



Driverless Supply Chain Using SAP IBP, Azure and Ariba

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Chandrasekhar Kondapaneni, Software Engineer, Microsoft
Keiji Mishima, Sr. Support Engineer, SAP
Session ID #84372

About the Speakers

Speaker Name

- Ashish Agarwal, Microsoft
- Sr. Program Manager
- Expert in supply chain, delivered multiple large-scale business and system transformational projects.

Speaker Name

- Chandra Kondapaneni, Microsoft
- Software Engineer
- Expertise in implementing various Supply chain solutions using ECC, APO, IBP, Ariba and Azure

About the Speakers

Speaker Name

- Keiji Mishima, SAP
- Senior Support Engineer
- Focusing on SAP IBP and helping customer to adopt digital supply chain transformation

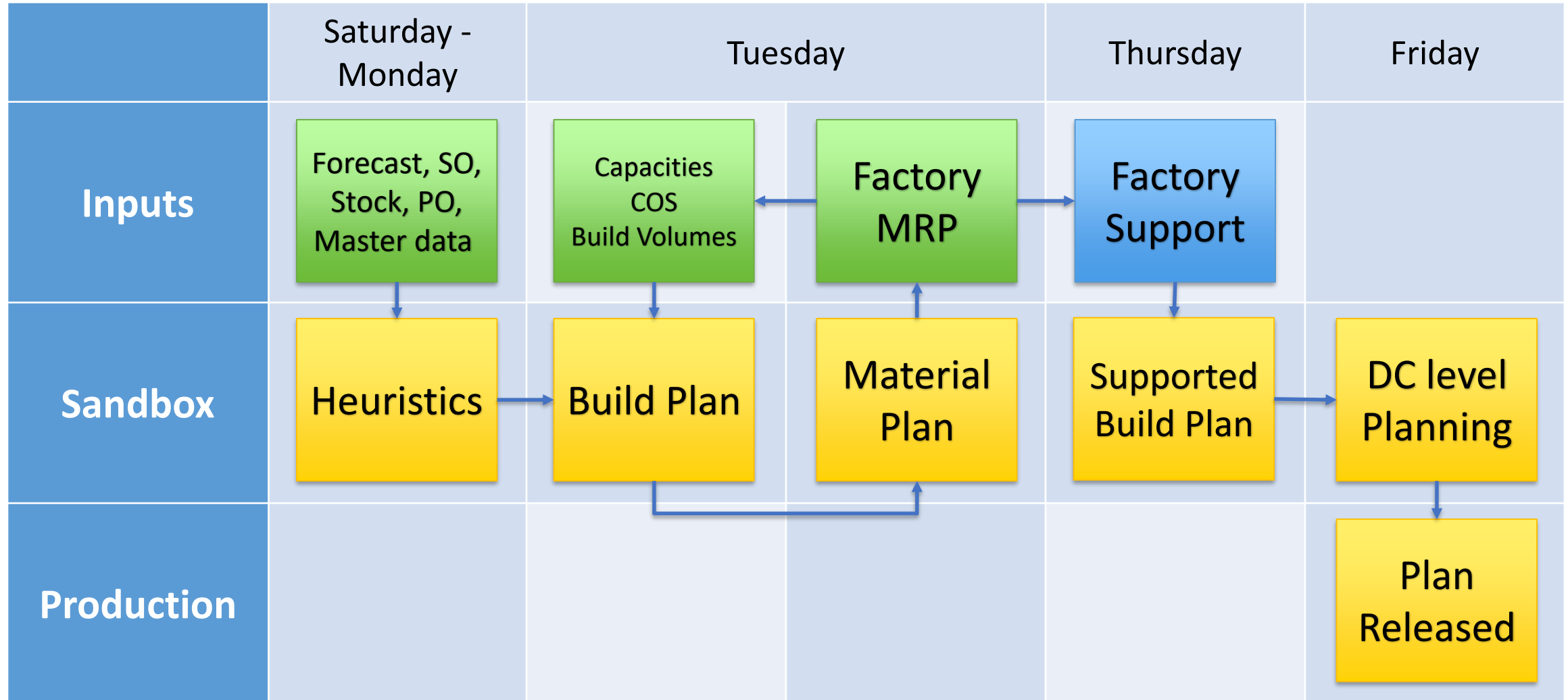
Agenda

- Before IBP
- Supply Planning Process
- Challenges
- Solutions
- IBP Journey
- Collaboration with SAP

Before IBP

- Multiple Systems
- Planners worked extended hours
- No time for exception management

