



# OPTIMIZED AIRCRAFT SOLUTIONS FOR NOW AND THE FUTURE Program Update

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# Forward-looking statements

This presentation includes forward looking statements. Forward looking statements generally can be identified by the use of forward looking terminology such as “may”, “will”, “expect”, “intend”, “anticipate”, “plan”, “foresee”, “believe” or “continue”, the negative of these terms, variations of them or similar terminology. By their nature, forward looking statements require us to make assumptions and are subject to important known and unknown risks and uncertainties, which may cause our actual results in future periods to differ materially from forecasted results. While we consider our assumptions to be reasonable and appropriate based on information currently available, there is a risk that they may not be accurate. For additional information with respect to the assumptions underlying the forward looking statements made in this presentation, refer to the respective Forward-looking statements sections in BA and BT in the MD&A of the Corporation’s annual report for fiscal year 2009.

Certain factors that could cause actual results to differ materially from those anticipated in the forward looking statements include risks associated with general economic conditions, risks associated with our business environment (such as risks associated with the airline industry’s financial condition), operational risks (such as risks involved in developing new products and services, in doing business with partners, relating to product performance warranty and casualty claim losses, to regulatory and legal proceedings, to environmental and health and safety, to our dependence on certain customers and suppliers, to human resources, to fixed price commitments and to production and project execution), financing risks (such as risks relating to liquidity and access to capital markets, to the terms of certain restrictive debt covenants, to financing support provided on behalf of certain customers and from reliance on government support) and market risks (such as risks relating to foreign currency fluctuations, to changing interest rates and commodity prices risks). For more details, see the Risks and Uncertainties section in Other of the MD&A of the Corporation’s annual report for fiscal year 2009. Readers are cautioned that the foregoing list of factors that may affect future growth, results and performance is not exhaustive and undue reliance should not be placed on forward looking statements. The forward looking statements set forth herein reflect our expectations as at the date of this presentation and are subject to change after such date. Unless otherwise required by applicable securities laws, the Corporation expressly disclaims any intention, and assumes no obligation to update or revise any forward looking statements, whether as a result of new information, future events or otherwise.

# Bombardier Commercial Aircraft strategic plan

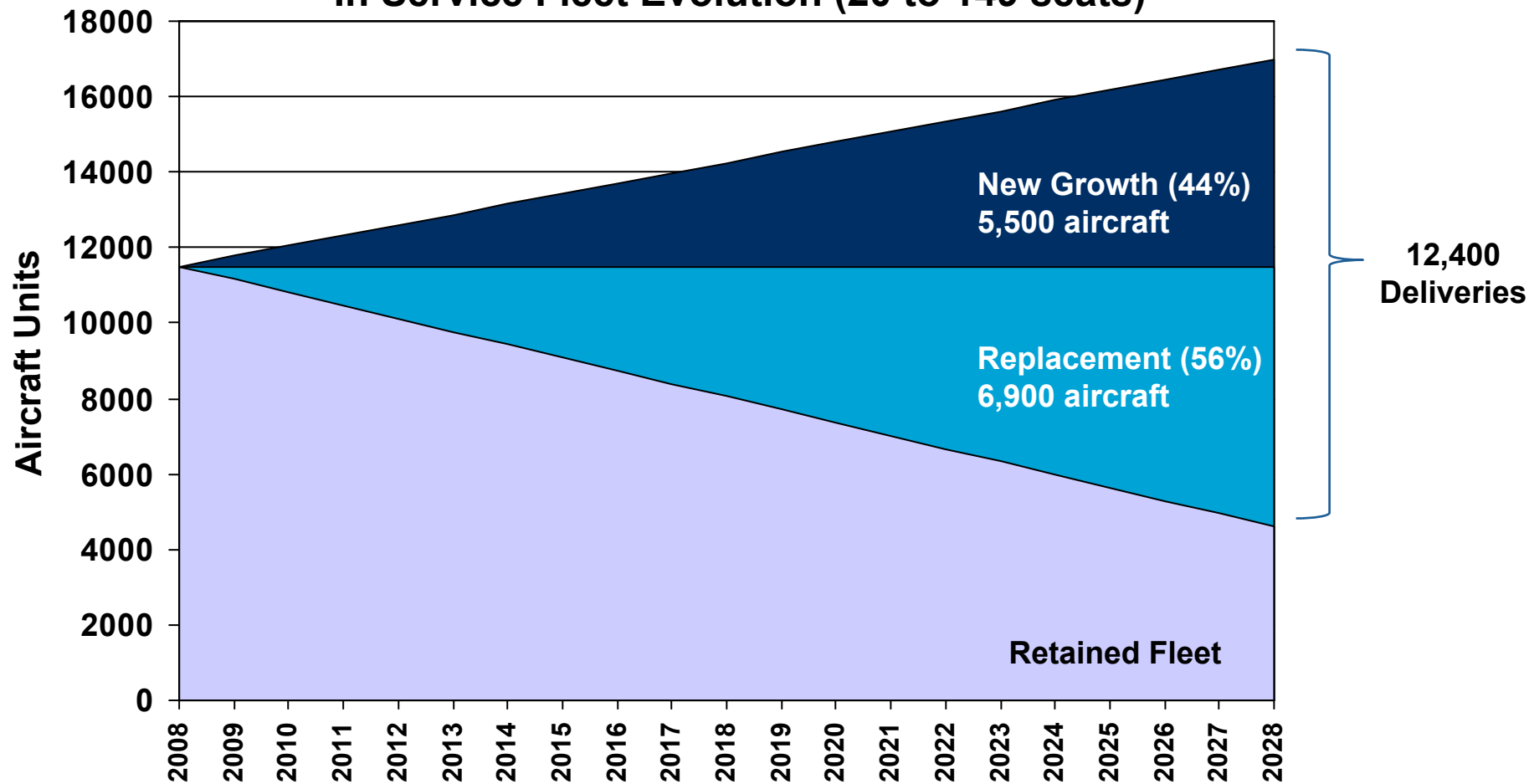
- BCA's strategy is to transition from being a Regional Aircraft Leader to being Single Aisle/Mainline and Regional Aircraft Leader
- This transition will occur during a very difficult economic period
- Significant structural cost improvement initiatives are underway
- Continuous Q400 and CRJ product improvements

