SAP Product Lifecycle Costing on Premise and Cloud Edition
Calculating future Product Profitability – Update & Roadmap

Product Management, SAP SE
October 2nd, 2020

SAP Run Simple

Legal Disclaimer

Agenda

- Challenges in early costing

- Solution overview & use cases

- What´s new in upcoming Cloud Version 2010
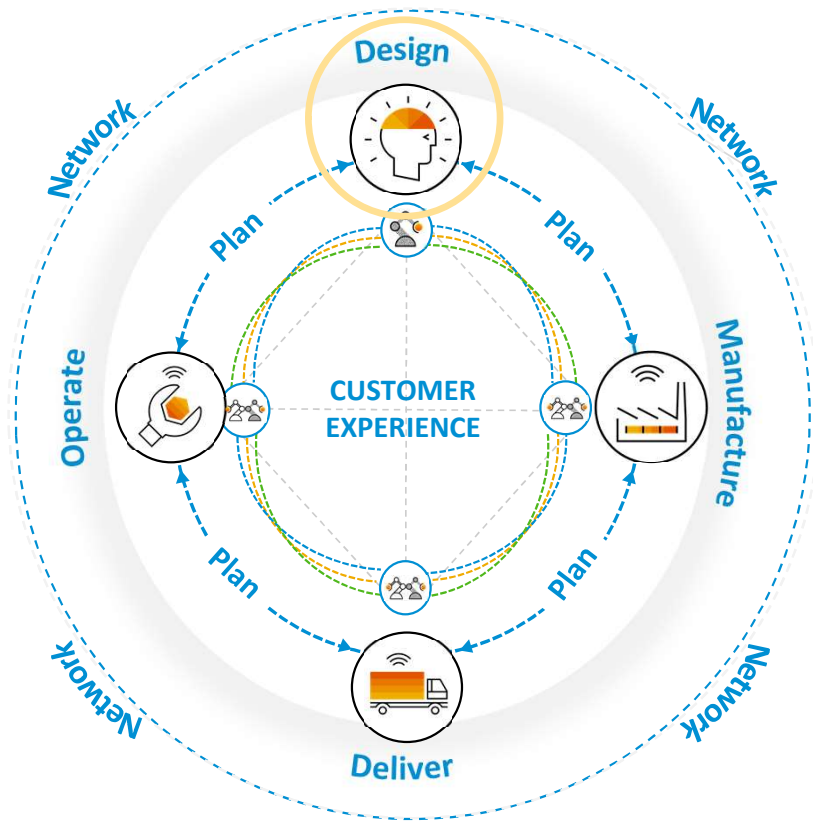
- Summary & roadmap

01

Challenges in early costing

Solution Introduction

Digital Supply Chain
From Design to Operate

Design
- Reduce time to market
- Continuously and sustainably innovate
- Improve future product profitability & efficiency in design

Plan
- Holistic view of demand
- Balance inventory and service levels
- Improve forecast accuracy

Manufacture
- Optimize manufacturing processes and minimize waste
- Improve collaboration with contractors
- Increase agility and responsiveness

