



Optimize performance through interconnection

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Senior Vice President, Operations, Pratt & Whitney

ENGINES

SUPPORT

INNOVATION

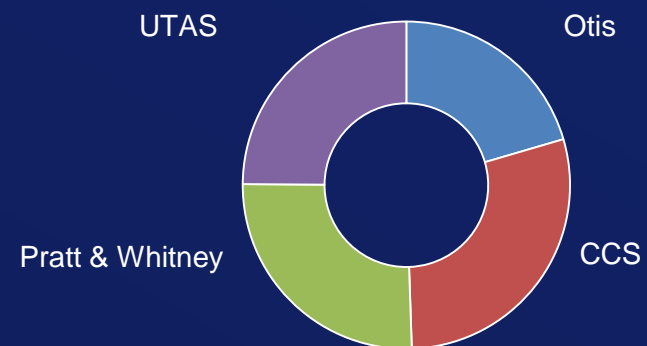
PEOPLE

Balanced Across Markets & Geographies

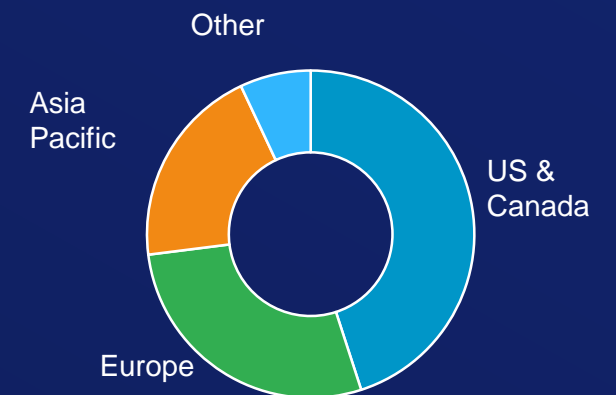


2016 net sales