**Bombardier Commercial Aircraft has plans to grow its business considerably by the end of the decade**



# More than half of the new deliveries will be to replace retired aircraft

## In Service Fleet Evolution (20 to 149 seats)

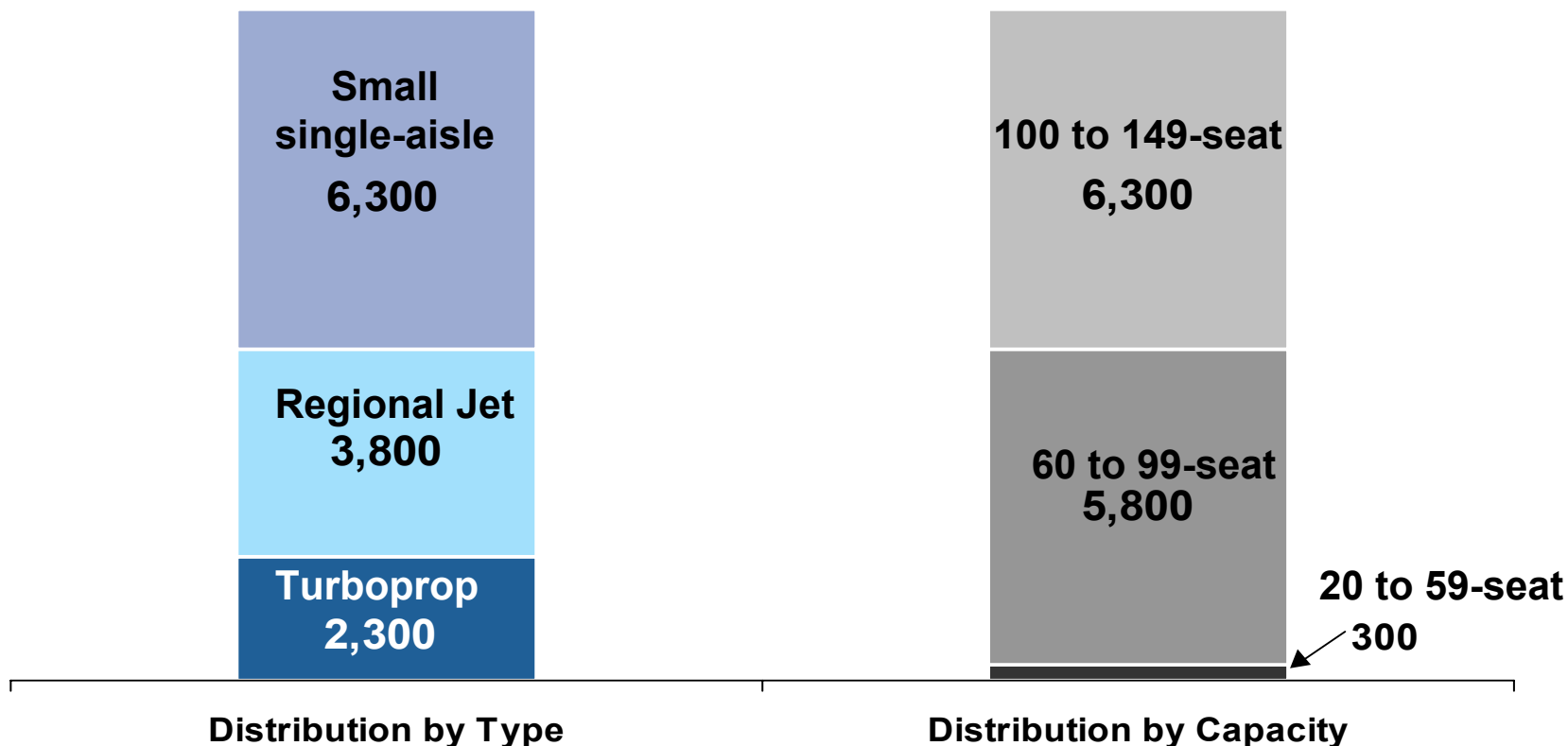


Source: Bombardier Market Development



**38% of 20 to 99-seat deliveries will be turboprops. More than half will be small single-aisle aircraft**

### Delivery Demand By Type & Capacity



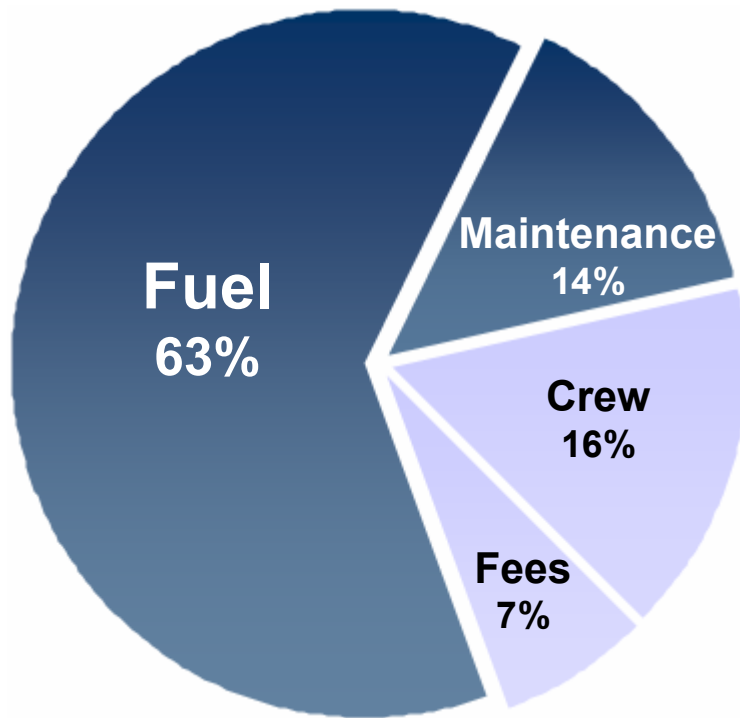
# Long term outlook for the airline industry is positive



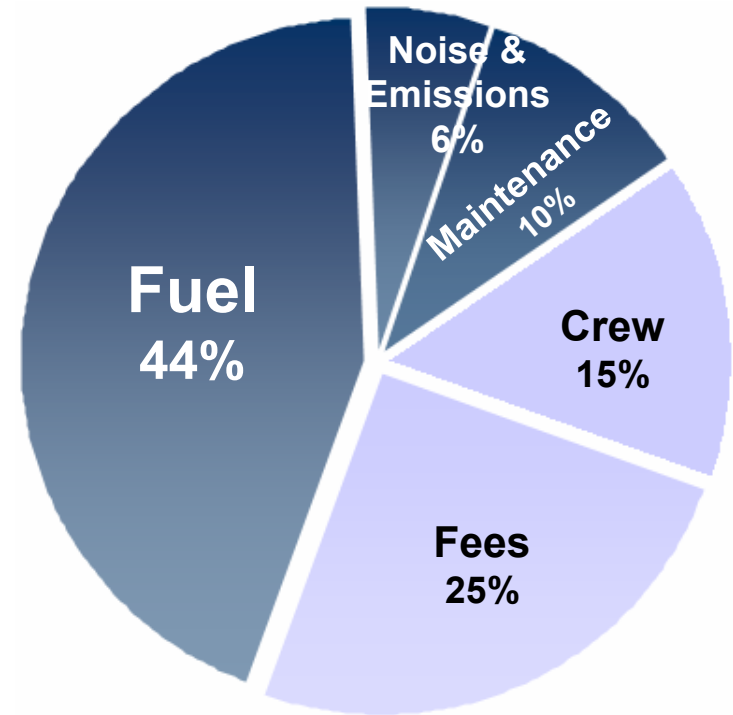
- Though economic forecasts show a substantial slowdown in 2009-2010, accelerated growth is projected in the years that follow
- Over long-term, higher oil prices will drive the need for increased aircraft efficiency
- Airlines will continue to seek lower cost per-seat aircraft
  - Average capacity will increase in regional market
  - New technology will be applied in the single-aisle market

# Product development must keep pace with cost drivers

Cash Operating Costs (COC)  
in North American Environment



COC in European Environment



~ 77% - 84% ← Costs Driven by Technology and Right Sizing → ~ 60 - 85%

Assumptions: 500 nm Mission; Fuel Cost: 3.00 US\$/USG; based on a combination of Bombardier in-production and under development aircraft.



