

Sustainable Innovation using SAP PLM

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Agenda



1. Introduction
2. SAP Solution Overview
3. Summary



Consumer-Driven Sustainable Innovation



Global Price Pressure



Increasing Product Compliance and Corporate Regulations

Shorter Innovation Cycles

- More visibility to customer's needs, market opportunities, and technologies
- Product portfolio strategy linked with business execution
- Need to manage innovation processes
- Continuous performance tracking

Fact: Roughly 80% of all new products are failing to achieve their expected results

Development cost pressure

- Reduce time to market and increase efficiencies in Design, Manufacturing, and Service
- Pressure for continuous product cost management and reduced component costs
- Need for flexible and dynamic development collaboration networks

Fact: About 70% of product costs are locked down during the design phase

Product Liability

- Need for compliance controls, documentation, and visibility
- How to introduce a sustainability "culture" and design sustainable and compliant products
- How to avoid compliance violations from development, manufacturing, sales, service or recycling

Fact: Companies are increasingly being held accountable for the environmental and safety performance of their products

What are the Reasons for Failure?

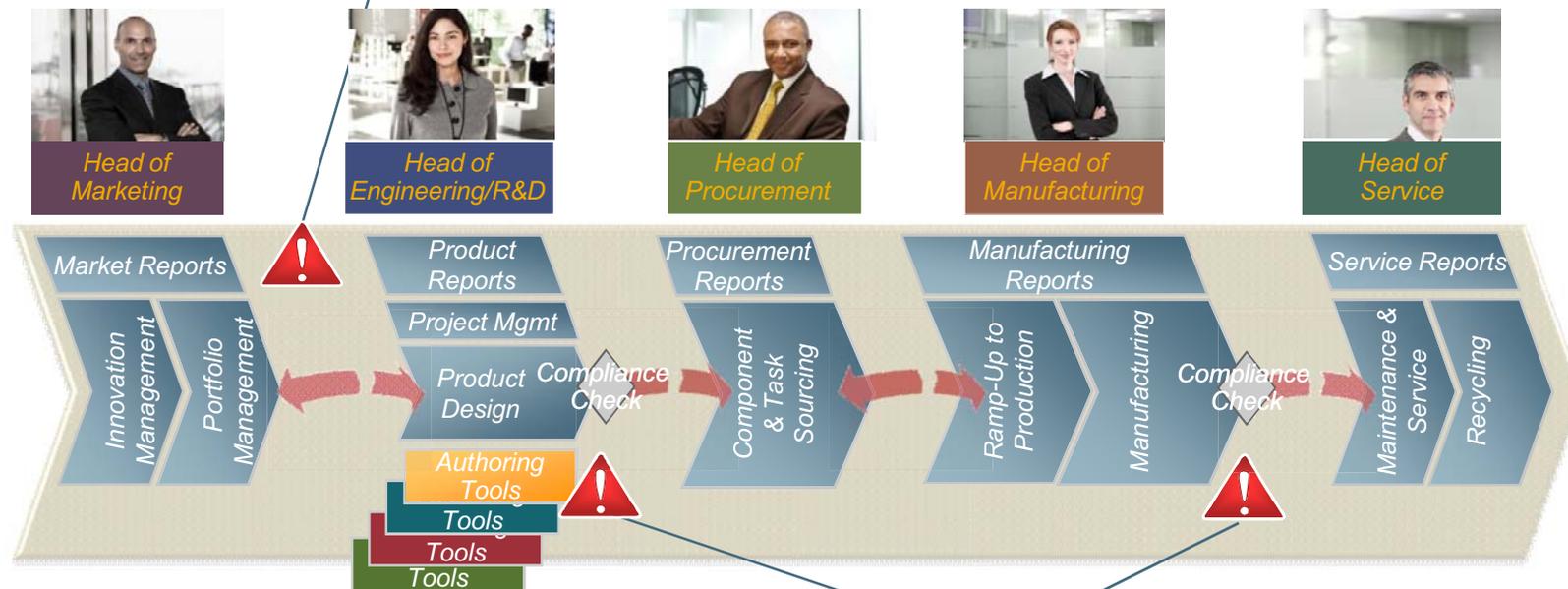
The challenge of disconnected processes and tools



Misaligned or lack of innovation

Disconnected Business Processes and Information

- Missing market insight and portfolio strategy can lead to wasted effort and failing products
- Limited innovative ideas leads to losing market share and missed revenue opportunities
- Lack of transparency in innovation execution increases budget spending and failing market introductions



Long development times and manual effort for handover to manufacturing and service

Missing "single source of truth"

- Fragmented and ineffective collaboration with partners and suppliers elevates the number of change interactions and time consuming optimization processes
- Excess component and task costs as a result of last minute design changes
- Lack of visibility in production capabilities. Lack of timely and complete communication of last minute changes

Lack of compliance information and controls

Insufficient Sustainability Approach

- Lack of visibility into completeness of product and process compliance is increasing the risk of penalty and re-calls
- Lack of accurate compliance reports and audit trails
- Insufficient partner network and manufacturing controls

SAP Solutions for LoB Product Development

Deliver innovative products in a world of accelerating change



Continuous Product and Service Innovation:

The entire organization needs to ensure a continuous stream of profitable innovation

- Business insights for informed decision making
- Aligned portfolio strategy with overall goals
- Leveraging the right talent, partners and capabilities
- Coordinate and manage innovation execution



Integrated Product Development:

