



Synchron Inventory

RIM Best Practices and
Vertical Dealer Integration

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Agenda BMW Vertical Integration

- | | | |
|----|---|---------------|
| 01 | Introduction | <i>5 min</i> |
| 02 | Warehouse and Retail Inventory Management | <i>5 min</i> |
| 03 | RIM benefits for BMW | <i>15 min</i> |
| 04 | Syncron RIM references | <i>5 min</i> |
| 05 | RIM specific developments in Syncron Inventory since 2018 | <i>25 min</i> |
| 06 | Next steps | <i>5min</i> |



Warehouse & Retail Inventory Management

End-to-End Aftermarket Solution

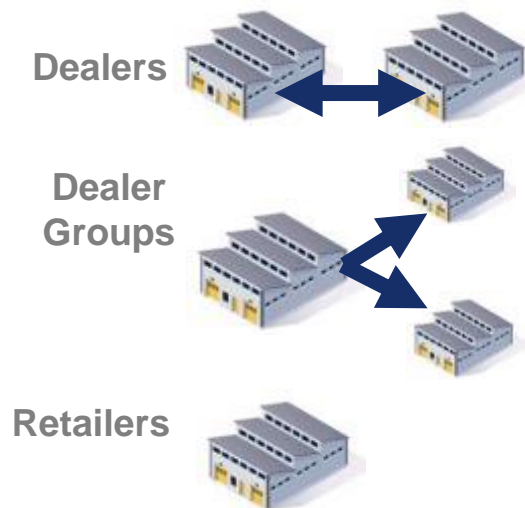


Synchron Inventory™

Dealer Collaboration,
Planning, and
Replenishment



Return Buy
Back



Synchron Inventory™ Retail





Financial Value Creation

	Synchron Inventory™	Synchron Inventory™ RIM	Synchron Price™
Revenue Enhancement	20-30% Availability Improvement	20-30% Availability Improvement	2% to 8% Margin Increase
Expense Reduction	10% to 40% Inventory Reduction	10-40% Inventory Reduction	
Workforce Efficiencies	20% to 40% Planner Productivity Increase	20-50% Dealer Planner time reduction	2% to 5% Market Penetration Benefit
Connectivity Leverage			

Equipment manufacturers are seeking new avenues of efficiency and growth.

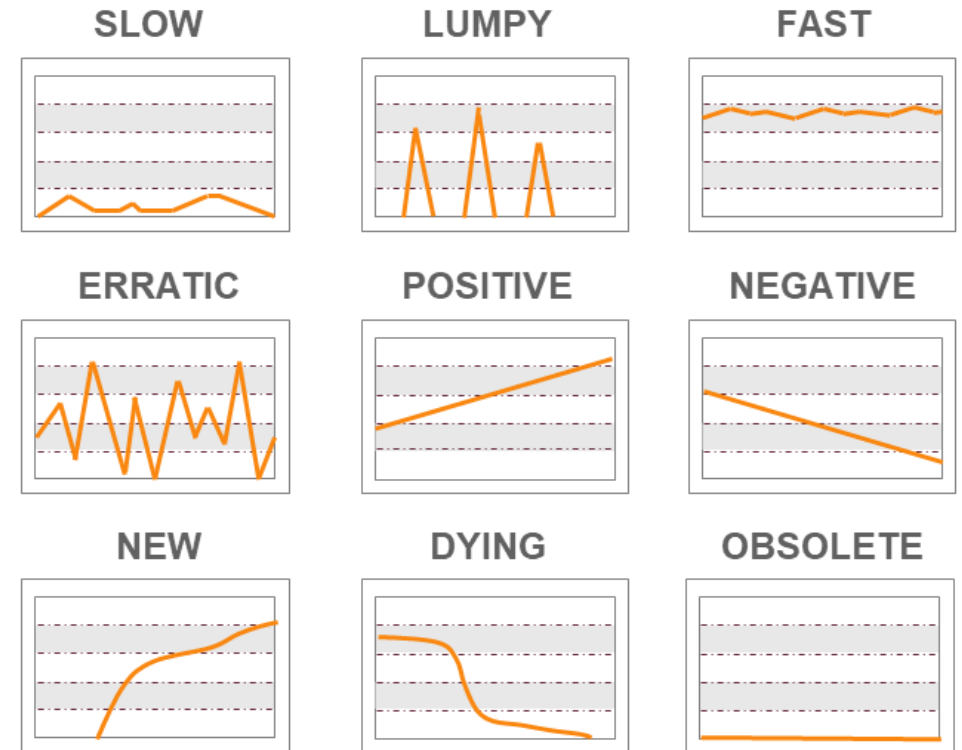
With Synchron, you can not only navigate this changing market landscape, but also exceed customer expectations and growth projections.

