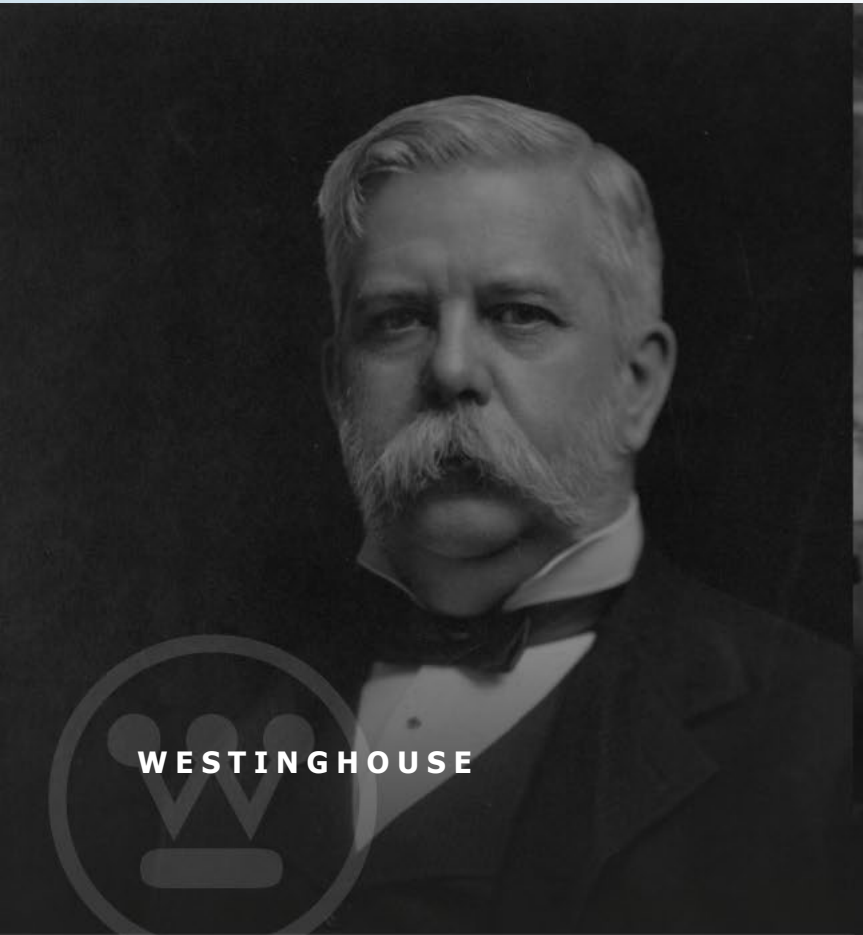
WE ARE WABTEC

Leading global provider of equipment, systems, digital solutions and value-added services

Drawing on over 150 years of experience, we are leading the way in safety, efficiency, reliability, innovation, and productivity.

WABTEC

Our history was built on foundation of three industrial giants



WESTINGHOUSE

EDISON

FAIVELEY

WABTEC

Shaping industrial revolutions for two centuries

4TH INDUSTRIAL REVOLUTION	DIGITALIZATION	Combining the physical and digital across transportation sector
3RD INDUSTRIAL REVOLUTION	AUTOMATION	Automation of production and computerization
2ND INDUSTRIAL REVOLUTION	ELECTRIFICATION	Introduction of the assembly line and advances in transportation
1ST INDUSTRIAL REVOLUTION	STEAM POWER	Shift from manual to mechanical production

