

# Improved Material and Production Planning with Suite on HANA

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# Improved MRP and PP with Suite on HANA

## Agenda

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### Today's Challenges

MRP Today

MRP on SAP HANA

Smart Business for MRP Demo

Technical Information

Value Proposition

Wrap-Up



# Improved MRP and PP with Suite on HANA

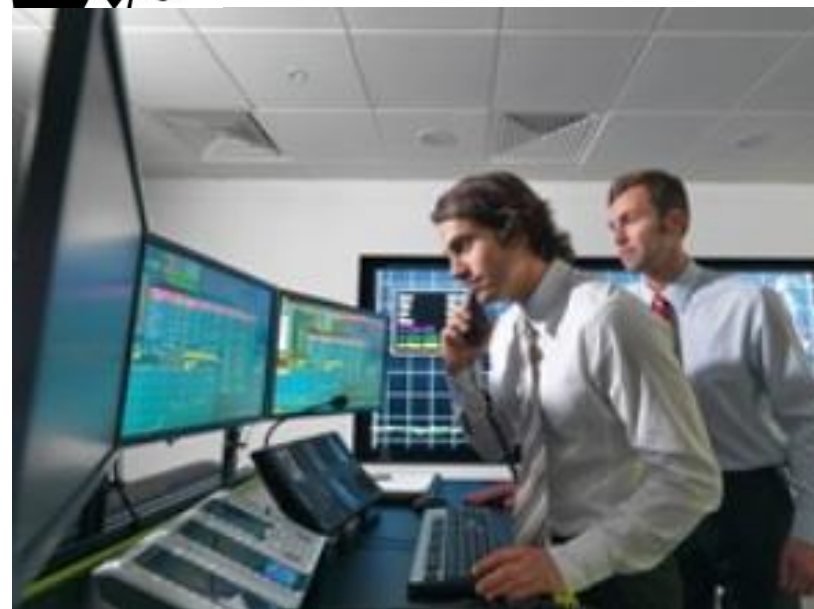
## Supply and Demand Evaluation Today

### Material planner's questions:

- Can I fulfill all the material demands?
- If not, which materials are short and when?
- Do I have enough supply to meet the demand?
- If not, which materials are most critical?
- Which important orders and customers are most affected?
- How do I resolve the most critical material shortages?



**Material Planner**





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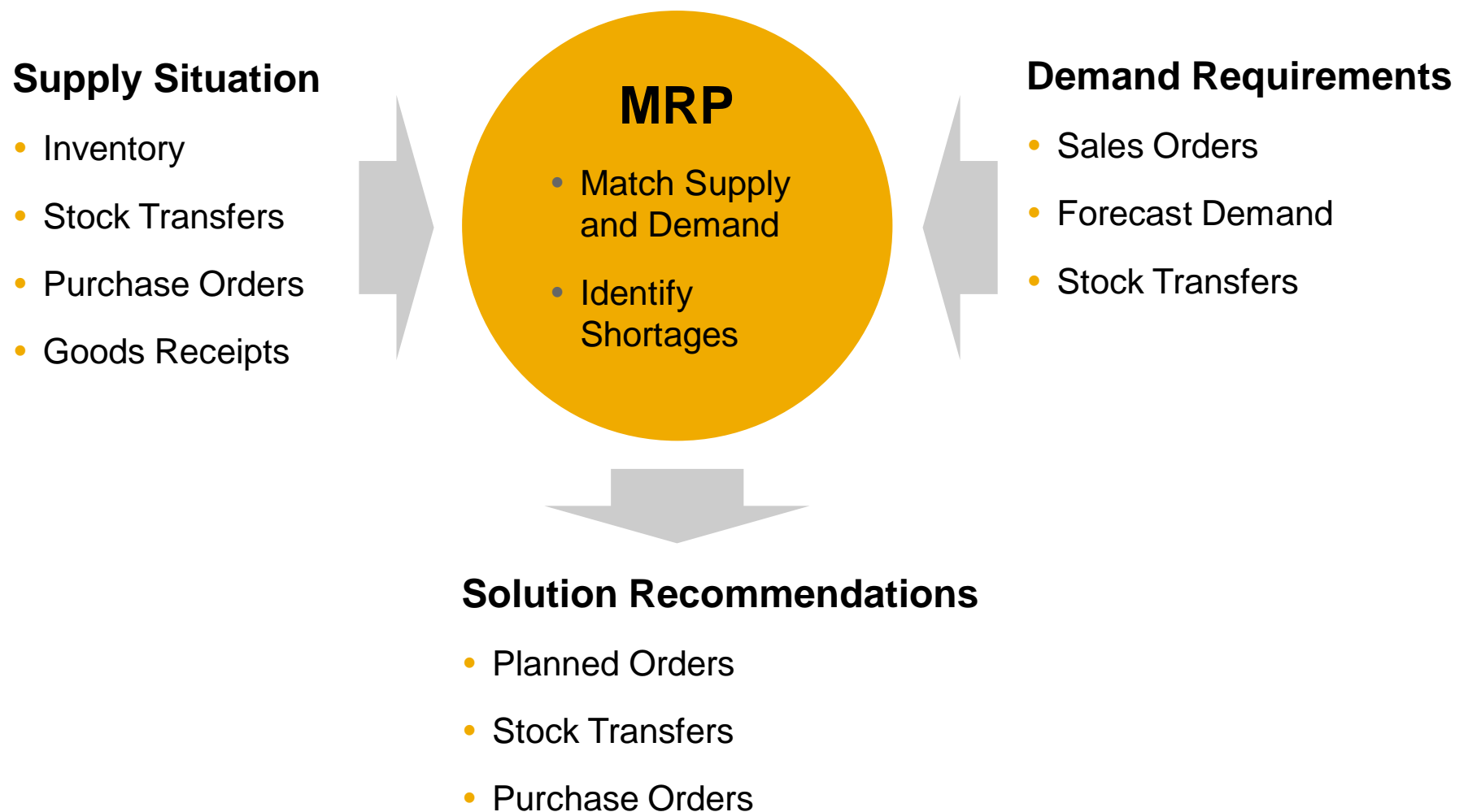
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# Improved MRP and PP with Suite on HANA