We will help you optimize current aftermarket operations while transitioning to Product-As-A-Service



Best-in-Class Functionality – Forecasting

- Dynamic forecasting using best fit algorithms depending on demand patterns
- Extra focus on algorithms for slow moving items
- Highly automated solution
- Incorporates functionality for:
 - Seasonality
 - Campaigns/Recalls
 - Demand exclusion
 - Outlier management
 - Supersession
 - Carpark modeling
 - Connected Vehicles



Best-in-Class Functionality – Inventory Management

- Allows for multiple inventory policies and strategies at one stocking location
- Optimize width and depth of stocking policy
- What-if simulations
- Budget Constraints
- Flexible auto-approval rules
- Lots of functionality for multi-site and multi-echelon management
 - Redistribution
 - Virtual planning (inventory pooling)
 - Supply chain visibility
 - Multi-echelon inventory optimization

synchron Inventory™ Back to: Summary

Orders Items Demand & forecast Inventory policy Reports Resources Administration Configuration Development

SUMMARY

Owner: Europe WHs Supplier class: Master supplier:

Clear Search

ORDER LINE SUMMARY

TYPE	PENDING		REJECTED		CONFIRMED		EXPORTED		TOTAL	
	#	VALUE (€)	#	VALUE (€)	#	VALUE (€)	#	VALUE (€)	#	VALUE (€)
Refill	7	14,494	0	0	0	0	1	166	8	14,660
Rush	0	0	0	0	0	0	0	0	0	0
On demand	0	0	0	0	0	0	0	0	0	0
Redistribution	2	0	0	0	0	0	0	0	2	0
Manual	0	0	0	0	0	0	0	0	0	0
Reverse unserviceable	1	46	0	0	0	0	0	0	1	46
Total	15	28,954	0	0	0	0	1	166	16	29,120

INVENTORY SUMMARY

	VALUE - STOCKED (€)	VALUE - NON STOCKED (€)
Total stock (€)	16,980	80,104
Stock due	22,229	2,255
Back ordered stock	63	0

SYSTEM ALERTS SUMMARY

Alert type	No.
Interim Orders	12
Service Level Alert	4
Accuracy Limit	1
Master supplier must be defined for a warehouse creating reverse orders	1

DEMAND TYPE SUMMARY

Show: All

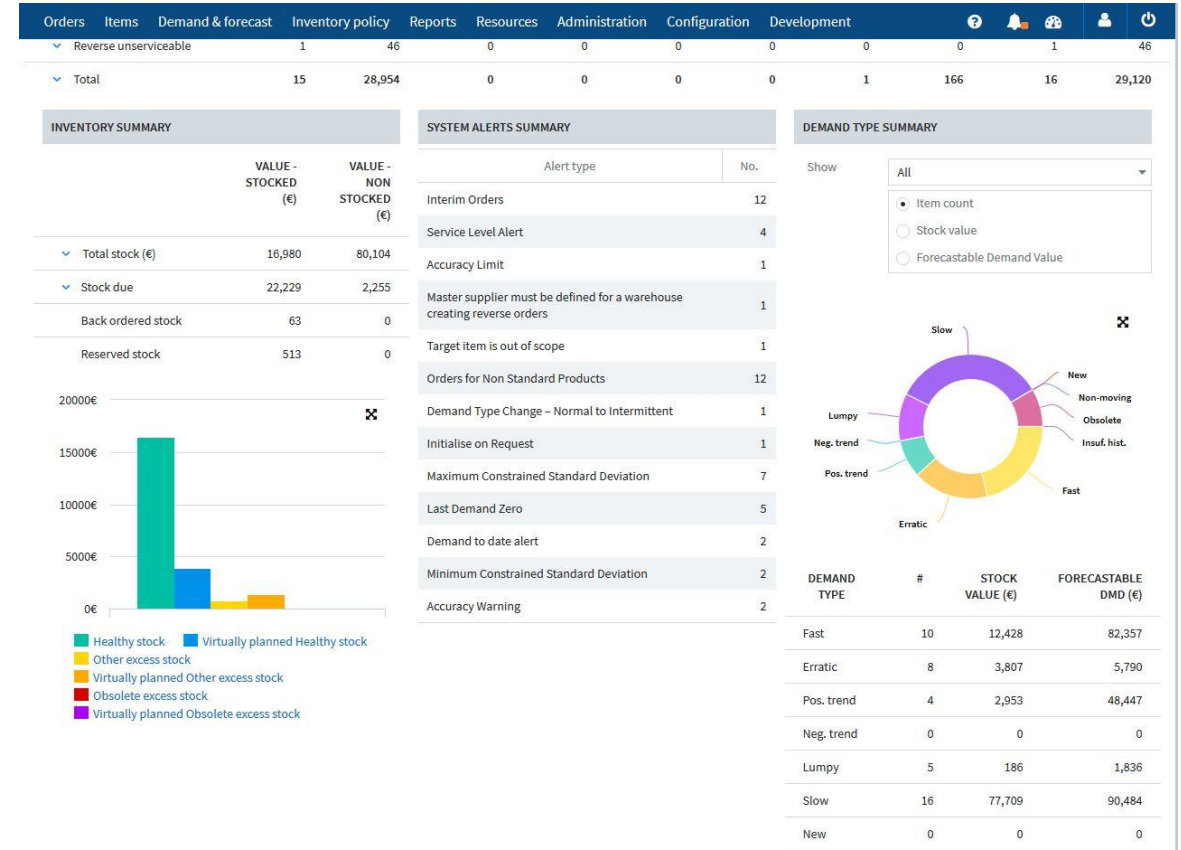
☒ Item count
☐ Stock value
☐ Forecastable Demand Value

