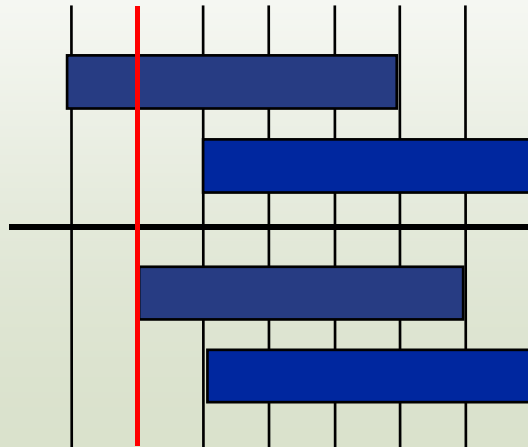
Time Constraints

1

Start



Before



2

Start

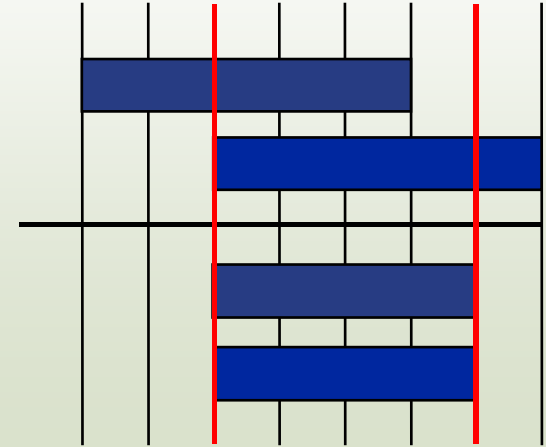


Finish




Before

After



For activities, time constraints set

1. An exact start / finish
2. The earliest value limit
3. The latest value limit

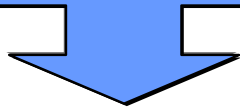
 = must)

( = not before)

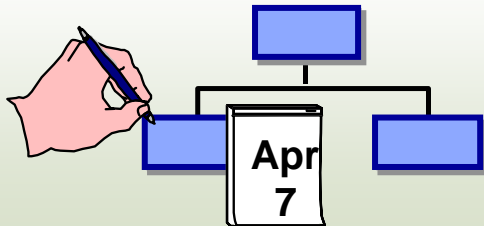
( = not after)

Actual Dates

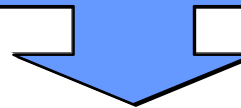
**Actual WBS
Dates**



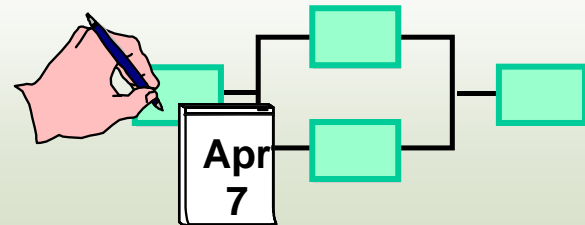
**Work Breakdown
Structure**



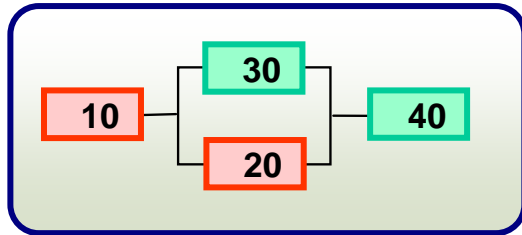
**Activity
Confirmation**



**Network,
Network Activity**



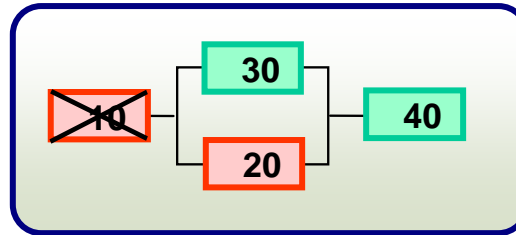
Actual Dates of Activities



■ Scheduled dates



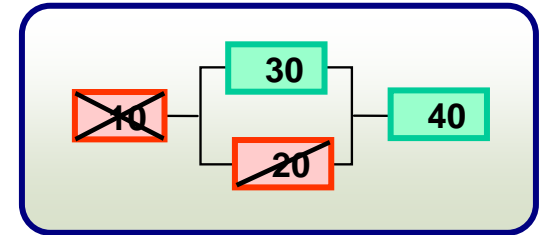
Time →



■ Final confirmation 10



Time →



■ Partial confirmation 20 (shift order)



