

Semi-structured integration between Engineering and Manufacturing structures

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1 **SAP Today**

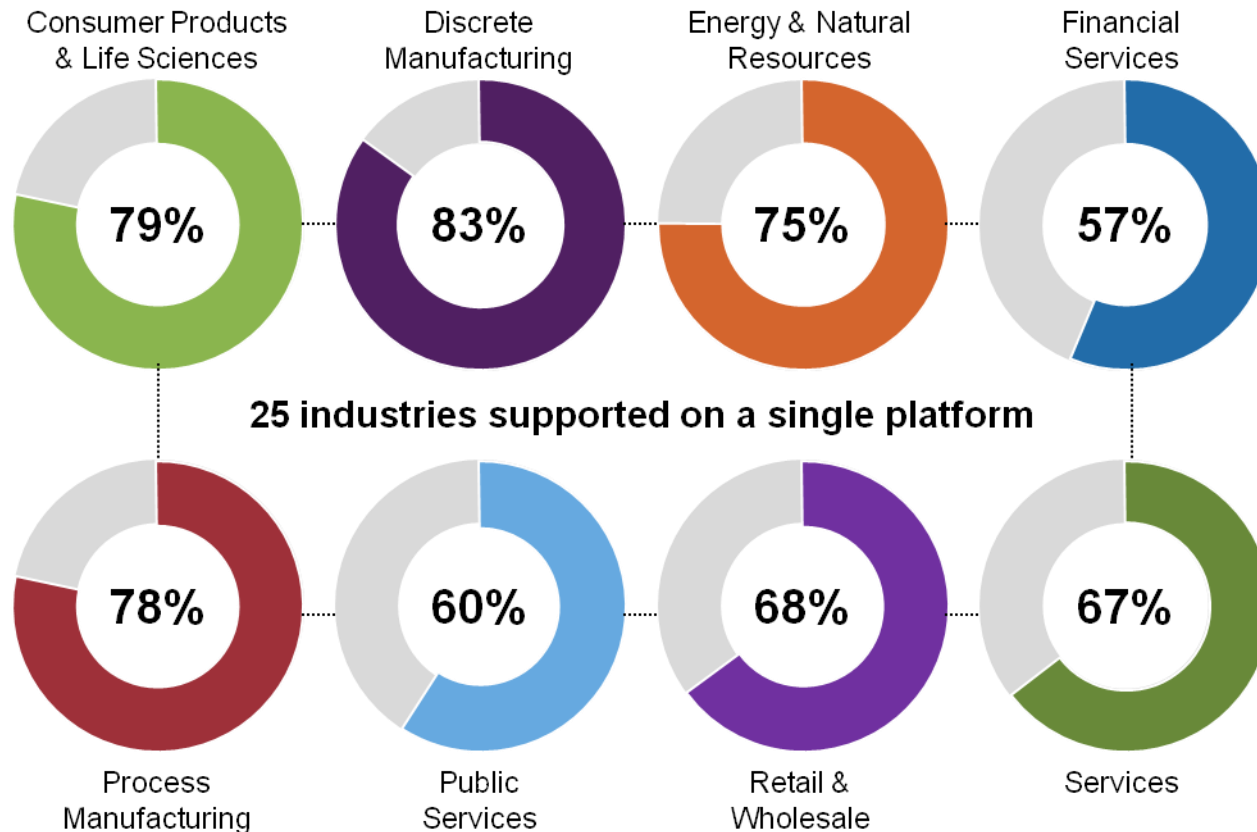
2 Overall PLM Process

3 Product Structure Synchronization

4 Conclusion

Our Industry Expertise Helps Companies Run Better

SAP share of Forbes 2000 companies by sector



Multi industry support on a single platform

Deep industry-specific capabilities

Embedded preconfigured best practices

Clear industry road maps

Source: SAP analysis of Forbes 2000 rankings and SAP customer database, January 2011

SAP Product & Service Portfolio

Business Process	Business Analytics	Technology	Services
<ul style="list-style-type: none">• Enterprise resource planning (HR, finance and operations)• Supplier relationship management• Product lifecycle management• Supply chain management• Customer relationship management• Collaboration	<ul style="list-style-type: none">• Business intelligence• Enterprise information management• Enterprise performance management• Governance, risk, and compliance• Sustainability	<ul style="list-style-type: none">• Application foundation / integration• On-demand platform• Mobility platform• In-memory computing	<ul style="list-style-type: none">• Implementation consulting• Business analytics consulting• Transformational consulting• Custom development• Support and maintenance• Program management and quality assurance• Education and training