# Bombardier Commercial Aircraft

## Optimized aircraft solutions for now and the future

### Turboprops

*Optimized Short-Haul Solution*



#### Q-Series

1033 Firm Orders

100+ Operators

### Regional Jets

*Optimized  
Regional Network  
Solution*



#### CRJ Series

1,673 Firm Orders

60+ Operators

### Single-Aisle Mainline Jets

*Optimized for 100-149 Seat Market*



#### CSERIES

50 Firm Orders

50 Options

**2450 + Aircraft in service worldwide**

\*As of July 31st, 2009

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# **C SERIES • A GAME CHANGER IN ITS CLASS**



- Family of Aircraft with Full Operational Commonality**
- Unmatched Reduction in Environmental Footprint**
- Total Life Cycle Cost Improvement**
- 15% Better Cash Operating Costs – 20% Fuel Burn Advantage**
- Widebody Comfort In A Single Aisle Aircraft**
- Mature 99% Reliability at Entry Into Service**
- Operational Flexibility – Short Field and Longer Range Performance**

# CSERIES Incorporating A Worldwide Effort





# Optimization of technology for the 100 to 149-seat market



UHBR: Ultra High By Pass Ratio

# CSERIES Technologies And Design Evolutions Focused On Delivering Operational Benefits

Select Right  
Technology  
& Design

Demonstration

Accelerated  
Component  
Testing

System  
Level  
Testing

Flight  
Testing

Successful  
Entry into  
Service



Composite &  
Advanced  
Aluminum  
Alloy  
Structures



Best in Class Cabin Comfort  
and Flexibility



Advanced Flight Deck  
FBW with Side Sticks

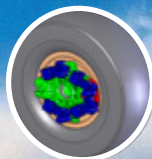


Integrated  
Avionics &  
Optimized  
Systems

Superior Field  
Performance &  
Range Flexibility



Electric  
Brakes

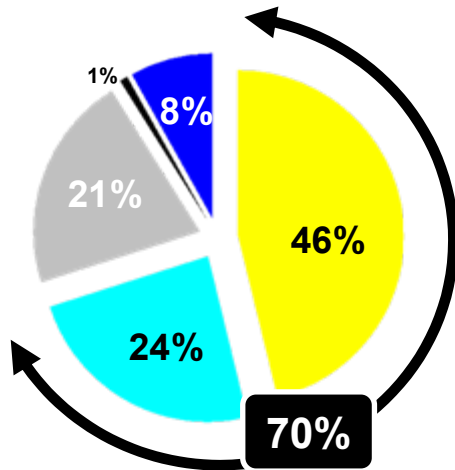


PurePower  
PW1000G™  
Engine

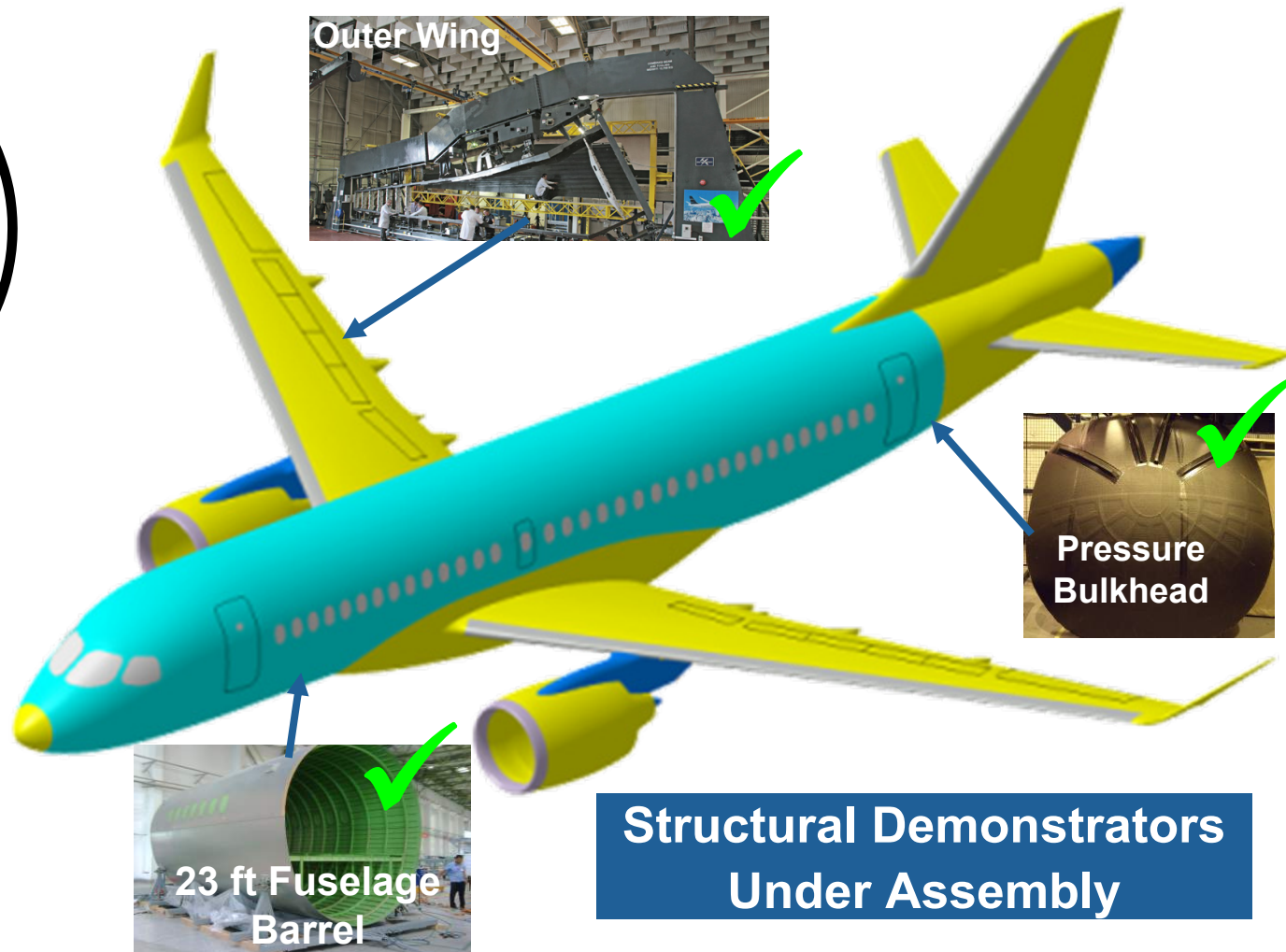


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# CSERIES • Advanced Structural Materials Bring Significant Weight Savings