Supply Planning Process



Challenges

- Master Data
- Process Challenges – PO creation
- Forecast Collaboration – Manual using MS Excel
- Customer Experience – high unconfirmed orders due to missing supply
- Planning Efficiency – Planners were spending 60% time on system

Solutions - Supply

Supply Planning

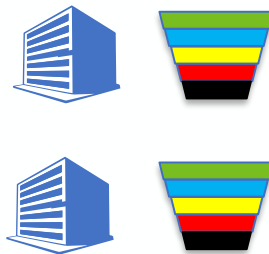
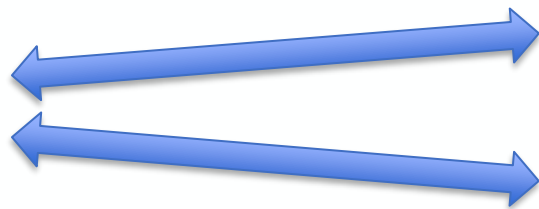
Aggregated
Planning

Forecast
Collaboration

Capacity Leveling

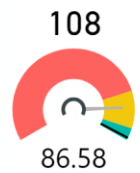
Build & Ship
Planning

Priority Based
Deployment



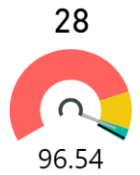
Solutions - Supply

- Master Data - Azure /Power BI

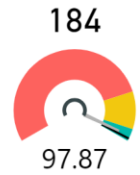


MaterialNbr	LocationCode	AggregateMaterial	AggregateLocation	MRP Controller	Agg MRP Controller
22Z-00022	4260_0010	AGGM_22Z-00022	ZAGG_AOC		R01
22Z-00022	4790_0010	AGGM_22Z-00022	ZAGG_AOC		R01
22Z-00024	N787_0080	AGGM_22Z-00024	ZAGG_ANZN	R01	N/A
22Z-00026	4260_0010	AGGM_22Z-00026	ZAGG_AOC		R01
22Z-00026	4790_0010	AGGM_22Z-00026	ZAGG_AOC		R01
22Z-00028	N787_0080	AGGM_22Z-00028	ZAGG_ANZN	R01	N/A
22Z-00022	4260_0010	AGGM_22Z-00022	ZAGG_AOC		R01

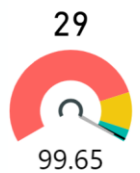
← Treat as priority fix



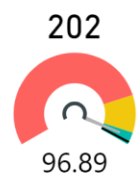
MaterialNbr	LocationCode	AggregateMaterial	AggregateLocation	Rounding Value	Agg Rounding Value
FPS-00009	5860	AGGM_FPS-00009	ZAGG_AOCDS	40.00	1.00
FPS-00010	4080_0010	AGGM_FPS-00010	ZAGG_EOC	40.00	3.00
FPS-00011	4080_0010	AGGM_FPS-00011	ZAGG_EOC	40.00	3.00
FPS-00012	4700	AGGM_FPS-00012	ZAGG_JAPAN	40.00	1.00
FPS-00012	4715_0010	AGGM_FPS-00012	ZAGG_CHINA	40.00	1.00



MaterialNbr	ToLocation	Vendor	DC Rounding Value	Vendor Rounding Value
EYU-00001	N260_0010	N260_0080	40.00	
EYU-00001	N260_0020	N260_0080	40.00	
EYU-00001	N790_0010	N790_0080	40.00	
EYU-00001	N790_0020	N790_0080	40.00	
EYU-00001	N080_0020	N080_0080	1.00	



MaterialNbr	LocationCode	AggregateMaterial	AggregateLocation	MinLot Size	Agg MinLotSize
4FD-00016	N790_0080	AGGM_4FD-00016	ZAGG_AOCN	0.00	250.00
FPS-00009	5860	AGGM_FPS-00009	ZAGG_AOCDS	320.00	1.00
FPS-00010	5861	AGGM_FPS-00010	ZAGG_EOCDS	320.00	1.00
FPS-00011	5861	AGGM_FPS-00011	ZAGG_EOCDS	320.00	1.00
FPS-00012	4700	AGGM_FPS-00012	ZAGG_JAPAN	320.00	1.00
FPS-00012	4715_0010	AGGM_FPS-00012	ZAGG_CHINA	320.00	1.00



MaterialNbr	ToLocation	Vendor	MinLotSize	Vendor MinLot
B2M-00010	N550_0080	0002099531	0.00	2
B2M-00019	N550_0080	0002099531	0.00	2
B2M-00019	N855_0080	0002099531	0.00	2
EYU-00001	4485	0002266985	0.00	3
EYU-00001	N260_0010	N260_0080	320.00	
EYU-00001	N260_0020	N260_0080	320.00	

Planning Master Data Quality

Active Remove Filters

Data As Of 4/25/2019 5:25:32 PM

Filters:

MRP Controller: Multiple sel...

