



British Telecom

Demand Driven Journey

5th July 2017

Agenda



- The case for change
- Simulation and pilot
- Scaling to an enterprise level
- Developing DDS&OP
- Takeaways & next steps



A bit about us.....



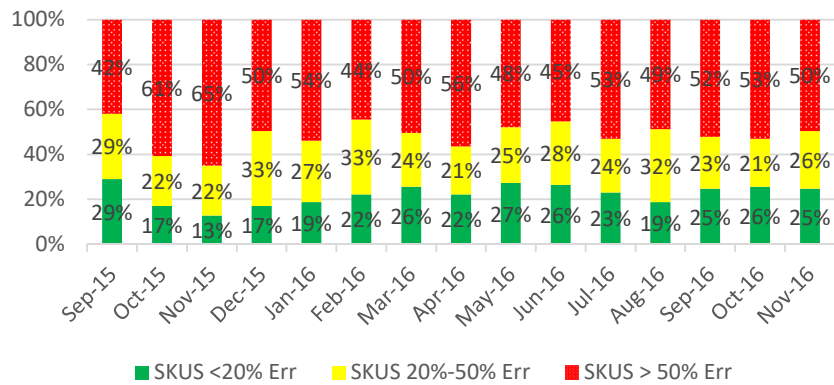
- Multiple supply chains
 - Consumer B2C – 25-30k orders/day
 - Consumer B2B – 2.2million deliveries & returns/year
 - Field based engineering – 28k engineers, 10-15k orders/day
 - Copper cable manufacturing – 1.5million km/year
 - Spare parts provision

- A complex distribution network
 - 2 National distribution centres
 - 96 forward stock locations
 - 13 transport hubs

The case for change



FC Error SKU Mix



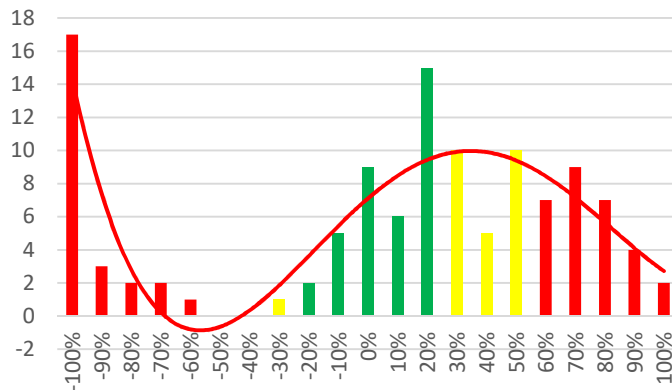
Forecast Accuracy

- Not great at the mix level
- Tendency to over forecast

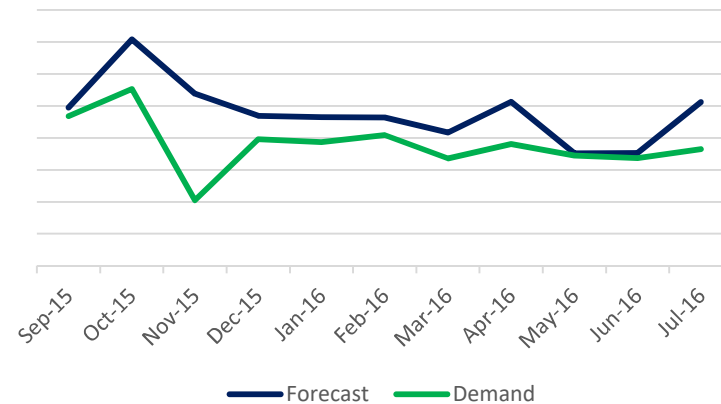
But....

- As many under forecast as over forecast items

Rolling 3 Month FC err %



Aggregate Demand vs Forecast



The solution

A decorative horizontal bar composed of five colored segments: brown, red, yellow, green, and purple.

Improve forecast accuracy.....

*“If I had asked people what they wanted,
they would have said faster horses”*

- *Henry Ford*

Or.....