\$57B

Sales By Division



Sales By Geography



Where we focus



PRATT & WHITNEY

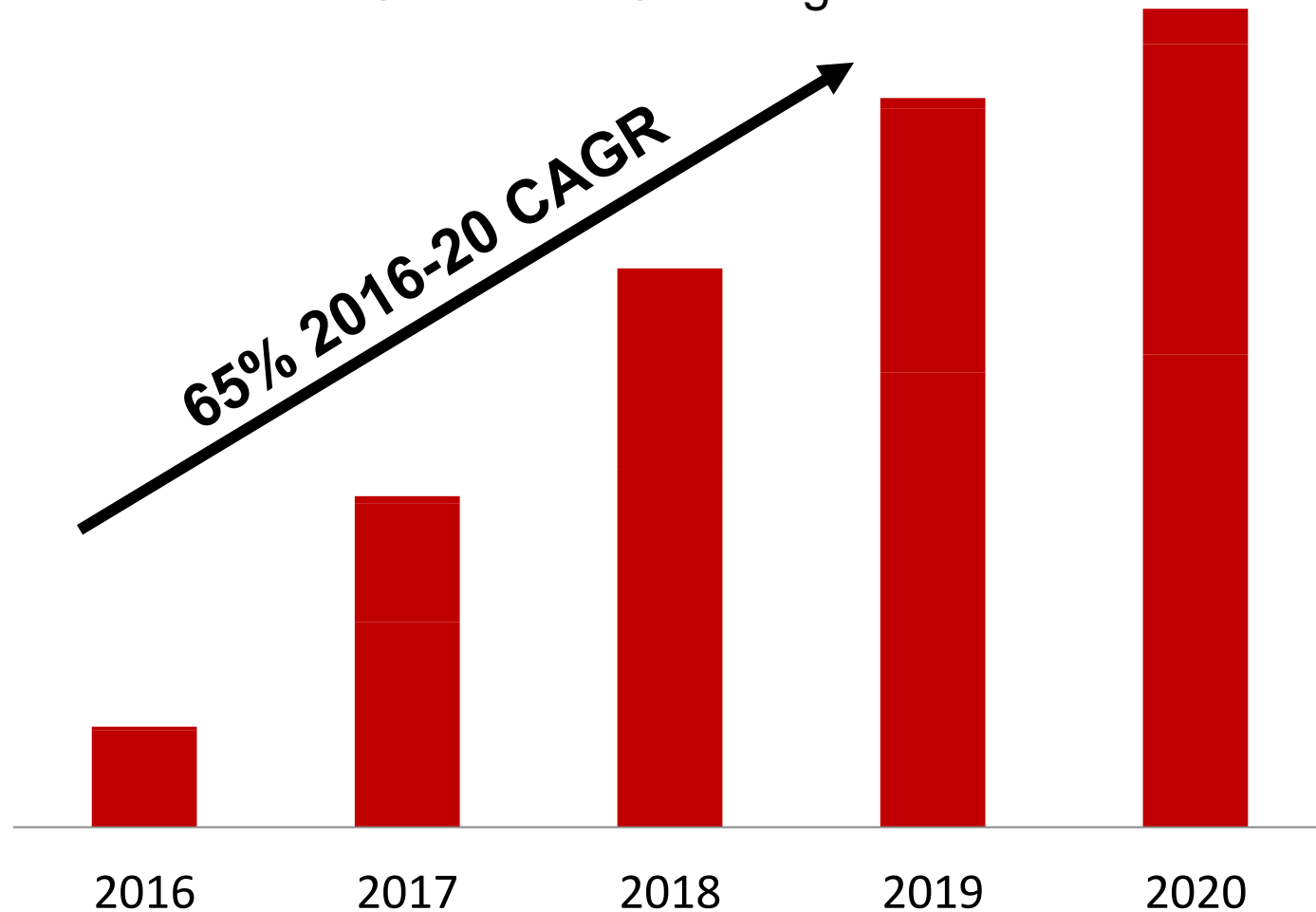


	2016	2020P
Sales	\$16B	\$22B
Installed engines	>70K	>100K
Annual product spend	\$4B	>\$8B
Annual non-product spend	\$1.9B	>\$2B
Supplier Gold & Performing	49%	>80%
NGPF target cost ratio	2x	<1x