MaterialNbr: 22Z-00002

To Location: 4080_0010

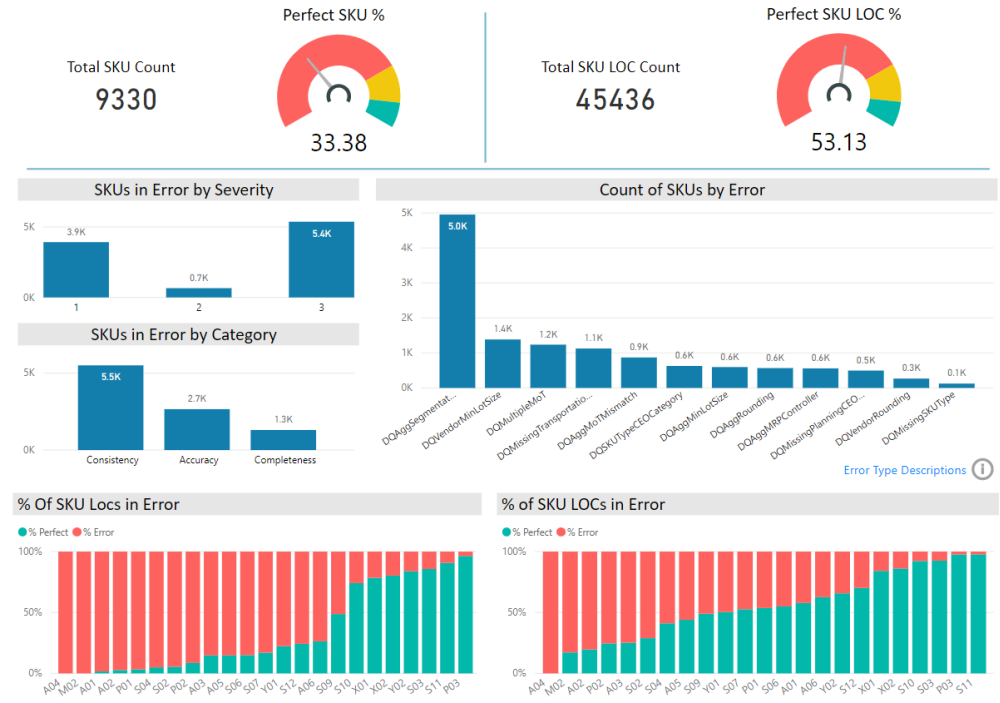
From Location: 0002035716

Program: (Blank), 70-620, n98-361

BusinessUnitNa...: (Blank), 1P Windows..., n98-361

APOLOB: (Blank), ACCESSORIES, n98-361

Location Type: Multiple sel...