Time →

AS = Actual start
PF = Provisional finish

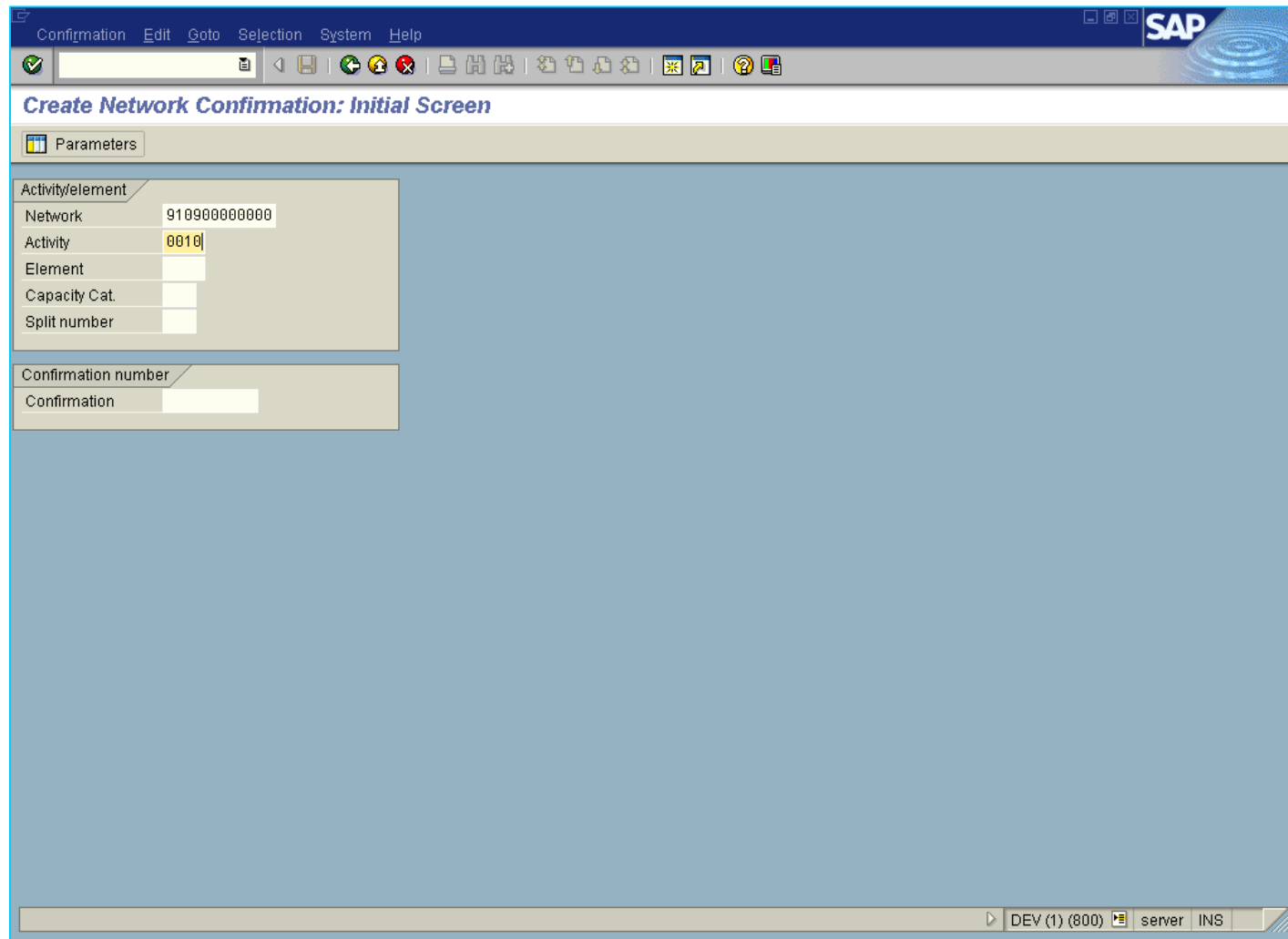
Execution

—

Contents

◆ **CN25 Confirmations**

Network Confirmation (CN25) -1



The image shows the 'Create Network Confirmation: Initial Screen' in an SAP application. The window has a blue title bar with the SAP logo and a menu bar with 'Confirmation', 'Edit', 'Goto', 'Selection', 'System', and 'Help'. Below the menu bar is a toolbar with various icons. The main area is light blue and contains two input sections on the left. The first section, titled 'Activity/element', has fields for 'Network' (910900000000), 'Activity' (0010), 'Element', 'Capacity Cat.', and 'Split number'. The second section, titled 'Confirmation number', has a field for 'Confirmation'. The status bar at the bottom shows 'DEV (1) (800)', 'server', and 'INS'.