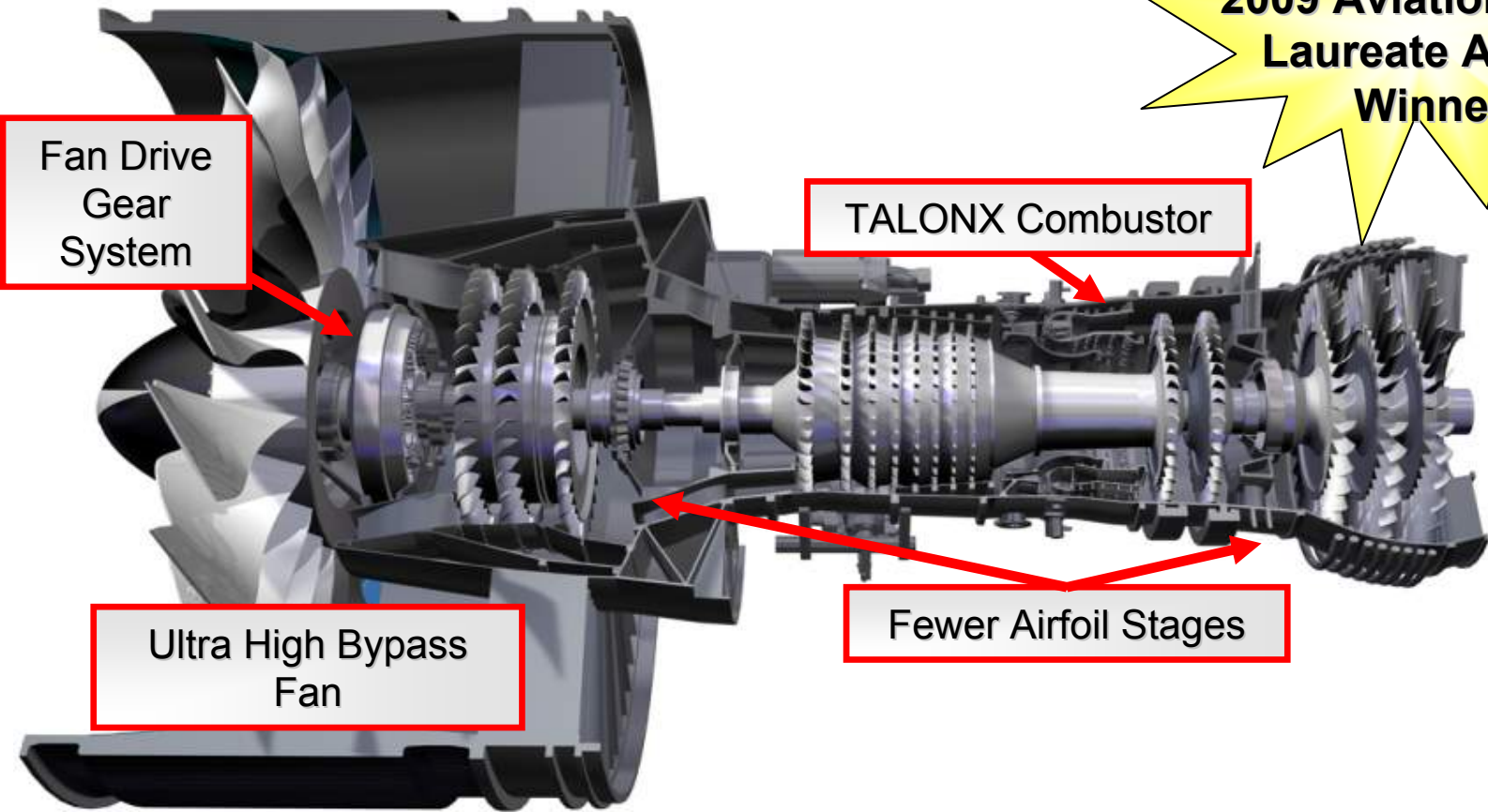
- Advanced Composites
- Aluminum Lithium
- Standard Materials
- Titanium
- Steel





