

# SMART INNOVATIONS FOR SUSTAINABLE MOBILITY

AT A GLANCE 2017/18





# "Innovation is an integral part of our model to meet mobility challenges of the future."

Henri Poupart-Lafarge, Chairman & Chief Executive Officer

€7.2bn

€7.<u>3</u>bn<sup>(1)</sup>

5.4%<sup>(1)</sup> Operating Margin\*

\* Adjusted EBIT margin

34,500 EMPLOYEES WORLDWIDE

#### How would you sum up the past year?

2017/18 was a year of innovations. We stayed a step ahead of the end of diesel with the launch of the Coradia iLint, the first ever hydrogen-powered train. We won the Innovation Award at the Busworld exhibition for Aptis, our new all-electric mobility solution inspired by light rail. Recognition for these innovations reinforces our role as a leader in sustainable mobility, supporting the transition to low-carbon solutions. At the same time, we have made digital transformation a cornerstone of our business development in transitioning from rail manufacturer to supplier of integrated mobility solutions like Mastria, the very first multimodal control centre.

# Alstom has an ambitious strategy for 2020. How are things progressing as we approach this milestone?

The 2020 strategy, launched three years ago to address globalisation, has been very successful. Today we have reached a critical size in every region. As a vivid example of our expanding global footprint, in 2017/18 we opened two new plants in India and South Africa. We have also delivered key projects on every continent. Our excellent financial results and impressive order book underscore the strength of our business activities. This performance was made possible by the men and women who make up Alstom—they cement our every success.

## How do you foresee the next few years?

As we complete our 2020 strategy, it is time to think about the future. A rising global population and resulting massive urbanisation have spurred a strong transport market with a solid growth momentum. There is a need to reinvent transport systems to meet high demand for mobility and digitalisation while preserving the environment. We aim to help all transportation stakeholders rise to these challenges by providing the most efficient and digital mobility systems, while making our solutions ever cleaner. This is our mission today and it will be that of the new combined entity we will build together with Siemens Mobility tomorrow.

(1) Restated IFRS 9 & 15.

#### HIGHLIGHTS

# CLOSER TO OUR CUSTOMERS

Our global footprint allows us to provide a local response to our customers' needs and foster long-term partnerships.

6 REGIONS CLOSE TO CUSTOMERS, IN CHARGE OF EXECUTION

8.0 /10\*

CUSTOMER

SATISFACTION IN 2017/18

D

**OVER** 

CUSTOMERS



\* Annual average net promoter score measured on a selection of 126 projects surveyed.





### SOUTH AFRICA > NEW FACTORY FOR SUBURBAN TRAINS

Completion of the first X'Trapolis Mega car bodyshell at the new train manufacturing plant in Dunnottar by Gibela, Alstom's South African joint venture executing the PRASA project.



#### INDIA > NEW PLANT FOR JOINT VENTURE WITH INDIAN RAILWAYS

Opening of the first electric-locomotive manufacturing facility in Madhepura, India, and delivery of the first of 800 Prima T8 all-electric locomotives for the Indian market.



## KAZAKHSTAN MAJORITY STAKE IN EKZ

Signature of an agreement with the Kazakh national railway company to acquire their 25% share in EKZ, Alstom's Kazakh locomotive joint venture. The deal will take Alstom's stake in EKZ to 75%.

Contract to produce 61 Citadis Spirit LRVs for the Greater Toronto and Hamilton area. Designed for the Canadian market, they will be assembled in the Toronto region.

# A COMPLETE RANGE OF MOBILITY SOLUTIONS

We pool our expertise to offer a comprehensive portfolio from components to fully integrated systems.



OF SALES 2017/18



OF SALES 2017/18



### STATE-OF-THE-ART HIGH-SPEED TRAINS

New Avelia Euroduplex for SNCF on the Paris-Bordeaux line (500km in 2 hours), offering unprecedented passenger experience through a combination of comfort, design, brightness and connectivity performance.

#### FRANCE > DTRAINS SNCF on 2 hours), xperience t, design, ormance.





#### QATAR FIRST TRAM FOR LUSAIL SYSTEM

Delivery of the first of 28 Citadis trams as part of a fully integrated tramway system for the Lusail light rail network.

# GERMANY HIGH-SPEED OPERATION SECURED WITH ONBOARD ETCS BASELINE 3 SYSTEM

Deutsche Bahn's ICE high-speed fleet running on the Berlin-Munich line is fitted with the Atlas 200 solution, compliant with the latest ETCS Baseline 3 standard for safety and interoperability.



AUSTRALIA SYDNEY TRAMWAY Delivery of the first Citadis XOS light rail vehicle for Sydney.

# **INNOVATION** FOR SMARTER MOBILITY

We continue to pursue our innovation strategy to anticipate the needs of customers, operators and passengers, boost competitiveness and foster our digital offering.