Confirmation Edit Goto Selection System Help

Create Network Confirmation: Initial Screen

Parameters

Activity/element

Network 910900000000

Activity 0010

Element

Capacity Cat.

Split number

Confirmation number

Confirmation

DEV (1) (800) server INS

Network Confirmation (CN25)-2

Create Network Confirmation: Actual data

Activity	0010		Internal Activity 1
Work Center	LABRPS	9100	Labour Project dept
Personnel No.			
Wage Type			
Reason			

Processing

Processing % %

☐ FinalConf
 ☐ No date update
 ☐ Completed
 ☐ Clear Open Reservs.

Costs

Posting Date 25.10.2006

Business Proc. ☐ Complete

Activity Type PS0001

Proc.to confirm

AcctIndicator

Remaining proc.

Activity	Start	Finish	Duration	Work
Earl.sched	23.10.2006	26.10.2006	4.0 DAY	32 H
Ltst.sched	23.10.2006	26.10.2006		
Actual			0 DAY	0 H
Confirm.				
Actual	23.10.2006	26.10.2006	<input type="text"/> DAY	34 H
Forecast			<input type="text"/>	32 H

☐ ☐ ☐ ☐ Operation
 ☐ Goods movements
 ☐ Status
 ☐

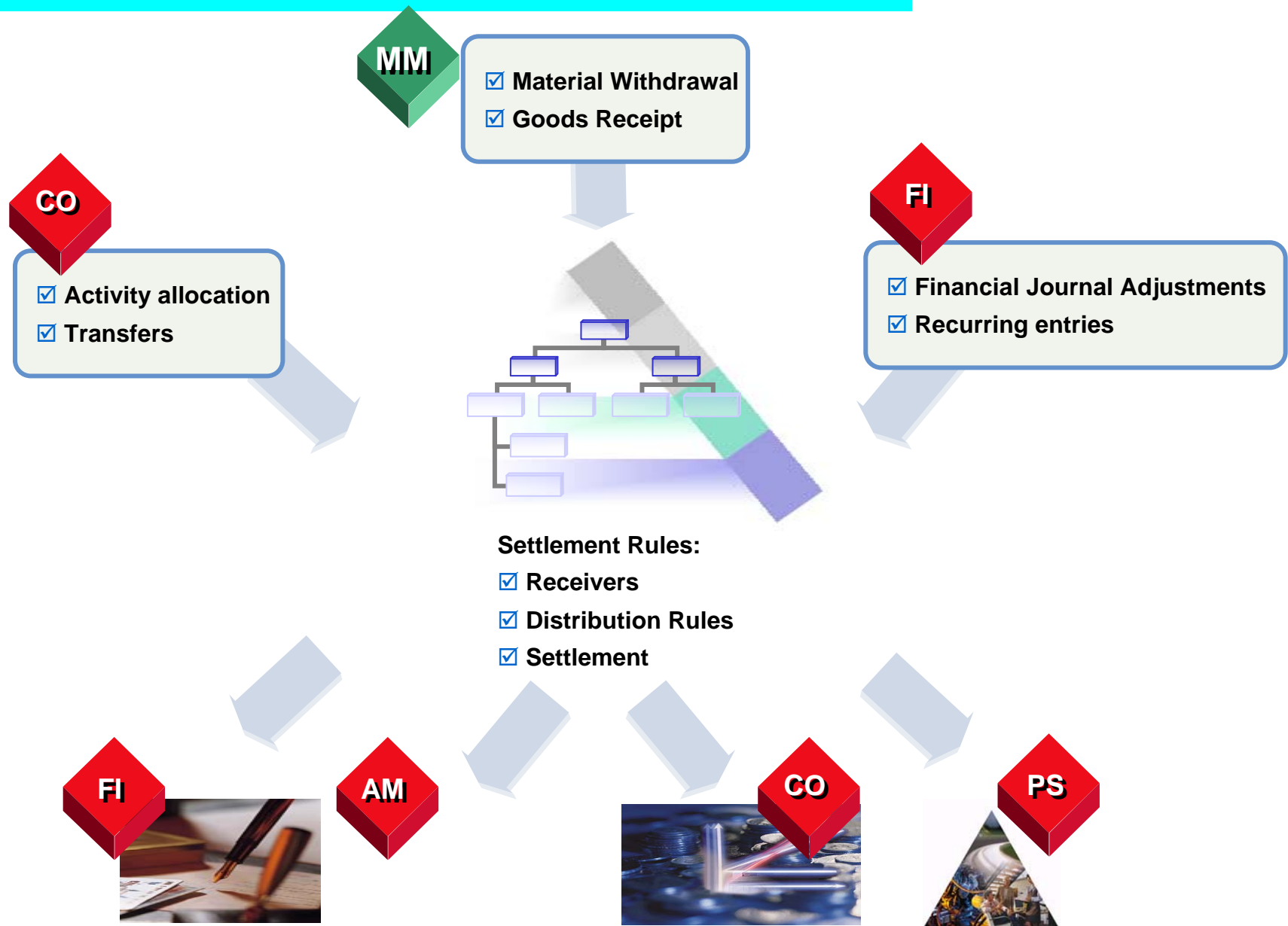
Period End Closing

—

Period End Closing

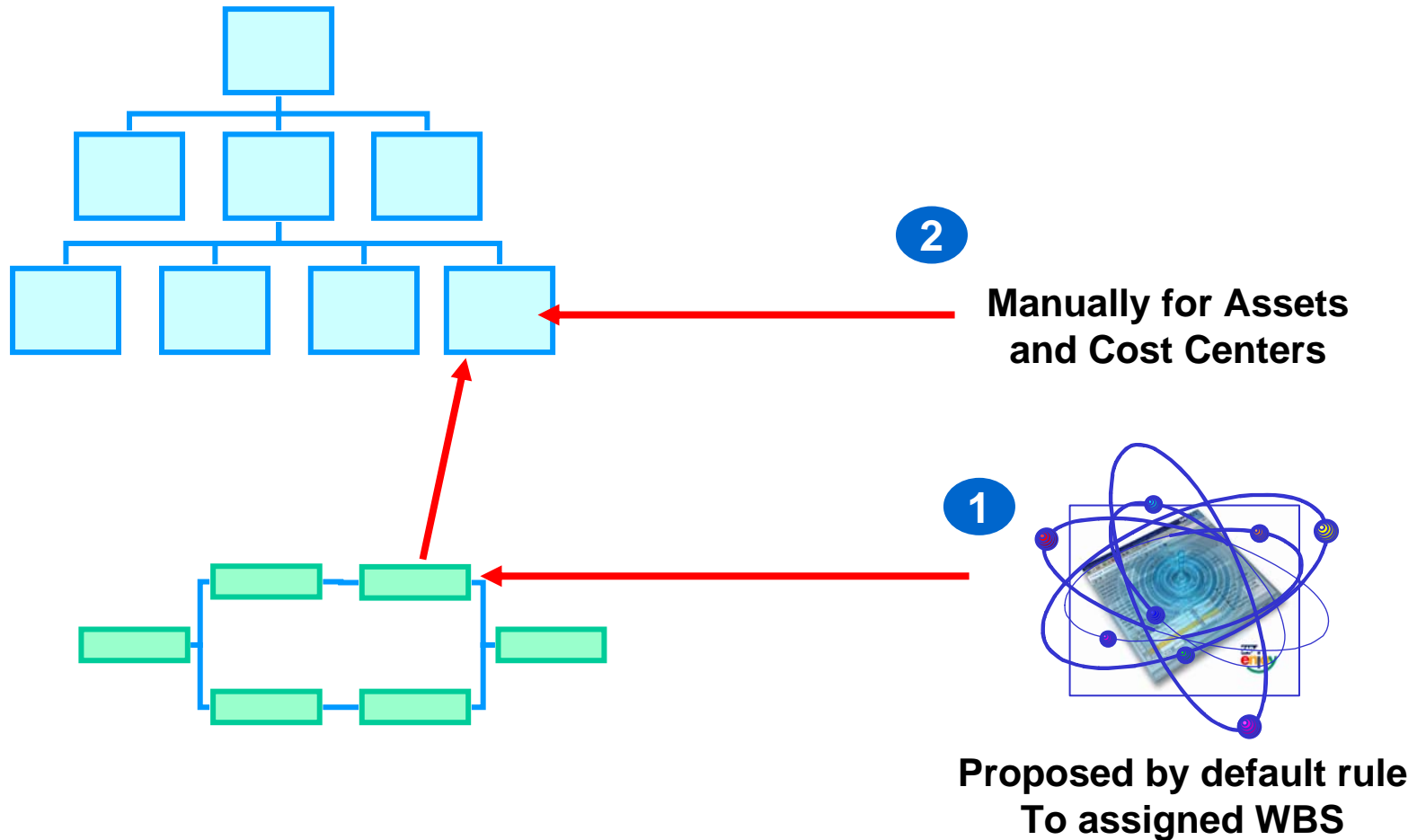
- ◆ **Month End Processing.**
- ◆ **Year End Processing.**

