



Alstom Capital Markets Day

Paris - France

June 24 2019



This presentation contains forward-looking statements which are based on current plans and forecasts of Alstom's management. Such forward-looking statements are by their nature subject to a number of important risk and uncertainty factors (such as those described in the documents filed by Alstom with the French AMF) that could cause actual results to differ from the plans, objectives and expectations expressed in such forward-looking statements.

These such forward-looking statements speak only as of the date on which they are made, and Alstom undertakes no obligation to update or revise any of them, whether as a result of new information, future events or otherwise.

9:30-10:00 am

- **Welcome Coffee**

2:00-3:30 pm

- **Signalling**
Jean François Beaudoin – Digital Mobility SVP
- **Services**
Bernd Burgstahler – Services VP
- **Innovation**
Marc Granger – CSO

10:00-12:15 pm

- **Alstom today, market perspectives, Strategy overview**
Henri Poupart-Lafarge – Chairman & CEO
- **Finance**
Laurent Martinez – CFO
- **Efficiency**
Thierry Best – Operations SVP
- **India**
Ling Fang – APAC SVP

3:30-4:00 pm

- **Questions & answers**

12:15-12:45 pm

- **Questions & answers**

4:00-4:15 pm

- **Closing remarks**
Henri Poupart-Lafarge – Chairman & CEO

12:45-2:00 pm

- **Lunch break**

Today's speakers



Henri Poupart-Lafarge
Chairman
& Chief Executive Office



Laurent Martinez
Chief Financial
Officer



Thierry Best
Operations
Senior Vice President



Ling Fang
Asia Pacific
Senior Vice President



Jean François Beaudoin
Digital Mobility
Senior Vice President



Bernd Burgstahler
Services
Vice President



Marc Granger
Chief Strategy
Officer

Alstom today, Market perspectives, Strategy overview

Henri POUPART-LAFARGE – Chairman & CEO

2019 Capital Markets Day

Alstom today

2016 – 2019: establishing a successful rail pure player



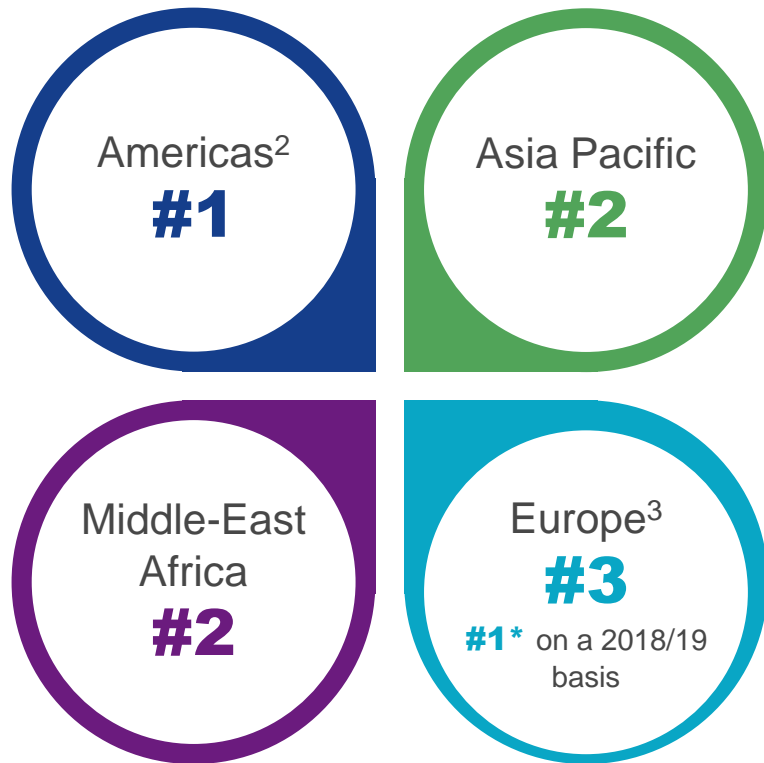
Alstom 2020 Strategy

-  CUSTOMER-FOCUSED ORGANISATION
-  COMPLETE RANGE OF SOLUTIONS
-  VALUE CREATION THROUGH INNOVATION
-  OPERATIONAL & ENVIRONMENTAL EXCELLENCE
-  DIVERSE AND ENTREPRENEURIAL PEOPLE

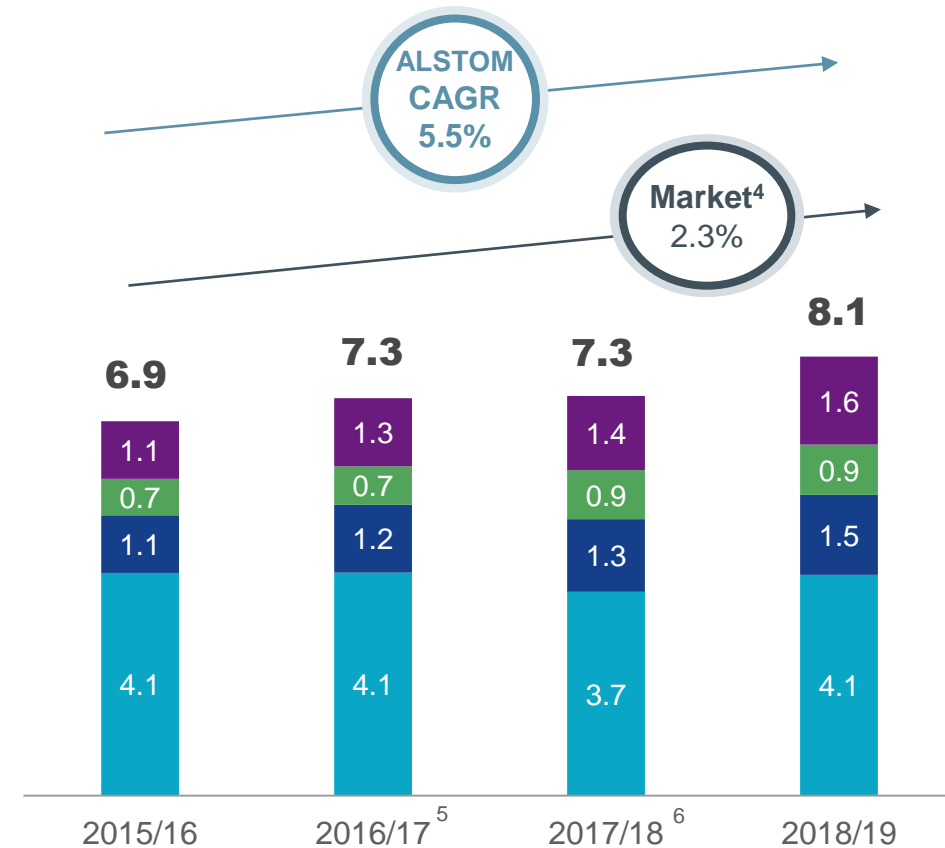
The most global player, a leader in all geographies, result of outstanding growth



Alstom within the top 3 market share in every region¹



Growth outperforming the market Alstom sales, by region, in € Bn



ALSTOM – 24/06/2019 – P 8 ¹ Based on last 3 years orders vs accessible market ; ² Americas excluding freight market ; ³ Russia not included as market handled directly by TMH ; ⁴ CAGR between 2015/17 and 2018/20 ; ⁵ 15/16 and 16/17 numbers are per IAS 11 ⁶ Restated for IFRS 9 & 15. - Sources: Alstom ; UNIFE Market Study 2018

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A unique multiregional footprint key to the group's commercial success and competitiveness



A diverse and innovative portfolio of solutions



ROLLING STOCK

High Speed & Very High Speed
 Suburban & regional trains
 Metros
 Tramways
 Locomotives
 Electrical bus



SYSTEMS

Infrastructure
 Integrated solutions



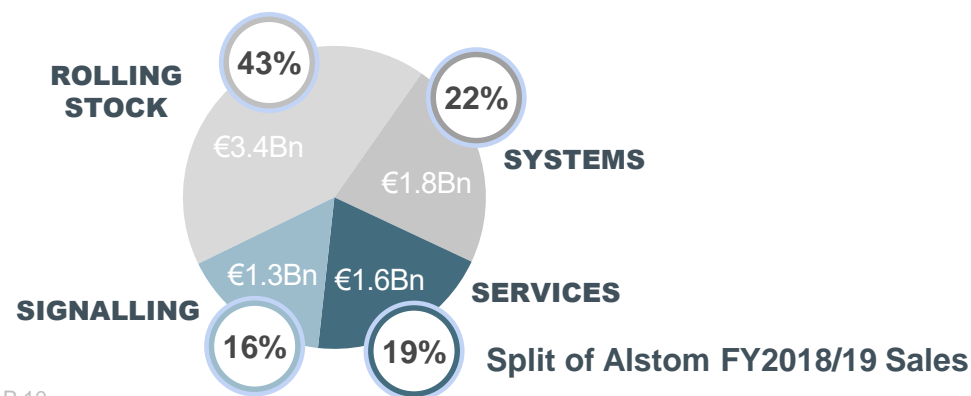
SERVICES

Maintenance
 Modernisation
 Parts & Repairs
 Support services



SIGNALLING

Mainline networks
 Urban networks
 Network and passenger monitoring and surveillance systems



New platforms and breakthrough innovations in all product lines

Tramway Citadis XO5 Alu	Regional Coradia Stream	Regional Coradia iLint
E-Bus Aptis	High-speed Avelia Liberty – Amtrak & TGV	Locomotive Prima H3
Systems Montreal (REM)	Infrastructure SRS	Services Health Hub

4-5% sales R&D investments
 2015/16 – 2018/19
 * FY2015/16 and FY2016/17 restated for IFRS 15

Strong project execution and ability to improve operational profitability

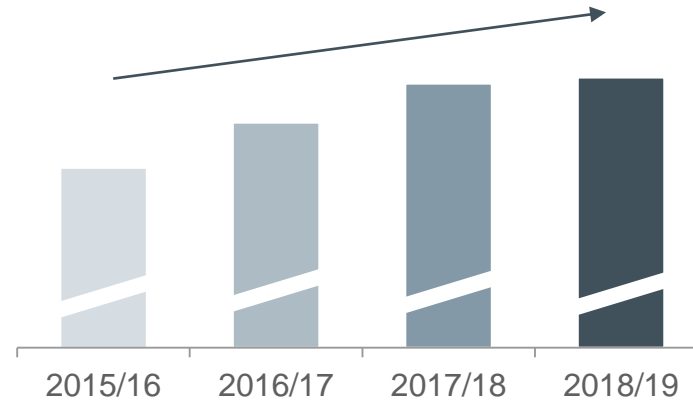


Operational excellence

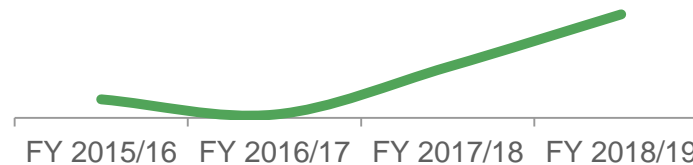


Margin evolution

Gross Margin on Order Intake, in %

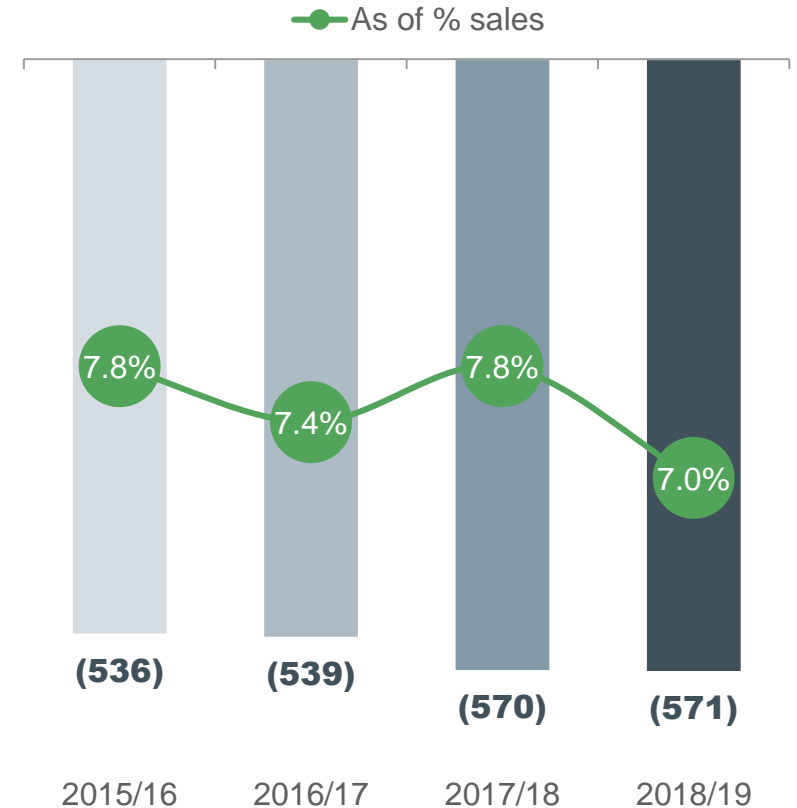


Margin at completion increase on projects portfolio



Structural cost control

SG&A evolution contained despite fast growing sales (in €m)



Strategy 2020 largely a success, ready for the next step



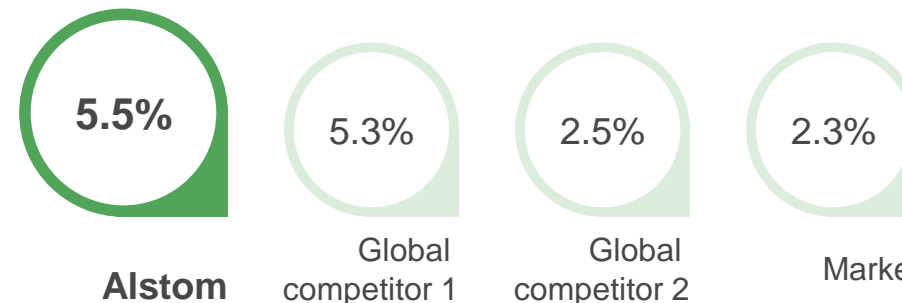
Record backlog in the industry, geared for sustainable growth

Backlog in 2018/19



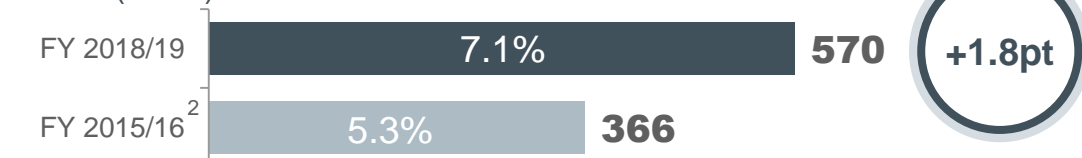
Outperformed market and main competition' growth

Sales 2015/16¹ – 2018/19



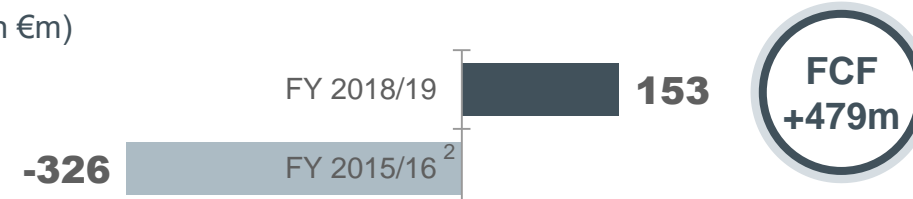
Strong increase in profitability

aEBIT (in €m)



Significant recovery in free cash flow

FCF (in €m)



Strategy 2020 objectives: 5% sales organic growth per year, around 7% Adjusted EBIT margin, c. 100% conversion from net income to free cash flow

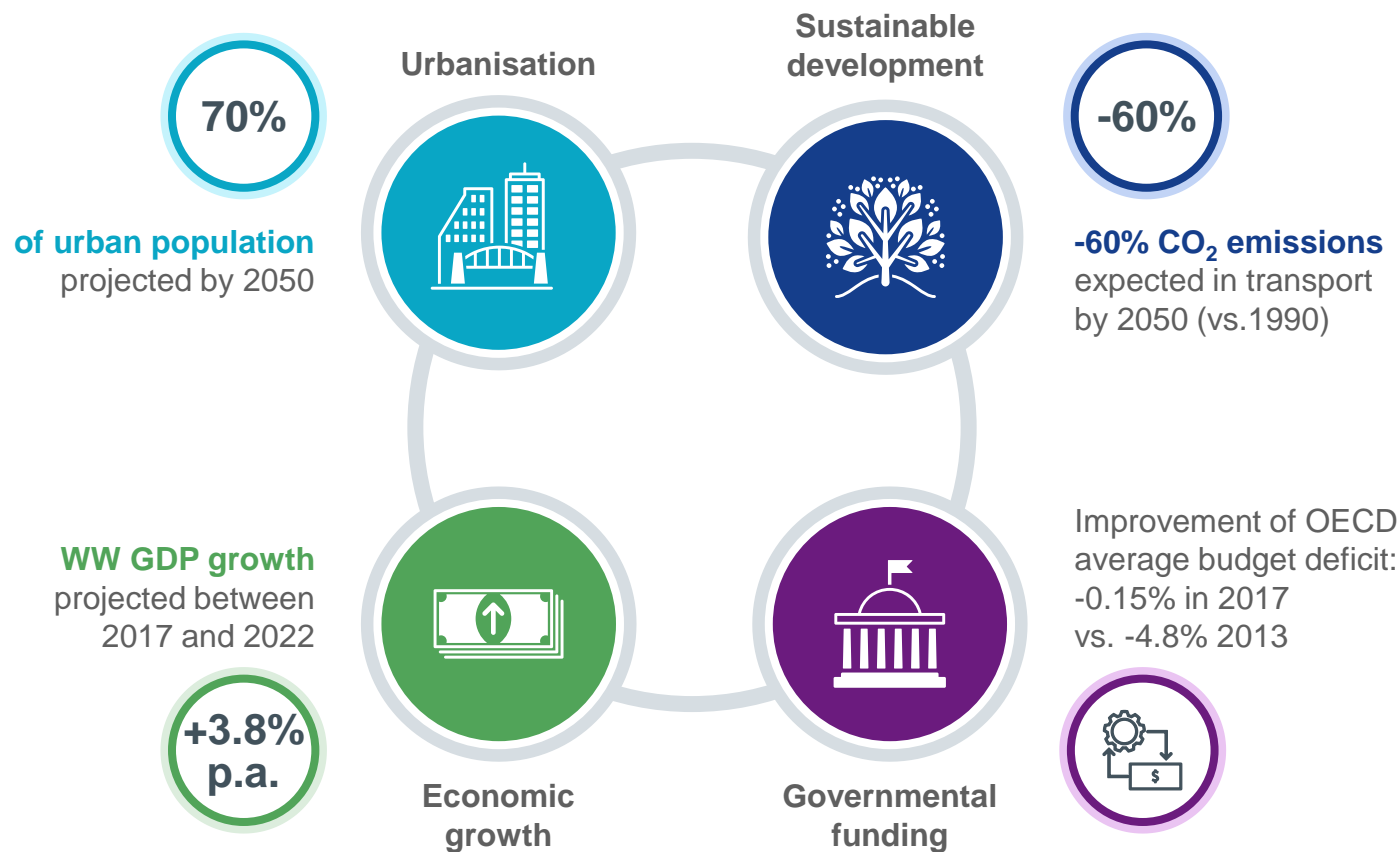
ALSTOM – 24/06/2019 – P 12
 1 Based on published data on local currency
 2 Under IAS11 standards, not restated for IFRS 9 & 15 and based on published data on local currency