Attend a CDDP training course



Testing the theory with a simulation



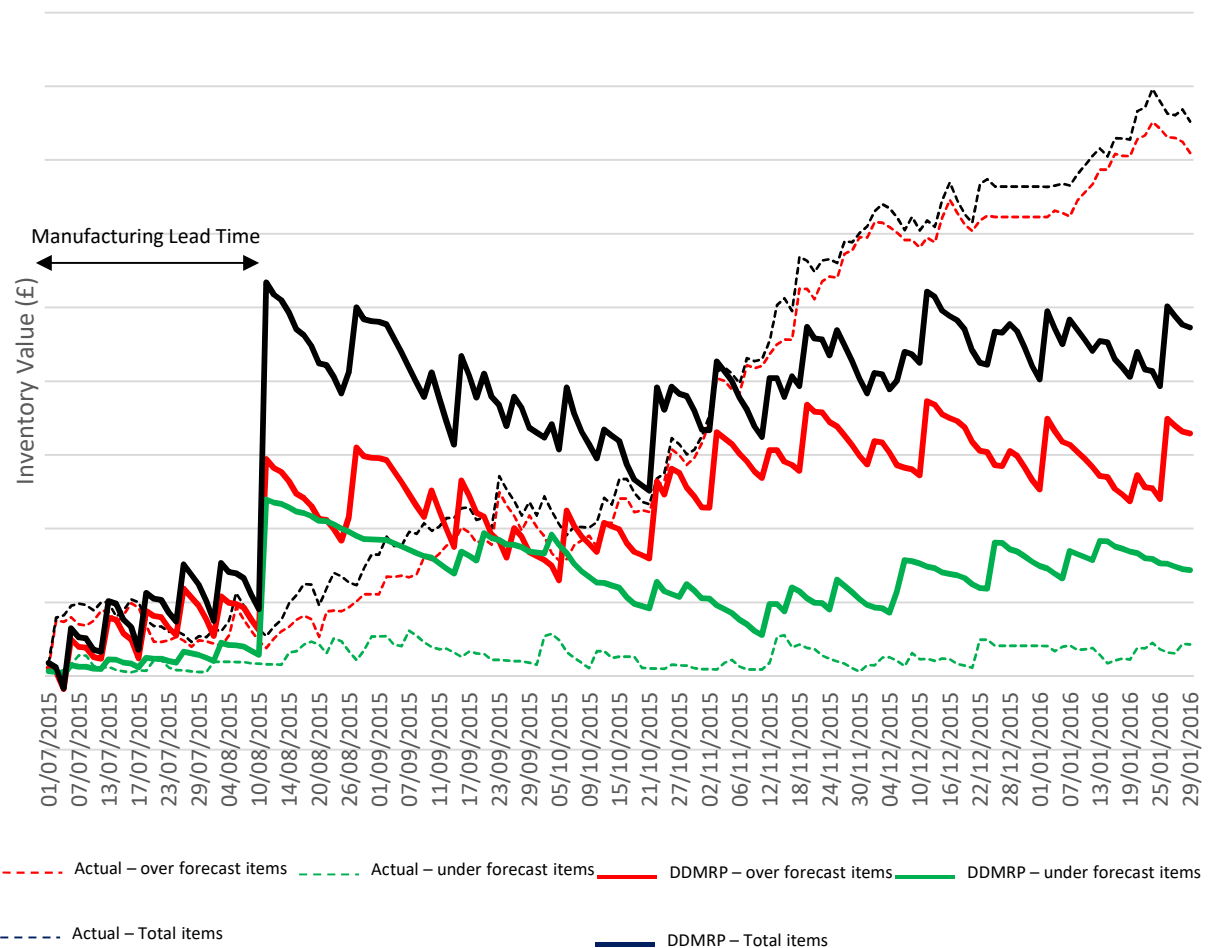
Simulation model built using 6 months history of actual daily orders

Two groups of SKUs from the same family modelled that had been historically over and under forecast but at the aggregate level had excellent accuracy