## What Is Material Requirements Planning?



# Improved MRP and PP with Suite on HANA

## Detecting the Most Critical Issues

- A material planner is responsible for hundreds of materials
- Challenged by dozens of exceptions a day
- Time is limited
- Focus on the most important and urgent issues
- Manually intensive analysis of the stock requirements list
- Additional information from multiple sources is required to answer these questions



The screenshot shows a table of MRP exceptions. The table has columns for 'Light', 'Valid from ...', 'Material', 'Material Description', and several columns for exception types (2, 3, 4, 5, 6, 7, 8) and their counts. The 'Material' column lists various materials like 'HH-MDPSX\_CHECK\_FIN', 'C1', 'MC\_QU6\_KMAT\_001', etc. The 'Material Description' column provides details for each material. The table is overlaid with a yellow question mark icon and a black sad face icon, indicating a challenge in understanding the data.

Light	Valid from ...	Material	Material Description	2	3	4	5	6	7	8	Plant st...	B...	Saf...	Re...	
00		HH-MDPSX_CHECK_FIN	HH-Check_final_ass					1	1		0	EA	20	0H	
00		C1	Material C1			1		1	1		0	EA	100	0H	
00		MC_QU6_KMAT_001	MC_QU6_KMAT_001	274,0-	274,0-	274,0-				1	0	PC	0	0K	
00		SRI_001	MRP Test : Planned Orders	105,0-	105,0-	105,0-			2		0	PC	0	0F	
00		SRI_002	MRP Test : Purchase Req	105,0-	105,0-	105,0-			2		0	PC	0	0R	
00		SRI_003	MRP Test : Material Reservations	105,0-	105,0-	105,0-				1	0	PC	0	0R	
00		SRI_005	MRP Test : Dynamic Lot Size	105,0-	105,0-	105,0-				1	0	PC	0	0R	
00		SRI_006	MRP Test : BOM Root	105,0-	105,0-	105,0-			3		0	PC	0	0F	
00		SRI_007	MRP Test : BOM Level 1	91,0-	91,0-	91,0-			4		0	PC	0	0R	
00		SRI_008	MRP Test : BOM Level 1	91,0-	91,0-	91,0-			4		0	PC	0	0H	
00		SRI_009	MRP Test : BOM Level 2	91,0-	91,0-	91,0-			2		2	0	PC	0	0R
00		COL_SCE_004	COL : Assembly Sub Contracting	85,0-	85,0-	85,0-			1		1	0	PC	0	0F
00		COL_SCE_005	COL : Consignment	85,0-	85,0-	85,0-			1		1	0	PC	0	0F
00		QJD_MRP_002_1	QJD MRP Test 2: Purchase Req	85,0-	85,0-	85,0-			4		1	0	PC	0	0R
00		SRI_004	MRP Test : Delivery Schedule	85,0-	85,0-	85,0-			3		3	0	PC	0	0R
00		TF-R01	Raw material	65,0-	65,0-	65,0-			3			0	EA	0	0R
00		HH-MDPSX_CHECK	Material F1	64,0-	64,0-	64,0-			2			0	EA	0	0R
00		C5	Material C5	63,0-	63,0-	63,0-			2		2	0	EA	0	0H
00		C8	Material C8	63,0-	63,0-	63,0-			1			0	EA	0	11H
00		C9	Material C9	63,0-	63,0-	63,0-			1		1	0	EA	0	0H
00		F1	Material F1	63,0-	63,0-	63,0-			10		10	0	EA	0	0F
00		MRP_006	MRP Test 1: BOM Root	63,0-	63,0-	63,0-			2		1	0	PC	0	0F
00		QJD_MRP_002_2	QJD MRP Test 2: Pur Req - 50 open period	63,0-	63,0-	63,0-	1		3		1	0	PC	0	0R
00		QJD_MRP_002_4	QJD MRP Test 2:	63,0-	63,0-	63,0-			1		1	0	PC	0	0R
00		SRI_010	MRP Test : Capacity Planning	63,0-	63,0-	63,0-			1			0	PC	0	0F

# Improved MRP and PP with Suite on HANA

## MRP Today – Batch-Driven Process and Multiple ERP Transactions



### MRP Planning Run

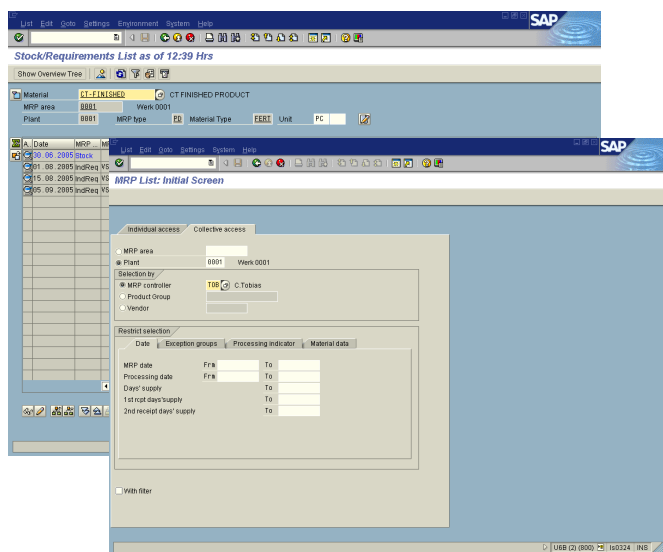
#### MRP Planning Run

- Batch process - resource and data-intensive
- Long execution time – runs once a week, every couple of days, or nightly