Deliver
- Improve speed, efficiency and sustainability
- Deliver perfect orders consistently and profitably
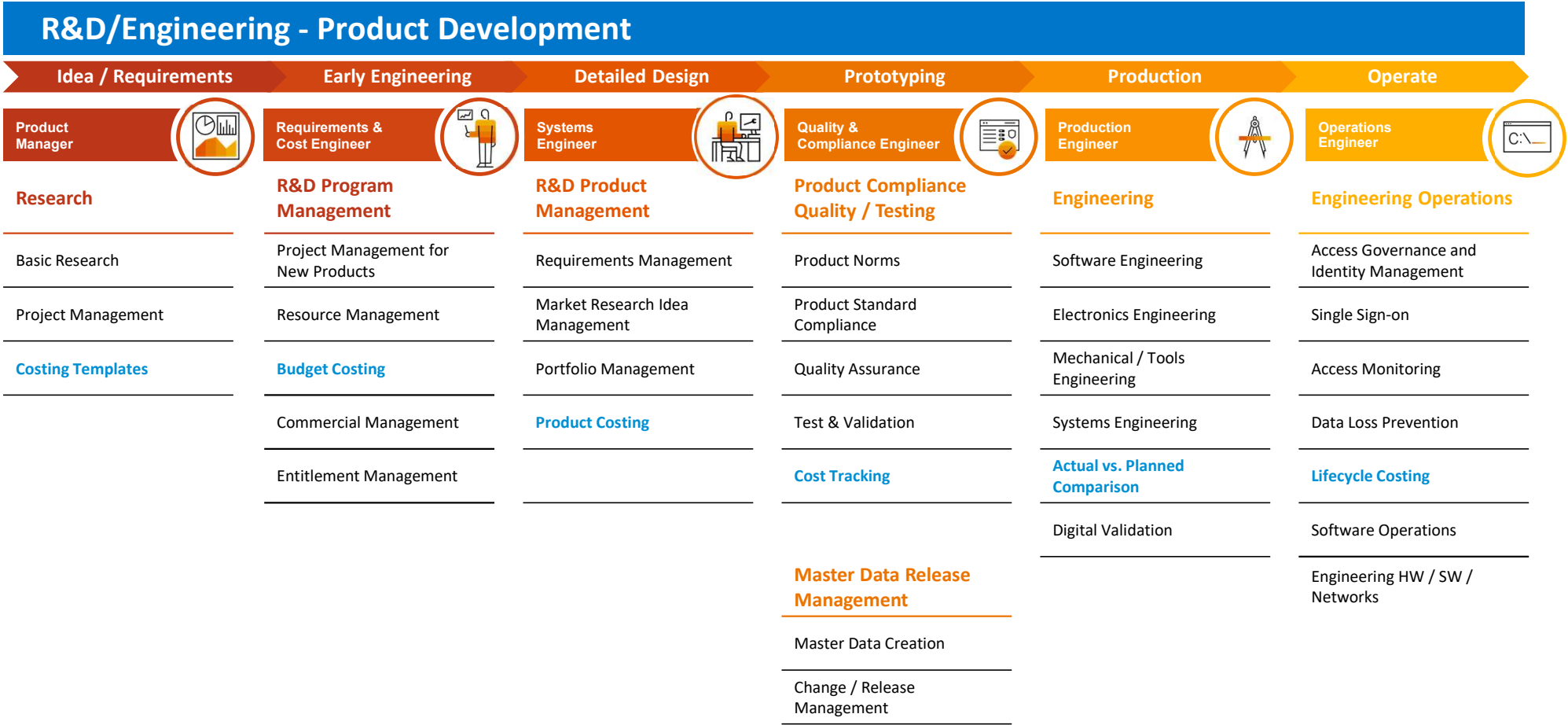- Increase utilization of warehouse and transportation

Operate
- Manage lifecycle of physical assets efficiently and sustainably
- Predict and simulate asset behavior
- Avoid unplanned downtime

Network
- Enable better collaboration between shippers and carriers for improved process efficiency
- Improve collaboration between manufactures and operators for Asset Management

