

Nurturing a Continuous Improvement Culture

Gordon Castle

**Manager, Achieving Excellence System
Bombardier Aerospace**

BOMBARDIER
the evolution of mobility

Bombardier Commercial Aircraft



C SERIES CS300



C SERIES CS100



REGIONAL JET CRJ1000



REGIONAL JET CRJ700



REGIONAL JET CRJ900



Q400

BOMBARDIER
the evolution of mobility

Bombardier Business Aircraft



Global 7000 & 8000



Global 6000



Global 5000



Challenger 805



Challenger 605



Challenger 300



Lear 85



About Bombardier

Around the globe, 76,200 employees work diligently to earn our worldwide leadership in aerospace and rail transportation.

As at the date of this report, we have 79 production and engineering sites in 27 countries and a worldwide network of service centers.

BOMBARDIER AEROSPACE

BA is a world leader in the design, manufacture and support of innovative aviation products for the business, commercial, specialized and amphibious aircraft markets.

Revenues	\$9.4 billion
EBIT	\$418 million
EBIT before special items ⁽¹⁾	\$388 million
Free cash flow ⁽¹⁾	(\$1.2) billion
Order backlog	\$37.3 billion
Number of employees ⁽²⁾	37,700

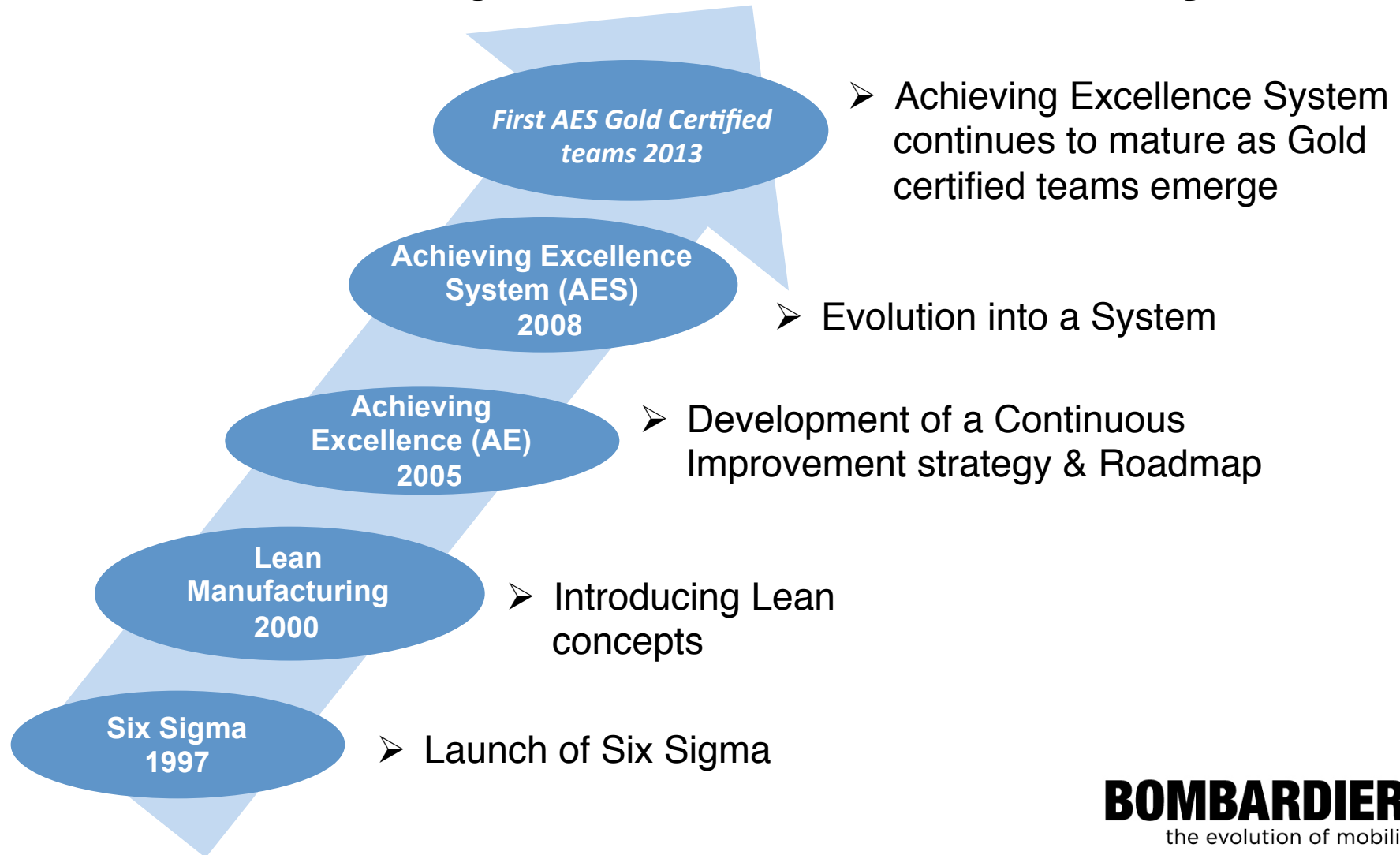
BOMBARDIER TRANSPORTATION

BT is a world leader in the design, manufacture and support of rail equipment and systems.