Connecting Development / R&D with the Business

- Enables innovative product development, envisioned from market insights
- Faster time-to-market and accelerated product revenue growth through focused engineering and active alignment of design with manufacturing and service
- Ensure quality and scale by embedded quality management

Embedded Product Compliance:

Being green starts with simply being compliant with existing regulations

- Products designed for compliance
- Complete and accurate compliance reporting
- Automated compliance analytics and controls

Strategies for Product and Service Leadership

& Capability requirements to support these Strategies



Portfolio Optimization

- Business insights by analytics
- Open Ideation
- Strategy and roadmap management
- Portfolio, resource, time and budget management
- Project planning and execution
- Project collaboration and compliance
- Portfolio and Projects linked with Business Execution



Development Efficiency

- Collaborative engineering in and beyond the enterprise
- Requirements and customer needs management
- Efficient, visual communication
- Synchronized product structure management across product lifecycle phases
- Development integration to Manufacturing and Service



Quality Excellence

- Support of sustainable and compliant product design
- Manage and track company and global standards like REACH, RoHS, and WEEE
- Comprehensive and embedded change management across organizational disciplines

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SAP's End to End Process Centric Strategy

Flexibility and integration to achieve Product and Service Leadership



***Continuous Product and Service Innovation
(NPDI)***

Integrated Product Development

Embedded Product Compliance

Continuous Product Change

Continuous Product and Service Innovation (NPDI)



Solution Highlights

- *New and harmonized user interface (UI) for portfolio and project management*
- *Deepen the integration of project and portfolio management (PPM) with the SAP Product Lifecycle Management application to align portfolio with product definition*
- *Extend integration of PPM and project system functionality in SAP ERP to align portfolio planning with execution*
- *Comprehensive process support for capital project portfolio management*
- *New Idea Management solution*
- *Financial planning and resource management enhancements*
- *Enhanced reporting capability with business context viewer*



Continuous Product and Service Innovation (NPDI)



SAP Business Client Log Off

Product Development | Strategy and Planning | Managing Innovation | **Programs and Projects** | Portfolio Management

Overview | Reports

Food Project Portfolio > Innovation Initiative > Project Item

- Portfolio Structure
- Classification Hierarchies
- Portfolio Items
- Portfolio Initiatives
- Reviews
- Collections
- ▼ Services
 - User Settings
 - Search
 - Substitutes

Item: Apple Cinnamon Bagel

TCM-12098744 | Called From: Item Apple Cinnamon Bagel | Assessed Risk: 000 | ID: TCM-12098744 | Name: Apple Cinnamon Bagel

Forecasted Start: 01.12.2009 | Type: New Development project | Status: In Preparation | Actual Start: DP | Phase: Phase

Budget Status: ■ On Budget | Risk: ■ Risk

Navigation: Ideation | Concept | Evaluation | Prototype | Manufacturing

No Messages - [Display Message Log](#)

Save | Close | Read Only | Refresh | Financial and Capacity Planning | Print Fact Sheet | Project | Reporting Cockpit | Timeline Monitor

Overview | Phases and Decisions | Deliverables | Relations | Documents and Notes | Miscellaneous | Custom Component

General Information | Classification | Financial Information | Capacity Information | Custom Longtext Fields

Key Information

Name: Apple Cinnamon Bagel | ID: TCM-12098744

Status: In Preparation | Type: New Development project

Priority: Very High | Item Class: Item

Bucket ID: 2-2 | Initiative Name: David's CPG Portfolio

Initiative ID: | Portfolio Name: David's CPG Portfolio

Portfolio ID: DS_CPG

Description: Create a new low carb apple cinnamon bagel that maintains the taste of a fully carb'd food. [Upload image](#)

Proposal: | Escalation:

Dates

Forecasted Start/Finish: 01.12.2009 / 27.03.2010 | Forecasted Duration in Days: 117

Planned Start/Finish: 01.12.2009 / 27.03.2010 | Planned Duration in Days: 117

Actual Duration in Days: 0

Days Left Until Finish: 115 | Days Left Until Next Decision: 0

Schedule Status: ■ On Schedule

General Custom Strategy

Graphic: | Status: In Preparation

Save | Close | Read Only | Refresh | Financial and Capacity Planning | Print Fact Sheet | Project | Reporting Cockpit | Timeline Monitor

Additional Information

► Overview

► Query Views

▼ Dashboards

Expected Commercial Value (ECV)

Item Dashboard

Priority Item ID	Name	Risk Icon	Budget Status	Schedule Status	Starting Status	Planned Start Date
000	Apple Cinnamon Bagel	■	■	■	■	04/01/2009
000	Apple Cinnamon Bread	■	■	■	■	05/02/2009
000	Multigrain Sandwich Bread 20oz	▲	■	■	■	06/01/2009
000	PBJ Crackers	■	■	■	■	05/01/2009
000	Nacho Cheese Crackers	■	■	■	■	04/01/2009
000	Apple Cinnamon Cookies	▲	■	■	■	05/01/2009
000	Nacho Cheese Packaging	■	■	■	■	04/01/2009
000	Sevens English Muffins	■	■	■	■	05/01/2009
000	Sour Cream & Onion Crackers	■	■	■	■	06/01/2009
000	Phankee BBQ Sauce	■	■	■	■	12/01/2008
000	Cherry Cola Formulation	■	■	■	■	02/01/2009
000	Black Forest Dark Focaccia	■	■	■	▲	02/01/2009
000	On the Border Alcohol Drink	■	■	■	■	08/15/2008
000	Cherry Cola Packaging	■	■	■	■	02/15/2008