Solutions for Industries and LoBs

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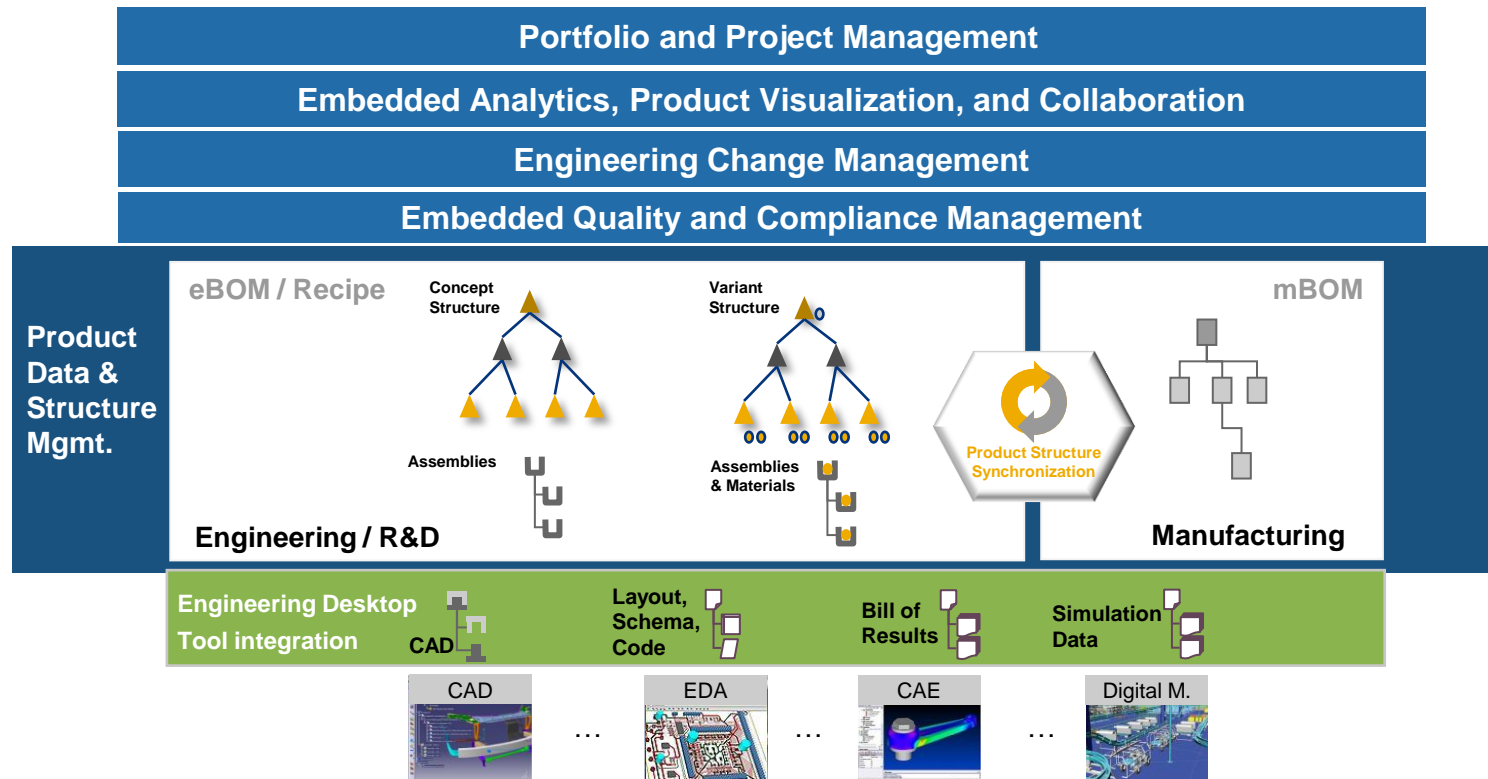
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SAP Solutions for LoB Product Development

Deliver innovative products with high quality, precision, and speed in a world of accelerating change



SOLUTION TODAY

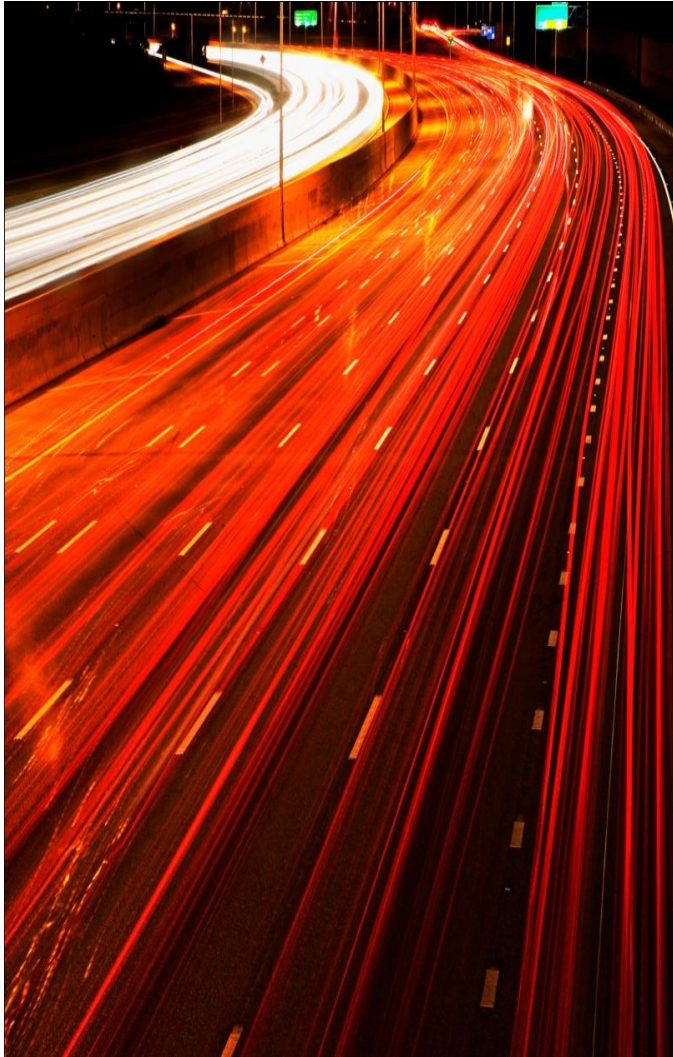
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The Challenges to Bring Products Fast to Market



