1. PLM History at Bombardier Aerospace
2. PLM Vision at Bombardier Aerospace
3. Challenges:
   - Integrating Design / Build / Support
   - Collaboration Model
   - Knowledge isn't "Out of School"
LEARJET FAMILY
- LEARJET 60 XR
- LEARJET 70
- LEARJET 75
- LEARJET 85

CHALLENGER FAMILY
- CHALLENGER 300
- CHALLENGER 605
- CHALLENGER 850
- CHALLENGER 870

GLOBAL FAMILY
- GLOBAL 5000
- GLOBAL 6000
- GLOBAL 7000
- GLOBAL 8000

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COMMERCIAL AIRCRAFT
LEADERS IN THE NEW REALITY

Q-SERIES FAMILY

CRJ SERIES FAMILY

CSERIES FAMILY

Optimized short-haul solution

Optimized regional network solution

Optimized 100- to 149-seat market segment solution

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A PLM HISTORY

- **Build to Print**
- **Self-contained (Challenger aircraft)**
- **Partnership (Airbus 330-340)**
- **Partnership (Global Express aircraft)**
- **Partnership (CSeries aircraft)**

- **Adhere to standard**
- **Collaborate with Authorities**
- **Demonstrate compliance**

- **Drawing Definition**
- **Drawing Definition with Solid**
- **Digital Product Definition**

- **Drawing Board**
- **2D (CADAM)**
- **3D (CATIA V3)**
- **DMU (CATIA V4 & CDMA)**

- **PLM (CATIA V5 & LCA)**
- **PLM (TeamCenter)**
- **PLM (eRoom & Documentum)**

- **1980**
- **1990**
- **2000**
- **2010**

- **C2**
- **eProduct**
PLM VISION

END-STATE VISION: ONE INTEGRATED SOURCE OF PRODUCT DATA

One Integrated Source of Product Data

“Design” Change Implementation
Modification Summary

“Build” Change Implementation
Action Summary

Conformity

Change Request
Product Change
As-Maintained View

As-Built View

Configured Product Definition

Product Design

As-Design View

Conformity

“Support” Change Implementation
Service Bulletin
AN INTEGRATION CHALLENGE
PLM CHALLENGE – INTEGRATION CHALLENGE

Final Line

Structural

BOMBARDIER St-Laurent
BOMBARDIER Belfast
SAC
AERinnova
AleniaAeronautica
Spirit Aerosystems
CAD Systems

Integrators
TAA

Systems

Pratt & Whitney
GOODRICH
LIEBHERR
Fokker

40+ suppliers

Tiers / Suppliers

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A
COLLABORATION
CHALLENGE
PLM enables the global supply chain collaboration model
COLLABORATION MODEL:
NEW CAPABILITIES MEANS NEW RISKS

User could print, fax or photocopy documents, but was facing serious limitations
• Level of details obtained
• Size that could be reproduced
• Time consuming operation
• More data being smuggled, means more risk for the user

Digital
• Now... on a memory chip no bigger than a dime
• Users can extract **exact** copy of the entire aircraft parts
• Users can extract **exact** copy of all documentations
• Users can ..

Paper

BOMBARDIER
the evolution of mobility
COLLABORATION MODEL:
THE NEW REALITY OF DATA

Tier 1
Business Process

Tier 2
Cross Functional Process

Tier 3
Functional Activity

Tier 3.5
PLM Process

Tier 4
Functional Task

Software & Hardware

Authorities

5-15 year lifecycle

2-5 year lifecycle

20-30 year lifecycle