WABTEC

Strategic areas of focus

WABTEC

Wabtec has been a valued partner in rail innovation

FREIGHT SEGMENT

EQUIPMENT

~20%

Of the world's rail freight is moved by a Wabtec locomotive

SERVICES

~1.5B

Miles traveled by Wabtec's fleet of locomotives per year

COMPONENTS

~20%

Of global freight cars have Wabtec products on them

DIGITAL ELECTRONICS

$1.3B

Of fuel savings achieved through Wabtec's digital solutions

TRANSIT SEGMENT

TRANSIT

>90%

Provide equipment to nearly every major transit system in the world*

* In accessible transit markets
Source: Internal Wabtec data

WABTEC

Wabtec operates its business in two segments

50+ COUNTRIES

~25K EMPLOYEES

FREIGHT: 67%

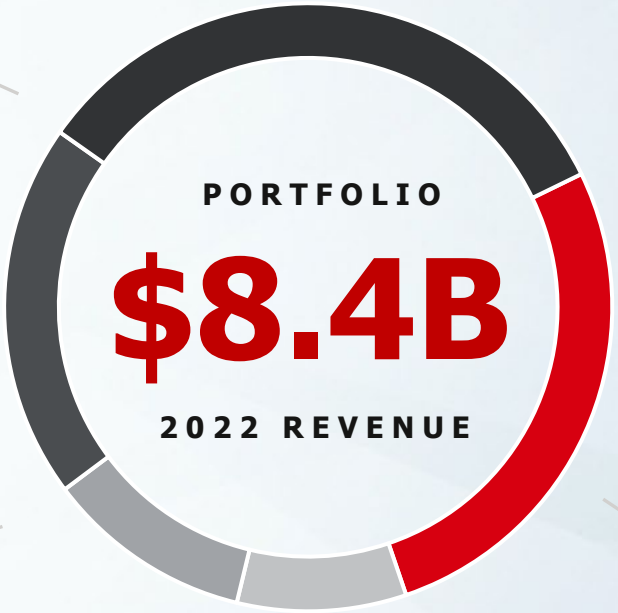
TRANSIT: 33%

31%
Services

17%
Equipment

11%
Components

8%
Digital Intelligence



33%
Transit

GLOBAL LEADER IN FREIGHT AND TRANSIT RAIL TECHNOLOGIES

WABTEC

Industry-leading scale across major rail segments

#1

MARKET LEADER IN FREIGHT LOCOMOTIVES

BROADEST TRANSIT PRODUCT PORTFOLIO IN INDUSTRY

FIRST HEAVY-HAUL BATTERY-ELECTRIC LOCOMOTIVE

RAIL SUPPLIER TO CAR BUILDERS

LEADER IN FUEL EFFICIENCY AND ENERGY MANAGEMENT

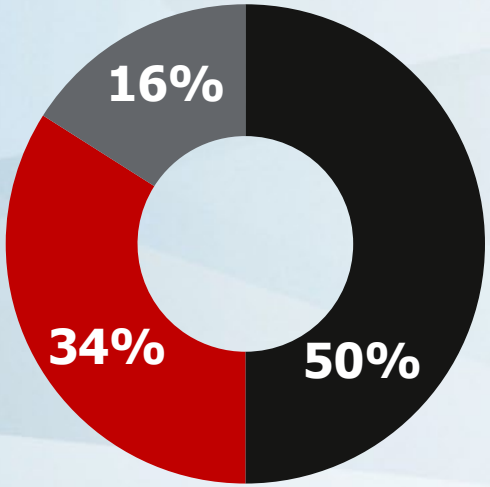
LEADER IN LOCO MODERNIZATIONS

LEADER IN FRICTION PRODUCTS

WABTEC

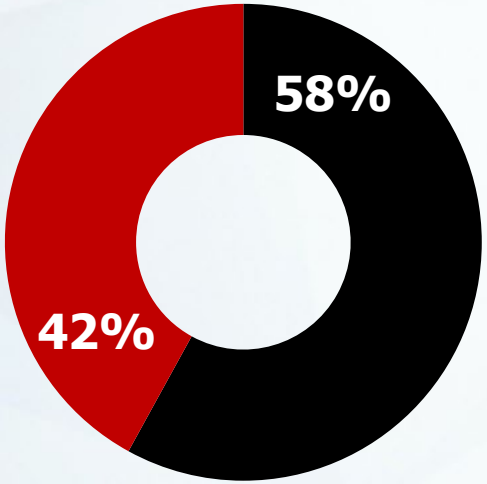
Strong global industrial portfolio with track record of innovation and significant recurring revenue

ATTRACTIVE END MARKETS



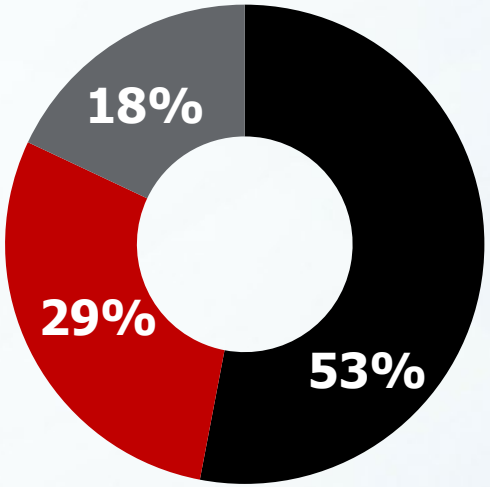
- Freight
- Transit
- All Other (Industrial and Mining)

