

# DDMRP World 2019

## MANN+HUMMEL

### Our Journey with DDMRP in Speyer

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# AGENDA

- I. MANN + HUMMEL
- II. PLANT SPEYER
- III. ROADMAP TO DDMRP
- IV. MAKE IT HAPPEN
- V. FIRST RESULTS
- VI. WE NEED TO CONTINUE

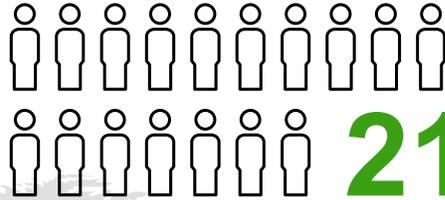
# I. MANN+HUMMEL SEPARATE THE USEFUL FROM THE HARMFUL



# I. MANN+HUMMEL OUR FUTURE IS GREEN



Top **50**  
patent applicants  
in Germany



Employees

**21,000**



different products  
**73,000**

Sales in  
billion €

**3.95**



Founded in

**1941**

**80**



locations worldwide  
in 5 continents



**26**

filters per  
second



**3,000** patents  
and applications

## II. PLANT SPEYER LOW VOLUME – HIGH MIX

### Facts:

- **Number of employees: 475**
- Total area: 88.025 m<sup>2</sup>
- Developable area: 26.650 m<sup>2</sup>

### Inbound:

- 28,000 goods receipt p. a.
- 500 consignments per day
- 21 trucks per day

### Complexity:

- 50,000 materials and components
- 10,000 finished products

### Outbound:

- 89,000 positions p. a.
- 171,000 consignments p. a.
- 25 trucks per day

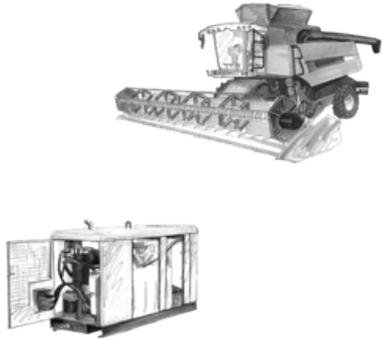


### Storage:

- 8,350 pal. places in plant
- 7,500 pal. places in fully automat. high rack
- 6,900 pal. places in xt. warehouses



# II. PLANT SPEYER LOW VOLUME – HIGH MIX



**Airfilters**



**Airfilter elements**



**Special filters**



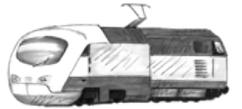
**Air/oil separators**



**Crankcase ventilation**



**Erosion filters**



# III. ROADMAP TO DDMRP

## CHALLENGING TARGETS – EXPECT WHAT YOU INSPECT

### Inventories

**-20%**

Inventory reduction for DDMRP planned materials.



### Stockouts

**-50%**

Increase availability of DDMRP planned materials by reducing stock-out-events.