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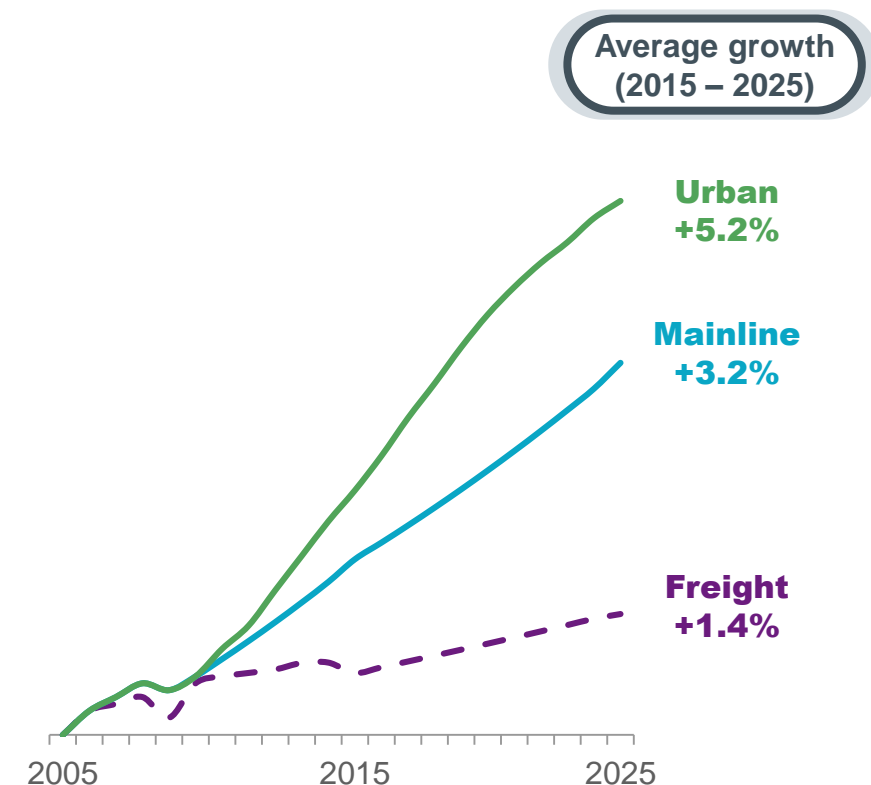


Market perspectives

Robust macro-economic drivers supporting the steady growth of rail traffic



Passenger traffic per market segment In basis 100

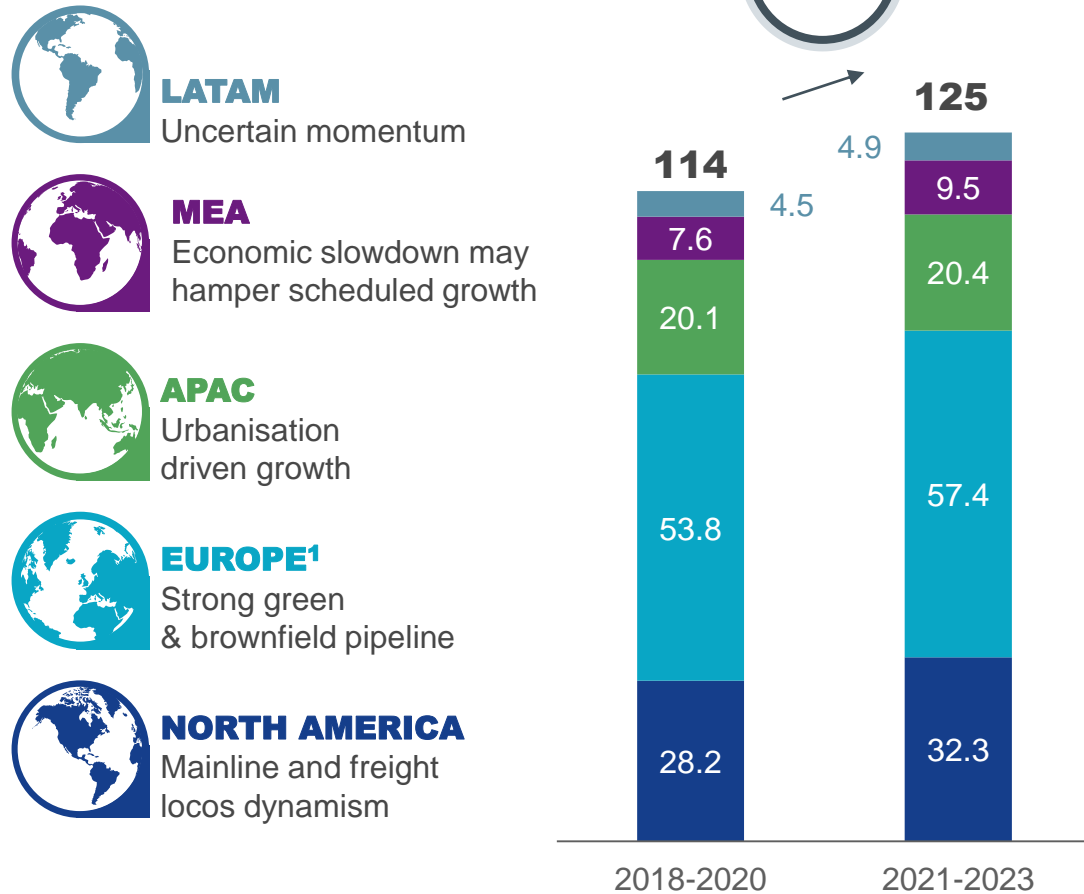


Sources: Statista, United Nations, OECD, 2011 EU White Paper, UIC & CER Rail transport and Environment Facts & Figures report, BCG analysis
Note: Urban traffic figures are for Top 30 cities worldwide; Mainline & Freight traffic figures are for all major national operators worldwide

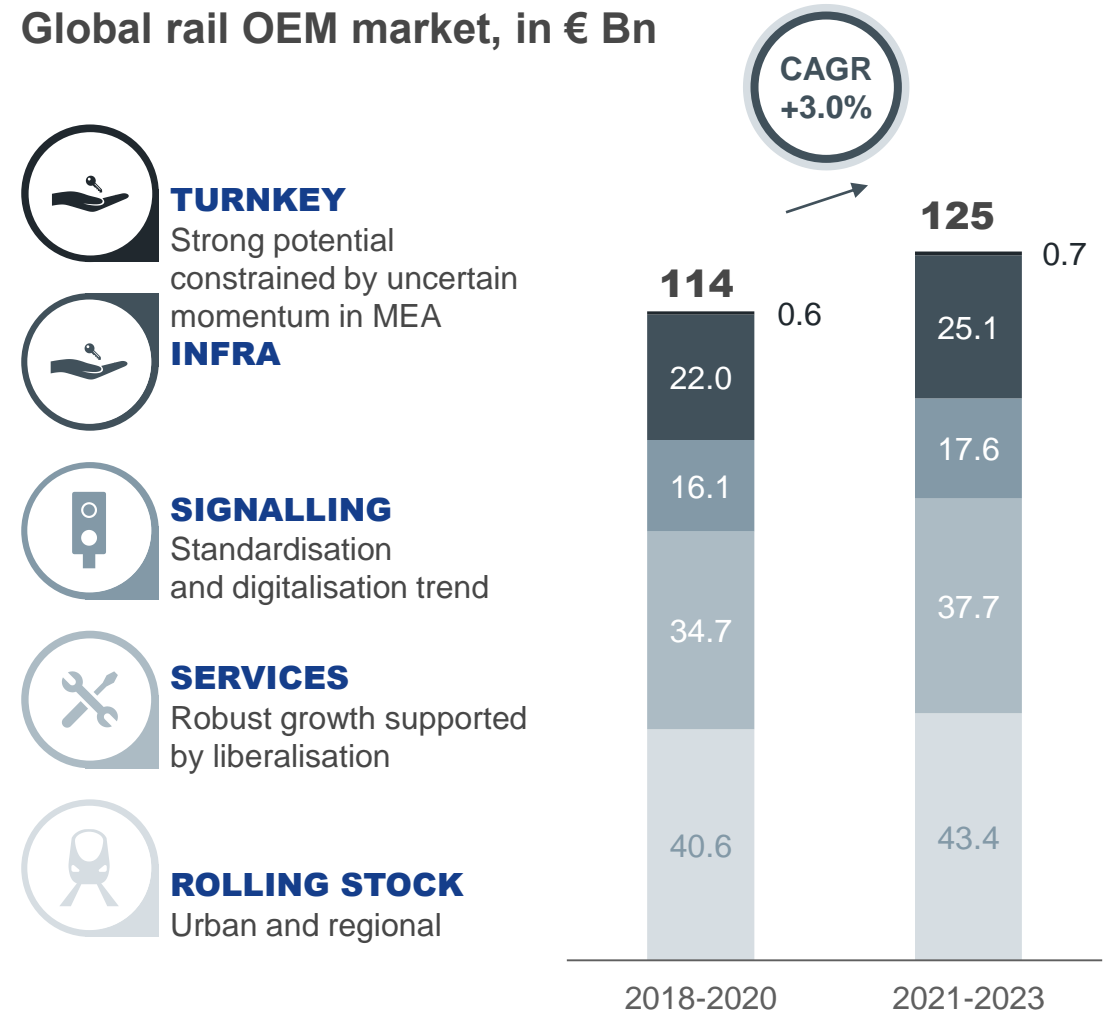
Data: Rail transport markets – global market trends 2016–2025 - SCI Verkehr multi client studies 2017

A positive rail manufacturing market outlook

Global rail OEM market, in € Bn



Global rail OEM market, in € Bn



ALSTOM – 24/06/2019 – P 15
¹ Including France and including CIS
 Source: UNIFE Market Study 2018




A more diverse set of clients

Longstanding clients
National operators on traditional markets






New clients










Internationalised Operators

Private operators

Transport Authorities

Infrastructure funds

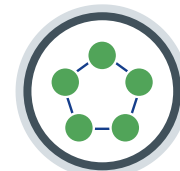








Clients becoming more and more **partners**

Demand shift towards:

- **Lower Total Cost of Ownership is becoming the rule**
- **Higher demand for services contracts**
- **Flexible Rolling Stock**



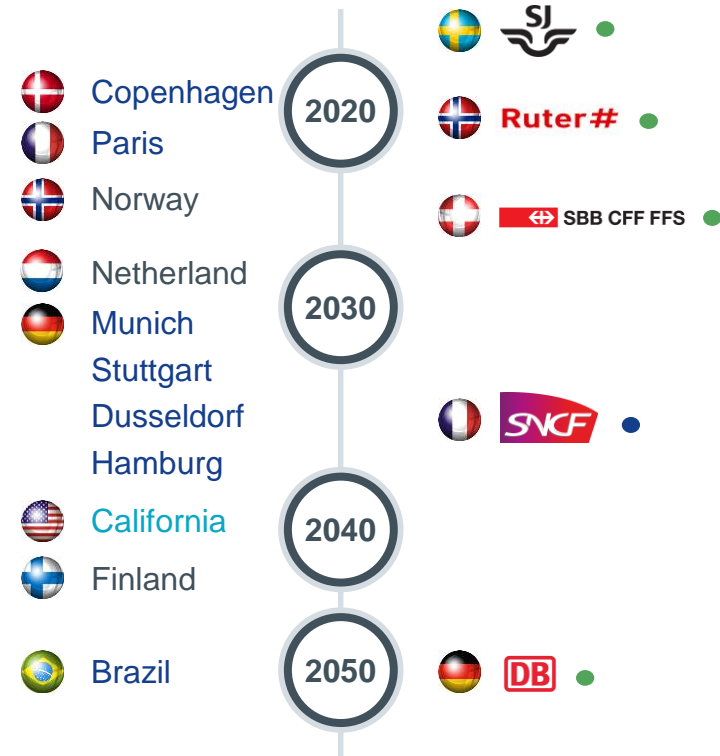
New **business models** emerging (e.g. leasing, pay-per-use)



Level of **tender specification** highly dependent on type of clients

Growing environmental concerns while rapid advancement of green technologies

Multiplication of "diesel ban"



- XX Ban of diesel cars
- XX Ban of all internal-combustion cars
- XX Ban of sales of new ICE cars, use of existing cars allowed
- XX Objective to run on 100% renewable energy

Continued investment in hydrogen

Hydrogen Council: ~\$10bn investment (2017)



H2 mobility Germany:

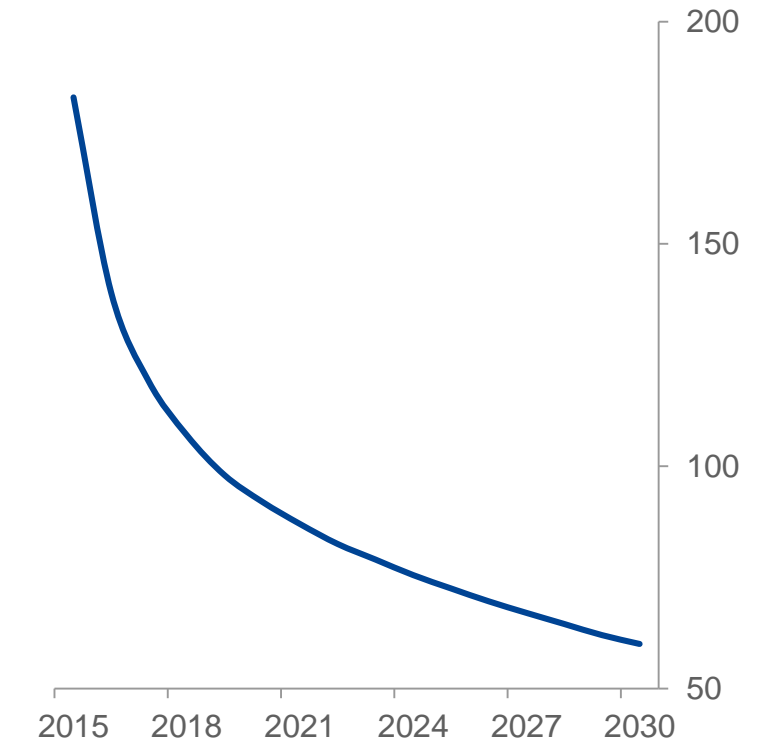
~€350m investment (2015)

Build up to 400 hydrogen refuelling stations by 2023



Increased availability of green technologies

Li-ion battery cell cost development, USD/kWh; 2016 - 2030

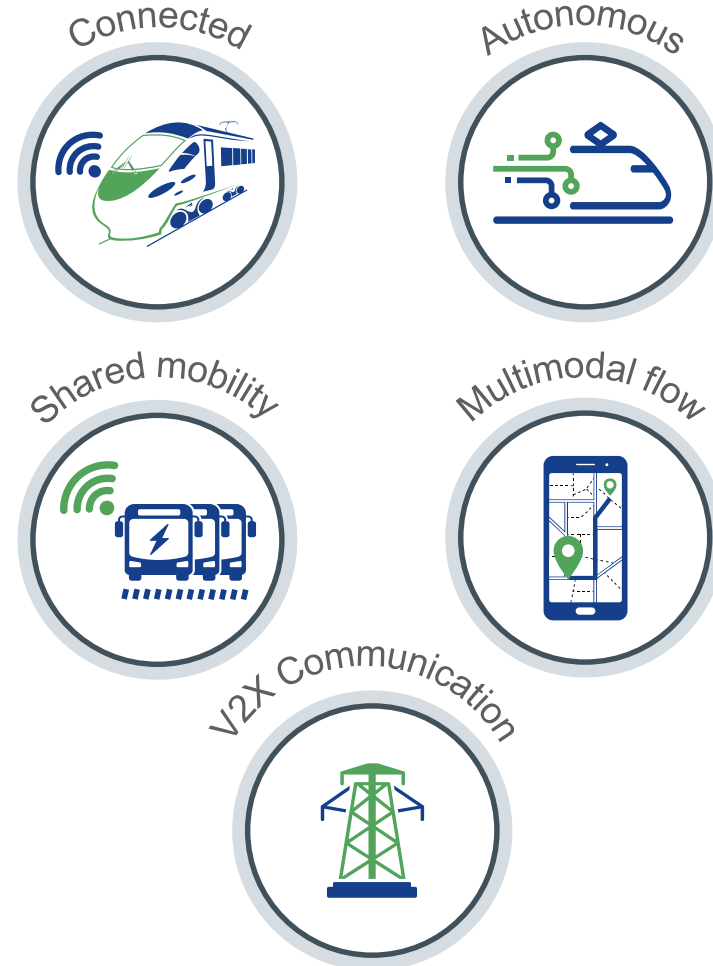


Digital revolution carrying changes in our industry

Rapid progress in digital technologies...

- Big data
- Advanced analytics
- Cloud
- Sensors
- IoT
- Very high speed Network
- Artificial intelligence

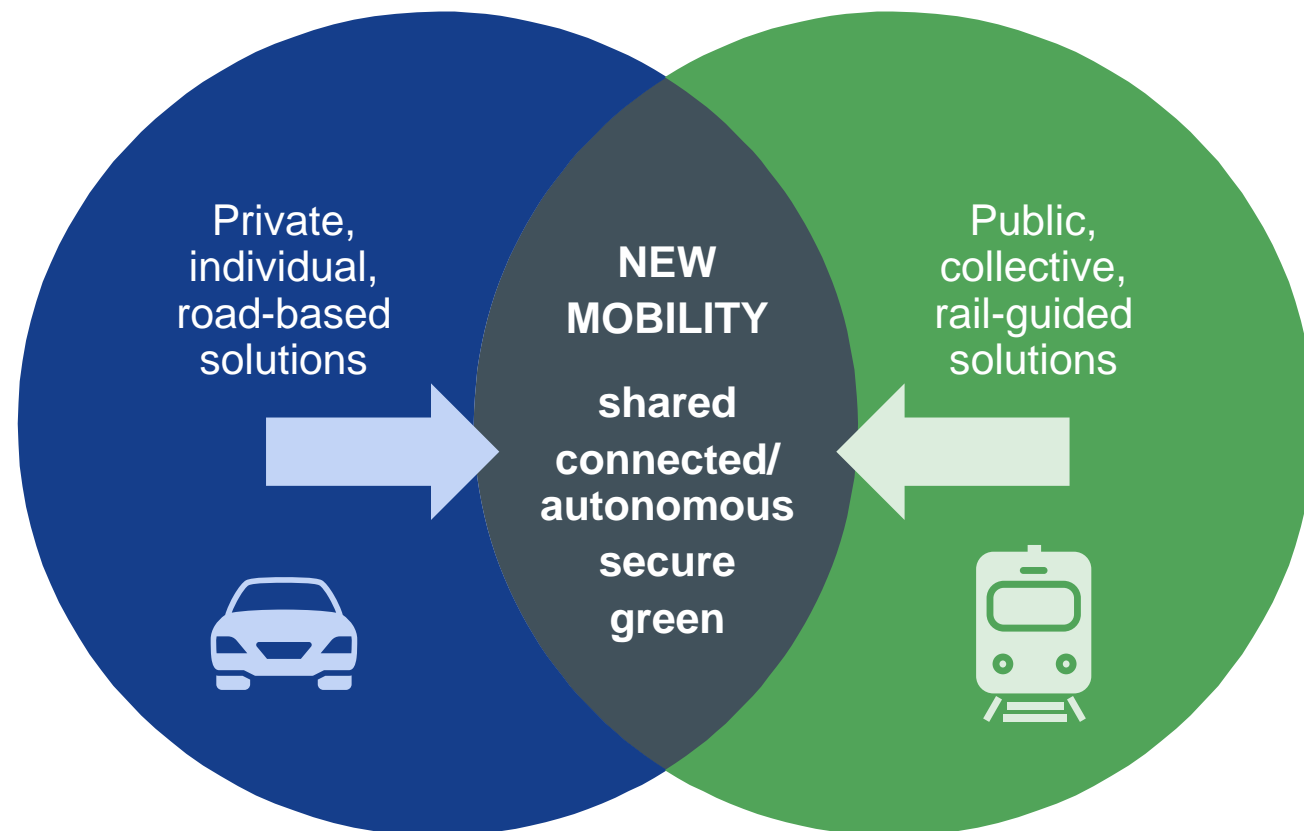
...Enabling new mobility solutions...