Slow



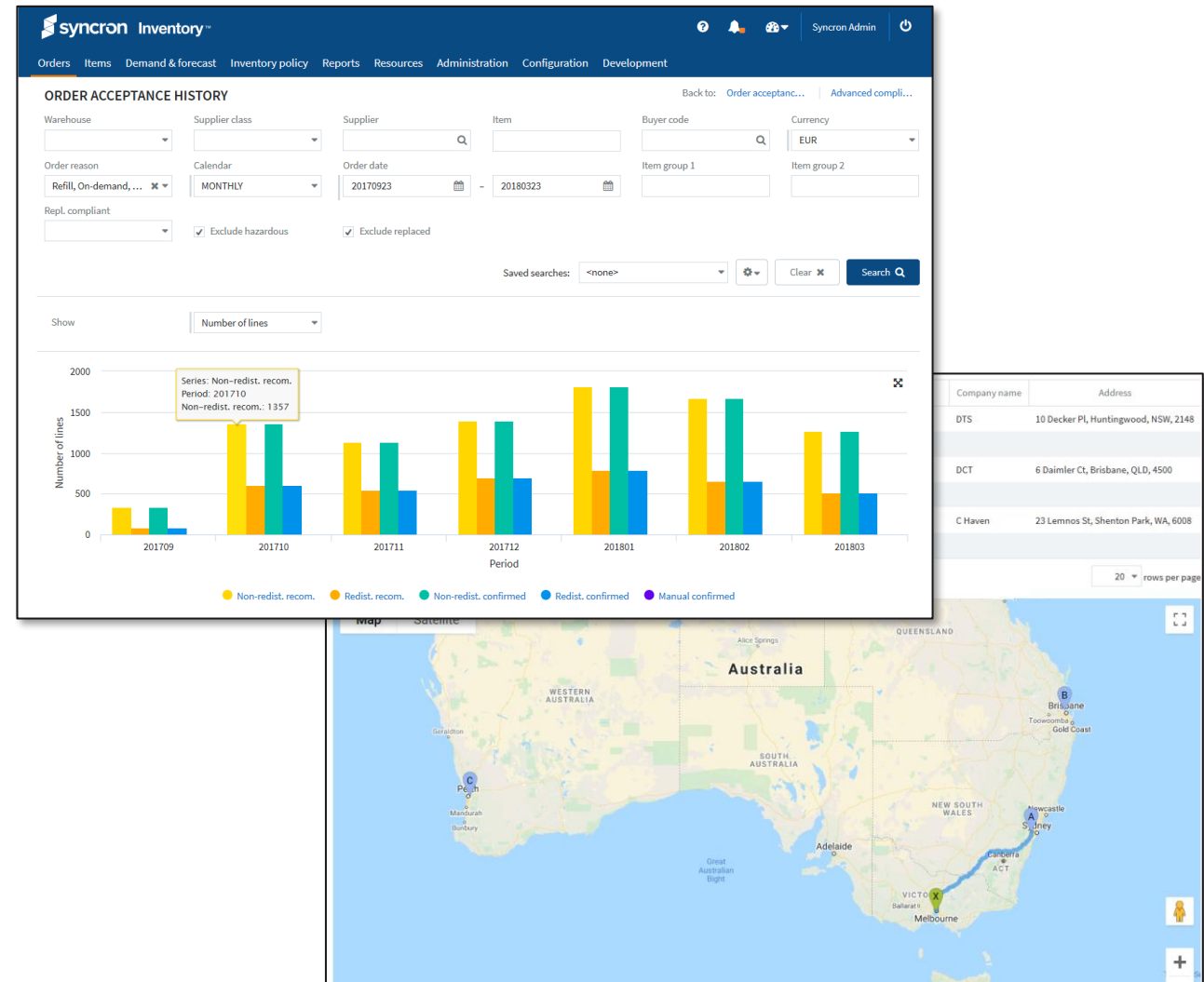
Best-in-Class Functionality – Reporting & KPI's

- Standard KPIs allow for global comparison of dealers independent of DMS System
 - Service level
 - Stock turns
 - Stock value
 - Sales value
 - Compliance
- A number of standard reports for follow-up
 - Risk of run out
 - Excess stock
- Integrated BI tool allows for creation and configuration of specific reports using Synchron calculated data in combination with OEM-data.