#### Evaluate MRP Requirements

- “Snapshot” of material requirements based on MRP run
- Snapshot immediately outdated after new supply and demand activity occurs
- Evaluate Stock Requirements
- 2nd most widely used transaction across all of ERP
- Very slow to execute

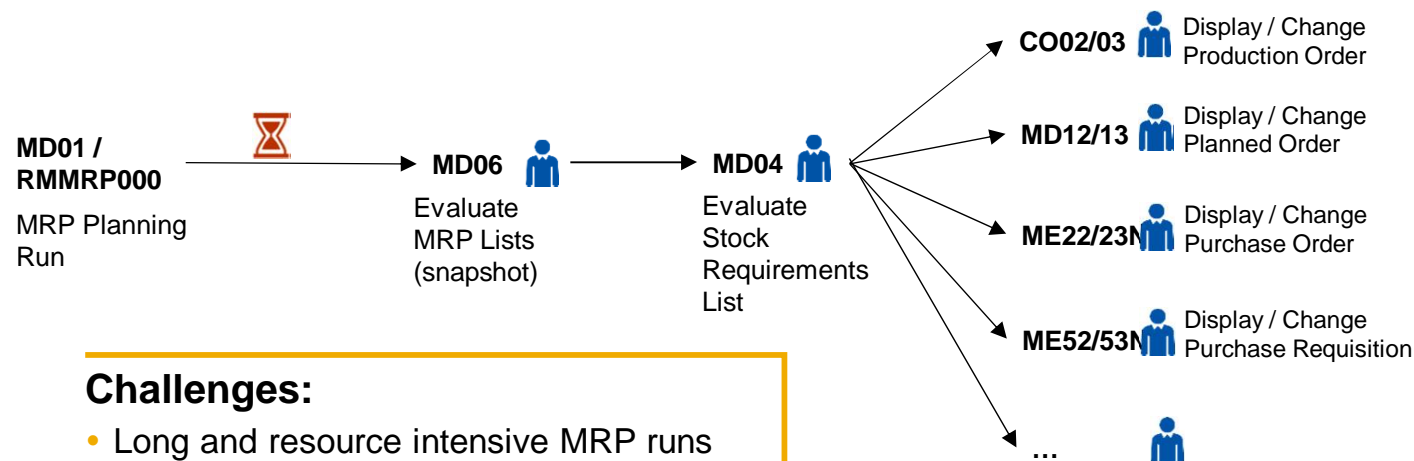
- **Change Production Order**
- **Change Planned Order**
- **Change Purchase Order**
- **Change Purchase Requisition**



# Improved MRP and PP with Suite on HANA

## Step by step process in ERP


### Process today



#### Challenges:

- Long and resource intensive MRP runs means a periodic, batch process
- New demand and supply changes make MRP plan immediately out-dated
- No real-time, single view of material information and shortages across sites
- Single material, single site, manually intensive shortage identification
- Navigation to multiple ERP transactions required to evaluate solution alternatives
- Results in poor decision making

 Batch Job

 User interaction



# Improved MRP and PP with Suite on HANA

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**MRP on SAP HANA**

Smart Business for MRP Demo

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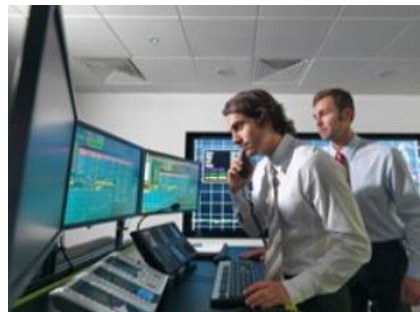


# Improved MRP and PP with Suite on HANA

## MRP on SAP HANA - Improving the Plan to Produce Process



### Roles



Production  
Planner



Production  
Supervisor



Production  
Worker



Production  
Planner

# Improved MRP and PP with Suite on HANA

Step by step process in SoH

... and now with Suite on HANA

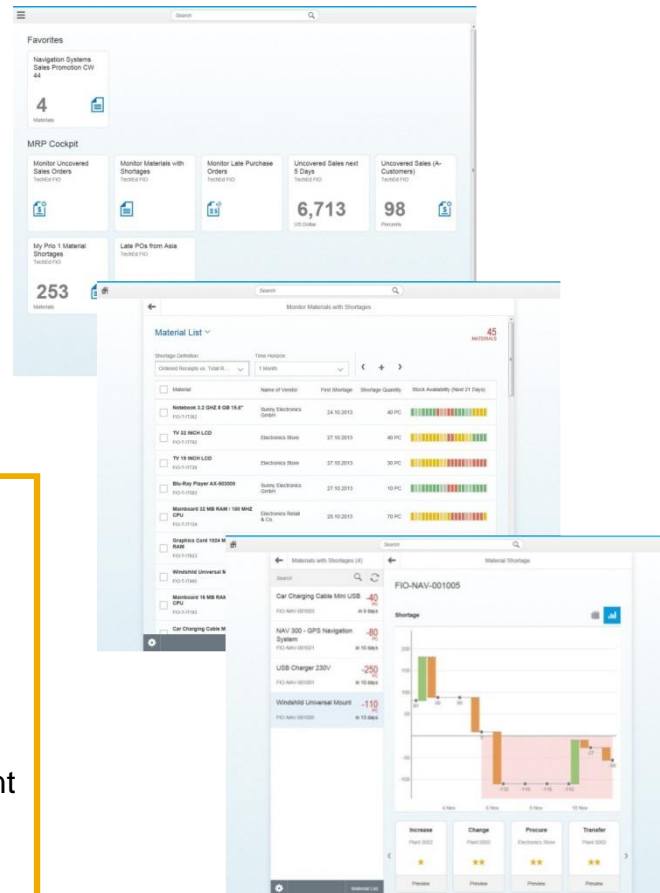
**MD01N**  
New MRP  
Planning Run  
on HANA