ROBUST AFTERMARKET PORTFOLIO



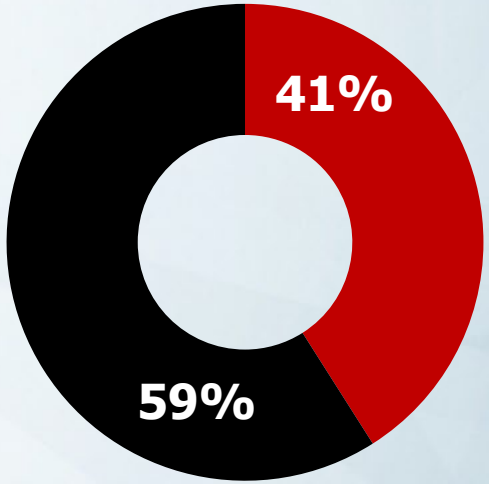
- Aftermarket
- OE

BROAD SCALE IN GLOBAL MARKETS



- Americas (42% in U.S.)
- EMEA
- APAC

STRONG MIX OF RECURRING REVENUES



- Non-Recurring
- Recurring

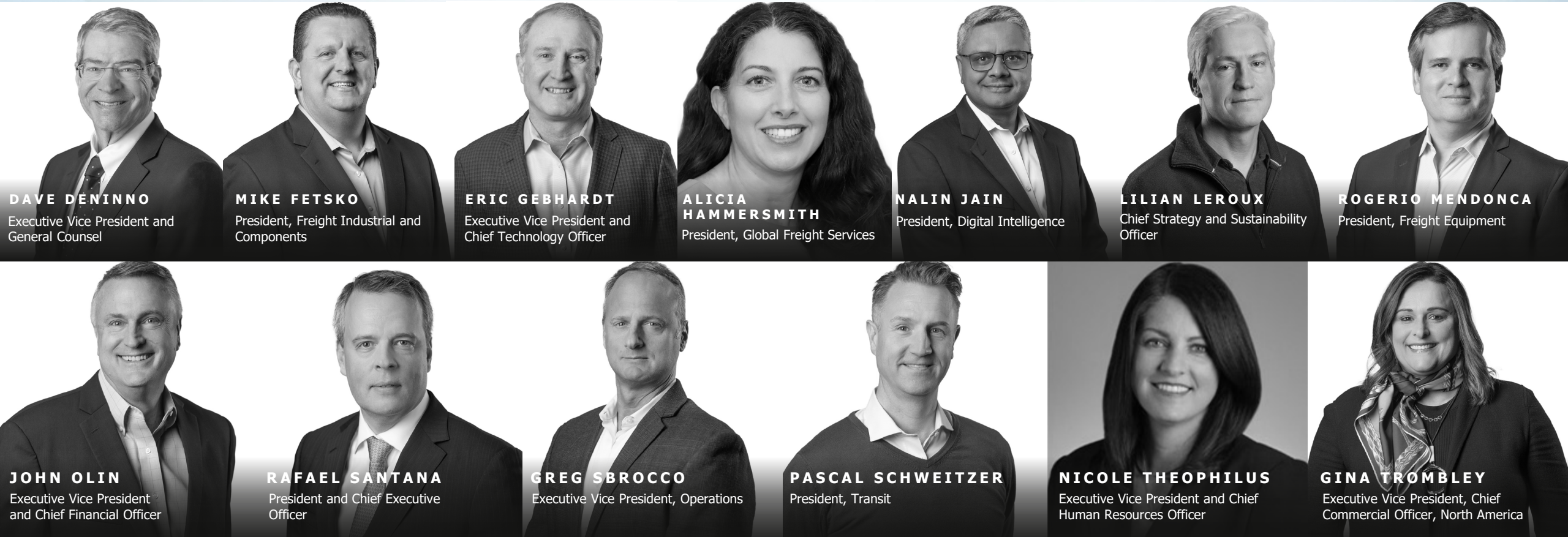
* 2021 FY results

WABTEC

Strong operational rigor underpins all we do

WABTEC

Proven leadership team



DAVE DENINNO
Executive Vice President and General Counsel

MIKE FETSKO
President, Freight Industrial and Components

ERIC GEBHARDT
Executive Vice President and Chief Technology Officer

ALICIA HAMMERSMITH
President, Global Freight Services

NALIN JAIN
President, Digital Intelligence

LILIAN LEROUX
Chief Strategy and Sustainability Officer

ROGERIO MENDONCA
President, Freight Equipment

JOHN OLIN
Executive Vice President and Chief Financial Officer

RAFAEL SANTANA
President and Chief Executive Officer

GREG SBROCCO
Executive Vice President, Operations

PASCAL SCHWEITZER
President, Transit

NICOLE THEOPHILUS
Executive Vice President and Chief Human Resources Officer

GINA TROMBLEY
Executive Vice President, Chief Commercial Officer, North America

OUR PURPOSE IS CLEAR

Move and improve the world

WABTEC

We're committed to creating a more sustainable future

SUSTAINABILITY PRINCIPLES

Innovating with Purpose

We are committed to developing responsible and sustainable products that minimize the impact on the planet

SUSTAINABILITY PRINCIPLES

Driving Responsible Operations

We are committed to providing safe work environments and products that enable productive and efficient use of resources

SUSTAINABILITY PRINCIPLES

Empowering People and Communities

We are committed to driving a diverse and inclusive culture and investing in the communities where our teams live and work

WABTEC

Vision and Mission

Vision: Revolutionize the way the world moves for future generations.

Mission: Unlock our customers' potential by delivering innovative and lasting transportation solutions.