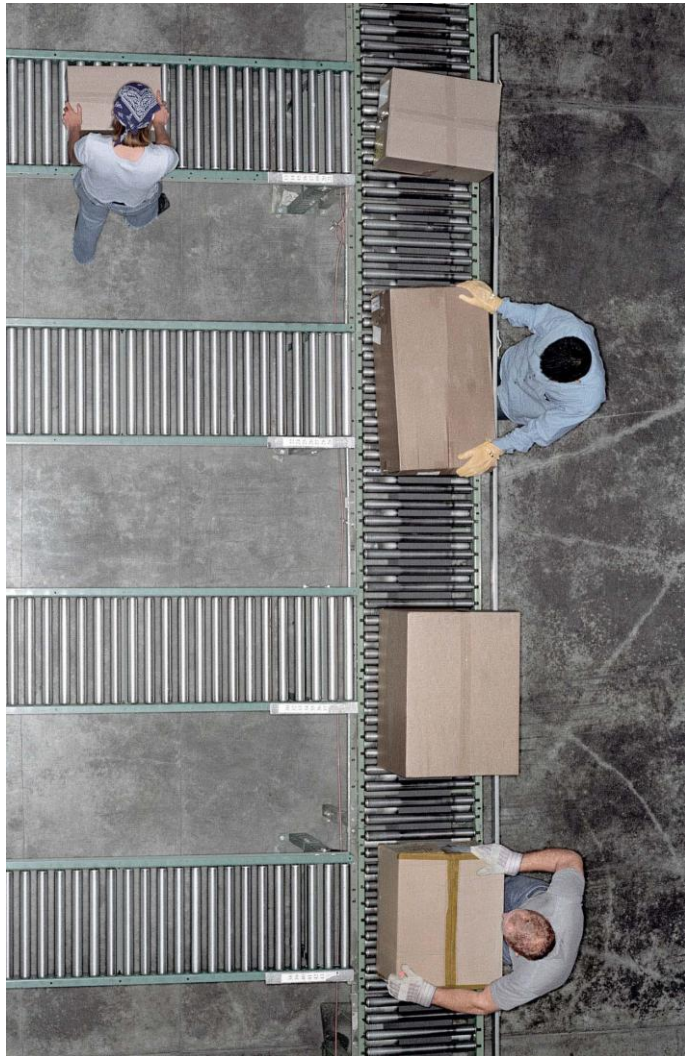
Top Challenges

- Achieve strong alignment of Engineering with Manufacturing
- Flexibility and Independency of Engineering and Manufacturing
- Managing product versions in Engineering and date effectively in Manufacturing
- Distributed development aligned with outsourced manufacturing

Resulting in

- Process and data synchronization issues between engineering and manufacturing

Expectations on Product Structure Synchronization for bills of materials

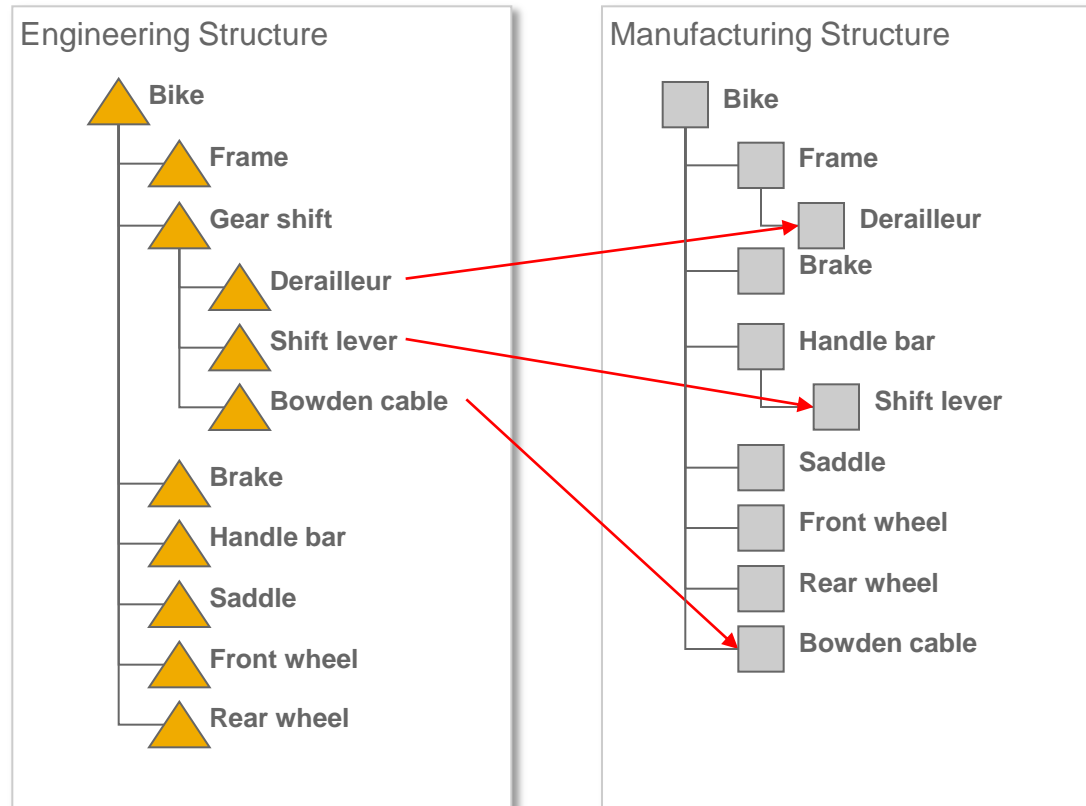


You want a Solution that...