Settlement Debit and Credit




Deriving Settlement Rules

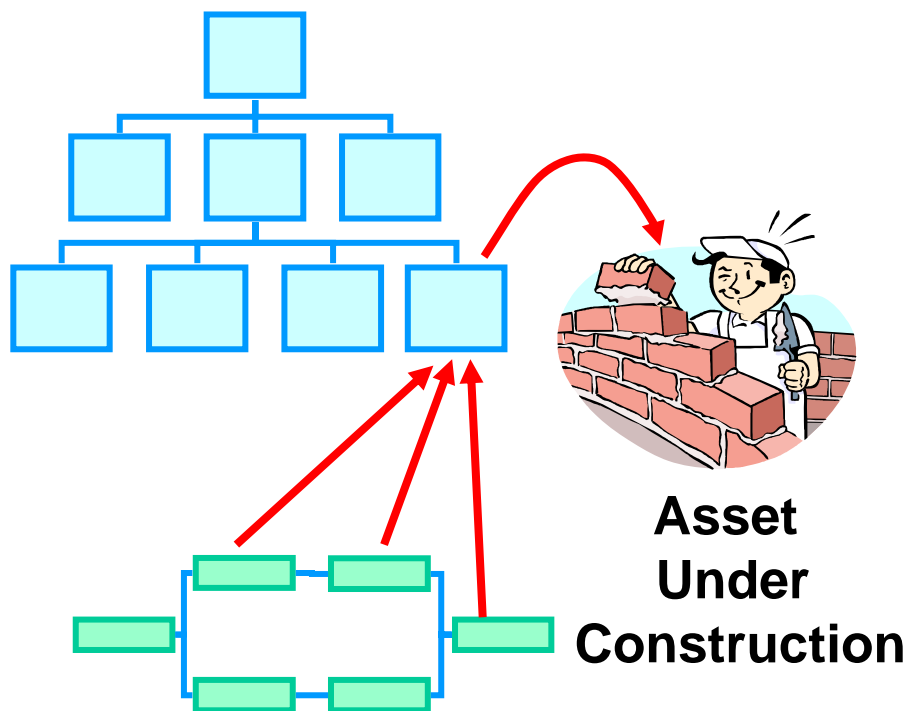
Settlement Strategies




Periodic Settlement Processing

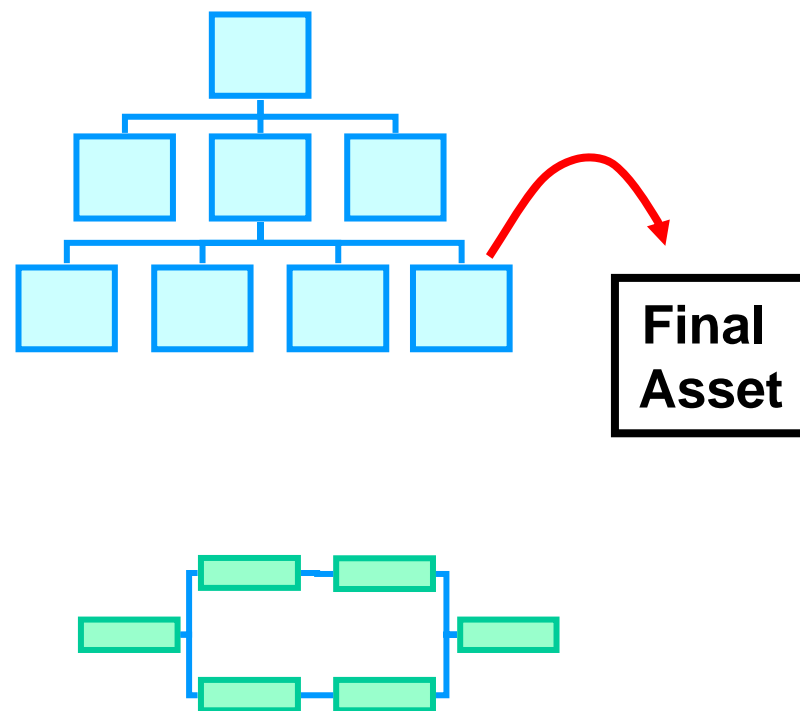
1 Periodic Settlement to AUC

Parameters	
