



UTC SUPPLY CHAIN 
OPPORTUNITY
SUPPLYING A BETTER FUTURE, TOGETHER.



2016 UTC Supplier Conference

May 11, 2016



United Technologies

Note: All results and expectations in this presentation reflect continuing operations unless otherwise noted.

Cautionary Statement:

This presentation includes statements that constitute “forward-looking statements” under the securities laws. Forward-looking statements often contain words such as “believe,” “expect,” “expectations,” “plans,” “strategy,” “project,” “prospects,” “estimate,” “target,” “anticipate,” “will,” “should,” “see,” “guidance,” “confident” and similar terms. Forward-looking statements may include, among other things, statements relating to future sales, earnings, cash flow, results of operations, uses of cash, share repurchases and other measures of financial performance or potential future plans, strategies or transactions. All forward-looking statements involve risks, uncertainties and other factors that may cause actual results to differ materially from those expressed or implied in the forward-looking statements. Such risks, uncertainties and other factors include, without limitation: the effect of economic conditions in the industries and markets in which we operate in the U.S. and globally and any changes therein, including financial market conditions, fluctuations in commodity prices, interest rates and foreign currency exchange rates, levels of end market demand in construction and in both the commercial and defense segments of the aerospace industry, levels of air travel, financial condition of commercial airlines, changes in government procurement priorities and funding, the impact of weather conditions and natural disasters and the financial condition of our customers and suppliers; challenges in the development, production, delivery, support, performance and realization of the anticipated benefits of advanced technologies and new products and services; future levels of indebtedness and capital spending and research and development spending; future availability of credit and factors that may affect such availability, including credit market conditions and our capital structure; delays and disruption in delivery of materials and services from suppliers; customer- and company-directed cost reduction efforts and restructuring costs and savings and other consequences thereof; the scope, nature, impact or timing of acquisition and divestiture activity, including among other things integration of acquired businesses into our existing businesses and realization of synergies and opportunities for growth and innovation; new business opportunities; our ability to realize the intended benefits of organizational changes; the anticipated benefits of diversification and balance of operations across product lines, regions and industries; the timing and scope of future repurchases of our common stock; the outcome of legal proceedings, investigations and other contingencies; pension plan assumptions and future contributions; the impact of the negotiation of collective bargaining agreements and labor disputes; the effect of changes in political conditions in the U.S. and other countries in which we operate; and the effect of changes in tax, environmental, regulatory (including among other things import/export) and other laws and regulations in the U.S. and other countries in which we operate. The forward-looking statements speak only as of the date of this presentation and we undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law. Additional information as to factors that may cause actual results to differ materially from those expressed or implied in the forward-looking statements is disclosed from time to time in our reports on Forms 10-K, 10-Q and 8-K filed with or furnished to the SEC from time to time, including, but not limited to, the information included in UTC’s Forms 10-K and 10-Q under the headings “Business,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Legal Proceedings” and in the notes to the financial statements included in UTC’s Forms 10-K and 10-Q.



**United
Technologies**

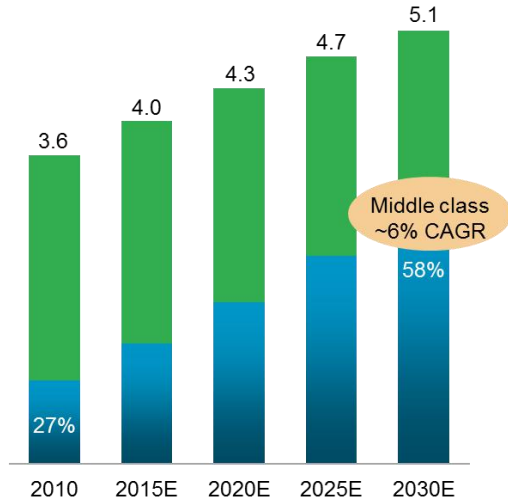
UTC SUPPLY CHAIN 
OPPORTUNITY
SUPPLYING A BETTER FUTURE, TOGETHER.

WELCOME

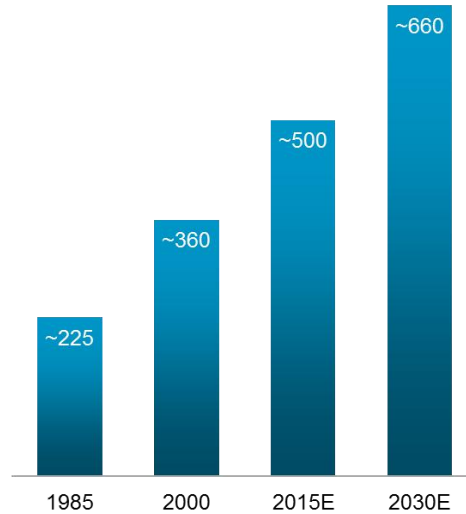
Peter F. Longo, UTC Senior Vice President Operations

POSITIONED FOR GROWTH

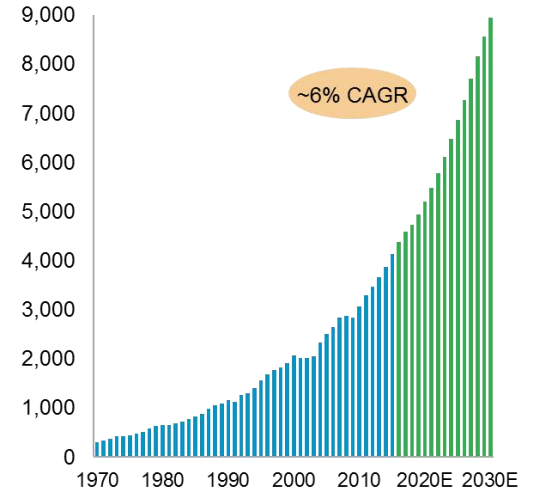
Urban Population (billions)



Mega-cities (population >1 million)



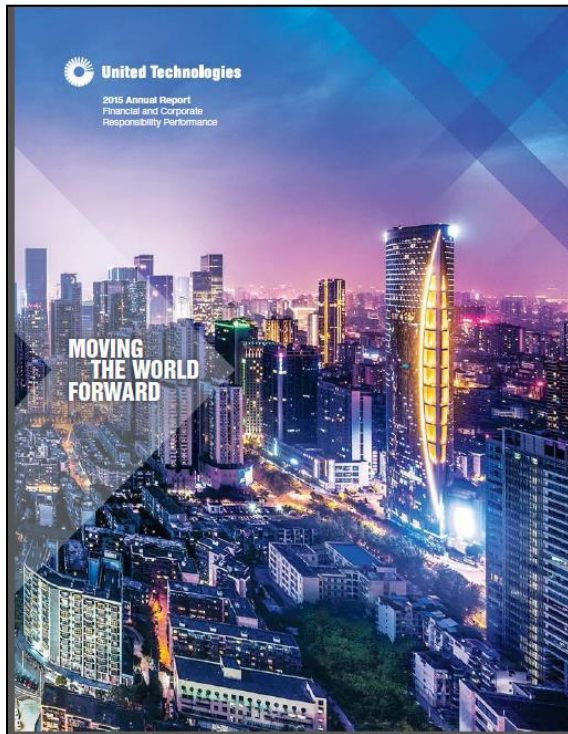
Revenue Passenger Miles (billions)



Powerful mega-trends provide significant growth opportunities for UTC core business segments

2015 ANNUAL REPORT

Consolidated Statement of Operations



Consolidated Statement of Operations			
<i>(All figures in millions, except per share amounts; shares in millions)</i>			
	2015	2014	2013
Net Sales:			
Product sales	\$ 39,801	\$ 41,545	\$ 40,500
Service sales	16,287	16,355	16,100
	56,098	57,900	56,600
Costs and Expenses:			
Cost of products sold	29,771	30,367	30,051
Cost of services sold	10,660	10,531	10,417
Research and development	2,279	2,475	2,342
Selling, general and administrative	5,886	6,172	6,364
	48,596	49,545	49,174
Other (expense) income, net	(211)	938	1,123
Operating profit	7,291	8,663	8,549
Interest expense, net	824	881	695
Income from continuing operations before income taxes	6,467	8,712	7,654
Income tax expense	2,111	2,244	1,976
Net income from continuing operations	4,356	6,468	5,655
Less: Noncontrolling interest in subsidiaries' earnings from continuing operations	360	402	390
Income from continuing operations attributable to common shareowners	3,996	6,066	5,265
Discontinued operations (Note 3):			
Income from operations	252	175	721
Gain (loss) on disposal	6,042	—	(33)
Income tax expense	(2,684)	(20)	(234)
Net income from discontinued operations	3,610	155	454
Less: Noncontrolling interest in subsidiaries' earnings (loss) from discontinued operations	(2)	1	(2)
Income from discontinued operations attributable to common shareowners	3,612	154	456
Net income attributable to common shareowners	\$ 7,608	\$ 6,220	\$ 5,721
Earnings Per Share of Common Stock—Basic:			
Net income from continuing operations attributable to common shareowners	\$ 4.58	\$ 6.75	\$ 5.84
Net income attributable to common shareowners	\$ 8.72	\$ 6.92	\$ 6.35
Earnings Per Share of Common Stock—Diluted:			
Net income from continuing operations attributable to common shareowners	\$ 4.53	\$ 6.65	\$ 5.75
Net income attributable to common shareowners	\$ 8.61	\$ 6.82	\$ 6.25
Dividends Per Share of Common Stock	\$ 2.560	\$ 2.360	\$ 2.195
Weighted average number of shares outstanding:			
Basic shares	872.7	898.3	901.0
Diluted shares	883.2	911.6	915.1

Net Sales
\$56 Billion

Costs & Expenses
\$48 Billion

AGENDA

State of the Business



Dave Gitlin & Bob Leduc

Industry Update



Jeffrey Sprague

Voice of the Customer



Don Mitacek

Sustainability



John Mandyck

Supply Chain



Sarfraz Nawaz & Sam Abdelmalek



Barry Eccleston

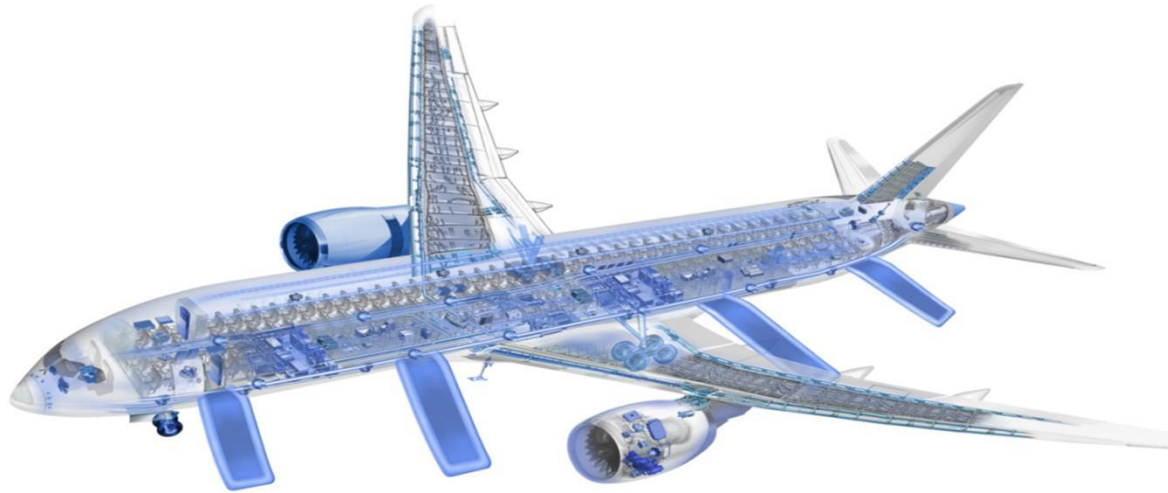


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UTC AEROSPACE SYSTEMS OVERVIEW

David Gitlin, President



Industry-leading portfolio

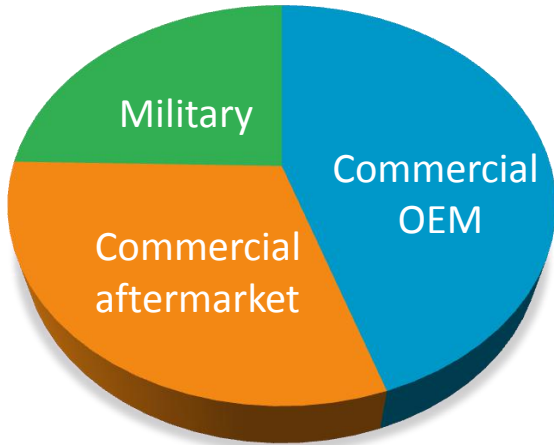
Well-positioned on new platforms

Deep customer relationships

Strategies in place position us
for long-term growth

90 product lines, supporting 1,500 operators on 70,000 aircraft

Sales drivers



2015 sales: \$14.3B*

*Adjusted for restructuring and other significant items. See appendix for reconciliation.

	Driver	Trend
Comm OEM	Large commercial	↑
	Regional	↑
	Bizjet / rotorcraft	→
Comm AM	RPMs	↑
	Fuel prices / airline profitability	↑
	New program EIS	↑
	Surplus availability	→
Military	Military OEM platforms	↑
	ISR	↑
	Defense spending	↑

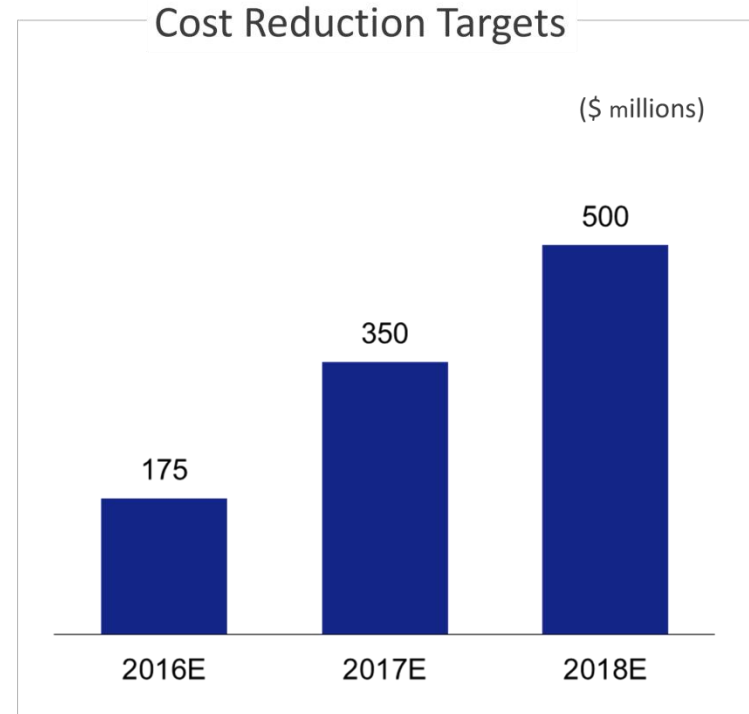
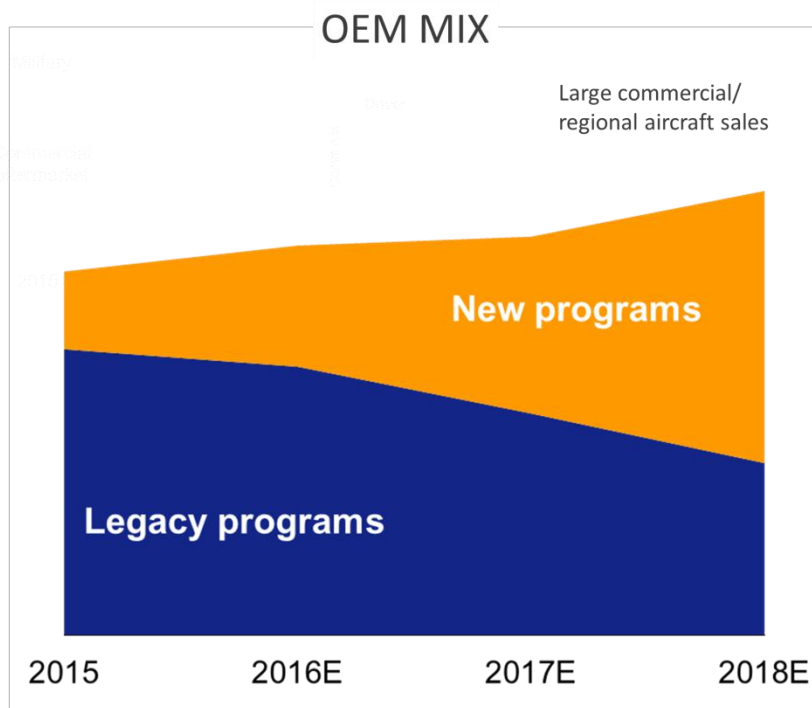
CAGR 2016E – 2020E

Mid to high single digit

Mid single digit

Low single digit

New program introduction



Program execution



A350-1000



B777X



A330neo



787-10



737MAX



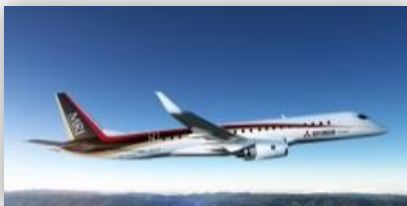
C919



MC-21



CSeries



MRJ



G500/600



KC-390



KC-46A

Growth

Platforms

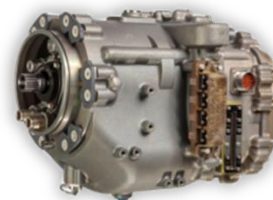


\$240B+ expected life of program sales

Technology Advancements



Advanced nacelle



Variable-speed
constant frequency generator

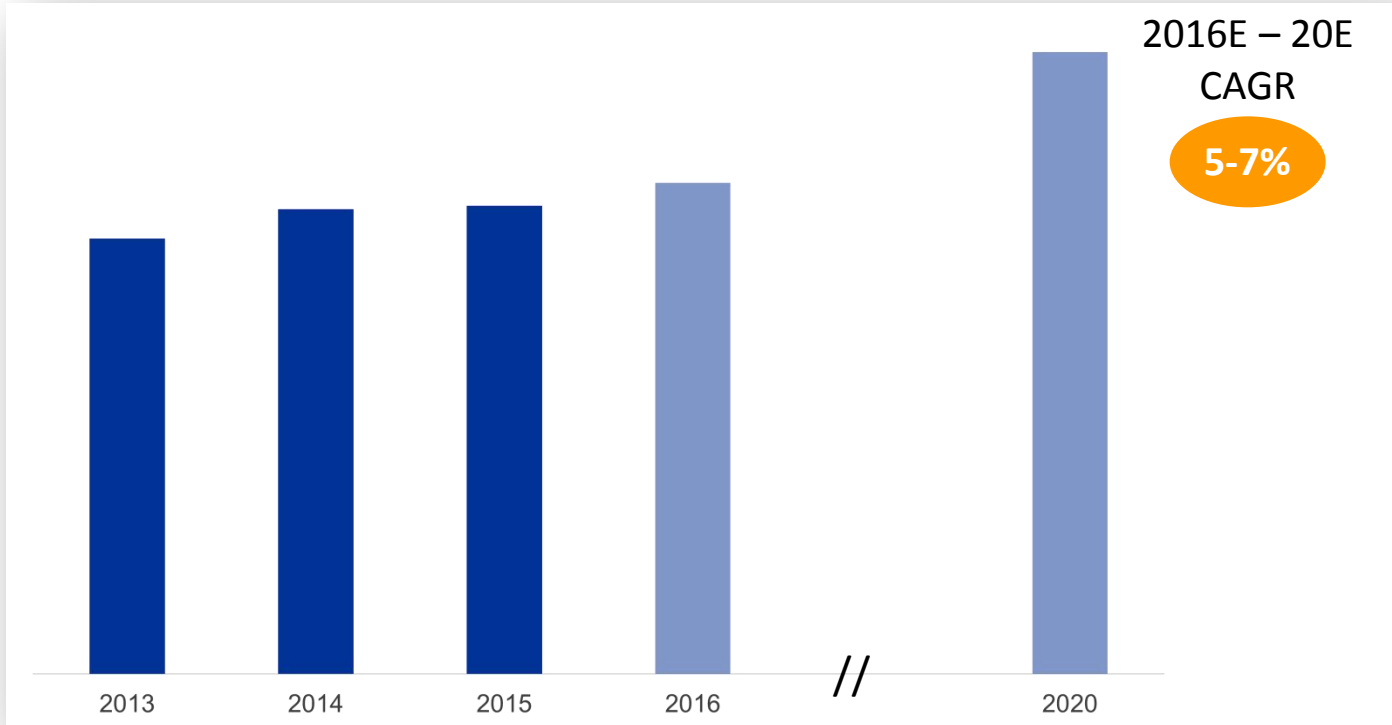
Growth



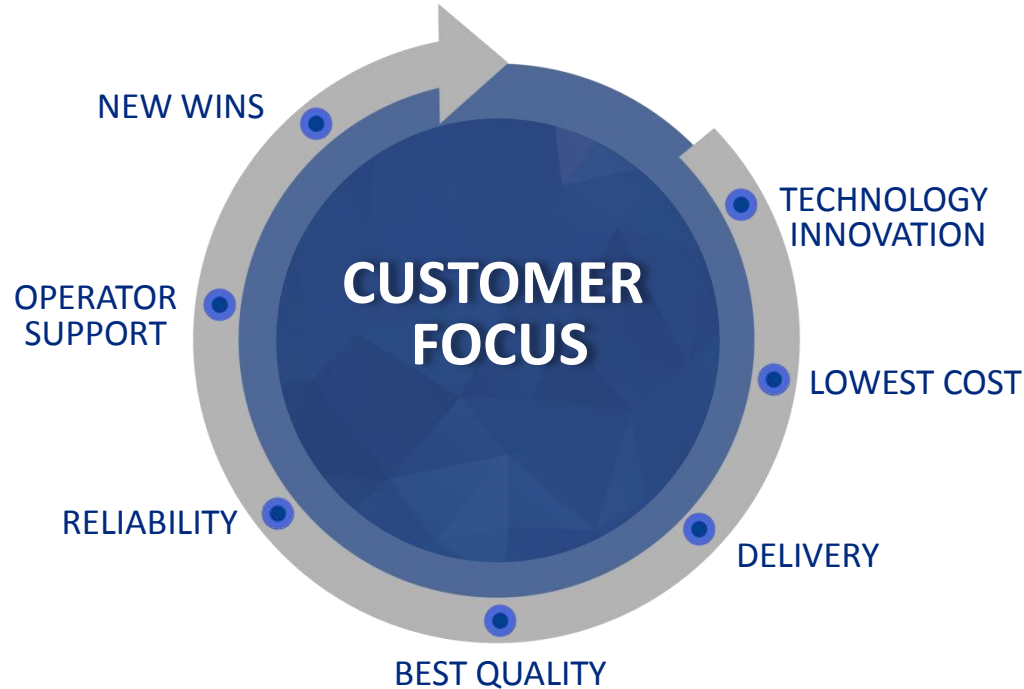
Continued focus on expanding aerospace systems offerings

2020 financial outlook

(sales, \$ billions)



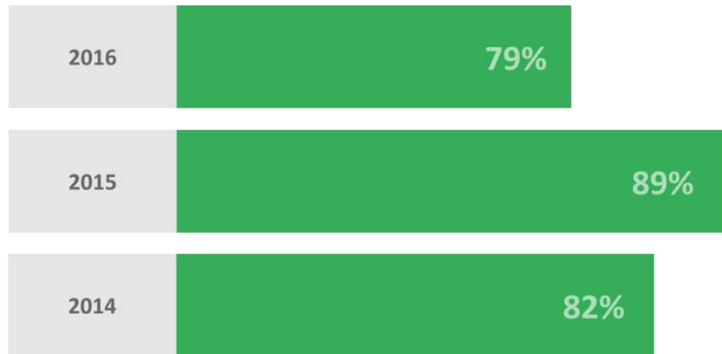
How customers measure us



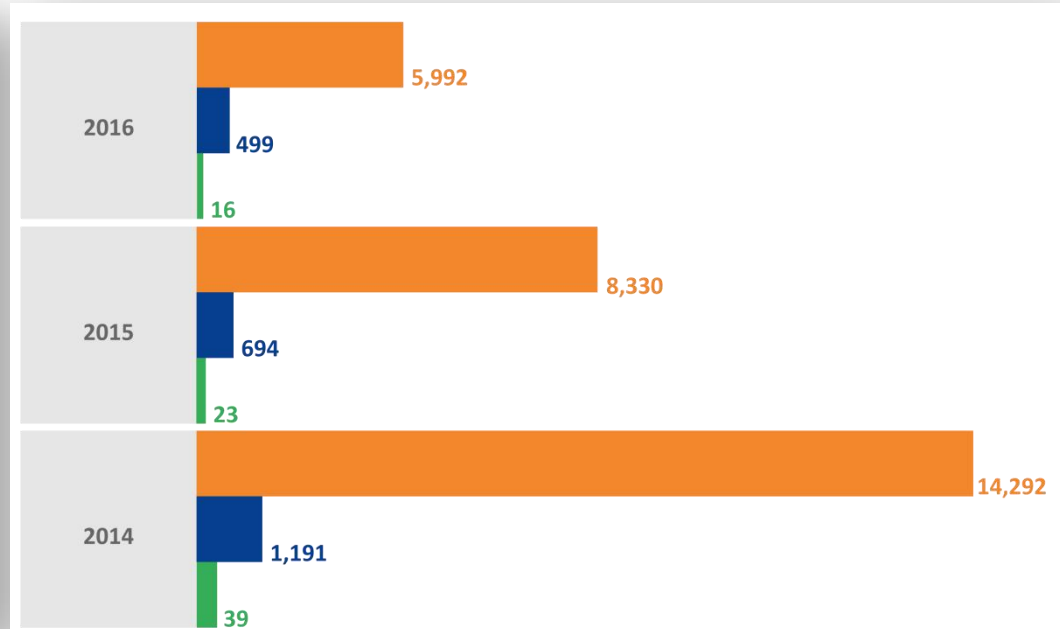
We must be flawless or we're "red."