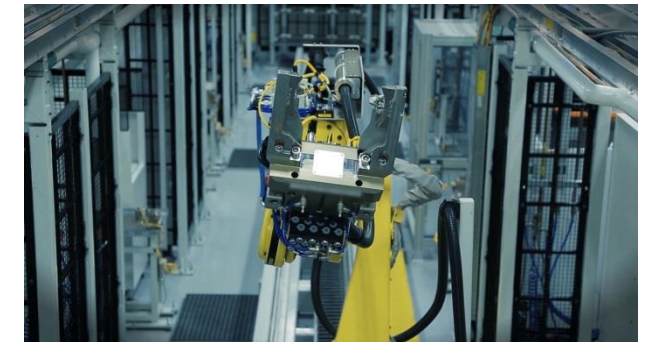
CAPTURING NGPF OPPORTUNITY

Leveraging investment in technology and automation

Growth - NGPF engines



Investment

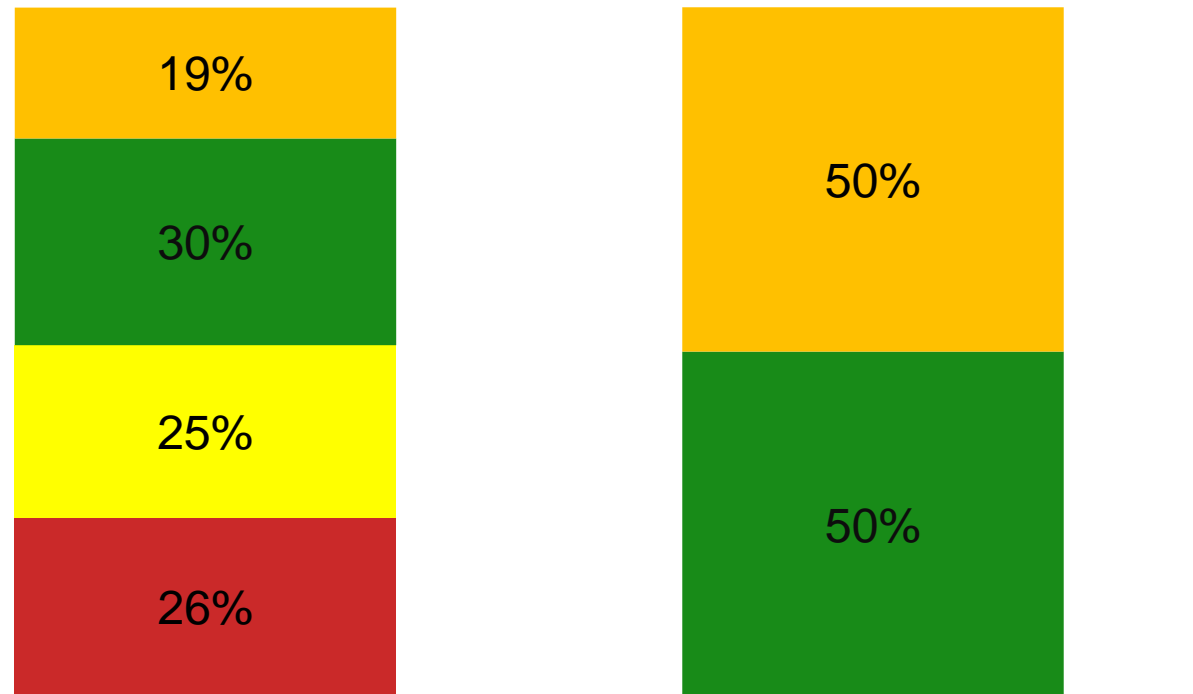


RAMP REQUIRES NEW WAYS OF WORKING

Systems and processes for digital integration



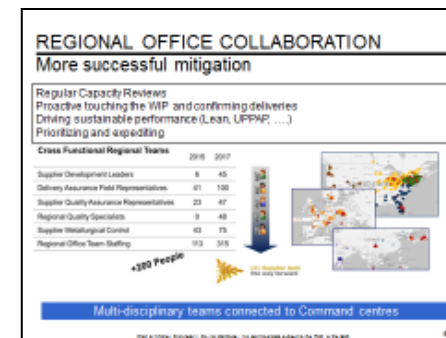
UTC Supplier Gold
The way forward



2016 YE Actual

2020 Vision

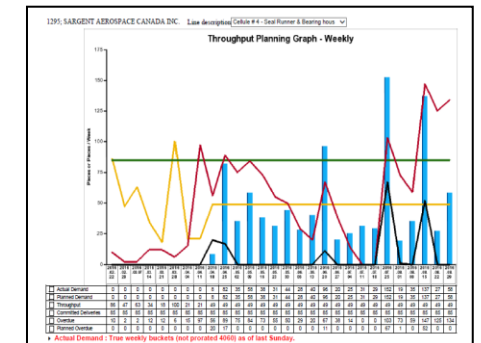
■ Underperforming ■ Progressing ■ Performing ■ Gold