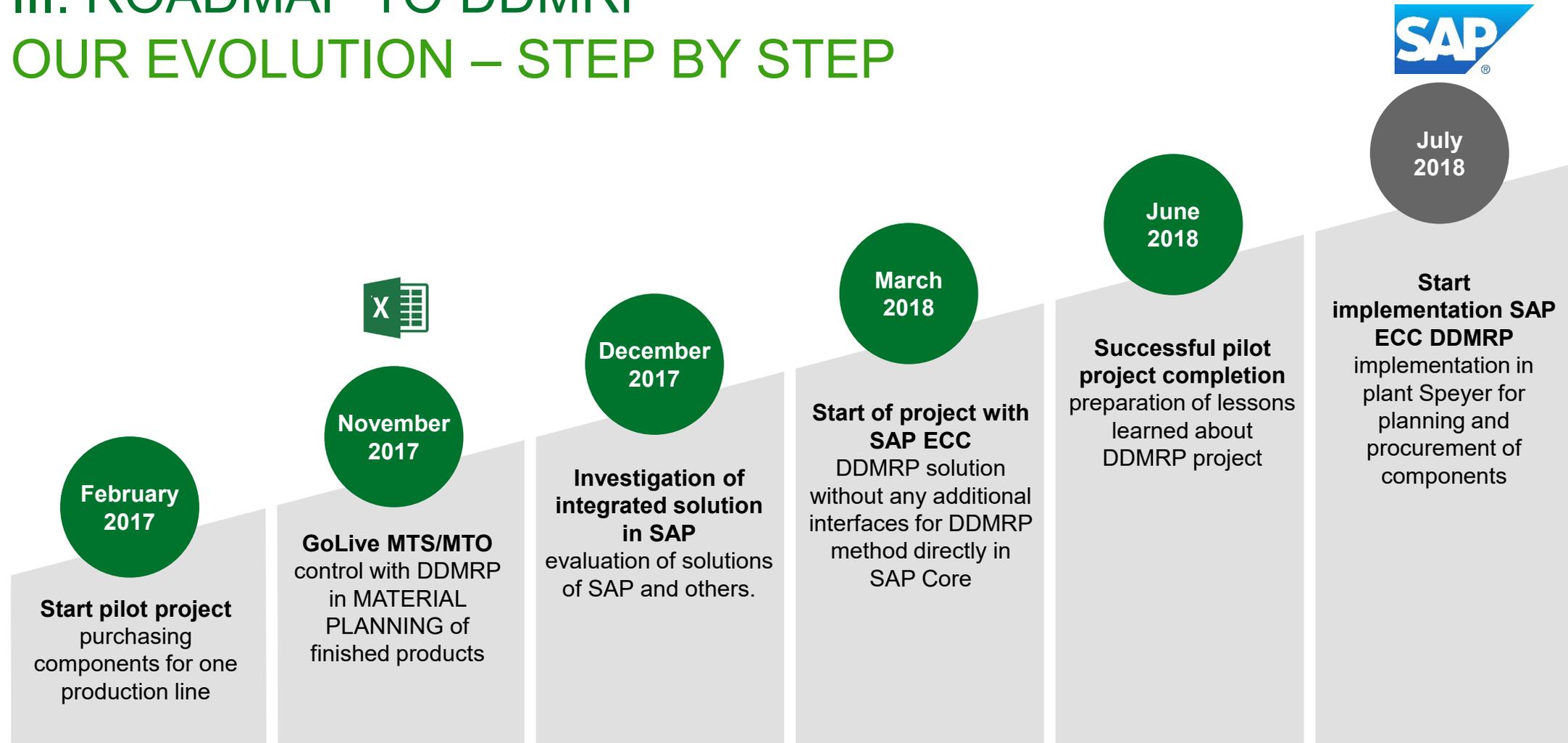
### Market Lead Time

**-80%**

Reduction of lead time for DDMRP planned materials by decoupling and buffering.