**A COMPLETE** 

INNOVATION

**ECOSYSTEM** 



- Research centres like SystemX, SuperGrid, INRIA and Railenium
- Competitiveness clusters
- > Suppliers
- > Innovative operators
- > Start-ups

# N.

#### ACTIVELY MONITORING NEW TRENDS

Through start-ups, notably in partnership with Aster Capital.





I NOVE YOU PROGRAMME ANNUAL INTERNAL INNOVATION AWARDS To recognise employees and teams who have supported and developed the most innovative projects.

> PREDICTIVE MAINTENANCE > NEW APPROACH TO ASSET MANAGEMENT THROUGH CONDITION-BASED MAINTENANCE

Several new contracts worldwide (India, Poland, Morocco, Sweden, Peru and France) for HealthHub, Alstom's predictive maintenance solution.



-----

## LAUNCH > MASTRIA: FIRST MULTIMODAL SOLUTION

Launch of the first multimodal monitoring solution to facilitate urban transport management and promote a more fluid mobility.





AUTONOMOUS SOLUTIONS LIGHT RAIL

First successful tests for autonomous tram stabling at a depot near Paris, France, in partnership with RATP.

#### NEW MOBILITY APTIS: ALL-ELECTRIC

Gentilly

EL 742 ED

Aptis won the Innovation award at the Busworld exhibition in Belgium. A unique mobility solution based on a tram-inspired design.

# OPERATIONAL EFFICIENCY

We execute our contracts with an unwavering focus on excellence in quality, costs and lead times, incorporating digital solutions into every aspect of the manufacturing process.

#### **SMART OPERATIONS**

#### з KEY GOALS

- Reduce time to market and costs of products and services while improving quality
- > Manage the growing complexity due to broader geographical distribution of activities with ever greater efficiency
- Test and roll out new digital technologies

#### A PIONEERING PROGRAMME

To support the digital transformation of our sites and operations, built on four pillars: > Factory of the future

- Depot of the future
- > Additive manufacturing
- > Digitalisation of the
- supply chain

#### **KEY FIGURES**

- Potential application
  in 90 sites and depots
- > 30 new technologies
- being testedCooperation with
  - 20 partners



ON-TIME DELIVERY > 90% INTERNAL COST OF NON-QUALITY AT 1%





#### A PANAMA Metro for Panama City

Shipping of the first Metropolis trainset for Panama metro line 2 from Alstom's factory in Barcelona, a pilot "Factory of the future".

#### ITALY AND THE NETHERLANDS NEW FLEXIBLE RANGE OF REGIONAL AND INTERCITY TRAINS

Unveiling of Coradia Stream, the latest generation of standardised Coradia regional trains with a modular design to adapt to the specific demands of both regional and intercity transport.

**BO** SUPPLIERS members of the Alstom Alliance programme to create special partnerships

....

# **LEADER** IN SUSTAINABLE MOBILITY

Our every action is built around respect for the environment. Our priority is to enhance the sustainable performance of our solutions, systems and operations.



#### SWEDEN Electric Road -APS For Road

Presentation of APS technology for roads in partnership with the Volvo Group, adapted from our ground-level electrification solution widely used for catenary-free trams.

#### GERMANY EMISSION-FREE TRAIN

First contract signed with Lower Saxony for 14 Coradia iLint, an emission-free train powered by a hydrogen fuel cell.





#### OPERATIONS AT SITES

- > 88% waste recovery rate
- > 9% reduction in energy consumption between 2014 and 2017\*\*
- > 100% of the manufacturing sites of more than 200 employees are certified ISO 14001





2020 TARGET 20% REDUCTION IN ENERGY CONSUMPTION

OF OUR PRODUCTS\*\*\* AND 10% REDUCTION IN ENERGY INTENSITY OF OUR OPERATIONS\*\*\*

\* In Wh per passenger kilometre. \*\* In kWh per hour worked. \*\*\* Compared with the reference year 2014.

# A CULTURE BUILT AROUND PEOPLE AND ETHICS

Employees are the backbone of the company: their safety and well-being in the workplace are a priority. We also forge our internal cohesion through strong ethical rules and values, fostering integrity and diversity.



#### INTEGRITY PROGRAMME

- > A Code of Ethics that applies to every employee
- > 293 Ethics & Compliance ambassadors
- Mandatory Ethics & Compliance online training:
  87% of targeted managers and professionals trained
- > An alert procedure to raise any integrity issues

#### ANTI-CORRUPTION CAMPAIGN ISO 37001 CERTIFICATION

Awarded by AFNOR for our anti-corruption management system.