  
~10X  
faster

**MRP  
FIORI  
Apps**



Real-time  
Supply &  
Demand  
evaluation



## Smart Business for MRP:

- Improved, streamlined UI for Material Planner
- Based on near-real time MRP information
- Improved identification and prioritization of material shortages issues
- Solution recommendation and preview capability for improved decision making
- External procurement – RTC Q1 2014
- In-House Production – 2014 roadmap

## Benefits:

- More frequent MRP runs
- More timely and accurate material info
- Single, real-time view of material shortage information across sites
- Sales order, inventory and procurement views
- Simulate solution viability and effectiveness in real-time



Batch Job



User interaction

# Improved MRP and PP with Suite on HANA

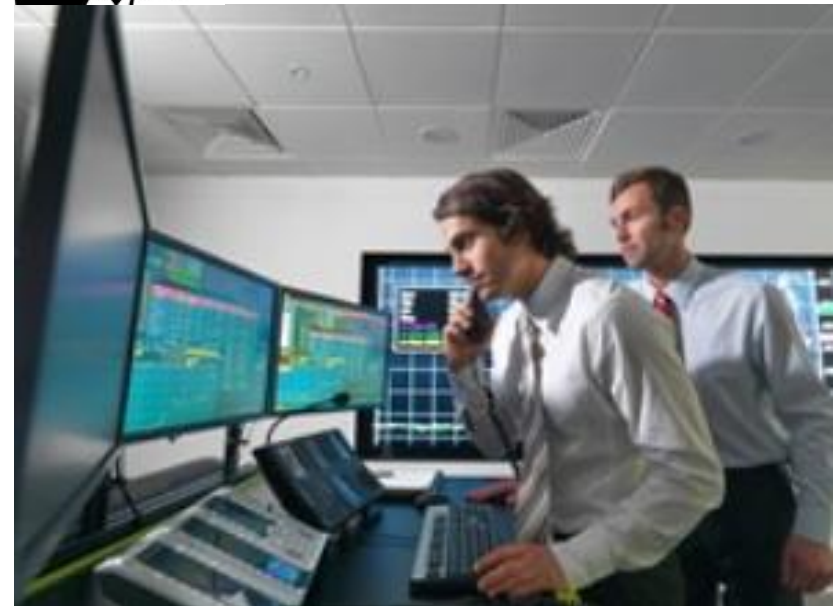
More Frequent MRP Runs, More Accurate Data, Better Decisions

## MRP Live:

- Faster MRP run → More frequent planning  
→ Up-to-date information
- Detect and evaluate material shortages with flexible rules
- Find critical demands - uncovered sales order items or missing parts in production
- Find critical supplies - late or overdue purchase orders or production orders
- Evaluation of consequences - which sales orders are endangered by a late supply