R&D/Engineering - Product Development Roles and Responsibilities

R&D/Engineering - Product Development

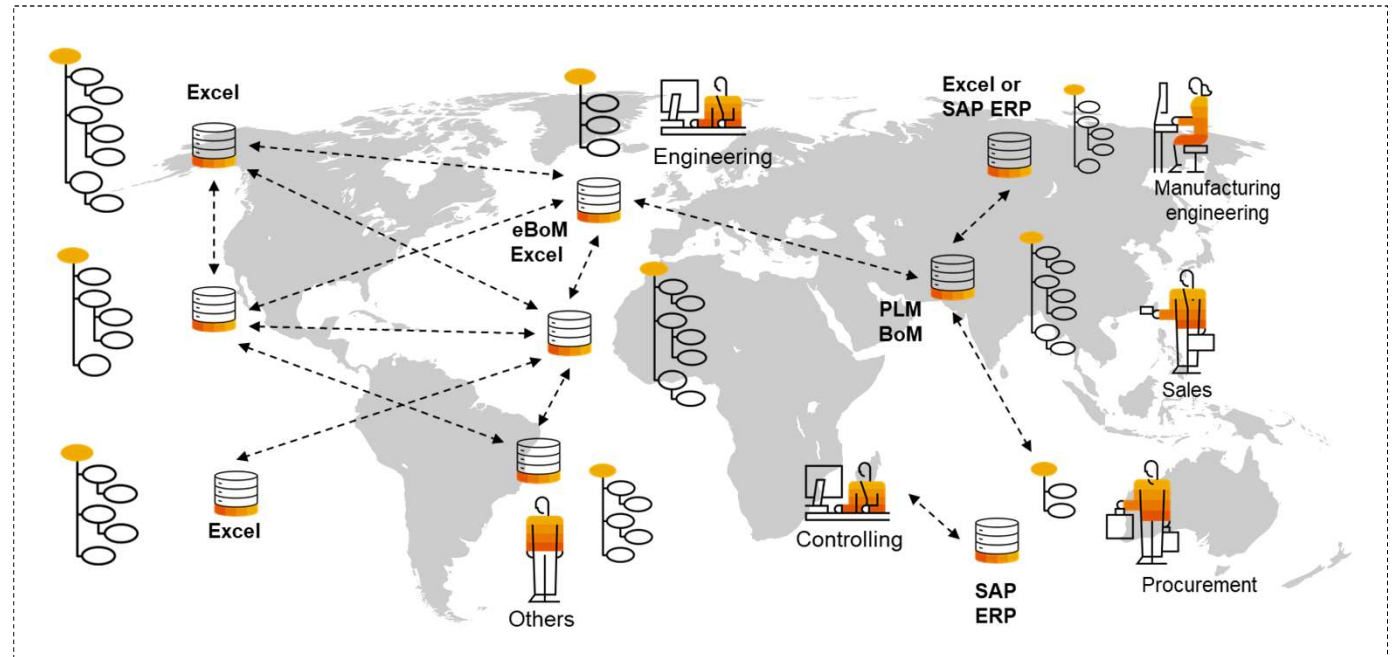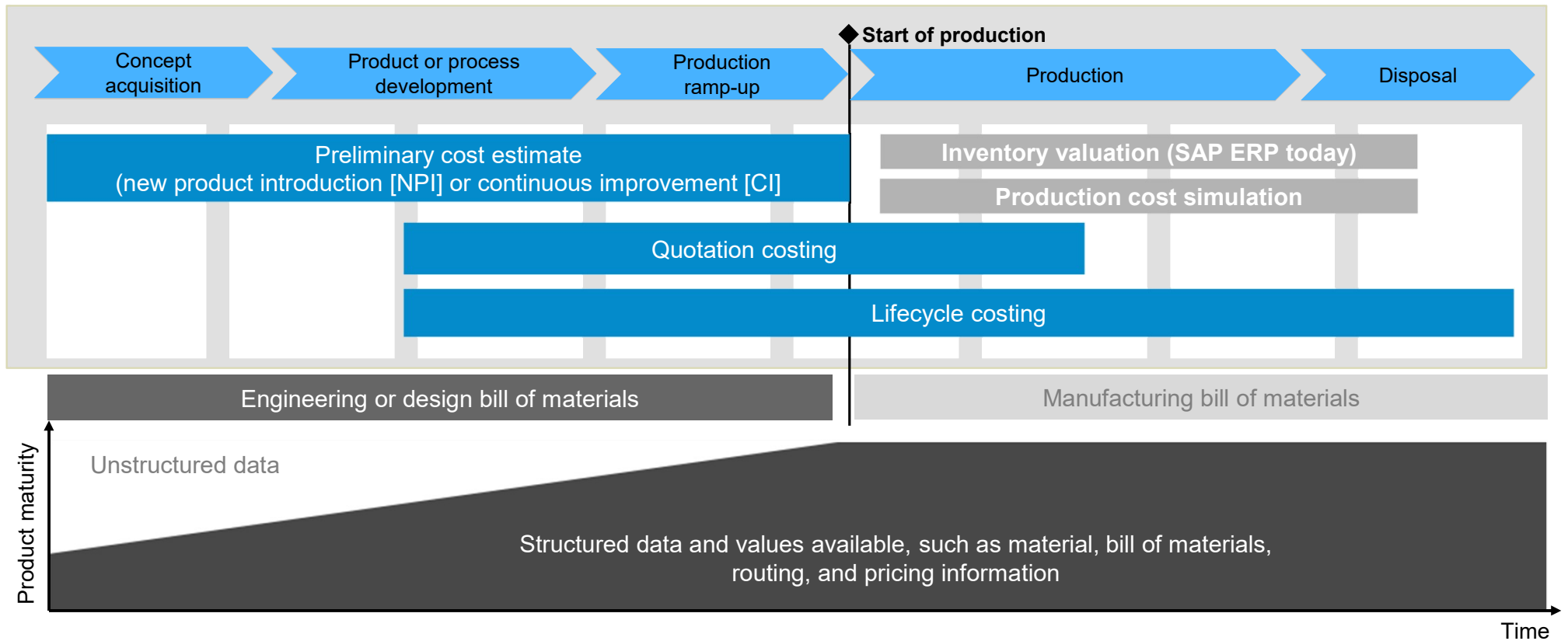| Idea / Requirements	Early Engineering	Detailed Design	Prototyping	Production	Operate
Product Manager	**Requirements & Cost Engineer**	**Systems Engineer**	**Quality & Compliance Engineer**	**Production Engineer**	**Operations Engineer**
Research	**R&D Program Management**	**R&D Product Management**	**Product Compliance Quality / Testing**	**Engineering**	**Engineering Operations**
Basic Research	Project Management for New Products	Requirements Management	Product Norms	Software Engineering	Access Governance and Identity Management
Project Management	Resource Management	Market Research Idea Management	Product Standard Compliance	Electronics Engineering	Single Sign-on
Costing Templates	**Budget Costing**	Portfolio Management	Quality Assurance	Mechanical / Tools Engineering	Access Monitoring
	Commercial Management	**Product Costing**	Test & Validation	Systems Engineering	Data Loss Prevention
	Entitlement Management		**Cost Tracking**	**Actual vs. Planned Comparison**	**Lifecycle Costing**
				Digital Validation	Software Operations
			Master Data Release Management		Engineering HW / SW / Networks
			Master Data Creation		
			Change / Release Management		