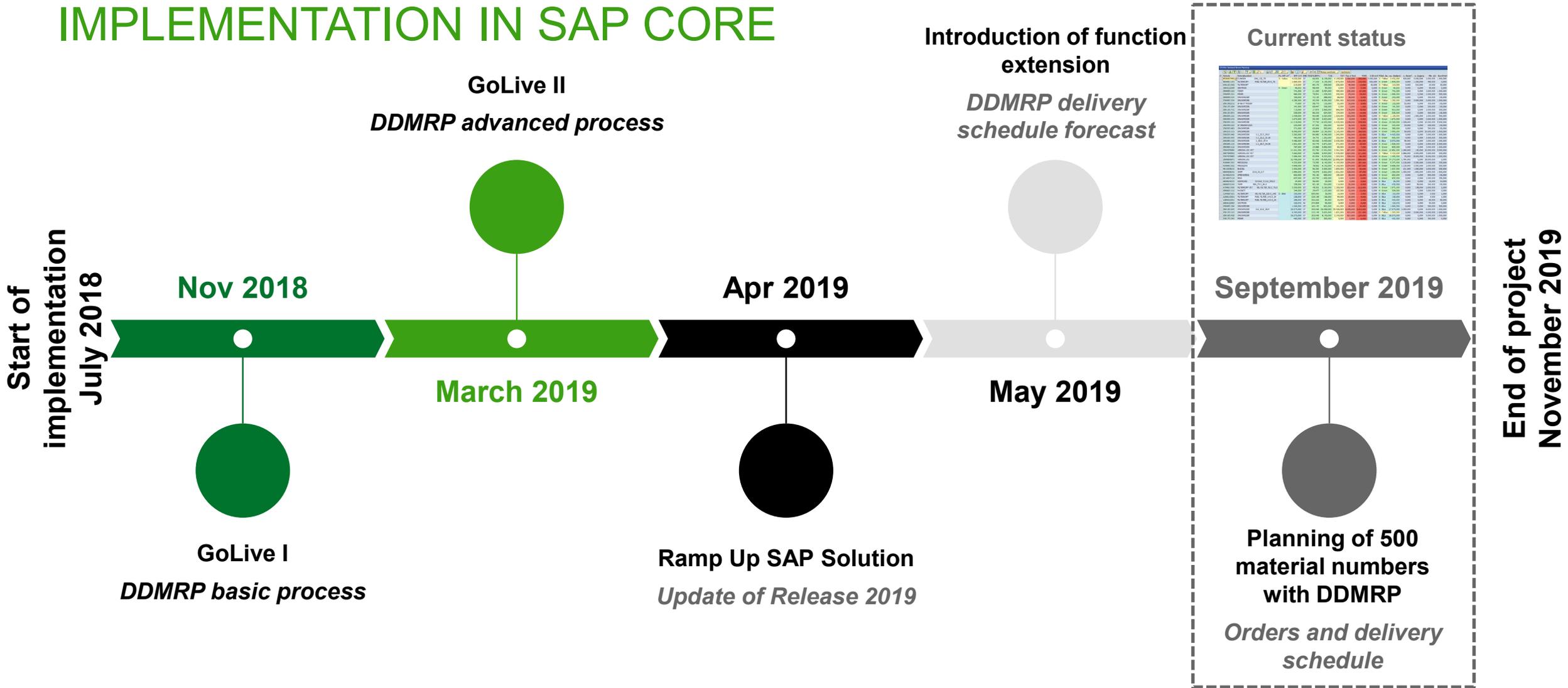


# III. ROADMAP TO DDMRP OUR EVOLUTION – STEP BY STEP



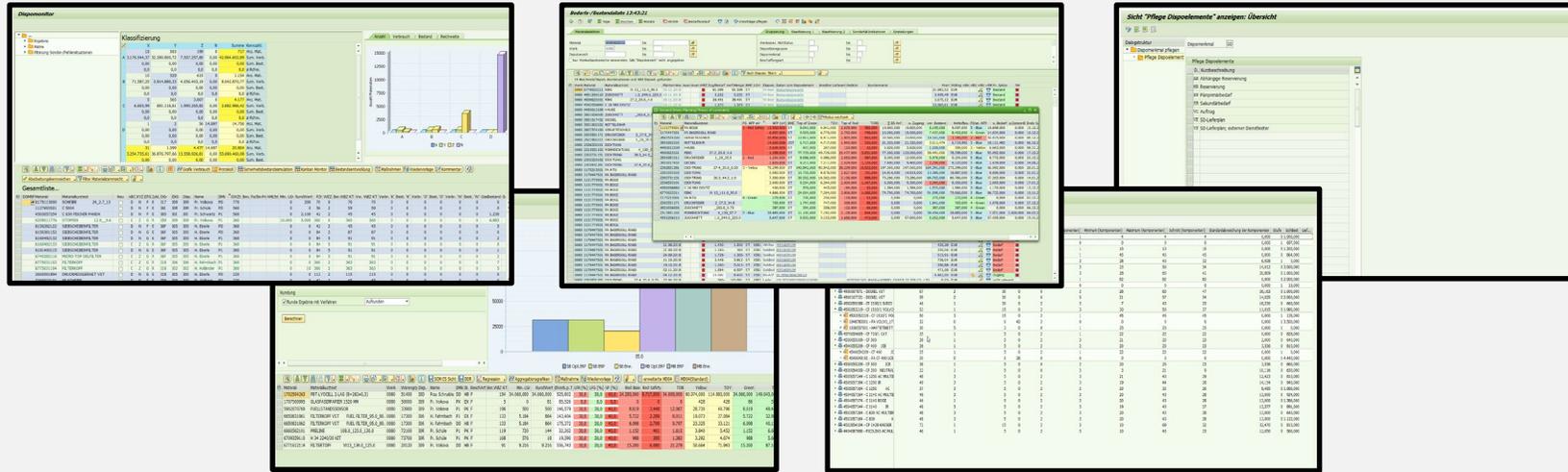
**DDMRP in SAP Core**

# III. ROADMAP TO DDMRP IMPLEMENTATION IN SAP CORE



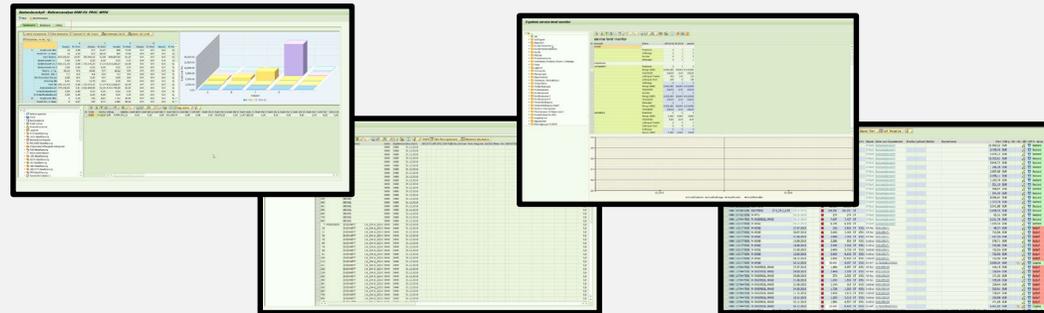
# IV. MAKE IT HAPPEN EXTENDED TOOLS IN SAP

## Basic DDMRP process



- MRP-Monitor
- Stocking Level Monitor
- Advanced MD04
- Simulations Safety Stock and DDP Buffers
- Replenishment Leadtime Monitor
- Customized MRP-type

## Advanced DDMRP optimization



- Exception Monitor
- Inventory Controlling Cockpit
- Material Simulation Cockpit
- Service Level Cockpit

# IV. MAKE IT HAPPEN POWER IS NOTHING WITHOUT CONTROL

## Daily Management

## Order Requirement

## Exceptions (review buffer status)

## Daily Inventory Tracking

### SQDC

- Safety, quality, delivery and cost
- Procurement and production planning



### SAP Advanced MD04

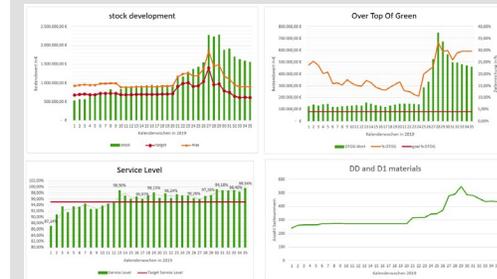
- Check ordering suggestions
- Implement ordering requirements

### SAP Exception Monitor

- Reason? Short time customer disposition, delays, ...
- Solution and measure? Raise and prefer orderings

### Visualization

- Stock development
- Overstock
- Goods in receipt
- Service level



# IV. MAKE IT HAPPEN OUR MONTHLY BUSINESS – MATERIAL MASTER VIEW

**SCM Change Material (Production material)**

Additional Data Org. Levels Check Screen Data

SCM CS

Material: 2102612411 RING  
Plant: 0080 MANN+HUMMEL GMBH

Comment: XXX comp...

Change doc. (lst) Change doc. (fld) Measures Date last update

**Classification**

ABC(D)-Indicator	C	ABC-Value XYZ-quantity
XYZ(N) Indicator	Y	
EFG(N)-Indicator	F	

**Exception indicators I**

Demand Driven Replenishment: [dropdown]  
Exclusion Criterion DDMRP: [dropdown]

**Demand-Driven Planning I**

		Source:
TOG - Top of green	18.860	2 TOG - Top of green
TOY - Top of yellow	8.860	2 TOY - Top of yellow
TOR - Top of red	2.297	2 TOR - Top of red
TORS - Top of red safety	657	2 TORS - Top of red s...
Cause of green zone	MOQ ...	
Source decoupled RLT		2 Decoupled RLT (CD)
Source replenishment lead time		2 Decoupled RLT (CD)

**Demand-Driven Planning II**

Lead time factor green (%)	25,0	Spike Horizon (CD)	28
Lead time factor red (%)	25,0	Spike Threshold (%)	100,0
Variability factor (%)	40,0	Average daily usage	234,380
Preview active	<input type="checkbox"/>	Preview horizon	<input type="text"/>
Ignore spike demands	<input type="checkbox"/>		

**Safety Stock**

Max safety stock	<input type="text"/>	Risk fact RLT	<input type="text"/>
SingleLev.RLT (CalD)	<input type="text"/>	Risc fact MAD RLT	<input type="text"/>
SingleLev.RLT(WorkD)	<input type="text"/>	SL Safety Time	<input type="text"/>
Decoup.RLT (CalDays)	28	Coverage prof.	<input type="text"/>
Ord./Prod. Interval	31	<input checked="" type="checkbox"/> Use O/P Interval	

