

Project Management (PS)

Curriculum: Introduction to S/4HANA using Global Bike

Teaching material - Information



Teaching material - Version

- 3.2 (May 2018)
- Software used
 - S/4HANA 1709 NW 7.51
 - Fiori 2.0
- Model
 - Global Bike
- Prerequisites
 - No Prerequisites needed

Module Information



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Target Audience

- Beginner

Module Information



Learning Objectives

You are able to

- define the central organizational structures of the PS module.
- summarize the master data which is most important for the PS module.
- explain a standard process of the Project Management.

Agenda

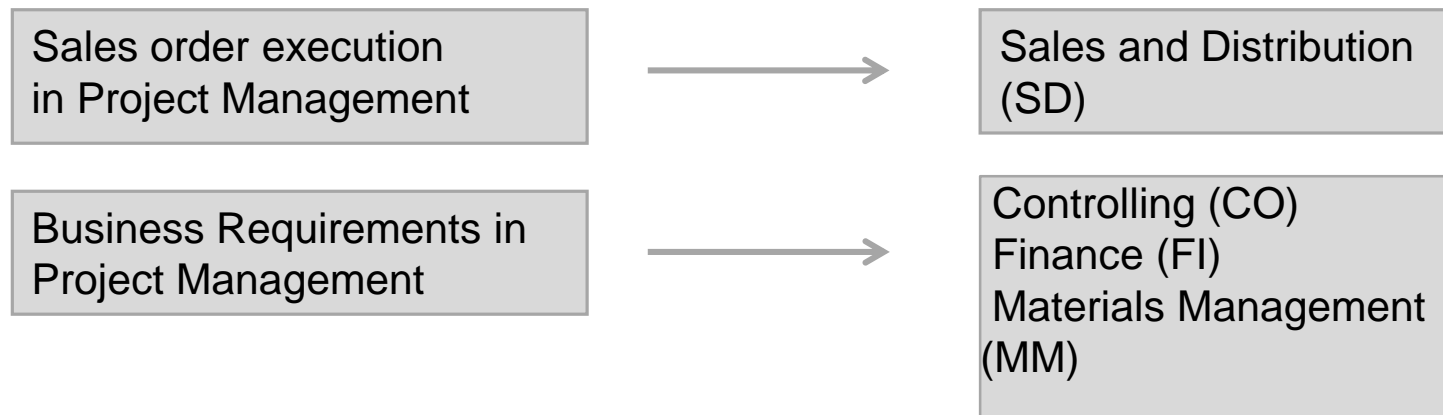
- PS Organizational Structure
- PS Master Data
- PS Processes
 - Project Planning
 - Project Execution
 - Project Closure
- Innovations in S/4HANA

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PS Organizational Structure (Project Management)

- Organizational structure needs to be defined in order to define execution of project
 - Project system itself does not own its own organizational structure
 - PS inherits its organization structures via assignment into organizational units in the enterprise structure
 - The PS module is integrated to the modules Finance and Logistics
 - The productivity of this module is mainly created through the integration of other SAP modules

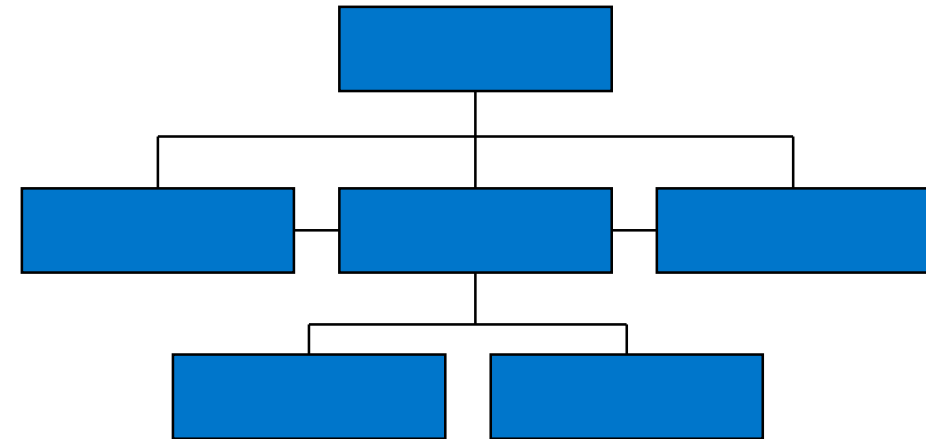


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- PS Organizational Structure
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PS Master Data