**Material Planner**



# Improved MRP and PP with Suite on HANA

## Smart Business for MRP

### Real-time Information

Real-time metrics and KPIs by material, order, inventory, and procurement

Personalized views

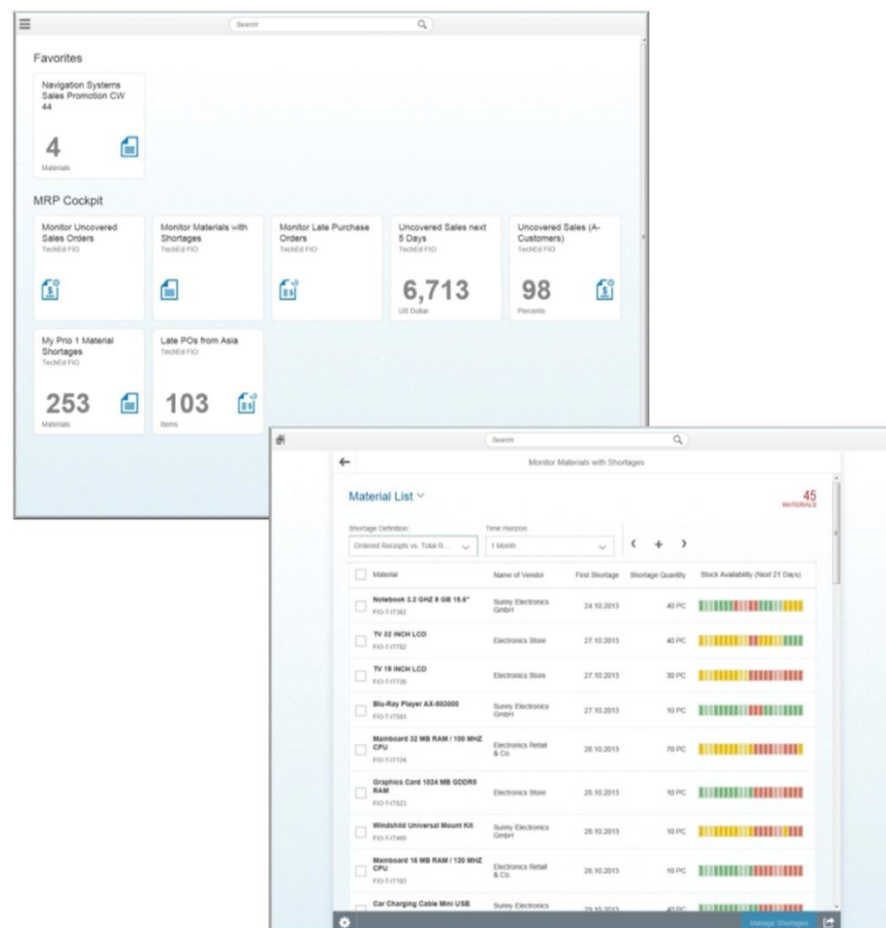
### Enterprise-Wide Visibility

Across thousands of materials, hundreds of locations, hundreds of thousands of stock situations

### Consumer-Grade User Experience

Visually appealing UIs

Red, yellow, and green status for simple issue identification





# Improved MRP and PP with Suite on HANA

## Improved Solution Identification and Resolution

### Highlighted Issues

Identification and prioritization of most critical material shortages based on current information

### Time-Critical Perspective

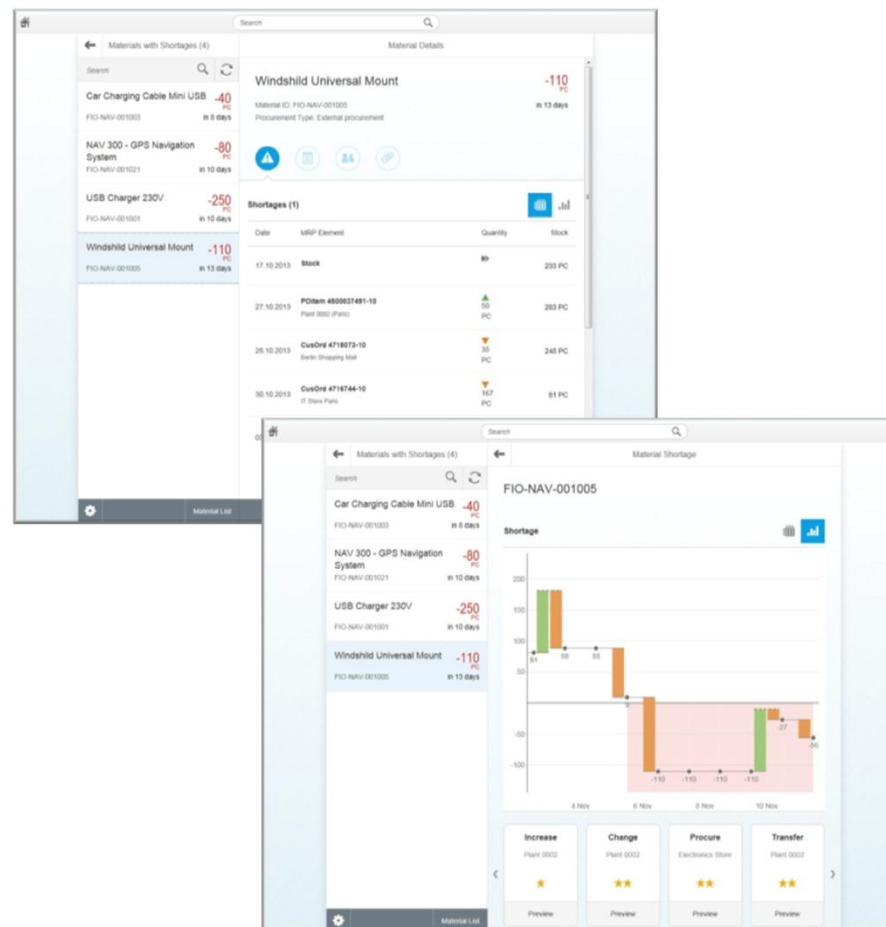
Graphical stock situation for next 21 days