Settlement period	11
Fiscal year	2002
Processing type	Automatic 



2 Final Settlement to Fixed Assets

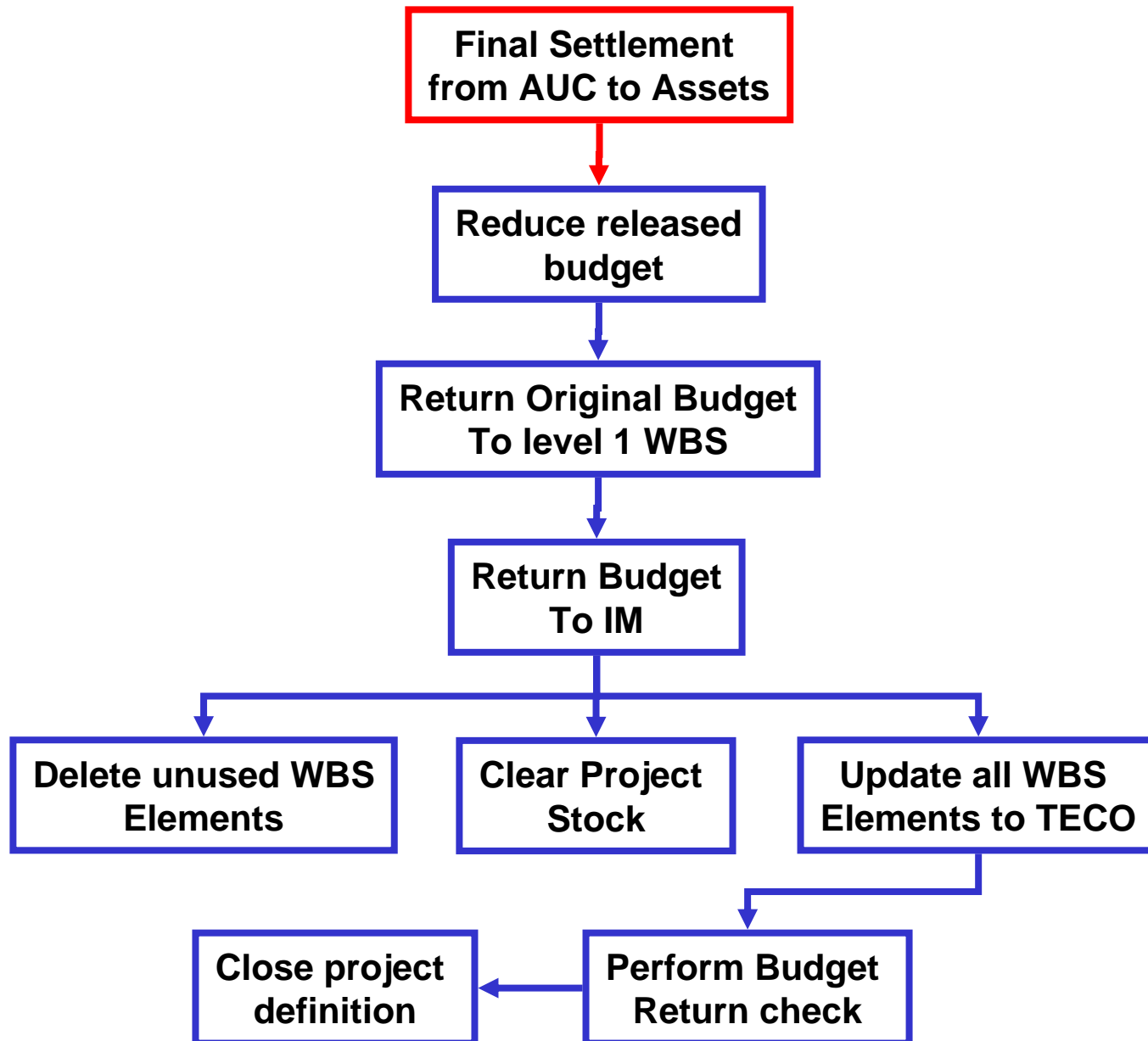
Parameters	
Settlement period	11
Fiscal year	2002
Processing type	Partial capitalization 