RESULTS

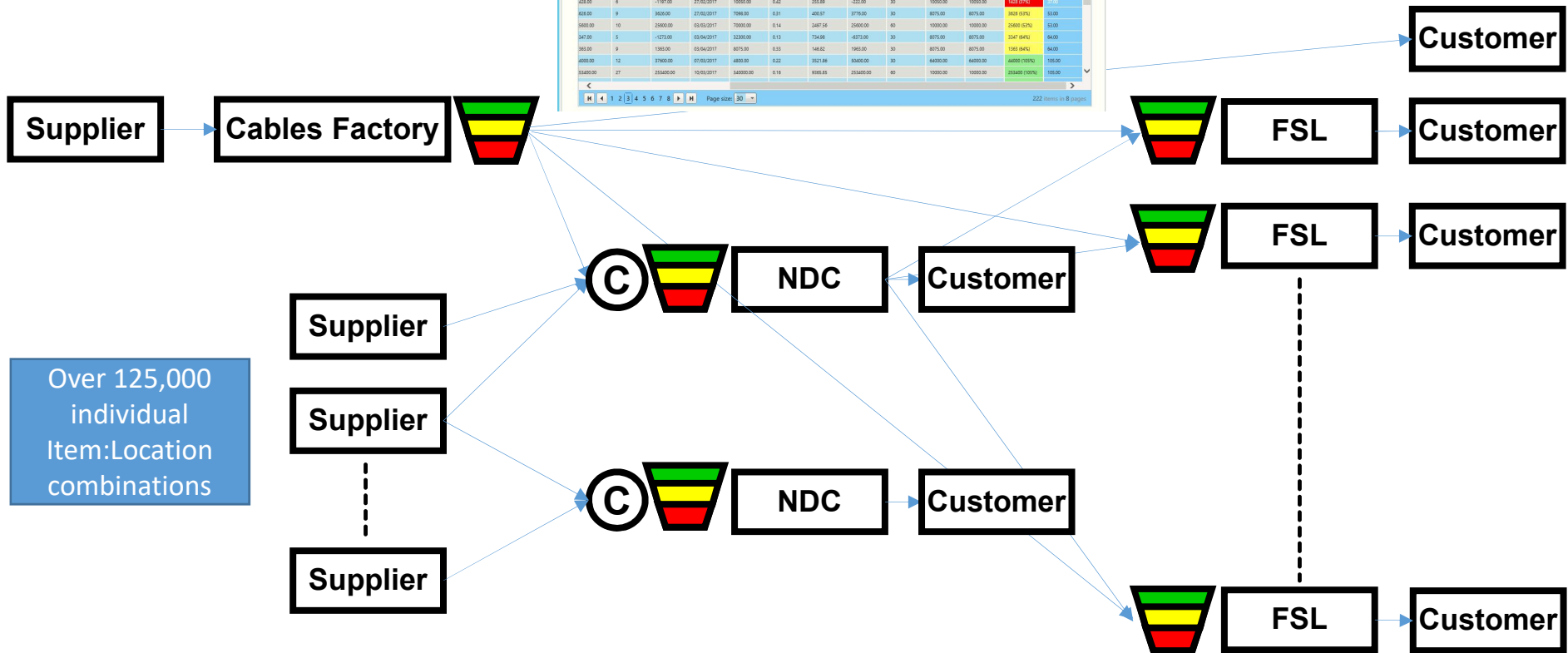
- Stock is in balance and total inventory is halved
- NOT Dependant on Forecast so decoupled from forecast error
- NO Service issues
- LESS Inventory
- STABLE load on factory
- NO costs of failure