Solutions - Supply

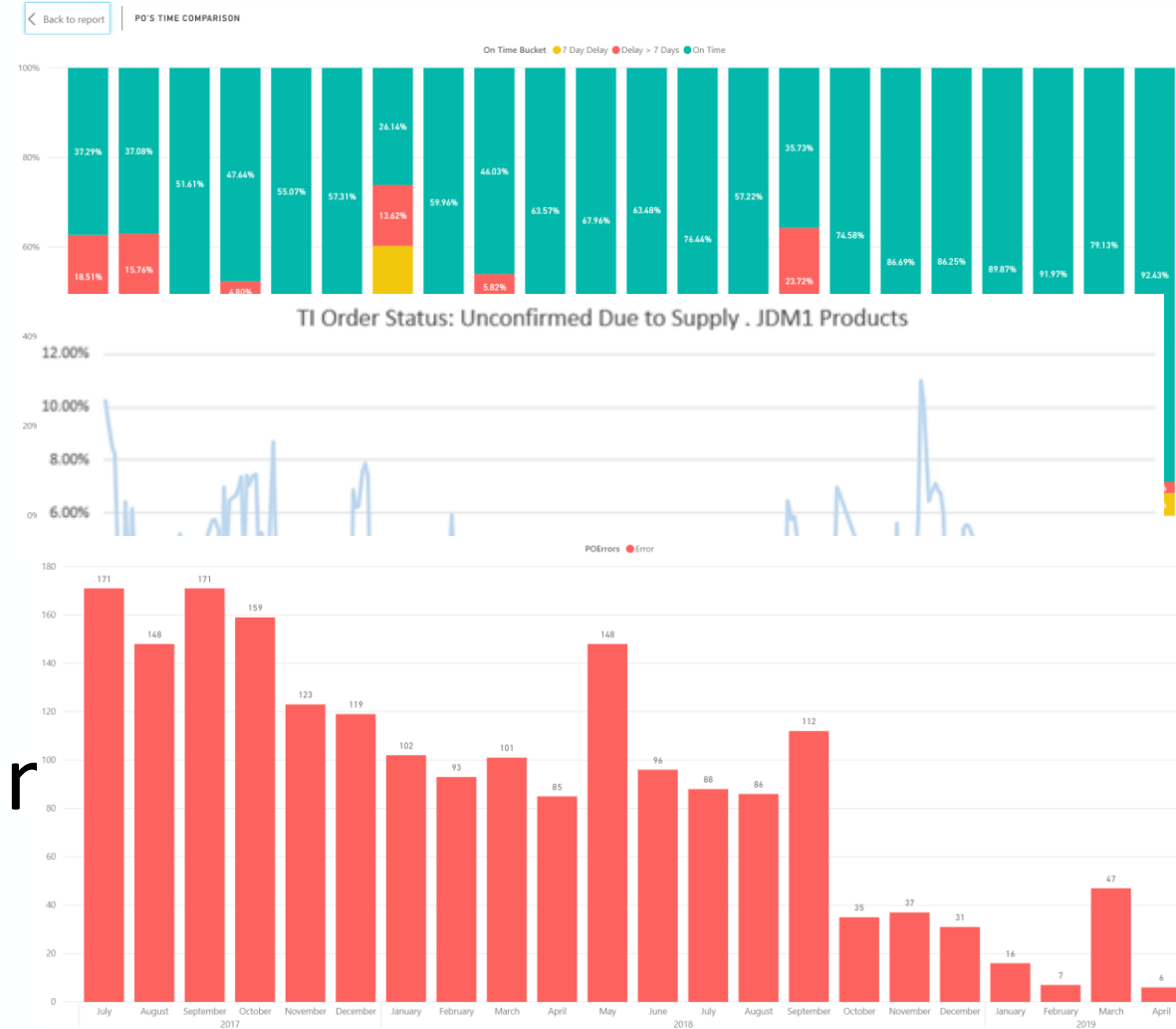
- Process Management
 - Automation
 - Cadence
 - Transparency



MRP Controller_S04_Build Planning_WK017_2019_4_22_12_14_30: MRP Controller_S04_Build Plan Prep

Results / Improvements

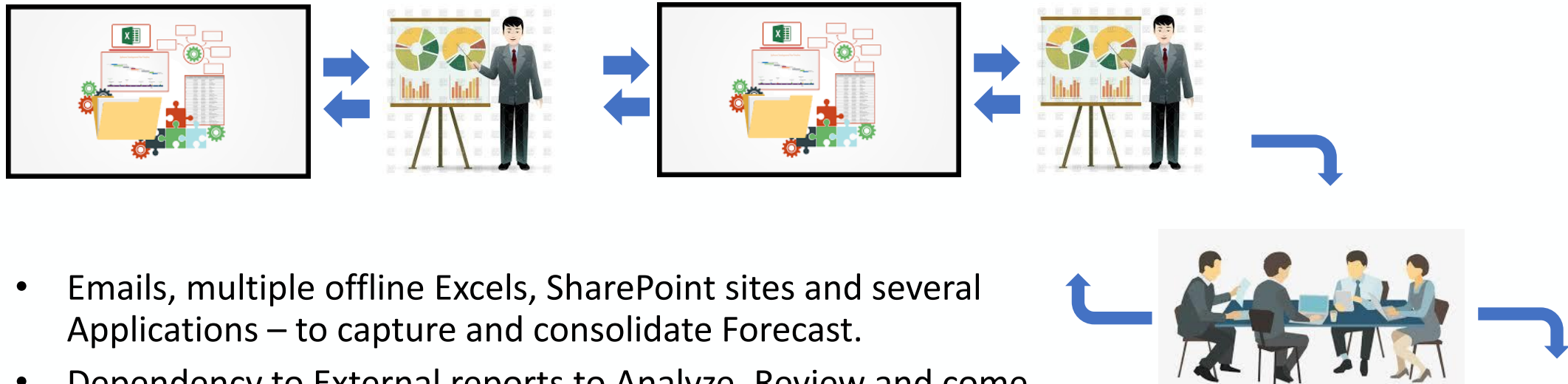
- Planner Efficiency
 - Reduced system time
- Purchase Order Accuracy
- Improved confirmations
 - Sales Orders due to missir