OUR VISION, MISSION, AND VALUES GIVE US FOCUS AND DRIVES US FORWARD TOGETHER, WE'LL LEAD THROUGH CHANGE TO ONE WABTEC.

WABTEC

Our Values

People First

We care about relationships. Whether it’s for each other or our customers, we do the right thing. People, and their safety, top our list.

Expand the Possible

We look for ways to improve what we create and how we do it. We are lifelong learners. We are obsessed with making things better to drive exceptional results.

Embrace Diversity

We celebrate a variety of experiences, expertise, and backgrounds, and aspire to create a place where we all belong.

One Wabtec

We are one global community that works together to achieve our shared Mission. Wherever we go, we go there together.

WABTEC

Our Values: The behaviors

People First

Means that we are: Responsible; Empathetic; Reliable

Expand the Possible

Means that we are: Curious; Courageous; Innovative

Embrace Diversity

Means that we are: Inclusive; Accepting; Advocating

One Wabtec

Means that we are: Collaborative; Transparent; Humble

WABTEC

Driving sustainable and efficient operations

At Wabtec, we are working to strengthen our position as a sustainable company while improving energy and resource efficiency.

FOCUS ON LEAN

As part of Wabtec's continuous improvement culture, we launched a lean transformation model that extends across the business and is focused on key value streams. Through these efforts, we are introducing process improvements and management systems to maximize the value produced for the customer, remove waste, empower employees, and optimize the enterprise.

WABTEC

Investing in our people

Wabtec's success as a global leader in the transportation industry centers on an investment in our people

LEAD Program An immersive learning experience designed to build the next generation of leaders

LinkedIn Learning / Learning Management System On-demand learning for technical and leadership skill development

MindGym Diversity & Inclusion training for all employees and people leaders

Deep Smarts Our technology team's knowledge cascade

TRAINING BY THE NUMBERS

10,000

COURSES AVAILABLE TO WABTEC EMPLOYEES

230,000

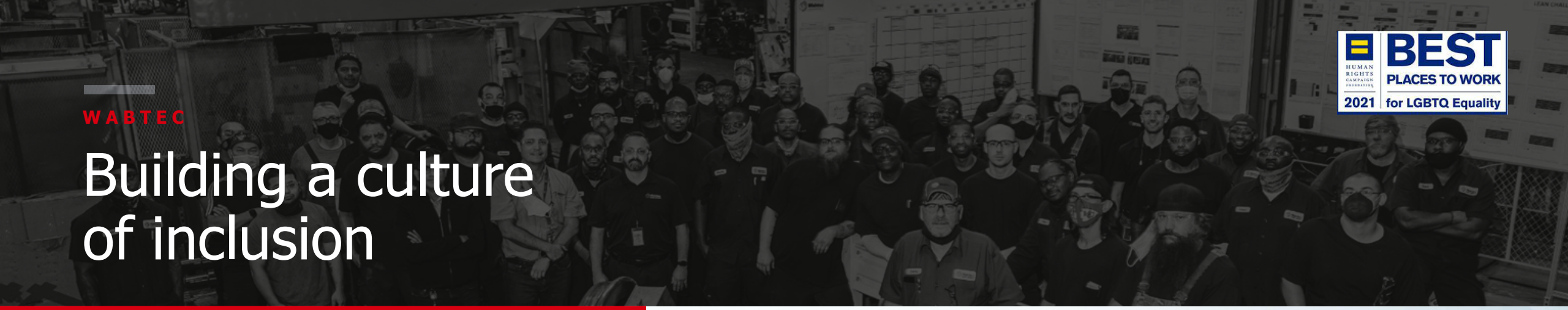
HOURS OF TRAINING COMPLETED BY WABTEC'S GLOBAL EMPLOYEES

1,000

WABTEC CERTIFIED TECHNICIANS GLOBALLY

7.6

AVERAGE HOURS OF TRAINING WABTEC EMPLOYEES RECEIVE



WABTEC

Building a culture of inclusion

BEST PLACES TO WORK for LGBTQ Equality 2021 HUMAN RIGHTS CAMPAIGN FOUNDATION

Wabtec is nurturing a culture where our people can be their authentic selves and our diverse experiences and inclusive workplace foster greater creativity and innovation that puts us on a path to a better shared future.

Our employee resource groups provide a forum to build strong relationships and allies through networking, sharing, learning, and support.

AFRICAN HERITAGE FORUM

MY ABILITIES FORUM

VETERAN'S FORUM

WOMEN OF WABTEC

ASIAN PACIFIC FORUM

HISPANIC & LATINO FORUM

PRIDE FORUM

WABTEC

Why we matter

WABTEC

Decarbonizing global transport

SUSTAINABILITY IS STRATEGICALLY IMPORTANT
WABTEC TECHNOLOGY EFFORTS ARE FOCUSED ON:

- REDUCTION IN FUEL EMISSIONS
- NETWORK VELOCITY AND AUTOMATION
- ENERGY MANAGEMENT AND CHARGING SOLUTIONS
- WEIGHT REDUCTION
- DUST REDUCTION

WABTEC

Accelerating innovation of scalable technologies

~6-7%

target annual organic investment in technology as % of sales

ENHANCE EXISTING PRODUCTS

INVENT, TEST AND SCALE FUTURE TECHNOLOGIES

WABTEC

Rail is well-positioned to tackle world's freight challenges

RAIL VS TRUCKS TODAY

The freight rail network is already considered the largest, safest, and greenest means of transporting goods throughout the world.