- Projects
- WBS-Elements (Project Structure Plan Elements)
- Sequences
- Milestones
- Work Data



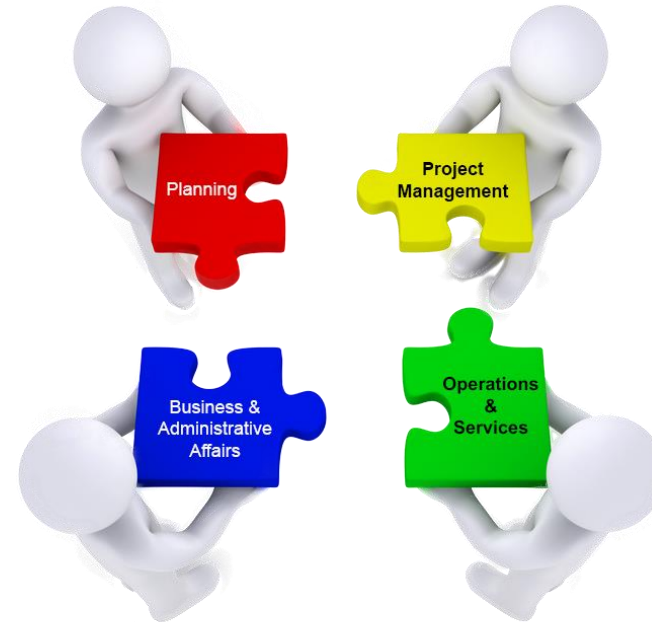
Projects

■ Characteristics of projects:

- Complex
- Unique
- High risk
- Goal oriented
- Limited in time, costly, high capacities needed
- Strategic meaning
- High quality standards

■ Project types:

- Customer projects
- Overhead cost projects
- Investment projects



Display Projects

Projects are complex tasks that can be found in several components in the SAP system:

- Sales and Distribution
- Controlling
- Finance
- Materials Management

Project Builder

- All data is prepared using one transaction
- Regularly performed projects can be re-used to the work of creating them.
- Scheduling of projects is based on networks

The screenshot displays the SAP Project Builder interface for Project P/9000. The top bar shows the SAP logo and the title 'Project Builder: Project P/9000'. Below this is a navigation bar with options: 'Display <-> change', 'Hierarchy graphic', 'Mass change', 'Easy Cost Planning', 'Sales pricing', and 'More'. The left sidebar contains a 'Project Structure: Description' tree with a hierarchy starting from 'Development of Ultralight Bike (P/9000)' down to 'Release to mass product P/9000-'. Below the tree are 'Worklist' and 'Templates' buttons. The main area is titled 'Identification and view selection' and contains a 'WBS element' field with 'P/9000' and a description 'Development of Ultralight Bike'. Below this are 'Detail' and 'Overview(s)' buttons. A tabbed interface shows 'Basic Data' as the active tab, with other tabs including 'Dates', 'Assignments', 'Control', 'User fields', 'Administr.', 'Superior', 'Progress', and 'Long Text'. The 'Basic Data' tab contains fields for 'Proj. type' (01 WBS element category A), 'Short ID' (P/9000), 'Priority', and 'Proj. summarization'. Below these are 'Status' fields for 'System Status' (REL) and 'User status'. The 'Responsibilities' section includes fields for 'Pers. Resp. No.', 'Applicant no.', 'Resp. cost cntr.' (EU00, EURD1000), 'Req. cost center', and 'Req. co. code'. The 'Operative indicators' section includes checkboxes for 'Planning Element' (checked), 'Acct asst elem.' (checked), 'Billing Element', and 'Grouping WBS element'.