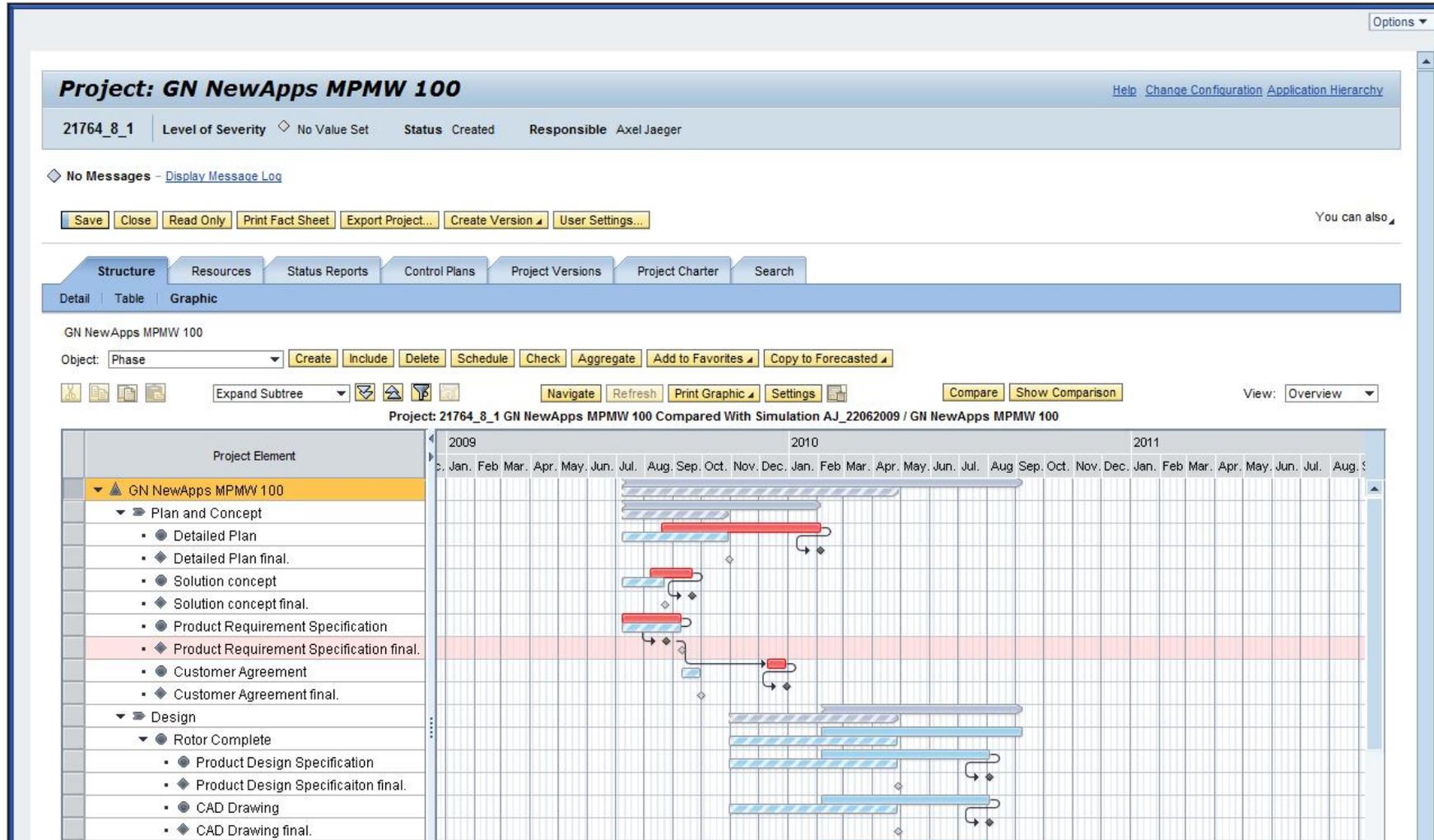
Total Costs vs Planned

► Favorites

Powerful Project Planning and Execution



Version Comparison in Gantt Chart



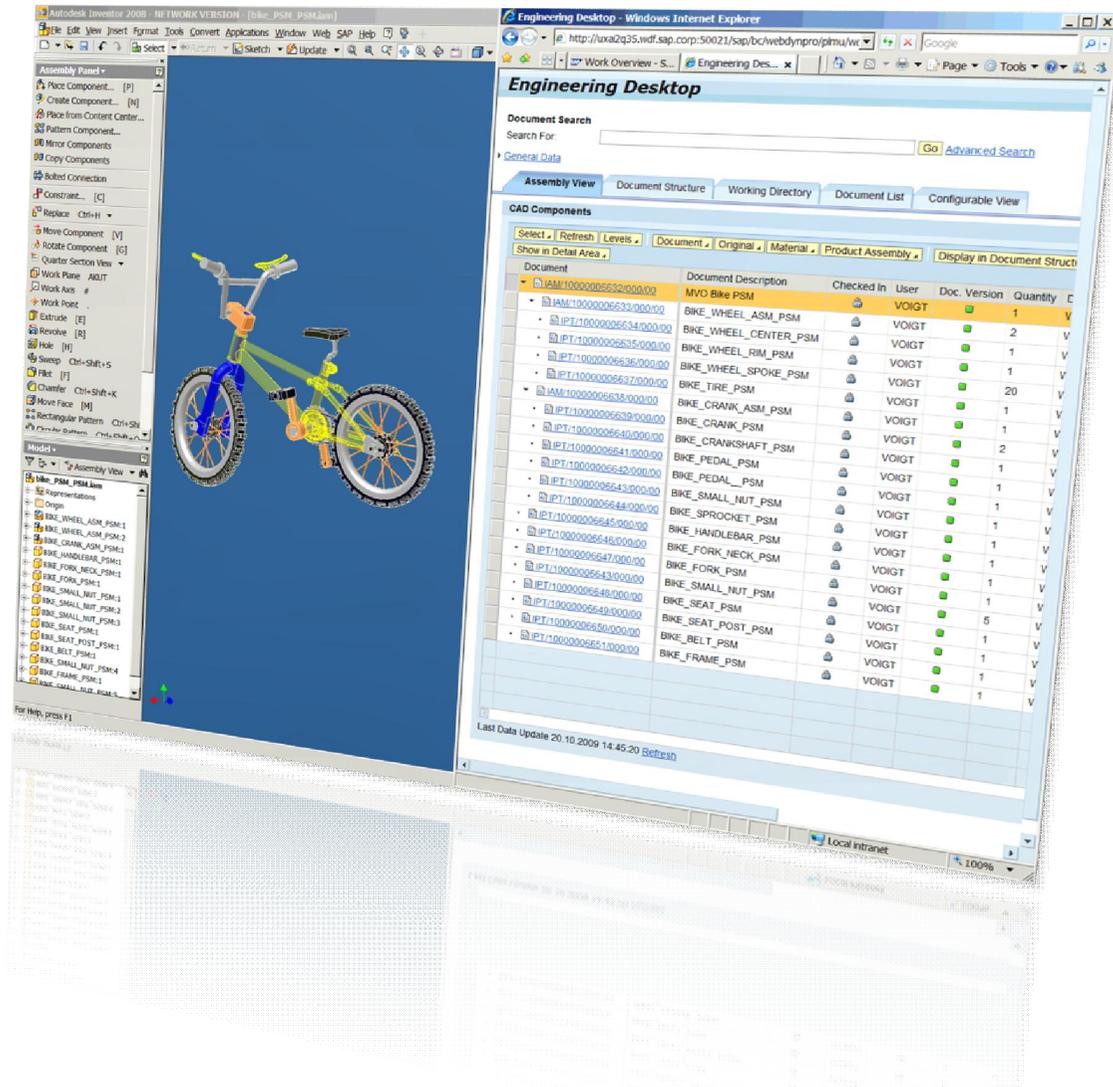
Integrated Product Development

Solutions for Discrete Industries



Solution Highlights

- *Embedded Product Visualization for faster and better communication*
- *Decision Support via Business Context Viewer*
- *Role-based easy to use user interface*
- *Direct collaboration*
- *Offer guided process for reconciliation between Engineering-BOM and Manufacturing-BOM*
- *Synchronize and compare items' structures and attributes*
- *High-level product definition, like a concept BOM*
- *Functional structures and views with integrated variant configuration and simulation*
- *Support for change management with both date and parameter affectivity*
- *Dependency matrix*
- *CAX integration with variant assembly management*



Integrated Product Development

Solutions for Discrete Industries



File Favorites Help

Home

Object Navigator: Material MCU68HC11

MCU68HC11 >

Product Group Controller Units Product Classification 8-Bit Controller Unit

You Can Also Related Links

General Product Structure Where-Used Changes Documents Authorizations Requirements Projects

Display Material Change Material Set Status

Material Data

Status: Released
 Unit of Measure: Pieces
 Material Group: Controller Unit
 Procurement Type: Vendor
 Revision: A
 Price: 118,74 EUR
 Volume: 0,20 m³
 Net Weight: 0.7 KG
 Gross Weight: 0.9 KG
 Long Text: This controller unit is based on the MC68HC11 8-bit microcontroller. It is typically used in controller units for brake systems or display systems. It is equipped with a serial communication interface.

Classification

Characteristic	Description
Architecture	8 BIT
Memory	EPROM
Version	2.7

Preview

Bill of Material (BOM) Data

BOM Usage: Engineering
 BOM Status: Released
 BOM Text: Bill of Material for Controller Unit MCU68HC11

Adjust Layout PVC Workcenter Display Options

Stock Overview

Pieces in Stock

Where Used

Material	Material Description	Status
F2201145	Break Unit System	Green
F2201145	LCD Display	Green
S2289799	Entertainment Module	Red
D000222	BUS Controller Unit	Green