TODAY

CARBON REDUCTION

4x less carbon emissions per ton-mile

SAFER

22x fewer deaths and injuries per year than trucking

MORE EFFICIENT

4x more fuel efficient than trucking

50% SHIFT TO RAIL

~5 BILLION

gallons of fuel eliminated / year

~60 MILLION

5x less carbon emissions per ton-mile

~18 MILLION

fewer truckload trips / year

~14 MILLION

fewer injuries or deaths from truck accidents / year

WABTEC

Changing the course on emissions

Wabtec is leading the charge to a low-to zero-emissions rail network with heavy-haul battery-electric locomotives

1st

100% BATTERY-ELECTRIC LOCOMOTIVE WORLDWIDE

7MW

MORE THAN 7MWH CAPACITY

30%

UP TO 30% FUEL & EMISSIONS SAVINGS ACROSS TRAIN

WABTEC

FLX value proposition

WABTEC DIFFERENCE

1 RAIL PURPOSE BATTERY

Reliability and serviceability… designed for heavy haul application

Safety… battery thermal management pack and design

Future Proof… modular design

2 TRAIN PERFORMANCE & AUTOMATION

FLX optimizer… train-level energy management

Modular Control Architecture… next gen micro-processing with over-the-air capability

PTC… #1 train safety

3 FLX360 ECOSYSTEM

Up to 40% fuel savings on battery consist … "zero cost fuel" through regenerative braking

Recharging solutions… smart control interface and moving charging

Sustainability… battery pack remanufacturing, renewable electricity, battery recycling

LEVERAGING PORTFOLIO TO DELIVER AN OPTIMIZED TOTAL ENGINEERED SYSTEM

WABTEC

Unmatched performance and reliability

TIER 4 BY THE NUMBERS

+300 Million

MILES TRAVELED

~5,000

LOCO YEARS

1,100

LOCOS IN SERVICE

WABTEC

Partnering with railroads to extend the life of their fleets

Rolling stock assets and the right maintenance strategy create significant value

WHY FREIGHT CAR SERVICE MATTERS

>35 Years
Freight car life

5 Million +
Global freight cars

~7 Million
Global annual ton mileage

WHY LOCOMOTIVE SERVICE MATTERS

>30 Years
Locomotive life

>4 Million
Gallons of fuel used

120+
Service events

WABTEC

Helping railroads fulfill their potential

REMOTE MONITORING

50% increase early failure prediction

MODERNIZATIONS

50% more tractive effort; 25% less fuel and emissions; 40% increase in reliability

SMART SHOPPING

40% decrease in dwell time

TECHNICAL SUPPORT

500+ certified technical advisors

GLOBAL LOGISTICS

Guaranteed parts availability and performance

OVERHAUL SOLUTIONS

Global remanufacturing capabilities

WORLD CLASS RELIABILITY

Most reliable fleet in the industry

WABTEC

Modernizations

Maximize asset value and fleet performance by transforming 20+ year old locomotives to extend life and step-change their performance.

Solutions jointly defined with each customer based on modular technology building blocks.

Enabling structural changes in railroad dispatch strategies.