WBS-Elements

- The WBS-Element either describes a specific tasks or subtasks that can be further broken down in to work packages→ Work package
- Possible Status for WBS Elements
 - Released→ Entry of effective costs possible
 - Unlocked
 - Technically complete
 - Closed→ processes in Logistics and Finance
 - Deletion flag
 - Fully invoiced→ further invoices can be inhibited

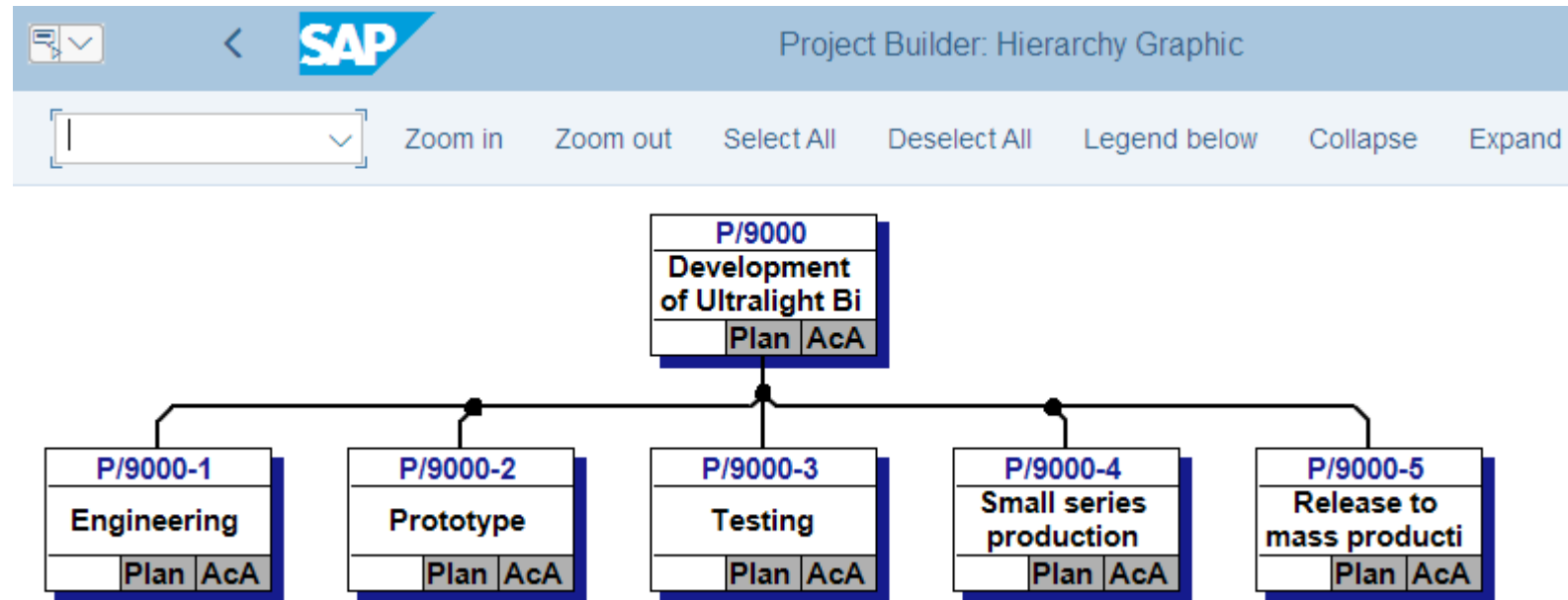
Hierarchy Graphic (PSP)

- The Hierarchy Graphic forms the basis for planning:
 - Costs
 - Revenues
 - Payments
 - Budgets
 - Schedules

- Can be structured in phases, functions and objects like conceptual design, overall planning or permissions.

- Project phases are, for instance:
 - Conceptual design
 - Overall planning
 - Permission, etc.

Hierarchy Graphic



Functions:

Scheduling, Cost Determination, Classification in Entities

Project Structure in SAP S/4HANA

The screenshot displays the SAP Project Builder interface for Project P/9000. The left sidebar shows the project structure, with the 'Small series production' element (P/9000-4) highlighted in blue and enclosed in a red box. A blue arrow points from the text 'Project Structure Project + PSP Elements' to this element. The main area shows the 'Identification and view selection' section with 'WBS element: P/9000-4' and 'Small series production'. Below this, the 'Basic Data' tab is active, showing fields for 'Proj. type: 01 WBS element category A', 'Short ID: P/9000-4', 'Priority:', 'Proj. summarization:', 'System Status: REL', 'User status:', 'Responsibilities', and 'Operative indicators'.

Project Structure: Description Ident...