Why SAP Product Lifecycle Costing matters

In today´s fast-evolving market, companies are facing increasing pressure to provide innovative, customer-driven products and quotations at competitive prices. **Lack of visibility into early product cost hurts profitability downstream.**

Companies are challenged by **diverse business processes**, **data and system landscapes** making product costing challenging with designs, sourcing, and manufacturing being performed **across multiple sites**.

Focus use cases for product costing

Concept acquisition	Product or process development	Production ramp-up	◆ **Start of production** Production	Disposal

Preliminary cost estimate
(new product introduction [NPI] or continuous improvement [CI])

Inventory valuation (SAP ERP today)

Production cost simulation

Quotation costing

Lifecycle costing

Engineering or design bill of materials	Manufacturing bill of materials

Product maturity

Unstructured data

Structured data and values available, such as material, bill of materials, routing, and pricing information

Time

Primary Focus Industries

Automotive
- Automotive Suppliers
- Automotive OEMs

Industrial machinery and components
- Component manufacturer
- Project manufacturer
- Engineering project Manufacturer
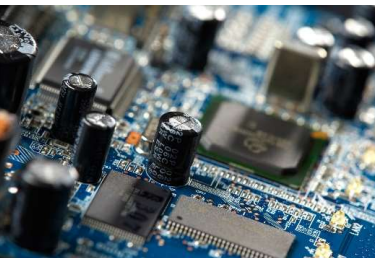
High Tech
- Contract and Component Manufacturer
- Business and Consumer OEMs Semiconductor
- Medical devices
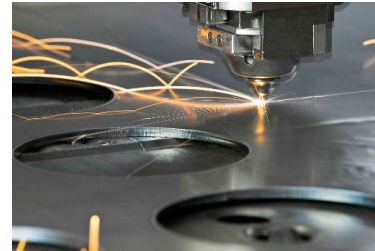
Mill Products
- Metal companies producing metal products supply automotive

Aerospace and defense
- Aerospace contract manufacturer
- OEMs

CP / Pharma / Chem
- Consumer Products
- Pharma
- Chem

02

Solution Overview & Use Cases

Solution Introduction and references

SAP Product Lifecycle Costing Solution Definition

SAP Product Lifecycle Costing is a solution to calculate costs and other dimensions for new products or quotations in an early stage of the product lifecycle, to quickly identify cost drivers along the lifecycle, and to easily simulate and compare alternatives.