**Lifecycle/Storage**

New material	<input type="checkbox"/>	Deletion flag	<input type="checkbox"/>
No consumption	<input type="checkbox"/>	Negative usage	<input type="checkbox"/>
Life cycle	R	Seasonal material	<input type="checkbox"/>
Stocking/Destocking	X	Make to Order	<input type="checkbox"/>

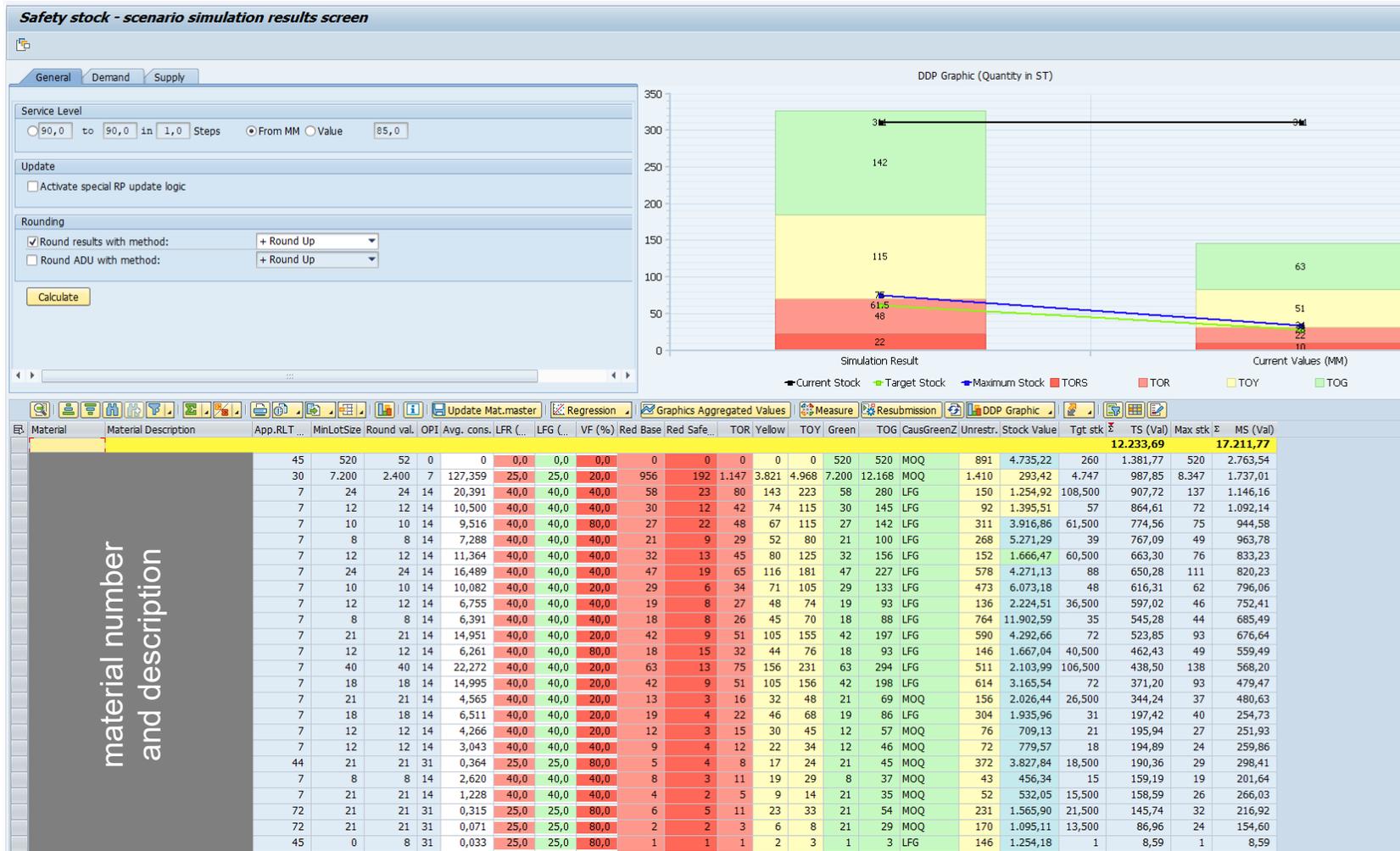
**Stocking level**

Ac. M. Deliv. Time	<input type="text"/>	Max. total RLT (BOM levels) CD	<input type="text"/>
Provisioning-Flag	<input type="checkbox"/>	Consider in analysis additionally	<input type="checkbox"/>
Prod/Purch Principle	PTO	Requirements Visibility Horizon (CalDay)	0

All DDMRP material data are maintained on a separate SAP CS view.

# IV. MAKE IT HAPPEN

## OUR MONTHLY/WEEKLY BUSINESS – Simulations Safety Stock and DDP Buffers



### DDMRP Simulation Cockpit

- Monthly automatic buffer calculation with SAP Job
- Possibility to simulate all DDMRP parameters for new buffer sizing (lead time and variability factor, order cycle, MOQ, lead time, etc.)
- Cause for green zone
- Graphic display and comparison

# IV. MAKE IT HAPPEN

## OUR WEEKLY BUSINESS – ADVANCED MD04 / Supplier Preview

**Stock/Requirements List 20:20:10**

material selected

Grouping Classification 1 Classification 2 Exception indicators Settings Historical Data

Material: [ ] to [ ] Plant: [ ] to [ ]

Plant-sp.matl status to [ ] MRP group to [ ] MRP Type to [ ] Procurement type to [ ]

Filter for MRP elem. Calc. aval. qty. MRP Stock Material document list info records consumption BOM Routing