Project List

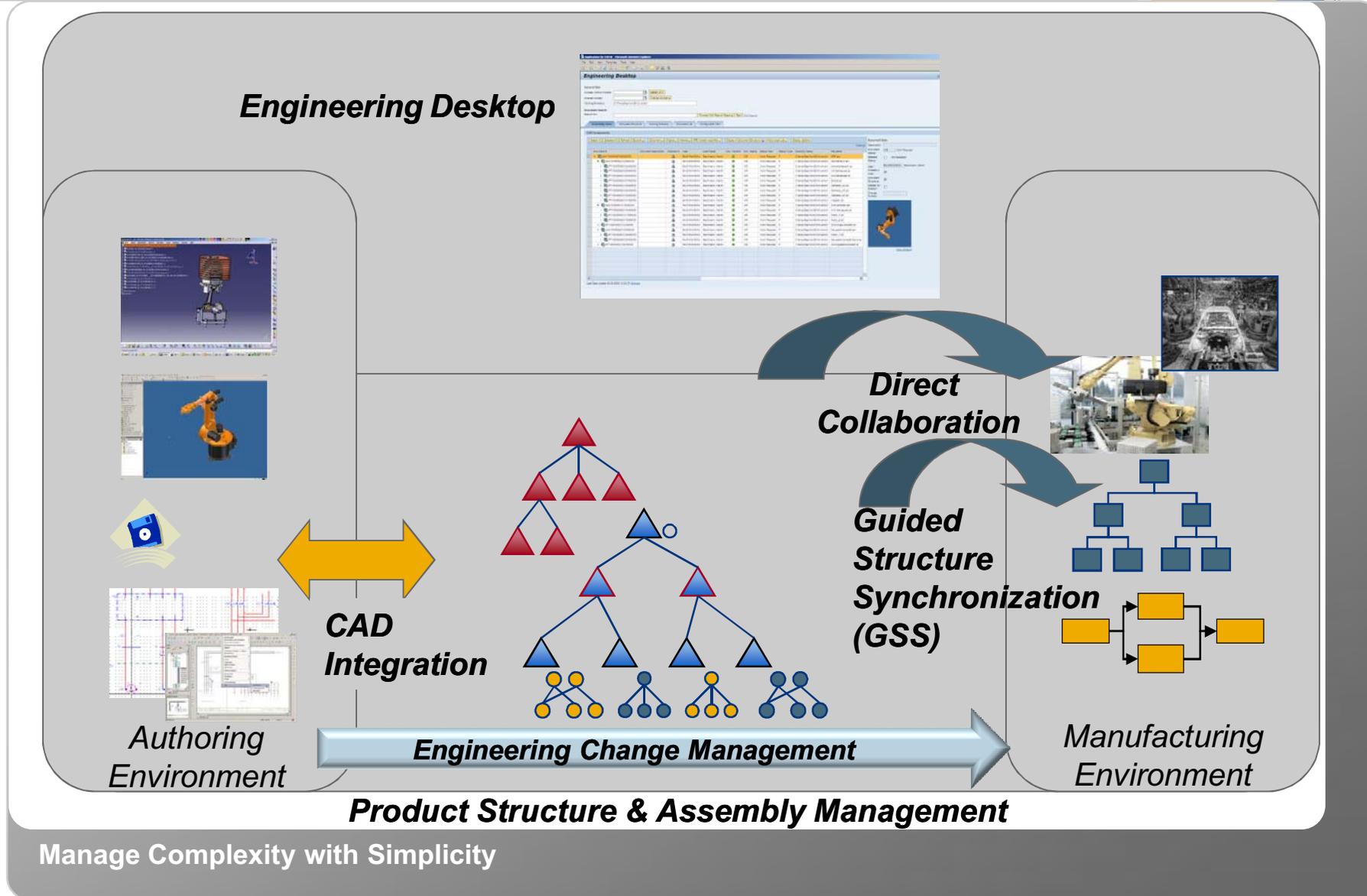
Project Name	Type	Status
Break Unit System 2.0	Prototype Development	Green
Upgrade Firmware	Upgrade	Green
Redesign LCD Display	Development	Red
Replacement XUV5	Development	Green