- Development of Ultralight Bike (P/9000)
 - Development of Ultralight Bike P/9000
 - PH-999-1 PH-999-1
 - Development of Ultralight 4000000
 - Engineering P/9000-1
 - Prototype P/9000-2
 - Testing P/9000-3
 - Small series production P/9000-4**
 - Release to mass product P/9000-5

Identification and view selection

WBS element: P/9000-4 Small series production

Detail: ▲

Overview(s): [Icons]

Basic Data Dates Assignments Control User fields Administr. Superior Progress Long Text

Proj. type: 01 WBS element category A Short ID: P/9000-4

Priority: Proj. summarization: ☐

Status

System Status: REL [Icon]

User status:

Responsibilities

Pers. Resp. No.: Planning Element: ☒

Applicant no.: Acct asst elem.: ☒

Resp. cost cntr: EU00 EUPR1000 Production Costs Billing Element: ☐

Req. cost center: Grouping WBS element ☐

Req. co. code:

Worklist Templates

Templates: Name Project object

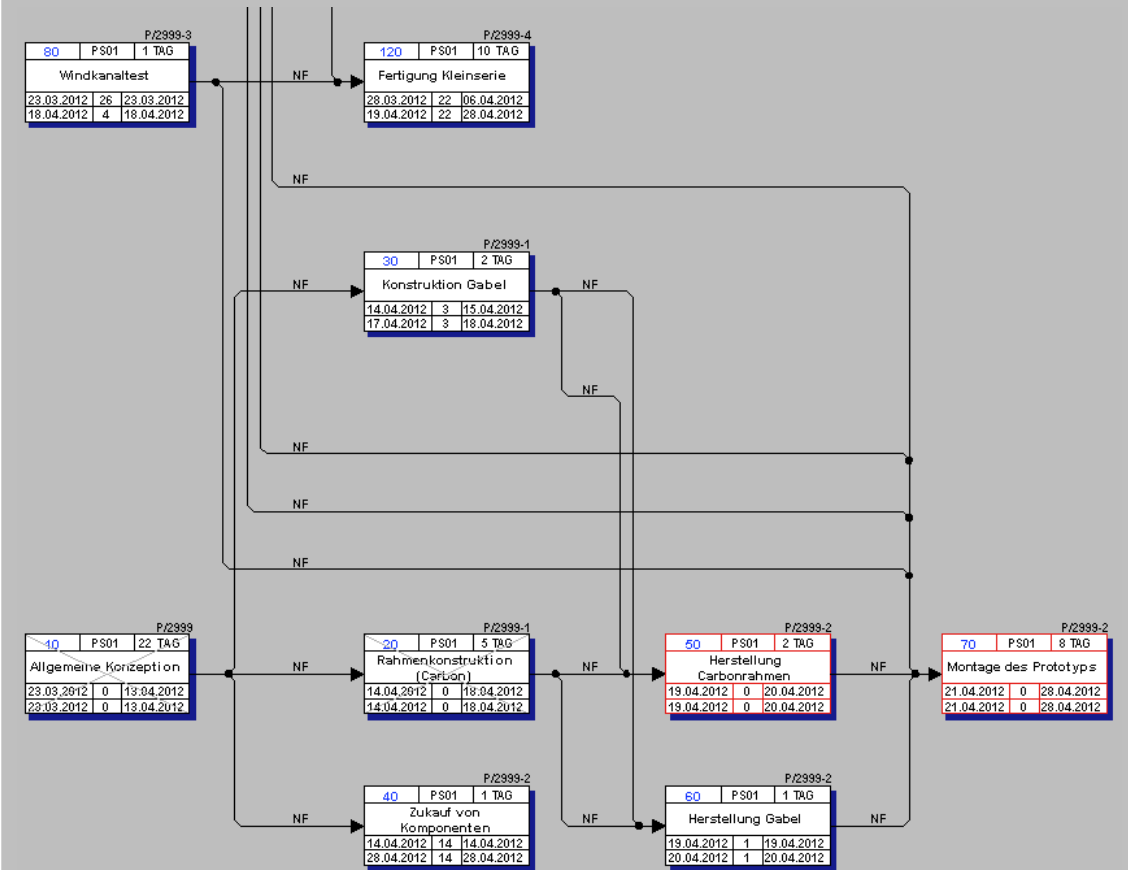
- Individual Objects
- Projects
- Standard Templates

Activities

- The Project System distinguishes between the following types of activity:
 - Internally processed activities
 - Externally processed activities
 - General costs activities
- The German standard DIN 69 900 describes activities as "components of a process " with the following characteristics:
 - They have a duration.
 - They have a defined start and a defined finish.
 - They are processed without interruption.
 - Resources are needed to execute them.
 - They incur costs.