Best-in-Class Functionality – RIM Specific

- Easy to use, intuitive dealer user interface
- Allows for different level of dealer influence regarding depth and breadth decisions.
- Configurable buy-back functionality
- Compliance and KPI transparency
- Support for hub and spoke models
- Excess Stock redistribution
- Critical stock functionality
- Designed to automate daily tasks
- Flexible merging of OEM and DMS data
- Possibility to manage non-OEM items
- Dealer to Dealer collaboration



4 Major Benefits of RIM - BMW

1. **Optimized availability in itself solves many issues and limitations in the supply chain**
 - RIM will allow the higher levels in the supply chain to benefit from a smoother and more predictable demand at the dealer level
 - Reduced variance in demand at RW and CW equals savings in buffer stock (reduced “bullwhip effects”)
 - Order class transformations from emergency to stock orders
 - 70/30 → 30/70 (huge savings and positive effects in CW and RW)
 - Less time spent on back order recovery
 - Environmental aspects (air freight reduction)
 - Redistribution is important to clean up stock and reduce buy back



4 Major Benefits of RIM – BMW (cont.)

2. Increased sales

- Increased customer satisfaction
- Reduced lost sale (due to availability)
- Regain the OEM's aftermarket
- Increase brand reputation and loyalty
- “Halo effects” on Finished Goods



4 Major Benefits of RIM – BMW (cont.)

3. Streamlined KPIs across distribution network – with a multi ERP/DMS dealer environment, the Synchron KPI calculation is the only common tool to supervise dealer performance

- One set of KPI definitions
- Possible to compare dealers to other dealers (apples/apples)
- Same “Supply Chain Management language” in the organization
- Future proof situation (changes in ERP/DMS landscape)

4. Increased dealer trust and loyalty

- Fair and beneficial business terms for the dealer
 - Buy back is the key to balance (100% dealer net buy back)
 - A healthy and profitable dealer is the best partner for the OEM
- Increased workshop utilization at dealers
 - Customer case: From 40% to 65% just because of available parts
- Trust under responsibility: monitor dealer behaviour, order acceptance rate



RIM Benefits – Dealer

Parts Availability



20-30%

Service Parts will be available over 80% of the time— a significant rise from the current state (~60%). This translates into increased technician efficiency, reduced downtime and higher customer satisfaction

Sales Revenue



5-10%

High parts availability will result in sales revenue increase, fewer lost-sales and more repeat business. “You can only sell what you have”

Excess Stock



10-30%

Excess stock can be reduced, resulting in a more efficient and lean supply chain. Additionally, obsolete stock write-offs can be significantly decreased through optimal stocking decisions

Ordering Costs



20-30%

High reduction of freight and warehousing costs due to reduction in emergency & VOR ordering. Dealer 2 Dealer collaboration will further reduce emergency ordering costs and increase customer satisfaction

Productivity



20-50%

Planner productivity will increase by using an advanced, highly automated planning solution and following exception management principles



RIM Benefits - OEM

Parts Availability



20-30%

Improved parts availability at the customer-facing locations will result in increased customer satisfaction and will reinforce brand reputation and loyalty.

Sales Revenue



5-10%

Improved service levels will lead to increase in sales revenue as customers will not look for alternatives. Increased customer satisfaction will also result in more repeat business

Stock Returns



30-50%

Better forecasting and stocking decisions will result in fewer returns from the dealers, reducing the associated effort to manage and finance the return process

Logistics Costs



10-20%

Increased parts availability will result in reduced emergency and VOR orders, therefore less logistics costs. Order smoothing and management of the entire dealer network reduces overload at central warehouses