... And impacting the rail value chain

- **Data:** new gold for all players
- Value in **complex algorithms** for maintenance, operations or customer facing services
- **Cybersecurity** as a key concern
- **Multimodality, mobility as a service and sharing economy** blurring the frontier between different ground transportation modes

Looking further afield: convergence of rail-guided mobility and the world of private individual vehicles



THE RAIL INDUSTRY IS ALREADY:

- High safety compliant
- 50% electrified, and soon hydrogen or battery powered
- Autonomous technology existing (metros)
- Evolving in complex systems (infrastructure + vehicle)

ALSTOM GEARED FOR THE FUTURE MOBILITY LANDSCAPE

With new mobility requirements approaching rail requirements while rail is resilient and will remain the backbone of mass transit

Strategy overview

**Be the leading global innovative player
for a sustainable and smart mobility**





GROWTH
by offering
greater value
to our customers



INNOVATION
in smarter and
greener mobility
solutions



EFFICIENCY,
powered by
digital

Driven by **One Alstom team**, Agile, Inclusive and Responsible

◀ Leverage our recognised expertise and our customer intimacy worldwide ▶



SERVICES

Become
the undisputed leader



SIGNALLING

Gain product
and market leadership



ROLLING STOCK & SYSTEMS

Grow profitably leveraging
our new platforms

#1 OR #2 IN OUR MARKETS – GEOGRAPHIES AND LINES OF BUSINESSES

Services: become the undisputed leader



Outstanding market potential



Accessible market by 2023: ~€42bn¹, largely untapped



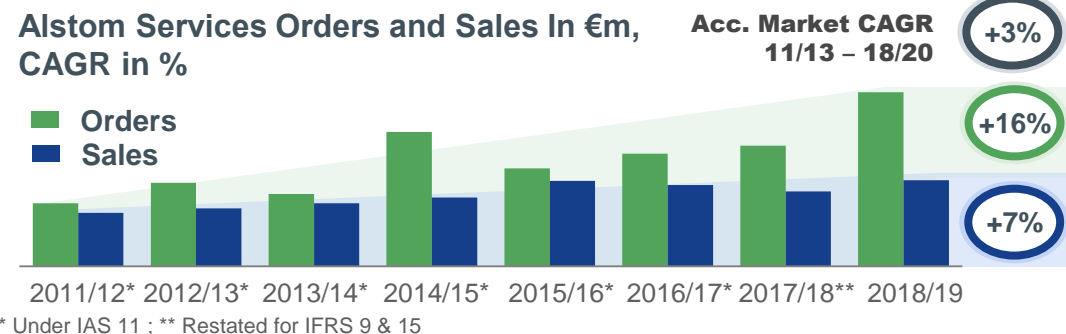
Strong growth drivers: liberalisation, efficiency concerns of operators, growing and ageing installed base



Sound strategic and financial rationale: 20 years+ term contracts, high margins, customer intimacy, low capex

Alstom best positioned with unique assets and excellent track-record

- Installed base + **50,000 vehicles**, only 1/5 clients have service contracts today
- Numerous success stories of subcontracting to traditional operators
- Digital-driven maintenance, green retractioning, proven ability to maintain non Alstom fleet



NEXT PRIORITIES:

① New revenue streams in **parts**

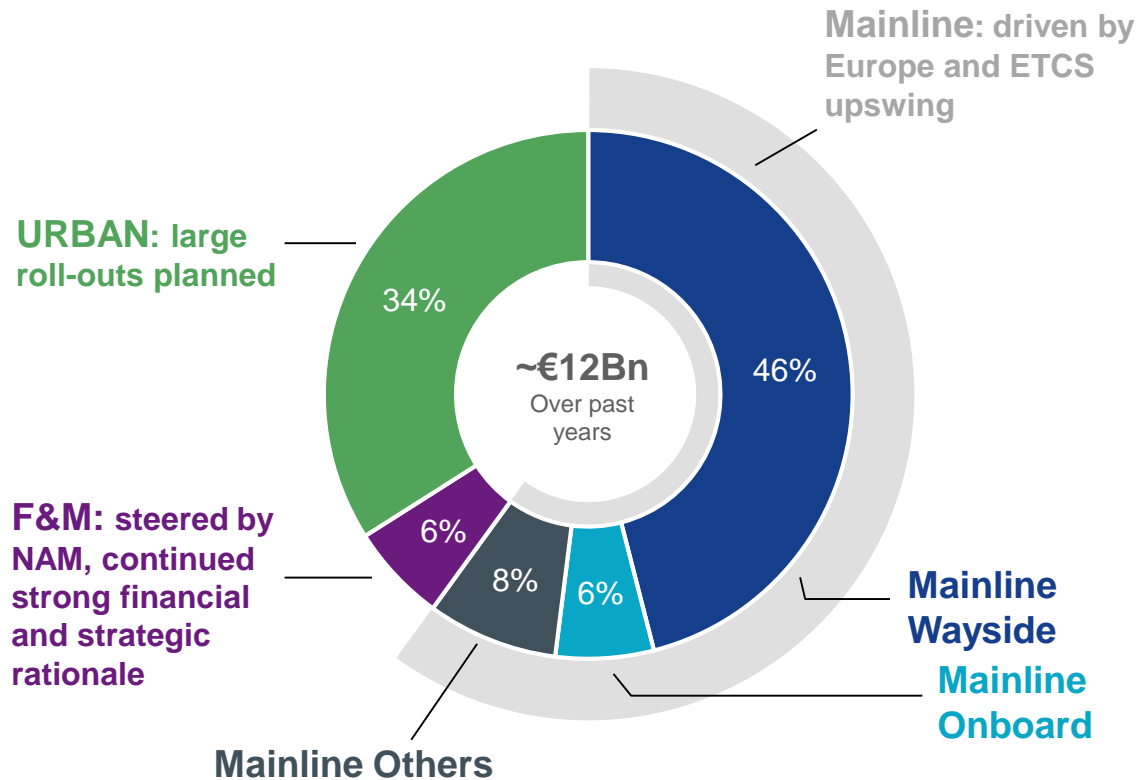
② Expand our leadership in **maintenance**

③ **Green modernisation**

Signalling: gain product and market leadership

Accessible Market Segment Breakdown¹

UNIFE Accessible market



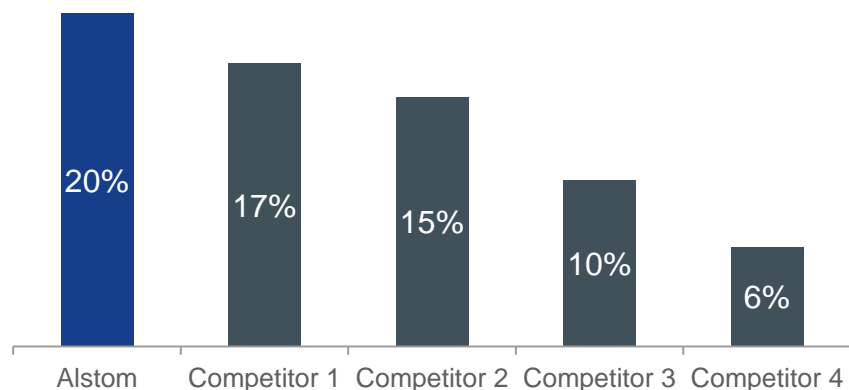
NEXT PRIORITIES:

- Leverage our assets to capture growth:
 - ✓ ETCS expertise
 - ✓ Complex project know-how
 - ✓ #1 in China and India for Urban
 - ✓ Leader in NAM Freight and mining
 - ✓ Global footprint
- Standardise our platforms to gain in agility and competitiveness
- Deepen technological leadership



Rolling stock & Systems: leverage our new platforms to further expand

Already a leading position in our markets¹ Market shares 3Y Orders – March 19, in %



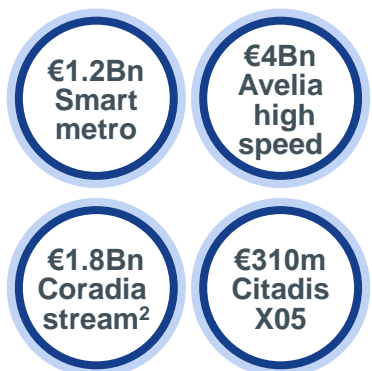
- High technology products
- Competitive on price (Total Cost of Ownership) quality and time
- Ability to customise and respond to clients' demands

New platforms already well commercialised

Orders FY 2016/17-2018/19



from new platforms



Latest developments:

- Maintenance consideration fully embedded in design and manufacturing
- From energy usage reduction to limiting the impact on the infrastructure
- Integration of digital solutions

NEXT PRIORITIES:

- Higher penetration in established markets and extension to new geographies – with same products or products with limited adaptation
- Increased competitiveness through standardisation

ALSTOM – 24/06/2019 – P 26 ¹ The addressable rolling stock excludes D-LoCo, Wagons, Coaches and APM. Coradia Stream – Netherlands and Italy projects
Source: Alstom competitor orders database

Already recognised breakthrough innovations in green and smart mobility

Unique electric bus
Built from base zero
Won one of the largest
European tenders



Rolling stock - Coradia iLint

First Hydrogen train
€360m first contract

New platform - Aptis



Pioneer / leader
in predictive
maintenance



Systems - Hesop

99% of recoverable
energy captured
Now extensively used
worldwide

Services - Health Hub



Signalling - Fluence

World first driverless-
To-driverless metro

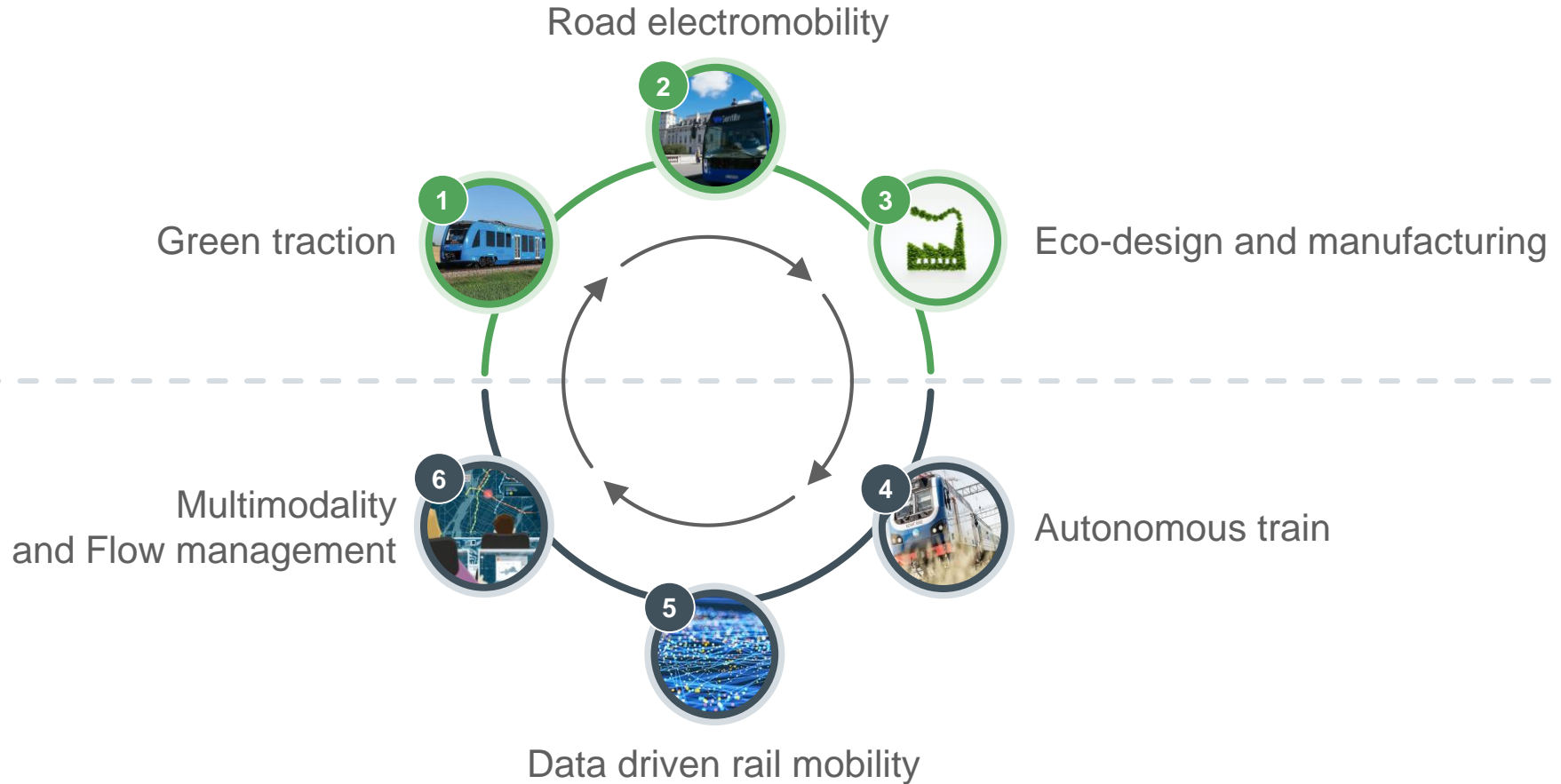
Alstom assets

- Long-term customer intimacy
- Dynamic entrepreneurial culture
- 7,000 engineers, 2/3 software
- A strong ecosystem with key partnerships

Six priority innovation areas to respond to mid and long term business drivers

GREEN MOBILITY

SMART MOBILITY



LEAD IN GREEN AND SMART SOLUTIONS

A TOP PRIORITY FOR THE GROUP

2020 objective of 7% aEbit margin reached

Thanks to:

- Sourcing cost reduction – **€250m**
- **60%** of manufacturing in best cost countries
- Strong **project execution** and **SG&A control**
- **Volume** and **mix** effect

Additional levers

- **Digital** transformation
- **Footprint** stabilisation & optimisation
- Best-in-class project **execution**, including cash focus

On top of natural drivers

- New platforms gaining in **competitiveness**
- **Learning curve** of our recent manufacturing and engineering sites

INDUSTRY LEADING MARGINS AND CASH GENERATION

Environment and social impact at the heart of our strategy



2025 targets



1
ENABLING
decarbonisation of mobility

25%¹ energy reduction in solutions (CO₂)
100 % electricity supply from renewables



2
CARING
for our people

Total recordable injury rate at 2
25% Women in management & professional roles
Global **Top Employer** certification



3
CREATING
a positive impact on society

100,000 beneficiaries /y from local actions
100% of newly developed solutions eco-designed



4
DEVELOPING
ethical and sustainable supply chains

100% of suppliers monitored or assessed for compliance on CSR standards and E&C practices

Clear financial objectives for 2022/23



Sustainable shareholder return: 25 to 35% dividend pay-out as of 2019/20

¹ including CASCO JV share of net income

² Net profit from continuing operations attributable to equity holders of the parent

³ Nota: free cash flow generation is subject to usual short-term volatility linked to customers down payments and milestone payments from customers Under new IFRS standard (IFRS15/IFRS16)



Finance

Laurent MARTINEZ - CFO

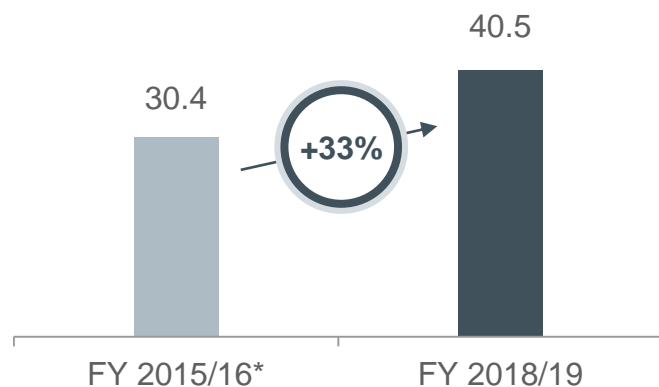
2019 Capital Markets Day

Alstom 2020 achievements

2020 Strategy largely a success - Alstom Financial Achievement

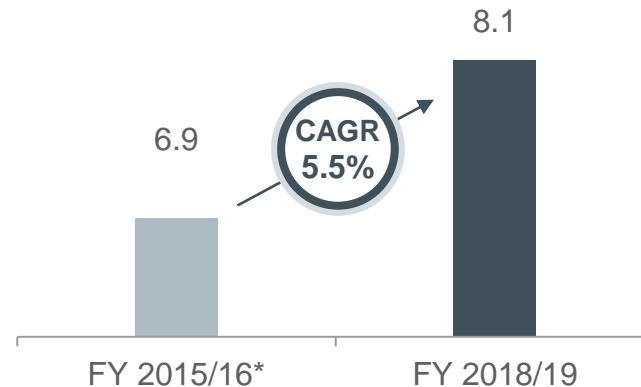


Backlog (in € billion)



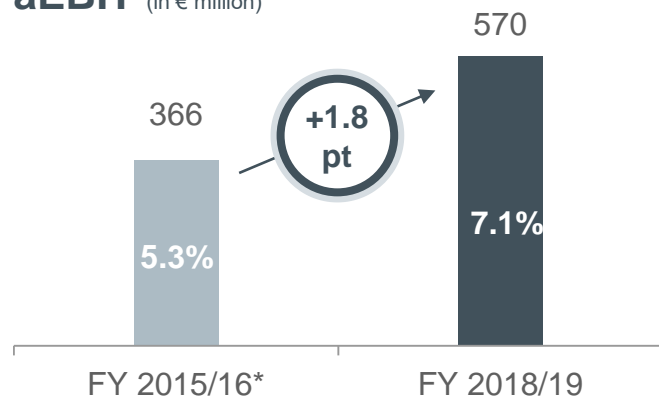
* as per IAS11 standards

Sales (in € billion)