Real time SAP HANA	**User centric** Microsoft Excel–like UI	**Open** SAP ERP or S/4HANA, Microsoft Excel, non SAP	**Flexible** Cost structure
Two Deployment Options: On-Premise & Cloud	High **performance**	**Integration** with SAP ERP or SAP S/4HANA	
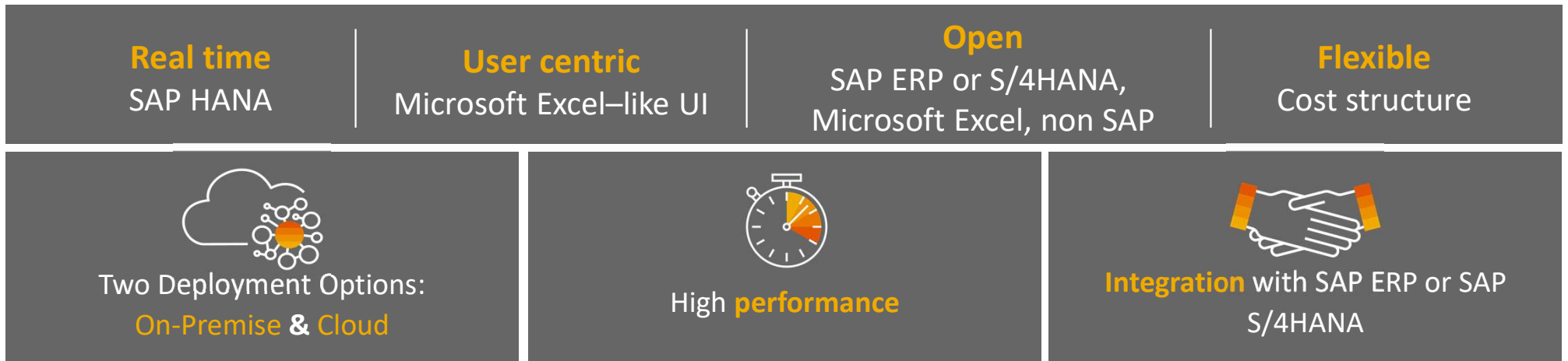
"Freedom to Calculate" with SAP Product Lifecycle Costing

SAP Product Lifecycle Costing
The integrated Costing Hub

5 Analytics for
Monthly Reporting, Target Monitoring & Decision Making

4b Automations for
Mass Calculation, Integration & Simulation

6 Forecast & Prediction for
Prices, Currencies, Volumes, Overheads, …

4a Add-In Extensions for
Quality Checks & Integration

PLC

3a Product Structure

1 PLC Core
Costing Model to calculate actual and future cost with volatile changing and incomplete information

2 Frequent Replication:
- Supplier Prices
- Hourly Rates
- Currency Rates
- …

3b Value Add

… Plant Material Cost Center …

Typical Customer Implementations – Global Product Costing at….

Preliminary Cost Estimate for New Product Introduction

AGCO (agricultural OEM company) improves cost accuracy and profit margins by one global costing tool with SAP Product Lifecycle Costing integrated with ERP, and PDM systems, and increases efficiency through great user experience and automation, allowing cost engineers to focus on value-add activities. Watch the video | Read the story

Preliminary Cost Estimate for Continuous Improvement

Varian (medical device company) increased product profits and reduced time-to-market through calculating against target cost accurately with full traceability of performance of design, manufacturing, and supply optimization steps towards target cost, using with SAP PLC, integrated to design BOM authored in CAD design tools and managed in SAP PLM. Watch the video | Read the story

Lifecycle Costing

Daimler (automotive OEM) improves product margin by costing future product profitability with SAP Product Lifecycle Costing and Machine Learning. Establishing a single costing calculation across all business units has helped this intelligent enterprise slash product costs for new projects. Watch the video | Read the story