Productivity

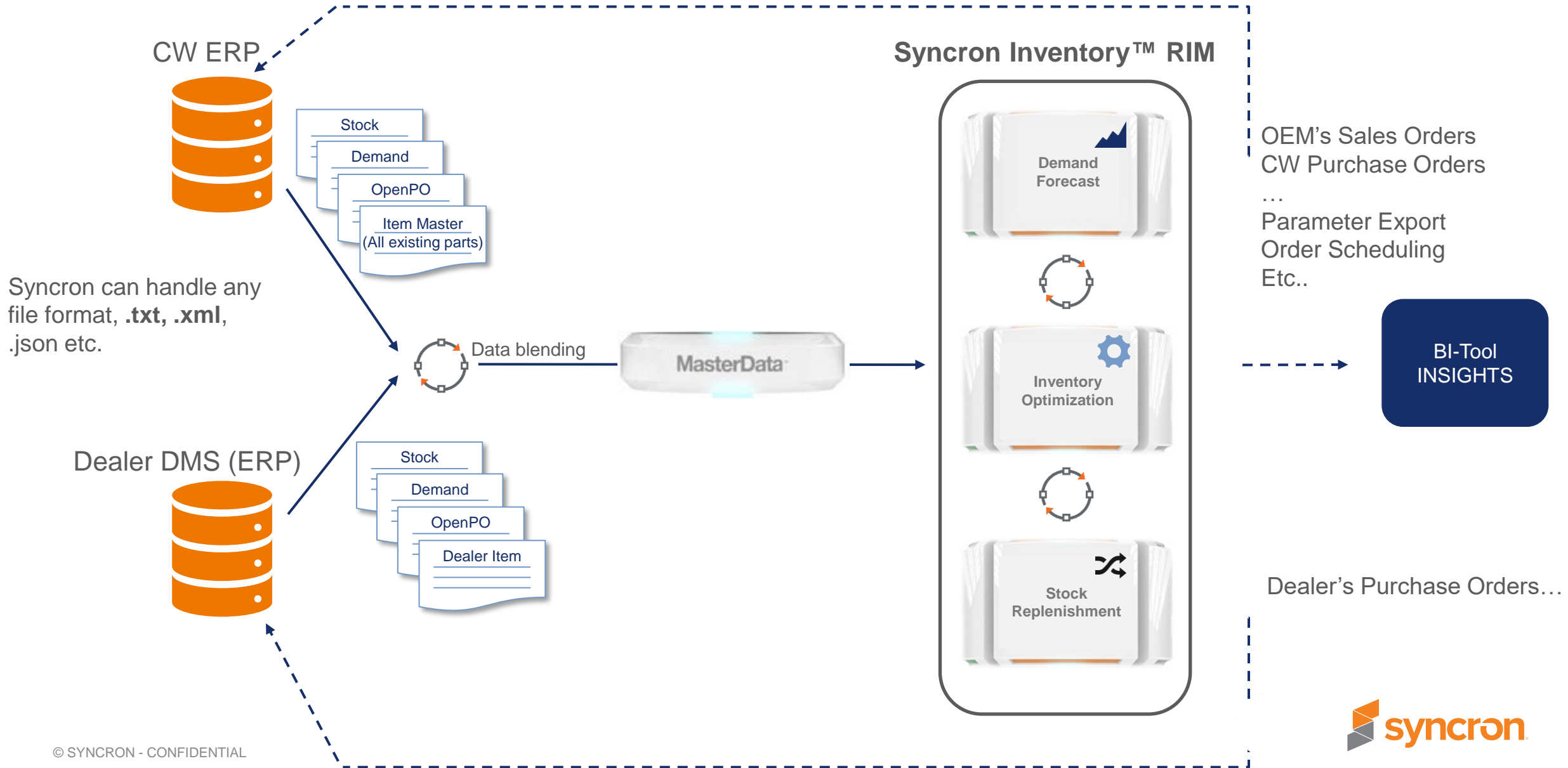


20-40%

Planner productivity and efficiency will increase as less “fire-fighting” will be needed to solve problems caused by low parts availability at the dealer locations



Inventory Integration Overview – Integration Landscape



Key Synchron Inventory - Retail Customers

DAIMLER



CLAAS



DAIMLER

SYNCRON

CASE STUDY

BACKGROUND

- USA and Canada (DTNA)
- 9 distribution centers
- 480+ dealers planned
- 270 dealers and distributors on Item Locator
- ~10,000,000 LUIs planned
- ~\$250,000,000 monthly sales
- 7 DMS integrations



CASE STUDY

CHALLENGES

- Low dealer Service Level (~60%)
- MDI solution had limited functionality, nearing end of life;
 - No visibility to dealer orders
 - Lack of performance metrics
 - Inability to provide suggested returns
 - Inaccurate forecasts
- Low adoption of MDI solution by dealers; no visibility to DTNA of dealer information



DAIMLER

SYNCRON

CASE STUDY

RESULTS

- Visibility to inventory of 480+ dealers
- Increased average Service Level from 60% to 79%
- Inventory reduction of 15% (~\$60M) across the dealer network
- Industry leading return rates of 1.5% of order value
- Less than 5% average Obsolescence for RIMpro managed parts
- Order Smoothing solution to resolve weekly PDC overload issues
- Dealer Satisfaction for RIMpro usage: 4.34/5 (2018)



New RIM specific capabilities since 2018



Selected new RIM (specific) capabilities (since 2018)

In place (cont. development)

- Dealer Portal
- Analytics and BI (Insights)
- (Distributed processing – unlimited extensions)
- Advanced Automation

Upcoming 3-18 months

- Supplier Load Levelling
- Dealer Clustering
- Automatic Dealer to Dealer redistribution



Dealer Portal

- Designed specifically for automotive dealer planners
- Facilitating fastest possible onboarding
- Easy work-flows guiding user to do the right things
- Handles thousands of concurrent users
- BMW branding



Compliance ?