# Driving Optimization C Series Pratt & Whitney PurePower™ PW1000G

**2009 Aviation Week  
Laureate Award  
Winner**



# C SERIES PurePower™ PW1000G On Track For 2013 Entry Into Service



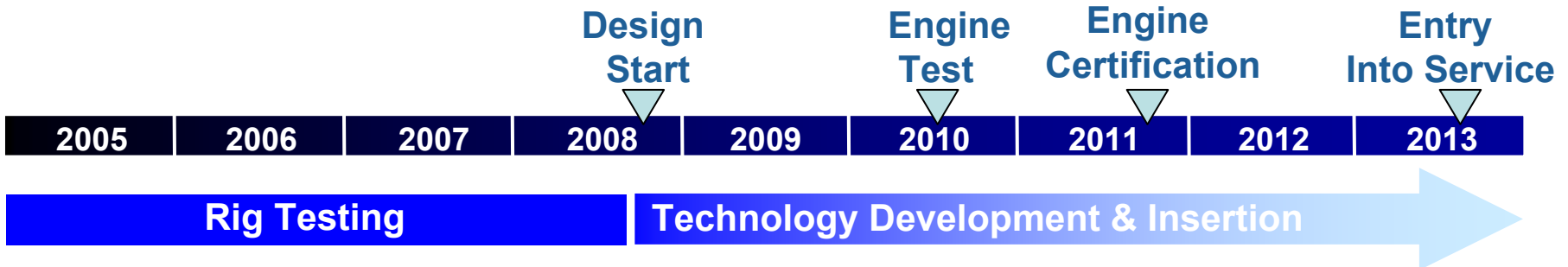
250 hours ✓



12 flights, 44 hours ✓

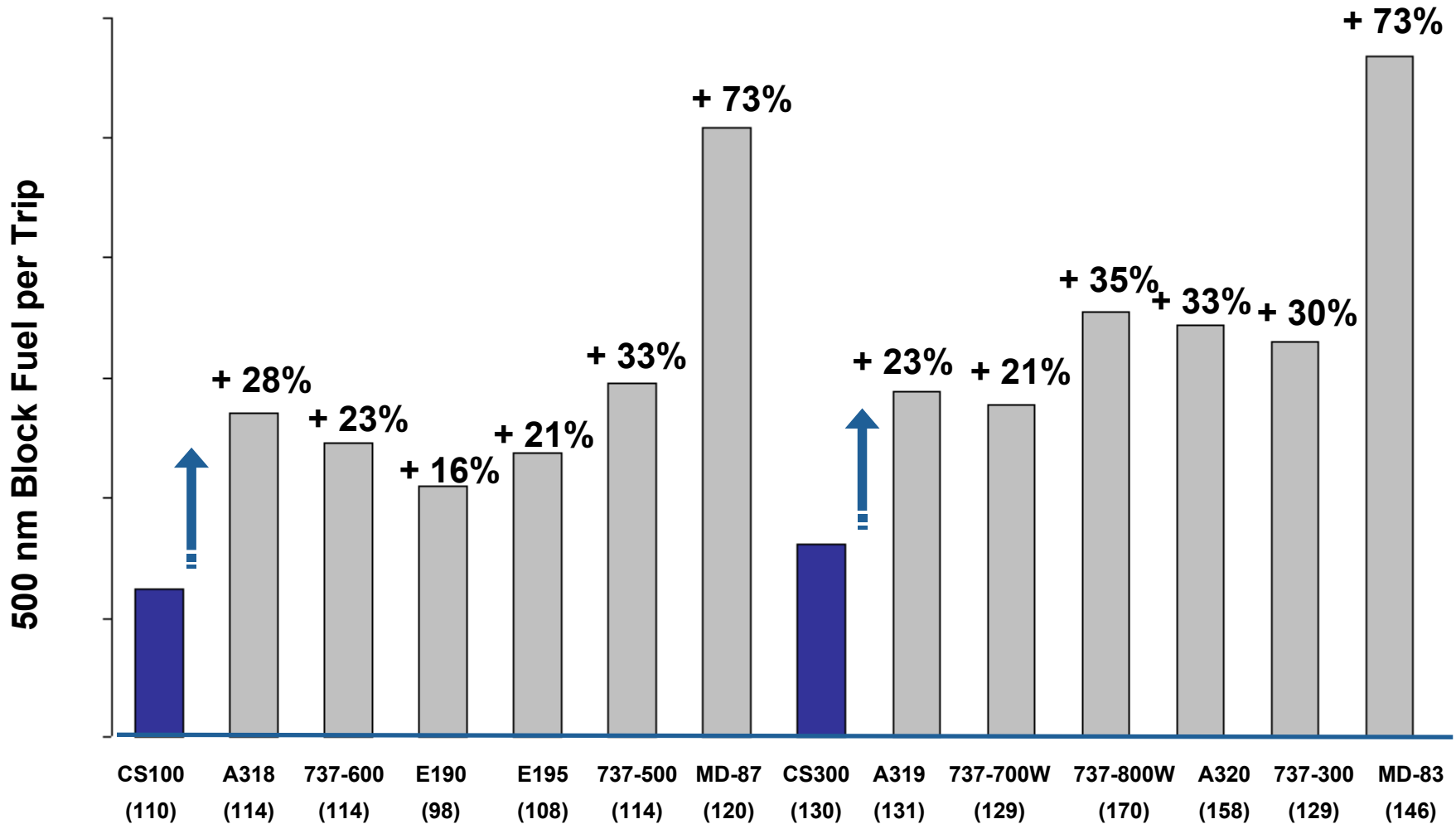


27 flights, 76 hours ✓



**Pratt's PurePower Performance & Operability Confirmed  
During Ground & Flight Testing**

# CSERIES Solution Offers Game Changing Fuel Burn Advantage





# **C***SERIES* • Unmatched Reduction In Environmental Footprint

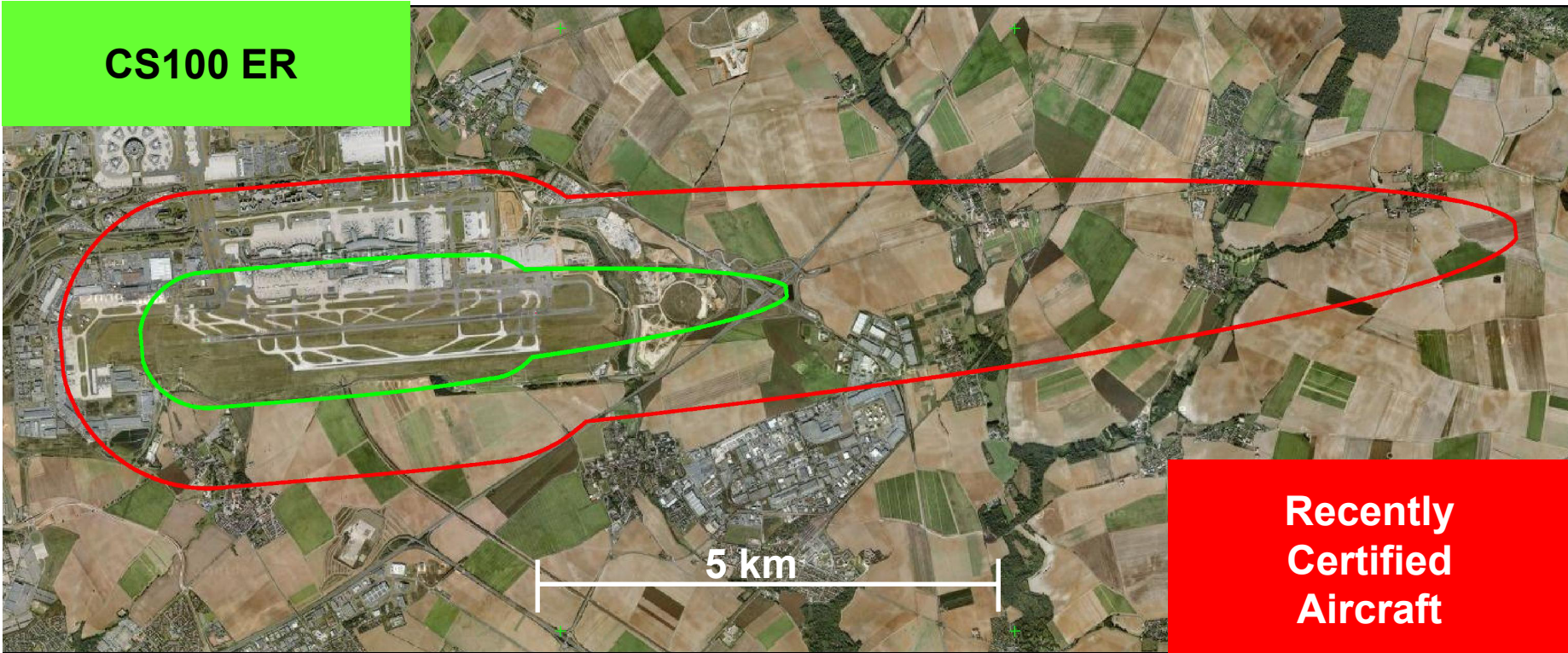
The future of the industry lies in the challenge of balancing profitability and reducing impact on the environment. Designed with vision and conviction, the **C***SERIES* combines low operating costs and an unmatched environmental scorecard.