Revenues	\$8.8 billion
EBIT	\$505 million
EBIT before special items ⁽¹⁾	\$505 million
Free cash flow ⁽¹⁾	\$668 million
Order backlog	\$32.4 billion
Number of employees ⁽²⁾	38,500

BOMBARDIER
the evolution of mobility

Our Improvement Journey



BOMBARDIER
the evolution of mobility

Achieving Excellence System

An integrated management system designed to foster employee engagement through a continuous improvement roadmap which defines and integrates world-class best practices

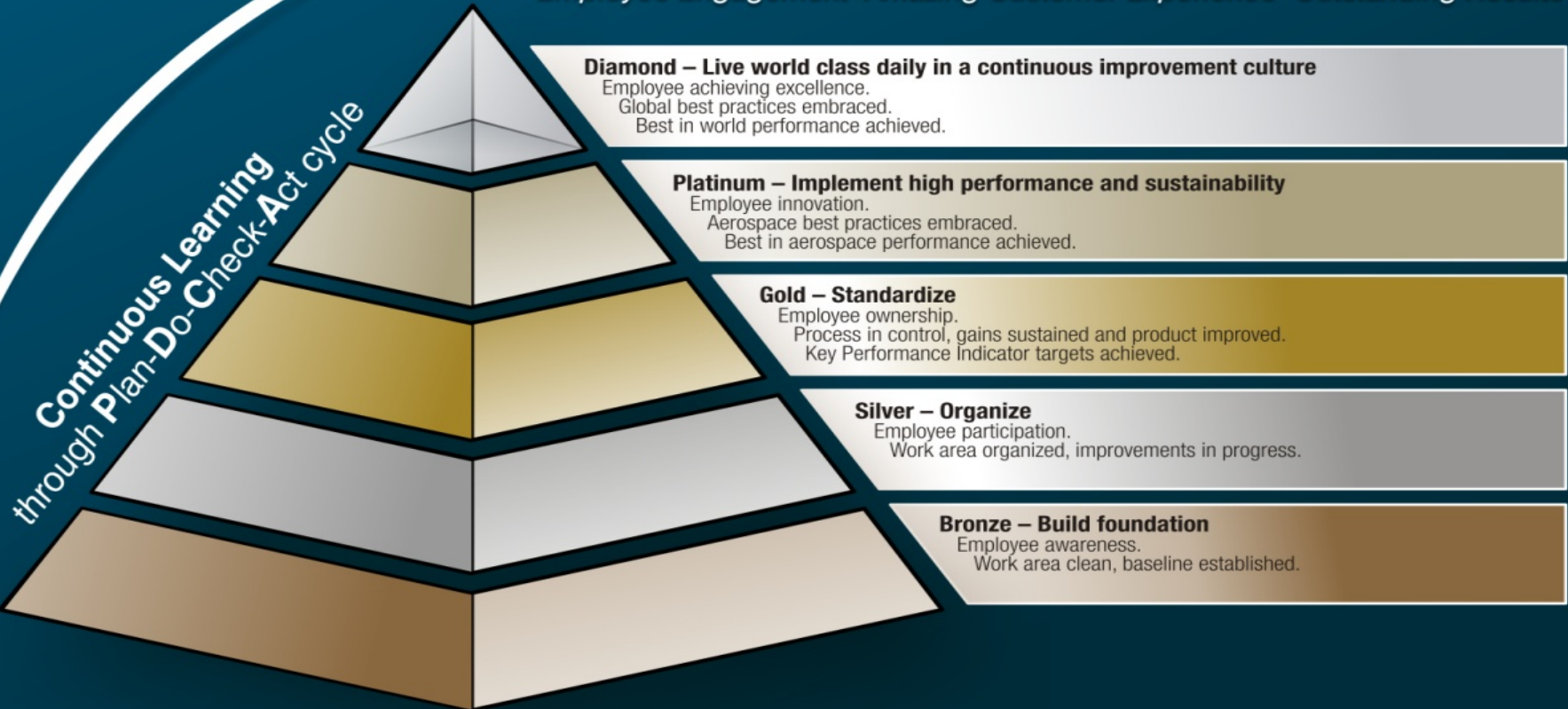


BOMBARDIER
the evolution of mobility



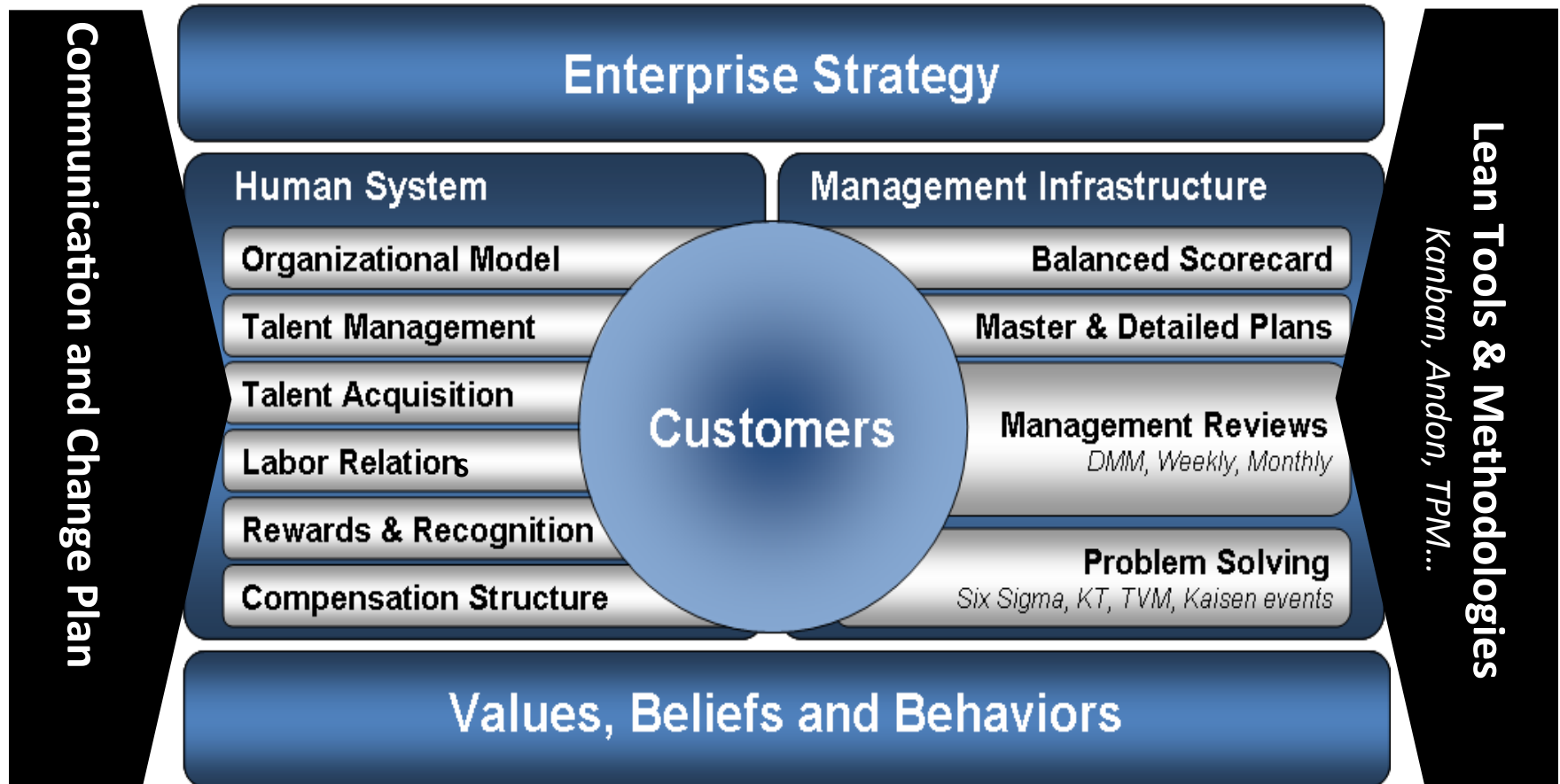
Achieving Excellence System

Employee Engagement · Amazing Customer Experience · Outstanding Results



BOMBARDIER

Elements of the system.....



BOMBARDIER
the evolution of mobility

Management Infrastructure

Our Enterprise Strategy

AEROSPACE ENTERPRISE STRATEGY

Strengthen long-term leadership in our industry segments through revenue growth and sustainable best-in-class financial performance with the most loyal customer base by 2020. We will achieve this by leveraging our comprehensive portfolio of high performance business jets, efficient commercial jets and turboprops, quality aircraft services and by:

- Being #1 in quality / customer satisfaction through a culture of flawless execution
- Providing a rewarding workplace that attracts & engages a talented team
- Developing innovative, environmentally conscious products that meet customer needs globally
- Evolving into a lean enterprise with strong global supply chain partnerships

INTERNAL USE ONLY - © 2009-10 Bombardier Inc.