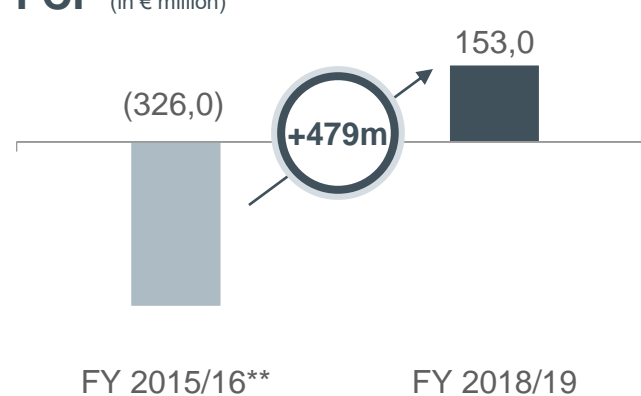
* as per IAS11 standards

aEBIT (in € million)



* as per IAS11 standards

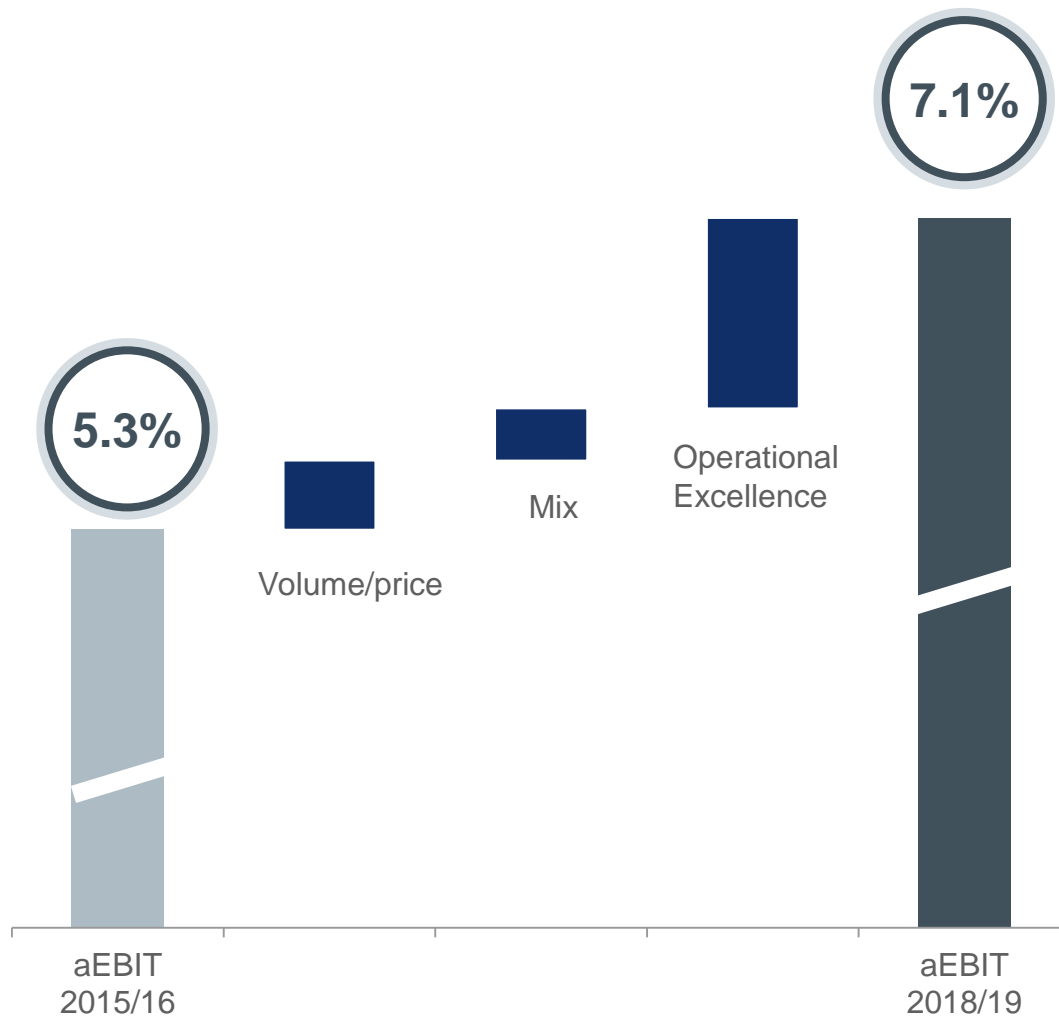
FCF (in € million)



** 15/16 excl. extraordinary DOJ fine for ca. (720)m and discontinued (1,568)m

- Backlog: strongest industry backlog
- Growth to €8.1Bn sales
- Raised margin to 7%
- Growing FCF generation

Delivering Margin Expansion

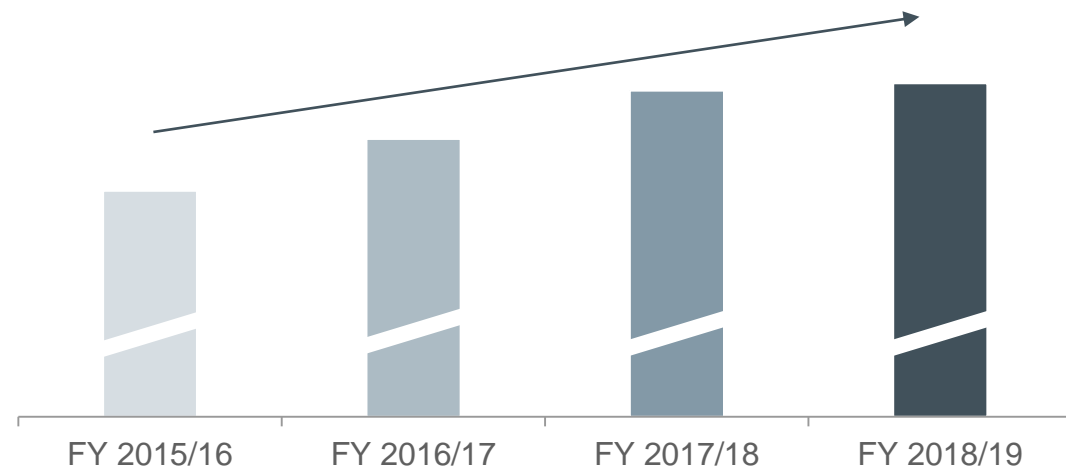


- Volume/Price
 - Solid top line growth
 - Partly offset by pricing dynamics
- Portfolio/Mix
 - Reaching 60% sales on Services / Signalling / Systems
 - New products development
- Operational excellence
 - Sourcing savings
 - Global footprint (India, Poland)
 - Project delivery excellence

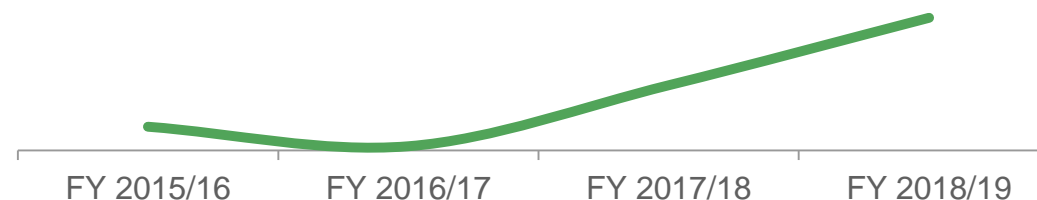
Alstom Success Foundation: Tender and Project Execution



Gross Margin% on Orders Intake



Margin at completion increase On projects portfolio

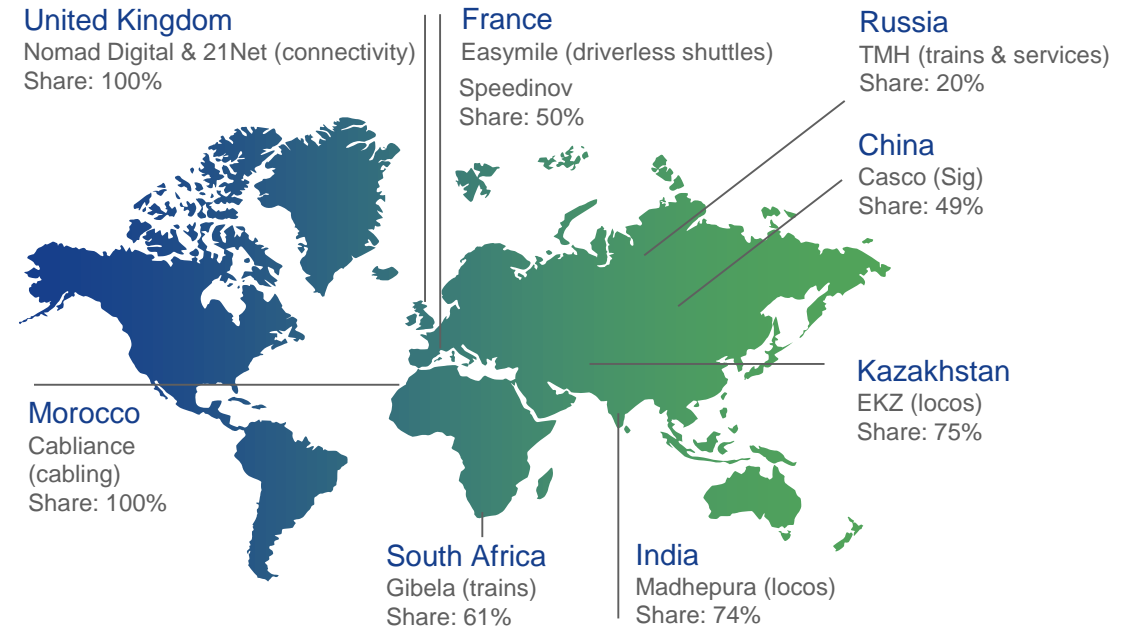
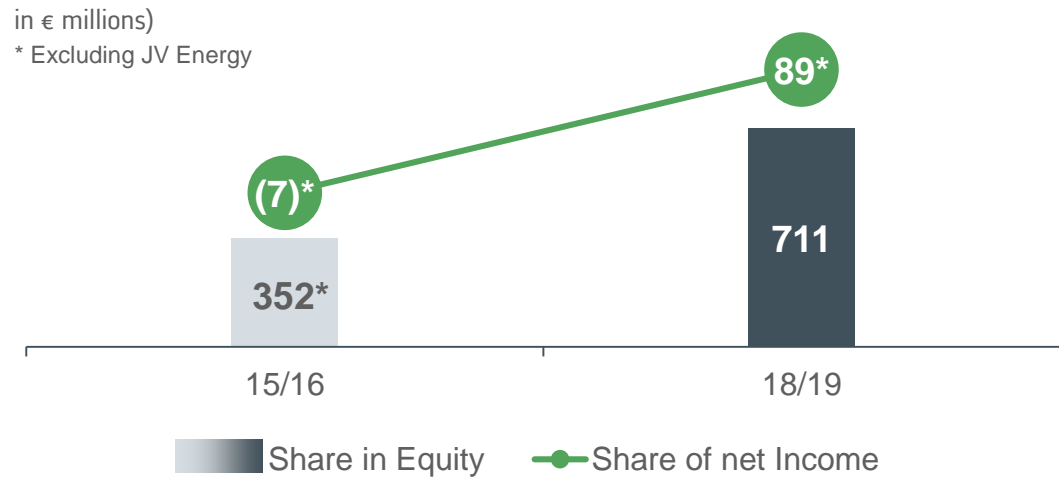


- Sound Management of 500 projects portfolio
- Continuous progression in Margin on Order Intake
- Robust project execution: uplift on margin at completion on projects portfolio over last 8 semesters



Strong Project & Risk Management DNA

Creating Value with JV and Partnerships



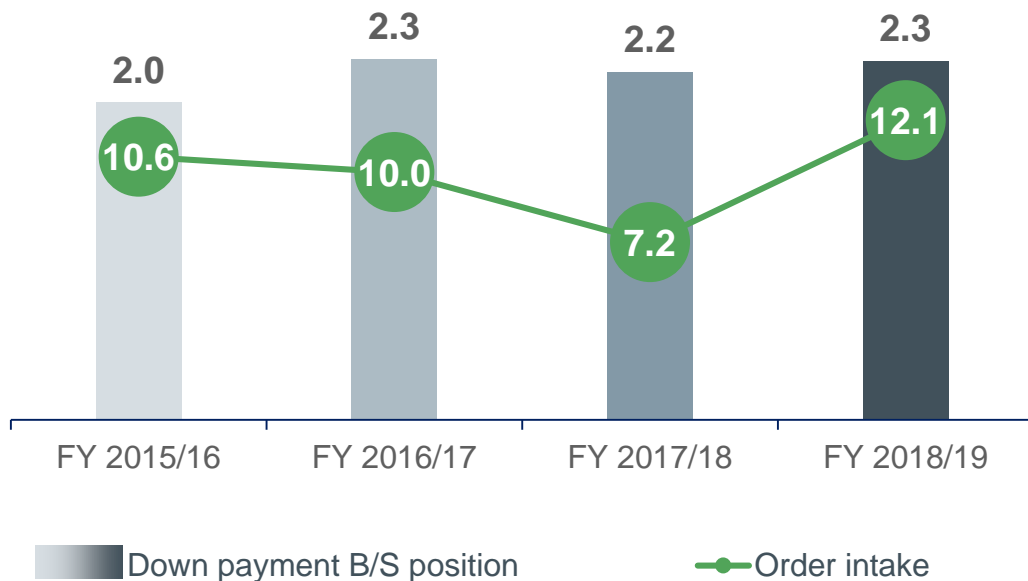
● Diversified partnership & acquisition:

- CASCO: access to Chinese Market
- TMH: strategic partnership / access to Russian market
- Project partnership
 - Madhepura: India eloco
 - Gibela: South Africa Prasa train
 - EKZ: Kazakhstan Locomotives
- Digital & Innovation
 - EasyMile: Smart Mobility
 - Nomad and 21Net: On Board Connectivity
 - Speedinnov: High Speed Development

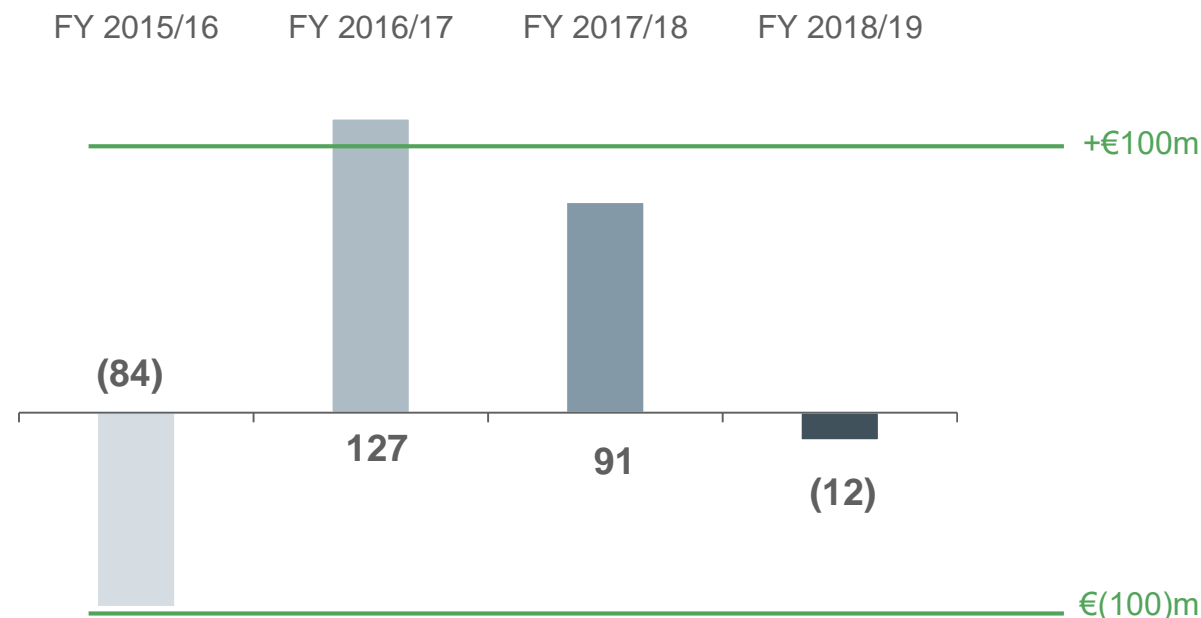
Sustainable Working Capital Performance



Down Payments position (in € billion)



Working Capital Change (impact on FCF) (in € million)

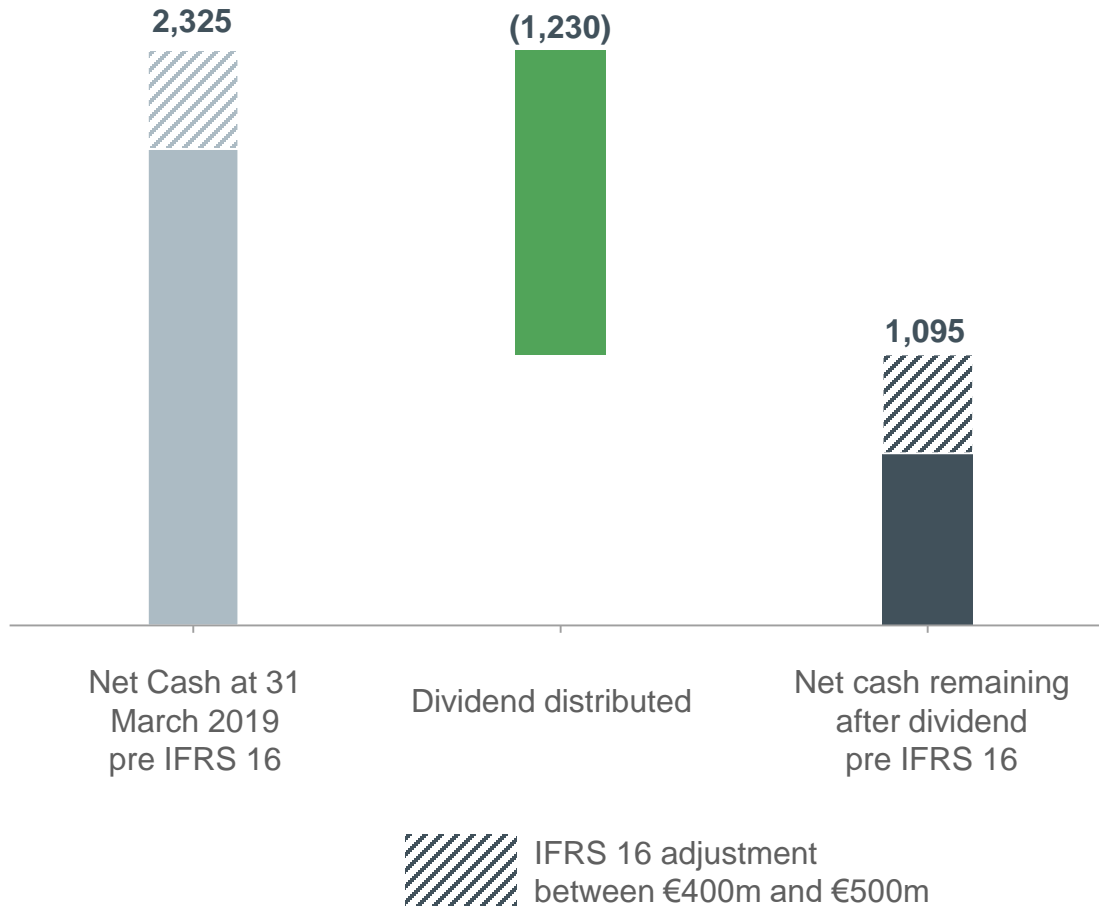


- Stable Down Payments position

- Limited Working Capital fluctuation
- Sustainable negative Working Capital (ca. 20% of Sales) driven by customer payments phasing

Strong Balance Sheet post 18/19 Dividend – Foundation for next phase

Net Cash / (Debt) (in € million)



- Dividend of 5.5€ per share proposed by Board of Directors
- Strong net cash position allows growth and investment
- Solid rating: Baa2
- Access to bank guarantees at competitive price

AiM financial framework

We AiM to ...