Quality Issues

SAP

Integrated Product Development

Solutions for Discrete Industries



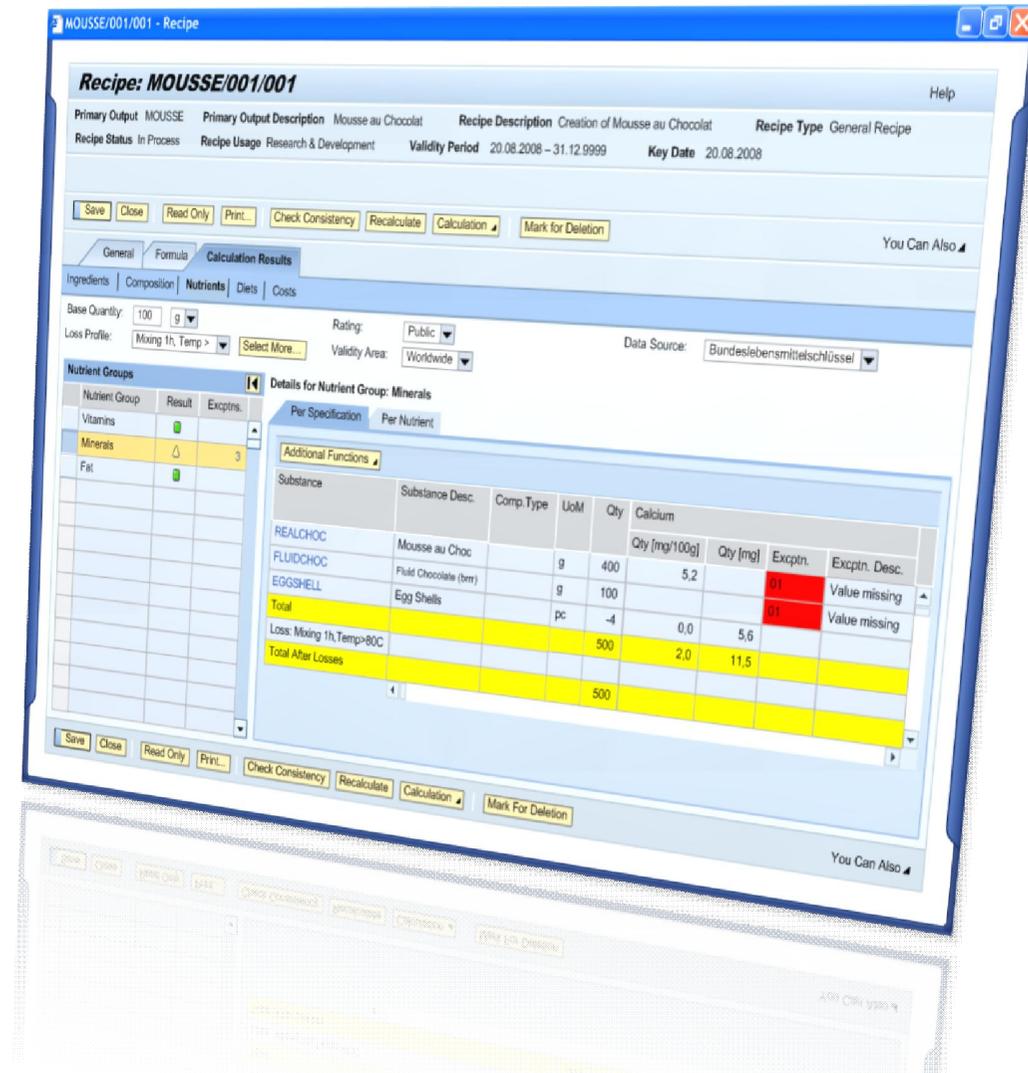
Integrated Product Development

Solutions for Process and CP Industries



Solution highlights

- Use new UI for recipe management
- Generate labels directly from recipe management
- Create ingredient, allergen, and nutrition statements automatically
- Calculate recommended dietary requirements automatically
- Assemble and transform formula information into a final view of your label
- Use the business context viewer for process industries embedded in SAP PLM
- Use compliance checks to comply with regulations quickly and before product launch



Integrated Product Development Solutions for Process and CP Industries



Print Preview

More...

1 / 2 75% Find

SAP Demo Food Label

Nutritional Value Data

Servings Per Box: 6

Serving Size	100 g	
		% Daily Value
Total Fat	7.37 G	12.28 %
Saturated Fat	1.42 G	
Unsaturated Fat	5.95 G	
Cholesterol	154.32 MG	
SODIUM	1,911.15 MG	38.22 %
Total Carbohyd.		
Dietary Fiber	1.9 G	
Sugar	1.08 G	
Protein	6.52 G	10.87 %
Calcium	117.35 MG	29.34 %
IRON	3,032.81 MG	
MAGNESIUM	6.71 MG	1.68 %
Vitamin A	11,236.65 MG	
Vitamin B1	12.01 MG	
Vitamin C	20.62 MG	
Vitamin B12	0.43 MG	
Vitamin E	3.97 MG	
NIACIN	15.24 G	
Riboflavin	less than 1 G	
Thiamin	less than 1 G	
Other Carbohydrates		
Carbohydrates	60.26 G	30.13 %

*Percent Daily Values are based on a 2,000 calorie diet.

Ingredients:
Baking Soda, Water, Soybean Spray Oil #1, Topical Oil, Topping Salt, Salt, Enzyme No. 1, Nacho Cheese Seasoning #55, flour mixture

SAP

DD3 | 1035497

Embedded Product Compliance

Ensure compliance and reduce risks



Solution highlights

- Improved support of REACH registration process for discrete and process industries
- Management of discrete and process compliance checks simultaneously
- Support of additional regulations, such as GHS
- Integrated compliance checks in procurement and production processes
- Product intelligence provides comprehensive product analytics, compliance, and sustainability reporting



Embedded Product Compliance

Ensure compliance and reduce risks



BCV Main View

PDD Compliance with Table and Chart Additional information

Query ID PDD_COMPLIANCE_PICTURE Query View ID PDD_COMPLIANCE_PICTURE_2

DD Material Compliance (via Webservice) ▶ PDD Compliance with Table and Chart

Analytic View

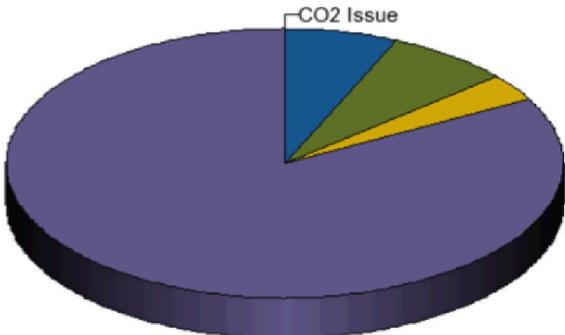
Show As: **Table and Chart** Functions

View: [Standard View] Export Filter Settings

Material	Picture	CO2 Issue
PDD_WHEEL_HUB		10
PDD_WHEEL_RM		11
PDD_WHEEL_SPOKE		5
PDD_WHEEL_TYRE		127

Chart

Chart View: PDD material compliance with pictures Settings

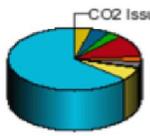


Additional Information

Overview

Overview: PLM Demo Day

PDD Material Compliance (via Webservice) [Automatisch]



Material

- PDD-CRANKSET
- PDD-DRIVEBELT
- PDD-FORK
- PDD-FRAME
- PDD-HANDLEBAR
- PDD-SADDLE
- PDD-SEATPOST
- PDD-STEM
- PDD-WHEEL

PDD Quality Notifications (via BAPI) [Automatisch]