1 Mater./Plant/MRP Area-combinations and 90 MRP el. found

Material	Description	Date	MRP elem.	MRP element data	Resch.date	Recpt/reqd	Aval. qty	BUnSloc	Vendor	Vendor	Total val.	Cr.	>OD	>P	E-Mail S	Spike check	Pick-up da.
03.10.2019	Stock			Stock Overview		3.402	3.402	ST			10.546,54	EU				● Stock	
26.09.2019	DepReq		4930207561			84	3.318	ST 0703			260,41	EU				● Demand	
30.09.2019	DepReq		4930207561			180	3.138	ST 0703			558,02	EU				● Demand	
01.10.2019	DepReq		4930207561			180	2.958	ST 0703			558,02	EU				● Demand	
04.10.2019	DepReq		4930207561			180	2.778	ST 0703			558,02	EU				● Demand	
07.10.2019	OrdRes		4930207561			500	2.278	ST 0703			1.550,05	EU				● Qualified Spike Demand (1/2)	
07.10.2019	DepReq		4930207561			180	2.098	ST 0703			558,02	EU				● Qualified Spike Demand (2/2)	
14.10.2019	DepReq		4930207561			180	1.918	ST 0703			558,02	EU				● Demand	
21.10.2019	SchLne		5500165526/00010 *		12.12.2019	2.000	3.918	ST 04W2	0000506872	Hercorub	6.200,20	EU				● Supply	17.10.2019
21.10.2019	DepReq		4930207561			180	3.738	ST 0703			338,02	EU				● Demand	
22.10.2019				End of Planning Time Fence /Decoupled Lead Time 0			3.738	ST				EU					
24.10.2019	DepReq		4930207561			60	3.678	ST 0703			186,01	EU				● Demand	
28.10.2019	DepReq		4930207561			180	3.498	ST 0703			558,02	EU				● Demand	
31.10.2019	DDP-SL		5500165526/00010 *	DDP Preview	25.02.2020	2.000	5.498	ST 04W2	0000506872	Hercorub	6.200,20	EU				● Preview	29.10.2019
04.11.2019	DepReq		4930207561			120	3.378	ST 0703			372,01	EU				● Demand	
05.11.2019	DepReq		4930207561			180	5.198	ST 0703			558,02	EU				● Demand	
12.11.2019	DepReq		4930207561			180	5.018	ST 0703			558,02	EU				● Demand	
14.11.2019	DepReq		4930207451			71	4.997	ST 0703			65,10	EU				● Demand	
18.11.2019	DDP-SL		5500165526/00010 *	DDP Preview	20.04.2020	2.000	6.997	ST 04W2	0000506872	Hercorub	6.200,20	EU				● Preview	14.11.2019
19.11.2019	DepReq		4930207561			300	6.037	ST 0703			1.116,04	EU				● Demand	
21.11.2019	DepReq		4930307451			18	6.619	ST 0703			55,80	EU				● Demand	
28.11.2019	DepReq		4930307451			11	6.608	ST 0703			34,10	EU				● Demand	
29.11.2019	DepReq		4930207561			180	6.428	ST 0703			558,02	EU				● Demand	
02.12.2019	DepReq		4930207561			120	6.308	ST 0703			372,01	EU				● Demand	
03.12.2019	DepReq		4930307451			27	6.281	ST 0703			83,70	EU				● Demand	
05.12.2019	DepReq		4930307561			180	6.101	ST 0703			558,02	EU				● Demand	
06.12.2019	DDP-SL		5500165526/00010 *	DDP Preview	07.07.2020	2.000	8.101	ST 04W2	0000506872	Hercorub	6.200,20	EU				● Preview	04.12.2019
09.12.2019	DepReq		4930307451			11	8.090	ST 0703			34,10	EU				● Demand	
12.12.2019	DepReq		4930207561			180	7.910	ST 0703			558,02	EU				● Demand	
16.12.2019	DepReq		4930307451			31	7.879	ST 0703			96,10	EU				● Demand	
19.12.2019	DepReq		4930207561			180	7.699	ST 0703			558,02	EU				● Demand	
23.12.2019	DepReq		4930307451			38	7.661	ST 0703			117,80	EU				● Demand	
24.12.2019	DDP-SL		5500165526/00010 *	DDP Preview		2.000	9.661	ST 04W2	0000506872	Hercorub	6.200,20	EU				● Preview	20.12.2019
30.12.2019	DepReq		4930207561			180	9.481	ST 0703			558,02	EU				● Demand	
02.01.2020	DepReq		4930307451			18	9.463	ST 0703			55,80	EU				● Demand	
07.01.2020	DepReq		4930207561			180	9.283	ST 0703			558,02	EU				● Demand	

### Functionality DDMRP with scheduling agreement

If the Netflow is under TOY - Top of yellow, the system generates a delivery schedule automatically at the end of the Decoupled Lead Time

After this the system takes the current Netflow and the ADU and simulates the next delivery schedule as a preview for the supplier.

# IV. MAKE IT HAPPEN OUR DAILY BUSINESS – ADVANCED MD04

**Stock/Requirements List 16:09:30**

material selected

Material: [redacted] to [redacted]  
Plant: 0080 to [redacted]

Plant-sp.mat status to [redacted]  
MRP group to [redacted]  
MRP Type DD to [redacted]  
Procurement type to [redacted]

Filter for MRP elem. Calc. avail. qty.