WINGS **BOMBARDIER**

Enterprise Strategy

Balanced Scorecard

Objective	Measure	Target	2010	2011	2012	2013	2014	2015
Health and Safety	Total Frequency (Incidents/100,000 hrs. engine on per 100,000 hrs. flight)	1.2	1.12	1	0.9	0.8	0.7	0.6
Quality	% 1st Time Delivery (completed)	48%	47%	47%	47%	47%	47%	47%
Productivity	Active World Class Performance	70,000	70,000	70,000	70,000	70,000	70,000	70,000
Financial Performance	Total Employee Engagement	100%	100%	100%	100%	100%	100%	100%

Master plans

Detail plans

BOMBARDIER
the evolution of mobility

Problem Solving

BOMBARDIER Problem Solving Method

Step 1: Define the problem based on facts

For the following problem: What? Where? When? How?

The cost of the rework of the main engine of the aircraft is on average 1.2M per year whereas the other components of the aircraft cost on average 1M5 annually to be replaced.

Step 2: Find the root cause using the 5 Whys

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Step 3: Find the root cause using the 5 Whys

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Step 4: Find the root cause using the 5 Whys

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

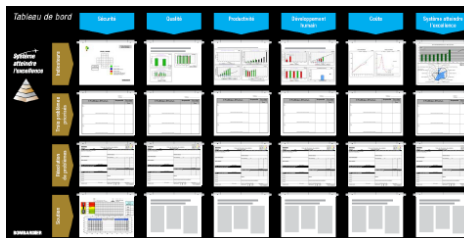
Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?

Why did the cost of the main engine increase so much?



Top 3 Issues



Communication Zone Reviews

Translating Strategy into Action

Our Enterprise Strategy

AEROSPACE ENTERPRISE STRATEGY

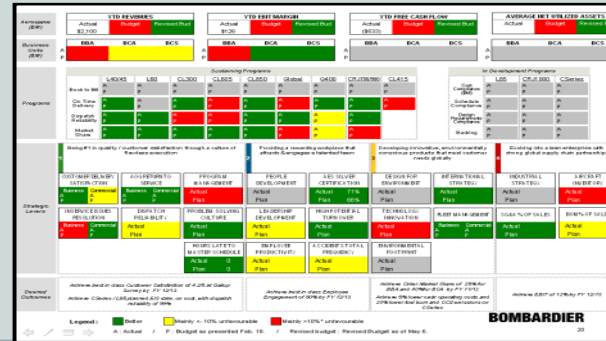
Strengthen long-term leadership in our industry segments through revenue growth and sustainable best-in-class financial performance with the most loyal customer base by 2020. We will achieve this by leveraging our comprehensive portfolio of high performance business jets, efficient commercial jets and turboprops, quality aircraft services and by:

1. Being #1 in quality / customer satisfaction through a culture of flawless execution
2. Providing a rewarding workplace that attracts & engages a talented team
3. Developing innovative, environmentally conscious products that meet customer needs globally
4. Evolving into a lean enterprise with strong global supply chain partnerships

INTERNAL USE ONLY - © 2009-10 Bombardier Inc.

Giving Wings

BOMBARDIER



BOMBARDIER

20

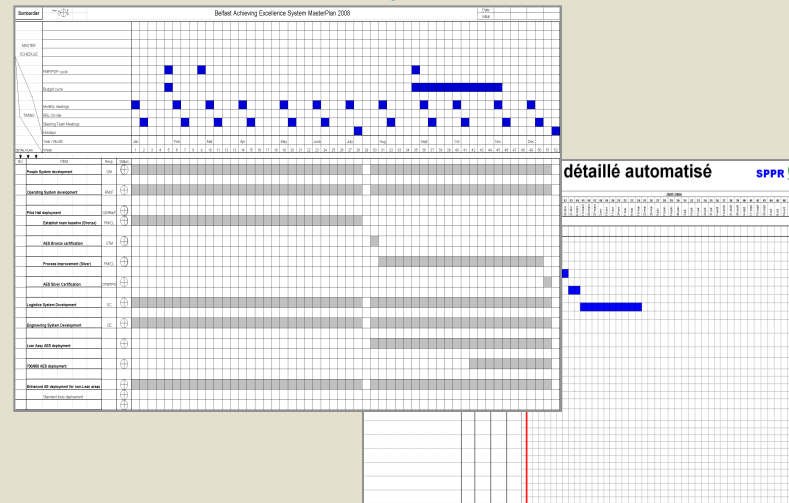
Objective		Measure		2011/12		2012/13		2013/14		Initiatives	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Cost	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Health and Safety	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Quality	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Productivity	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	
Human Development	Total Frequency (Accidents/200,000 hrs)				1.2	1.12	1	0.75	0.6	0.5	