# 2020 TARGET

INJURY FREQUENCY RATE AT 1\*
 25% WOMEN IN MANAGERIAL & PROFESSIONAL POSITIONS
 THE NATIONALITIES OF OUR MIDDLE MANAGEMENT
 SHOULD REFLECT OUR ACTIVITIES



#### SPOTLIGHT: INDIA SELF-HELP GROUPS FOR 'RESOURCEFUL WOMEN' IN TAMIL NADU, INDIA

Launch of a programme supporting the social, personal and economic development of women who are living below the poverty line in the rural region of Tamil Nadu, empowering them to play a leadership role in society. The programme is supported by the Alstom Foundation and run by the Indian NGO SEVAI (Society for Education, Village Action and Improvement) together with the French Association OFI (Objectif France Inde).





#### ALSTOM FOUNDATION ENGAGED ALONGSIDE EMPLOYEES

- **40** active projects backed by employees
- €1 million annual budget

**168 projects** undertaken in 52 countries since its creation in 2007

# TOMORROW

"We see the future of mobility as sustainable, connected and most definitely multimodal."

Henri Poupart-Lafarge

9.8 BILLION PEOPLE ON THE PLANET BY 2050

Strong growth in demand for mobility solutions around the world

# **~70%**

OF THE WORLD'S POPULATION WILL LIVE IN URBAN AREAS BY 2050

> Increase in demand for urban mass-transit solutions

INTERNATIONAL PLEDGE TO KEEP TEMPERATURE INCREASE WELL BELOW

LOTTE

CASTL

2°C Awareness of the need to decarbonise

transport

#### COMBINATION WITH SIEMENS MOBILITY

Alstom has chosen to join forces with Siemens Mobility to shape tomorrow's mobility. With a larger, well-balanced geographic footprint and a unique digital technological base, the combined entity will provide customers, and ultimately all citizens, with smarter, more sustainable solutions to address the mobility challenges facing cities and countries.

> SIEMENS ALSTOM IN FIGURES\*:

> > No.2

IN THE MOBILITY BUSINESS

€15.6bn sales

65,000

## DISCOVER THE ALSTOM DIGITAL ECOSYSTEM

Stay up to date with our strategy, challenges, ambitions, pledges, products and markets.

 $\mathbf{\nabla}$ 



#### FOLLOW US ON SOCIAL MEDIA

in

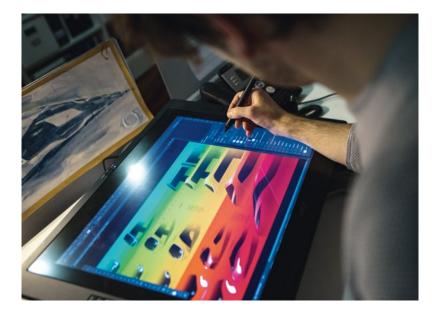








σ



ALSTOM - AT A GLANCE 2017/18 is published by the communication department of Alstom.

© ALSTOM SA, 2018. All rights reserved. ALSTOM, the ALSTOM logo, all alternative versions and all mentioned trademarks of Alstom's transport activities, are the brands and trademarks of ALSTOM SA or ALSTOM Transport Technologies. Technical and other forms of data contained in the present document are given for the purposes of information only. ALSTOM reserves the right to reconsider or change this data at any time and without warning. Copyright registration: 2nd guarter 2018.

Publication Director: Emmanuelle Châtelain. Editorial Director: Pauline Le Caro.

The articles and illustrations published in this issue may not be reproduced without prior written authorisation.

Design-Production: côté coro. Cover illustration: Antoine Dagan Pages 02-03: © Shutterstock (IM\_photo) Pages 16-17: © Getty Images (Gangil Gwon / EveEm) Photographs: © Alstom / Arnaud Février - Evgeny Tkachenko - Yves Ronzier -Ramon Vilalta - Michael Wittwer / TOMA - C. Sasso - C. Abad - L. Derimais / 7ème Bureau. © Alstom SA 2017. Design&Styling | CITADIS SPIRIT™ © Alstom SA 2015. Design&Styling | CITADIS™ © Alstom SA 2017. Design&Styling | CORADIA STREAM™ © Gibela. © Volvo Group. © OFI -Objectif France Inde. Page 19: Alstom / TOMA – Claire Jackymiak

Printed in France. This document has been printed on PEFC paper (paper made exclusively with fibres from responsibly managed forests) by a certified printer which holds an Imprim'Vert label.

#### France, Europe, Middle East & Africa Alstom

48, rue Albert Dhalenne 93482 Saint-Ouen Cedex - France Telephone: +33 1 57 06 90 00

#### Latin America

Alstom Virgilo Wey Street, 150 Água Branca 05036-050 São Paulo/SP - Brazil Telephone: +55 11 3617-8000

#### Asia Pacific

Alstom No.66/02, Embassy Prime, B Wing 3<sup>rd</sup> floor, C V Raman Nagar, Bangalore - 560 093 Karnataka - India Telephone: +91 80 4641 2400

#### North America

Alstom 641 Lexington Avenue - 28<sup>th</sup> floor New York, NY 10022 - USA Telephone: +1 212 692 5320

www.alstom.com