Filter has been set for 'Z311433111/0080/'

Material	Descr.	Date	MRP elemnt	MRP element data	Exc. Exc.	Resch.date	Recpt/reqd	Avail. qty	Unit	SLoc	Vendor	Vendor name	Total val.	Crcy	>OD	>PR	EM	SH	Spike check	Pick-up date
		17.09.2019	Stock	Stock Overview			637	637	ST	0701			8.071,87	EUR					Stock	
		12.09.2019	OrdRes	4999990136			80	557	ST	0701			1.013,74	EUR					Demand	
		18.09.2019	OrdRes	4999990132			200	357	ST	0701			2.534,34	EUR					Qualified Spike Demand	
		20.09.2019	ShipNt	4501945876/00010	20		600	957	ST	0701			7.603,02	EUR					Supply	18.09.2019/668724
		20.09.2019	OI-SL	4501951420/00010	20		400	1.357	ST	0701			5.068,68	EUR					Supply	18.09.2019
		20.09.2019	Order	0043461145/00020/0001			500	857	ST				6.335,85	EUR					Qualified Spike Demand	
		23.09.2019	Order	0043463727/000010/0001			500	357	ST				6.335,85	EUR					Qualified Spike Demand	
		08.10.2019	DepReq	4999990132			8	349	ST	0701			101,37	EUR					Demand	
		10.10.2019	Order	0043465692/00020/0001			500	151	ST				6.335,85	EUR					Qualified Spike Demand	
		14.10.2019	ShipNt	4501951420/00020	20		500	349	ST	0701			6.335,85	EUR					Supply	10.10.2019/671015
		15.10.2019	DepReq	4999990132			32	317	ST	0701			405,49	EUR					Demand	
		17.10.2019	PurReq	0203480133/00010			300	617	ST	0701			3.801,51	EUR					Supply	
		22.10.2019	DepReq	4999990132			92	525	ST	0701			1.165,80	EUR					Demand	
		28.10.2019	DepReq	4999990132			40	485	ST	0701			506,87	EUR					Demand	
		05.11.2019	DepReq	4999990132			92	393	ST	0701			1.165,80	EUR					Demand	
		12.11.2019	DepReq	4999990132			36	357	ST	0701			456,18	EUR					Demand	
		19.11.2019	DepReq	4999990132			104	253	ST	0701			1.317,86	EUR					Demand	
		19.11.2019	DepReq	4999990136			4	249	ST	0701			50,69	EUR					Demand	
		26.11.2019	DepReq	4999990132			32	217	ST	0701			405,49	EUR					Demand	
		26.11.2019	DepReq	4999990136			8	209	ST	0701			101,37	EUR					Demand	
		03.12.2019	DepReq	4999990136			16	193	ST	0701			202,75	EUR					Demand	
		03.12.2019	DepReq	4999990132			96	97	ST	0701			1.216,48	EUR					Demand	
		10.12.2019	DepReq	4999990136			16	81	ST	0701			202,75	EUR					Demand	
		10.12.2019	DepReq	4999990132			36	45	ST	0701			456,18	EUR					Demand	
		17.12.2019	DepReq	4999990136			12	33	ST	0701			152,06	EUR					Demand	
		17.12.2019	DepReq	4999990132			100	67	ST	0701			1.267,17	EUR					Demand	
		20.12.2019	DepReq	4999990132			12	79	ST	0701			152,06	EUR					Demand	
		20.12.2019	DepReq	4999990136			4	83	ST	0701			50,69	EUR					Demand	
		30.12.2019	DepReq	4999990136			8	91	ST	0701			101,37	EUR					Demand	
		30.12.2019	DepReq	4999990132			96	187	ST	0701			1.216,48	EUR					Demand	

material number and description

**Daily DDMRP ordering process**

SAP generates ordering suggestions automatically and the user has to convert them into orders.

Info: Demand Driven Planning

Modus wechseln Nachlesen

Material	Materialkurztext	PS. NFP ov	NFP (ov)	BME	TOG(%NFP)	TOG	TOY	Top of Red	TORS	o. Bedarf	o. Zugang	Mn. Lgr	PStat.	NFP	Nettopfo.
2 - Red		2.000	ST	20,000	10,000	5,000	2,000	1,000	0,000	10,000	10,000,000	5,000	5 - Blue	12,000	19,097,000
3 - Yellow		7.097,000	ST	37,630	18.860,000	8.860,000	2.297,000	657,000	7.316,000	12.000,000	10.000,000	5 - Blue	19.097,000		
		357,000	ST	54,671	653,000	547,000	127,000	22,000	280,000	1.800,000	100,000	5 - Blue	657,000		
		200,000	ST	48,900	409,000	209,000	45,000	30,000	300,000	800,000	200,000	5 - Blue	450,000		
		294,000	ST	41,061	716,000	316,000	68,000	30,000	0,000	800,000	400,000	5 - Blue	1.094,000		
4 - Green		1.081,000	ST	81,401	1.328,000	328,000	85,000	25,000	119,000	0,000	1.000,000	4 - Green	1.081,000		
		813,000	ST	56,616	1.436,000	436,000	76,000	22,000	0,000	0,000	1.000,000	4 - Green	813,000		
		511,000	ST	42,869	1.192,000	192,000	50,000	15,000	0,000	0,000	1.000,000	4 - Green	511,000		
		2.078,000	ZST	23,738	8.754,000	754,000	196,000	56,000	5,000	0,000	8.000,000	4 - Green	2.078,000		
		2.751,280	M	69,237	10.216,000	4.216,000	1.093,000	313,000	1.542,180	0,000	6.000,000	4 - Green	2.751,280		
		742,000	ST	99,494	2.765,000	1.765,000	573,000	96,000	2.500,000	1.000,000	1.000,000	4 - Green	2.751,000		
		928,000	ST	17,974	5.163,000	163,000	53,000	9,000	178,000	0,000	5.000,000	4 - Green	928,000		
		893,264	KG	80,474	1.110,000	110,000	29,000	9,000	0,000	0,000	1.000,000	4 - Green	893,264		
		742,000	ST	71,005	1.045,000	45,000	14,000	7,000	0,000	0,000	1.000,000	4 - Green	742,000		
		22,000	ST	27,500	80,000	8,000	3,000	1,000	16,000	0,000	72,000	4 - Green	22,000		
		36,000	ST	29,752	121,000	1,000	1,000	1,000	0,000	0,000	120,000	4 - Green	36,000		
		7.518,000	ST	97,484	7.712,000	6.468,000	1.493,000	249,000	378,000	3.402,000	1.008,000	4 - Green	7.518,000		
		22.233,000	ST	91,626	24.265,000	20.352,000	4.697,000	783,000	14.620,000	28.800,000	3.600,000	4 - Green	22.233,000		
		3.012,000	ST	68,207	4.416,000	2.816,000	650,000	109,000	1.182,000	0,000	1.600,000	4 - Green	3.012,000		
		4.061,000	ST	66,617	6.096,000	3.496,000	807,000	135,000	1.510,000	0,000	2.600,000	4 - Green	4.061,000		
		3.913,000	ST	87,324	4.481,000	3.758,000	866,000	145,000	897,000	4.200,000	100,000	4 - Green	3.913,000		
		7.467,000	ST	101,481	7.358,000	2.358,000	847,000	242,000	0,000	0,000	5.000,000	5 - Blue	7.467,000		
		1.105,000	ST	103,644	1.068,000	68,000	18,000	6,000	0,000	0,000	1.000,000	5 - Blue	1.105,000		
		1.036,994	M2	710,270	146,000	46,000	12,000	4,000	96,320	0,000	1.000,000	5 - Blue	1.036,994		
		403,332	M2	280,092	144,000	44,000	12,000	4,000	13,050	0,000	100,000	5 - Blue	403,332		
		14.866,000	ST	105,650	14.071,000	10.831,000	3.513,000	586,000	898,000	0,000	3.240,000	5 - Blue	14.866,000		
		83.251,000	ST	146,131	56.970,000	50.545,000	7.711,000	1.286,000	2.040,000	65.000,000	500,000	5 - Blue	83.251,000		