Performance matters

Supplier On-Time Delivery



Supplier Escapes

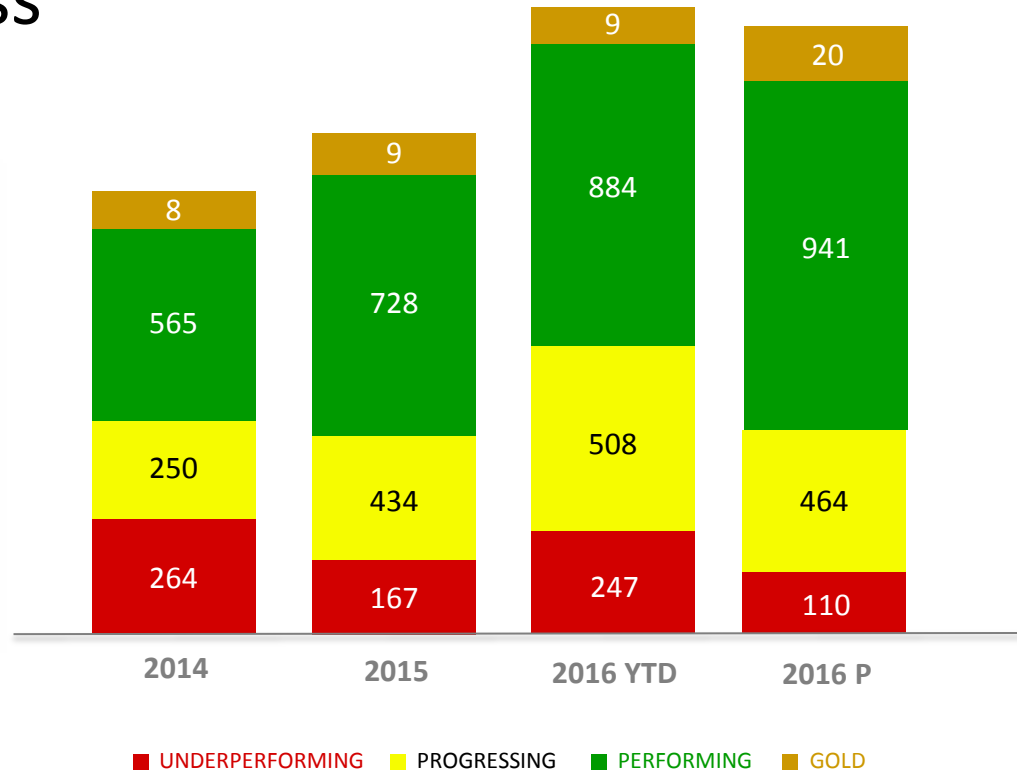


■ ANNUAL ■ MONTH ■ DAY

Supplier gold progress

Underperforming suppliers lose 10% of UTAS's business/year.

Gold suppliers win 14% incremental UTAS business/year.



Key takeaways

1. We're industry leading.
2. We will outgrow a growing market.
3. 70% of our cost is supply chain.
4. We can only perform if you perform.
5. Gold performance leads to new business.



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PRATT & WHITNEY OVERVIEW

Bob Leduc, President

PRATT & WHITNEY

Segments

(2015)

Commercial Engines



Military Engines



Pratt & Whitney Canada



Overall Sales ~\$14B

Total engine shipments ~3,200

Aftermarket Revenue ~\$9.8B

PRATT & WHITNEY

Accomplishments in Last 15 Months

Large Commercial Engines



Pratt & Whitney Canada

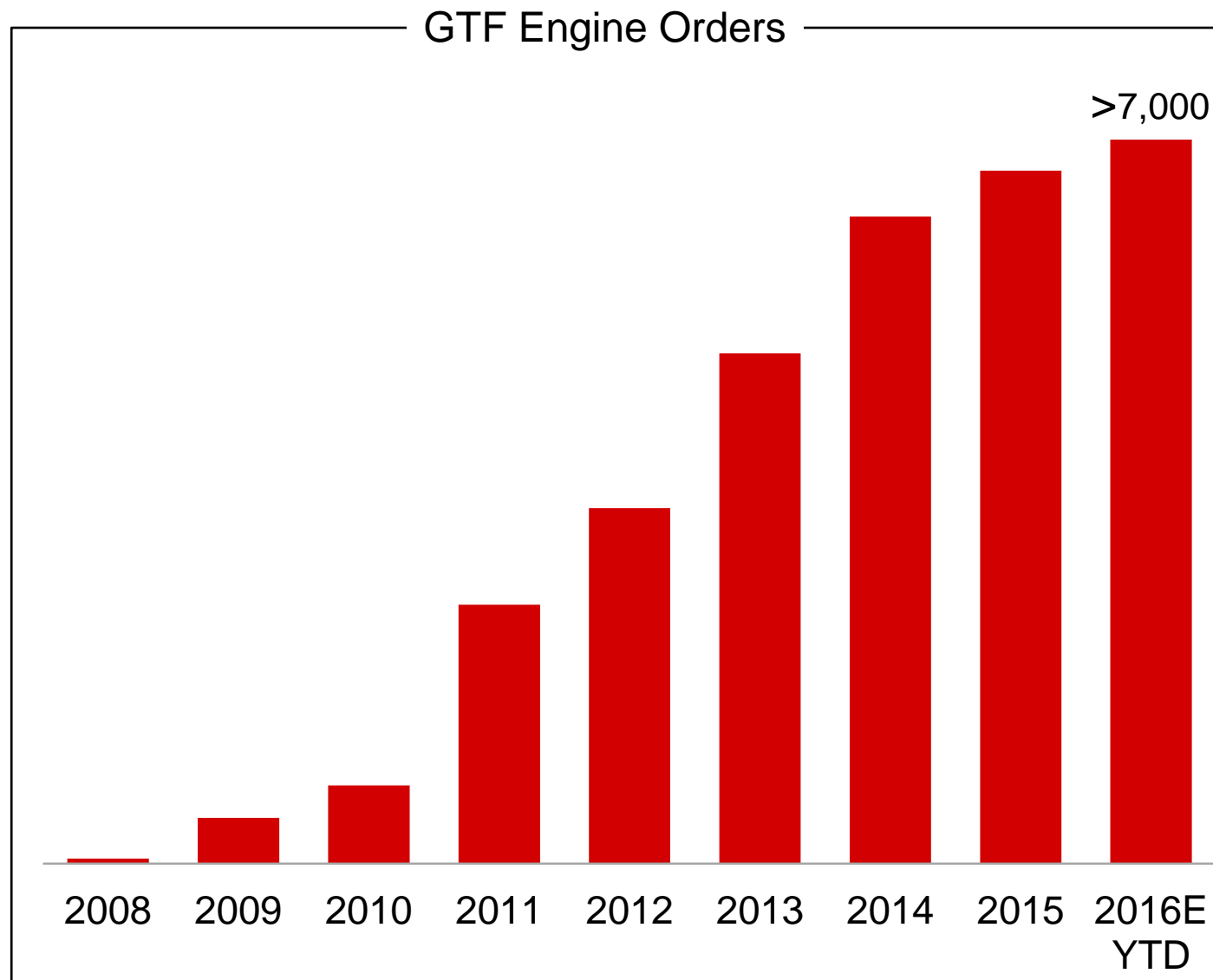


Military Engines



PRATT & WHITNEY

Commercial Engines backlog

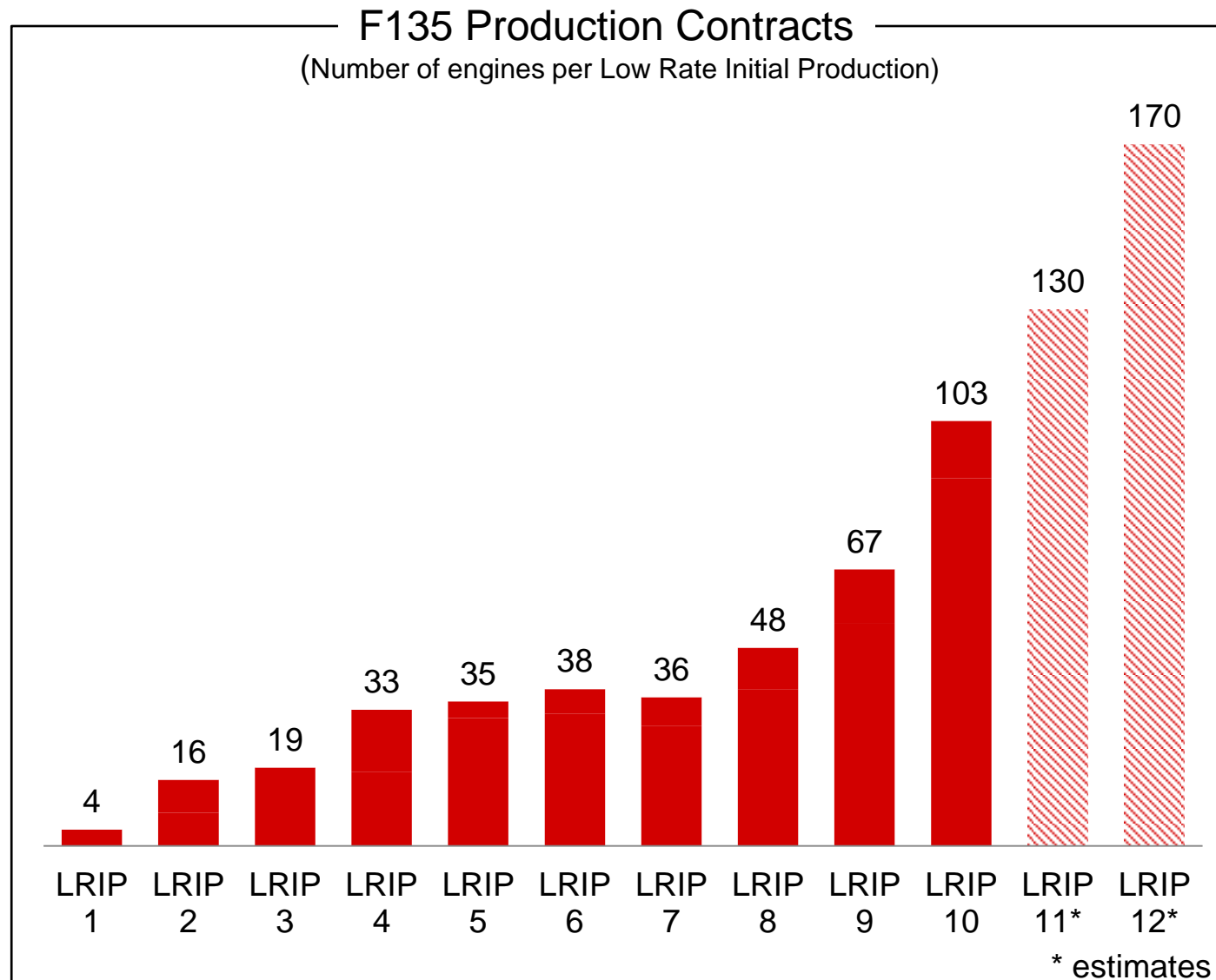


Recently Announced Customers

- DELTA
- AIR CANADA
- vietjet Air
- AIRCASTLE
- Azul Linhas Aéreas Brasileiras
- AIR NEW ZEALAND
- SICHUAN AIRLINES
- Cairo Aviation
- AEROLEASE AVIATION, LLC.
- TURKISH AIRLINES
- SMBC
- KOREAN AIR

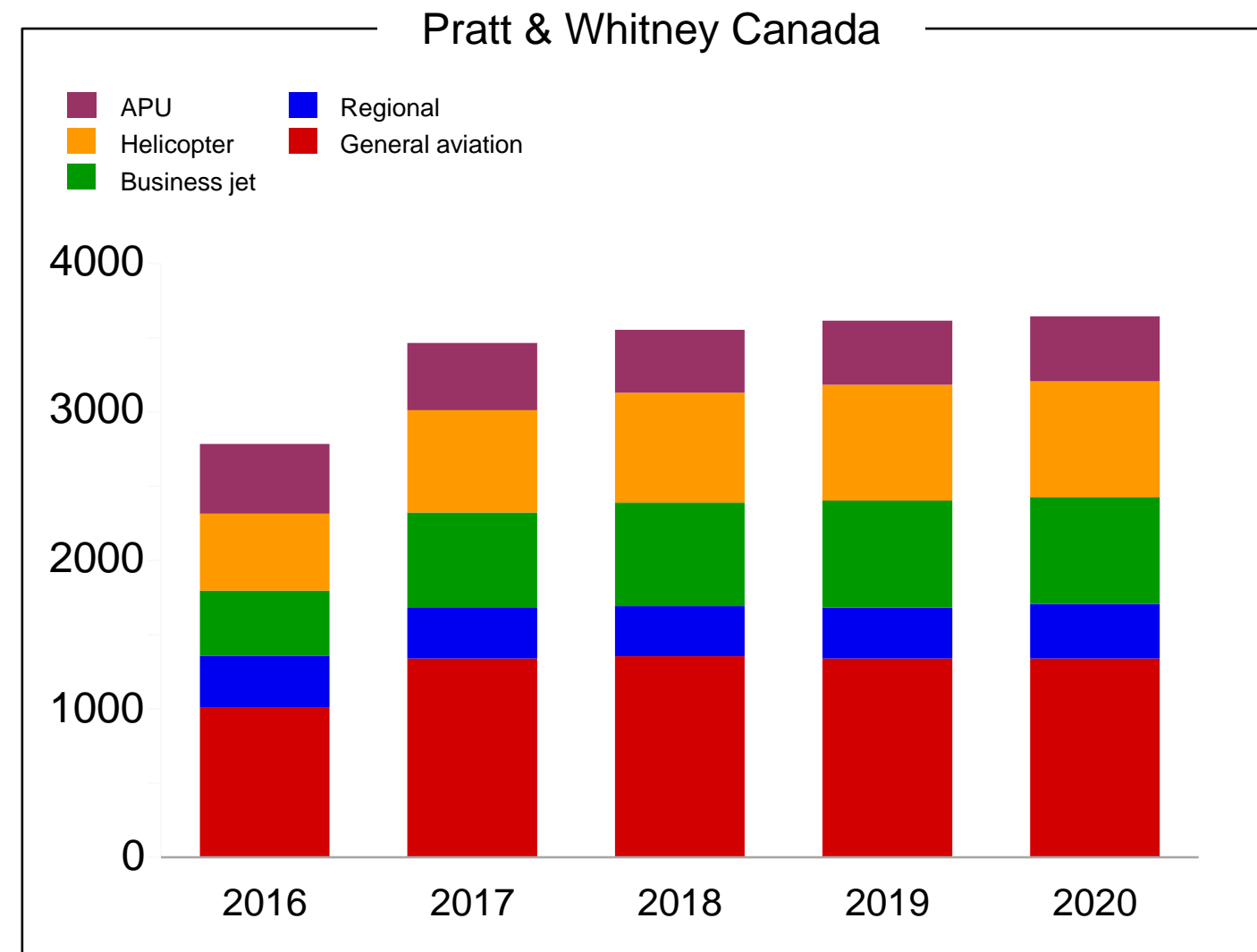
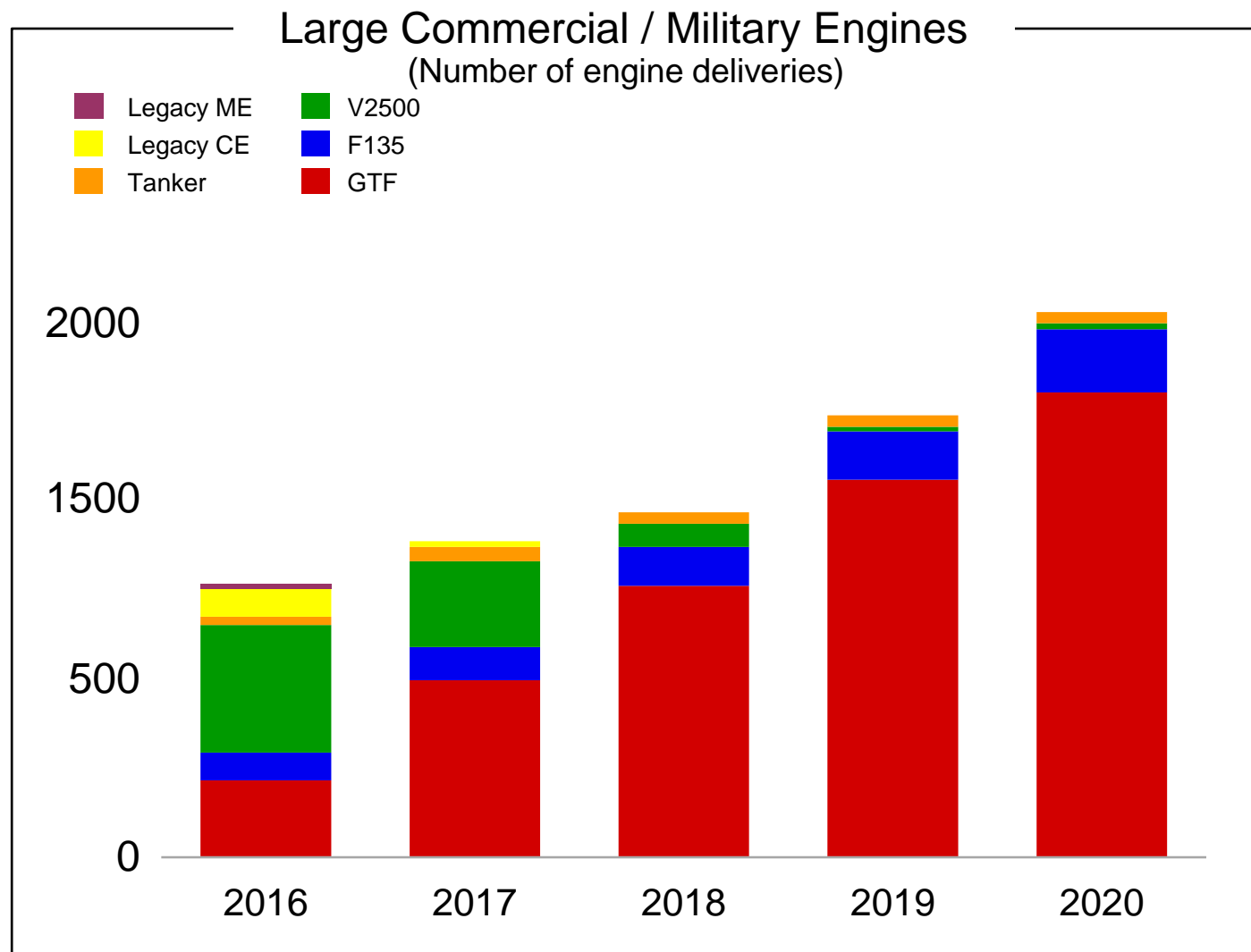
PRATT & WHITNEY

Military Engines backlog



PRATT & WHITNEY

2016 - 2020 Engine Shipments



Total 2020 shipments 5,300

Total 2020 Aftermarket Revenue \$11B

PRATT & WHITNEY

The load is real

How do we succeed?