CUSTOMER OUTCOMES*

50% more tractive effort

25% less fuel and carbon

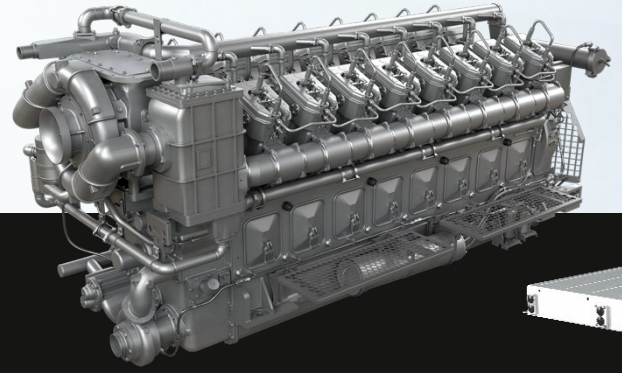
40% more reliability

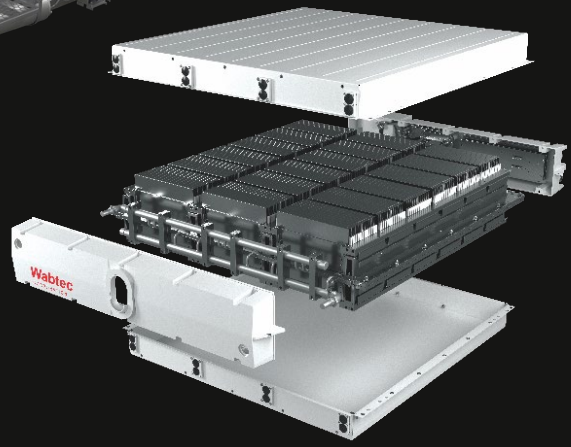
* Source: Internal Wabtec data

WABTEC

Leading rail technical innovation

Developing solutions that align with our customers' desired outcomes, with a focus on operating ratio savings – fuel, asset availability, and labor





PRIME MOVER

T4 engine family with best reliability and no aftertreatment
FDL Advantage offering 5-8% fuel efficiency
Safe batteries and fuel cells

PROPULSION

AC traction
Individual axle control and high tractive effort software
Improved gearcase with no oil leakage

CONTROLS

MCA
Digital suite of solutions

RELIABILITY AND AVAILABILITY

Predictive maintenance
Work scopes customized at asset level; 50% less shop dwell
Locomotive allocation to priority trains

WABTEC

Advancing a circular economy

Wherever possible we strive to:

Reduce

99%

In an engine overhaul, **99%** of the weight of a locomotive engine is reused, requalified, remanufactured, or recycled

»

Reuse

50%

More than 50% of an approximately 400,000-lb locomotive is reused in Wabtec's modernization program

»

Rebuild

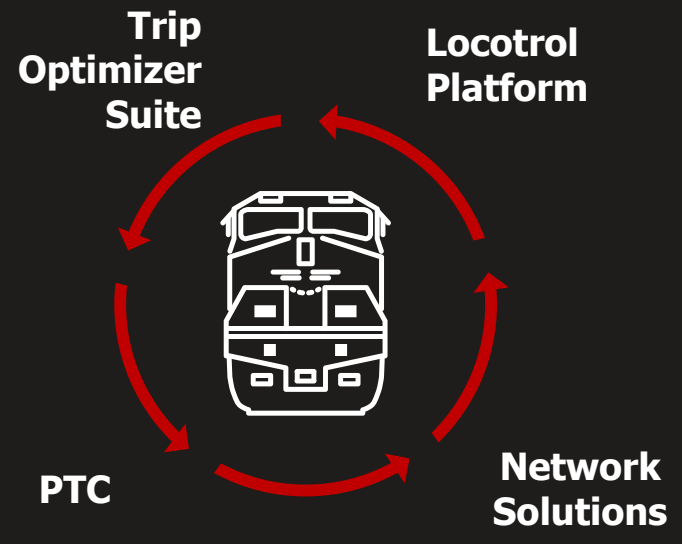
1/2

More than half of a locomotive's critical components will be reused, rebuilt, or remanufactured at least 3x over their life

WABTEC

Digital solutions help customers meet ESG and productivity commitments

INTEGRATED PRODUCT SUITE



FUEL OPTIMIZATION

ESG IMPACT

UP TO ~30%

Reduction in diesel emissions and fuel utilization

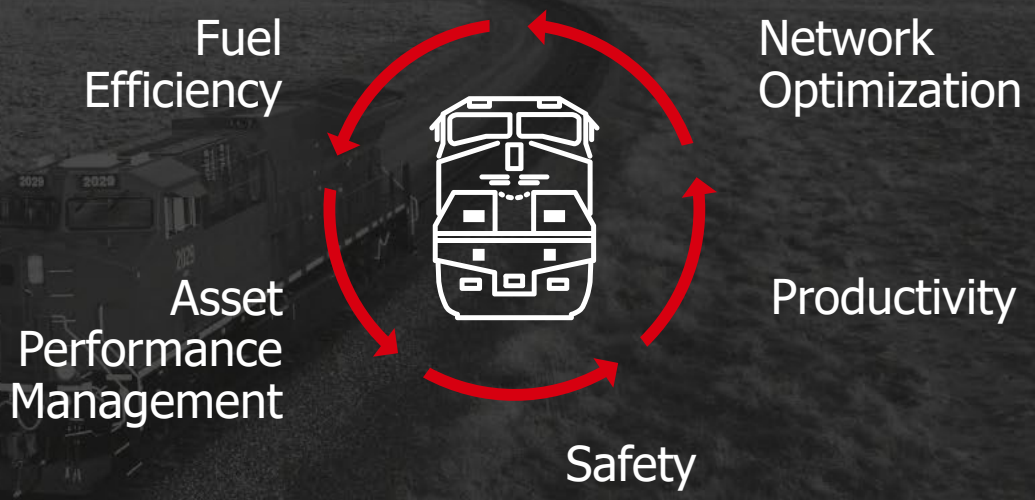
CO_2/NOx/PM

PRODUCTIVITY IMPACT

Asset utilization
Fuel savings
Crew utilization

WABTEC

Enabling productivity and efficiency for customers



ASSET PERFORMANCE		SAFETY		NETWORK PERFORMANCE		SUPPLY CHAIN VISIBILITY	
~12K	Trip Optimizer units	~22K	On-board PTC systems	250	Dispatch desks in service	14	Days advanced visibility
~22K	LOCOTROL systems	~65K	Track miles With PTC	~100K	Track miles under control	1	Information source
~10K	GoLINC Edge devices	~9K	Collision avoidance system			10%	Productivity improvement
~4M	Components monitored daily						