### Solution Recommendation

Presentation of best solution options

Preview solution viability

Simple solution application



# Improved MRP and PP with Suite on HANA

## Fiori Apps for Production Planning

### Release Production Orders

Review orders to be released based on custom user-defined variants

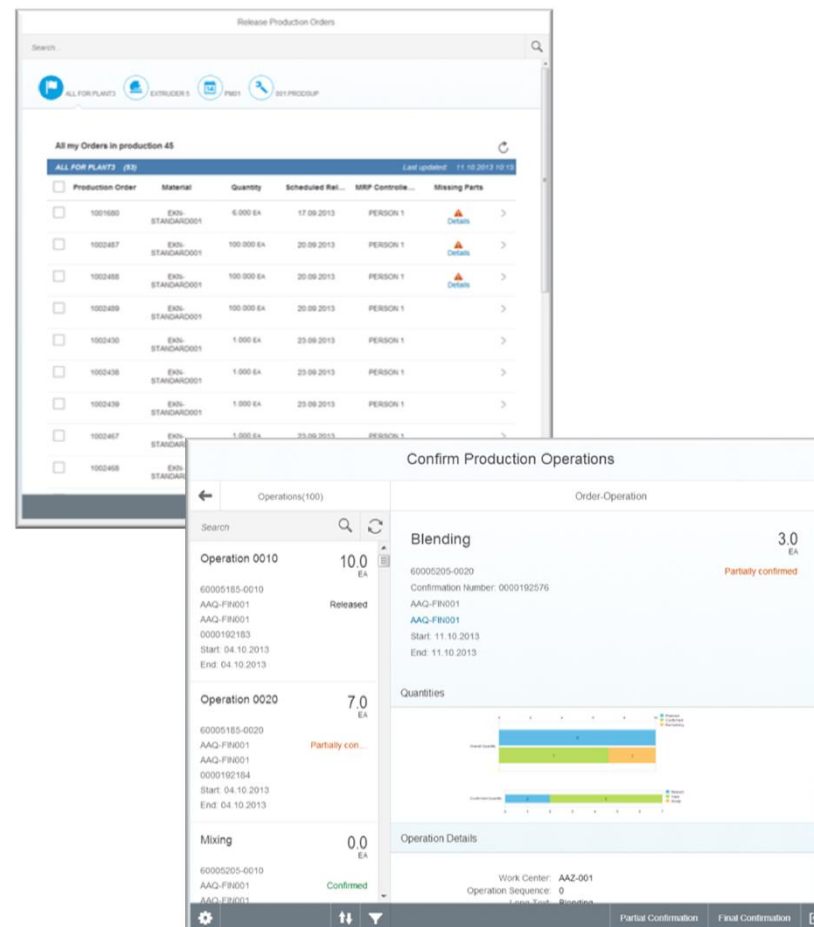
Visibility to missing parts

Confirm Production

### Streamlined UI for full and partial production confirmation

Graphical bars and color-coded status

Browser-based, HTML5 UI for use with desktop, tablet, and mobile devices



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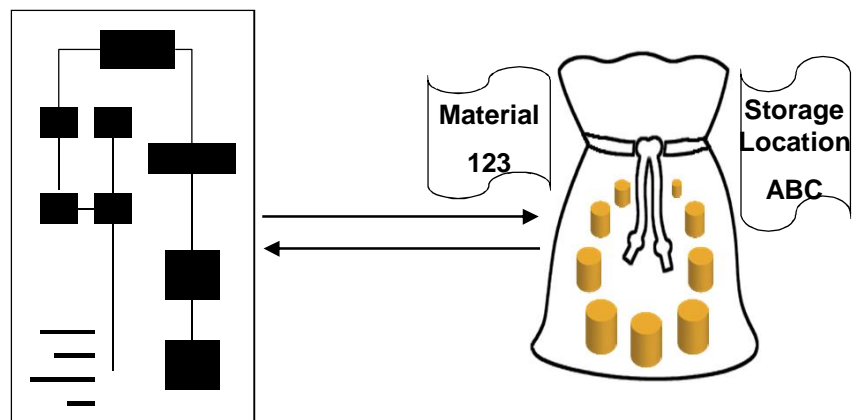
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# Improved MRP and PP with Suite on HANA