material number and description

# IV. MAKE IT HAPPEN

## OUR DAILY BUSINESS – EXCEPTION MONITOR

**MRP Exception Monitor - Material View**

Overview | Material View | Days' Supply View | Missing Parts View

Materials Analysis Period 00.00.0000 - 99.99.9999

Material	Material Description	PGr	Stck	MinLotSize	Sta av.qty	Available qty	Unit	TOG	TOY	Top of Red	TORS	Avg.cons.w
109			4,0	255	1 - Red Safety		PC	1.438,000	1.183,000	273,000	46,000	59,645
109			146,2	5	2 - Red	2,000	PC	10,000	5,000	2,000	1,000	0,202
109			3,7	3.500		2.179,000	PC	50.417,000	44.731,000	6.824,000	1.138,...	502,153
109			2,2	1.000	3 - Yellow	968,000	PC	2.765,000	1.765,000	573,000	96,000	138,323
10D			1,8	1.000		255,000	PC	1.553,000	553,000	144,000	41,000	19,758
109			126,8	330		428,736	KG	786,000	456,000	119,000	34,000	7,387
109			24,9	13.100		18.034,000	PC	76.178,000	63.078,000	9.623,000	1.604,...	594,065
109			22,7	5.000		5.474,000	PC	21.940,000	16.940,000	2.584,000	431,000	168,137
10D			55,0	5.000		4.146,000	PC	10.135,000	5.135,000	1.332,000	381,000	129,508
109			13,1	500		469,000	PC	2.410,000	1.910,000	441,000	74,000	34,234
109				15.600		21.477,000	PC	144.885,0...	128.544,0...	19.609,0...	3.269,...	1.589,661
109			17,4	400		3.337,000	PC	4.733,000	3.993,000	1.036,000	296,000	112,774
10D			20,7	5.000		2.795,000	PC	10.292,000	5.292,000	1.372,000	392,000	104,815
10R			999,9	100		810,000	PC	1.059,000	894,000	232,000	67,000	15,710
109			5,7	1.000		281,000	PC	1.501,000	501,000	116,000	20,000	19,177
109			0,7	1.875		11.009,000	PC	69.745,000	61.879,000	9.440,000	1.574,...	738,460
10D			143,7	8.000	4 - Green	2.911,000	PZ	8.754,000	754,000	196,000	56,000	39,468
109			32,9	6.000		9.078,740	M	10.216,000	4.216,000	1.093,000	313,000	177,491
10D			52,4	5.000		1.164,000	PC	5.163,000	163,000	53,000	9,000	13,363
109			999,9	1.000		893,264	KG	1.110,000	110,000	29,000	9,000	2,437
10D			999,9	1.000		742,000	PC	1.045,000	45,000	14,000	7,000	6,718
109			76,6	12.800		18.094,000	PC	28.659,000	15.859,000	3.660,000	610,000	283,153
109			90,6	72		38,000	PC	80,000	8,000	3,000	1,000	0,387
109			999,9	120		37,000	PC	121,000	1,000	1,000	1,000	0,008
10D			999,9	3.000		2.780,000	PC	3.367,000	367,000	95,000	28,000	16,177
10D			999,9	1.000		1.202,000	PC	1.425,000	425,000	132,000	59,000	12,323
10D			999,9	2.100		2.115,000	PC	2.304,000	204,000	53,000	16,000	9,798
109			999,9	510		292,000	PC	558,000	48,000	15,000	7,000	1,573
109			999,9	510		283,000	PC	558,000	48,000	15,000	7,000	1,573
10D			999,9	200		209,000	PC	326,000	126,000	27,000	12,000	1,573
10D			66,4	770		600,000	PC	904,000	134,000	35,000	10,000	6,855
109			33,3	10.000		15.601,000	PC	18.860,000	8.860,000	2.297,000	657,000	411,815
10D			999,9	6.000		8.392,000	PC	8.599,000	2.599,000	451,000	129,000	35,121
109			130,4	37.800		34.285,000	PC	48.875,000	11.075,000	2.872,000	821,000	391,032
109			999,9	2.000		3.559,000	PC	3.879,000	1.879,000	488,000	140,000	22,540
10D			999,9	2.000		1.819,000	PC	2.064,000	64,000	20,000	9,000	6,274
10D			999,9	3.000		2.130,000	PC	3.974,000	974,000	169,000	49,000	19,403
109			35,7	5.000	5 - Blue	8.811,000	PC	7.358,000	2.358,000	847,000	242,000	152,589
10D			999,9	1.000		1.355,000	PC	1.068,000	68,000	18,000	6,000	5,121
109			77,3	200		505,435	M2	288,000	88,000	23,000	7,000	5,254
109			999,9	100		1.154,114	M2	146,000	46,000	12,000	4,000	3,615
109			999,9	100		416,382	M2	144,000	44,000	12,000	4,000	1,723
10D			999,9	1.000		1.212,000	PC	1.000,000				0,242
109			999,9	36.000		96.196,000	PC	57.269,000	21.269,000	5.514,000	1.576,...	459,387