BOMBARDIER
the evolution of mobility

Creating & Executing Plans

Objective	Measure	Target	Baseline	2009/10	2010/11	2011/12	2012/13	2013/14	Initiatives
Health and Safety	No 1 in Safety	Total Frequency (Accidents/200,000 hrs) Incident rate (per 200,000 hrs) Waste Reduction	5.2 25 WIP	1.12 18 15%	1 19 15%	0.75 12 15%	0.6 12 20%	0.5 10 25%	
Quality	No 1 in Customer Satisfaction	% On Time Delivery (complete) First Dispatch Reliability (misses per 10,000) Avg. Customer Damage per plane Avg. RMCs per plane (or component)	48% 112.5 85 400	47% 100.0 80% 25%	50% 88.8 80% 25%	50% 88.8 80% 25%	50% 88.8 80% 25%	50% 88.8 80% 25%	
Productivity	Achieve World Class Performance	% Late to MS No of Parts Late to PD (or MS) Efficiency (Total headcount per airplane (direct, indirect, shared)	436,000 70,000 WIP	95% 95% 3%	43% 95% 15%	60% 95% 25%	70% 95% 30%	90% 95% 35%	
Human Development	Total Employee Engagement	Attendance % of staff per employee per yr (paid sales only) % interchangeability per Lean Work Cell (paid sales only)	92% WIP WIP	93% 1 100%	94% 2 100%	95% 3 100%	96% 4 100%	97% 5 100%	
Cost	Meet EBIT and AS&U Targets	Strip 5 Inventory Turns	WIP WIP	10% 20%	20% 25%	30% 30%	40% 35%	50% 35%	

Note 1: Numbers in red represent cumulative yearly proposed improvements (improvement to baseline).
 Note 2: Measures in italic represent proposed changes to be in line with BA dashboard, SPP and BA Operations dashboard.
 Note 3: Waste Reduction may be replaced by a new metric on energy consumption.