Together

PRATT & WHITNEY

Responsibilities

Pratt & Whitney

- Stabilize schedule
- Communicate BOM changes well in advance
- Invest in capital
- Resources support

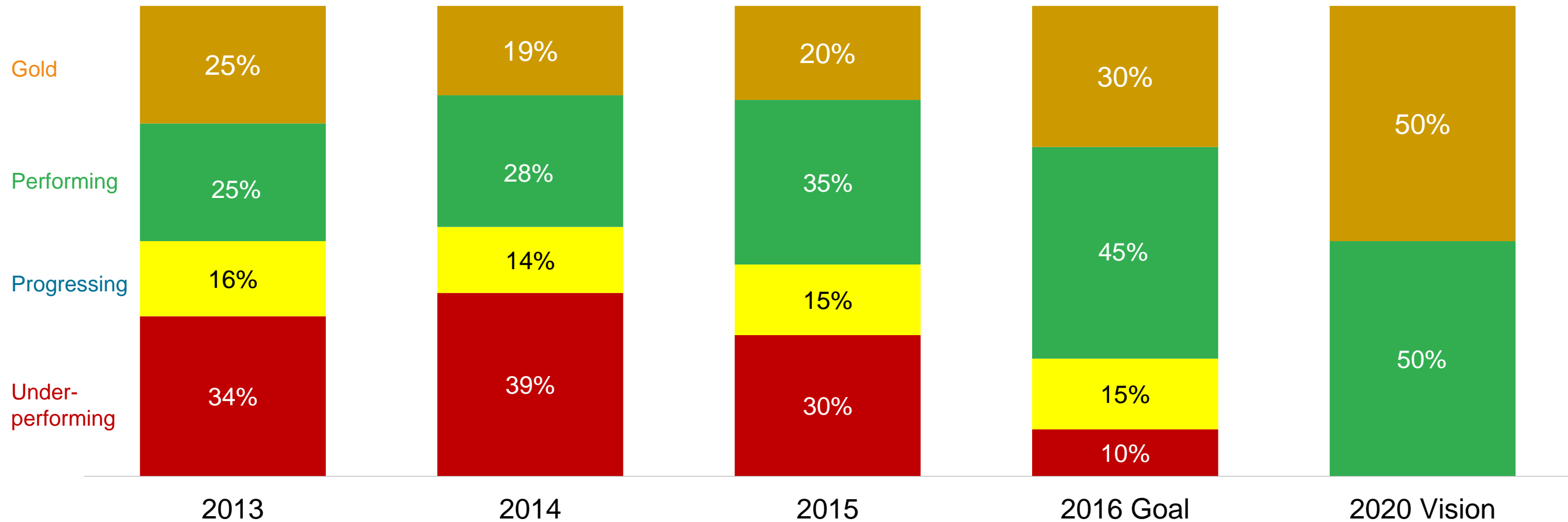
Supplier

- Invest in capacity
- Load commitments into portal
- Achieve at least 98% OTD
- Eliminate quality escapes
- Buffer stock
- Be personally engaged at the senior level

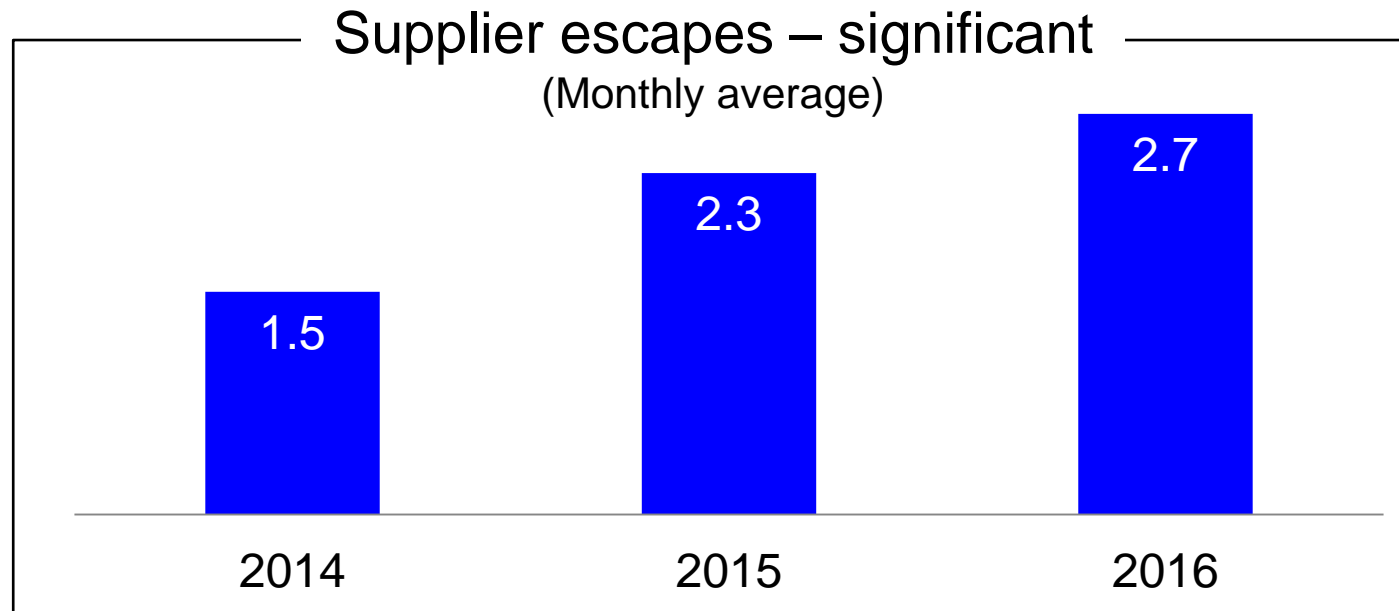
PRATT & WHITNEY

Supplier Gold Progress

(% of spend in program)



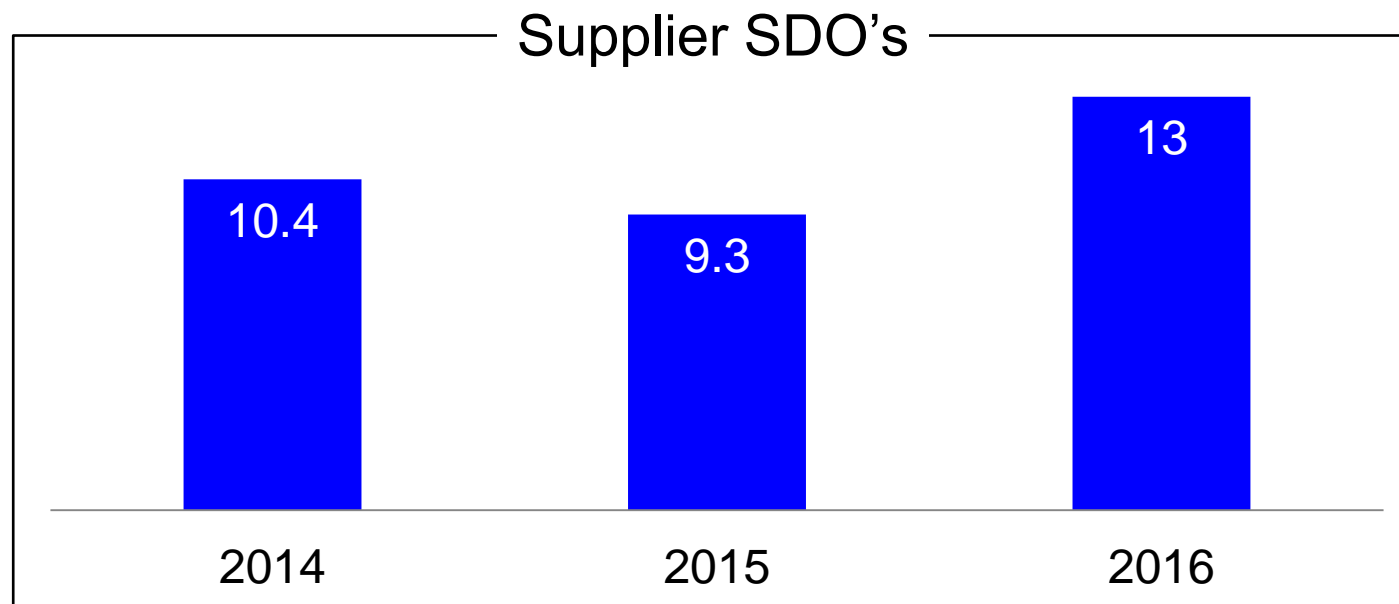
PRATT & WHITNEY



Drivers

Process control

FAI/ Inspections



Actions

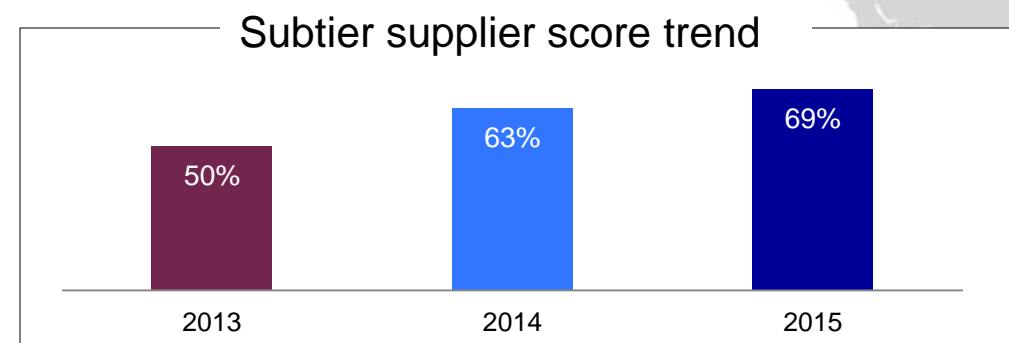
UPPAP

Process certification

Contract and subtier management processes

WORLD CLASS GLOBAL SUPPLY BASE QUALITY

What does it look like?



Delivery > 98%

No Significant Escapes

UPPAP Execution

Process Certification Expertise

Subtier Management

Summary

Once in a lifetime opportunity for us all...



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INDUSTRY OVERVIEW

Jeffrey Sprague, Vertical Research Partners

Running a Reliable, Customer-Focused Airline

Don Mitacek – SVP

Delta Technical Operations

Delta Private Jets

Delta Global Services

Another Record Breaking Year

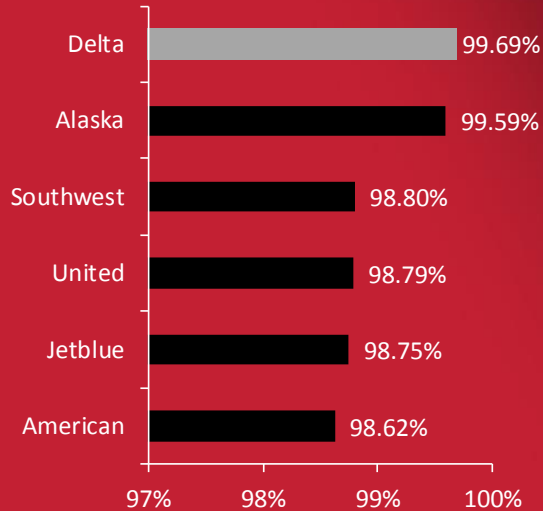
- Safety, Reliability, Customer Satisfaction, Financially
- How did we improve?
- How do we continue to improve?
- How do we work with our key partners?



Operations

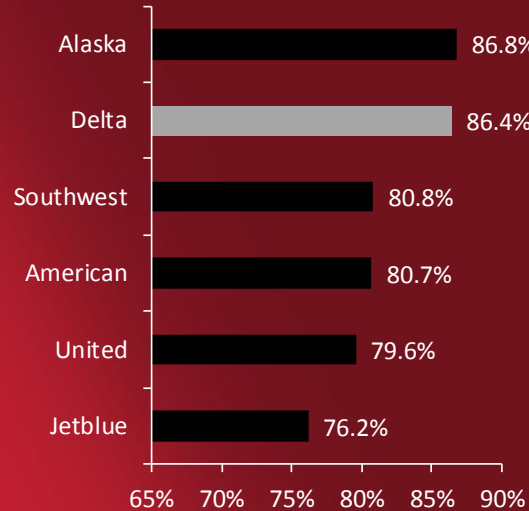
Top of Industry Operational Performance

DOT Completion Factor*



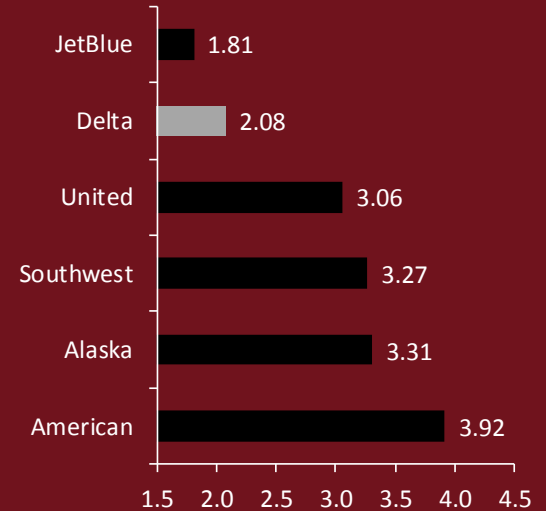
Delta #1
10 of 12 months

DOT On-Time*



Delta #1
4 of 12 months

DOT Baggage**



Delta #1
2 of 12 months

*Last twelve months through February 2016

**Last twelve months through January 2016

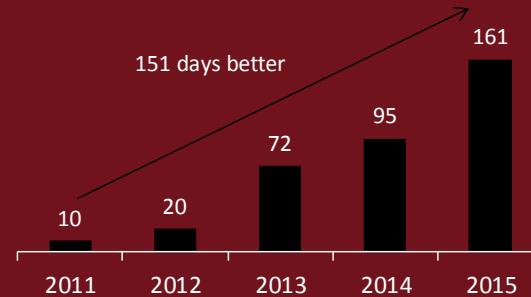
Operations

Core Reliability Performance

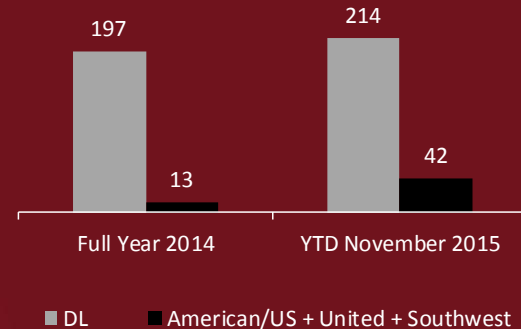
System Performance

- Strong maintenance reliability
- 69% increase in number of mainline 100% CF days vs 2014
- 214 100% domestic mainline CF days
- Delta significantly better than all other network carriers combined

System 100% CF Days



Domestic 100% CF Days



Operations

Core Reliability Performance

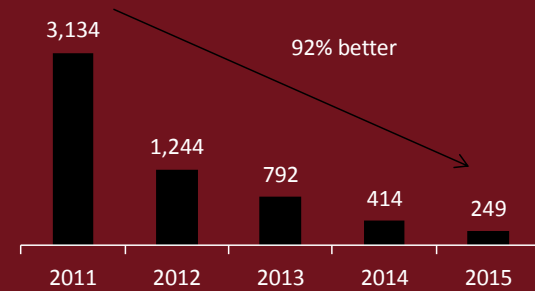
TechOps Initiatives

- Expanded maintenance footprint
- Growing internal maintenance capabilities
- Serviceable levels
- Reliability projects
- Leverage Cargo's improved DASH performance
- Predictive maintenance

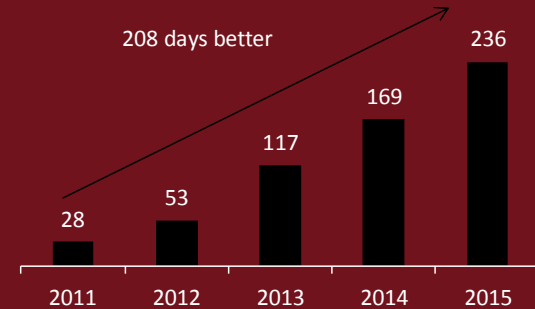
TechOps 2015 Performance

- 40% reduction in cancellations vs 2014
- 7% improvement in maintenance delays vs 2014

Maintenance Cancellations



100% Maintenance CF Days



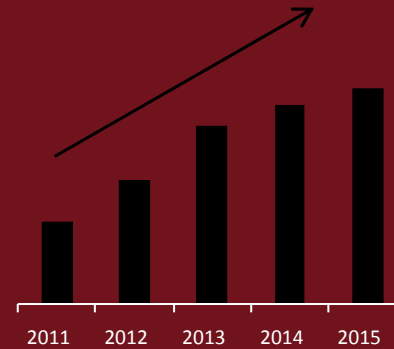
Customer Service

Customer Surveys

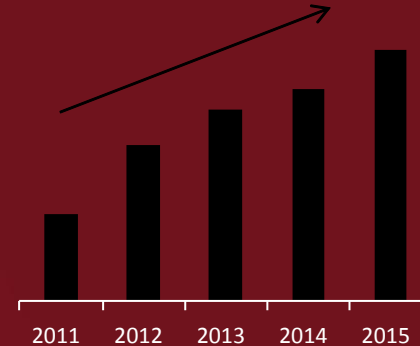
- Driving record performance
- Testing service concepts



Flight Attendant Interaction



Domestic NPS



It's Not Luck

Process

- TechOps – TOC
- Baggage
- ATL kitchen
- Aircraft turns

Technology

- Mobile
- Applications
- RFID
- Wearables
- Predictive Maintenance
- Reliability
- Security
- Georgia Tech Innovation Center

Infrastructure

- Airports
- Bag systems
- De-icing
- Flight simulations
- TOC capacity

Execution

- EIG
- MBOs / MPRs
- Data analytics
- Reports / alerts
- Continuous improvement
- Change management

Most Importantly - Our People

People

How Do We Know

- Servant Leadership
- Culture
- Values
- Incentives

Survey Scores:

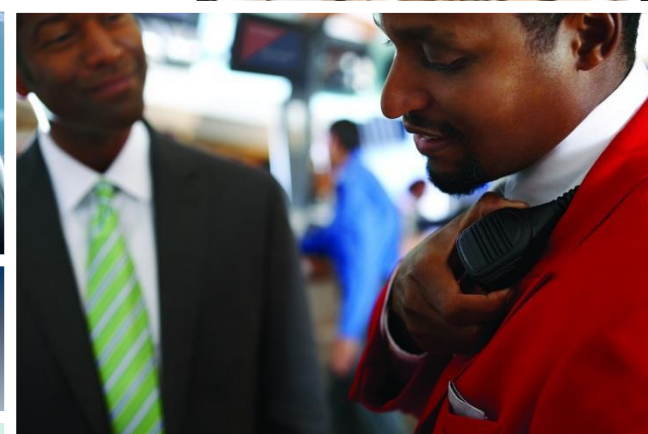
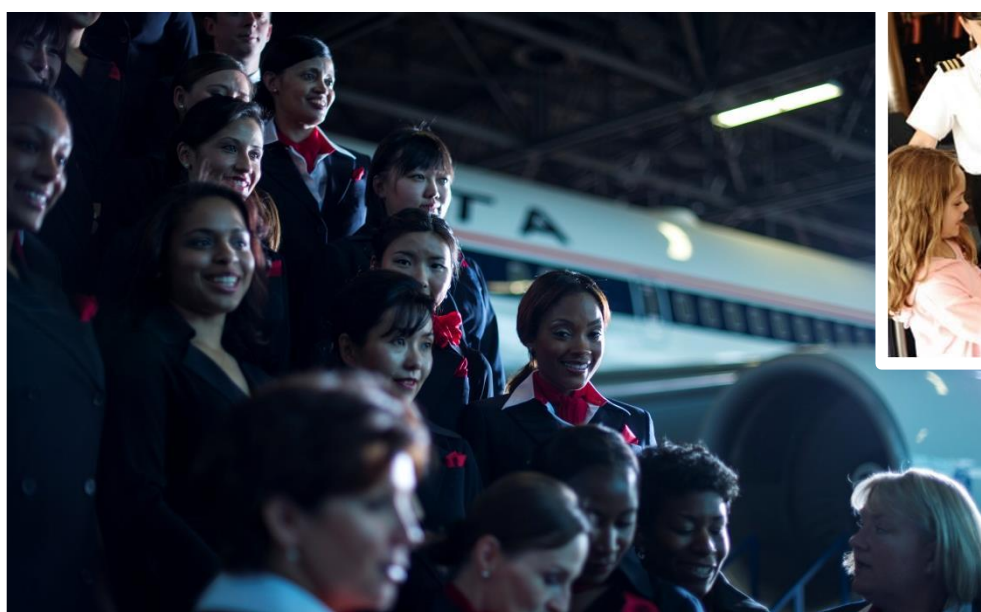
- I understand how my daily work impacts Delta's overall goals – 4.53
- How likely are you to refer a family member, friend, etc.. to Delta - 4.50
- I am proud to tell others I work for Delta - 4.47
- I feel Delta creates the direction and sets the pace for the industry - 4.34
- Overall, I feel Delta is a great place to work - 4.46

Partnering With Our Suppliers

Partnership

- Not all suppliers are created equally
- Price is not value
- Win/Win or go home...
- Objectives, goals and measurement
- Partnership is not an empty word





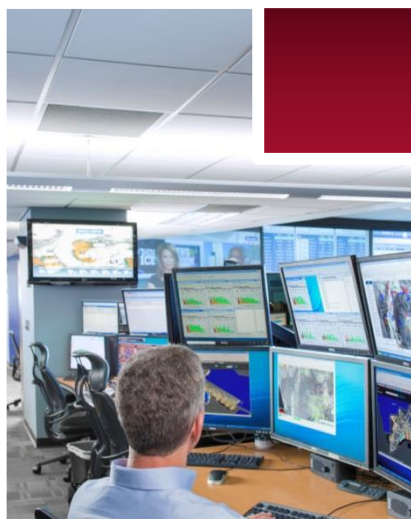
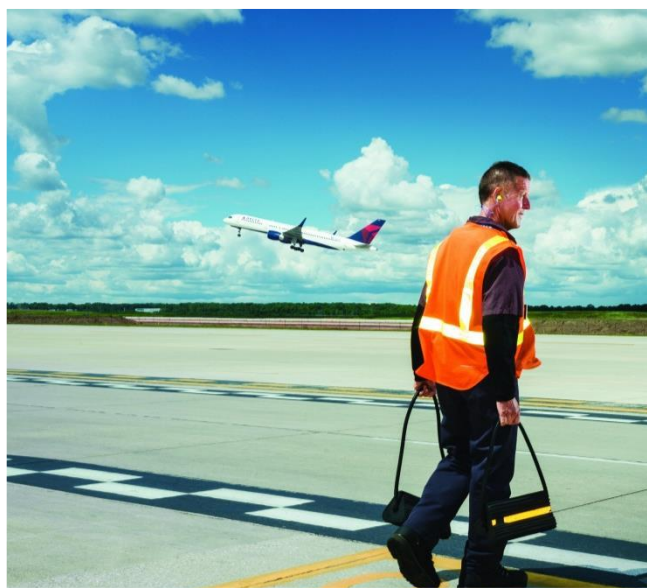
THOUGHTFUL





INNOVATIVE

RELIABLE



Running a Reliable, Customer-Focused Airline

Thanks!



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OPPORTUNITY
SUPPLYING A BETTER FUTURE, TOGETHER.

SUSTAINABILITY

John Mandyck, UTC Chief Sustainability Officer

natural leadership

SUSTAINABILITY AT UNITED TECHNOLOGIES



John Mandycyk
UTC Chief Sustainability Officer



This presentation contains no technical data



Sustainability at UTC means we can do good for the planet while doing good for our customers, shareholders, employees and communities.



Minimize environmental footprint



Maximize environmental technologies



Engage customers



Promote thought leadership

SINCE 1997,
UNITED TECHNOLOGIES HAS
TRIPLED
THE SIZE OF OUR BUSINESS

WHILE REDUCING OUR



GREENHOUSE GAS
EMISSIONS BY
34%



WATER
CONSUMPTION BY
57%



2020 SUSTAINABILITY GOALS

MOVING THE WORLD FORWARD



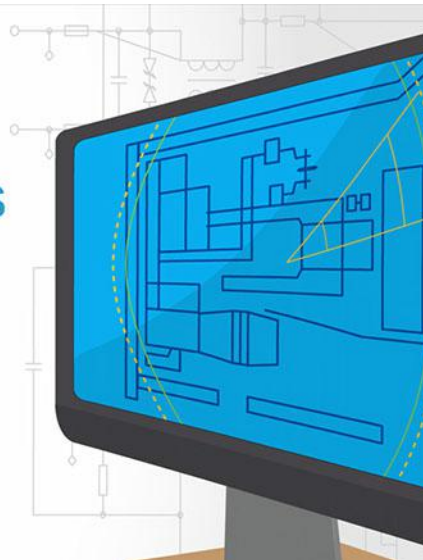
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ENGINEERING GOALS

Implement **Design for Sustainability** during the development cycle of new products

Implement **Life-Cycle Analysis** during the development cycle of new products



SUPPLY CHAIN GOALS

- | | | | |
|--|---|---|--|
| <input checked="" type="checkbox"/>
CODE OF CONDUCT | <input checked="" type="checkbox"/>
CONTINUOUS IMPROVEMENT | <input checked="" type="checkbox"/>
WORKPLACE MANAGEMENT | <input checked="" type="checkbox"/>
LOW INCIDENT RATE |
| <input checked="" type="checkbox"/>
ROOT CAUSE ANALYSIS | <input checked="" type="checkbox"/>
ENERGY IMPROVEMENTS | <input checked="" type="checkbox"/>
ENVIRONMENT, HEALTH & SAFETY GOALS | <input checked="" type="checkbox"/>
WORKPLACE SAFETY |
| <input checked="" type="checkbox"/>
WATER IMPROVEMENTS | <input checked="" type="checkbox"/>
EXECUTIVE COMPENSATION | <input checked="" type="checkbox"/>
RECYCLING IMPROVEMENT | |

11

INCENTIVIZING KEY SUPPLIERS TO IMPLEMENT
SPECIFIC
SUSTAINABILITY MEASURES



UTC Supplier Gold
The way forward

MAXIMIZE ENVIRONMENTAL TECHNOLOGIES

Sustainable Solutions





ENGAGE CUSTOMERS

GLOBAL SUSTAINABLE AVIATION FORUM 2016

distinguished sustainability lecture series

world cold chain summit to reduce food waste

A collage of three circular images showing people at various events. The top circle shows an airplane flying over a sunset. The bottom-left circle shows a group of people seated at a round table in a meeting. The bottom-right circle shows a large audience seated in a conference hall. Text elements include 'ENGAGE CUSTOMERS', 'GLOBAL SUSTAINABLE AVIATION FORUM 2016', 'distinguished sustainability lecture series', and 'world cold chain summit to reduce food waste'.