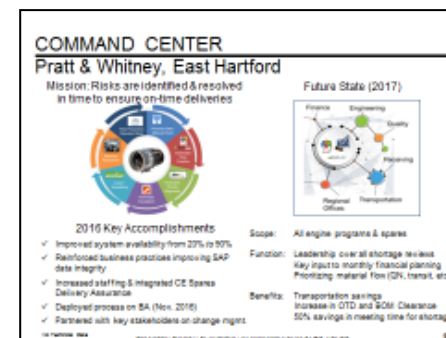
Regional Offices



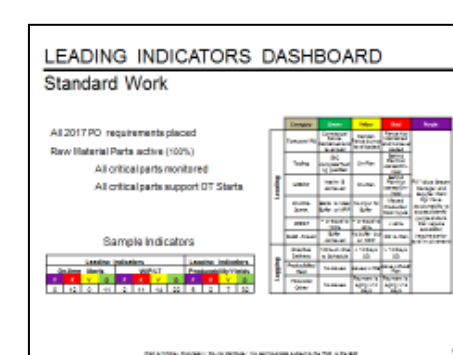
New Supplier Portal / IT Initiatives



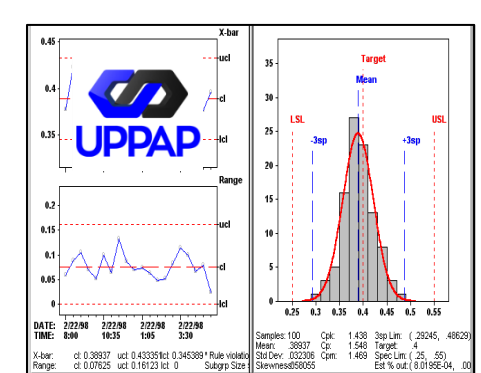
Enhanced Capacity Assessments



Command Center



Leading Indicators



Process Control / UPPAP

COMMAND CENTER

Proactive supply base risk management



Event management handling over 90,000 risks per day 7

RISKS FLAGGED BY LEADING INDICATORS

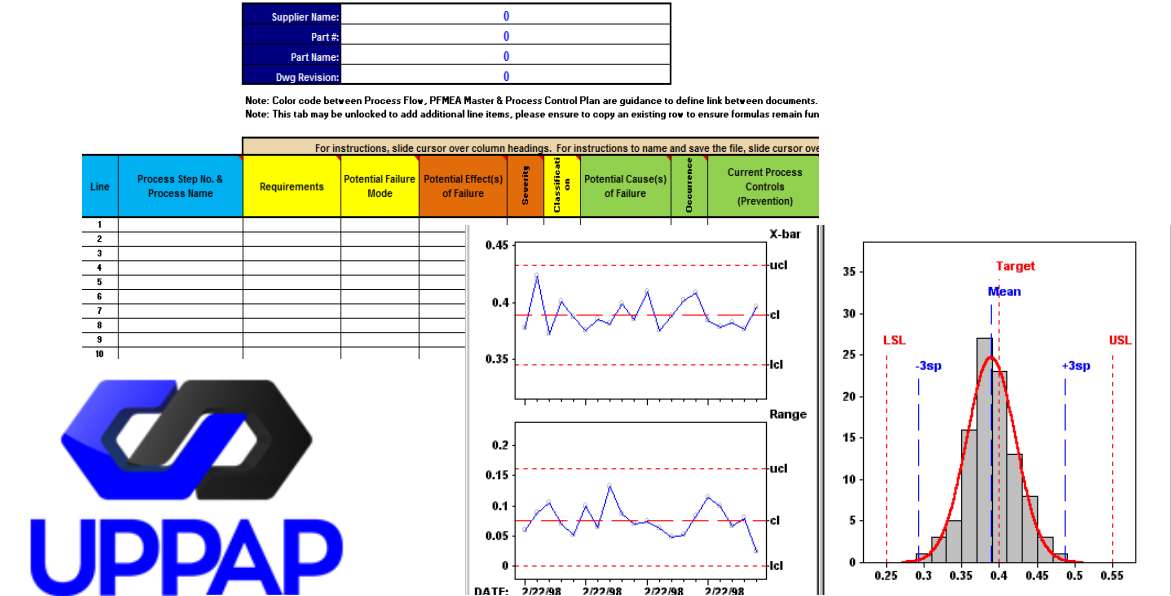
Mitigation requires multiple touch points

Leading Indicators

		FORECAST ACCURACY	TOOLING	UPPAP	INPUTS	Productivity	BUILD AHEAD	OVERDUE DELIVERY	PRODUCTIVITY	
Program	Part Name	52 Week Frozen	Approved FAI	UPPAP Interim B	On-Time Starts	WIP/LT	KPC	Buffer QTY	OD	Yields
NEO	Example A	Y	Y	6/1/2016	50%	64%	M1	0	140	60%
NEO	Example B	Y	Y	Complete	90%	80%	M1	16	0	90%+
BA	Example C	Y	Y	Complete	70%	72%	N/A	20	210	75%
MRJ	Example D	Y	N	Complete	100%	100%	M3	15	66	75%
NEO	Example E	Y	N	6/3/2016	60%	70%	M4	0	66	90%+
Military	Example F	Y								