Add target

Item

Policy

December 2020 (Dec 1, 2020–Dec 31, 2020)

Target

Current vs. Target

100

•

Current to prev. month

Trend

- 0.0

- Stable

What affects your compliance?

0 items with active overrides

18 pending policy suggestions / [Go to the list](#)

0 rejected policy suggestions

39 pending order lines / [Go to the list](#)

100.0%

Compliance history

Policy suggestion list ?

Pending Approved Rejected All

List summary

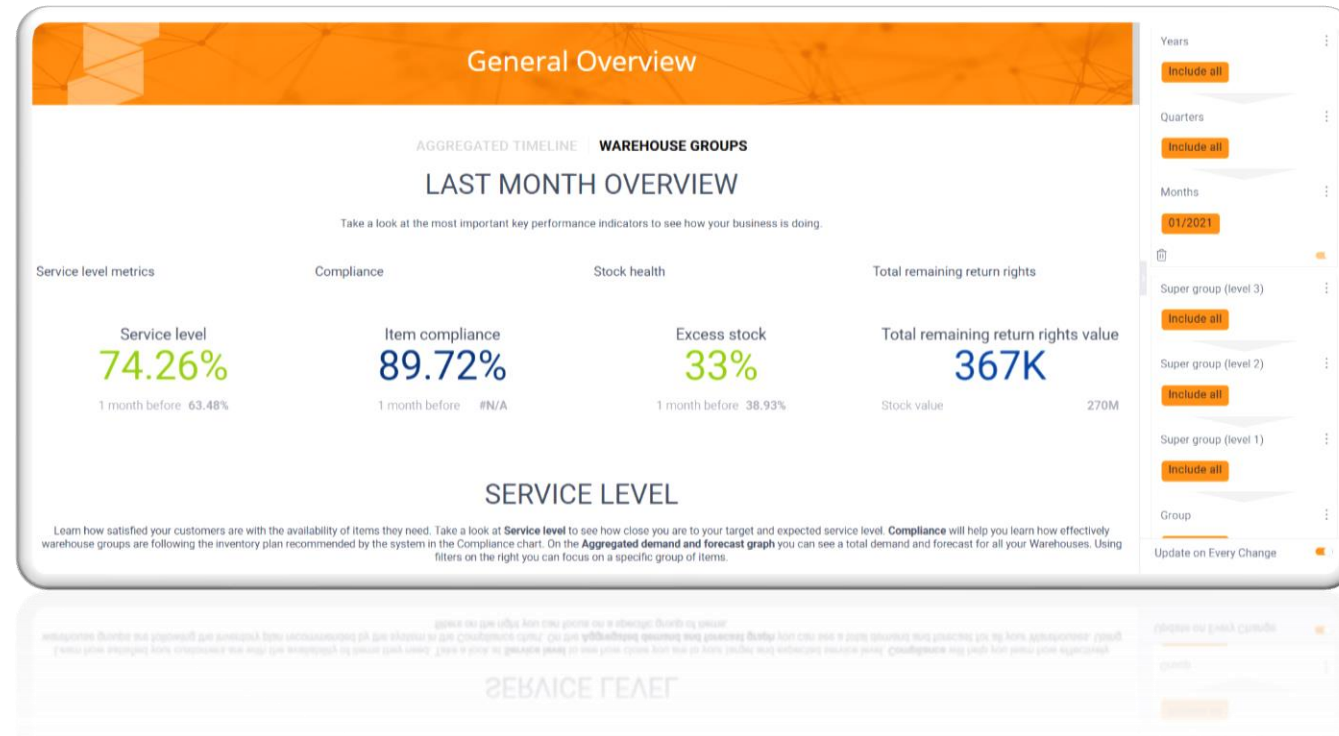
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	Approve	Reject	Item	Stocked Change	Effective	Stocked	Demand and picks	Description	Current stock	Binning location	Unit
<input type="checkbox"/>	✓ Approve 3 selected	✗ Reject 3 selected						UWB,GTS ERAVYA,GD...	0	-	
<input type="checkbox"/>	✓ Approve	✗ Reject						LLYF-GMTQ,EDN,3",DD...	51	-	
<input checked="" type="checkbox"/>	✓ Approve	✗ Reject						VBEPQN-QJNKQ-YBAJ...	139	-	
<input checked="" type="checkbox"/>	✓ Approve	✗ Reject						GEYO	0	-	
<input checked="" type="checkbox"/>	✓ Approve	✗ Reject						PFKLFAE-NTHLJ,BJ,J...	1	-	
<input type="checkbox"/>	✓ Approve	✗ Reject	/ MB 10-98-2923	Yes	→ Yes	Yes 🔗	Yes	HNNWWEQN TGL-Y/MF...	37	-	
<input type="checkbox"/>	✓ Approve	✗ Reject	/ MM 0J3301	No	→ Yes	Yes 🔗	Yes	HDN YRENH JM	0	-	



Analytics and Business intelligence (Insights)

- Have full control of the state your RIM implementation – connected dealers, the total KPIs, the individual KPIs.
- Identify which dealers are underperforming, which dealers need help.
- Take immediate actions, adjust policies, set up trainings etc.
- Create your own reports and dashboard based on hundreds of different metrics and dimensions.