THOUGHT LEADERSHIP

ACCELERATING GREEN BUILDINGS

SECURING THE FUTURE OF FOOD

GREEN AVIATION STARTS HERE

United Technologies

United Technologies

United Technologies

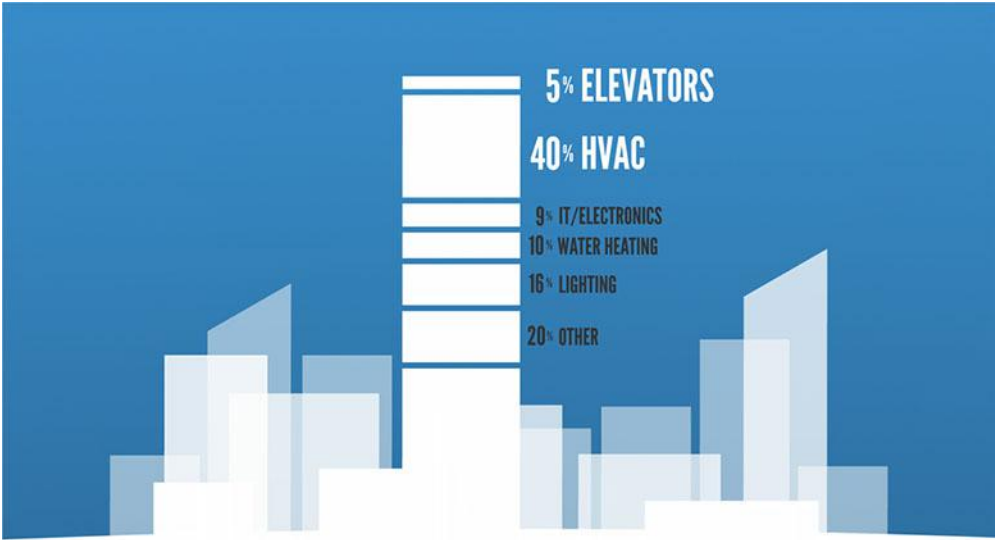
Three circular icons are arranged horizontally. The first icon shows a stylized building and is labeled 'ACCELERATING GREEN BUILDINGS'. The second icon shows a truck and a field and is labeled 'SECURING THE FUTURE OF FOOD'. The third icon shows an airplane and is labeled 'GREEN AVIATION STARTS HERE'. Below each icon is the United Technologies logo.





ACCELERATING
GREEN BUILDINGS

 United Technologies



THE IMPACT OF GREEN BUILDINGS ON COGNITIVE FUNCTION

Environmental Health Perspectives
A Division of the American Chemical Society
11 Dupont Circle, N.W., Washington, D.C. 20036
www.ehponline.org

THECOGFXSTUDY.COM
#THECOGFXSTUDY

CONVENTIONAL

INDOOR ENVIRONMENTAL QUALITY CONDITIONS

- Carbon dioxide levels at **950** parts per million
- Ventilation rates at **20** cubic feet per minute of outdoor air per person
- Indoor total volatile organic compounds **BETWEEN 500-700** micrograms/cubic meter

ENHANCED GREEN

INDOOR ENVIRONMENTAL QUALITY CONDITIONS

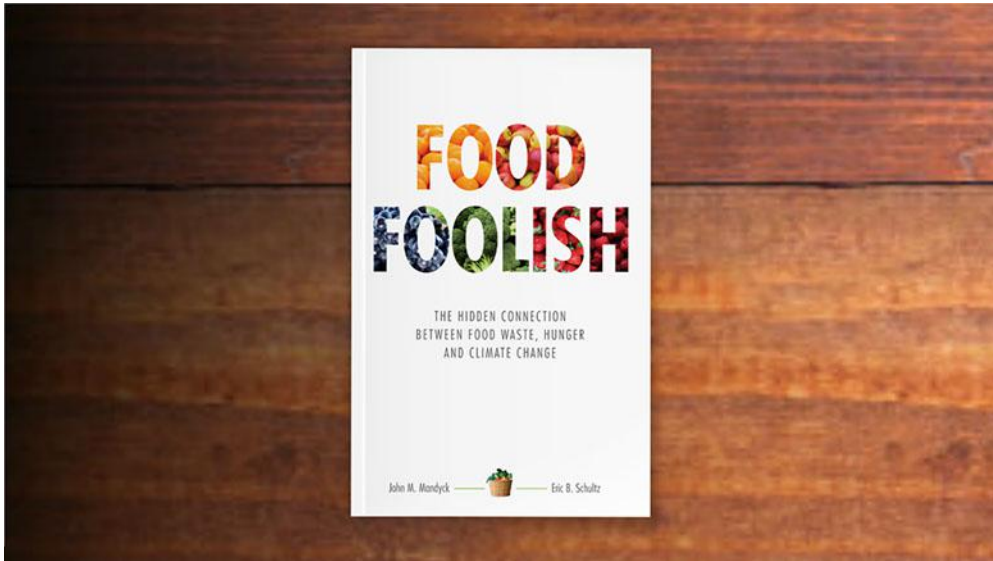
- Carbon dioxide levels at **600** parts per million
- Ventilation rates at **40** cubic feet per minute of outdoor air per person
- Indoor total volatile organic compounds **LESS THAN 50** micrograms/cubic meter

COGNITIVE FUNCTION	ENHANCED GREEN COGNITIVE SCORE PERCENT CHANGE <small>as Compared with Conventional</small>
INFORMATION USAGE	299%
STRATEGY	288%
CRISIS RESPONSE	131%
FOCUSED ACTIVITY LEVEL	48%
BREADTH OF APPROACH	47%
APPLIED ACTIVITY LEVEL	36%
BASIC ACTIVITY LEVEL	36%
TASK ORIENTATION	15%
INFORMATION SEEKING	11%

SECURING THE FUTURE OF FOOD

United Technologies





manufacturing



technologies



products

Pratt & Whitney
A United Technologies Company

PurePower[®] geared turbofan engine

- IMPROVES FUEL BURN BY **16%**
- REDUCES NOx EMISSIONS BY **50%**
- 75%** REDUCTION IN NOISE FOOTPRINT

- improve aviation
- improve buildings
- improve efficiency
- improve refrigeration

- [@JohnMandyck](#)
- [@UTC](#)
- [SustainabilityView.com](#)
- [NaturalLeader.com](#)
- [FoodFoolishBook.com](#)
- [YouTube.com/UTCNews](#)




**United
Technologies**

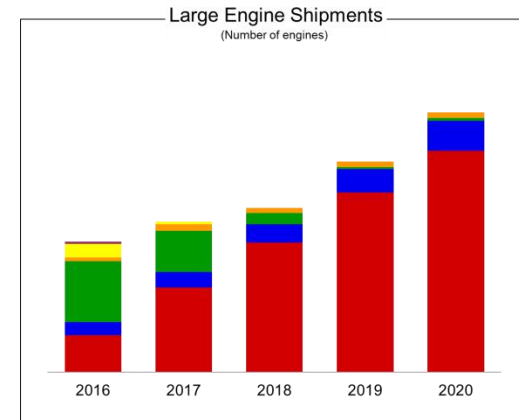
UTC SUPPLY CHAIN 
OPPORTUNITY
SUPPLYING A BETTER FUTURE, TOGETHER.

PRATT & WHITNEY GLOBAL SUPPLY CHAIN

Sam Abdelmalek, Vice President, Global Supply Chain

EXCITING OPPORTUNITIES & CHALLENGES

 A United Technologies Company	2016F	2020P
Sales	\$15B	\$22B
Installed engines	>70K	>100K
Annual product spend	\$4B	>\$8B
Annual non-product spend	>\$1.5B	>\$2B
Supplier Gold & Performing	56%*	100%V
NGPF target cost ratio	2x*	<1x

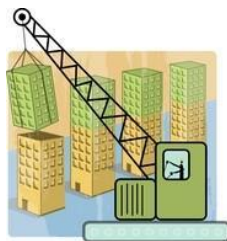


*2016A

ACCOMPLISHMENTS – SUPPLY BASE

Investments

Hundreds of millions in supplier CAPEX



Production Readiness

460 Production readiness assessments



BOOST

100+ Suppliers Events

500 parts on “Boost” validation

Senior management meetings



\$23B in LTAs

>200 deals completed since Jan. 2014



SUPPLIER GOLD – THANK YOU!



P&W ACCOMPLISHMENTS

Supply Chain evolution

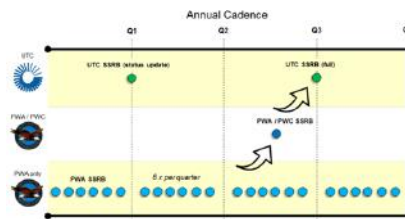


Global investments



Strategic Sourcing Annual Review Boards

15-20 reviews @ P&W,
40 reviews @ UTC



5 Year Vision: Reduce the long tail by 25% by 2017

Opportunities / Challenges	Approach	Risk
Conflict mine: uncertainty	Isolate, identify, mitigate, stock, control	High
Absence of supply risk with XXXX	Dual sourcing, Risk sharing contracts	Medium
Underperforming suppliers	Contract management, leverage sub-off	Low
EE platform sourcing	Volume leverage, OEM aftermarket strategy	Medium
XXX parts within LTA expiry window	Isolate, identify, mitigate, stock, control	High

✔ Issue being addressed by actions underway
⚠ Issue being addressed in this SRB
✘ Parking lot - not being addressed in this SRB

P&W Logistics Center



Go Live – July '15

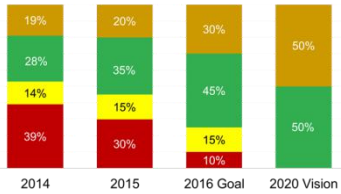


Exceeding Targets –
April '16

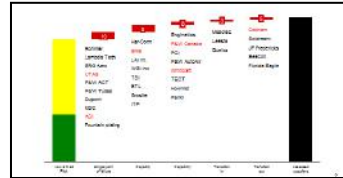
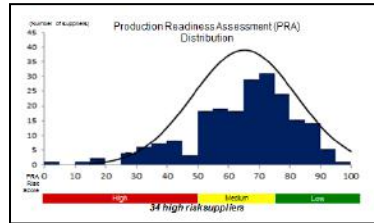


OUR EXPECTATIONS

Supplier Gold & UPPAP



Production Rate Readiness & BOOST

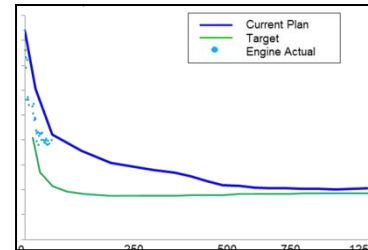


Cost

UTV² Value x Velocity
United Technologies Corporation

UT SMARTChoice
United Technologies Corporation

PW1100G-JM



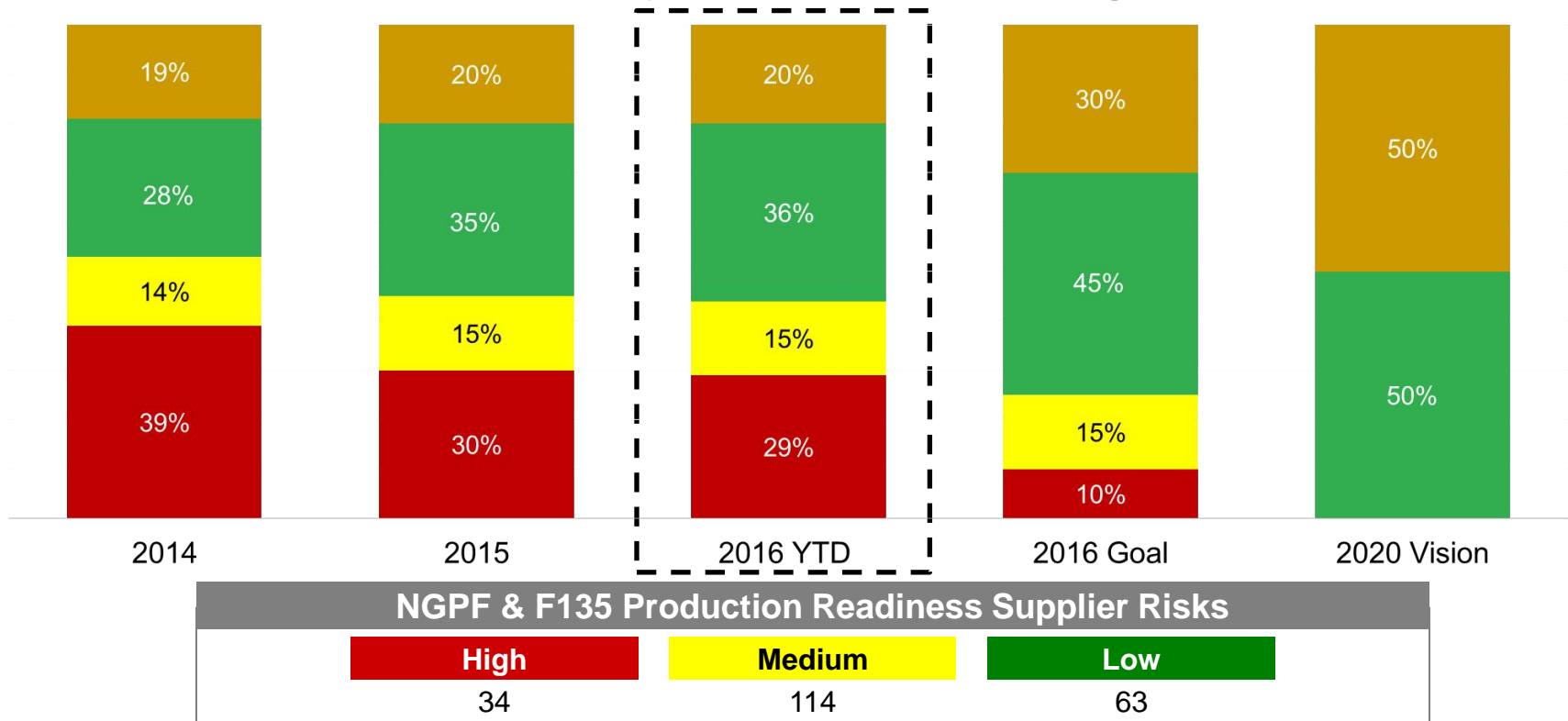
LTAs



P&W SUPPLIER GOLD PERFORMANCE



Pratt & Whitney Supplier Gold Progress



BETTER ORGANIZED TO WORK WITH YOU

Regional Offices

Supplier Development Resources

America: 31



Europe: 9



Asia: 4



Early Alert Risk Management



Canada



USA



Professional Support Network



Supplier Portal



Supplier Network Collaboration



Contract Lifecycle Management (CLM)



UPPAP Management Software



Net Inspect

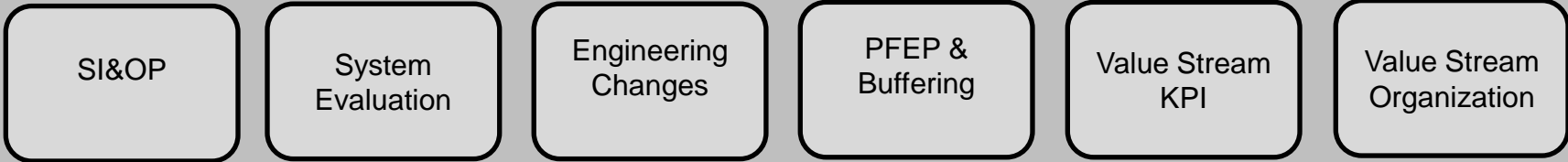


QN Collaboration Hub



MATERIAL MANAGEMENT

Executive Steering Committee
Dedicated project lead and co-lead

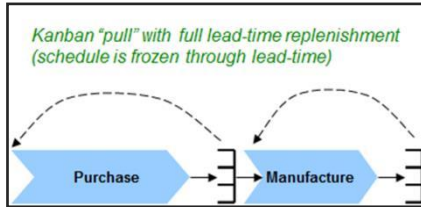


Change management and communication teams

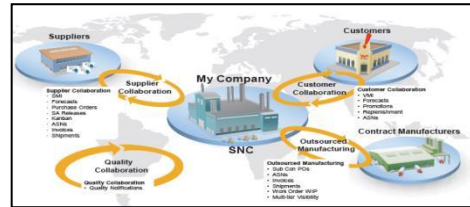
SIOP/Capacity Planning



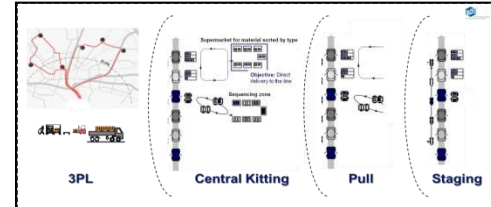
Replenishment Strategies



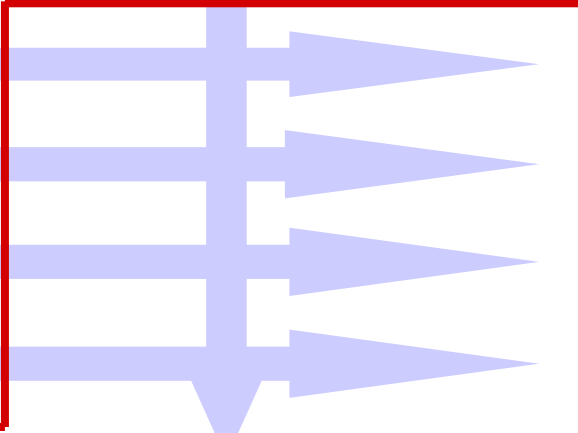
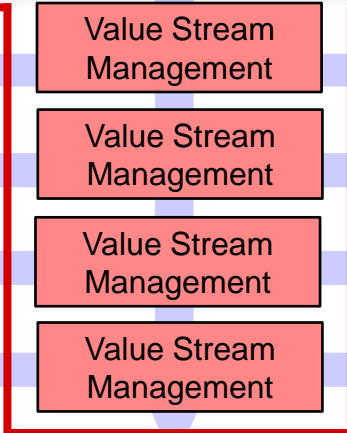
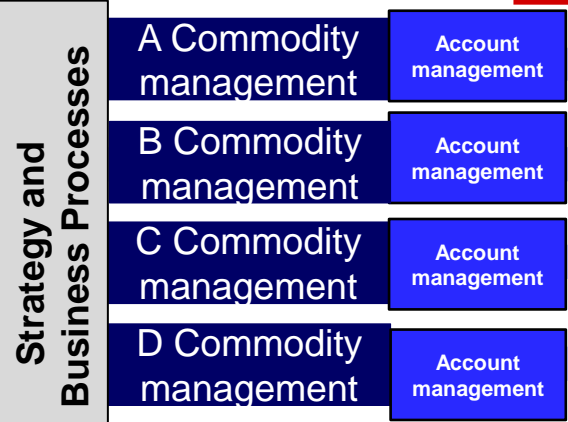
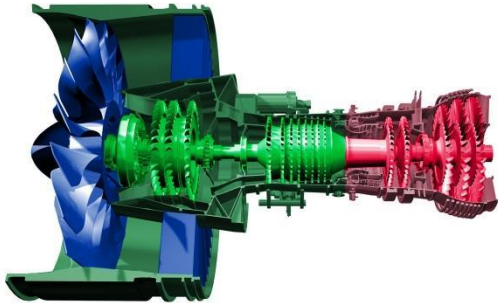
Supply Network Collaboration



Logistics



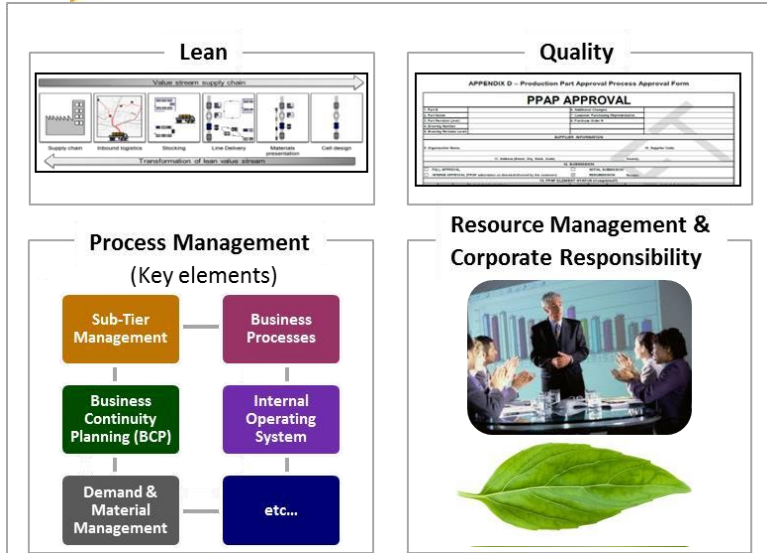
MODULE CENTER EVOLUTION



SUPPLIER HEALTH ASSESSMENT (SHA)



UTC Supplier Gold
The way forward



A More Robust Program

Business Continuity

Process Certification

Sustainability

International Trade Compliance

Sales & Operations Planning

Sub-tier Management



Enabling sustainable performance

WORKING PROACTIVELY

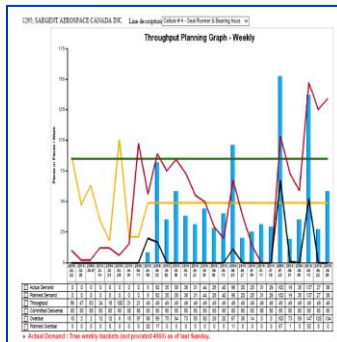
PFMEA

Activity Name	Item / Function/ Input	Type	Potential Failure Mode	Potential Failure Effects	SEV	Potential Causes	OCC	Current Controls	DET	RPN	Team Recommended Actions	Responsibility
Work Start1	blade root length	N	longer distance to upset rivet head	reduced rivet upset head strength		process does not account for blade root 10variation	10none	10	10000		Blade Root cast features and non-conformances are not accounted for in the riveting process. A complete tolerance stack up (Blade, Disk, Rivet) analysis should be conducted for use and understanding in the riveting process as it is re-developed. 1) The work instructions for first and second stage riveting are significantly different in content for what is intended to be a common process. The process sheets should be reviewed for consistency. 2) Locally developed and non-standard process and tools should be removed and abandoned from the work site. 3) Additional operator training necessary.	Rob L
Work Start1	JIS	SOP	process not performed according to JIS	reduced rivet upset head strength	10	lack of operator training inconsistent with work instruction	10	ME	10review	1010000	Work Instructions require load gage correlation at each setup. Variation was observed during set up where the operation was not performed or the load was not uniformly applied. Also, the operator sits on a stool or bench and the pressure gage is much higher than eye level. The operator with stands and the re-sits or the gage is incorrectly read due to the skewed viewing angle. The gage should be relocated to eye level for ergonomics and correct reading angle. DOE factor to understand impact of upset force	Peter P
upset rivet head	upset force	C	upset force not adequate to create good upset head	reduced rivet upset head strength		force inadequate on upset head	10	force headout on 10machine	10	10000	DOE factor to understand impact of upset force flaring	Jason A