Quotation Costing

Bühler (special machinery solution provider) manages quote costs in Engineer-to-Order scenarios faster, with greater cost accuracy, and lower financial risk, using SAP Product Lifecycle Costing integrated to SAP ERP, quote system, and SAP Configure, Price, and Quote. Watch the video | Read the story
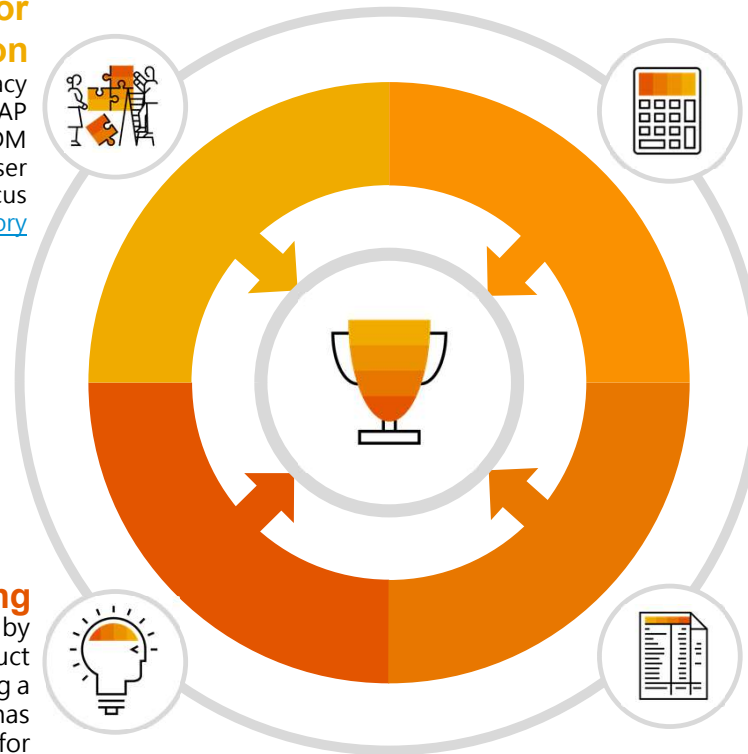
03

What´s New

Cloud Edition 2010

New Features with Cloud Version 2010

- Custom Fields as Links
- Monthly Lifecycle Versions
- One-time Cost Distribution

Custom fields as links
Feature Overview

Storage external links using custom fields for items and master data

Highlights

As part of the Intelligent Product Design integration, PLC has been enhanced to allow for the storage of external links. This is achieved using custom fields. When creating custom fields for items and master data, a new selection called Link is now available in the Data Type dropdown. This enhancement will also be available in projects once custom fields for projects are implemented

At PLC cloud version 2010 it will be possible to:

- Create and save custom fields as links in the Administration View

- Visualize, edit, and access custom fields as links in the Calculation View

- Use formulas to create specific custom fields as links

Custom fields as links

Set up custom fields with data type Link

Link' as data type becomes available

Maintain a certain link as default value

Custom fields as links

Visualize, edit, and access custom fields as links in the Calculation View

Press ctrl and click on the link to open it in browser

Possible to edit link custom field at calcualtion view

Custom fields as links
Use formulas to create specific custom fields as links

User formulas to create specific custom fields

Values from custom fields CUST_PART1 and ,CUST_PART2 are concatenated as link

Custom fields as links

Error message for invalid link

Error messages will appear If inputed value is invalid for a link

Monthly Lifecycle Versions
Feature Overview

Calculate future costs for customizable lifecycle periods

Highlights

With its new addition, PLC will support the calculation of a project over the monthly lifecycle to meet the customer needs for calculating the future costs within projects on a more granular level. This means customers can define the periods for which lifecycle versions are generated in the Project view as follows: yearly, quarterly, monthly or even custom periods. In order to achieve this, the project view has two new views:

- Lifecycle Periods – where the lifecycle period can be selected at project level and distributed yearly, monthly, quarterly or over a custom period. Each lifecycle interval can be named by the user.

- Lifecycle Quantities – where the quantities for each lifecycle period are distributed.

Monthly Lifecycle Versions

Define lifecycle periods on yearly, quarterly, monthly or customized basis.

Lifecycle periods can be self-defined flexibly

Monthly Lifecycle Versions
Maintain lifecycle quantities based on defined lifecycle periods

Monthly Lifecycle Versions

Calculate future costs based on defined lifecycle periods and lifecycle quantities

Lifecycle Cost (Investment) Distribution
Feature Overview

Distribute one-time project costs across the project lifecycle

Highlights

With this addition, you now have the option to distribute one-time project costs across the project lifecycle. You can distribute these costs equally or based on quantity.

The Project view has been enhanced, as follows:

- Under Project lifecycle, we've added a new One-Time-Costs screen. In the first table, you can enter all your one-time costs for the project. In the second table, you can apportion these costs among products (i.e. calculations) in the project

- In the Product Lifecycle screen, we've added a new Add to Version checkbox that allows you to precisely distribute these one-time costs

Lifecycle Cost (Investment) Distribution
Maintain and distribute one-time costs for project(s)

Costs are distributed based on user selection

Lifecycle Cost (Investment) Distribution
Assign one-time cost to lifecycle calculations

Lifecycle Cost (Investment) Distribution

Assigned one-time costs are included in total cost of lifecycle versions

Lifecycle Versions (6)