- Provides freedom and flexibility to manage engineering and manufacturing structures
- Transparency to control & monitor changes in both worlds
- Reduce time for handover engineering data to manufacturing
- Improve quality of manufacturing information and reduce error by re-entering manufacturing data
- Higher efficiency through synchronization between engineering and manufacturing bills of materials

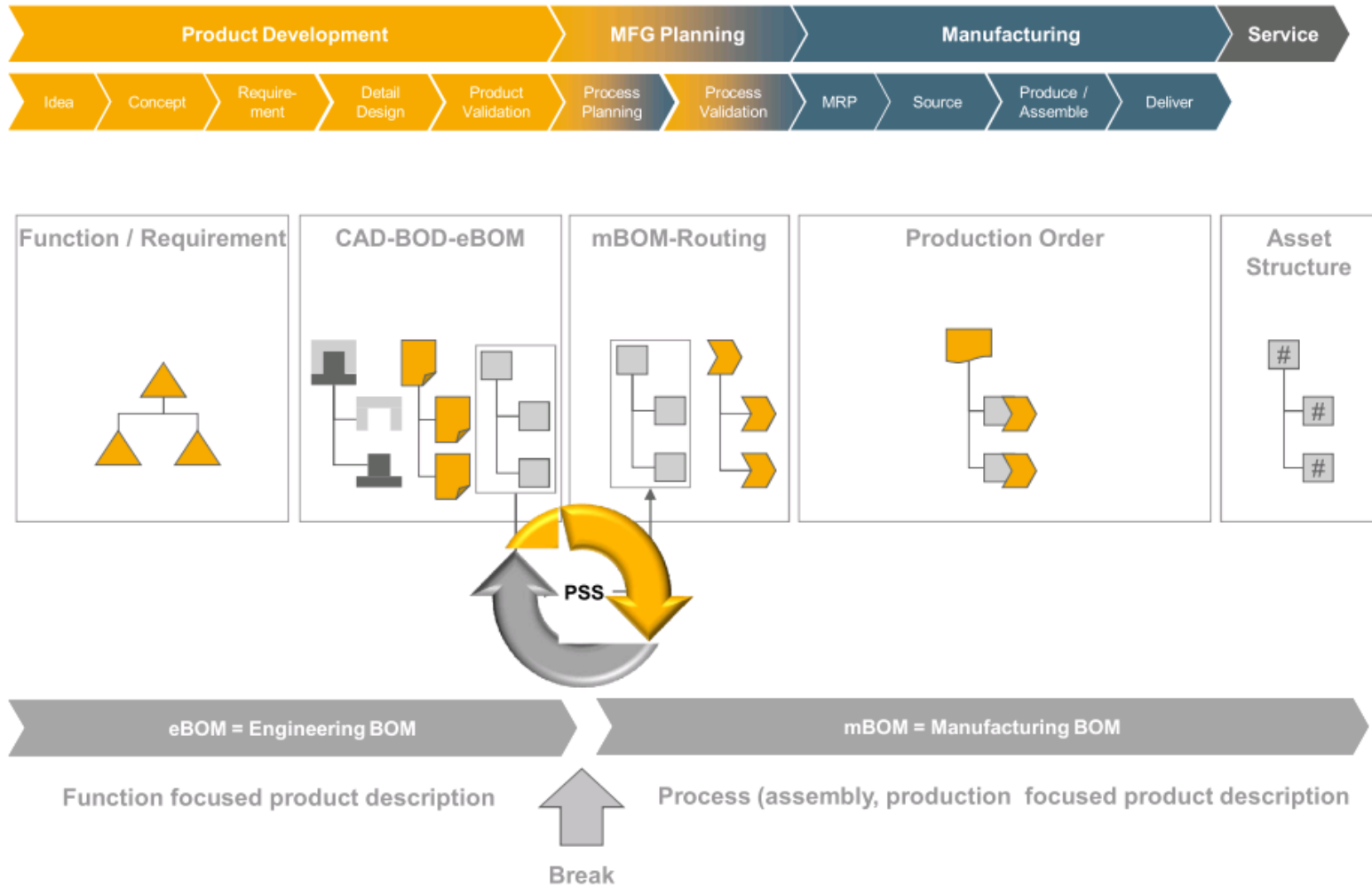
Example of the challenges in the transition from engineering to manufacturing

- Function versus assembly sequence
- Engineering version versus effectively in manufacturing
- Organizational separation of development and manufacturing
- Manufacturing differences at different sites