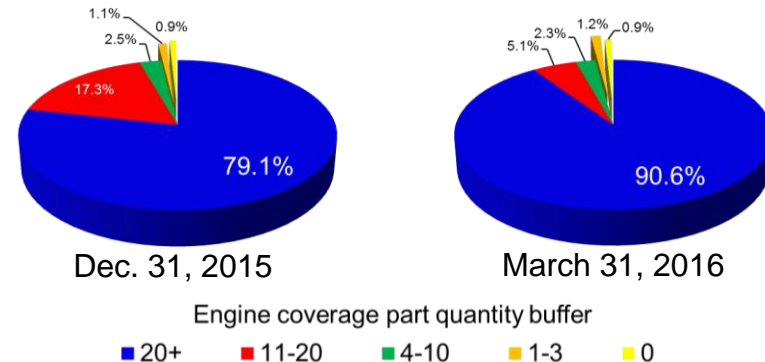
Leading Performance Indicators

Supplier Code:		Quality		Built Ahead Tool			Capacity		XRM or Production Metrics				
Yield	% on UPPAP completed	Finish Goods	Work In Process/ Lead Time	Raw Material	Capacity Graphs trending		Andon	Red	Promise Dating				
Y > 95%	>95%	Y > 100%	Y < 100%	Y > 100%	Diminished Capacity (12 months) - MRP Requirements								
85% <= Y < 95%	>90%	95% <= X < 100%	95% <= X < 100%	95% <= X < 100%	Diminished Capacity (12 months) - MRP Requirements								
80% <= Y < 85%	>85%	90% <= X < 95%	90% <= X < 95%	90% <= X < 95%	Diminished Capacity (12 months) - MRP Requirements								
Overall Rating											# of parts	# of parts	%
Sunday (YYYYMMDD)	Saturday (YYYYMMDD)	% of prod. (daily)	% of prod. (daily)	% of prod. (daily)	% of prod. (daily)	% of prod. (daily)	% of prod. (daily)	% of prod. (daily)	% of prod. (daily)	% of prod. (daily)			
WEEK1													
WEEK2													
WEEK3													
WEEK4													
WEEK5													
WEEK6													
WEEK7													
WEEK8													

Capacity Planning



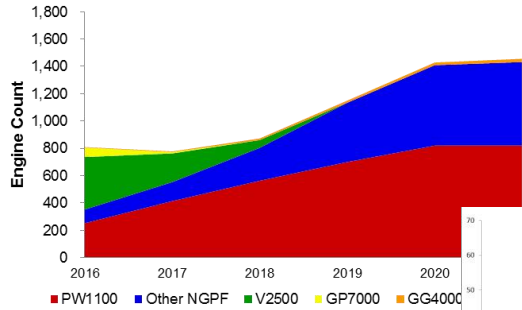
PW1100 Buffer Status



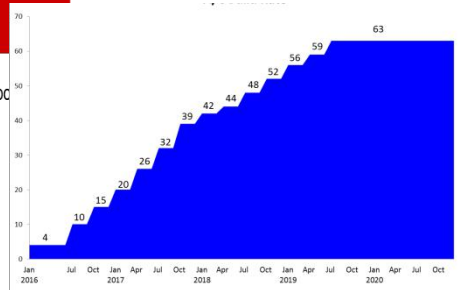
DEMAND/PROFILE GROWTH & CHANGES



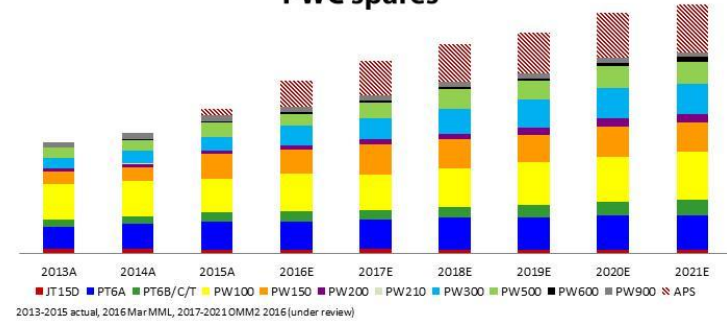
Commercial Engines



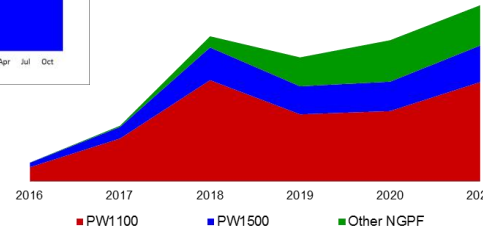
NGPF Build Rate



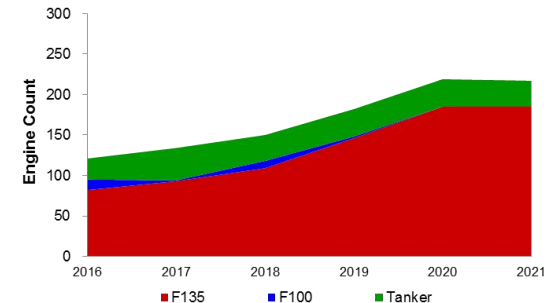
PWC spares



NGPF Spares



Military Engines

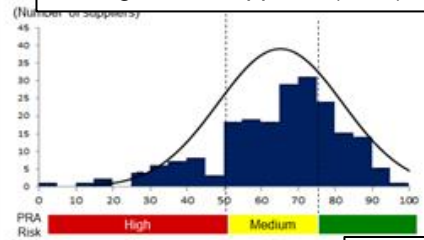


PRODUCTION READINESS

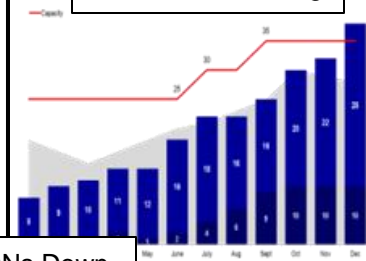
Risk Mitigation



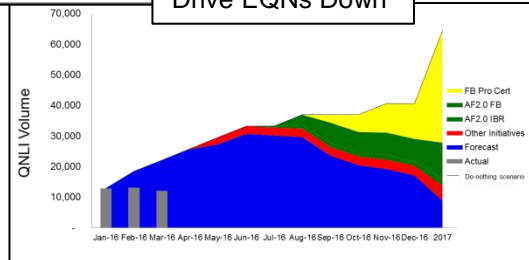
34 High Risk Suppliers (PRR)



Action item tracking



Drive EQNs Down



Critical actions:

Demand reconciliation

Finalize capacity & resources

Commitments/accountability

BOOST program

QN reduction

Sub-tier management

AFFORDABILITY AND VALUE

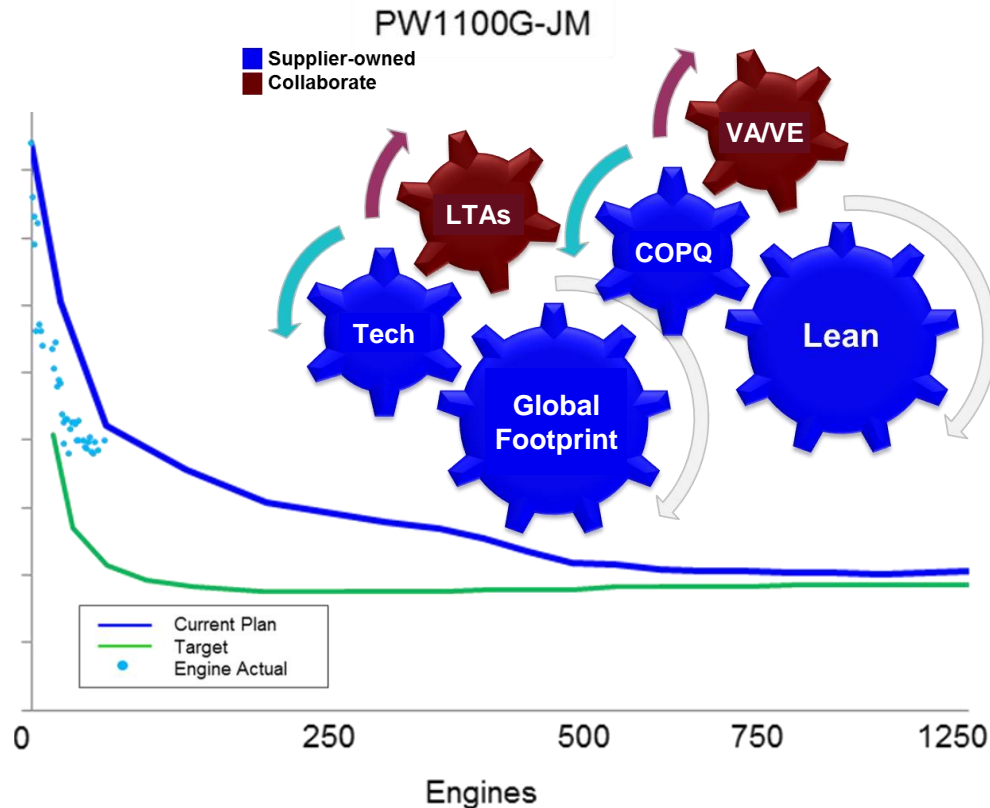
NGPF engines



PT6



F135



One Company Governance

- 90+ day payment terms
- OTD performance guarantees
- Quality Notification (QN) charges
- Minimum buffer stock
- Supplier Gold commitment

Supplier Gold Certification Benefits



Payment Terms

90 days



75 days

Buffer Stock



No Performance
Guarantees / QN
Admin. Charges



Supplier Selection
Benefits / Business
Opportunities



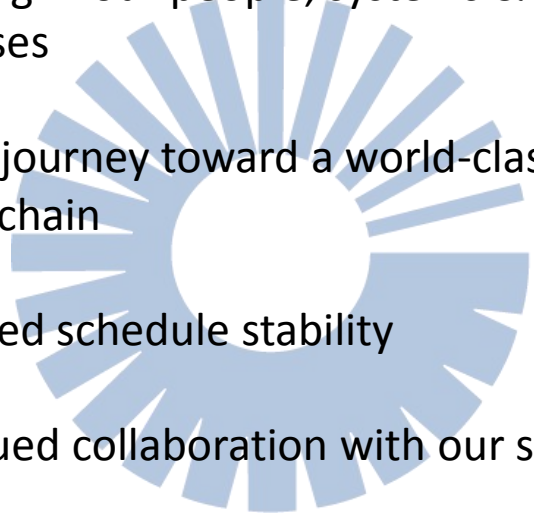
P&W Commitments

Investing in our people, systems & processes

Steady journey toward a world-class supply chain

Improved schedule stability

Continued collaboration with our supply base



Supplier Expectations

Supplier Gold certification with UPPAP

Invest in growth and production readiness

Promise date commits, buffer & leading indicator management

Year-over-year productivity commitments (V2 & SmartChoice)

One Company contract with UTC governance

Continued collaboration to drive world-class performance



**United
Technologies**

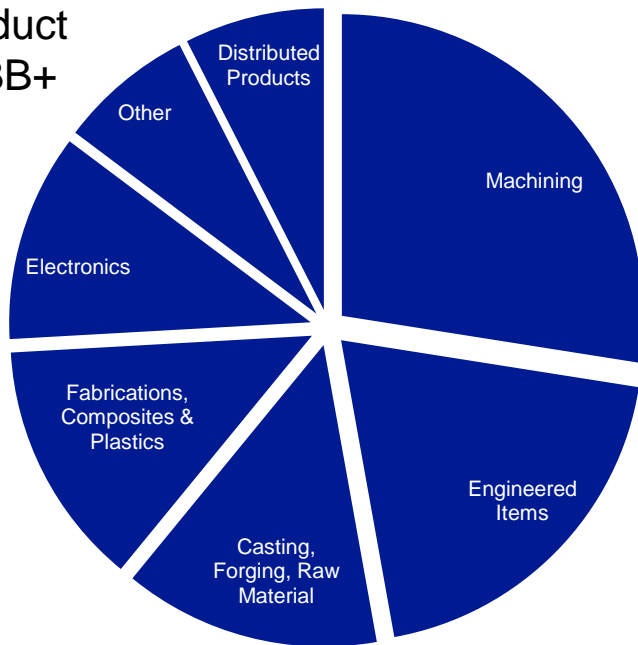
UTC SUPPLY CHAIN 
OPPORTUNITY
SUPPLYING A BETTER FUTURE, TOGETHER.

UTC AEROSPACE SYSTEMS SUPPLY CHAIN

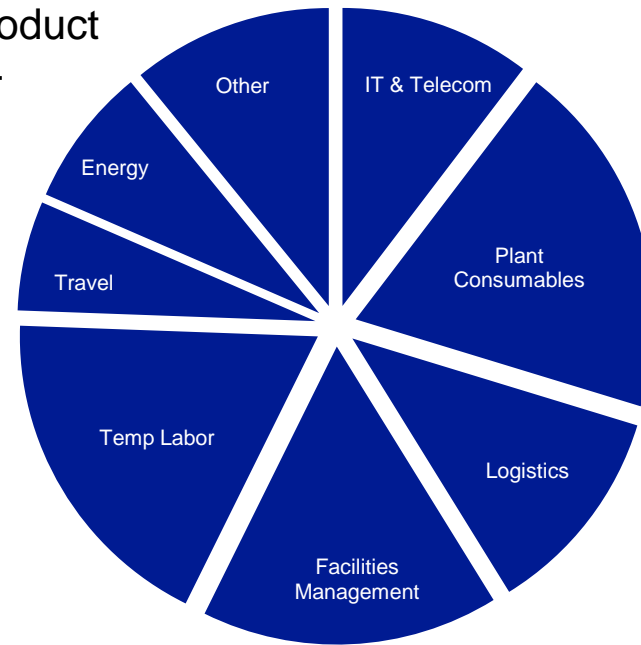
Sarfraz Nawaz, Vice President

Supply Chain profile

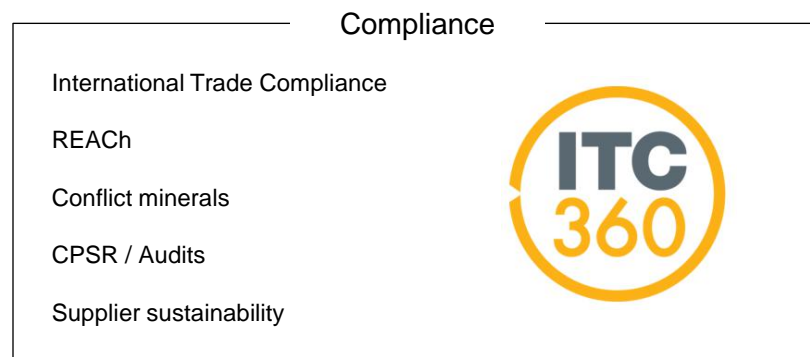
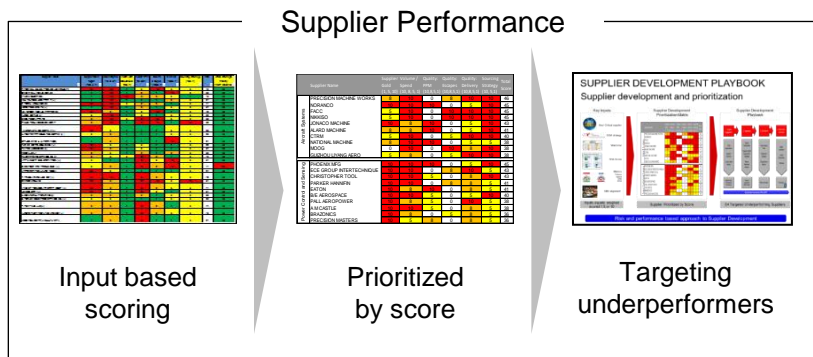
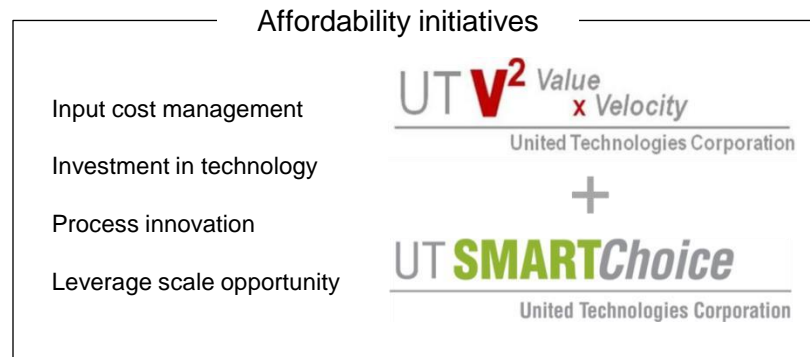
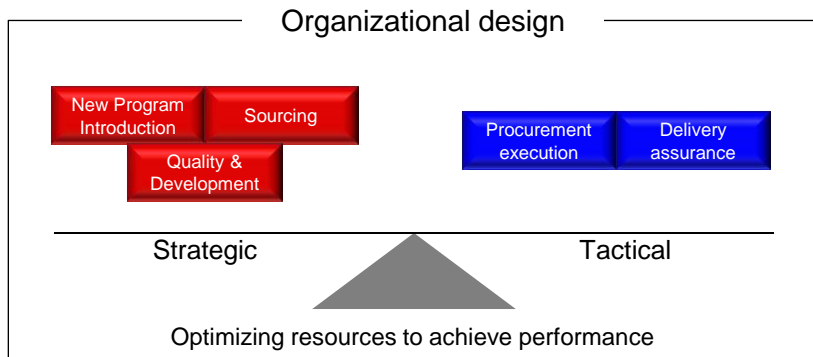
Product
\$5.3B+



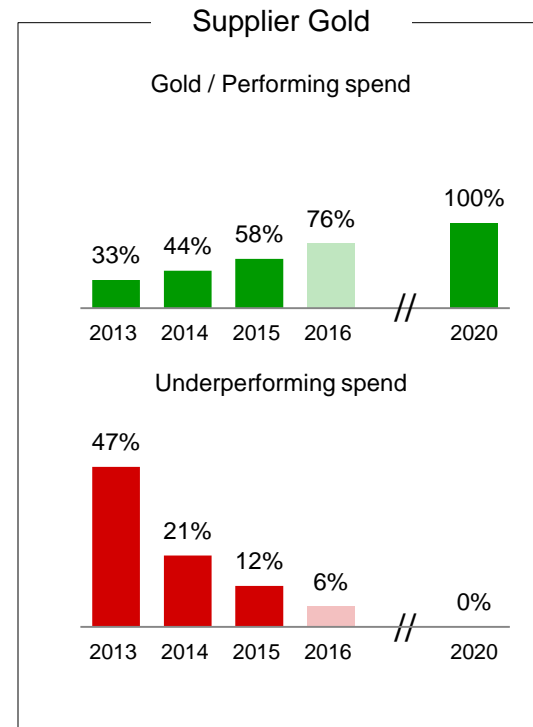
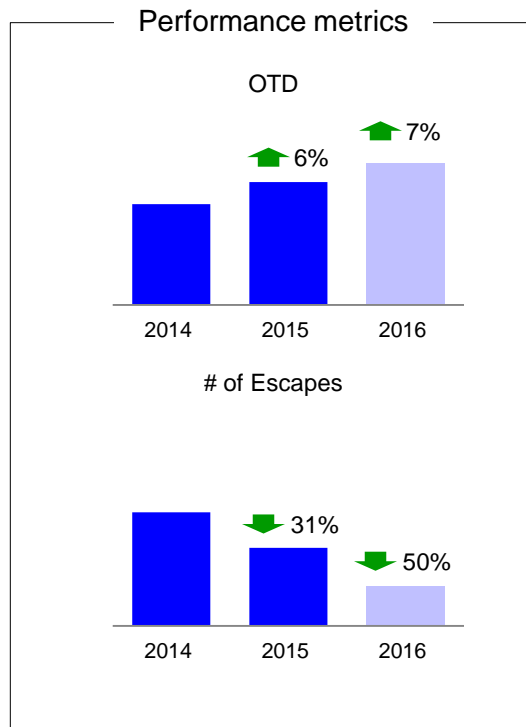
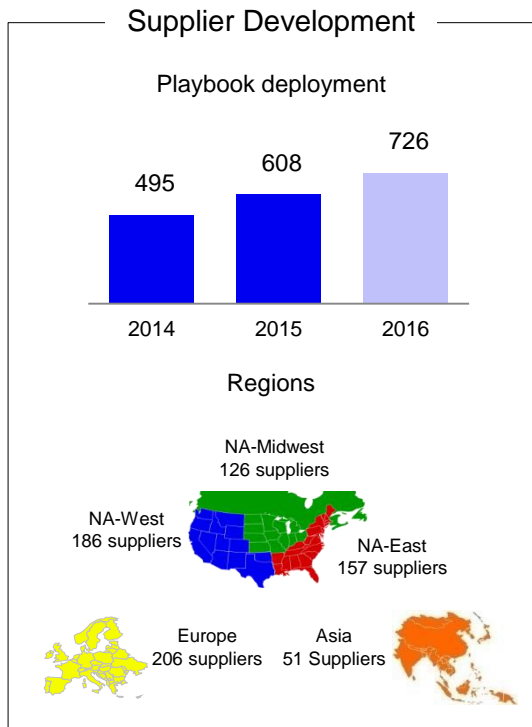
Non product
\$1.6B+



Supply Chain profile



Supply Chain performance



Supply Chain key initiatives

Material management

- PFEP compliance
- Forward stocking locations / 3PL
- Logistics design
- Supplier portal control
- Buffer stock
- Dual production
- Dedicated capacity



Rate readiness

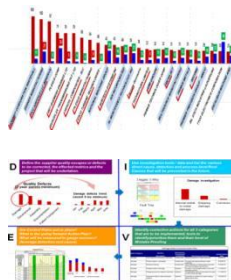
	Elements	Criteria
PRS	4	6
Surveillance	12	6
SHA	5	Gold

Assess and reduce supplier risk



Zero Defect Plan

- Top supplier escape reduction
- 50% reduction in escapes and PPM
- Zero significant escapes
- Drive QIP on key suppliers
- Systemic DIVE



UPPAP

NPI

Transitions

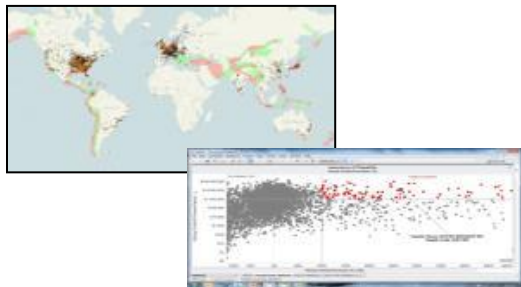
Major changes

- | | | |
|------------------------|----------------------|------------------------|
| Complexity/criticality | Seamless transitions | Limit production risks |
| Process Certification | Future planning | |
| Flawless EIS | | |

Application on key programs ongoing, and growing

Supply Chain investments

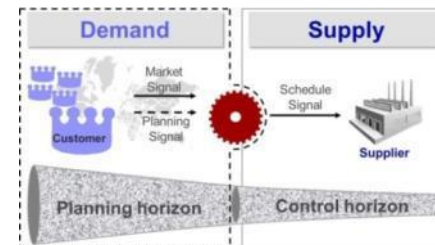
Spend Analytics



Contract Lifecycle Management (CLM)



Demand & Material Management



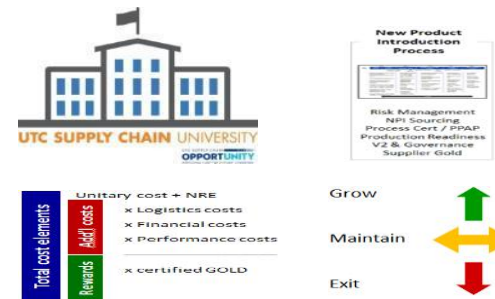
Facilities / Technology



Supplier Portal / SAP



People & Processes



Supply Chain takeaways

Performance

Plan to Gold



Rate readiness



Commercial

LTA coverage



Cost reduction



UTC Customer Event
Barry Eccleston
President - Airbus Americas



**Creating better
ways to fly**



We are part of Airbus Group

AIRBUS
GROUP

138,000+
Total workforce

\$932.1 billion
Order book

\$66 billion
Annual revenue



Airbus is a global aircraft manufacturer



55,000

Employees

\$72 billion

Annual revenue*

10yrs

Backlog

400

Operators

Data to end 2015

The most global aerospace player – close to our customers worldwide

The numbers

-
- 11 Production sites
- 4 Assembly line locations
- 5 Training centres
- 4 Engineering centres
- 3 Customer support centres
- 10 Materials & logistics centres*

*Satair Group

Airbus Commercial in the US

- Catalyst for \$15.8 billion in annual aircraft related expenditure in the USA
- Supporting over 262,000 jobs
- Suppliers in over 38 states
- Airbus Commercial, 6 primary sites with over 2000 employees.