Material N	Long Mater	Plant	Date
AM1_PCV_M...		AM1A	17.02.2009

PPD Bikes (via ES) [Automatisch]

Material	MatDescr.	Plant
MEB_BIKE_1	MEB BIKE 2	
MEB_BIKE_2	MEB BIKE 2	

Query Views

Dashboards

Favorites

SAP

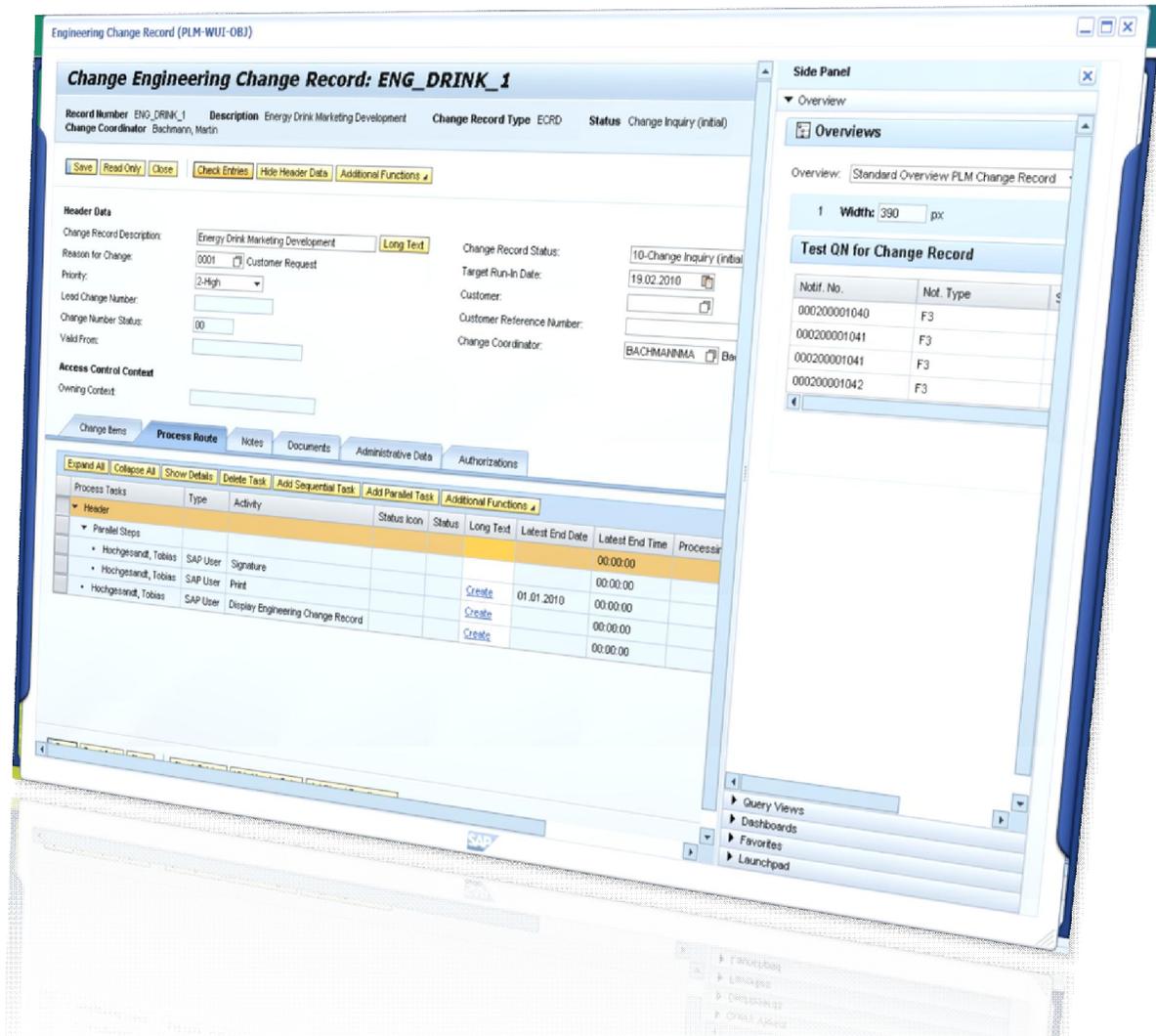
Continuous Product Change

Ensure consistency, transparency and reduce process time



Solution highlights

- *Minimizes the impact of product related changes by providing change management centric workflows and transparency across the product life cycle*
- *Ad hoc workflow*
- *Flexible and dynamic Workflow folder management*
- *Change process analytics to track and maintain workflow processes*



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Companies Today are Driving Value



Continuous product and service innovation (NPD)