material number and description

### Daily control buffer status

What is the buffer size of the available stock?

- Red safety zone
- Yellow in order (transit)
- Green good stock
- Blue overstock

➔ Next steps and measures!

# V. FIRST RESULTS CURRENT STATUS

## Inventories

~~-20%~~  
**-29%**

Inventory reduction for DDMRP  
planned materials.



## Stockouts

~~-50%~~  
**-92%**

Increase availability of DDMRP  
planned materials by reducing  
stock-out-events.



## Market Lead Time

~~-30%~~  
**-50%**

Reduction of lead time for DDMRP  
planned materials by decoupling  
and buffering.



# VI. WE NEED TO CONTINUE NEXT STEPS



## November 2019

- Implementation M+H requirements and first positive effects



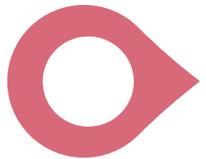
## December 2019 – January 2020

- SAP integration in production planning and scheduling



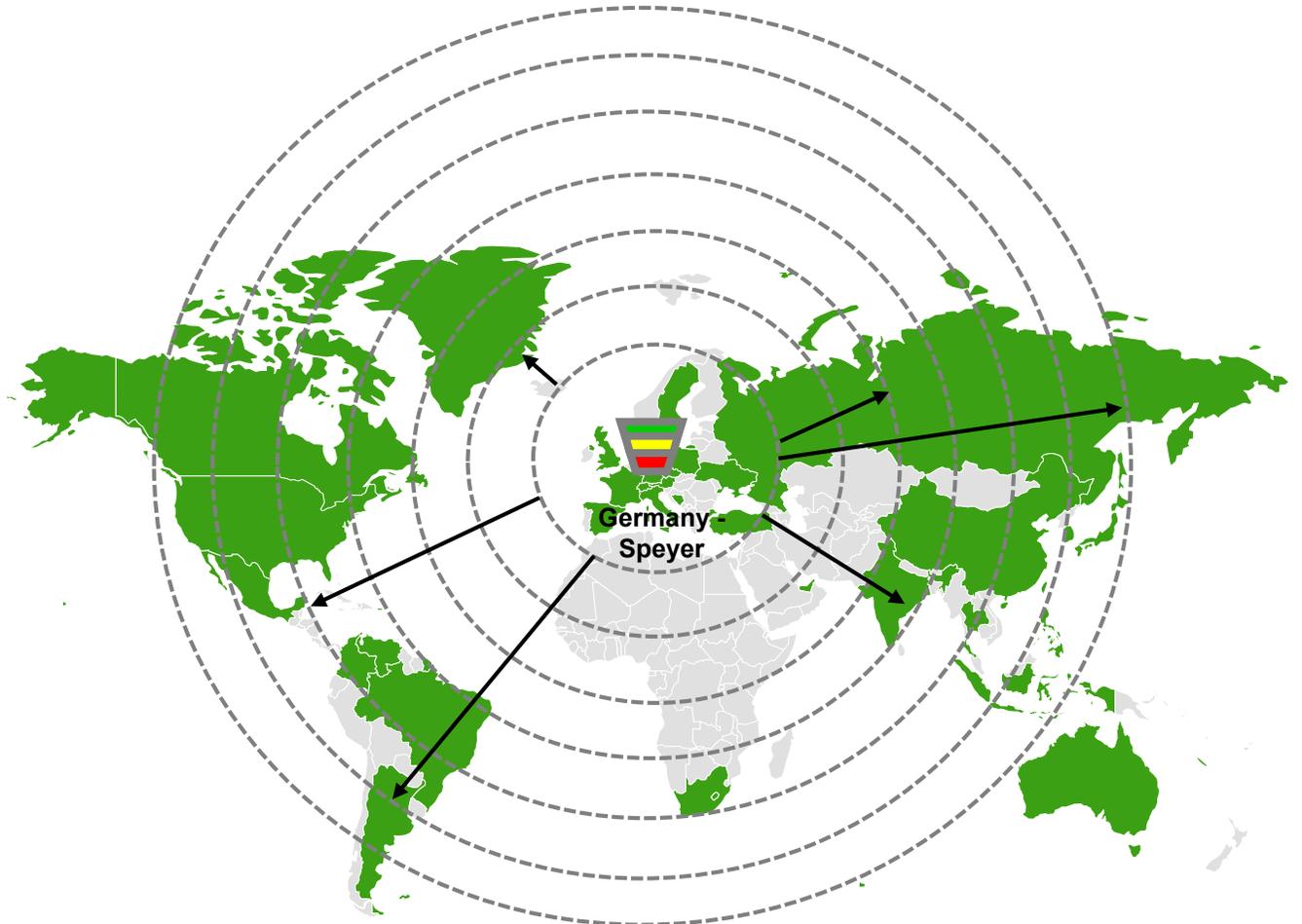
## February 2020

- Start DDMRP introduction for SEMI and FINISH-parts



## December 2020

- Consistent DDMRP planning of all BOM levels



Thank you for your attention.  
Questions?

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