	Name ▲	ID	Total Cost	Total Quantity	
🕐	#Version 1 - 2020 - Q1	1397	10,147.20 EUR	100 PC	
🕐	#Version 1 - 2020 - Q2	1563	10,147.20 EUR	100 PC	
🕐	#Version 1 - 2020 - Q3	1560	10,147.20 EUR	100 PC	
🕐	#Version 1 - 2020 - Q4	1557	10,147.20 EUR	100 PC	
🕐	#Version 1 - 2021	1391	51,857.20 EUR	500 PC	
🕐	#Version 1 - 2022	1393	62,227.20 EUR	600 PC	

Lifecycle Versions (6)

	Name ▲	ID	Total Cost	Total Quantity	
🕐	#Version 1 - 2020 - Q1	1397	10,274.18 EUR	100 PC	
🕐	#Version 1 - 2020 - Q2	1563	10,274.18 EUR	100 PC	
🕐	#Version 1 - 2020 - Q3	1560	10,274.18 EUR	100 PC	
🕐	#Version 1 - 2020 - Q4	1557	10,274.18 EUR	100 PC	
🕐	#Version 1 - 2021	1391	52,492.12 EUR	500 PC	
🕐	#Version 1 - 2022	1393	62,989.10 EUR	600 PC	

Lifecycle Cost (Investment) Distribution

One-time cost is generated as variable item in calculation versions

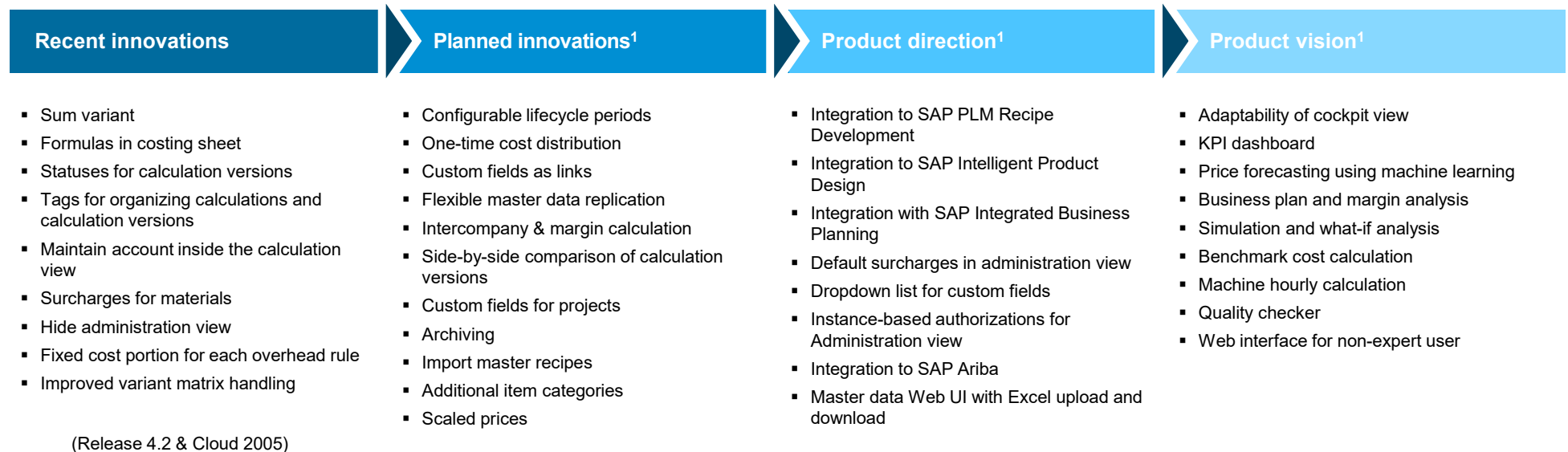|			Link for Item	Quan-tity	UoM	Total Qua...	UoM
◢ ✔ ☐	#SAP Example: Drive (1001) #Version 1 - 2020 - Q1 #100-200					400	PC
✔ ▷₊	Distributed Costs			1	PC	1	PC
✔ ⚙	#CC1 #AT1 Activity Type 1 (setup)			3	min	3	min
✔ ⚙	#CC1 #AT2 Activity Type 2 (labor)			10	min	4,000	min
✔ ⚙	#CC1 #AT3 Activity Type 3 (machine)			10	min	4,000	min
✔ ⚙	#CC1 #AT2 Activity Type 2 (labor)			10	min	200	min