One Alstom team, driven by Agile, Inclusive and Responsible values

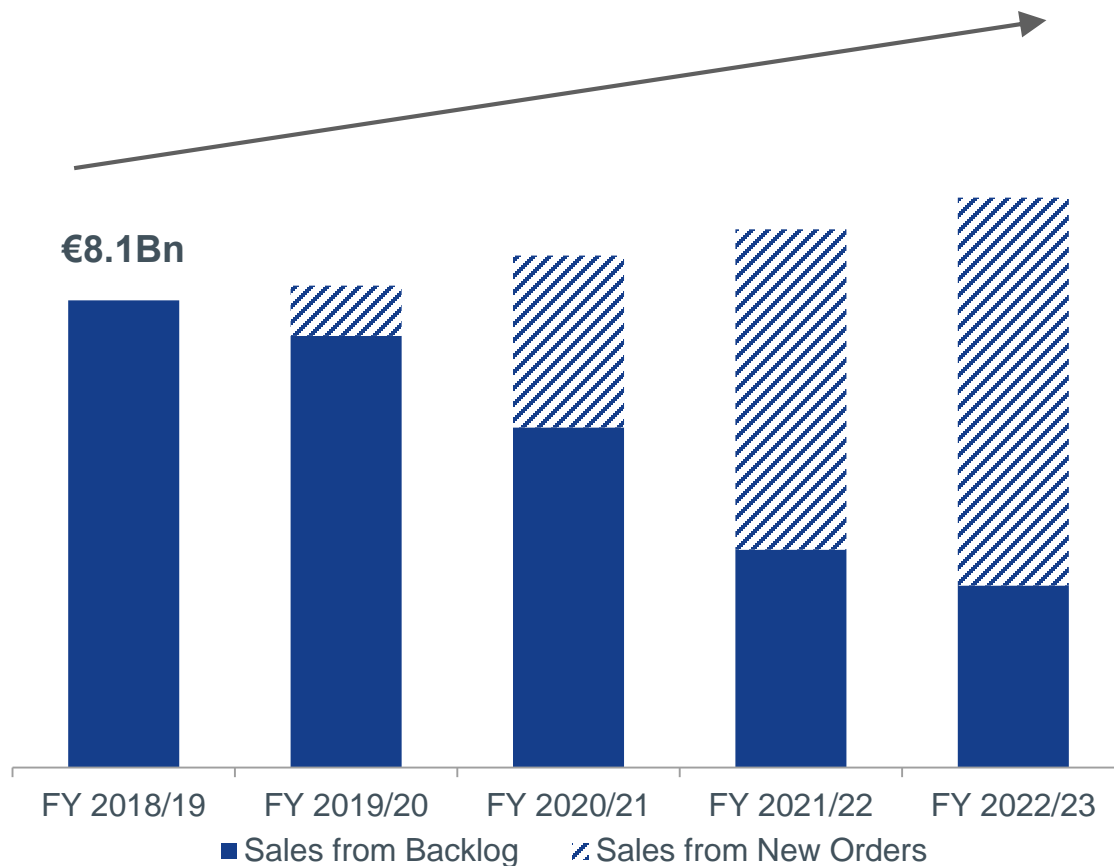
Sales step up

Future growth &
competitive edge

Margin expansion &
Cash Generation



Growing Sales Sustainably Above Market

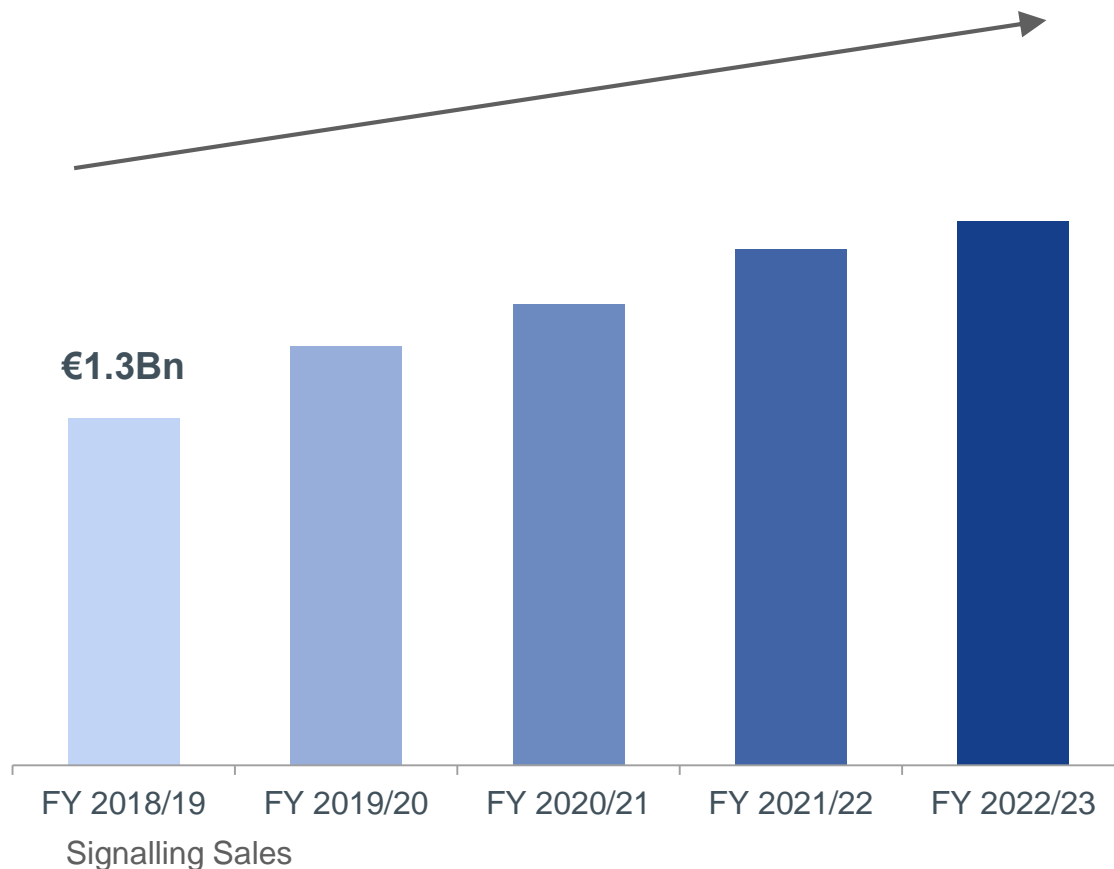


- Record €40Bn backlog securing €16.5-17.5Bn sales over next 3 years
- Boost Signalling sales
- Foster Services momentum
- Revenue from Services and Signalling to reach 40% by 2022/23
- Build on Rolling Stock and Systems capabilities
- Softer FY 2019/20 due to Middle East large system projects phasing

Sales step up: Average annual growth rate of around 5% over 2019/20 to 2022/23



Boosting Signalling Performance

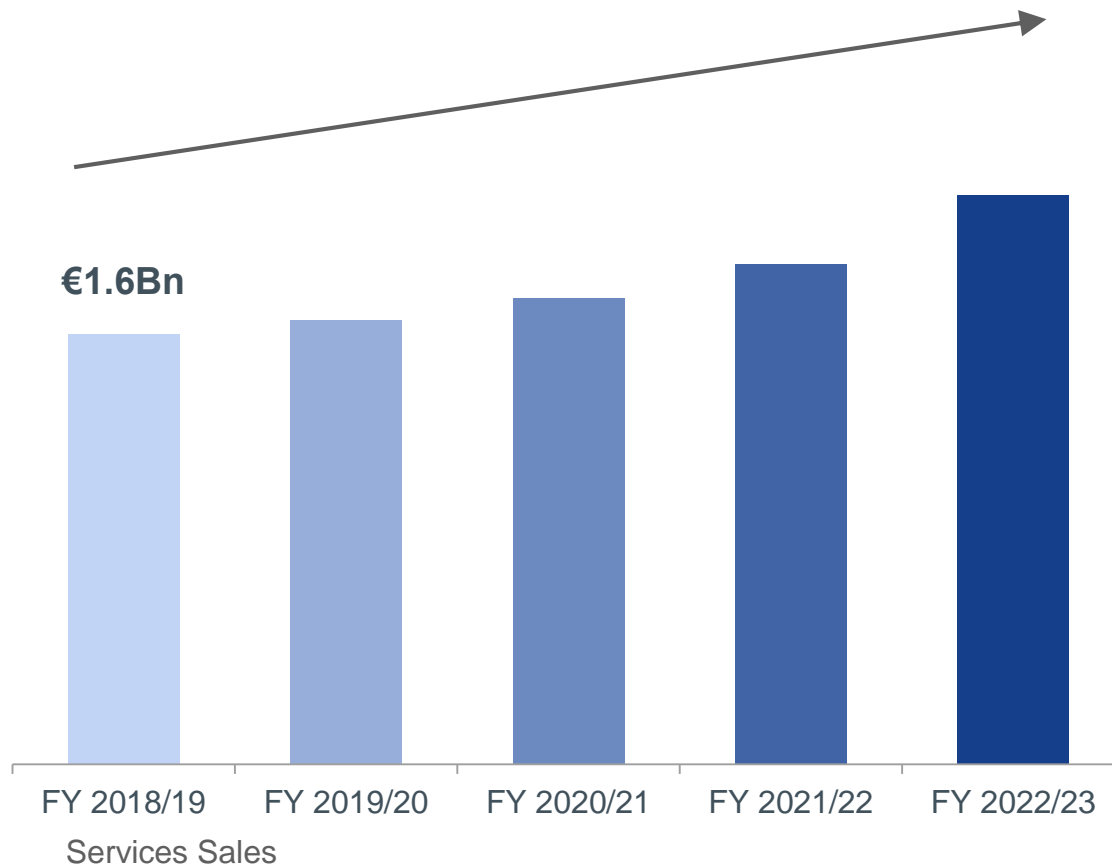


- Signalling growth drivers
 - European Mainline signalling
 - Global urban market
 - Services on installed base
 - Innovation
- Margin expansion drivers
 - R&D efficiency & standardisation
 - Bangalore engineering footprint
 - Casco contribution

Changing Gear on Signalling



Harvesting on Service Leadership

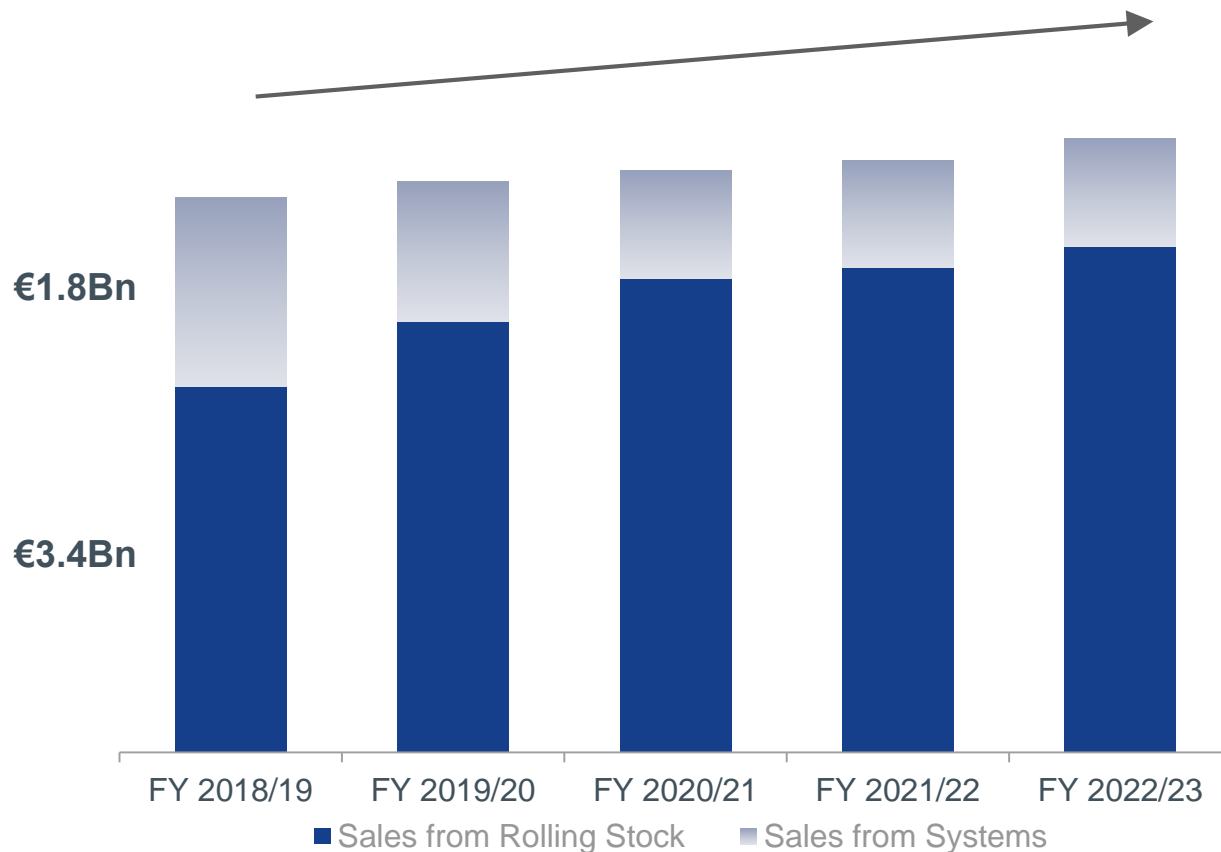


- Services growth drivers
 - Record backlog of €13.5Bn
 - Long term maintenance services contracts, parts, green modernisation
 - Alstom unique added value on reliability & availability
- Margin drivers
 - Sourcing efficiency
 - Design for maintenance & services
 - Digital services & predictive maintenance
- High margin, low risk, low capital intensity Business model

Services momentum accelerated - additional value delivered to operators



Leading Rolling Stock and System Performance



- Systems dynamics
 - Systems sales softening after peak activities in 2018/19
 - Opportunities in Middle East & Latin America
 - Unique Alstom turn-key experience & capability
- Rolling stock growth drivers
 - Renewed product portfolio on Rolling Stock
 - Innovative products: H2 train, eBus
 - Market momentum: Europe, North America, India...
- Rolling stock margin expansion drivers
 - Sourcing performance
 - Footprint: Best costs countries expansion

Leveraging our global reach & renewed product portfolio

ALSTOM – 24/06/2019 – P 45 Nota: Graph for illustrative purpose

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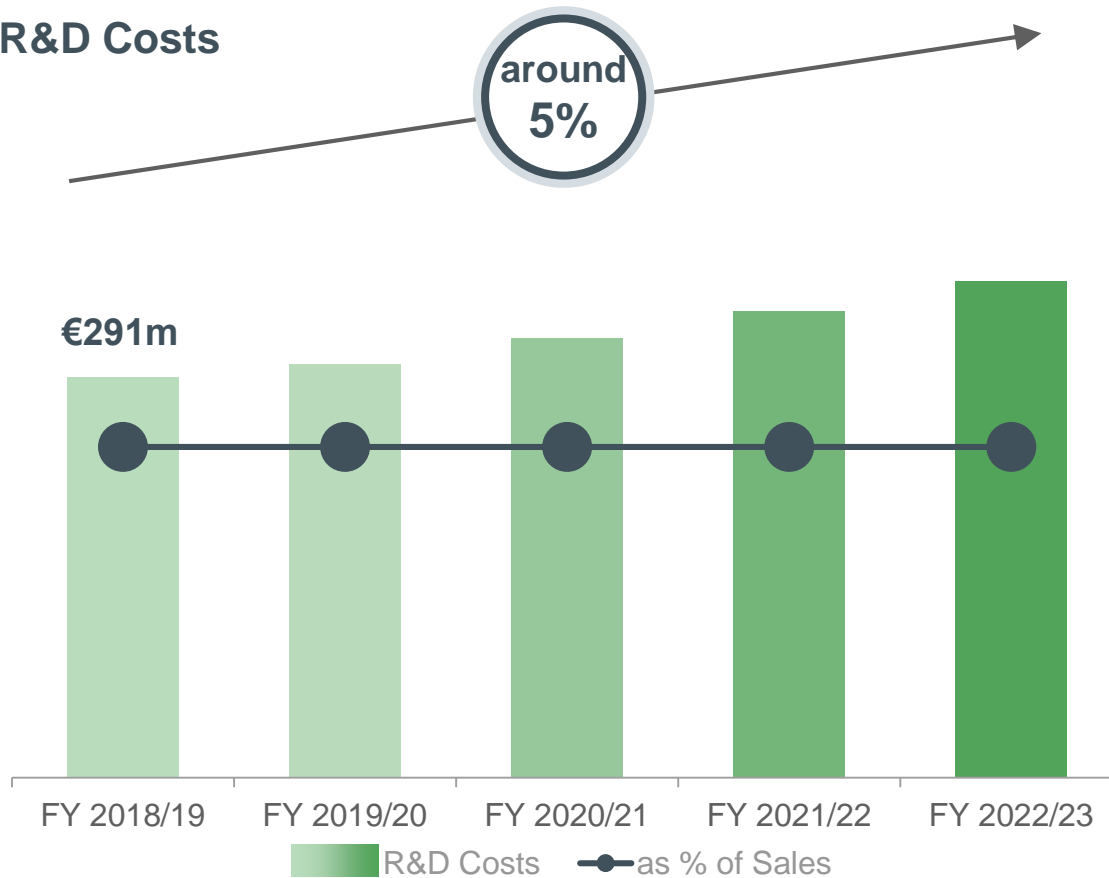