## MRP Performance Optimized on SAP HANA

**Now**

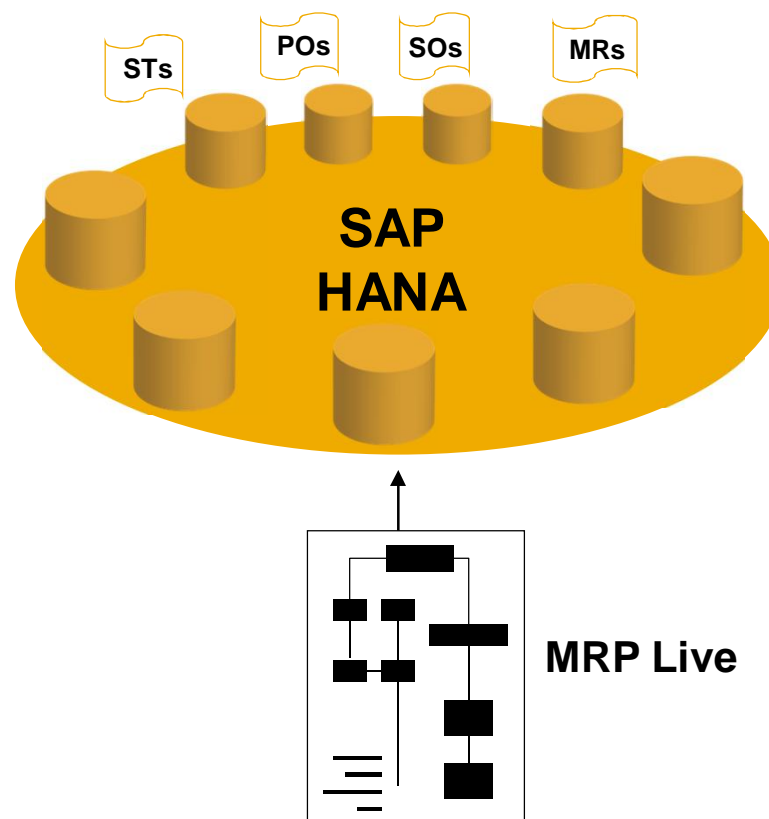


**MRP**

**MRP Data**

Inventory  
Material Receipts  
Sales Orders  
Purchase Orders  
Stock Transfers

**Future**



**MRP Live**

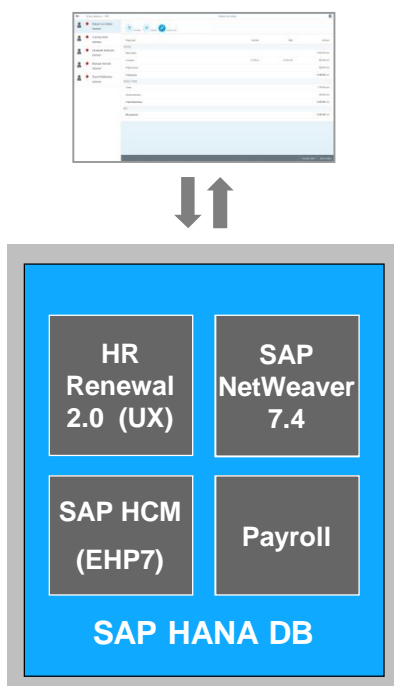


# Improved MRP and PP with Suite on HANA

## Deployment Options and Architecture

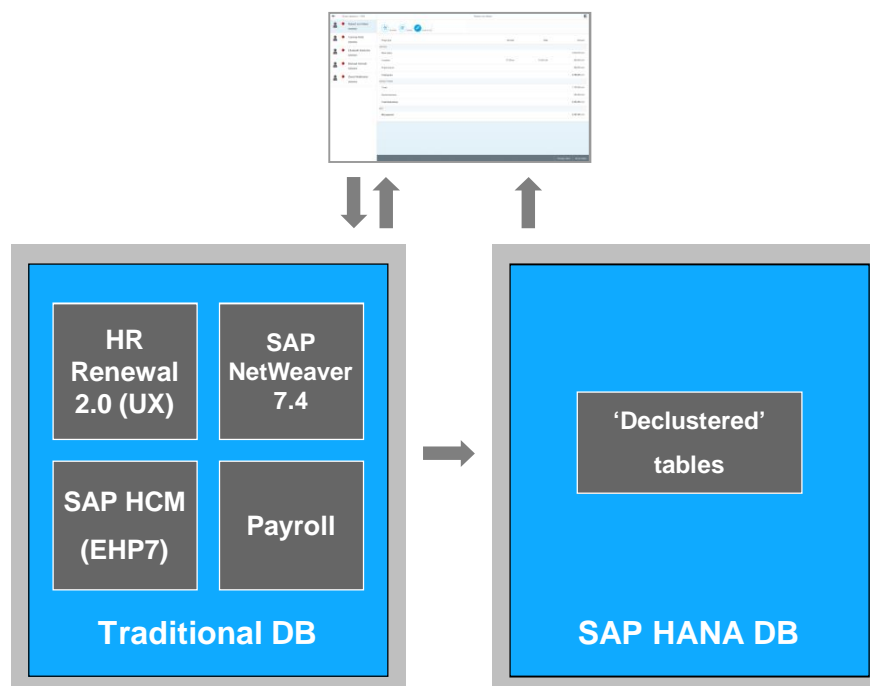
### Integrated Suite on SAP HANA Scenario