Period End Closing

- ◆ **Month End Processing.**
- ◆ **Year End Processing.**

Project Closing Case Flow Diagram



Information System

—

Report: Budget / Actual / Variance

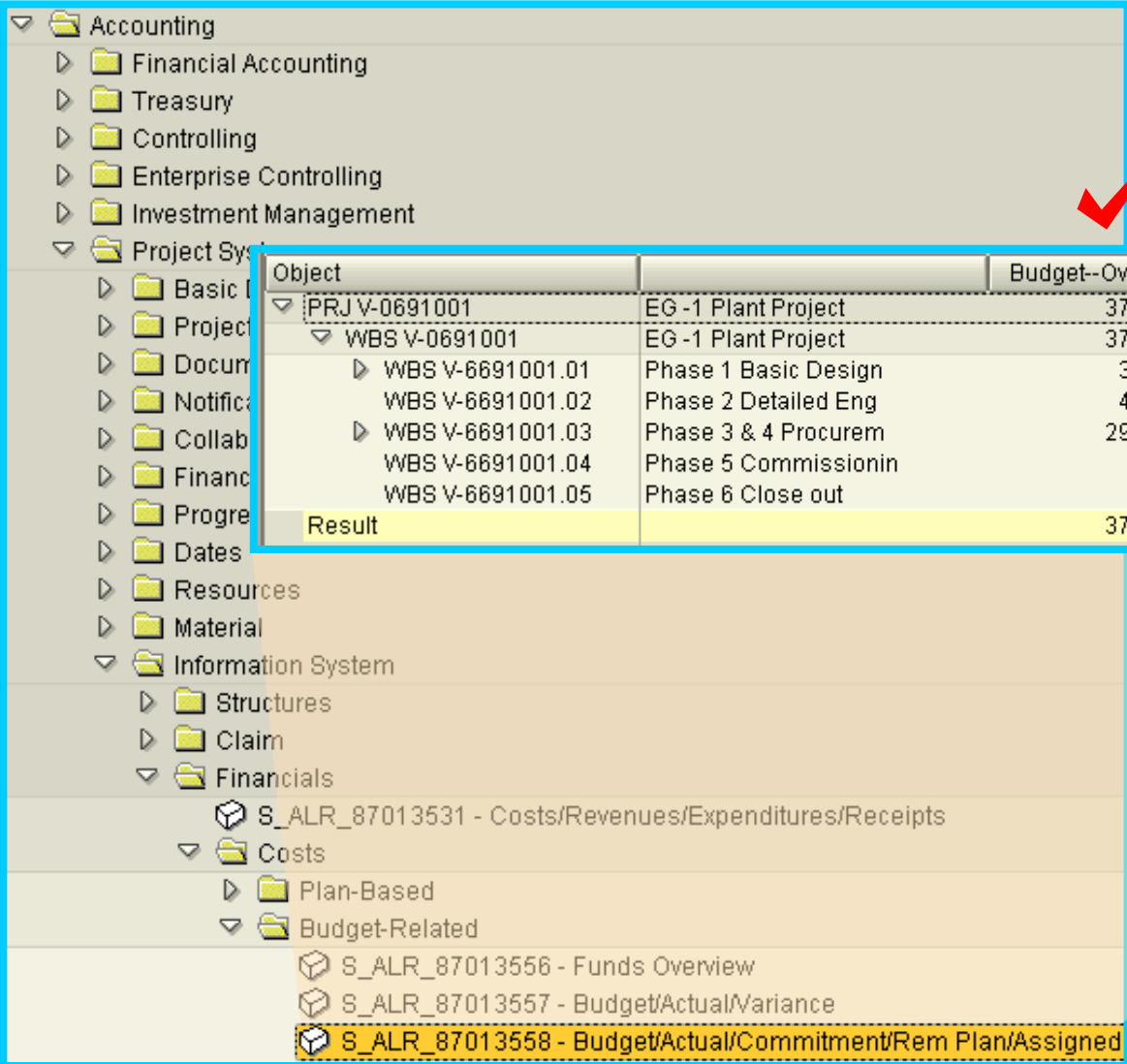
SAP menu

- Office
- Logistics
- Accounting
 - Financial Accounting
 - Treasury
 - Controlling
 - Enterprise Controlling
 - Investment Management
- Project System
 - Basic Data
 - Project
 - Documents
 - Notifications
 - Collaboration
 - Financials
 - Progress
 - Dates
 - Resources
 - Material
 - Information System
 - Structures
 - Claim
 - Financials
 - S_ALR_87013531 - Costs/Revenues/Expenditures/Receipts
 - Costs
 - Plan-Based
 - Budget-Related