# 4 Times Smaller Noise Footprint



**CS100 ER**



**Recently  
Certified  
Aircraft**

Note: 70 dB(A) Contours, A-Weighted Sound Level; ISA+10C

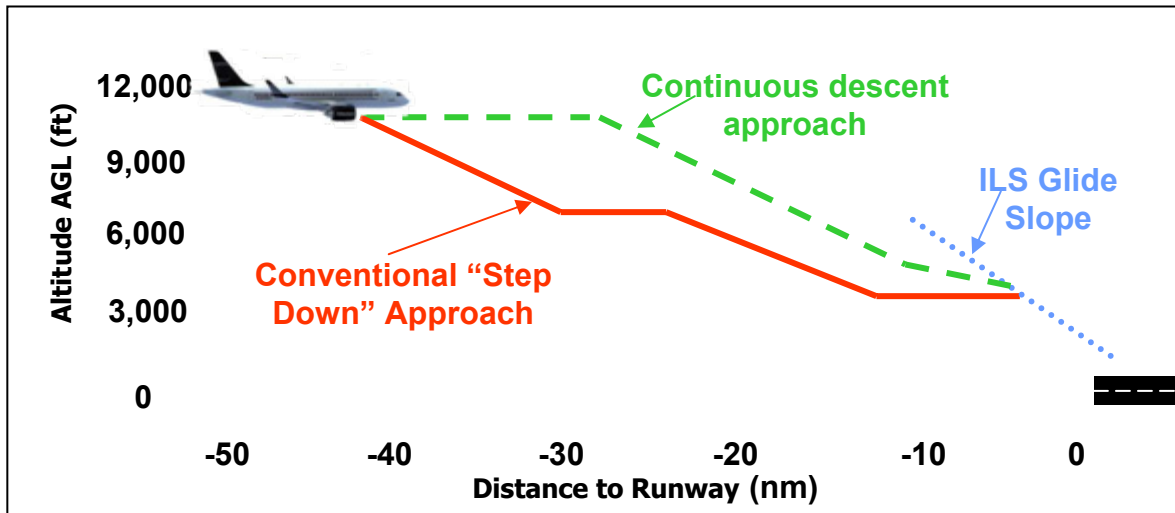


# Advanced avionics for more efficient navigation & smaller footprint

CSeries is equipped with advanced avionics that will reduce its CO<sub>2</sub> emissions:

- **Automatic Dependant Surveillance-Broadcast (ADS-B)**
- **Required Navigation Performance (RNP)**
- **Continuous Descent approach (CDA)**

Assuming an aircraft being flown in ADS-B cruise airspace similar to Hudson Bay and RNP terminal airspace similar to Kelowna BC



One CS100 ER can reduce over 32,000 tons of CO<sub>2</sub> emissions\*

Equivalent to Over 11,000 cars\*\* off the road for a year

\*Based on a lifetime of 60,000 cycles for one aircraft

\*\*Based on an average of 16,000 Km traveled/year in Canada

# CSERIES • Exceptional range capability

**CS100 - 110 Pax**  
**2,700 nm (5,000 km)**

**CS300 - 130 Pax**  
**2,700 nm (5,000 km)**

## **Performance Assumptions:**

- Type Spec Aircraft Configuration
- Passengers with Bags @ 225 lb. (102 kg) each
- 2.5% Margin on OWE (for Customization)
- 85% Annual Wind / Enroute Temperature ISA
- Typical Mission Rules with Reserves  
(100 nm diversion, 45 min. hold @ Cruise Altitude, 5% Flight Fuel Contingency)





# C SERIES • Aircraft Availability At The Lowest Cost

## Selecting the right technology for Dispatch Reliability

- 99.5% Dispatch Reliability at maturity
- Advanced aircraft health monitoring and information management

## Minimize costs

- Direct maintenance costs – 28% lower than the competition
- Indirect maintenance cost
- Other operating costs

## Longer intervals for scheduled checks

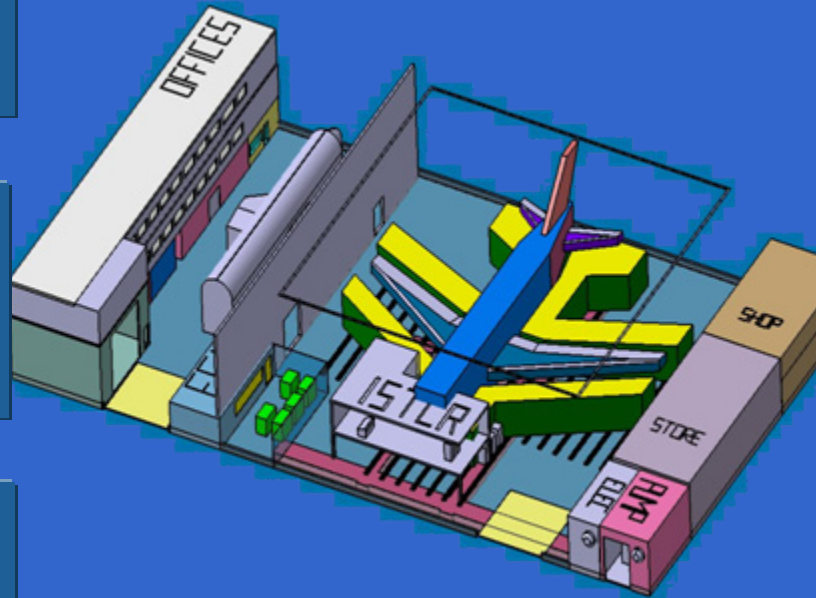
- 100 hours for systems checks
- 750 hours for line maintenance
- 7500 hours for base maintenance