Committed to Create Value Through Innovation



R&D Costs

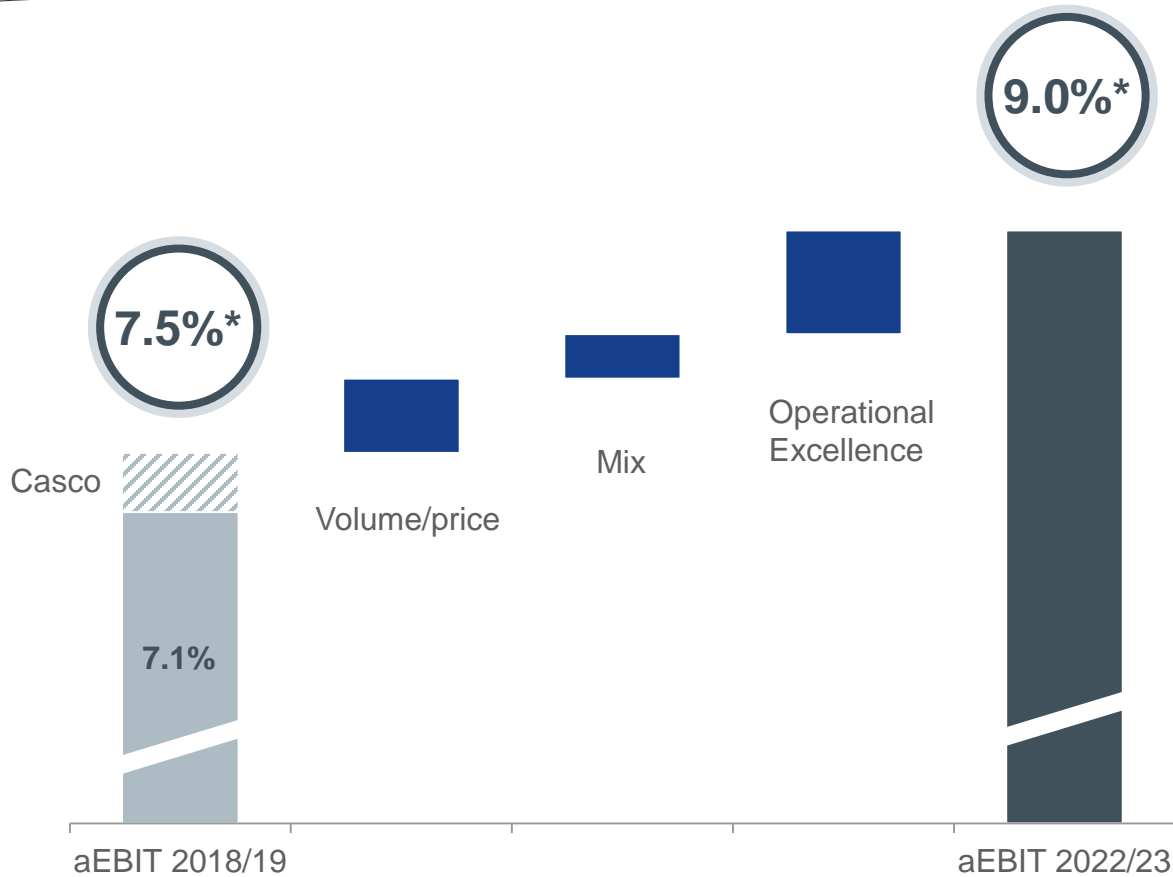


- R&D costs growing at same pace than sales (around 5%): stable R&D / sales ratio
- Harvesting on current platform generation on Rolling stocks
- Prioritised innovation axes
 - Green mobility: H2 train and eBus
 - Signalling product development
 - Very high speed (TGV du futur – co financed with ADEME)
 - SMART mobility

Investment fire power focus on future growth



Uplifting margin to Benchmark Level



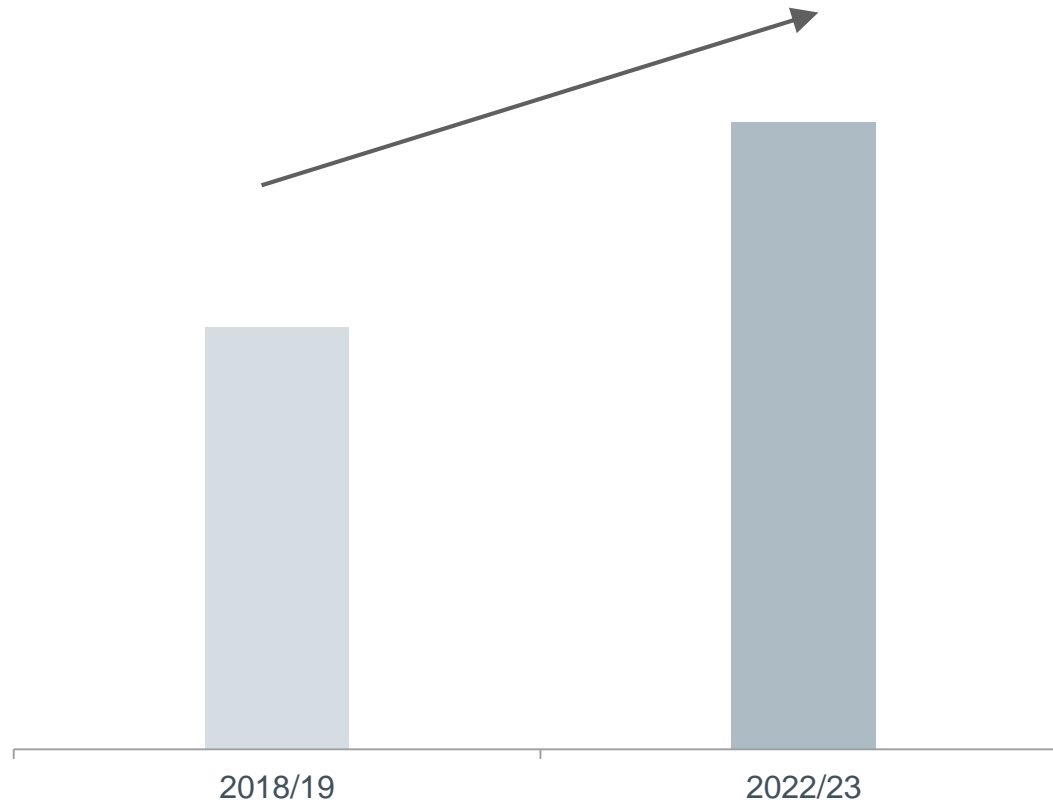
- Volume/Price
 - Sustainable top line growth
 - Consistent price dynamics trends
- Portfolio Mix
 - Growth towards Services & Signalling (toward 40% of sales in 2022/23)
- Operations Performance
 - Sourcing savings (60% Best cost countries)
 - Global footprint extension (60% Best cost countries)
 - Standardisation & efficiency in execution

* including CASCO JV share of net income

Profit boost by 150 bps to around 9% aEBIT margin



Deliver EPS growth



EPS 2018/19 without GE JV put option & Disc. Net income impact

- EPS growth driven mainly by EBIT step up
 - Restructuring almost completed, returning to normative level
 - Financial expenses reduced by bonds repayment
 - Effective Tax Rate between 25 and 30%, benefiting from Deferred Tax Asset
 - Long Term Incentive payout to be implemented through Share Buy-back

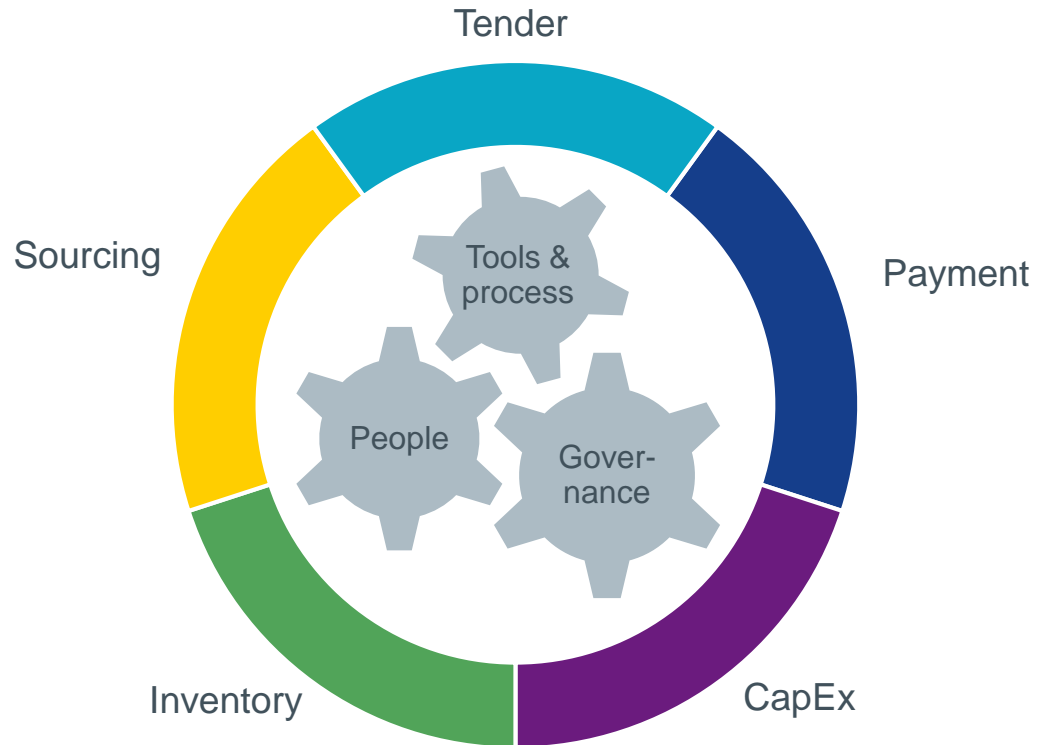
EPS ramp-up boosted by operational performance and balance sheet discipline



Driving Performance through Cash Focus Programme



Programme Architecture



● Key drivers

- Tender
 - Progress payment & Working Capital optimisation
- Inventory
 - 20% reduction of testing duration
 - 15% Hard Inventory coverage reduction
 - Vendors Managed Inventories implementation
- Sourcing / supply chain
 - Payment terms & Supply chain right in time

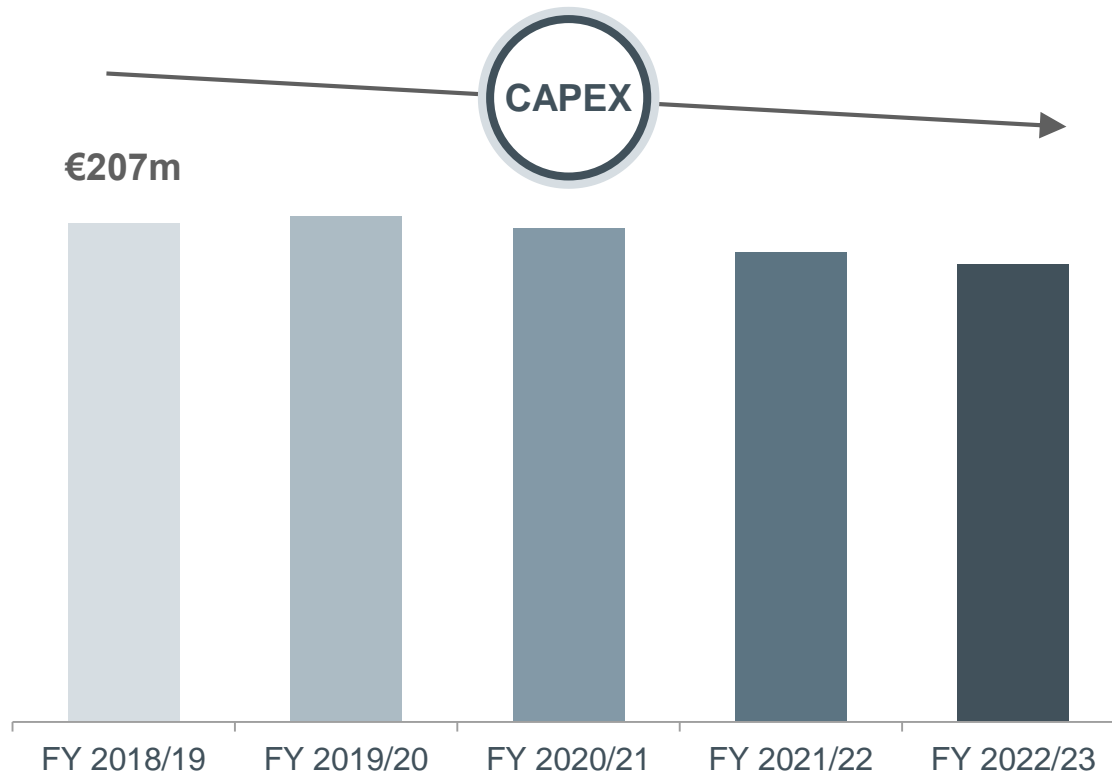
● Transformation enablers

- Cash training, culture, & process aligned
- Management incentives aligned to FCF generation & FCF / Net Income

Step up Cash performance as a company wide target



Cash Focus: Prioritising Capex



Nota: Specific projects jigs & tools accounted for in Capex under the new IFRS15 standards since 18/19

- Transformation capex to end in 2019/20: no new industrial hub creation
- Capacity increase in Best cost countries
 - Sri City (India)
 - Katowice (Poland)
- Capex prioritised to efficiency drivers
 - Machining capacity
 - Robot welding
 - Factory 4.0
- Decrease from 2 to 2.5% over sales for 2 years to ca 2% of sales on mid-term

Prioritised capex geared to growth & efficiency – towards 2% of sales

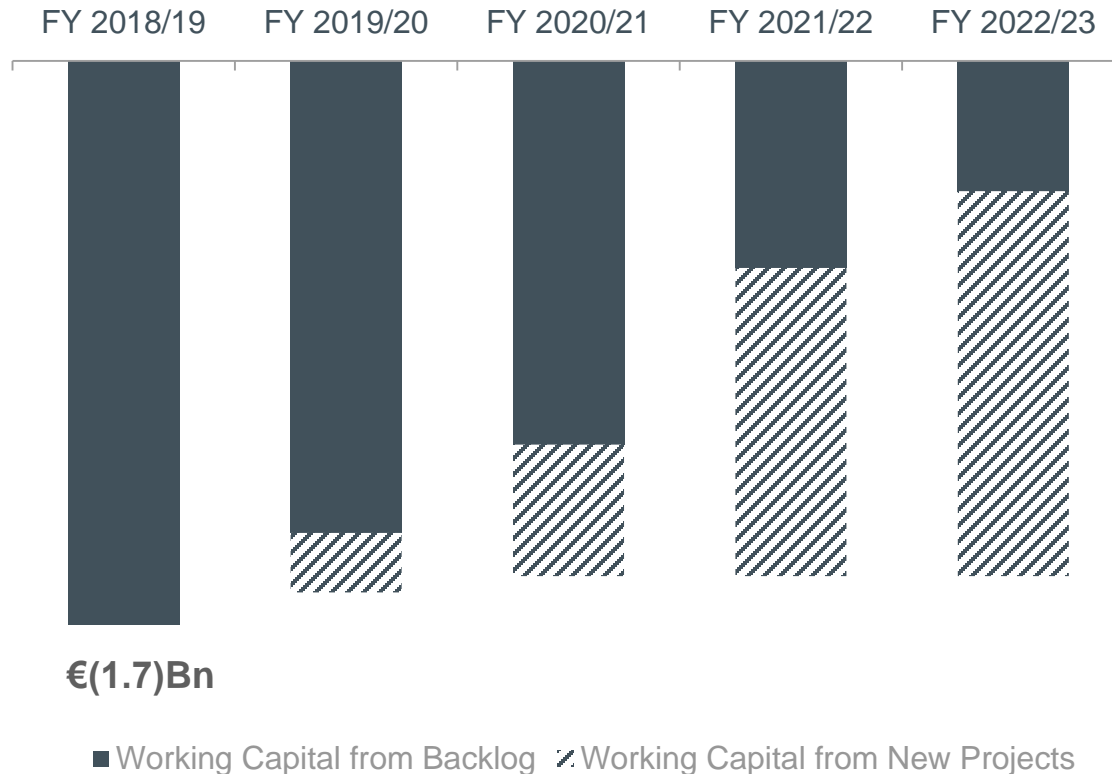
ALSTOM – 24/06/2019 – P 50 Nota: Graph for illustrative purpose

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Cash Focus: Working Capital Performance



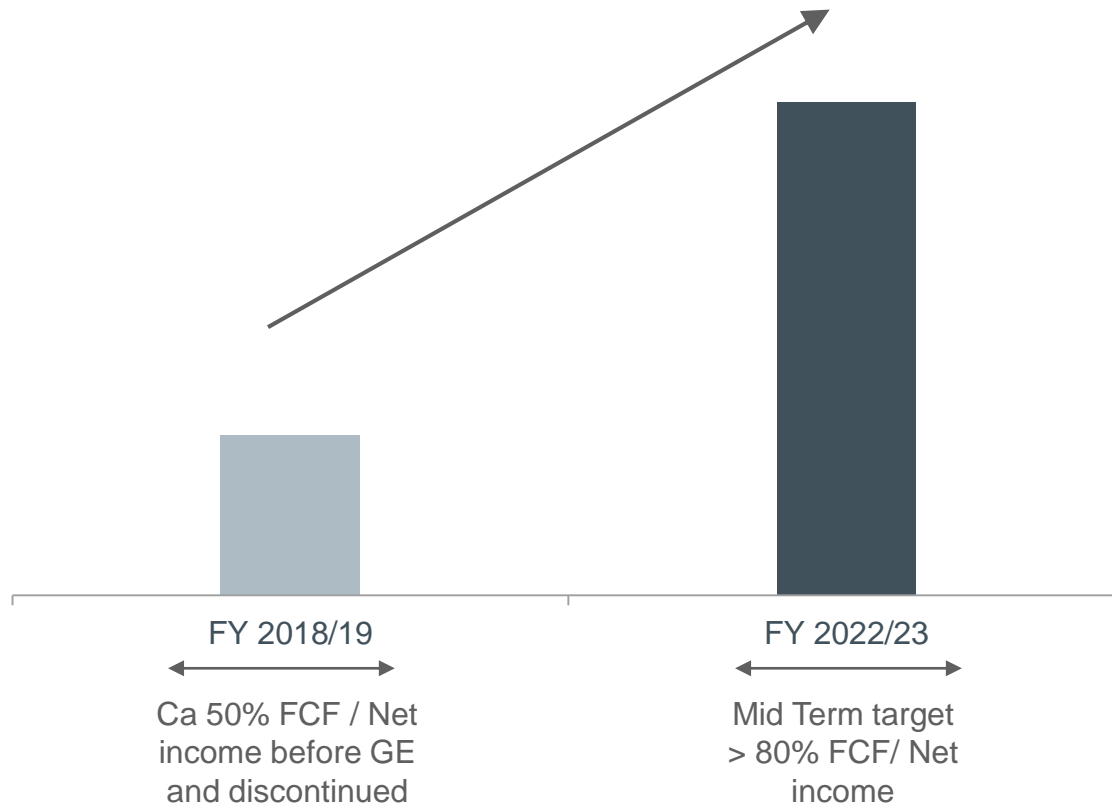
- Stable Down payment on average
- Inventory to ramp up over next 2 years
- Impact of Cash Focus stringent actions
- Mid-term Target: working capital stability

Working capital subject to customary short term volatility related to down payments & progress payments

Working capital fostered by Cash Focus – towards mid term stability



Delivering FCF Performance



● FCF key drivers

- EBIT growth driven by volume & margin expansion
- Working Capital: inventory impact during 2 years, and stable mid-term target
- Capex stabilising to 2% of sales
- Financial cash out benefiting from bonds repayment
- Tax cash out supported by tax losses carried forward