Structures along the Value Chain

The challenge to synchronize engineering with manufacturing

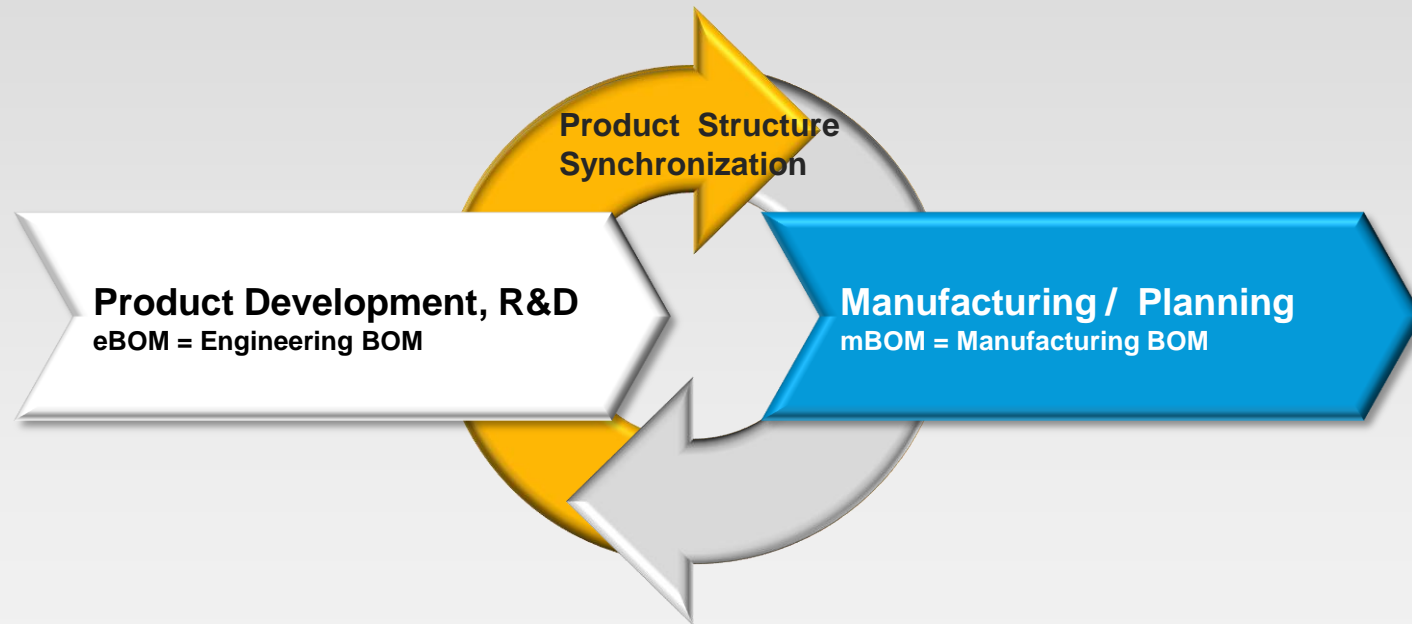


Scope of Product Structure Synchronization



Product Structure Synchronization

Generic engine to support the transformation (complex restructuring) of bill of materials, memorize all changes of the transformation to provide guidance for continuous updates of this transitions.



Benefit of Product Structure Synchronization



Product Structure Synchronization

Give the two worlds of Development and Manufacturing highest flexibility for their product description but keep them in synch

- 1. More flexibility for development, R&D and manufacturing**
- 2. Synchronize development, R&D with manufacturing or manufacturing with manufacturing**
- 3. Structure management support over multi locations**
- 4. Support the change process of product structures across organizational units**

Plan, synchronize and reconcile Manufacturing bill of material

Solution Capabilities

Planning of Manufacturing Bill of Material

Synchronization unit for planning process

Definition of target settings for manufacturing bill of material

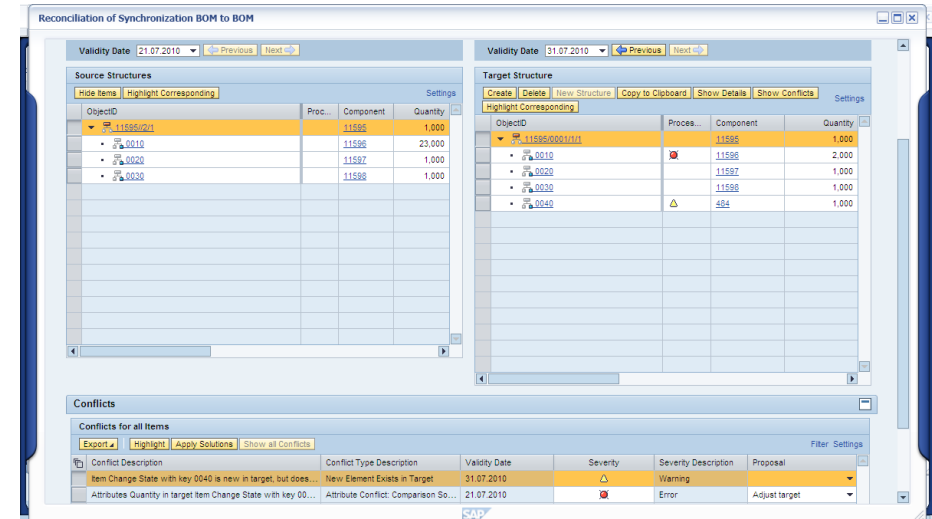
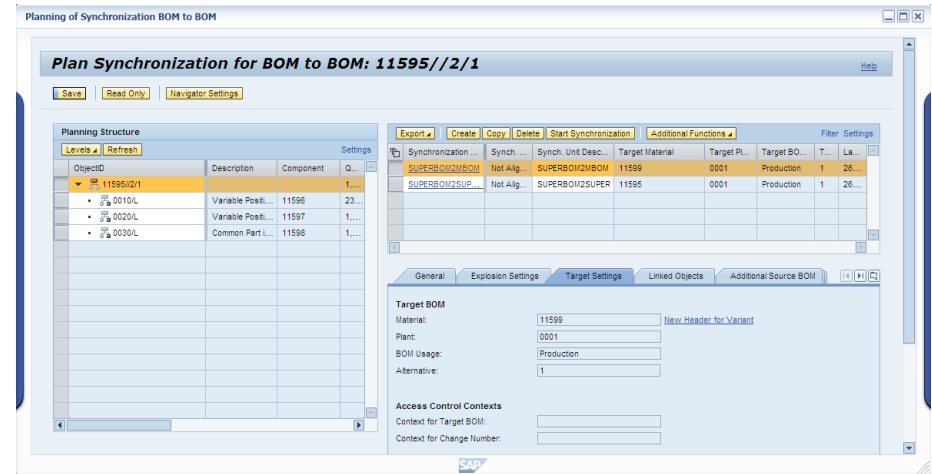
Initial conversion of engineering to manufacturing bill of material