# CIASTA • Complete Integrated Aircraft System Test Area In Place One Year Ahead Of Flight Testing

Reconfigurable  
Engineering Flight  
Simulator

Cabin Systems /  
Environmental Control  
System Rig

FBW Prototype Flight  
Controls Integration  
Lab



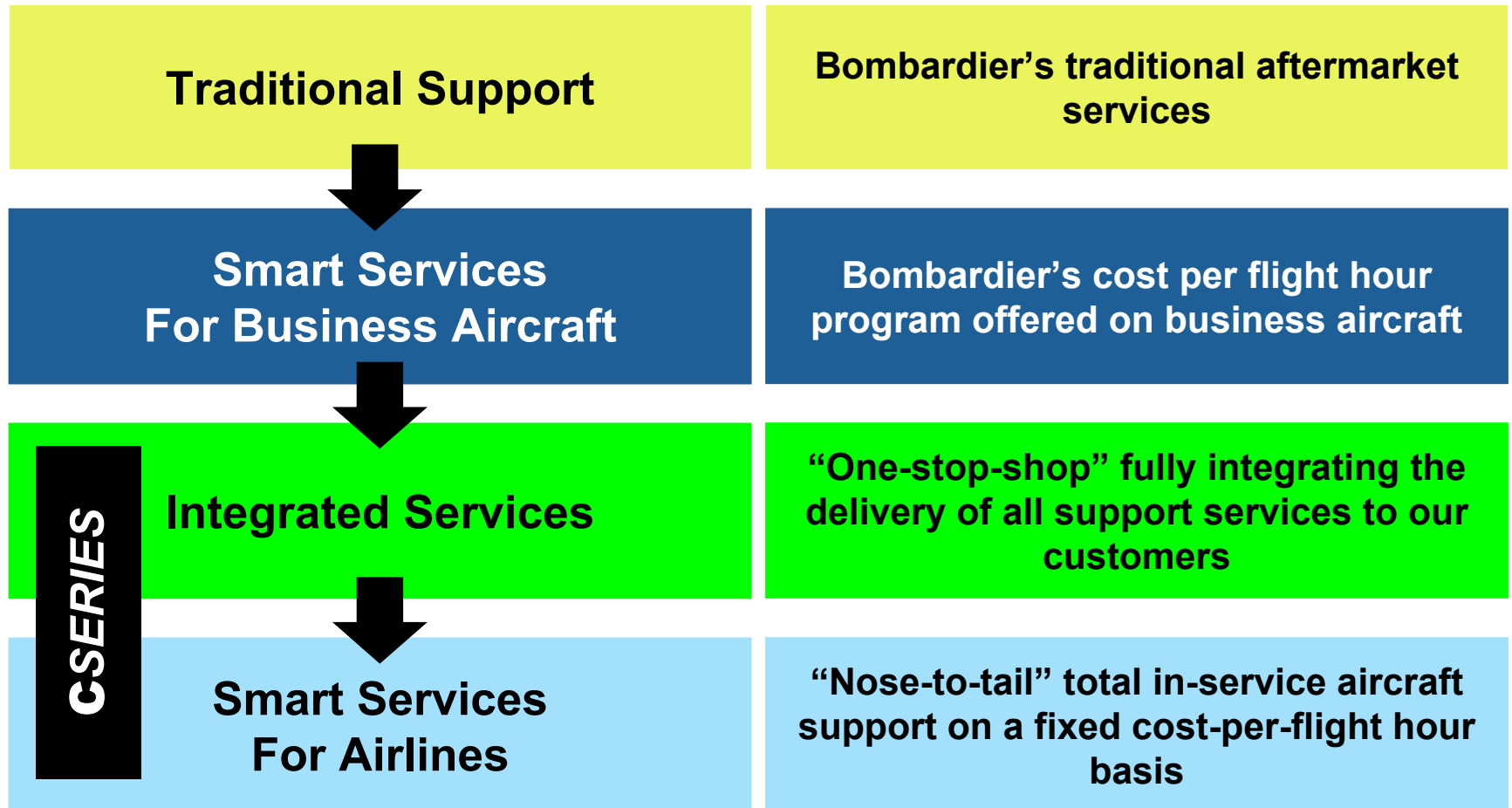
Engineering Simulator

Integrated Systems  
Test and Certification  
Rig

Avionics/Electrical  
Systems Integration  
Test Rig

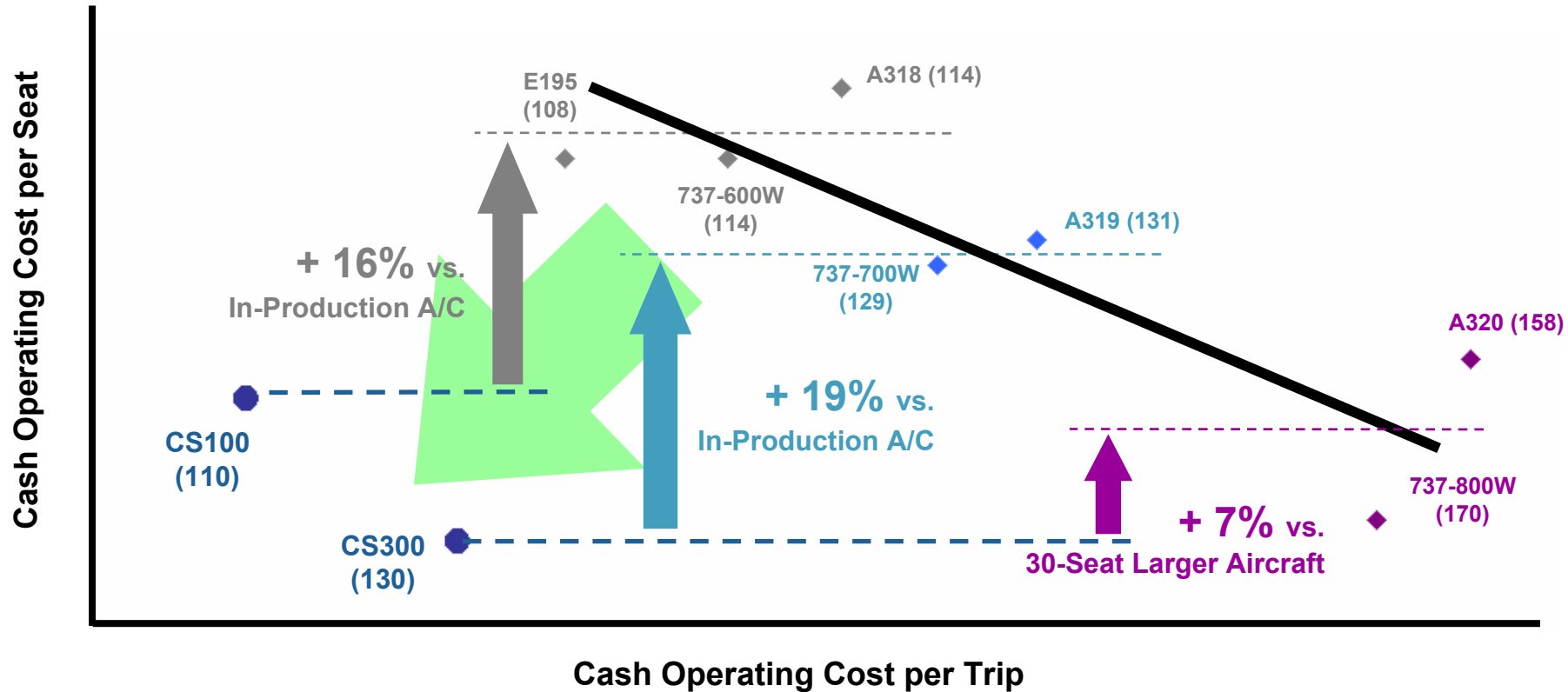
**CSERIES First Complete Test Vehicle Enabling Earlier  
Product Maturity**