Actual vs DDMRP Simulation – 6 month Inventory Evolution

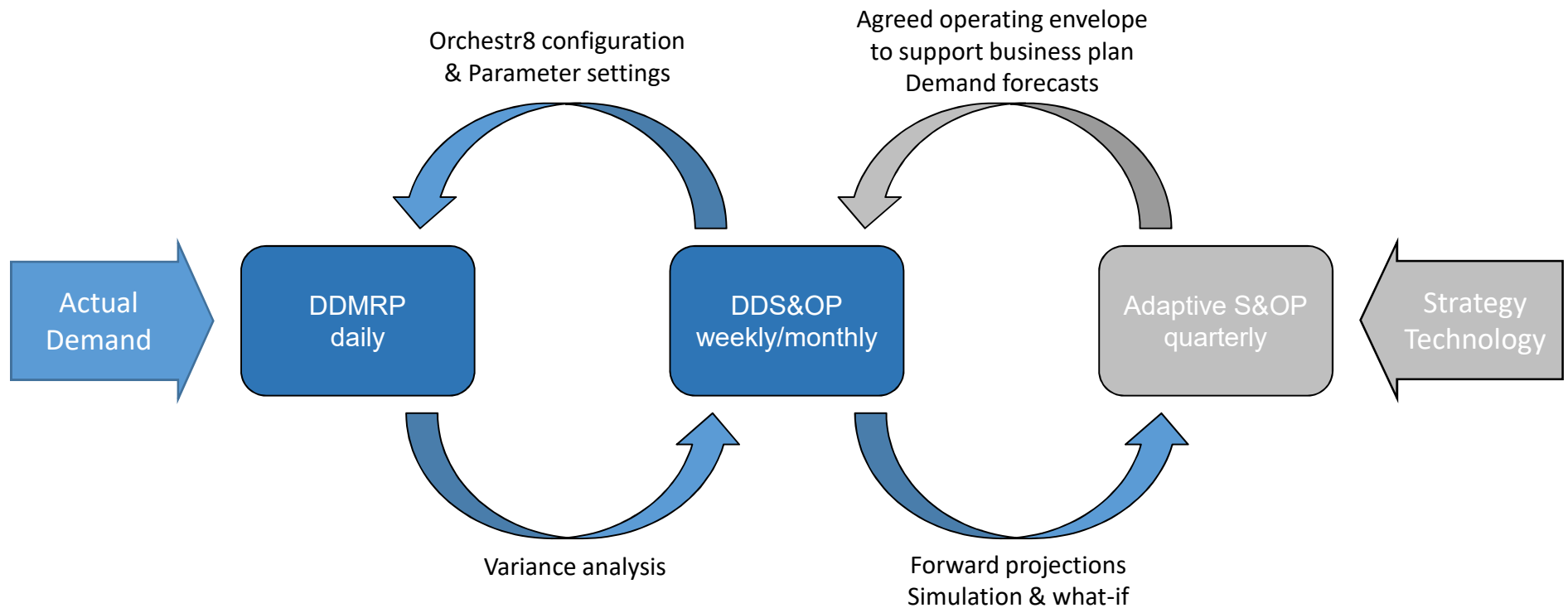


Scaling to an enterprise level

In Hand Qty	Number of Days On Hand Inventory	Available Inventory Qty	Next Replacement Date	Next Replacement Qty	MED	ADU	Yesterday's Available Inventory Qty	Replacement Leadtime	Minimum Order Qty	Multiple Order Qty	DDMRP Current On Hand Asset	DDMRP Current On Hand Asset Percentage
0	0.00	0.00	28/03/2017	10000.00	0.35	48.78	0.00	60	10000.00	10000.00	0.0%	0%
80.00	1	-26400.00	27/02/2017	36400.00	1.09	-492.02	-26400.00	30	10000.00	10000.00	896.67%	10%
80.00	3	-2600	15/03/2017	8700.00	0.36	180.86	2600	30	8000.00	8000.00	267.17%	10%
800.00	8	-1275.00	17/02/2017	8075.00	0.37	372.68	-1275.00	30	8075.00	8075.00	280.24%	10%
54.00	9	654.00	07/02/2017	1000.00	0.56	68.69	654.00	30	1000.00	1000.00	164.07%	10%
428.00	6	-1787.00	27/02/2017	10000.00	0.42	235.89	-1787.00	30	10000.00	10000.00	1429.07%	10%
628.00	9	3628.00	27/02/2017	7088.00	0.31	405.67	3776.00	30	8075.00	8075.00	762.07%	10%
5880.00	10	25000.00	03/03/2017	70000.00	0.14	2487.56	25000.00	60	10000.00	10000.00	2580.07%	10%
347.00	5	-1273.00	03/04/2017	33300.00	0.13	734.88	-4873.00	30	8075.00	8075.00	1347.64%	10%
383.00	9	1383.00	03/04/2017	8075.00	0.33	148.82	1383.00	30	8075.00	8075.00	1383.64%	10%
4890.00	12	37900.00	07/03/2017	8890.00	0.22	3621.88	38400.00	30	84000.00	84000.00	4489.07%	10%
33480.00	27	234400.00	16/08/2017	840000.00	0.16	9386.85	234400.00	60	10000.00	10000.00	23440.07%	10%



DDMRP is just the start – Developing DDS&OP



Takeaways & next steps



Demand Driven has and is delivering

- Supply chain 'de-risked' from forecast accuracy
- Strong positive impact on cash flow and ROCE
- Maintained or improved service levels
- Overall inventory reduction typically between 20%-30%
- Release of supply chain capacity by not producing, buying and storing the wrong stuff
- Cost reduction – lower planning effort with improved outcomes – lower expedite costs

Next Steps

- Continue to develop our flow based metrics and reporting
- Engage with suppliers – currently demand pull turns back to forecast push at the supplier / BT interface
- Orchestr8 and our DDS&OP process ensure we have the operational and tactical relevant ranges covered – next step is to link in to the strategic relevant range
- Continue to invest in education and development