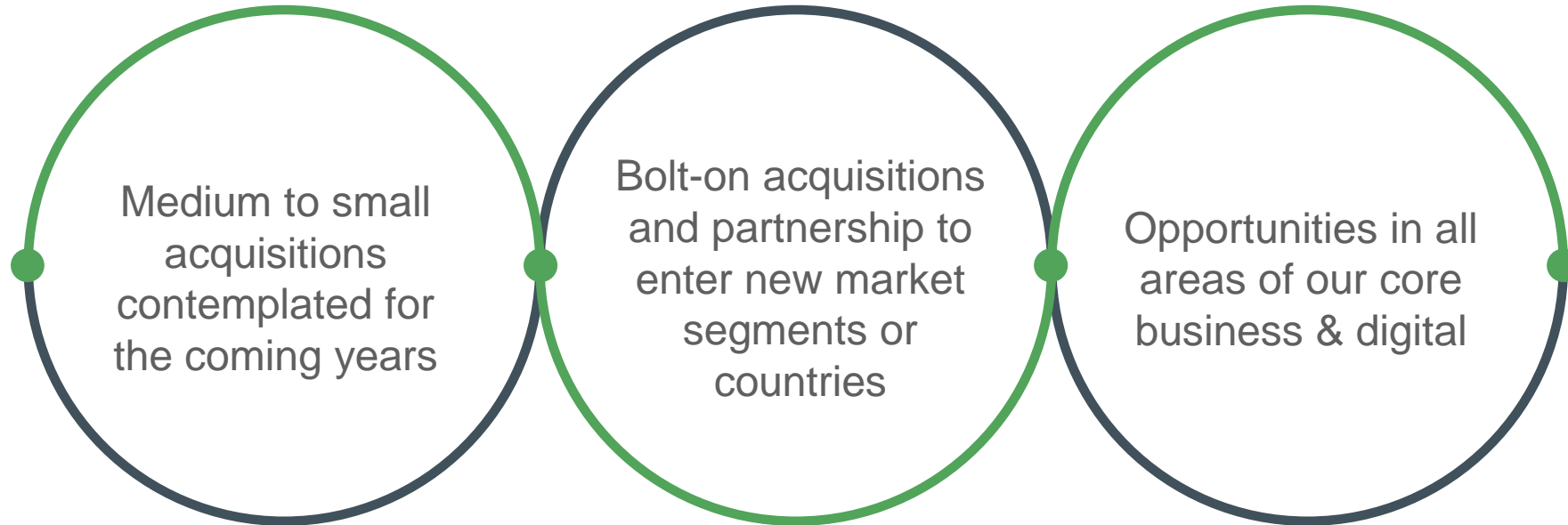
Subject to customary short term volatility related to down payments & progress payments phasing

Committed to FCF generation – Targeting FCF / Net Income¹ ratio above 80% by 2022/23

ALSTOM – 24/06/2019 – P 52
¹Net profit from continuing operations attributable to equity holders of the parent
Nota: Free cash flow generation is subject to usual short-term volatility linked to customers down payments and milestone payments from customers
Nota 2: Graph for illustrative purpose
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Disciplined M&A Policy



Disciplined M&A to accelerate growth & value creation - EPS Accretive target

FCF improvement



- Strong net cash position maintained to sustain growth
- Solid investment grade rating maintained
- Sustainable shareholder return: 25 to 35% dividend pay out as of 2019/20



We Aim at value creation

GROWTH
by offering
greater value
to our customers

INNOVATION
in smarter and
greener mobility
solutions

EFFICIENCY,
powered by
digital

Sustainable shareholder return: 25 to 35% dividend pay-out as of 2019/20

**Sales: average annual
growth rate of around 5%
over 2019/20 to 2022/23**

**Disciplined M&A
and investment policy**

**Mid term target:
aEBIT margin¹ around 9% in 2022/23
above 80% Net Income² to FCF³ by 2022/23**

¹Including CASCO JV share of net income

²Net profit from continuing operations attributable to equity holders of the parent

³Nota: free cash flow generation is subject to usual short-term volatility linked to customers down payments and milestone payments from customers
Under new IFRS standard (IFRS15/IFRS16)

Key Take Aways

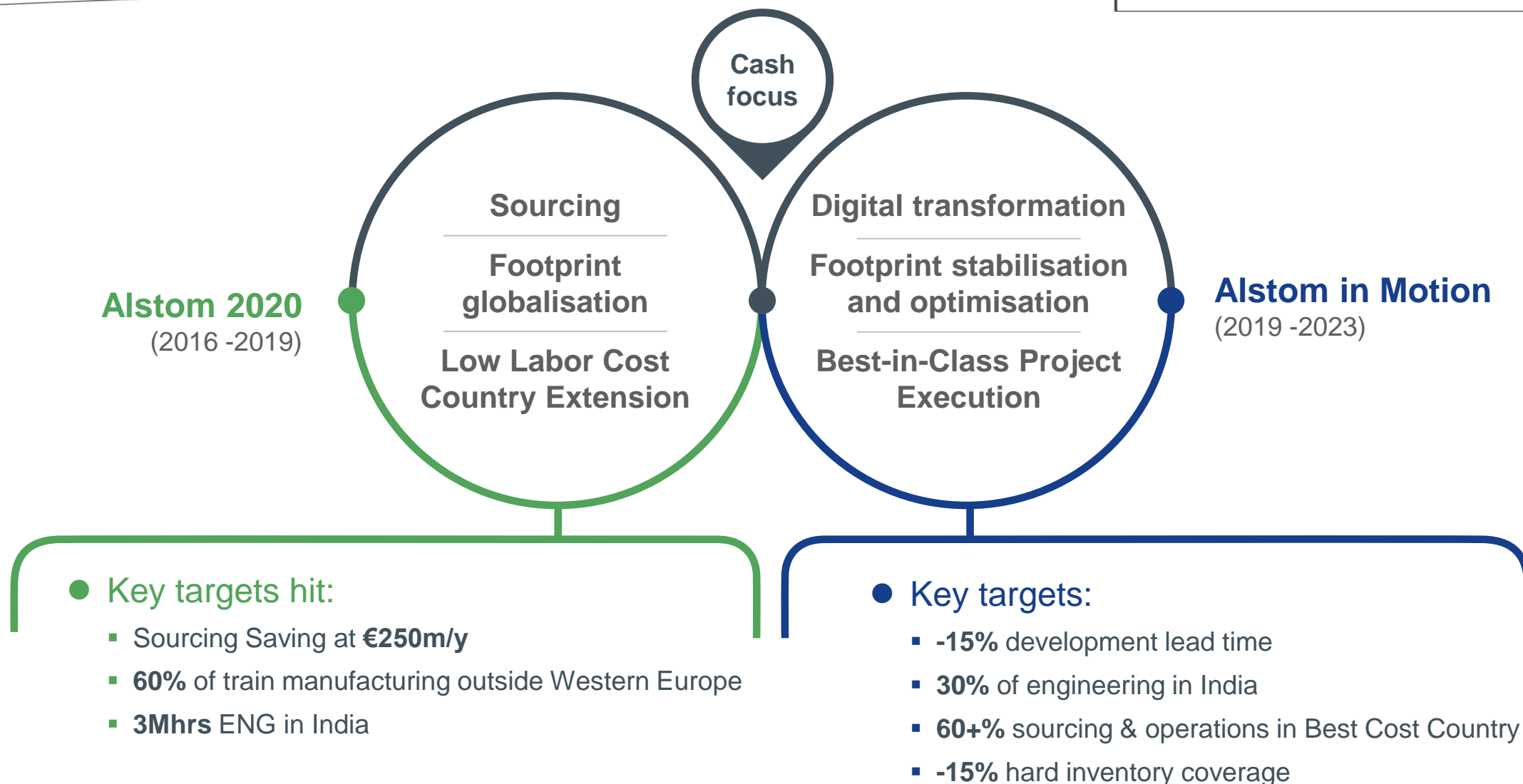
- Well positioned in a growing market, supported by an industry-leading backlog, a global footprint and range of products / services
- Translating in industry-leading margins and cash flow generation
- Significant firepower to implement disciplined M&A and innovation
- Management focus on executing backlog & financial strategy
- Sustainable shareholder return policy



Efficiency

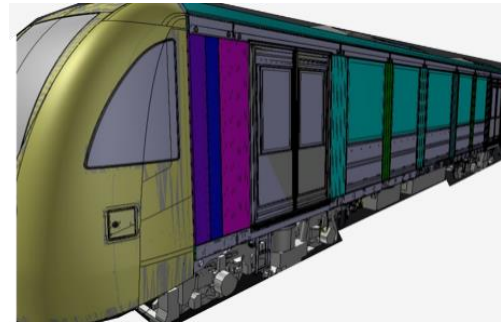
Thierry BEST – Operations SVP

2019 Capital Markets Day

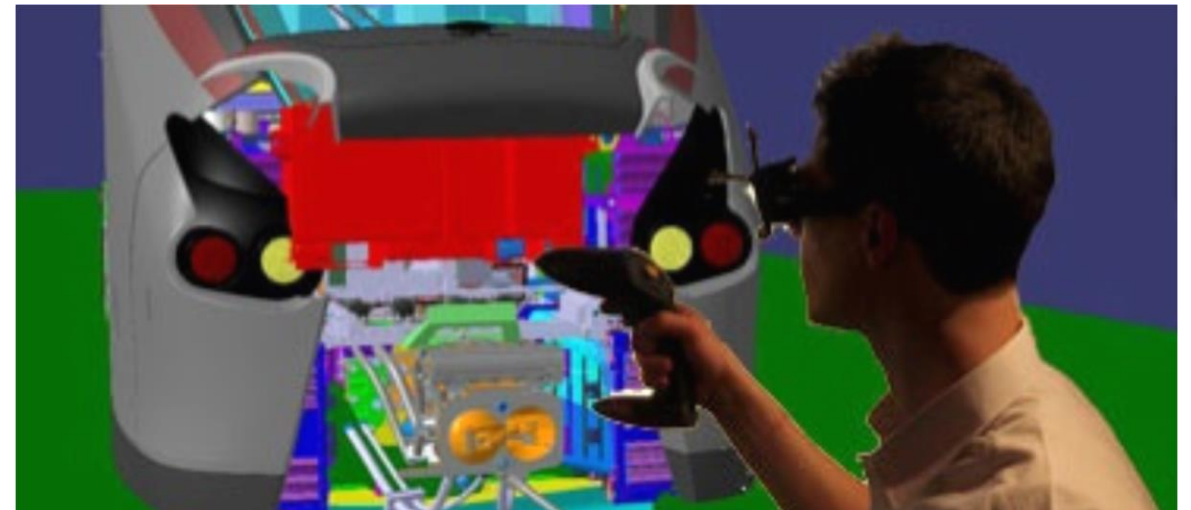


- Fully digitalised development from R&D to project execution
- Digital design reviews with state-of the art 3D technologies

4 months development cycle time reduction demonstrated on metro projects



15% reduction on development cycletime



Smart Operations

Parts 3D printed



Connected Workforce



Digital Supply Chain



Manufacturing automation
(Ubunye – SA)



Virtual Training
welding and painting



Manufacturing Execution System
Digital works instruction and monitoring



**Up to -10%
Manufacturing
hours**

3D printing

- Extensive use for jigs and prototypes allowing 80% leadtime reduction

Welding robot in Le Creusot

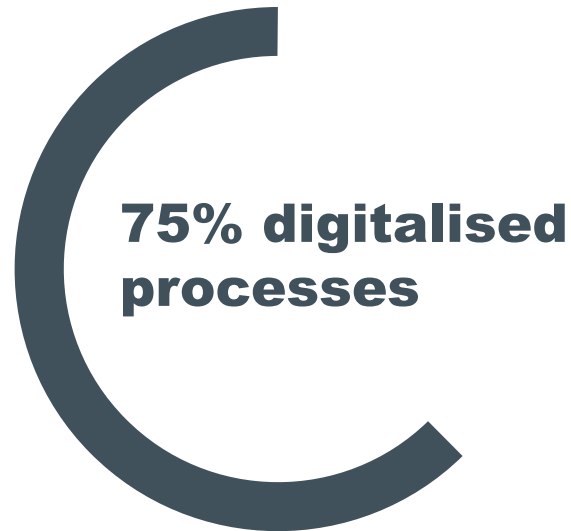
- -20% on bogie frame cost



Le Creusot - FR welding robot

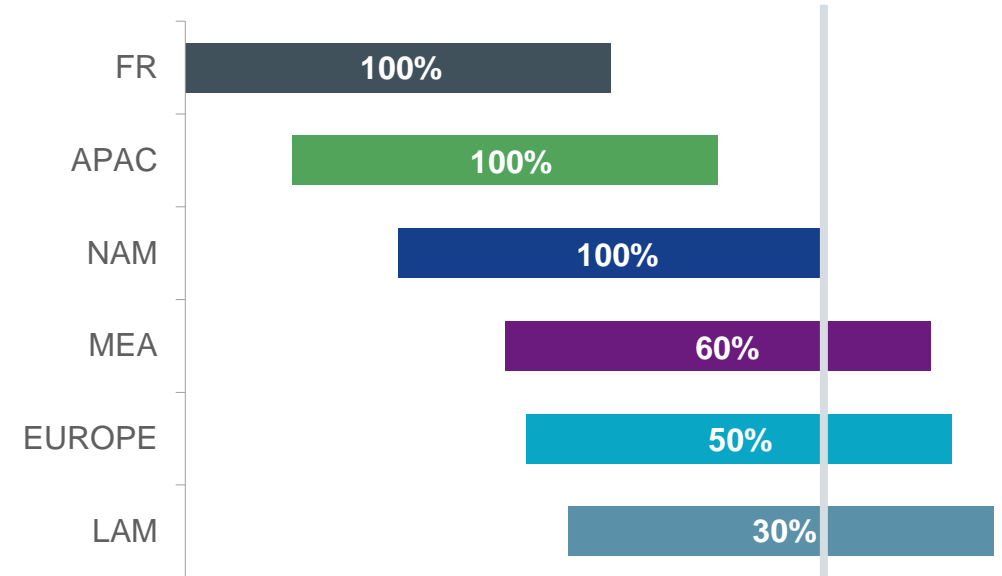
Alstom Digital Suite

- Alstom Digital Suite covers every process:
 - Tendering
 - Engineering
 - Manufacturing Execution System
 - Quality Execution System
 - Service Execution System
 - Supply Chain
 - HR
 - Global Single Instance (GSI)
 - ERP core model
- Integrated Data Management supporting KPIs generation



**75% digitalised
processes**

GSI Roll Out Planning



- Alstom Suite deployed worldwide
- 70% company turn over covered by GSI
- Deployment to be completed by 2022

Extensive use of digital and new technologies



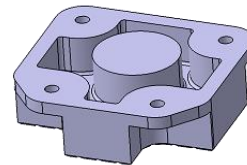
Manufacturing Execution System
Digital worksinstruction and monitoring



Virtual Training
welding and painting



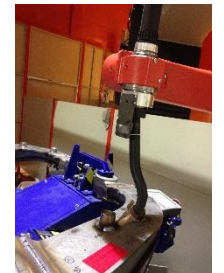
3D printing:
2% of parts ambition



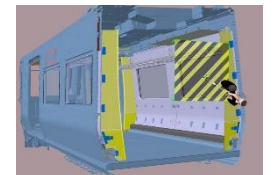
Parts handling
with Cobot



Welding automation



E-BoM / 3D

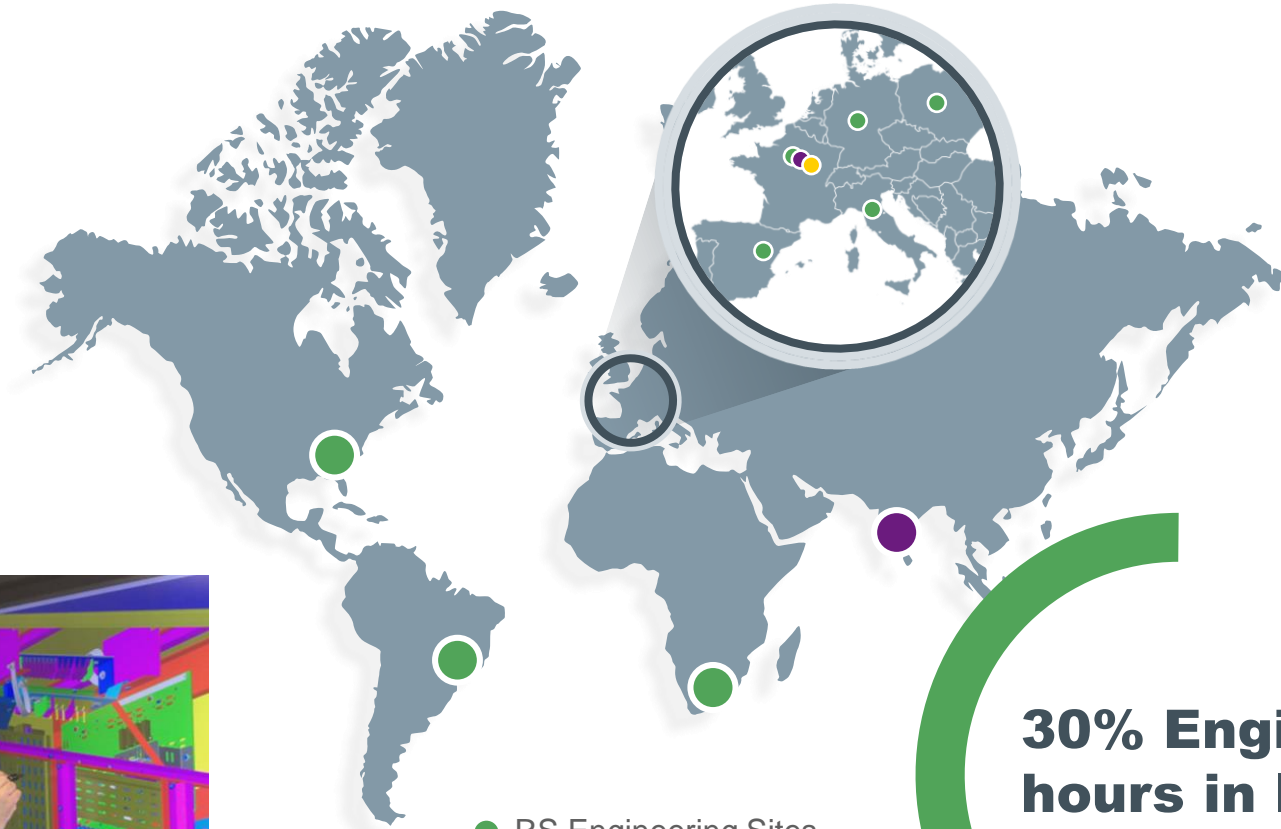


**-25%
Manufacturing
hours vs previous
generation**

Footprint Stabilisation and Optimisation: Rolling Stock Engineering

Engineering

- Site specialisation by product
- Engineering hub in Bangalore & Saint-Ouen to serve all projects
- Creation of centers of Excellence for critical subsystems



- RS Engineering Sites
- Engineering Hubs
- Centers of Excellence

30% Engineering hours in India



- Standardisation
 - Design To Cost (DTC) involving suppliers
 - Components catalogue
- Massification
 - “Alliance” program with selected suppliers
 - Bundling from new built to aftersales
 - Supplier base rationalisation
- Best Cost Countries
 - Increasing Local Supplier Bases

**60%
Sourcing in Best
Cost Countries**

Recent achievements

DTC with supplier for intercity brake architecture



Local Supplier Base: new supplier in Mexico for electrical Panel: 20% competitiveness



Footprint Stabilisation & Optimisation: Industrial Operations

Current Status

Completed set-up of Regional and Best Cost Country footprint

New sites Ramping up

Mid term goal

Sites per region specialised in upstream operations allowing automation and capacity increase