Hierarchy Graphic

- Consists of access sequences and relationships
- Possibility to create access sequences in external processing
- Change of internally processed activities to externally processed ones



Relationships

- Relationships describe the chronological sequence in a network plan oder standard network. There can be dependencies of a technical or logical nature.

Normal series

From the end of one series to the beginning of another one.



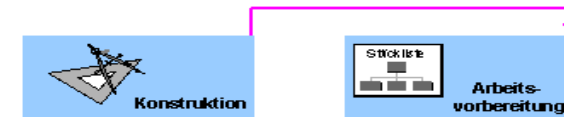
Start series

From the Beginning of one Series to the beginning of another one.



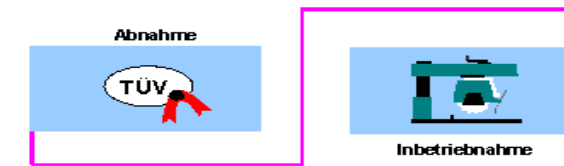
End series

Starting at the end of one series going to the end of another series.



Bounding series

From the beginning of one series to the end of another series.





Milestones

- Milestones are used to mark transitions between different phases or departments
- In the project system, they can be used for additional tasks and functions

Identification and view selection

WBS element: P/9000 Development of Ultralight Bike

Detail: 

Overview(s): 


Milestones are created in the Project Builder for Single Elements

Basic Data Dates Assignments Control User fields Administr. Superior Progress Long Text

Proj.type: 01 WBS element category A Short ID: P/9000

Priority: Proj. summarization: ☐

Status

System Status: REL 

User status:

Responsibilities

Pers.Resp.No.: Applicant no.: Resp. cost cntr: EU00 EURD1000 R&D Costs Req.cost center: Req. co.code:



Operative indicators


Planning Element: ☒ Acct asst elem.: ☒ Billing Element: ☒ Grouping WBS element: ☐






Milestones

- For preparation of business actions
- Functions:
 - Release of activities
 - Include standard schedule
 - Create hierarchy
 - Include parts of hierarchy
 - Start workflow tasks
 - etc.

Identification and view selection

WBS element:  

Detail: 

Overview(s):     

Basic Data Dates Assignments Control User fields Administr. Superior Progress Long Text

Word Data in the Activity

- **Activity type:** If you want to cost networks, you must define an activity type for internal processing and a formula key for calculating costs. When you enter an activity type you can display different costs for special qualifications or weekend work.
- **Work:** Here you specify the planned amount of work involved in carrying out the activity. For example, you can specify the engineering activity in hours or energy requirements in kilowatt hours. Using the value for work and the formula for calculating capacity requirements entered in the work center, the system determines the capacity requirements during scheduling. You can enter basic and forecast data for work in network activities.
- **Number of Required Capacities:** Here you specify how much capacity is required to do the work in the activity, for example, two people or three machines. This number refers to the capacity category, which is entered on the scheduling screen in the work center.
- **Percent:** With this value you specify the percentage of the work that is used in the activity. The percentage is only used when you let the system calculate duration, work, or the number of capacities using the calculation key. If you do not enter a percentage, the system will assume 100%.
- **Calculation key:** You can maintain the data for work, duration, and number of capacities required manually, or, you can let the system determine it using the calculation key.

Services

- Planned
 - Related to activities that are collected in a service master
- Non-Planned
 - Related to activities that cannot be specified because it is not known, which individual specifications they comprise.
- For preparation of externally processed tasks, the corresponding control key must be entered in the network activity.