Flexible Automation Rules

- The idea is that dealers approve parameter changes (e.g. to the reorder points) and then auto confirm orders
 - With some blocking rules (e.g. for hazardous, expensive, bulky items)
- To avoid having dealers approve every parameter change there are flexible auto-approval rules also for parameter changes
 - Dealers can focus on just a few exceptions

<input type="checkbox"/>	Name	Formula	Action	
<input type="checkbox"/>	No stocking change	Keep_PolicyNonStocking	Auto-approve	▲ ▼
<input type="checkbox"/>	Expensive changes	EffectiveTargetStockValue_Increase > 5000EUR	Manual review	▲ ▼
<input type="checkbox"/>	Critical stock list	OnActiveCSL	Auto-approve	▲ ▼
<input type="checkbox"/>	Review if non-stocking is safe	Stop_PolicyStocking AND AnnualPicks > 100	Manual review	▲ ▼
<input type="checkbox"/>	Safe Non-stocking RPAs	Stop_PolicyStocking	Auto-approve	▲ ▼
<input type="checkbox"/>	Safe Stocking RPAs	Start_PolicyStocking AND EffectiveTargetStockValue_Increase < 500EUR	Auto-approve	▲ ▼
<input type="checkbox"/>	Cheap OL increases	PolicyOrderLevel_PercentageIncrease > 50% AND EffectiveTargetStockValue_Increase < 500EUR	Auto-approve	▲ ▼



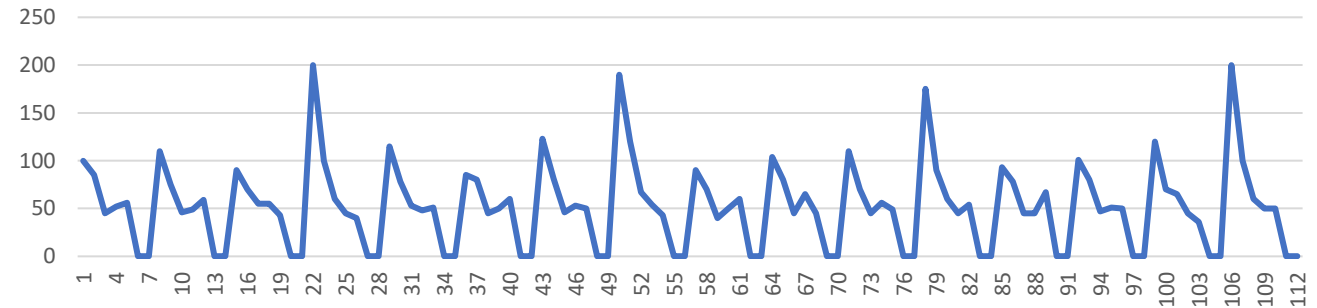
Capabilities being developed during 2021



Supplier Load Levelling

- OEMs with large dealer networks face irregular loads at the PDCs (and as a consequence upstream) due to multiple different reasons
 - Monthly/weekly forecast updates of dealers
 - Irregular end customer consumption patterns
 - Different opening hours at dealerships vs. PDCs
- Every variation causes a need for more buffer, in stock and in warehouse operations.
- Supplier load levelling helps OEMs to level the load over days and weeks, by appropriately prioritizing the planned dealer purchase orders.