Reconciliation of Engineering & Manufacturing Bill of Material

Determine and manage conflicts at reconciliation of engineering and manufacturing bill of material

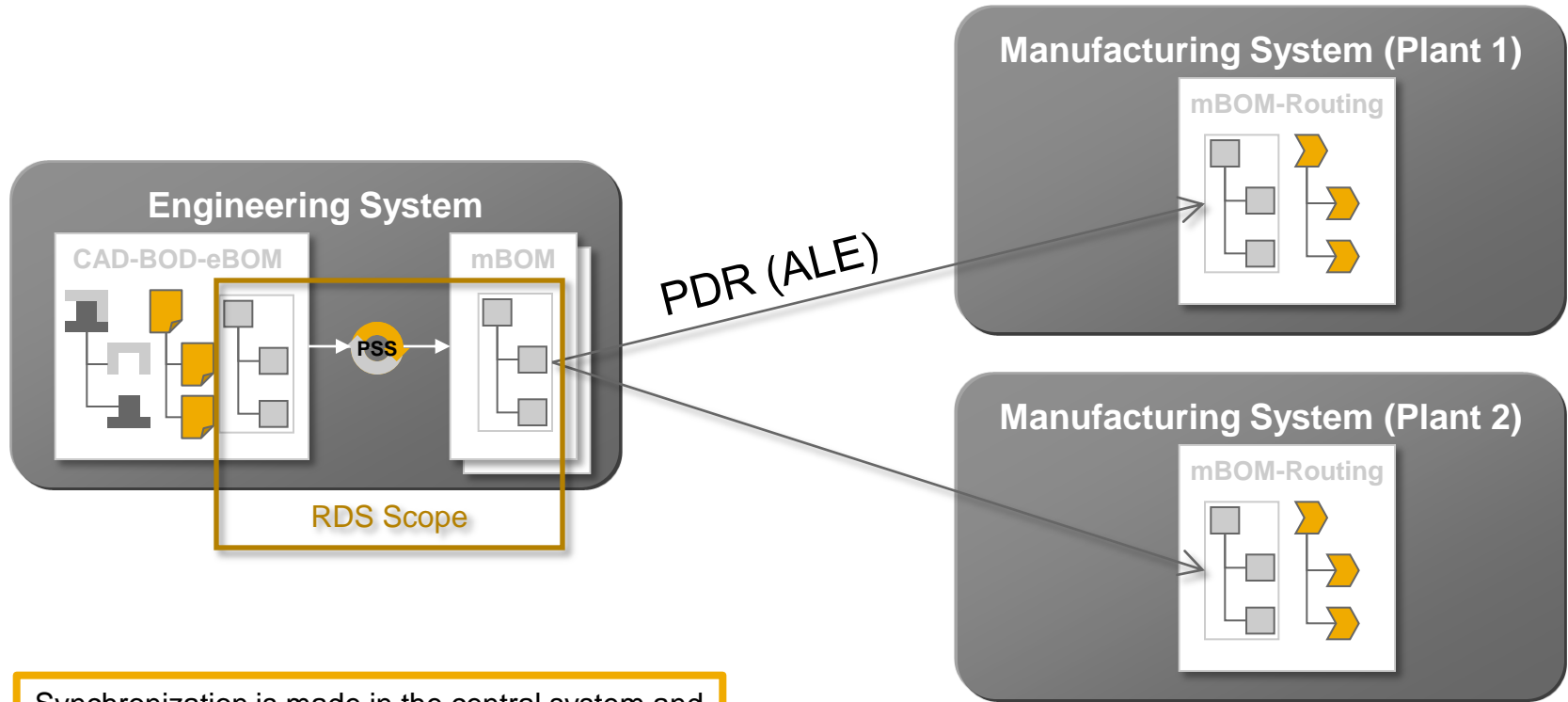
Apply solutions to solve conflicts

Flexible mapping of attributes between engineering and manufacturing bill of material