*Airbus Engineering Center
Mobile, Alabama*



*Airbus Training Center
Miami, Florida*



*Headquarters
Herndon, Virginia*



*Airbus Engineering Center
Wichita, Kansas*



*Airbus Spares Center
Ashburn, Virginia*

A strong and growing physical and economic presence in the USA

- April, 2016 – Airbus Mobile delivers first American assembled A320

Airbus expands in the US with an A320 family Final Assembly Line



First Delivery
April 26th,
2016



2013

Start of construction

2015

Start of aircraft assembly

2016

First delivery

2018

40 to 50 deliveries

Our aircraft are a familiar sight around the world

Presence

An Airbus takes off
or lands every

2 seconds

16,300+
Aircraft sold

60
Produced monthly

9,600+
Delivered

25,000+
Daily flights

Data to end March 2016

Meet the Airbus family from 100 to 500+ seats

The Airbus Family

A320 Family

The market leader



A330 Family

The right aircraft, right now



A350 XWB

The Xtra that makes a difference



A380

Own the sky



The A320 Family is the world's best selling aircraft

A320

Superior comfort, lowest cost and highest reliability

A320neo - 20% lower fuel burn



12,400+

Orders

6,900+

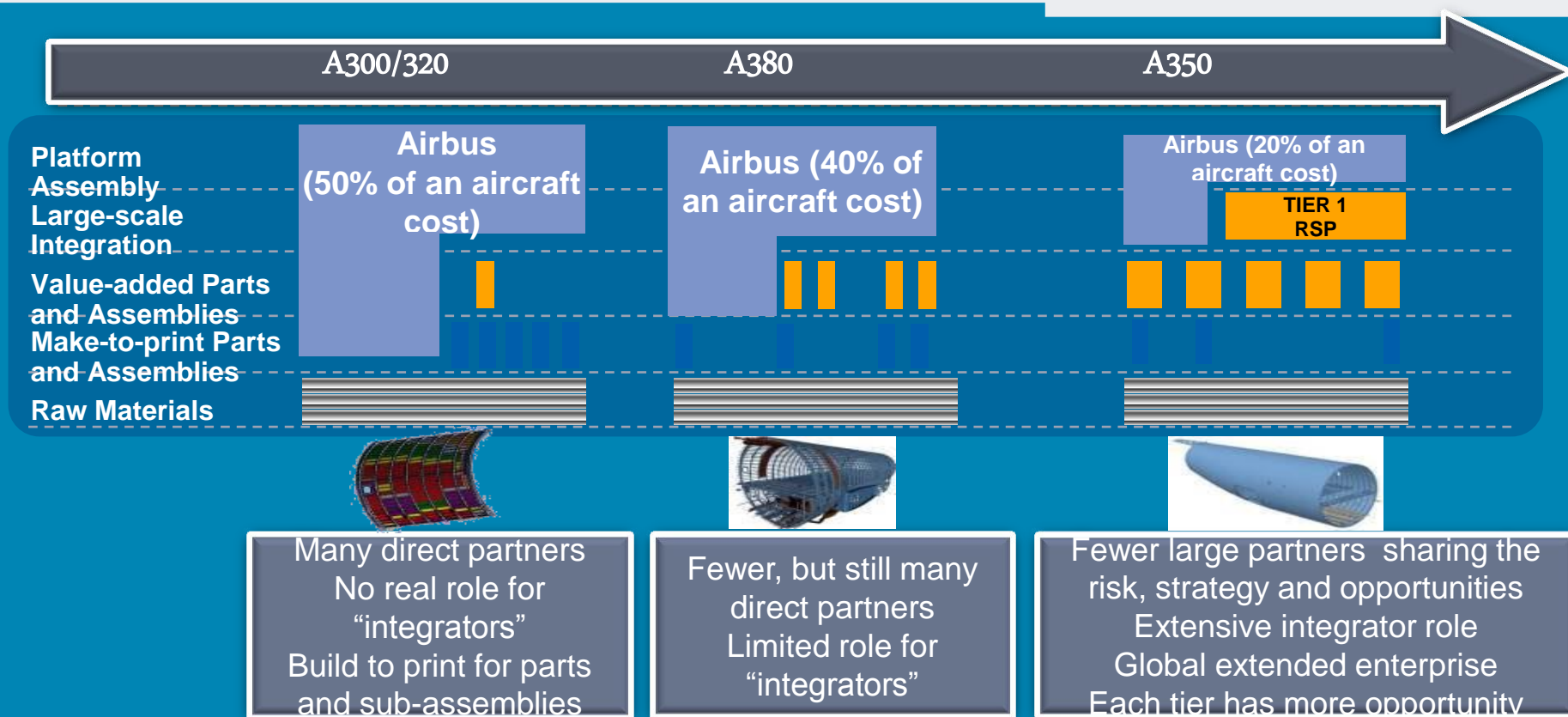
Deliveries

310+

Operators

Data to March 2016

Airbus sourcing principle: enhanced responsibilities



Globalize & consolidate the supply chain



- **STIMULATE** the competition within the supply base
- **FEWER** and **BIGGER** suppliers with **ENHANCED** responsibility
 - L4L (Local for Local) will remain, key support for a Final Assembly Line
- **EARLY INVOLVEMENT** of major suppliers in joint development teams including **R&T**
- **GLOBAL SOURCING*** challenges for both Airbus and its suppliers

*Global sourcing: international sourcing = Non-EU countries

What are we looking for in potential suppliers

Quality accreditations, AS9100, NADCAP

Already working for an Airbus Group Business Unit or other aerospace OEM's

Customer recognition, GOLD, 5 STAR, supplier of the year, etc.

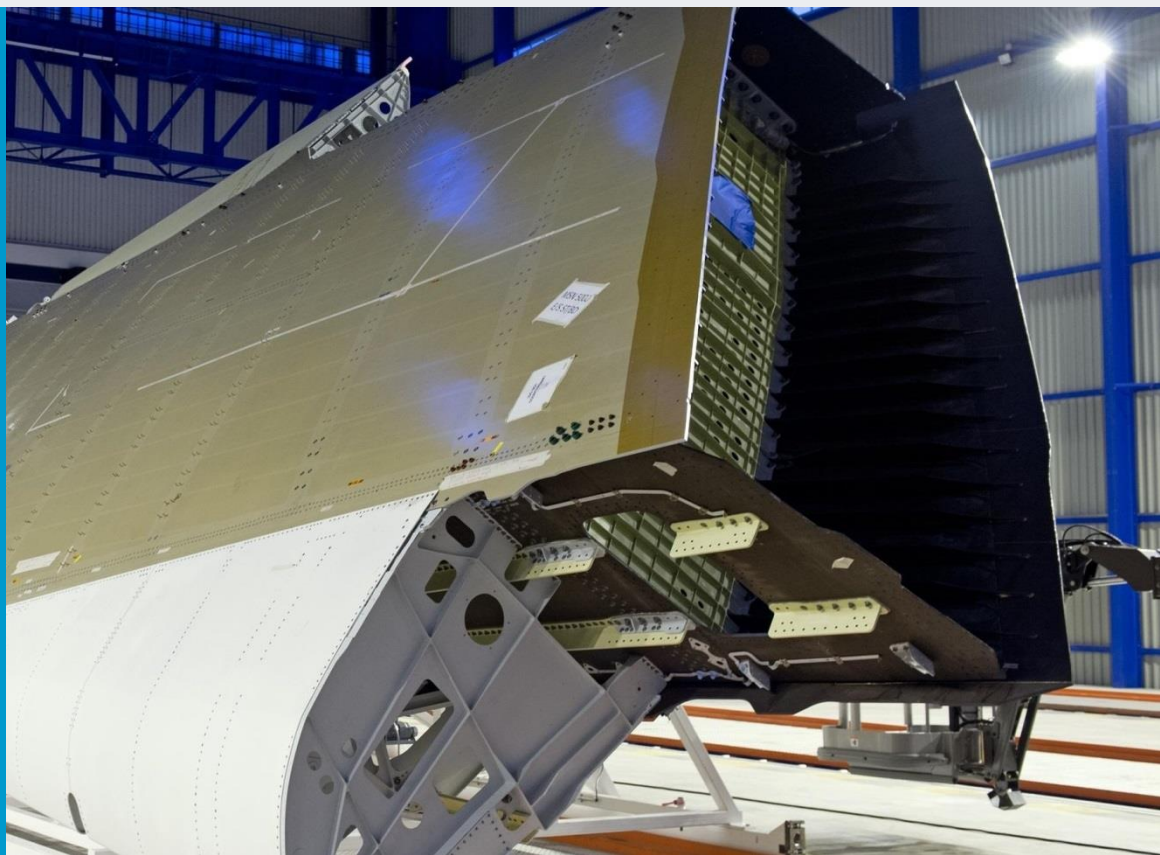
Strong in commercial work

Financially stable and ability to invest,
Experienced Management and functional structure

Strong manufacturing engineering

Innovative products and companies

Vertical integration



Airbus/Supplier joint efforts to meet customer demand



RAMP-UP

Ensure sufficient capacity. A350 and Single Aisle



ON-TIME DELIVERY

Reach and sustain excellent performance



QUALITY

Make it right the first time



COST

Be creative and propose solutions for cost optimisation

Questions?



2015

 Deliveries
635

 Orders
1,036_{net}

 Backlog
6,787



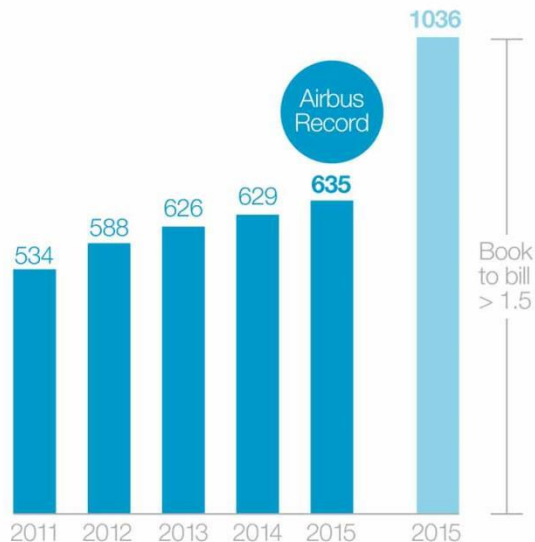
Fabrice Brégier,
Airbus President & CEO



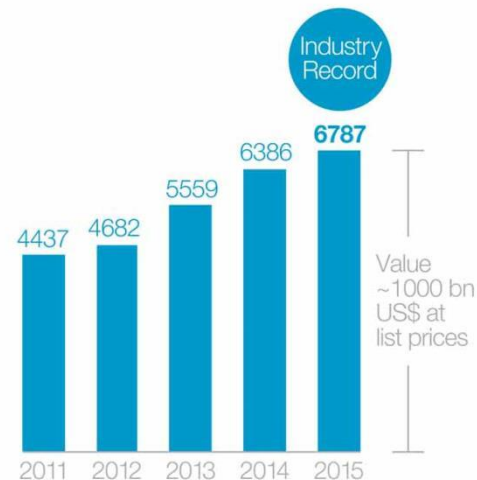
Airbus – The truly global aircraft manufacturer

▶ Airbus Final Assembly Lines

Deliveries Orders



Backlog



The most modern, efficient & comprehensive range of widebody aircraft available today



1,600+
Orders

1,240+
In service

110+
Operators

A330

The world's most popular mid-size aircraft

A330neo - 14% lower fuel burn, more seats, more range

Data to March 2016

A350 XWB – the Xtra that makes a difference

770+

Orders

41

Customers

25%

Lower operating cost

A350XWB
- Shaping efficiency

Xtra space for unrivalled passenger comfort

Xtra innovative technologies for optimised airline efficiency

Data to March 2016

A380 – a solution to increased demand for air transport

A380

Most profitable, most comfortable way to transport more people

A take-off or landing every

3 minutes

315+

Orders

180+

Deliveries

18

Customers

Data to September 2015

Airbus Group North America + Airbus Group Mexico

~50 Locations
~5450 Employees
/ Contractors
~3250 USA
~1800 Canada
~ 400 Mexico



- Airbus Group ~ 50
- Airbus Americas ~ 1300
- Airbus Defense & Space ~ 900
 - (Divestments in progress) ~ -600
- Airbus Helicopters ~ 1000
- Vector Aerospace ~ 1100
- STELIA Aerospace ~ 450
 - Navtech ~ 250
- Airbus Group Mexico ~ 400

Procurement Organisation - worldwide coverage



Airbus Group North America Procurement Contact Information

Process to follow:

- You must obtain a Request For Information (RFI) document by sending an email to:
NASupplier@airbus.com
- Answer all the questions on the RFI document.
- Prepare your company presentation.



- Title your email response:
 - **“Goods & Services RFI response”** for all non-flying goods and services.
 - **“Flying Parts RFI response”** for all products that will actually be installed or used on an aircraft.
- Return the RFI document and company presentation via email to:

NASupplier@airbus.com

Airbus North Americas Headquarter: 2550 Wasser Terrace, Suite 9100 ,Herndon, VA 20171 USA

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**United
Technologies**

UTC SUPPLY CHAIN 
OPPORTUNITY
SUPPLYING A BETTER FUTURE, TOGETHER.

CLOSING REMARKS

Peter F. Longo, UTC Senior Vice President Operations

THANK YOU TO OUR GOLD SUPPLIERS



Southgate, MI



Belvidere, IL



Peterborough, Ontario



Manchester, CT



Tillsonburg, Canada



Windsor, CT



Quebec & Ontario,
Canada



Kulim, Kedah, Malaysia



New York, NY



NJ, USA



Lancashire, UK



Rzeszow, Poland



Goleta, CA



Ronkonkoma, NY



Colmar, PA



Aurora, CO



Cairo, Egypt



Independence, KS



Evansville, IN



Kalisz, Poland



V & M do BRASIL

Belo Horizonte City, Brazil



Triumph Gear Systems -
Macomb, Inc.
A Triumph Group Company

Macomb, MI



Changzhou, China



Mississauga, ON



Huntsville & Berryville, AR
Joplin, MO & Tulsa, OK



Manchester, CT



Madison, AL



Corinth, TX
Chihuahua, Mexico



Hoogerheide,
Netherlands



Hyderabad, India



Kent, WA



Longueuil, QC



St. Hubert, Quebec



Dunedin, FL



Santa Fe Springs, CA



Jeffersonville, IN



Auburn, MA



Framingham, MA



Bitgoraj, Poland

THANK YOU TO OUR GOLD SUPPLIERS



Lincolnshire, IL



North America



Akashi, Japan



Windsor, CT



Kure, Japan



Miramar, FL



Verdi, NV



Quebec, Canada



Atlanta, GA &
St. Laurent, Quebec



New York, NY



Hemmingford, Quebec,
Canada



Engineering | PLM | Technology
Mumbai, India



Guangzhou, China



Birmingham U.K.
East Windsor, CT



Glastonbury, CT



The Corporate Gift Source, Inc.
www.gbginc.com

Trumbull, CT



Rockwood, TN



Munich, Germany



Mankato, Minnesota



Jiangsu, China



Columbus, MS

Non Consulting Services



Building a better
working world



Windsor, CT



Laval, Quebec



the power of talent
Zamudio, Spain



Randolph, NJ



Boca Raton, FL



East Hartford, CT &
Palm Beach Gardens, FL



East Hartford, CT



Deer Park, NY



Kozy, Poland



Farnborough, Hampshire



Stanley, UK



Mumbai, India



Quebec, Canada

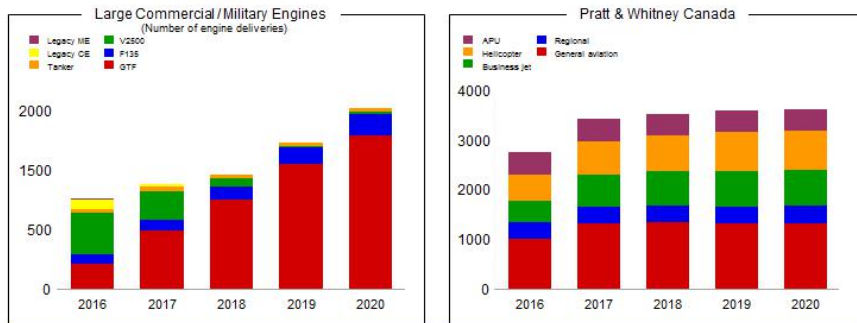


Cranbury, NJ

PREPARE FOR THE RAMP

PRATT & WHITNEY

2016 - 2020 Engine Shipments

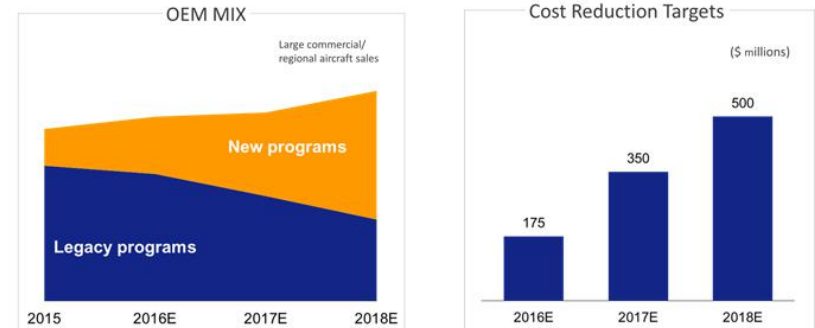


Total 2020 shipments 5,300

Total 2020 Aftermarket Revenue \$11B

UTC AEROSPACE SYSTEMS

New program introduction



SUPPLIER CODE OF CONDUCT

UNITED TECHNOLOGIES CORPORATION
SUPPLIER CODE OF CONDUCT



EC Global Ethics & Compliance
See Work Site Code

Overview

United Technologies Corporation, including each of its divisions, business units and subsidiaries (collectively, "UTC") is committed to the highest standards of ethics and business conduct. As stated in our Code of Ethics, UTC employees must comply with the law, honor their commitments, act in good faith, uphold UTC's values, seek to advance the interests of stakeholders, communicate openly and effectively, and hold themselves accountable.

Our suppliers are critical to our success and, in order to provide superior products and services in a responsible manner, we require you to meet our expectations for ethics and compliance.

This Supplier Code of Conduct (the "Code") sets forth our expectations for each of our product and service suppliers, and aligns with the expectations we maintain for our own directors, officers, employees and representatives. UTC understands and expects that our product and service suppliers will have their own internal codes of ethics and conduct. This Code is not intended to be an exhaustive list of all ethical and business conduct requirements to be followed by suppliers.

You are responsible for ensuring that your directors, officers, employees, representatives, and business partners understand and comply with the expectations set forth in this Code.

General Disclaimer: The expectations set forth in this Code are not intended to conflict with or modify the terms and conditions of your contracts with UTC. If a contract requirement is more restrictive than this Code, you must comply with the more restrictive contract requirement. By way of example only, for suppliers supporting U.S. Government contracts, the requirements of FAR 52-209-13, Contractor Code of Business Ethics and Conduct, also shall apply.

Compliance with Laws

At a minimum, you must maintain full compliance with all laws and regulations applicable to the operation of your business and your relationship with UTC.

Quality

Your products and services must meet or exceed the quality requirements of your customers. You must ensure that your products and services are of the highest quality and meet or exceed the quality requirements of your customers.

Conflicts of Interest

You must avoid all conflicts of interest or situations giving the appearance of a conflict of interest in your dealings with UTC. You must report to UTC any instances involving actual or apparent conflicts of interest between your interests and those of UTC, such as when one of your employees (or someone close to one of your employees) has a personal relationship with a UTC employee who can make decisions impacting your business, or when a UTC employee has an ownership or financial interest in your business.

UNITED TECHNOLOGIES CORPORATION
SUPPLIER CODE OF CONDUCT



EC Global Ethics & Compliance
See Work Site Code

International Trade Compliance

You must conduct business in strict compliance with all applicable laws and regulations governing (a) the export, re-export and retransfer of goods, technical data, software and services; (b) export of goods; (c) economic sanctions and embargoes; and (d) U.S. anti-boycott requirements.

Government Procurement

You must take special care to comply with the unique and special rules that apply to contracting with the U.S. Government. If you support a UTC contract with the U.S. Government, you must at all times follow the U.S. Government's rules for competing fairly, honor restrictions applying to U.S. Government employees (e.g., receipt of gifts and employment), deliver products and services that conform to specifications, laws and regulations, adhere to government accounting and pricing requirements, claim only allowable costs, ensure the accuracy of data submitted and comply with all other applicable U.S. Government requirements.

Information Protection

You must respect the legitimate proprietary rights and intellectual property rights of UTC and others. You must take proper care to protect sensitive information, including confidential, proprietary and personal information. You should not use such information for any purpose other than the business purposes for which it was provided, unless the owner of the information provided prior authorization.

Accuracy of Records and Submissions

You must maintain books and records that accurately and completely reflect all transactions related to UTC business and each of your submissions to UTC, its customers, and regulatory authorities must be accurate and complete. You must never make any entry in your books and records or other, conceal, or destroy any document to misrepresent any fact, circumstance, or transaction related to UTC business.

UNITED TECHNOLOGIES CORPORATION
SUPPLIER CODE OF CONDUCT



EC Global Ethics & Compliance
See Work Site Code

Non-Discrimination

You must treat your existing and prospective employees and business partners fairly, based only on merit and other factors related to your legitimate business interests, and without regard to race, religion, color, age, gender, gender identity or expression, sexual orientation, national origin, marital status, veteran status or disability.

Child Labor

You must ensure that child labor is not used in the performance of your work, whether or not related to UTC business. The term "child" refers to any person under the minimum legal age for employment where the work is performed.

Human Trafficking


You must comply with laws and regulations prohibiting human trafficking. You must not engage in the use of forced labor, bonded labor, indentured labor, involuntary prison labor, slavery or trafficking in persons.

Anonymous Reporting & Reporting Misconduct

We expect you to provide your employees and your business partners with access to adequate reporting channels to raise legal or ethical issues or concerns, including, without limitation, reports of a violation of this Code by you or your business partners, without fear of retaliation, including opportunities for anonymous reporting.