Integrated product development



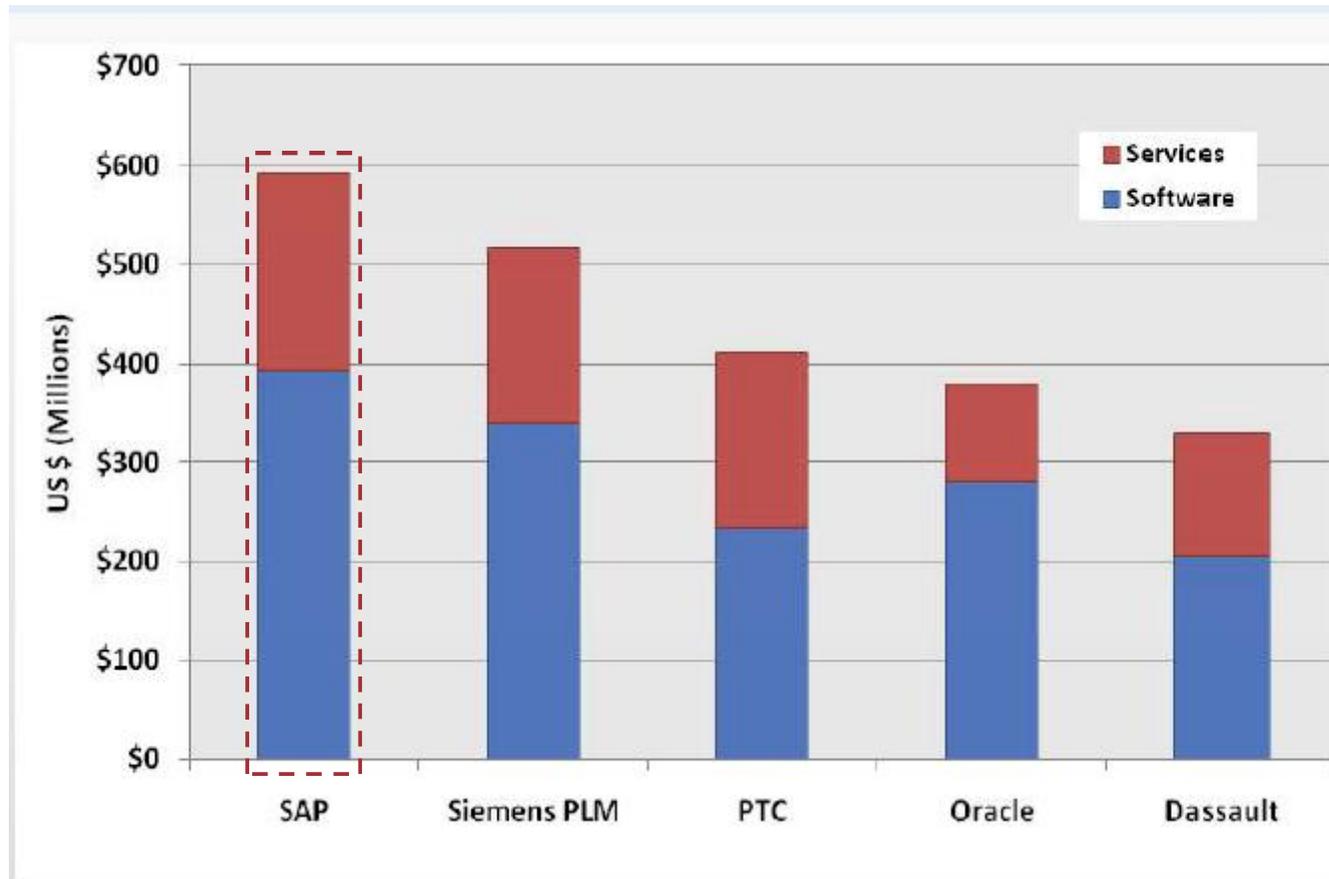
Embedded product compliance



SAP's Leadership in PLM Space



PLM Direct Revenue Leaders 2009



Source: CIMdata PLM Market Analysis - 2009 Report (Revenue excludes CAD related revenue)

SAP has a Strong Position in a Fragmented Environment



Gartner

- **“SAP has the broadest PLM reach across all manufacturing industries among all of these PLM providers by leveraging its enterprise resource planning (ERP) customer base.”**
- **“...there are significant improvements in PLM usability in SAP's PLM 7.0. IT managers see SAP PLM as an opportunity to reduce costs and improve data transparency across product development, manufacturing operations, the back office and customer-facing activities.”**
- **“Many Gartner manufacturing clients choose to employ SAP PLM in tandem with product design, manufacturing engineering and product data management capabilities from specialty PLM software providers, because SAP's focus complements, rather than competes with, most of its PLM competitors. However, the advances in PLM 7.0 will encourage Gartner clients, particularly discrete manufacturers, to take a closer look at replacing existing best-of-breed offerings with SAP.”**
- **“We recommend that SAP ERP customers explore SAP's PLM 7.0 capabilities, because the ERP software includes a significant percentage of SAP's PLM capabilities already.”**

“Industry Depth Is Crucial When Selecting a PLM Vendor” by Marc Halpern of Gartner

Gartner: April 2009

Analysts Commend SAP Sustainability Actions



“SAP has placed itself in pole position and, in doing so, revitalized and repositioned an already leading organization”



*“SAP Maps the Corporate Sustainable Future:
Enterprise-Wide Sustainability Software Comes of Age”
January, 2010, Stephen Stokes & Bill Polk*

The SAP Sustainability Map “is one of the first tools in the market that offers a comprehensive overview of the multidimensional challenges of corporate sustainability, with relevant software solutions to address them.”



*“Case Study: SAP’s Sustainability Transformation
How To Save The World And Tap Into A Multibillion-Dollar Market”
December, 2009, Holger Kisker*

Summary

Product Development processes are changing – The times of unstructured processes, time for failure and communication via Spreadsheets are gone ...

Reduced “Time-To-Profit” can be achieved by a balanced orchestration of Product Development strategies (Portfolio Optimization, Development Efficiency, Quality Excellence)

SAP provides a comprehensive approach and solutions to support Engineers and R&D departments AS WELL AS the entire Enterprise to achieve this goal



Thank you!

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