Agenda

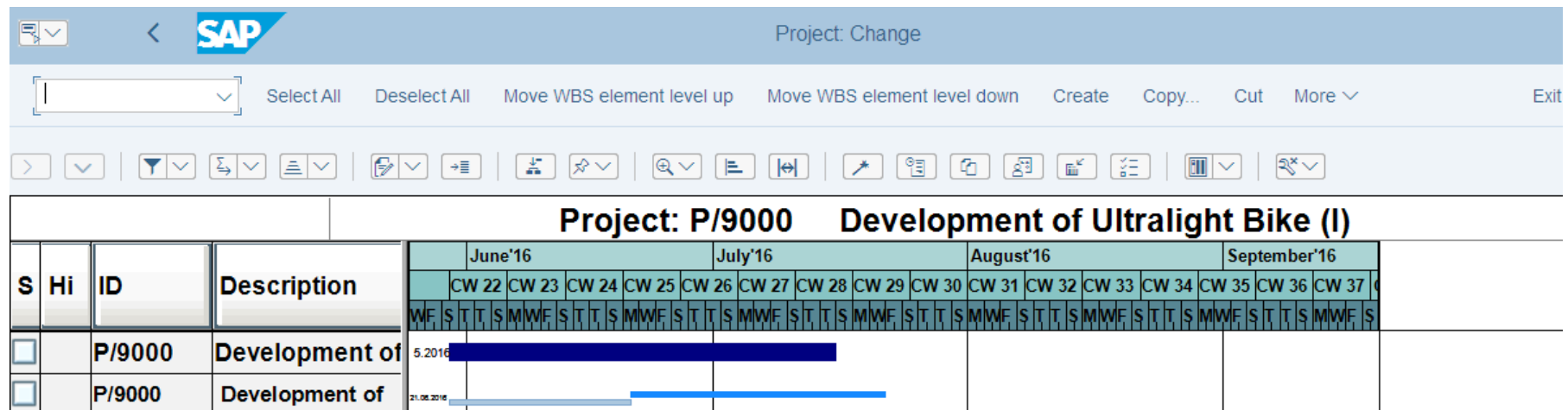
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PS Processes

- Project Planning
- Project Execution

Project Planning – Project Planning Board

- Graphical interface for creation and preparation of projects
- Function:
 - Termination (of resources)
 - Coordinate work
 - Check capacities
 - Calculate costs



Project Execution

- Project execution comprises several steps (e.g. purchase process)
- When goods receipt of services is executed, times are recorded
- Sales orders are generated automatically using the hierarchy
- With the execution of services, liabilities and costs for items that were planned using Easy Cost Planning are entered

Project Execution: Easy Cost Planning

Easy Cost Planning enables cost planning based on amounts and characteristics. It is executed on the level of project structures. Main advantages of these is a fast, easy and clearly arranged data acquisition.

- Possible entries with Easy Cost Planning:
 - Internal accounting for services
 - Direct process accounting
 - Reservations
 - Goods issue
 - Purchase requisition
 - Sales order

Period Closing

- In general, one time per period executed in background
- To execute billing, rules are necessary
- Costs are given by customer bills and supplier bills etc.; are given to FI and other modules

Direct settlement
Each object is settled directly to the external cost object (examples: cost center, profitability segment)

Multi-level settlement
You settle individual objects in the project to the higher-level WBS element first. This then settles the costs collected to the external receiver.

Information system

- The information system is used to evaluate key performance indicators within a project.
- Provides the user with available reports and graphs
- Overview over performance, schedule and costs
- Report types:
 - Structure-based
 - Cost-oriented
 - Item reports
 - Summarised reports

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Innovations in SAP S/4HANA

- 1) All project planning activities will be carried out using the single transaction CJ20N - Project Builder. In the past there were several transactions that were used.
- 2) A new graphic user interface will be used to replace Project System Gantt charts, network graphics and hierarchy graphics

Innovations in S/4HANA

Date Planning Transactions

- Currently multiple transactions to plan dates
 - Project Builder transaction CJ20N for simplification
 - But other transactions are still available with S/4HANA 1511/1610, hence not categorized as target architecture
 - CN24 and CN24N for cross network scheduling, but not the target architecture as well
 - End user need to switch from multiple date planning transactions to single maintenance transaction CJ20N

Innovations in S/4HANA

Project Builder

- Target: one single maintenance transaction instead of multiple, partially redundant transactions to maintain projects → Single Point of Entry
 - CJ20N Project Builder
- Project Builder: Single Point of Entry
 - the target for links and references in reports, still classified as relevant for the target architecture, is going to the Project Builder and not longer to other project related transactions
 - For reports classified as not strategic anymore the navigation has not been adopted

Innovations in S/4HANA

Graphics

- New graphic user interface patterns to replace the following: Project System including Gantt charts, network graphics and hierarchy graphics
- Because of this also the following transactions are categorized not as the target architecture:
 - CJ27 Project planning board
 - CJ2B Change project planning board
 - CJ2C Display project planning board
- Improved interface patterns might not provide exactly the same functional scope
- Existing graphics and corresponding transactions can still be used



Thank you!