04

Summary & Roadmap

SAP Product Lifecycle Costing
Product road map overview – Planned innovations

Subject to Change

Recent innovations	Planned innovations[1]	Product direction[1]	Product vision[1]

Recent innovations
- Sum variant
- Formulas in costing sheet
- Statuses for calculation versions
- Tags for organizing calculations and calculation versions
- Maintain account inside the calculation view
- Surcharges for materials
- Hide administration view
- Fixed cost portion for each overhead rule
- Improved variant matrix handling

(Release 4.2 & Cloud 2005)

Planned innovations[1]
- Configurable lifecycle periods
- One-time cost distribution
- Custom fields as links
- Flexible master data replication
- Intercompany & margin calculation
- Side-by-side comparison of calculation versions
- Custom fields for projects
- Archiving
- Import master recipes
- Additional item categories
- Scaled prices

Product direction[1]
- Integration to SAP PLM Recipe Development
- Integration to SAP Intelligent Product Design
- Integration with SAP Integrated Business Planning
- Default surcharges in administration view
- Dropdown list for custom fields
- Instance-based authorizations for Administration view
- Integration to SAP Ariba
- Master data Web UI with Excel upload and download

Product vision[1]
- Adaptability of cockpit view
- KPI dashboard
- Price forecasting using machine learning
- Business plan and margin analysis
- Simulation and what-if analysis
- Benchmark cost calculation
- Machine hourly calculation
- Quality checker
- Web interface for non-expert user

Continuous investment in cross topics:

- Public backend API
- Extensions to add-in-framework

- Usability Improvements
- Improvement Requests from Customer Influence Session

1. This is the current state of planning and may be changed by SAP at any time without notice.

SAP Product Lifecycle Costing

Calculate costs and other dimensions for new products early and throughout the product lifecycle, to identify cost drivers, harness cost-savings, promote transparency, and secure profitability.
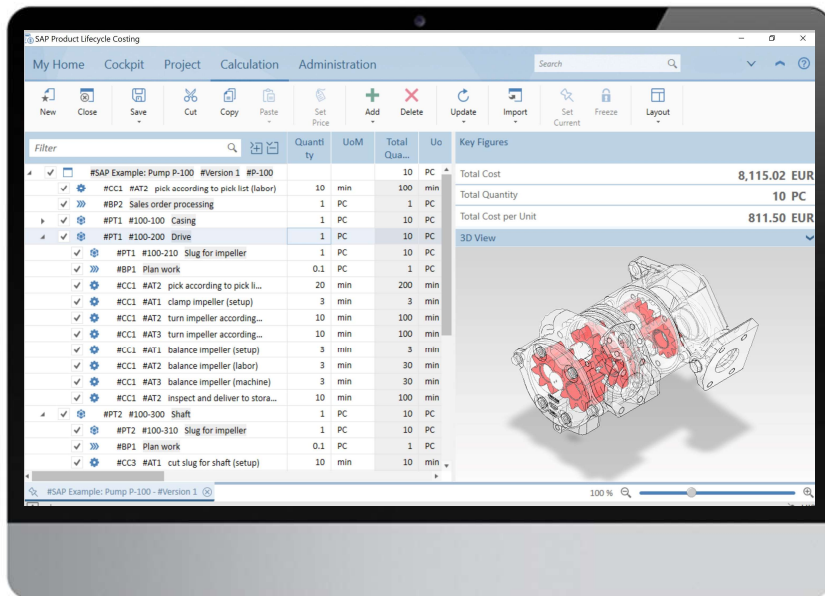
Highlights

- Integration capability with all enterprise systems, for simplified cost-breakdown and business-case analysis

- Rich, flexible configuration and extension capabilities

- Simple handling of large and complex costing structures

- Consideration of dynamic volumes and cost factors to calculate entire product lifecycles

- Integration with other SAP solutions and customer legacy systems

- Timeless, Intuitive user interface

- Rich analytics integration with SAP or non-SAP analytics software solutions

- Early and accurate cost forecasting with temporary or incomplete master data

Further Information

**SAP PLC on
sap.com**

**Trial System on
SAP Help Portal**

**YouTube
Playlist**

Further Information (Assets)

Solution Overview Brochure

Solution in Detail Brochure

Compendium Flipbook

Thank you.

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