Challenge – Demand Planning



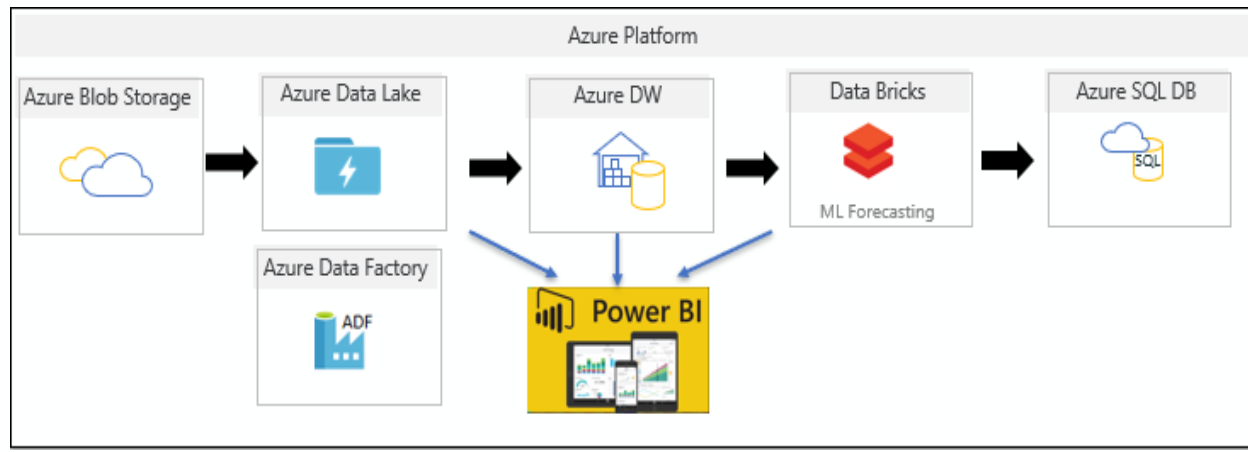
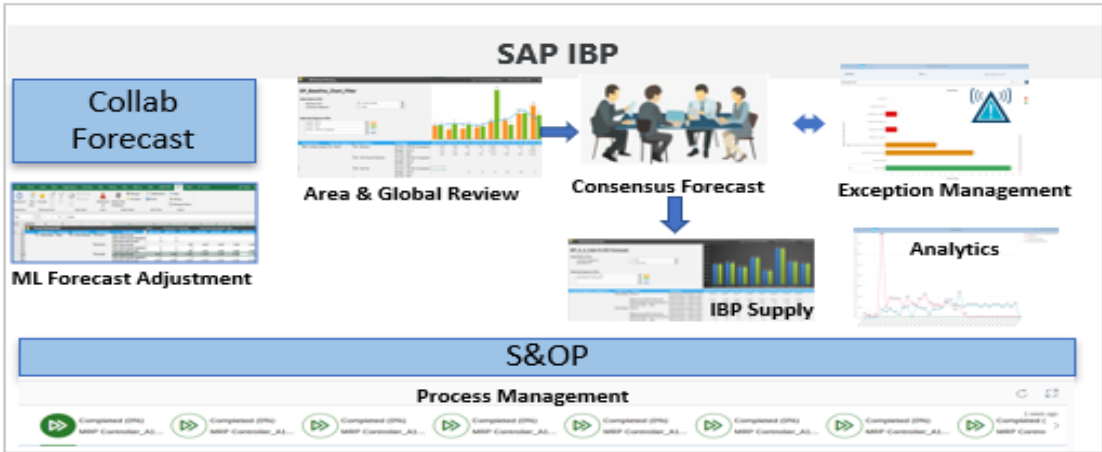
DP Planning Cycle



- Emails, multiple offline Excels, SharePoint sites and several Applications – to capture and consolidate Forecast.
- Dependency to External reports to Analyze, Review and come back to Offline Excels for Updates – with time lag.
- Repeated offline cycles when moving from Country level to Region level and to Global reviews.
- Multiple System hops and Support teams involved to handover demand forecast to Supply planning,