# Bombardier is Migrating to a Comprehensive Aftermarket Business Model With **C*SERIES***



# CSERIES • A More Cost-Effective, Right-Sized Aircraft

## COC Comparison – 500 nm Mission North American Environment



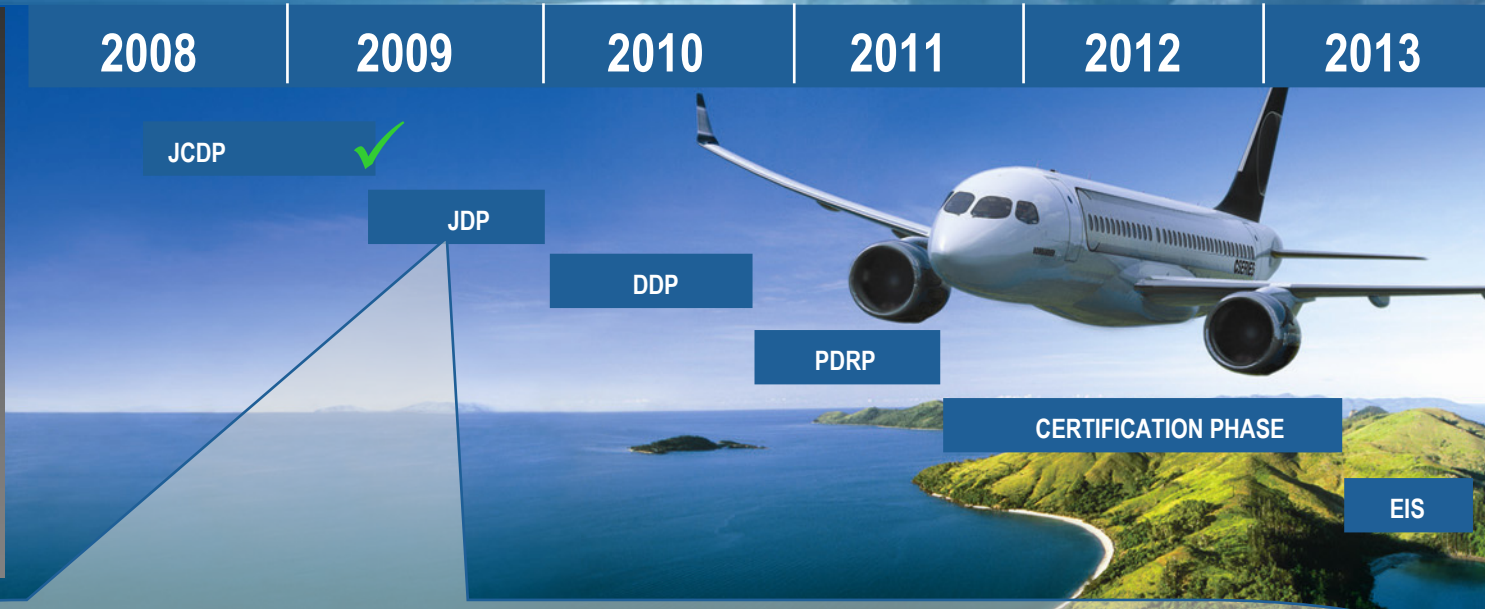
Jet Fuel at \$1.95 USD/USG [\$82 US\$/Jet Fuel barrel]

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# CSERIES - Moving into next phase of development

## CSeries Development Program



## JDP Focus

- Ground breaking for *New Wing Assembly* building and *Complete Integrated Aircraft Test* facility
- Complete Advanced Aluminum Fuselage Barrel Rig
- Complete CFRP Wing Demonstrator Rig
- High Speed and Ground Effect Wind Tunnel Tests
- Preliminary Design Review Close-Out

JCDP: Joint Conception Definition Phase  
JDP: Joint Definition Phase  
DDP: Detail Design Phase

PDRP: Product Definition Release Phase  
EIS: Entry Into Service  
CFRP: Carbon Fiber Reinforced Polymer

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# CSeries partners and suppliers



 <p><b>Pratt &amp; Whitney</b> A United Technologies Company</p> <p>PW1500G Engine</p>	<p><b>BOMBARDIER</b></p> <p><b>ST-Laurent</b> Cockpit Rear Fuselage</p>	 <p><b>GOODRICH</b></p> <ul style="list-style-type: none"> <li>Flaps / Slats Actuation</li> <li>Ice Detection</li> <li>Smart Probes</li> <li>Lighting System</li> </ul>	<p><b>Honeywell</b></p> <ul style="list-style-type: none"> <li>APU</li> <li>IRS</li> </ul>	 <p><b>Hamilton Sundstrand</b> A United Technologies Company</p> <p>Electrical</p>
<p><b>Rockwell Collins</b></p> <p>Avionics</p>	<p><b>BOMBARDIER</b></p> <p><b>Belfast</b> Wing</p>	<p><b>LIEBHERR</b></p> <ul style="list-style-type: none"> <li>Air Management System</li> <li>Landing Gear</li> </ul>	 <p><b>Esterline</b> Korry Electronics</p> <p>Cockpit Control Panels</p>	 <p><b>SPiRiT</b> AEROSYSTEMS</p> <p>Pylons</p>
<p><b>ZODIAC AEROSPACE</b></p> <p>Interior</p>	 <p><b>Alenia Aeronautica</b></p> <p>Empennage</p>	 <p><b>Parker</b></p> <ul style="list-style-type: none"> <li>Fuel, Hydraulics</li> <li>Fuel Inerting</li> </ul>	 <p><b>Kidde Aerospace &amp; Defense</b> A Hamilton Sundstrand Company</p> <p>FIDEX</p>	<p><b>senior</b> Aerospace</p> <p><b>BWT</b></p> <p>ECS LP Ducting SSP ECSHP Ducting</p>
 <p><b>SACC</b></p> <ul style="list-style-type: none"> <li>Fuselage (Fwd/Mid/Aft)</li> <li>Tailcone and Doors</li> </ul>	<p><b>Fokker Elmo</b></p> <p>Wiring</p>	 <p>TQA</p>	 <p><b>CAE</b></p> <p>Simulation Tools Training Devices</p>	<p><b>MEGGITT</b></p> <p>Brake Control</p>
<p><b>98% Bill of Materials Secured</b></p>	<p><b>Panasonic</b></p> <p>Panasonic Avionics Corporation</p> <p>Cabin Management System</p>	 <p><b>L3</b> communications</p> <p>Aviation Recorders CVR / FDR</p>		
<p><b>SONACA</b></p> <p>YOUR RELIABLE AEROSPACE PARTNER</p> <p>Wing Leading Edge</p>	 <p><b>SILVER SEAL</b></p> <p>Flaps, Spoilers &amp; MLG Doors</p>			

# C SERIES • The future is now...



**Composite  
Wing  
Demo**

**Advanced  
Aluminum  
Alloy Fusel  
Barrel**

**CIASTA  
Ground  
Breaking**



# TIME FLIES. BE READY.



*CRJ, CRJ700, CRJ900, CRJ1000, CS100, CS300, CSeries, NextGen and Q400 are trademarks of Bombardier Inc. or its subsidiaries.*

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