WABTEC

Automation will unlock the next generation of productivity

☑ Technology Foundation

PTC
Trip Optimizer
Distributed Power
Movement Planner

☑ Attended Automation

PTC + Trip Optimizer
Zero-to-Zero
SmartHPT
Pacing

Path To Crew Efficiencies

Advanced Dispatch
Road RCL-Drone Train
Vital Standalone PTC
Yard Automation
5G Communication

Full Automation

Full Situational Awareness
High Availability Systems

Up to:

25%
REDUCTION IN TRAIN DELAYS

50%
POTENTIAL PRODUCTIVITY SAVINGS

75%
REDUCTION IN ACCIDENTS DUE TO HUMAN ERRORS

30%
FUEL EFFICIENCY IMPROVEMENT

WABTEC

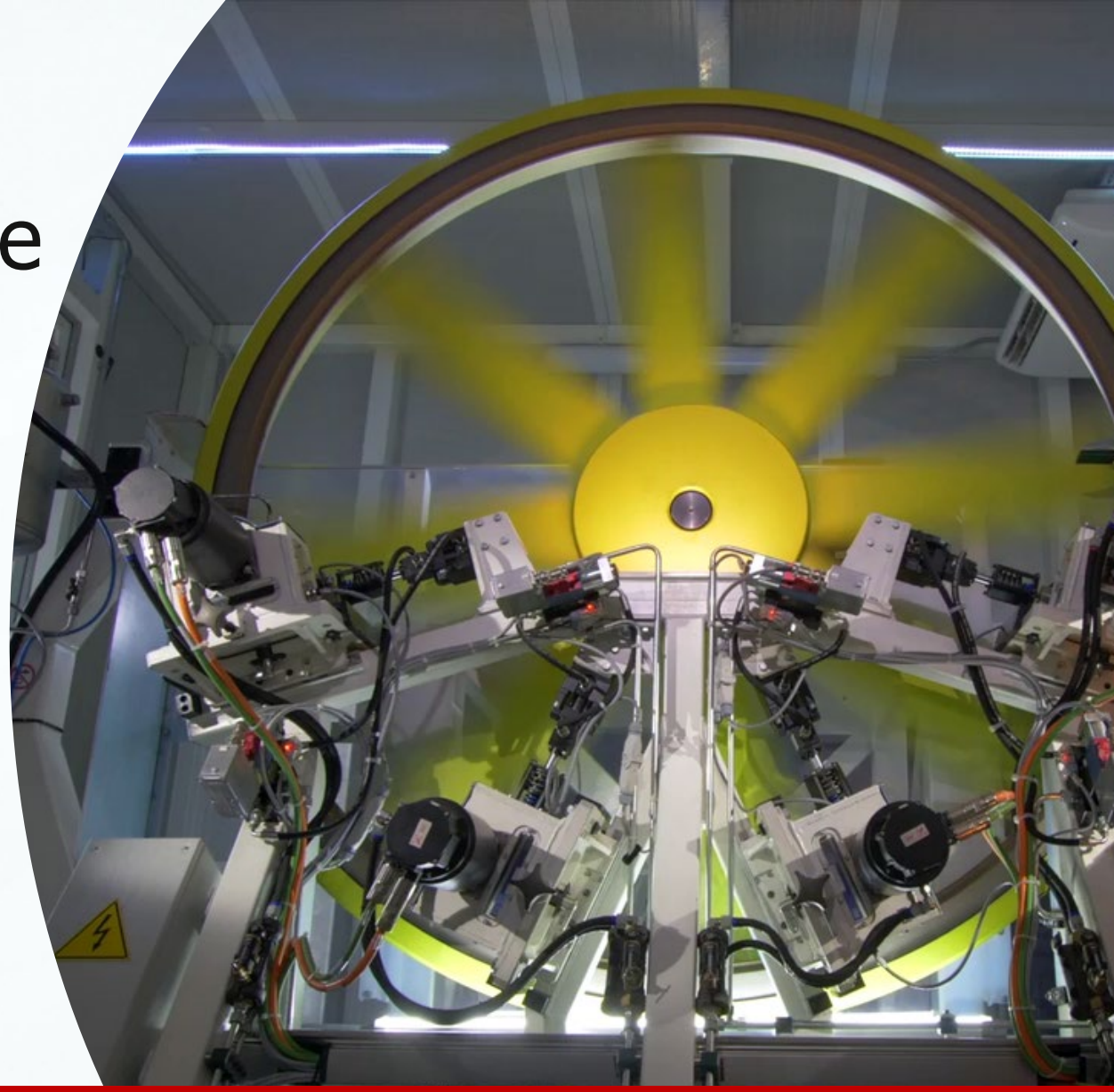
Enhancing train performance

LATEST PORTFOLIO OF RAIL TECHNOLOGIES DELIVERS SIGNIFICANT IMPROVEMENTS

12%
PRODUCT WEIGHT REDUCTION…
3 TONS PER TRAIN

20-25%
LIFECYCLE COST REDUCTION

15%
ENERGY REDUCTION



DIGITALIZATION EXPECTED TO REDUCE LIFE CYCLE COSTS BY AN ADDITIONAL 20%

Comparison of the current generation of Brakes, HVAC, Doors, Couplers, and Passenger Information Systems offered vs previous generations.