Solution: Hybrid Approach → Machine Learning + Human Collaboration



SAP Planning Workflow

Subsidiary ID	Customer	Business Unit	Product ID	Key Figure	MAY-FY18	JUN-FY18	JUL-FY19	AUG-FY19	SEP-FY19	OCT-FY19	NOV-FY19
10	United States	Retail		Sell-In Stat Forecast			600	4,645	4,496	4,646	4,495
				Sell-In Stat Forecast Adjustment	0	0	0				
				Final Sell-In Stat Forecast	0	0	600	4,645	4,496	4,646	4,495
				Sell-In Stat Forecast	12,672	12,609	12,652	11,536	11,165	11,536	11,164
				Sell-In Stat Forecast Adjustment	0	0	0				
				Final Sell-In Stat Forecast	12,672	12,609	12,652	11,536	11,165	11,536	11,164

Final Forecast = Base Forecast (ML Models) + Adjustments (e.g. Promos)

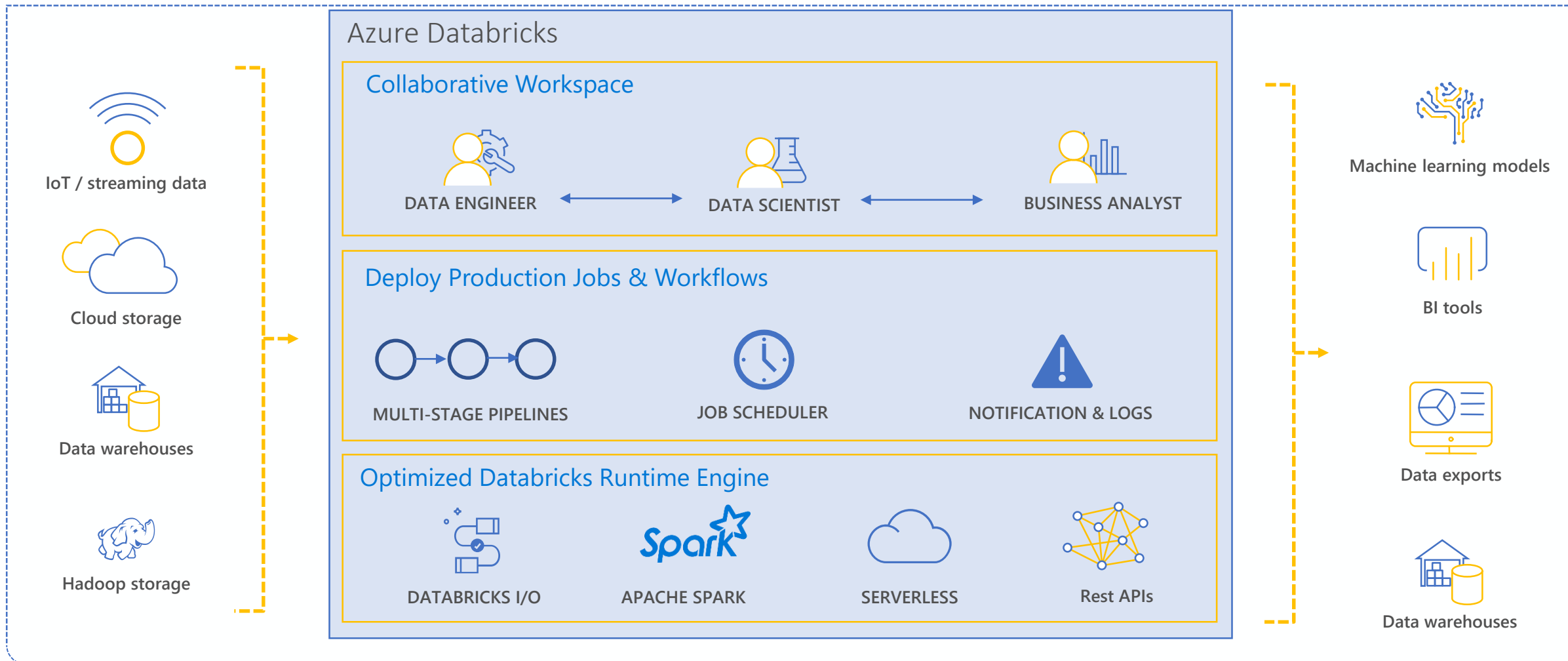


Azure Databricks

Enhance Productivity