System landscape, Scenario 1

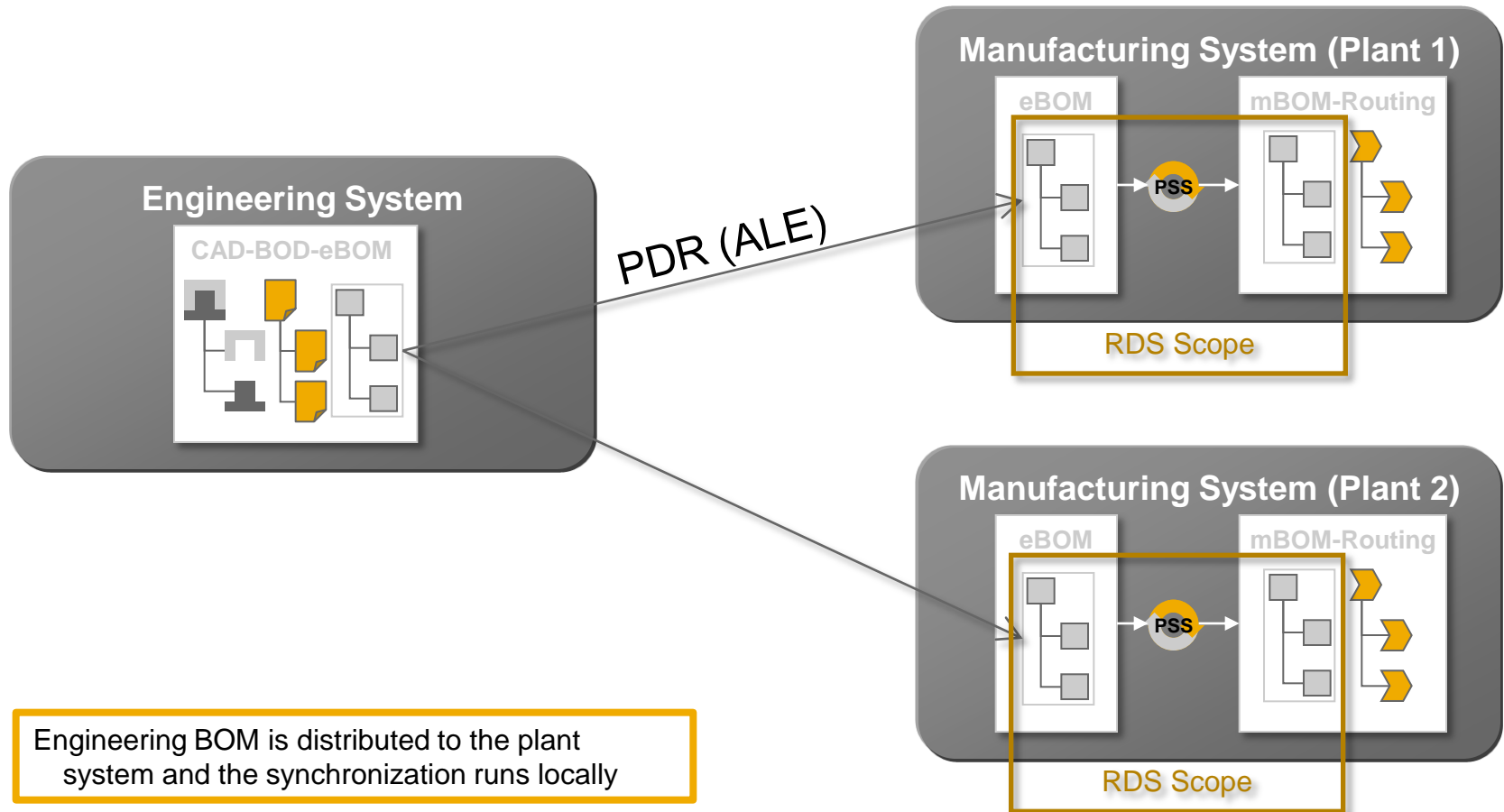
Synchronization will be made in Engineering system



Synchronization is made in the central system and the M-BOM is then distributed into the specific manufacturing system.