UPPAP / Process Control

Process Failure Mode Effective Analysis



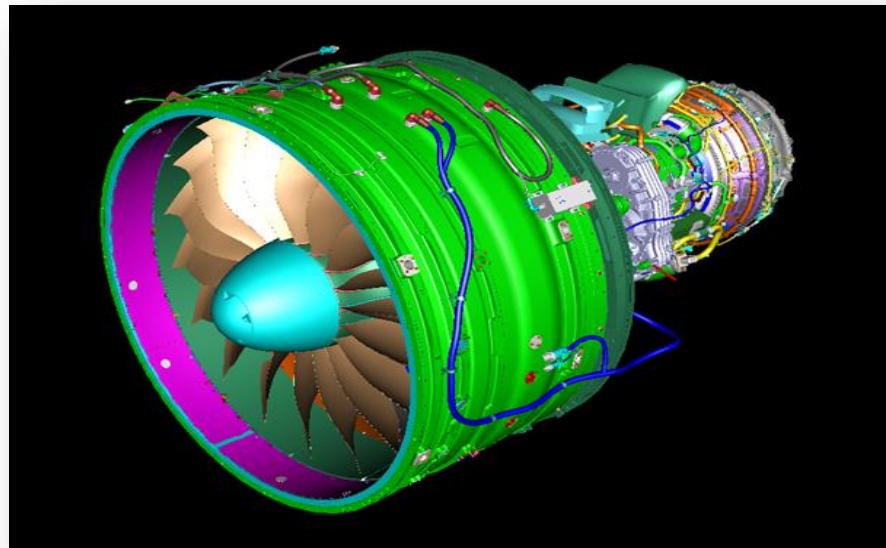
Statistical Process Controls



DIGITAL ENTERPRISE

Visibility and connection end-to-end

As Designed



As Built



As Serviced



Product Design

Demand & Capacity

Supply Planning & Integration

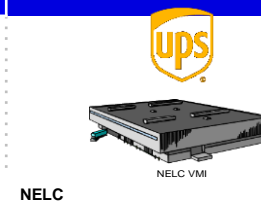
Production Planning & Process Engineering

Production & Process Control

Delivery & Logistics

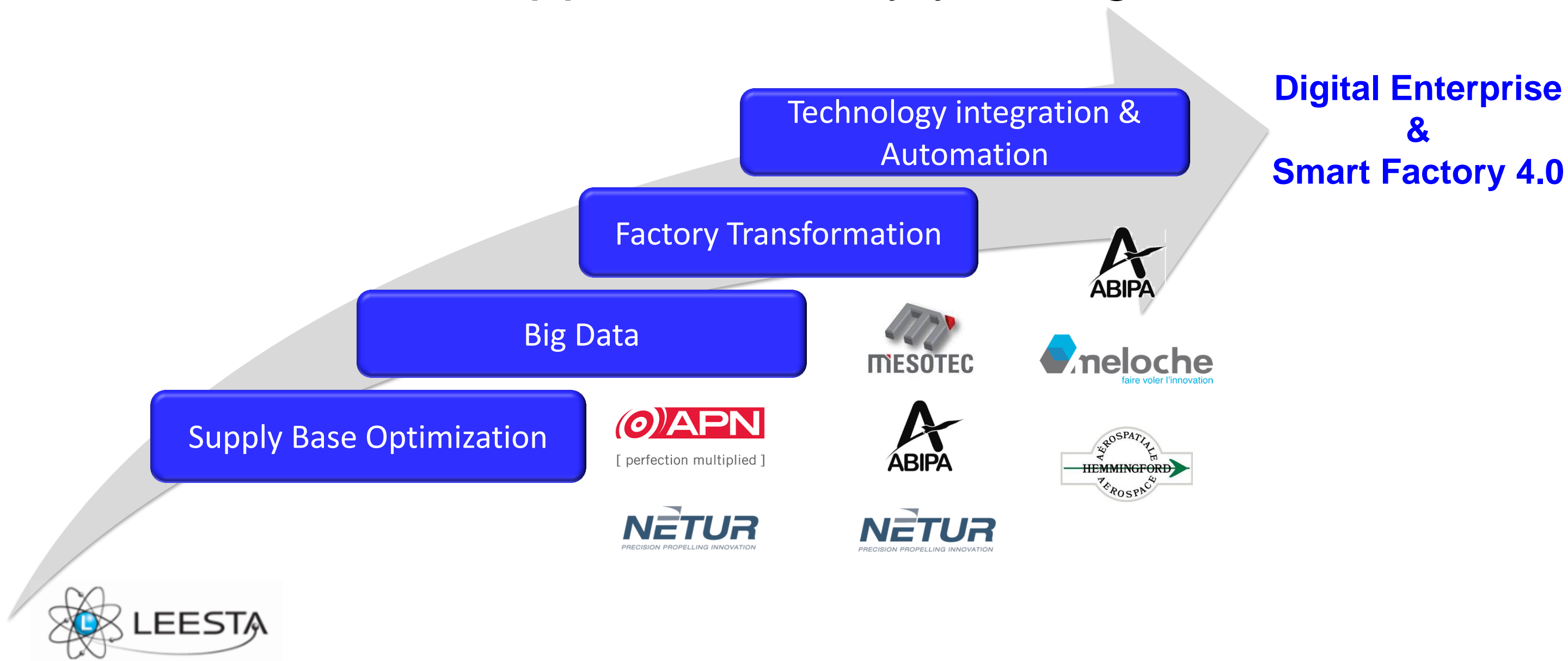
Assembly & Test

Aftermarket



SMART FACTORY 4.0 SUPPLIER JOURNEY

Several Quebec suppliers already yielding the benefits



ACHIEVING A DIGITAL ENTERPRISE

Transformation required to capture opportunity

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