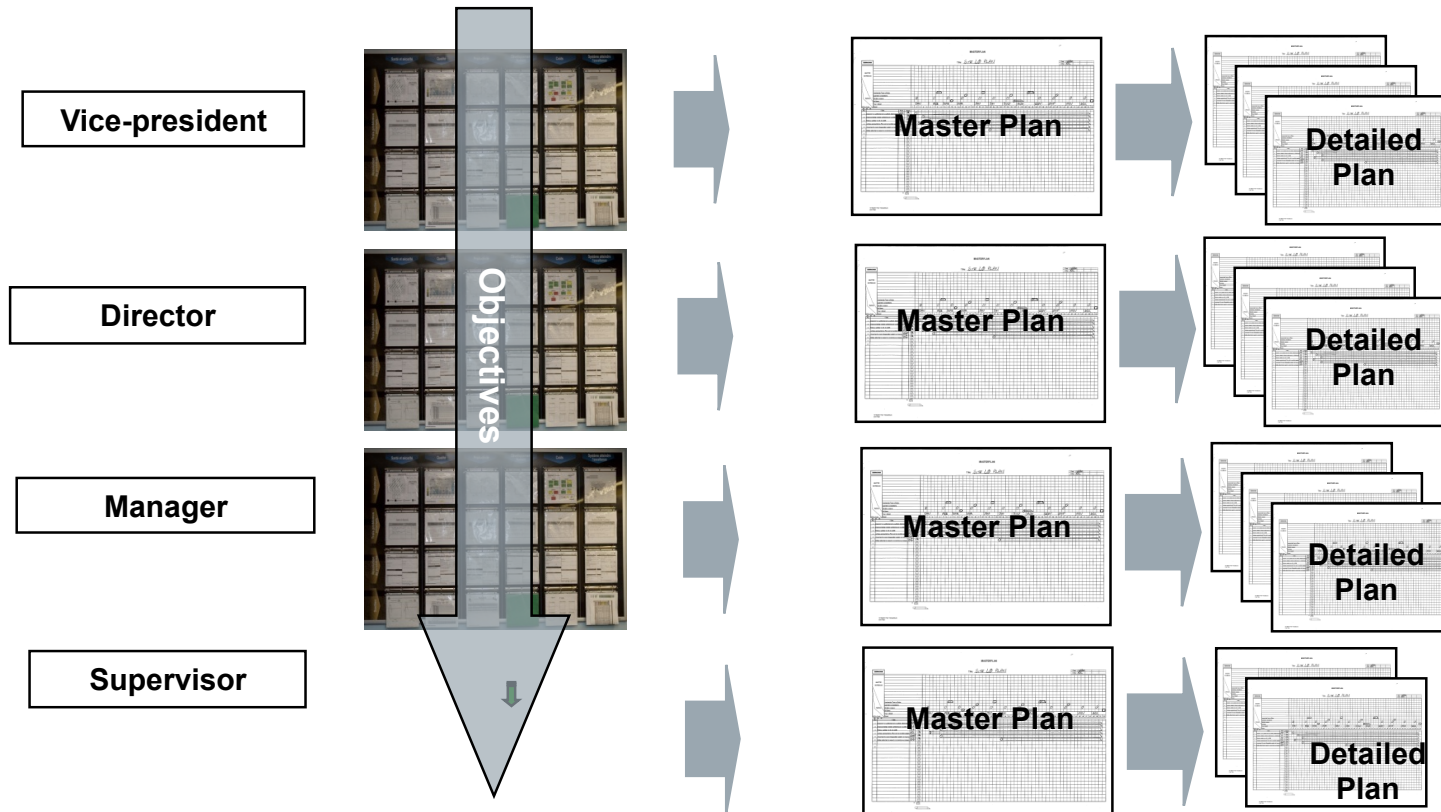


BOMBARDIER
the evolution of mobility

Cascading across organization

Measure	Target	2010	2011	2012	2013	2014	2015
Cost Performance (Cost per Unit)	80%	80%	80%	80%	80%	80%	80%
Quality	99%	99%	99%	99%	99%	99%	99%
Productivity	100%	100%	100%	100%	100%	100%	100%
Customer Satisfaction	90%	90%	90%	90%	90%	90%	90%
Employee Engagement	85%	85%	85%	85%	85%	85%	85%
Environment	95%	95%	95%	95%	95%	95%	95%
Social	90%	90%	90%	90%	90%	90%	90%
Overall	90%	90%	90%	90%	90%	90%	90%

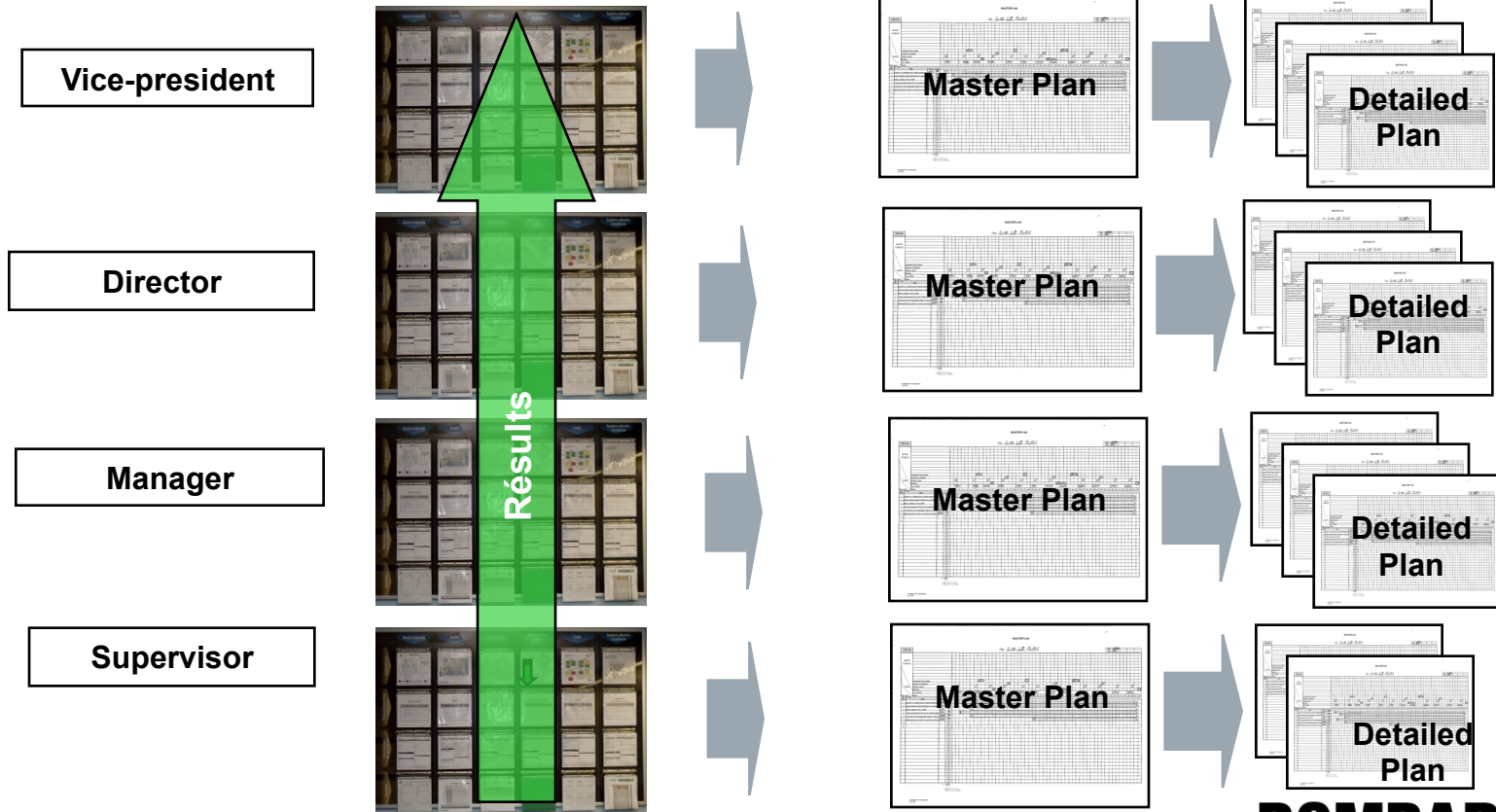
Each employee must understand his/her contribution