Build on secure & trusted cloud

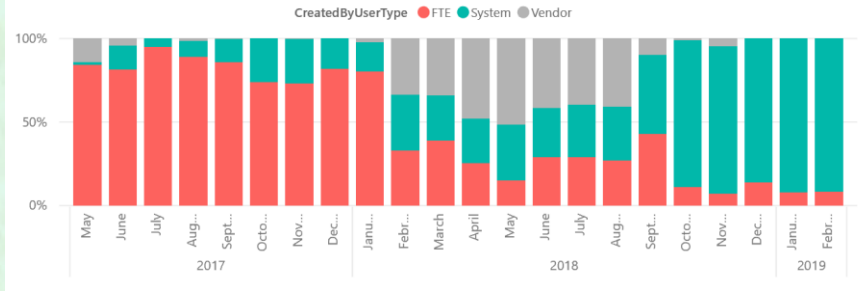
Scale without limits



SAP - IBP Journey in Microsoft



PO'S Created by User Type



Before 2018

Demand Planning using Multiple Silo Tools
Supply Planning in APO / Excel with limited functions

IBP DP R1.0

Subsidiary level Demand Planning in IBP.
ML with Azure ML

Adopted since May-2018

IBP Supply R1.0

Supply Planning in IBP – Build & Ship model

Adopted since Sep-2018

IBP DP R2.0

Account Level Planning (for key Customers)

ML with Azure Data Bricks

Adopted since Oct-2018

IBP DP R3.0

Care Demand Planning

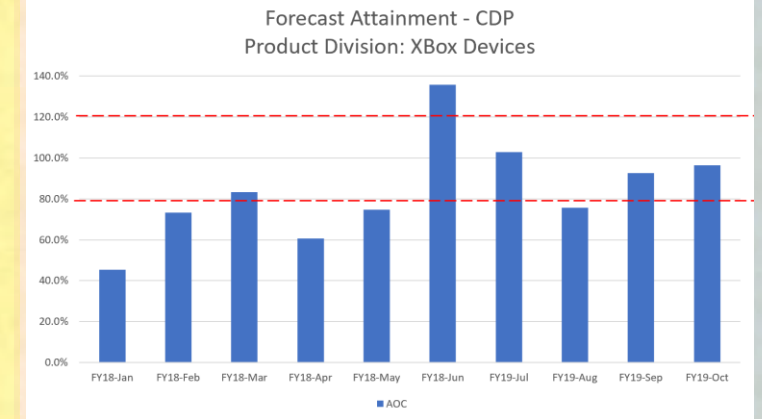
Adoption from Mar-2019

IBP Supply R2.0

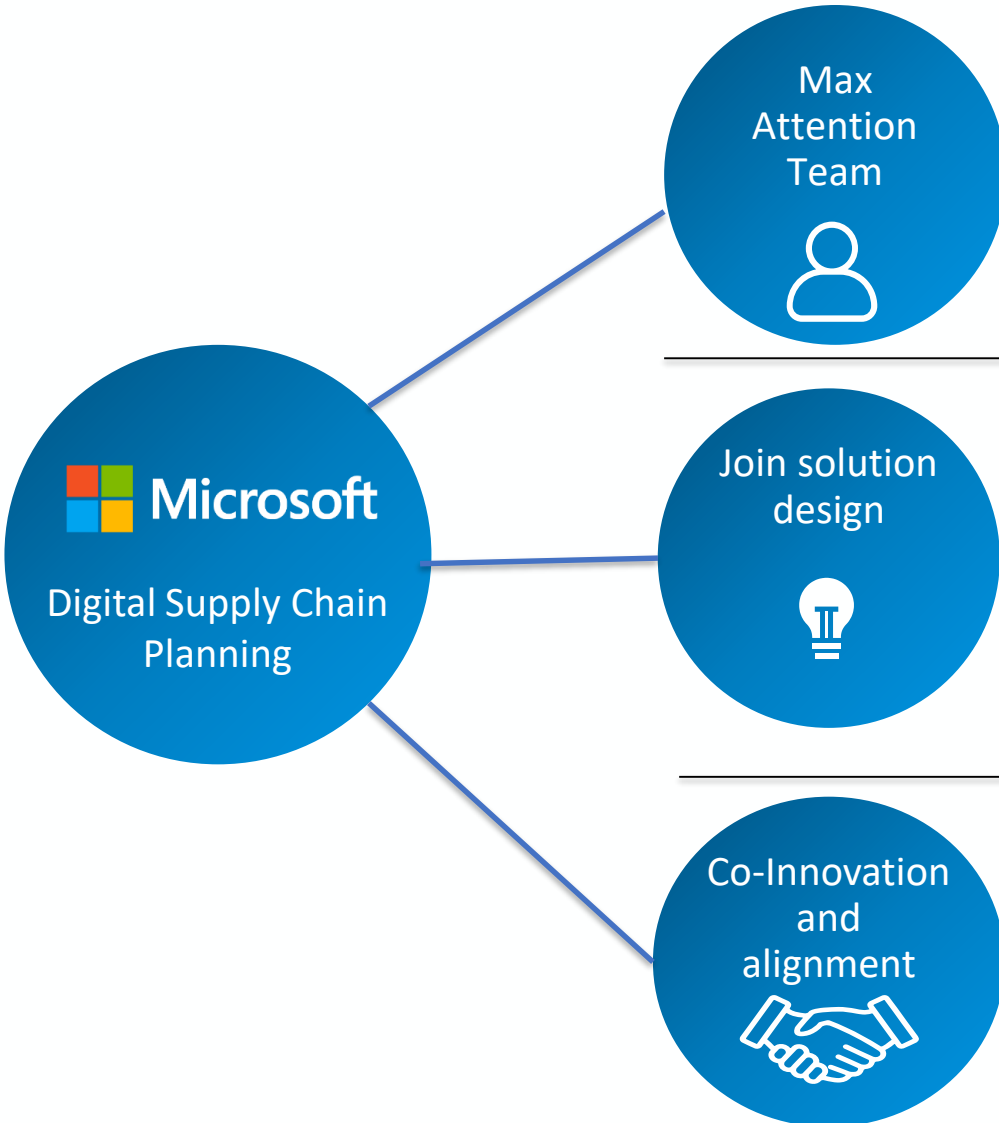
Aggregate Supply Planning (replacing APO)