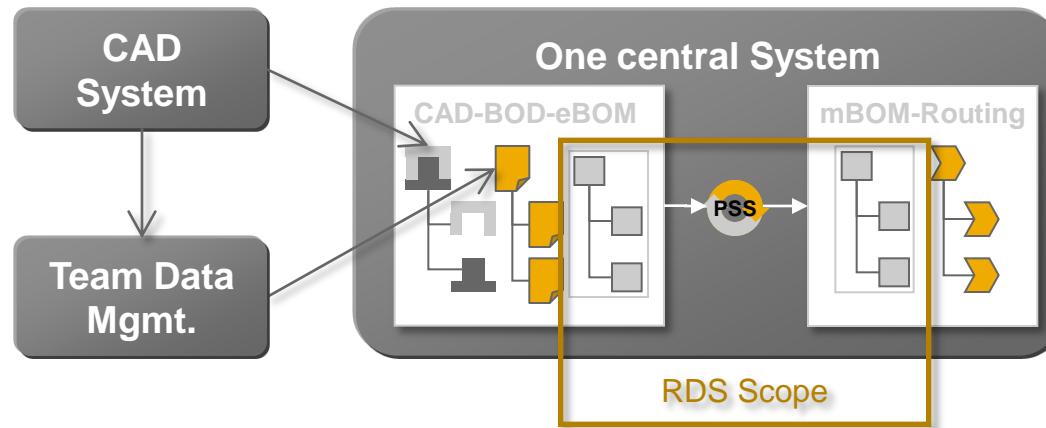
System landscape, Scenario 2

Synchronization will be made in Manufacturing system



System landscape, Scenario 3

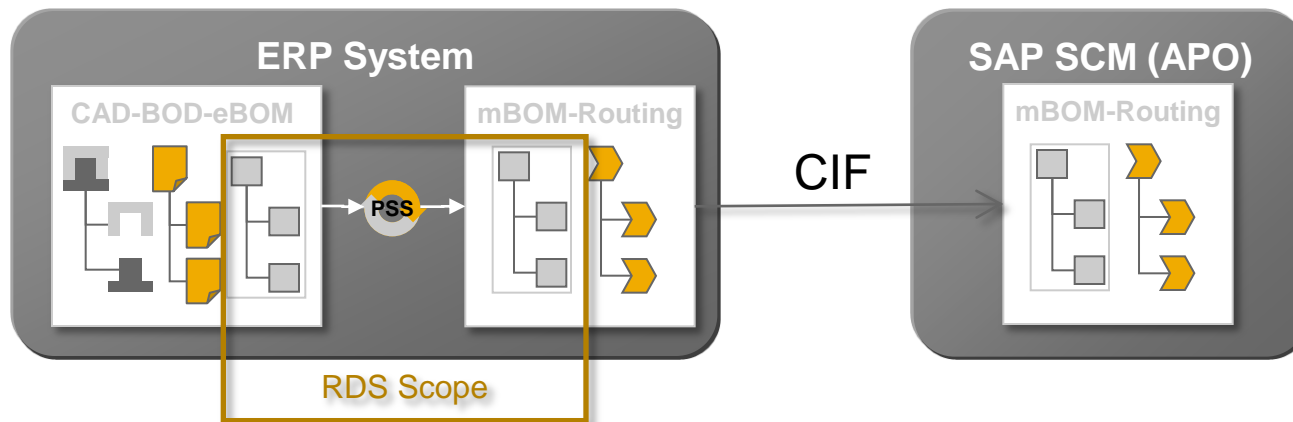
Synchronization will be made in Manufacturing system



Engineering and manufacturing bill of material are managed in one central system

System landscape, Scenario 4

Synchronization will be made in Single Instance



Engineering and manufacturing bill of material are managed in one central system

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4 key take aways

Flexibility

- More freedom and flexibility for engineering and manufacturing due to separated structures and effectivities

Transparency

- Traceability through links between eBOM and mBOM

Efficiency

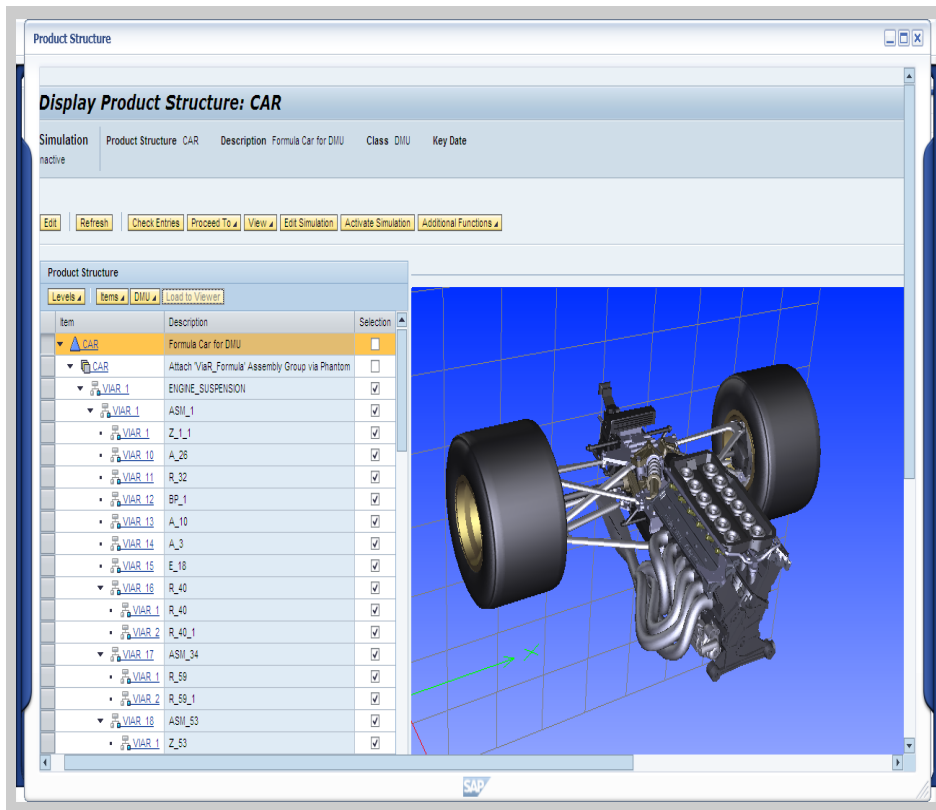
- Save time due to a system supported handover and comparison of changes from eBOM to mBOM

Integration

- Integrated into existing SAP Application (BOM, Change Management, etc.)

Preconfigured software and services enabling rapid deployment

SAP BRINGS TOGETHER SOFTWARE AND SERVICES IN A NEW OFFERING THAT GIVES YOU ESSENTIAL BILL OF MATERIALS SYNCHRONIZATION FUNCTIONALITY QUICKLY AND AFFORDABLY



- Preconfigured software to eliminate the guesswork
- Rapid deliver within 8 weeks, with as little as 18 days consulting effort, employing SAP consulting
- An affordable, flexibly priced solution
- A clear path for synchronization between the engineering bill of materials and the manufacturing bill of materials



Thank You!

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