BOMBARDIER
the evolution of mobility

Reviews - Plan & BSC deviations

Category	Measure	Target	Actual	Delta	Score	Weight	Score	Weight	Score
Quality	First Pass Yield (FPY) (%)	99.5	99.8	0.3	100	20	100	20	100
Cost	Unit Cost (\$/unit)	10.0	9.8	-0.2	100	20	100	20	100
Delivery	On-Time Delivery (%)	99.0	99.5	0.5	100	20	100	20	100
Productivity	Hours per Unit (HPU)	1.0	0.95	-0.05	100	20	100	20	100
Customer Satisfaction	Customer Satisfaction Score (1-5)	4.5	4.8	0.3	100	20	100	20	100
Environment	Environmental Incidents per Year	0	0	0	100	20	100	20	100
Health & Safety	Lost Time Incidents per Year	0	0	0	100	20	100	20	100
Overall									



BOMBARDIER
the evolution of mobility

Conducting Reviews.....

- Reviews held daily(DMM), weekly and Monthly.
- Deviations highlighted on BSC & Master plans
- Problem Solving initiated for deviations



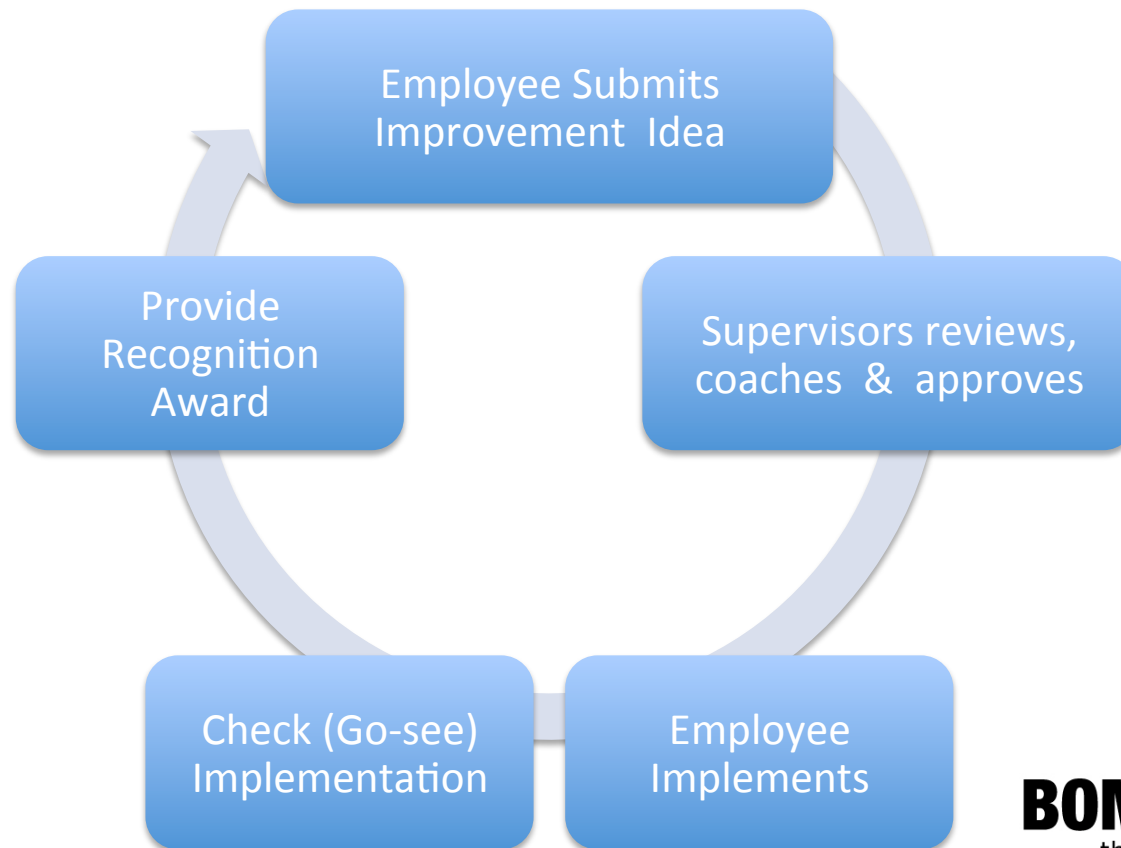
BOMBARDIER
the evolution of mobility

Coaching Reviews Cascade.....