S_ALR_87013557 - Budget/Actual/Variance

Object		Budget--Overall	Actual--Overall	Variance--Overall
PRJ V-0691001	EG -1 Plant Project	37,800	2,313	35,487
WBS V-0691001	EG -1 Plant Project	37,800	2,313	35,487
WBS V-6691001	Phase 1 Basic Design	3,600	2,313	1,287
WBS V-6691001	Phase 2 Detailed Eng	4,500	0	4,500
WBS V-6691001	Phase 3 & 4 Procurem	29,232	0	29,232
WBS V-6691001	Phase 5 Commissionin	360	0	360
WBS V-6691001	Phase 6 Close out	108	0	108
Result		37,800	2,313	35,487

Report: Budget / Actual / Commitment



The screenshot displays the SAP navigation tree on the left, showing the path from Accounting to Project System and then to Financials. A table overlay is positioned on the right, showing budget, actual, and commitment data for a specific project. Three red checkmarks are placed above the table, indicating successful data retrieval or status.

Object		Budget--Overall	Actual--Overall	Commitment--...
PRJ V-0691001	EG -1 Plant Project	37,800	2,313	1,918
WBS V-0691001	EG -1 Plant Project	37,800	2,313	1,918
WBS V-6691001.01	Phase 1 Basic Design	3,600	2,313	1,918
WBS V-6691001.02	Phase 2 Detailed Eng	4,500	0	0
WBS V-6691001.03	Phase 3 & 4 Procurem	29,232	0	0
WBS V-6691001.04	Phase 5 Commissionin	360	0	0
WBS V-6691001.05	Phase 6 Close out	108	0	0
Result		37,800	2,313	1,918

Navigation Tree Structure:

- Accounting
 - Financial Accounting
 - Treasury
 - Controlling
 - Enterprise Controlling
 - Investment Management
- Project System
 - Basic Data
 - Project Data
 - Document
 - Notification
 - Collaboration
 - Financials
 - Progress
 - Dates
 - Resources
 - Material
- Information System
 - Structures
 - Claim
 - Financials
 - S_ALR_87013531 - Costs/Revenues/Expenditures/Receipts
 - Costs
 - Plan-Based
 - Budget-Related
 - S_ALR_87013556 - Funds Overview
 - S_ALR_87013557 - Budget/Actual/Variance
 - S_ALR_87013558 - Budget/Actual/Commitment/Rem Plan/Assigned

Report: Actual / Commitment / Plan

Accounting				
Financial Accounting				
Treasury				
Controlling				
Enterprise Controlling				
Cost elements	Actual	Commitments	Total	Plan
400600 Chemicals and Additives		5.000,00	5.000,00	5.000,00
402002 Electricity				395,00
430002 Spares Mat.-Dir Pur.		202.000,00	202.000,00	2.200,00
943100 Affiliate labor	2.800,00		2.800,00	2.800,00
943104 External labour	3.600,00		3.600,00	6.000,00
* All cost elements	6.400,00	207.000,00	213.400,00	16.395,00
Progress				
Dates				
Resources				
Material				
Information System				
Structures				
Claim				
Financials				
S_ALR_87013531 - Costs/Revenues/Expenditures/Receipts				
Costs				
Plan-Based				
Hierarchical				
By Cost Element				
S_ALR_87013542 - Actual/Commitment/Total/Plan				

Report: Actual Period Comparison

Project System

- Basic Data
- Project
- Documents
- Notifications
- Collaboration
- Financials
 - S_ALR_87013531 - Costs/Revenues/Expenditures/Receipts
 - Costs
 - Plan-Based
 - Hierarchical
 - By Cost Element
 - S_ALR_87013542 - Actual/Commitment/Total/Plan in CO Area Currency
 - S_ALR_87013543 - Actual/Plan/Variance Absolute/Variance %
 - S_ALR_87013544 - Actual/Plan Comparison: Periods
 - S_ALR_87013545 - Period Comparison - Actual

Cost elements	Period 1	Period 2	Period 3
430002 Spares Materials - D			
466001 Capitalized Labors Regular			
466002 Capitalized Materials			
943204 Proj Eng services			
* All cost elements			