S&OP Planning in IBP

Adoption from July-2019



Collaboration with SAP



- Functional and technical expertise in a hybrid environment
- Facilitation with multiple SAP product teams
 - IBP, ECC, Ariba, Solution Manager, CPI-DS

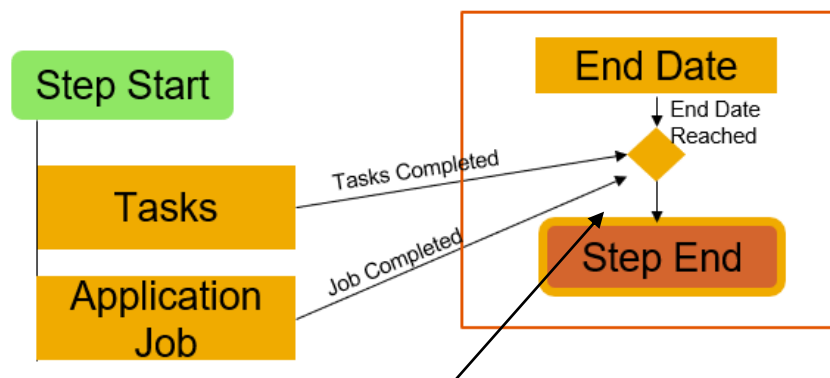
- Innovative solution that bridges gaps in the standard product and effectively meets Microsoft's requirements
 - Capacity leveling
 - Aggregated Planning

- Solution design aligned with IBP product management and roadmap.
 - Flexible Forecast Consumption
 - Fair share deployment

Driveless Supply Chain – Co Innovation with SAP

Combine Process Management and Exception Management for Autonomous Planning Process (Planned 1908)

Step 1



★ New: Check for Alerts

Process Name	Process Owners	Status	Start Date - End Date	Days Remaining	Overall Progress	Current Steps
01 Country A Monthly S&OP	Raghav Jandhyala, Henrik ...	Open	11.1.2017 - 11.29.2017	13 Days	40%	Supply Review
01 Global IBP Process Nov 2017	Raghav Jandhyala, Henrik ...	Open	11.1.2017 - 11.20.2017	4 Days	13.4%	Product and Port...
01 Global IBP_Oct 2017_	Raghav Jandhyala, Henrik ...	Overdue	10.25.2017 - 11.16.2017	0 Days	21.4%	Portfolo M... ...ina...
01 Monthly S&OP Country B	Raghav Jandhyala, Henrik ...	Open	11.1.2017 - 11.29.2017	13 Days	33.4%	Demand Review

Manage by Exceptions



Run Automated Processes

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Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:

<http://info.asug.com/2019-ac-slides>

Q&A

For questions after this session, contact us at

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Keiji.Mishima@sap.com

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