- Daily (DMM) – Getting today's work done today !
- Weekly – Top 3 Issues and Problem Solving in meeting Master plans and BSC target(s)
- Monthly – BSC trend review

Engaging every mind.....*xcell*

- An enabler reward system promoting employees to initiate and implement their own improvements



BOMBARDIER
the evolution of mobility

Engaging every mind.....



- 69,700 Xcells have been implemented in 2013
- 86% of BA employee participated
- Key Success factor - Coaching approach with employees

BOMBARDIER
the evolution of mobility

Bombardier 2013 Award Recipient



2nd Most attractive employer in Canada

“Ronstat Award”

- Survey Represents “People’s Choice” from the largest 150 companies in Canada

- 1 WestJet Airlines Ltd.
- 2 Bombardier Inc.
- 3 IBM Canada Ltd.
- 4 Canadian Solar Inc.
- 5 CAE Inc.

Air Canada
Coca-Cola Refreshments Canada Company
Brewers Retail Inc (The BeerStore)
Bruce Power
Fairmont Hotels & Resorts Inc
Honda Canada
Molson Coors
Transat A.T. Inc. (AirTransat)
Kraft Canada Inc
GoldCorp
Pratt & Whitney Canada International Inc.
The Toronto-Dominion Bank (TD Bank)
Suncor Energy Inc.
Indigo Books & Music Inc.
ATCO Ltd.
Toyota Motor Manufacturing
Barrick Gold Corporation
Costco Wholesale Canada Ltd.
Canadian National Railway Company (CN)
Apotex
Royal Bank of Canada
Canadian Pacific Railway Limited (CP Railway)
PricewaterhouseCoopers LLP
Deloitte & Touche LLP
Pepsi Bottling Group (Canada), Co., The
KPMG

Ford Motor Company of Canada, Limited
Bank of Montreal (BMO)
Agrium Inc.
Kinross Gold Corporation
Thomson Company Inc (Thomson Reuters)
Siemens
National Bank of Canada (National Bank, Banque Nationale)
General Motors of Canada Limited (Chevrolet, Buick, GMC, Cadillac)
Canadian Imperial Bank of Commerce (CIBC)
The Jim Pattison Group
Potash Corporation of Saskatchewan Inc. (PotashCorp)
The Bank of Nova Scotia (Scotiabank)
Celestica Inc.
Shoppers Drug Mart Corporation
Cineplex Inc.
Finning International Inc. (Caterpillar)
Imperial Oil
Ernst & Young
Genivar
HSBC Bank Canada
Magna International Inc.
Sherritt International Corporation
Cascades Boxboard Group Inc.
Stantec Inc.
McCain Foods Group Inc
Canadian Tire Corporation, Limited (Canadian Tire)
Rio Tinto Alcan Inc.
Precision Drilling Corporation
Quebecor Inc.
Bell Canada
Agropur
Shell Canada Limited
Home Depot of Canada Inc. (Home Depot)
Aecon Group Inc.

TELUS Communications Inc
SNC-Lavalin Group Inc.
Manulife Financial Corporation (Manulife, Manuvie)
Fédération Des Caisses Desjardins Du Québec (Desjardins Group)
CGI Group Inc.
Staples Canada Inc
Lafarge Canada Inc.
Nexen
Rogers Communications Inc.
Transcontinental Inc
Great-West Lifeco Inc. (London Life)
Lululemon Athletica
TorStar
Garda World Security Corporation
Saputo Inc.
Blackberry (formerly Research In Motion Limited)
Best Buy Canada Ltd.
Compass Group Canada Ltd.
Loblaws Inc
MTS Allstream Inc.
Securitas Canada Limited
Hudson's Bay Company (TheBay, La Baie)
Alcatel
Cara Operations Limited (Swiss Chalet...)
Winners Merchants International L.P. (Winners)
Kruger Inc
METRO INC.
RONA inc.
G4S Secure Solutions (Canada) Ltd
Shaw Communications Inc.
United Parcel Service Canada Ltd (UPS)
Chrysler Canada
Sun Life Financial Inc. (Financière Sun Life)
Intact Financial Corporation (Intact, Belair)

Thank You!

Please complete the session survey at:
AMESurvey.org

Session Code: (WP/04)

BOMBARDIER
the evolution of mobility