In the event that you become aware of misconduct related to UTC business undertaken by any UTC employee, any of your employees, or any employee of your business partners, we expect you to promptly notify UTC. You may contact UTC's Global Ethics & Compliance Office at ape@corp.uts.com, or, if you prefer to contact UTC anonymously, you may use our Ombudsman program (details regarding the Ombudsman program can be accessed at the following site: <http://www.uts.com/Our-Company/Ethics-And-Compliance/Pages/Ombudsman-DIALOG.aspx>).

UNITED TECHNOLOGIES CORPORATION
SUPPLIER CODE OF CONDUCT



EC Global Ethics & Compliance
See Work Site Code

Code Compliance

You will permit UTC and/or its representatives to assess your compliance with the expectations set forth in this Code in performing work for UTC, including on-site inspection of facilities and review of associated books, records and other documentation. You must also provide UTC upon request with additional information and certifications evidencing compliance.

You must ensure that UTC has the right to assess your business partners' compliance with the expectations set forth in this Code in performing work for UTC, including on-site inspection of facilities and review of associated books, records and other documentation. You must ensure that your business partners will provide UTC upon request with additional information and certifications evidencing compliance.

In the event of any wrongdoing, you will fully cooperate with any related investigation conducted by UTC. You will ensure that your business partners also fully cooperate if such investigation involves their performance.

You (and your business partners) must correct any non-compliance identified during assessments. UTC does not assume any duty to monitor or ensure compliance with this Code, and you acknowledge and agree that you are solely responsible for full compliance with this Code by your directors, officers, employees, representatives, and business partners.

Questions or concerns about this Code: UTC Global Ethics & Compliance Office at ape@corp.uts.com or contact UTC anonymously through our Ombudsman program



**United
Technologies**

UTC SUPPLY CHAIN 
OPPORTUNITY
SUPPLYING A BETTER FUTURE, TOGETHER.

NON-PRODUCT BREAKOUT

Non-Product Executive Team

Agenda

Welcome / Opening Remarks

Key takeaways from morning session

State of the businesses

Introduction to Non Product

Supply chain at UTC

Priorities

Investments

Working together we are committed to...

Our people.

Operational excellence.

Delivering on our value proposition.



Comments, questions and key take-aways from morning session...



SHAREHOLDER VALUE CREATION

Focused portfolio of global franchises



Structural cost reduction



Innovation for growth



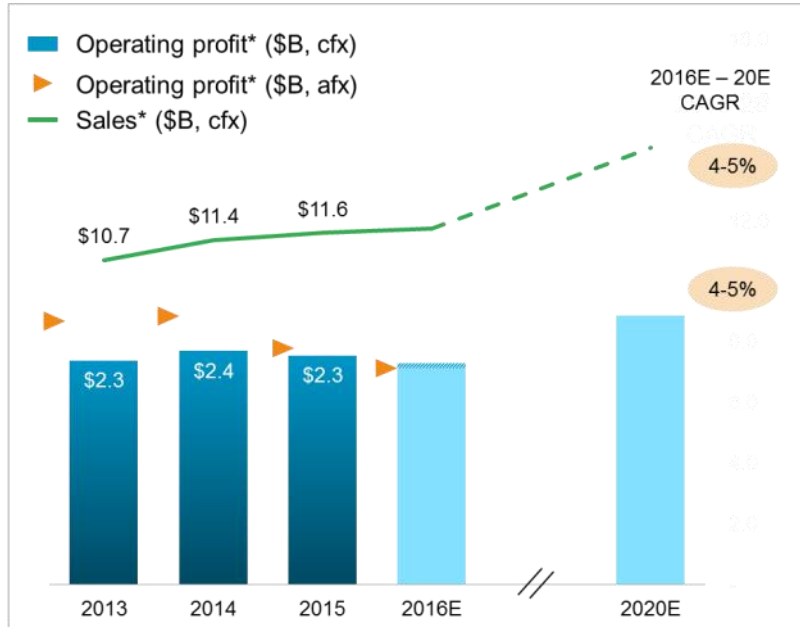
Strong performance culture

Disciplined capital allocation



OTIS 2020 OUTLOOK

(\$ billions)



Key Strategies

New equipment growth

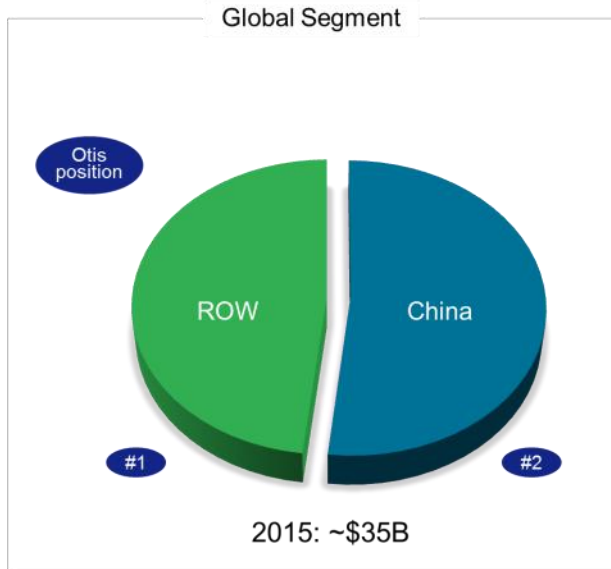
Accelerate innovation

Service transformation

Operations excellence

See appendix for reported sales and operating profit (afx)

*Adjusted for restructuring and other significant items. See appendix for reconciliation.



Source: Internal estimates



Continued urbanization



Infrastructure development

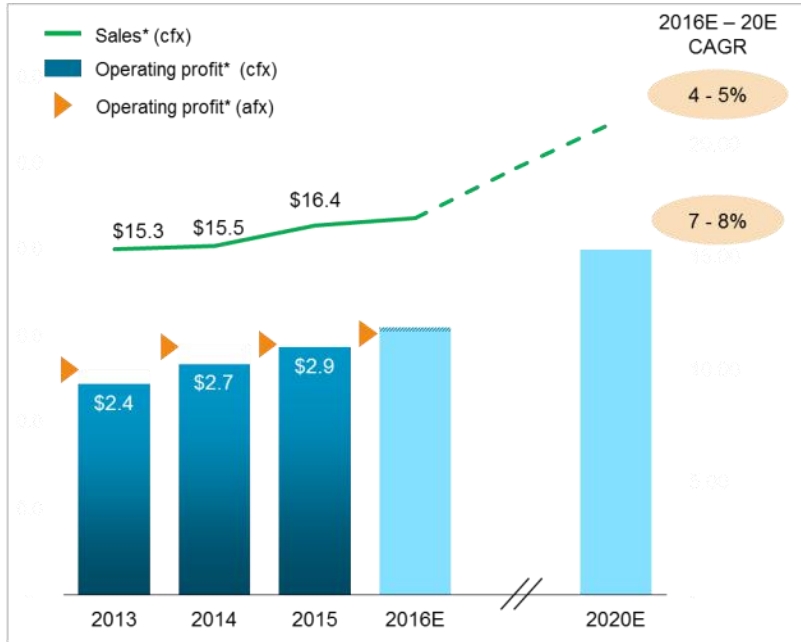
Growth Strategy

- Expand sales coverage
- Enhance product offering
- Align incentives for profitable growth

China Transformation

- Strengthen core brands
- Leverage scale
- Customer segment focus

(\$ billions)



Key Strategies

Organic growth

Innovation

Cash generation

Cost leadership

M&A actions

*Adjusted for restructuring and other significant items. See appendix for reconciliation. See appendix for sales and operating profit at actual FX (afx)

CLIMATE, CONTROLS & SECURITY GROWTH



Consultative selling
Strategic accounts
Integrated solutions



PRATT & WHITNEY 2020 OUTLOOK

(\$ billions)



Key Strategies

Successful service entries

Industrial plan execution

Manufacturing cost reduction

E&D stabilization

Aftermarket growth

*Adjusted for restructuring and other significant items.

PRATT & WHITNEY GROWTH

Large Commercial Engines



Photo: Airbus

First A320neo deliveries to
IndiGo and Lufthansa



Photo: Bombardier

C Series certified



E-Jets E2 roll out ceremony



MRJ first flight

Pratt & Whitney Canada



Photo: Gulfstream

Gulfstream G500 first flight



Photo: Dassault

Dassault Falcon 8X first flight

Military Engines



KC-46A Tanker first refueling flight



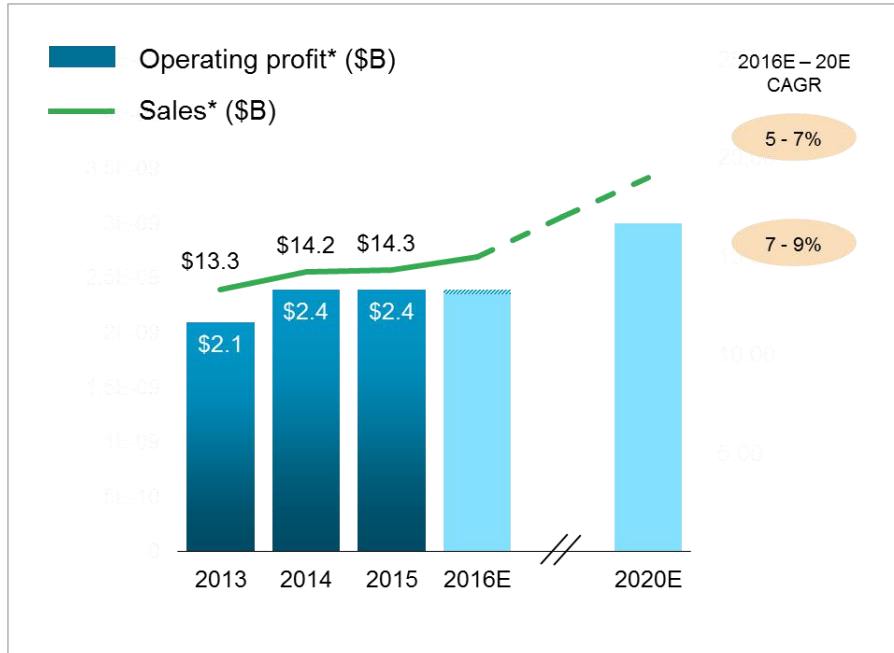
Photo: Lockheed Martin

F-35B Initial Operational Capability

UTC AEROSPACE SYSTEMS 2020 OUTLOOK



(\$ billions)



Key Strategies

Industry-leading portfolio

Positioning on new platforms

Deep customer relationships

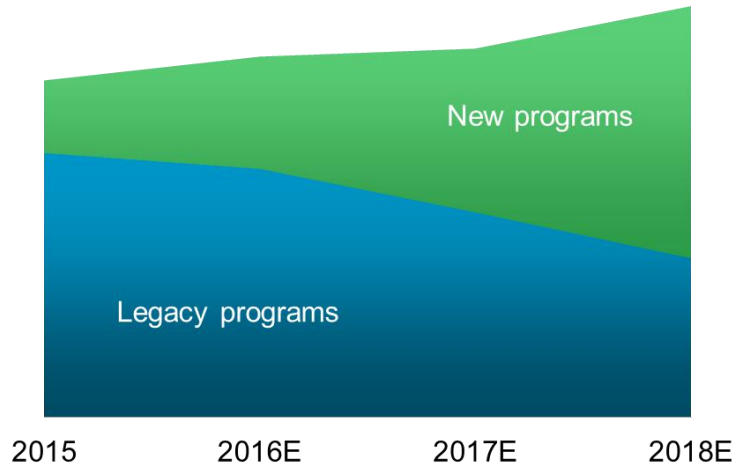
Drive continued cost reduction

*Adjusted for restructuring and other significant items. See appendix for reconciliation.

UTC AEROSPACE SYSTEMS GROWTH

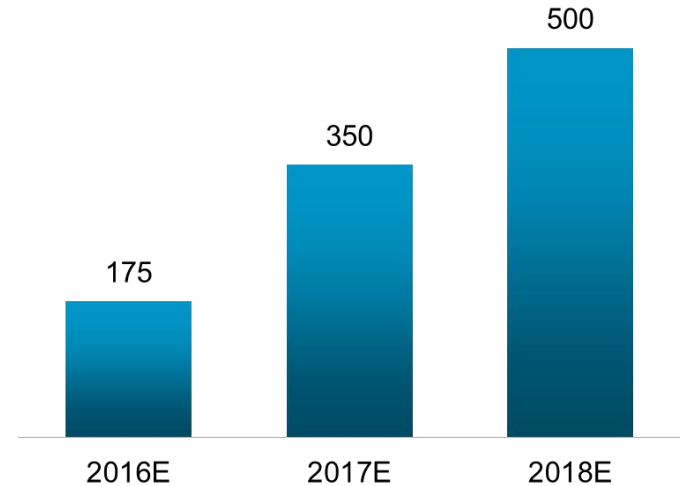
OEM Mix

Large commercial /
regional aircraft sales



Cost Reduction Target

(\$ millions)



UTC SUPPLY CHAIN



ELEVATORS & ESCALATORS

64K+ employees
20+ Manufacturing sites
9 ERP systems
~21K suppliers



HEATING, COOLING, REFRIGERATION FIRE SAFETY & SECURITY

53K+ employees
45+ manufacturing sites
25 ERP systems
~45K suppliers



AIRCRAFT ENGINES AUXILLARY POWER UNITS

33K+ employees
50+ manufacturing sites
1 ERP system
~5K suppliers

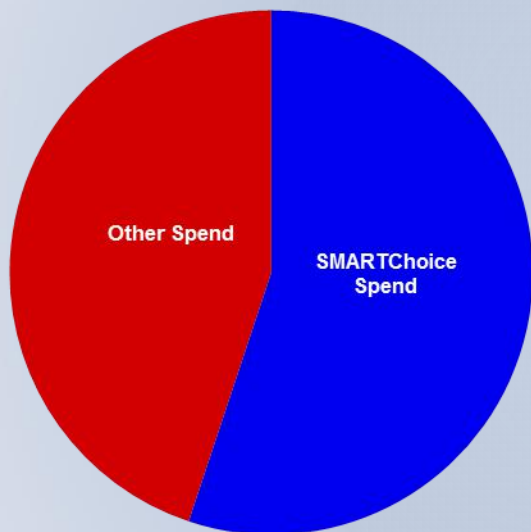


AEROSPACE SYSTEMS

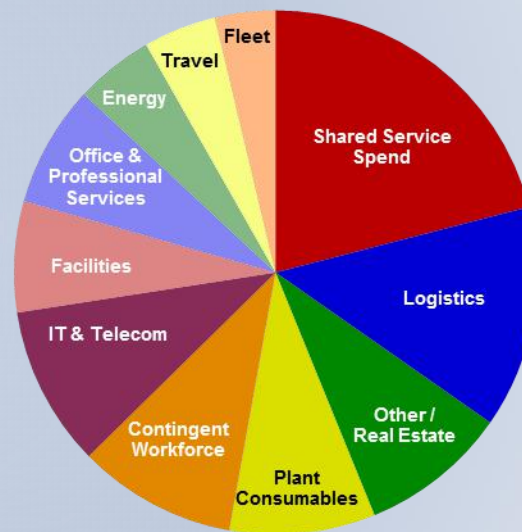
42K+ employees
90+ manufacturing sites
2 ERP systems
~20K suppliers

Scope

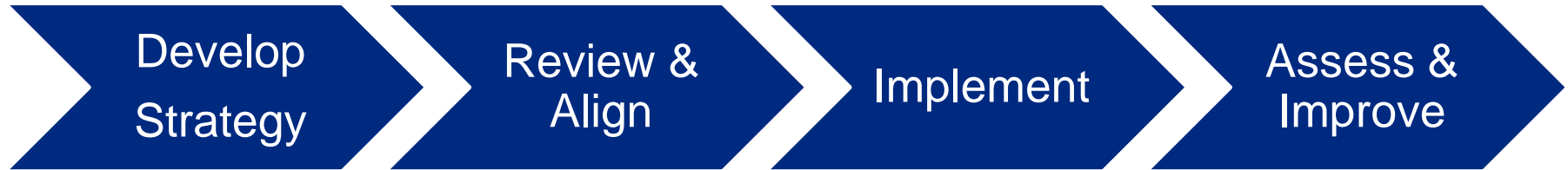
Total Non Product Spend



Total SMARTChoice Spend



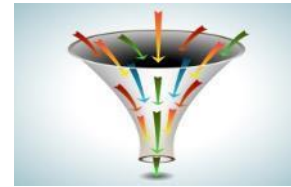
One Company Global Engagement



Commodity councils
Regional councils
Strategic supplier
account executives
One Company strategy



Review Board
Supply Management
Council
Supplier relationship
sponsors



Project execution
Supply base optimization
Initiatives pipeline
Compliance & policy



Executive reviews
Performance reviews
Policy deployment
Annual KPIs

Priorities

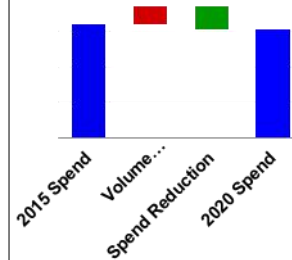
Supply Chain Performance



Working together beyond quality & delivery

Refreshed Supplier Gold Program for non product

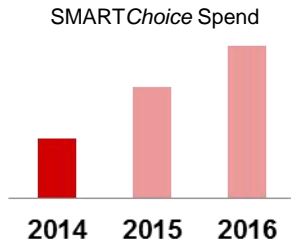
SMARTChoice Spend



Spend as a % of sales

Cost control targets for each category and budget

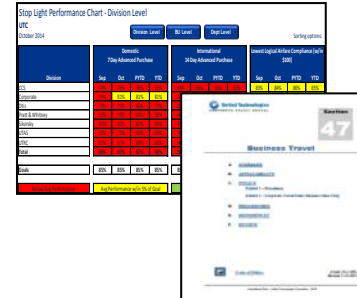
One Company Coverage



SMARTChoice spend under one-company contract

Program expansion into new commodities

Compliance



Best in class compliance metrics in all SMARTChoice spend categories

New visibility focusing on compliance and consumption

Investment

P2P for commercial

CLM implementation

Spend data visibility project

VMS/MSP implementation

SAP go live at UTAS



Summary & closing comments



Ready, set... grow!

Thank you for attending

Logistics for remainder of the day



United Technologies



Innovation Creating the New World

Dr. J. Michael McQuade

Senior Vice President, Science & Technology

Moving the world forward



Transporting the world's population every 4 days



Providing priceless assets with humidity control solutions



Equipping 80% of world's aircraft
with critical components & systems



Powering freedom around the world



Legacy



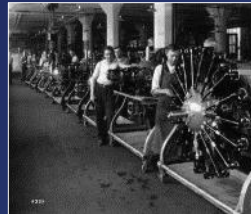
Willis
Carrier



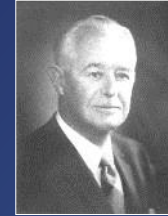
Elisha
Graves Otis



Fred
Rentschler



Thomas
Hamilton



Fred
Rohr



PurePower PW 1000G Engine



16% fuel reduction

50% emission reductions / 75% noise reduction

\$1.5 million saved per aircraft per year

Airbus A400M



Largest all-composite propeller
in production

NaturaLINE™ Container Refrigeration



First in the world to use CO₂ as a refrigerant
Reduces carbon dioxide emissions by 35%

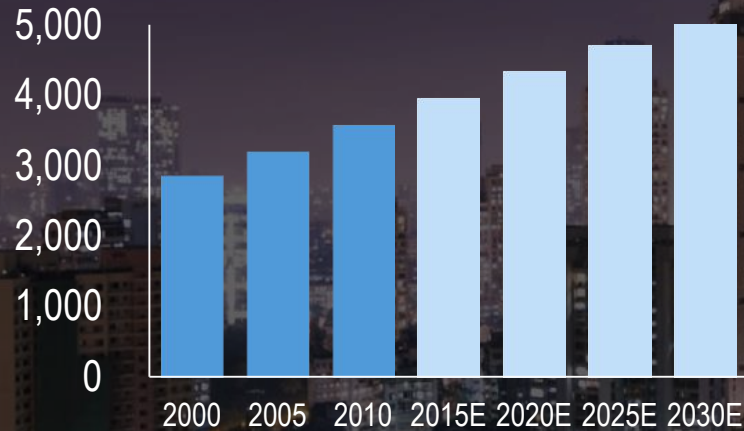
Gen 2 Elevator



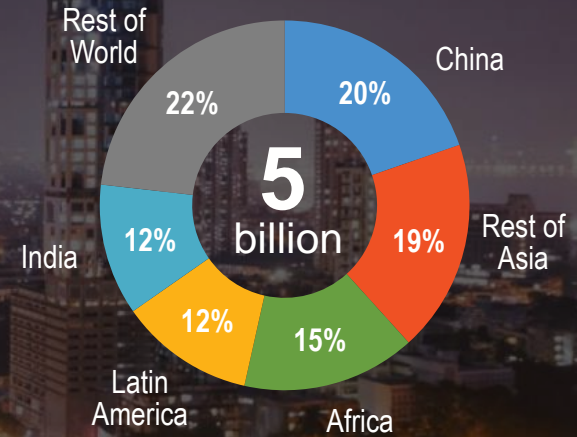
57 Otis Elevators installed
in the Burj Khalifa

Urban Population Growth

(millions of people)

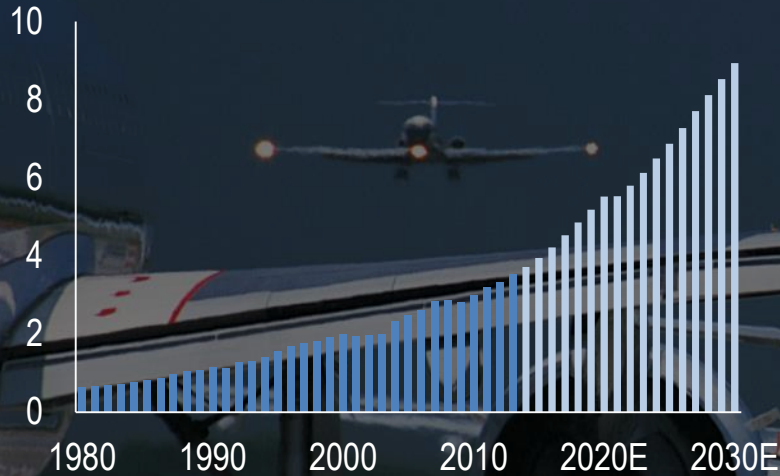


Urban Population: 5B by 2030

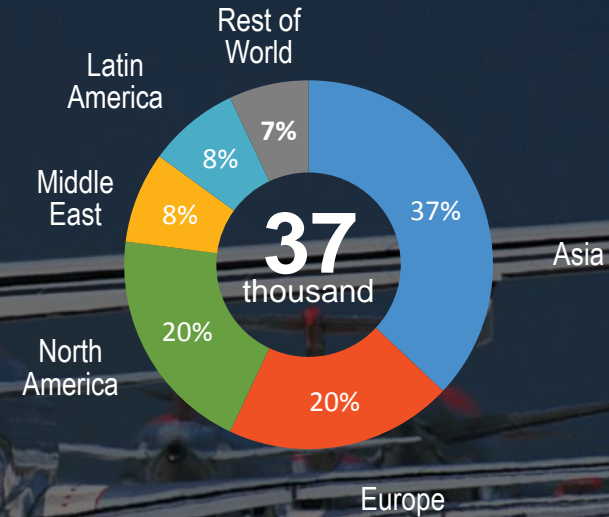


Revenue Passenger Miles

(trillions)

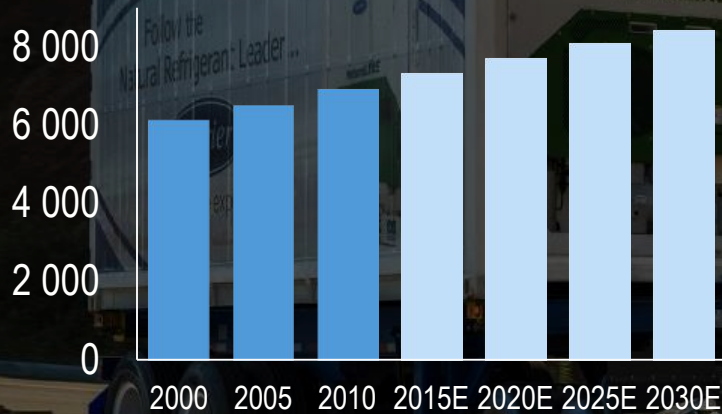


Aircraft Deliveries: 37K by 2030



World Population Growth

(millions of people)



CO₂ Emissions Due to Food Waste

3.5 Gt CO₂ equivalent

If food waste were a country, it would be the 3rd top emitter

30% food wasted

Innovative consumer economy



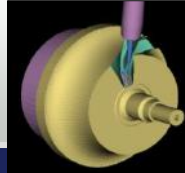
Critical infrastructure





Define new frontiers...