- Full deployment as part of Suite on SAP HANA
- Required for MRP on SAP HANA



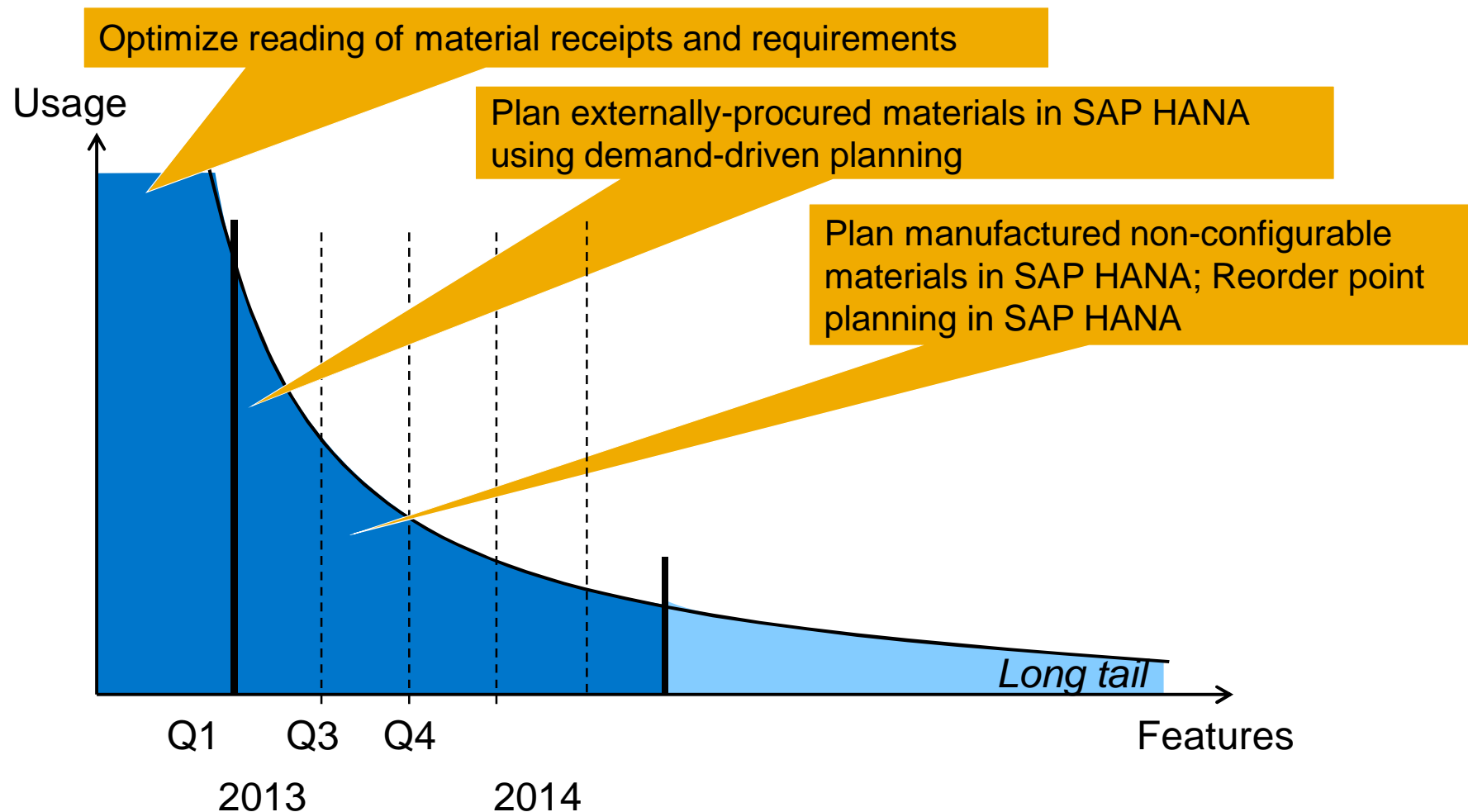
### Side-by-Side Scenario

- Exists, but can not be utilized for MRP on SAP HANA



# Improved MRP and PP with Suite on HANA

## MRP on SAP HANA Roadmap



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# Improved MRP and PP with Suite on HANA

## Reducing Material Shortages Improves Overall Supply Chain Performance

**15%**

Average reduction in order lead times when companies generate an integrated material and capacity constraint plan

Source: SAP Performance Benchmarking

**17%**

Lower inventory carrying costs when what-if scenarios are used to evaluate problem resolution approaches

Source: SAP Performance Benchmarking

**36%**

Reduction in out of stocks

- How often do you run MRP ?
- Do problems in your material flow remain undetected, or are they detected too late?
- Do you make decisions based on periodic MRP runs that don't reflect current information?
- How do you handle open orders at the end of the quarter?



\* KPI improvements are based on benefits of traditional MRP. Improvements based on HANA will need to be validated with specific customers

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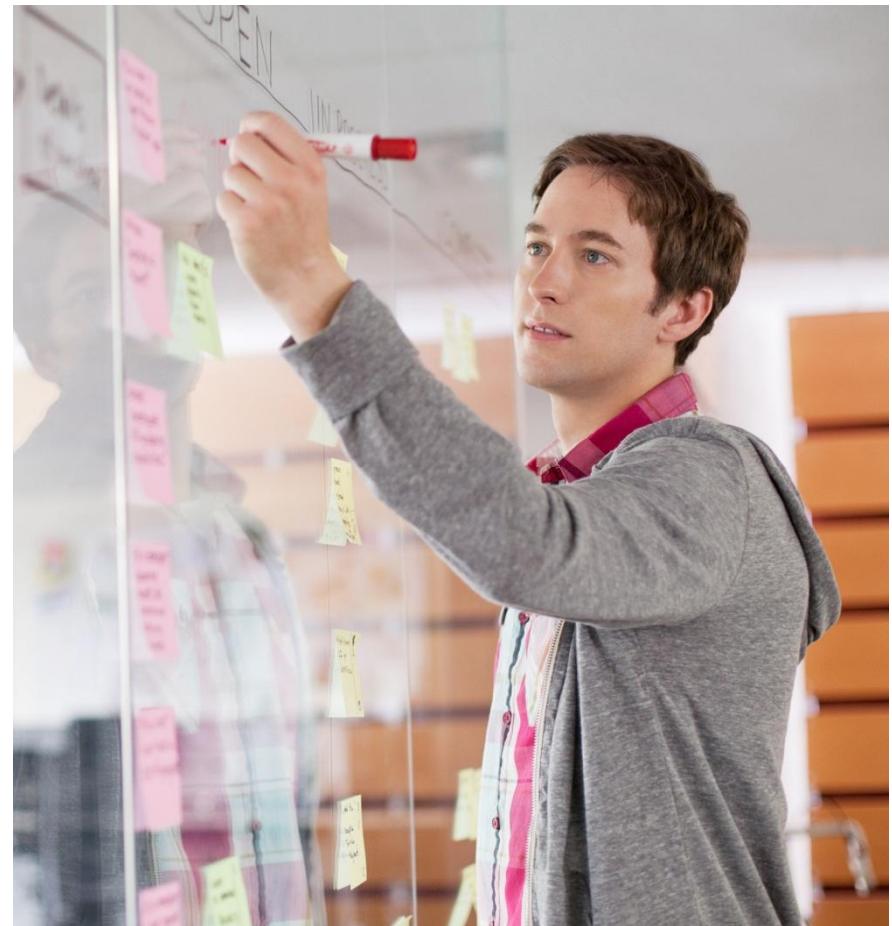
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# Improved MRP and PP with Suite on HANA

Where to Find More Information

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## MRP on SAP HANA Factbook:

- [www.saphana.com/docs/DOC-4214](http://www.saphana.com/docs/DOC-4214)

## SAP ERP Production Planning Info

- <http://scn.sap.com/community/erp/manufacturing-pp>

## SCN Manufacturing Community

- <http://scn.sap.com/community/manufacturing>



# Improved MRP and PP with Suite on HANA

## Key Points to Take Home

- MRP Live delivers faster and more frequent material planning runs
- Smart Business for MRP provides real-time visibility to material information, facilitating improved issue resolution and decision making
- SAP Fiori for Production Planning delivers visually appealing and improved UI
- All of which improve the efficiency of the material planner
- Reduced material shortages contribute to improved supply chain metrics and KPIs across the enterprise





**Thank you**

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