Daily Order lines placed by a dealer



GENERAL

Master supplier name52

Master supplier code52

Supplier typeSUPPLIER

SUPPLIER LOAD LEVELING

Update

Enable SLL☒

Choose scheduled task

Exclude Blocked order lines from SLL

Yes

Enable fair share☒

Fair share percentage

50

%

MAX. ORDER LINES PER DAY

Monday5000

Tuesday5000

Wednesday5000

Thursday5000

Friday4500

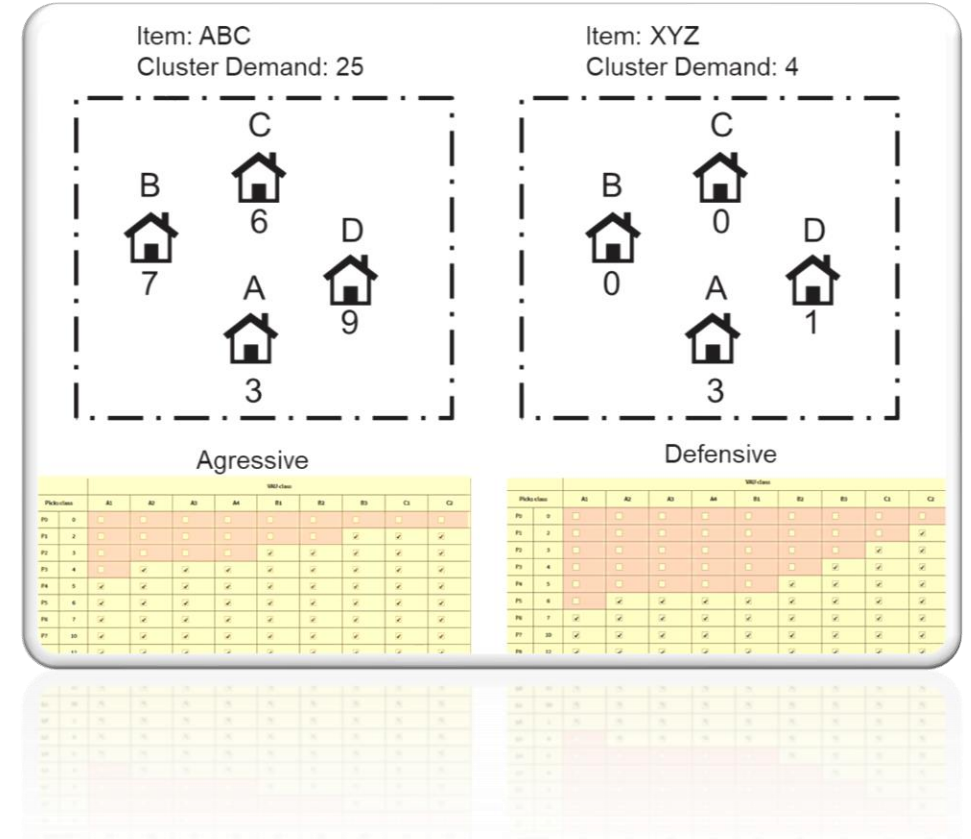
Saturday0

Sunday0



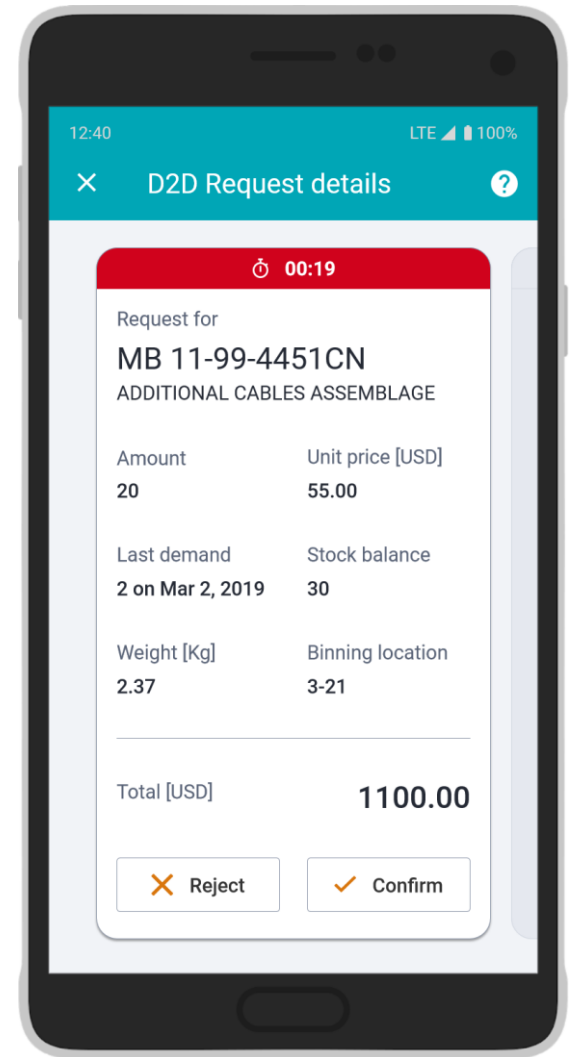
Dealer Clustering

- In Synchron RIM, every dealer is optimized based on its individual demand profile.
- But studies have shown that by clustering similar dealers and analyzing their common demand pattern, better decisions can be made.
- For slow movers, on the edge of being stocked/non-stocked, the cluster sales helps making better stocking decisions
 - If a local slow mover moves a lot in the cluster, it is more likely to keep on selling also on the local level. Reduce risk for returns and obsolescence!



Automatic Dealer-2-Dealer (D2D)

- PDC Backorder Recovery
 - VOR situation and no stock neither at the dealer nor at PDC
 - => **Shorten the backorder recovery time** by distributing stock from another location – prioritize time!
- Excess (returnable stock) D2D redistribution
 - Any kind of order towards PDC, but there is returnable excess stock at another location
 - => **Reduce returns/obsolescence and double handling** – Prioritize returnable stock!
- Tie return policies and other benefits to participation (Cut returns with 50%)





Next steps





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