Advanced manufacturing



Big data

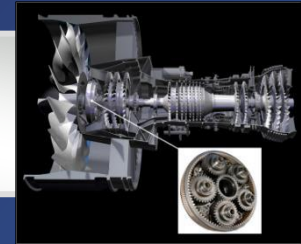


Co-develop new technologies...

Next Gen
centrifugal



GTF
lubrication



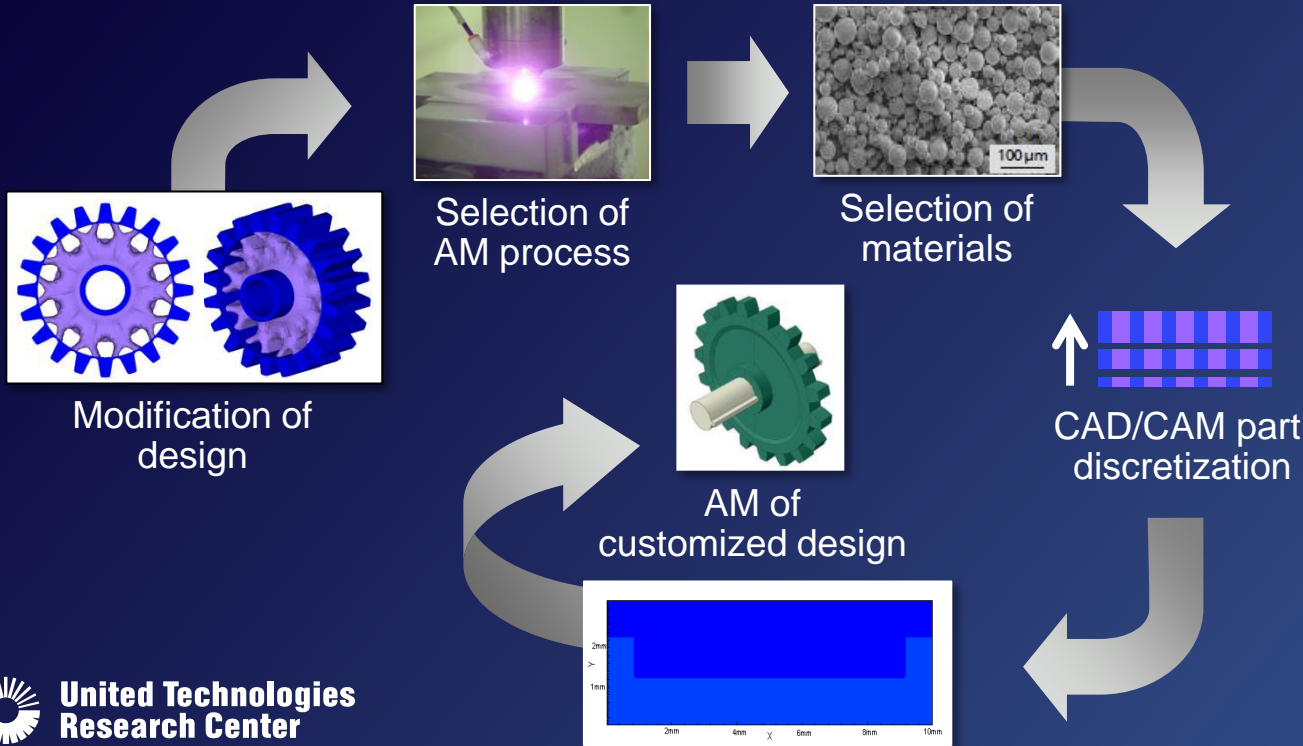
Solve tough problems...

Serve as hub for technical interchange...

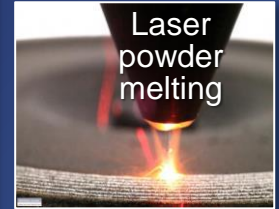
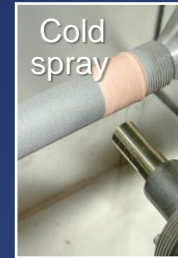
Leverage global network of innovation...



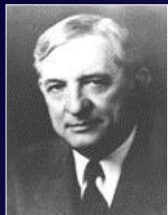
Additive Manufacturing



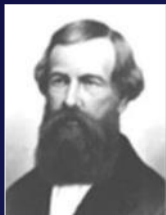
Examples



Our Future



Willis
Carrier



Elisha
Graves Otis



Fred
Rentschler



Thomas
Hamilton



Fred
Rohr



Future Innovator



Future Innovator



**United
Technologies**





**United
Technologies**

UTC SUPPLY CHAIN 
OPPORTUNITY
SUPPLYING A BETTER FUTURE, TOGETHER.

PRODUCT SUSTAINABILITY AND INNOVATION

William Sisson, Sr. Director, Sustainability

UTRC

SUSTAINABILITY AT UTC



Sustainability at UTC means we can do good for the planet while doing good for our customers, shareholders, employees, and communities.



SUSTAINABLE PRODUCTS



ACCELERATING
**GREEN
BUILDINGS**



SECURING THE
**FUTURE
OF FOOD**



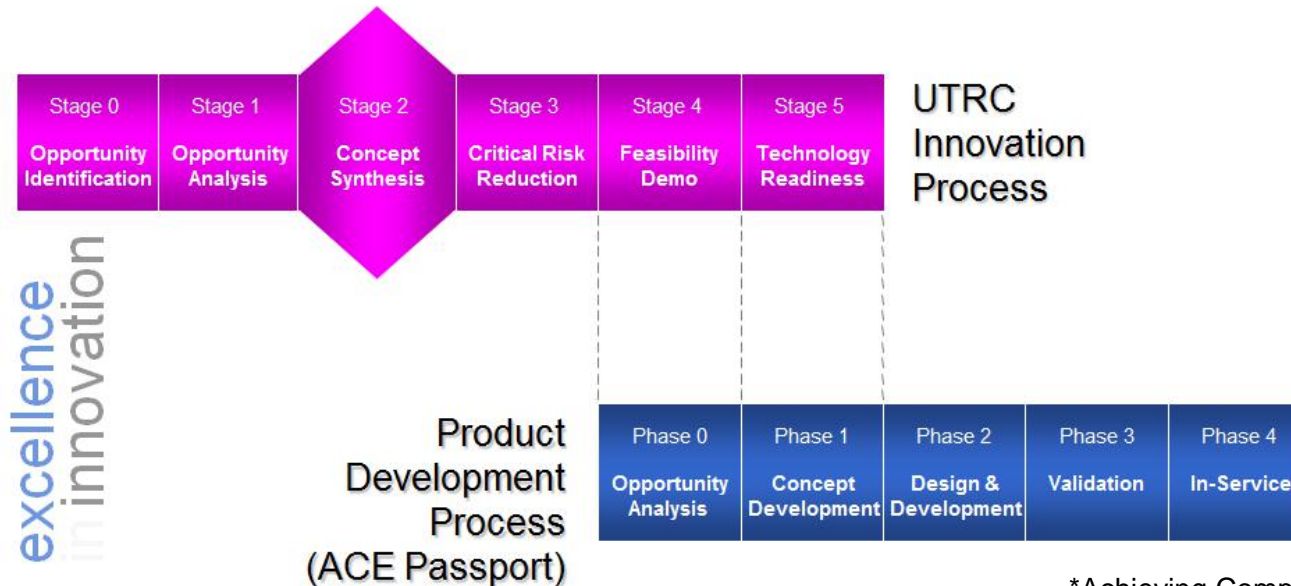
**GREEN
AVIATION**
STARTS HERE



HOW UTC INNOVATES AND DEVELOPS

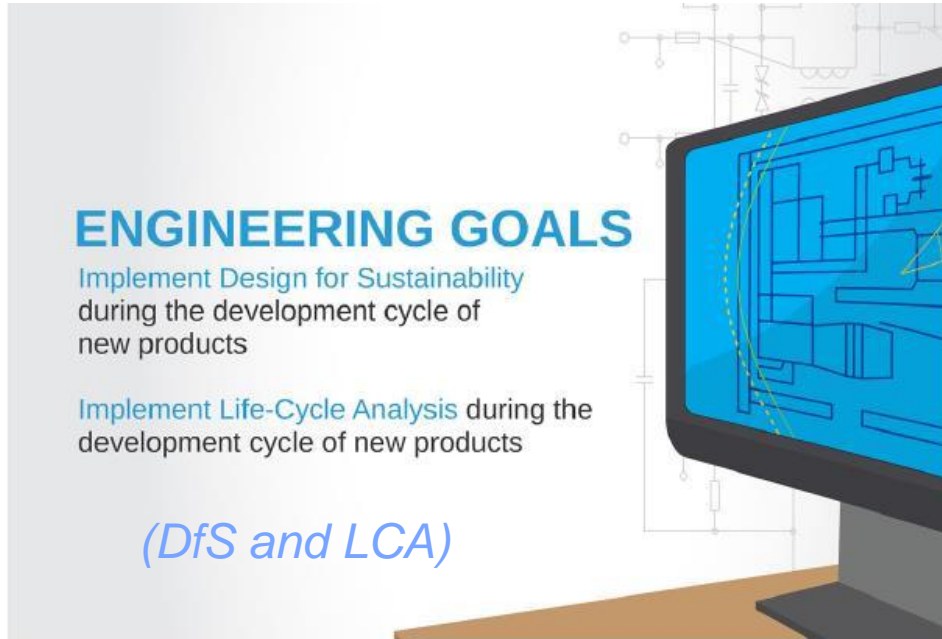
ACE* is our Operating System

Our **technical excellence** is targeted through **business acumen**, with a focus on **intellectual property**, and harnessed through **process discipline**



*Achieving Competitive Excellence

Rigorous Implementation



Engineering Methods and “Standard Work”

Integrated into ACE Passport

Tailored to Business Needs

100% Implemented by 2020

Change the Culture

KEY DfS ATTRIBUTES

Adapt to UTC's Product Diversity

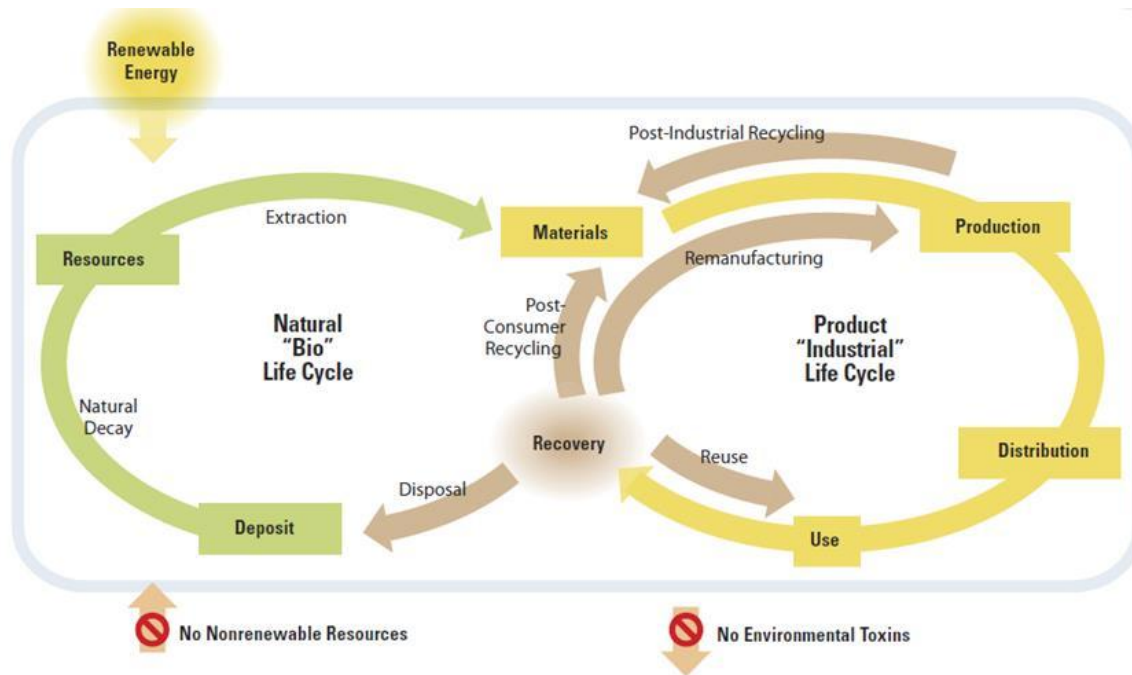


ID	Design attribute
1	Energy efficiency
2	Packaging
3	Recycled content
4	Air emissions
5	GHG emissions
6	Reduced noise
7	Material intensity
8	Materials of Concern
9	Chemical substances
10	End of life
11	Water



Design for Sustainability (DfS)

LIFE CYCLE ANALYSIS



“Cradle to cradle” assessments

Identifies DfS Attribute Priorities

Customer/Market Requirements (e.g. EPD certifications)

Tailored to BU/Customer Requirements

Source: MIT Sloan Management Review, “Interview with Steven Eppinger, How Sustainability Fuels Design Innovation”, Vol 52, No. 1, Fall 2010

Maps into Supply Chain Goals

KEY DFS ATTRIBUTES

Adapt to UTC's Product Diversity

ID	Design attribute
1	Energy efficiency
2	Packaging
3	Recycled content
4	Air emissions
5	GHG emissions
6	Reduced noise
7	Material intensity
8	Materials of Concern
9	Chemical substances
10	End of life
11	Water

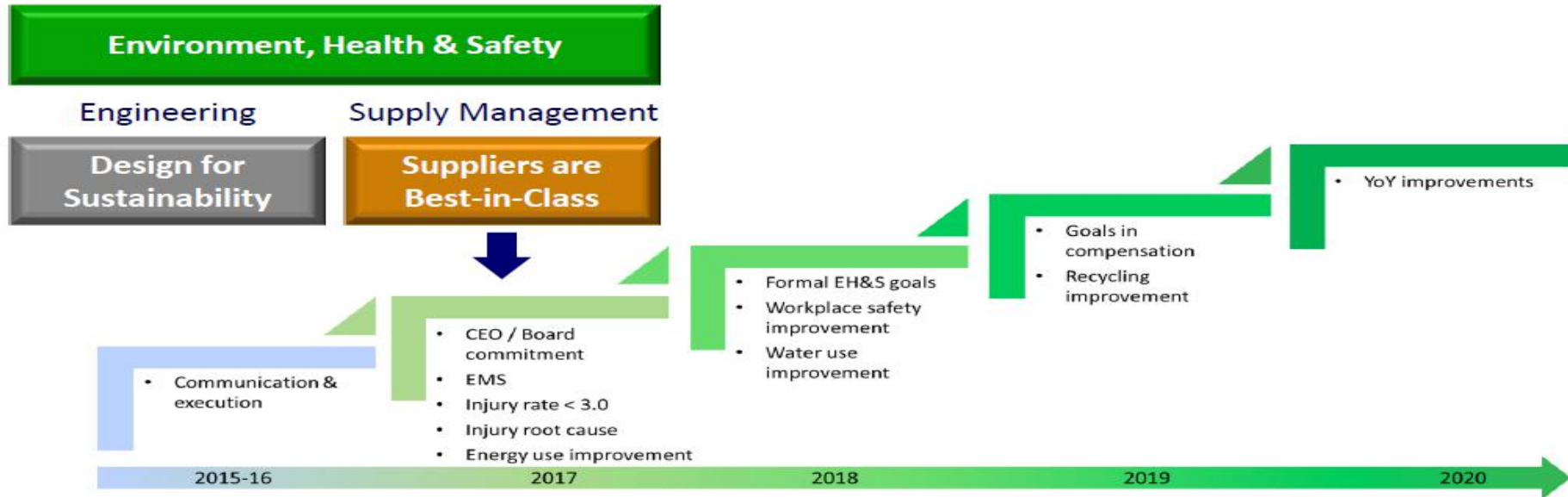
UTC | UTC AEROSPACE SYSTEMS | PRATT & WHITNEY | OTIS | UTC CLIMATE, CONTROLS & SECURITY

SUPPLY CHAIN GOALS

<p>CODE OF CONDUCT</p>	<p>CONTINUOUS IMPROVEMENT</p>	<p>WORKPLACE MANAGEMENT</p>	<p>INCENTIVIZING KEY SUPPLIERS TO IMPLEMENT</p> <p>11 SPECIFIC SUSTAINABILITY MEASURES</p>
<p>LOW INCIDENT RATE</p>	<p>ROOT CAUSE ANALYSIS</p>	<p>ENERGY IMPROVEMENTS</p>	
<p>ENVIRONMENT, HEALTH & SAFETY GOALS</p>	<p>WORKPLACE SAFETY</p>	<p>WATER IMPROVEMENTS</p>	
			<p>EXECUTIVE COMPENSATION</p>
			<p>RECYCLING IMPROVEMENT</p>

UTC 2020 SUSTAINABILITY GOALS

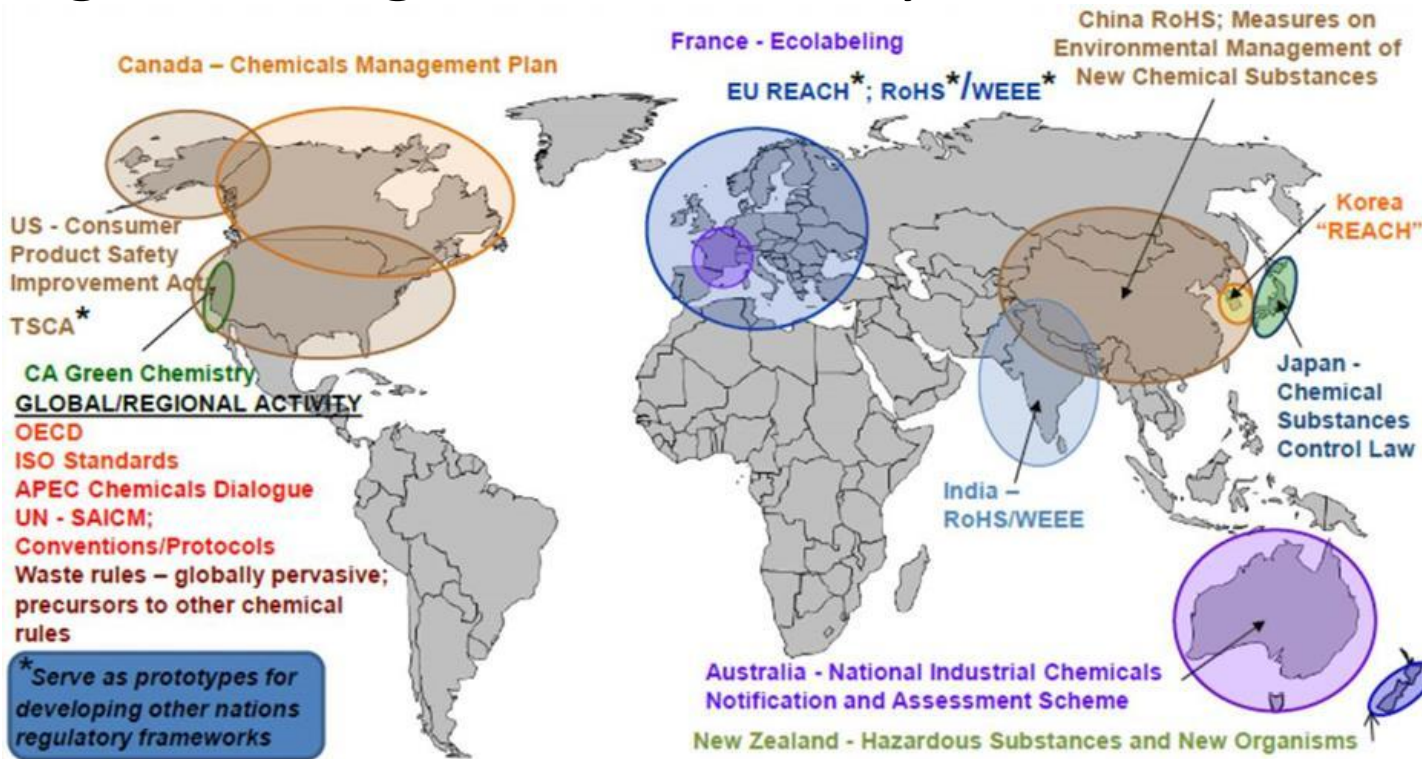
UTC Supplier Gold Timeline



Supplier commitment over time

MOC'S AND REACH

Chemical Regs Evolving Simultaneously



Registration, Evaluation, Authorization, and Restriction of Chemicals

EU law banning use of certain substances inside the EU on sunset dates

“Safe use documents” required for shipping articles into EU over 0.1% SVHC content

Affects all commercial / military / industrial programs

UTC designed hardware

Supplier-designed hardware

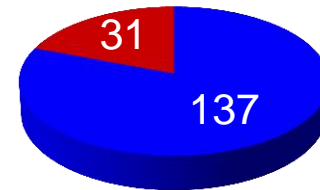
In process manufacturing

Overhaul and repair

Tooling

Substances of Very High Concern

168 substances requiring “safe use” docs*



- "Safe use" document only
- Will be banned from use in EU

*Increased from 16 SVHCs in 2008; will continue to grow

REACH Is Not Industry or Product Specific

HOW DOES IT WORK?

168

substances

1. Any **ARTICLE** with >0.1% SVHC RECEIVED in EU from anywhere must include a SAFE USE DOCUMENT

31

substances

2. ANY **SUBSTANCE** PAST its SUNSET DATE cannot be used in EU sites (BANNED)

The **ONLY** exception is the application for and granting of an **AUTHORIZATION** to extend the **SUNSET DATE**



SVHC: Substance of Very High Concern

Hexavalent Chrome Banned Starting Sept 2017

Financial Penalties

Supply Chain Disruptions

Obsolescence of Substances

High Implementation Costs

Compliance

Development and Validation of New Substances



REACH Threatens Business Continuity

MITIGATION PLANS

Across UTC BU's

Senior Executive Oversight

Regulation Monitoring and Lobbying

Map all SVHC uses and associated Manufacturing Landscape

BOM/Spec/Repair Reviews

Supplier Surveys

Partner with Industry to submit Authorizations

Develop and Validate Alternate Substances

Implement IT Sustainability Tools



**UTC Aerospace
Systems**



**United
Technologies**

Climate | Controls | Security

REACH Requires Full Supply Chain Understanding

SUPPLIER HELP NEEDED

Active Engagement and Responsiveness

Understand the regulation and supply chain impacts

Comply with regulation

Respond to supplier surveys/information needs

For Design Authority Suppliers:

Ensure products have Authorization coverage

Substantiate new formulations in your products



We Must Work Together To Succeed

QUESTIONS?

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