Source, internal analysis based on an illustrative EMU and metro

WABTEC

Innovations supporting a more attractive commute

GREEN FRICTION
Reduce brake dust and emissions by up to 90%

METROFLEXX & REGIOFLEXX
Industry's most advanced braking system … 50% less weight, 95% recyclability, greater performance

GREEN AIR
1st air conditioning system using natural R290 refrigerant

BLUEFILTER
Removes more than 99.9% of contaminants in minutes

WABTEC

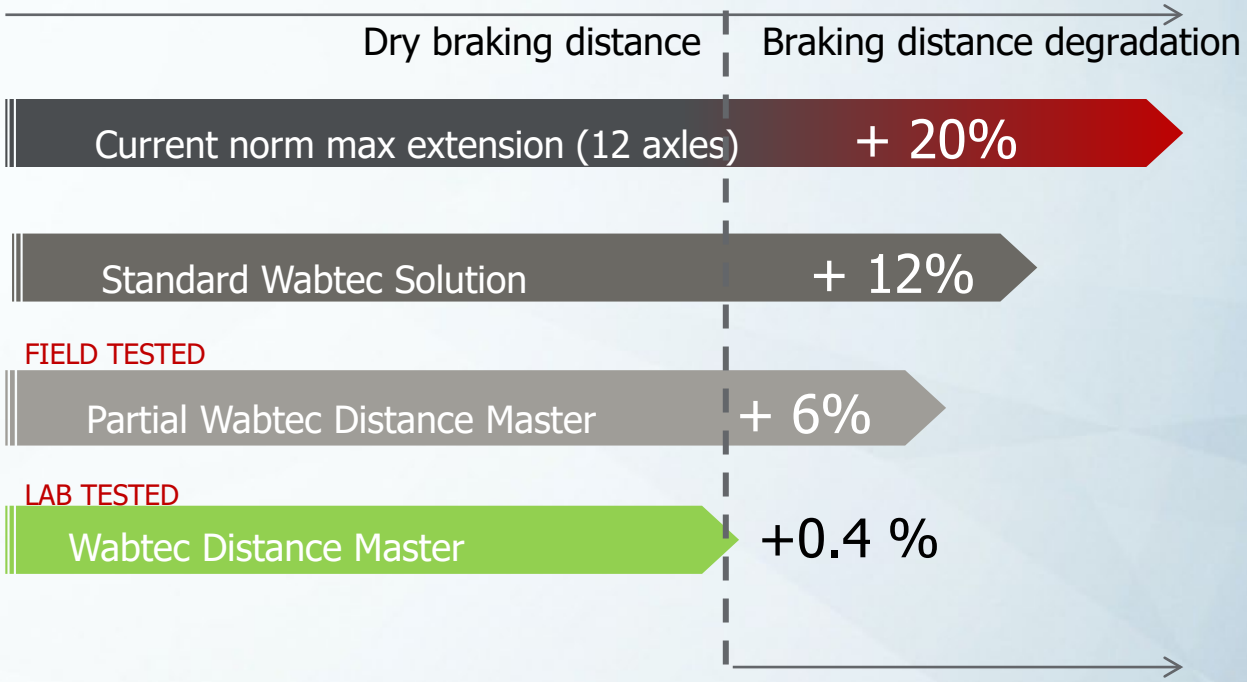
Redefining braking distance to improve performance, reduce cost and prepare for automation

PRODUCTIVITY GAINS

Wabtec Distance Master

- Breakthrough braking performance in fall and winter conditions
- 90% reduction in braking distance degradation
- 50% reduction in costs generated by wheel sliding
- Improve train availability, punctuality, and assets utilization for transit operators

WITH BRAKING DISTANCE REDUCTION*



*Results evaluated in low conditions adhesion (0,05-0,08) according to EN15595

Wabtec
CORPORATION

WabtecCorp.com