Network of agile sites dedicated to final assembly close to customer



● Upstream hub

● Final Assembly Unit

60% hrs Manufacturing in Best Cost Countries

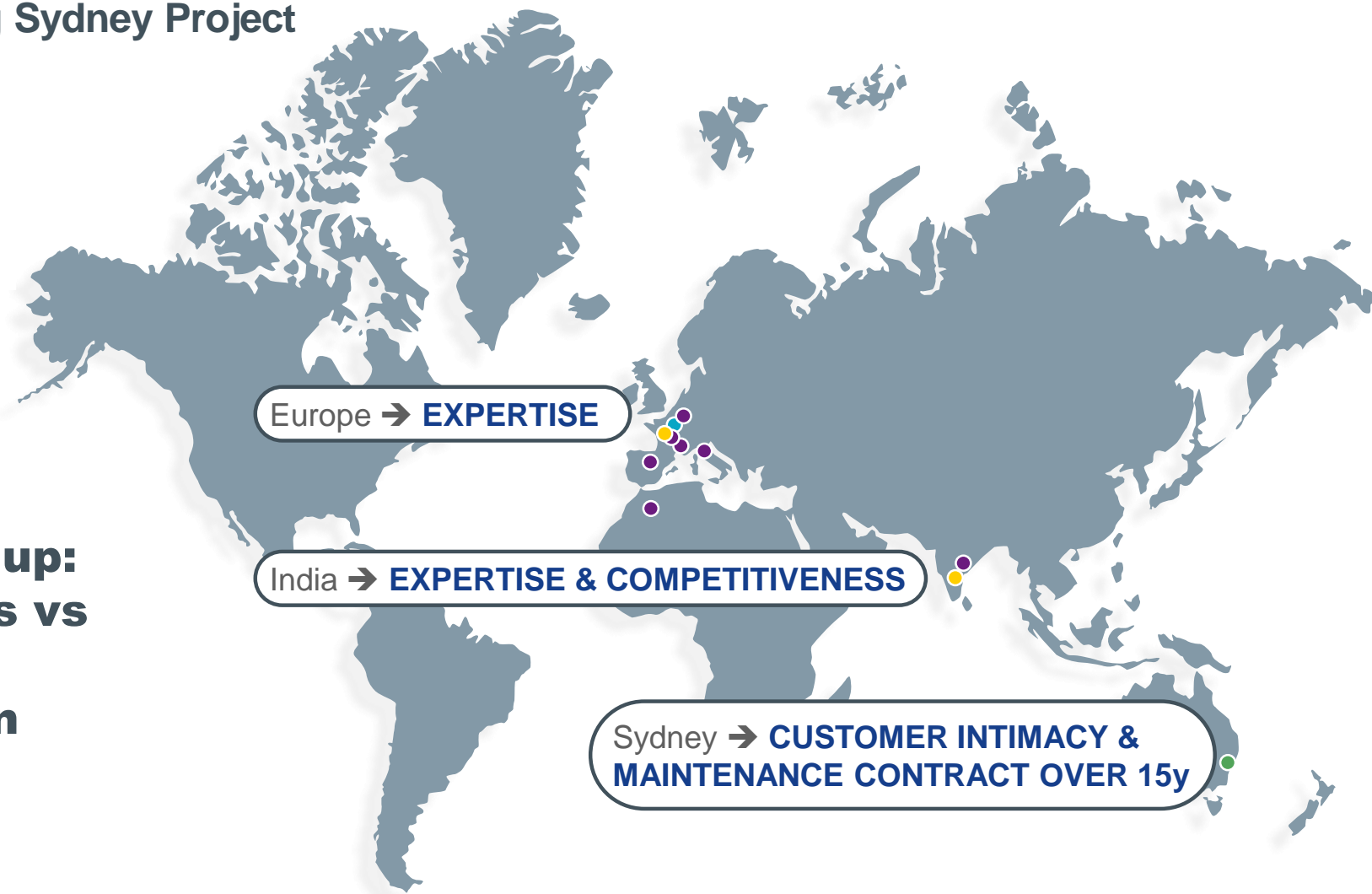
Footprint Stabilisation & Optimisation: Use case Sydney Project



Worldwide organisation serving Sydney Project



**Project Set up:
20% savings vs
previous
organisation**



Best-in-Class Project Execution

**From Sound
Project Execution**



**To Lean and Industrialised
project management**



PRASA
(Regional - South Africa)

- 20 trains delivered from Brazil
- 7 trains delivered from South-Africa



AMTRAK
(HighSpeed - USA)

- 2 first trains in progress in the US as per plan

Key Axis

- Vendor Managed Inventory
- Optimise production line balancing
- Testing duration reduced by 20%
- Processes Cash focused from opportunity to project execution
- Enhanced training program for all functions

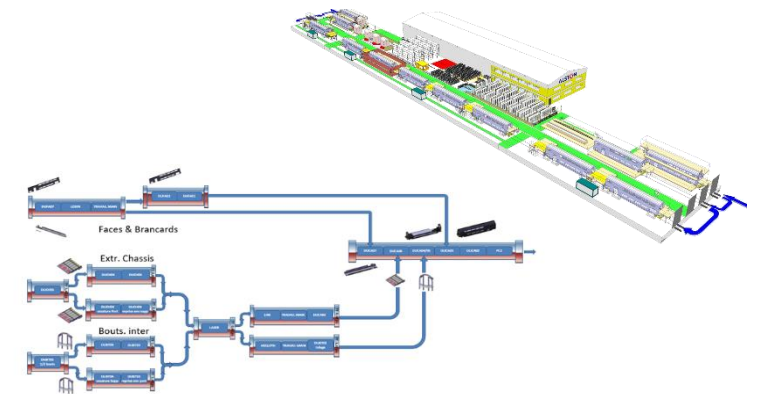
-15% Hard Inventory Coverage

La Rochelle Vendor managed inventory

→ 15% Hard Inventory Decrease

TGV2020 Production line optimisation

→ Manufacturing: -25% hours and -33% leadtime



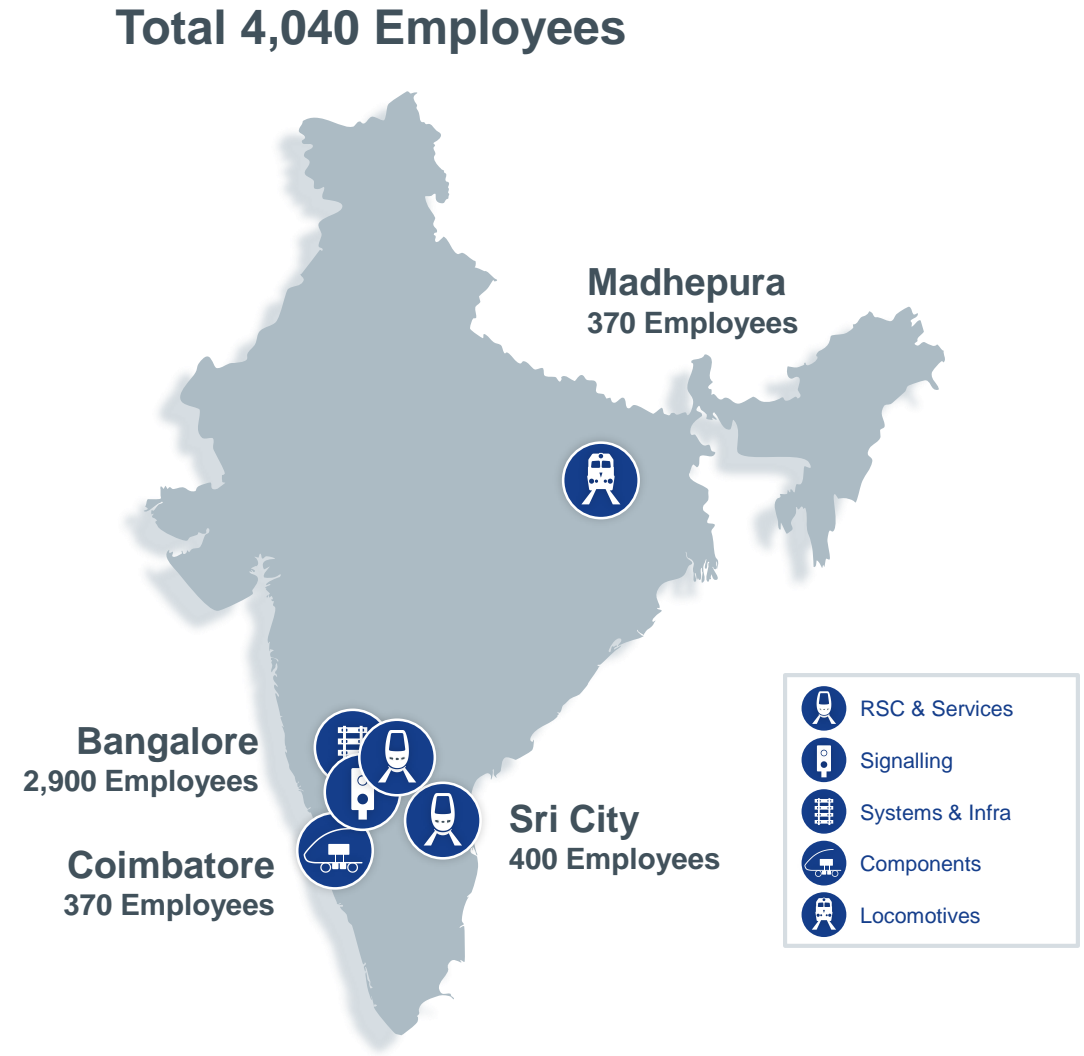
EFFICIENCY AND AGILITY TO GENERATE PROFITABILITY AND CASH

Alstom in India

Ling FANG – APAC SVP

2019 Capital Markets Day

- **India:** key contributor to Alstom strategy with high standard sites for R&D, engineering and manufacturing
 - **Bangalore:**
Alstom's largest engineering center for Rolling Stock & Signalling
→ 22% of global engineering workload
 - **Coimbatore:**
Global traction manufacturing site
→ 18% of global traction manufacturing workload
 - **Sri City:**
Metro manufacturing facility, serving customers worldwide
→ Installed capacity of 20 Cars / month
 - **Madhepura:**
Loco manufacturing facility dedicated to domestic market



- **Metro RS:**

a proven Track-Record of Projects executed from India, to address Domestic & Export Markets:

- **Chennai, Kochi, Lucknow, Sydney**, successfully commissioned
- **Montreal, Mumbai** in execution

- **Signalling:**

global involvement in both Urban & Mainline projects:

- **Urban:** Design Lead in 17 projects, both in Domestic & Export Markets
- **Mainline:** Design Lead in India, Design Support in major Export Projects

LUCKNOW – €150m



Rolling Stock



Signaling

1st completed “Make in India” project
1st Train delivered in 14 months

HONG KONG SIL – €37m



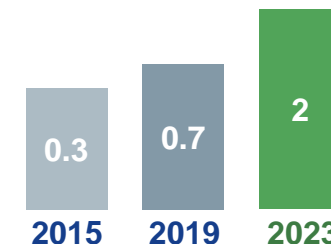
Signaling

1st Driverless (GOA4) Alstom solution
deployed from Bangalore

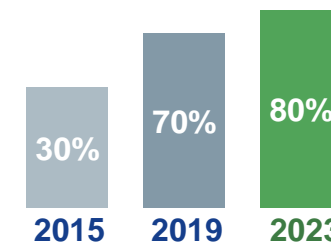
- **World-class manufacturing facilities,** for metro RS and components
- **Established supplier base in India,** with high focus on quality:
 - Fostering local presence of our **Global Supplier panel**
 - Growing **local Indian supplier base** with strong technical support from Alstom
- **Bangalore as innovation hub & center of excellence:**
 - Center of Excellence in 7 domains (Software Factory, Sig U200 & U400 activities...)
 - 200 World Class Experts, 30 patents incubated



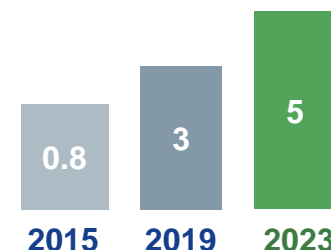
Manufacturing Workload in million hours:



Evolution of Indian Content (Metro Projects):



Engineering Workload in million hours:



Alstom in India

India, Unmatched Differentiator for Alstom



● A skilled & abundant workforce:

- 2nd most populated country in the world with 1.3bn people in 2017 (1.5bn by 2030)
- 63% of the population below 35 years
- Increased focus on education ; English proficiency

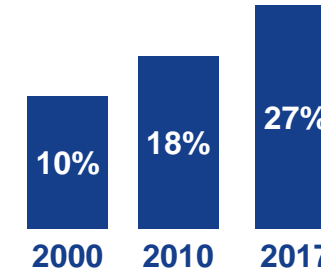
● A competitive workforce:

- Indian competitiveness serving Alstom global profitability

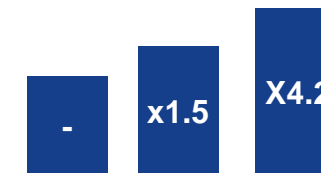
● A promising market:

- Average GDP growth of 6-7% since 1991 economic liberalisation
- Rapid urbanisation & willingness to develop modern Infrastructures

Higher Education Enrolment (%)



Labor competitiveness



India China W-Europe

Source: BCG competitiveness survey 2018



- 11 Cities with Metro Lines in Operation
- 7 additional Cities with Metro Lines under construction / in pipeline

Questions & Answers

2019 Capital Markets Day

Lunch Break

2019 Capital Markets Day

The logo features the word "Aiim" in a bold, blue, sans-serif font. The letters are centered within a white circle. This circle is partially enclosed by a thick blue arc on the left and bottom, and a thick green arc on the right. A dark blue arrow-like shape points upwards from the bottom of the circle.

Aiim

Alstom Capital Markets Day

Paris - France

June 24 2019

ALSTOM

Signalling

Jean-François BEAUDOIN – Digital Mobility SVP

2019 Capital Markets Day

Railway Signalling Principles

Overall Architecture

Route control

Wayside equipment

Equipment on the wayside to:

- Adjust Route
- Communicate with driver

Route control

Interlocking

Equipment to manage priority to prevent collision

Train protection

Trackside

Equipment on the wayside to:

- Detect train
- Compute Movement Authority

Train protection

On-board

Equipment in the train to:

- Manage speed
- Assist driver

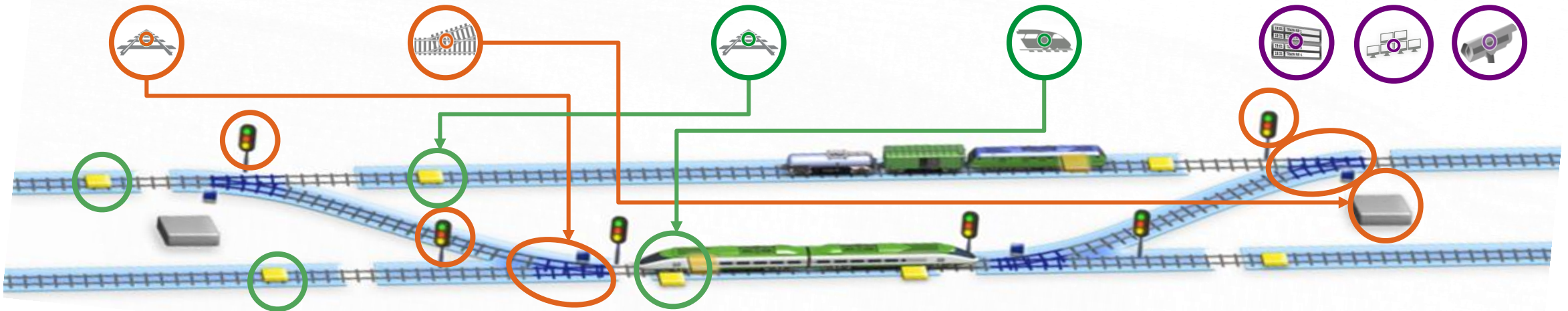
IT for rail

Control Center

Equipment to monitor train lines, manage traffic, inform passengers monitor security functions & Scada: power supply, etc.

SAFETY EQUIPMENTS

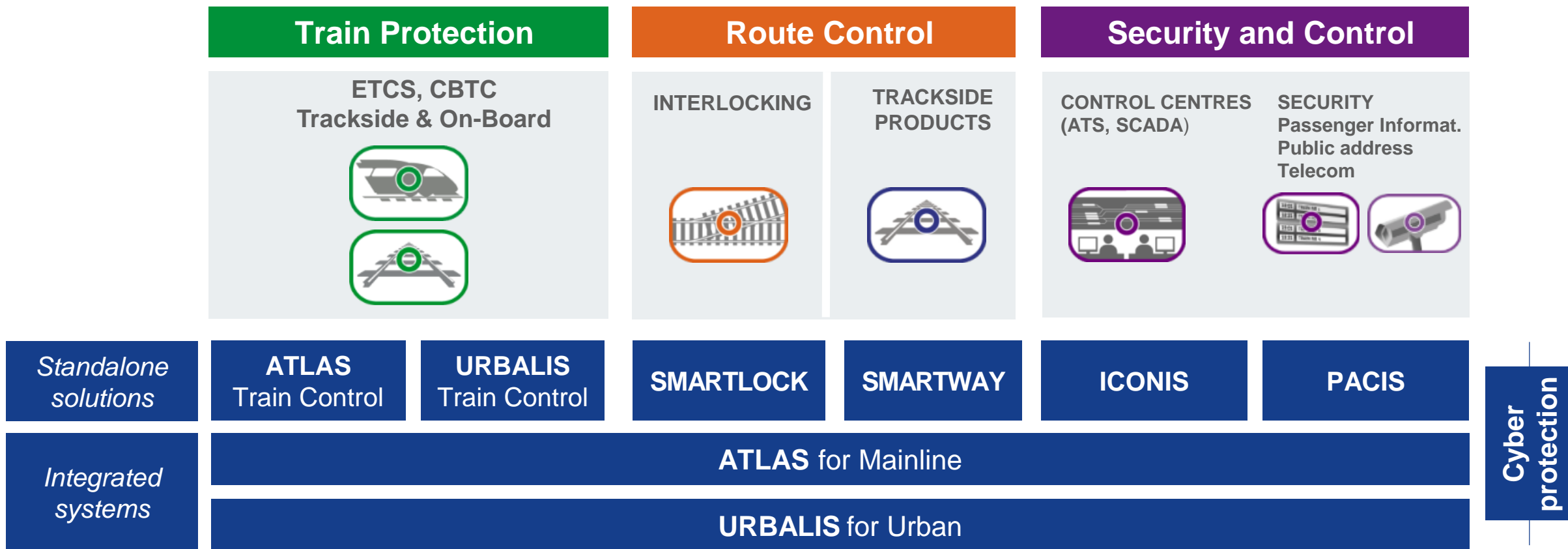
NON SAFETY EQUIPMENT



3 MAIN BENEFITS FOR CUSTOMERS:

Ensure safety, Optimise performances & Improve quality of service

Extensive Standalone Solution Portfolio & Integrated Systems Capability



- Complete & versatile portfolio covering all signalling sub-systems for Mainline & Urban
- Last generation integrated systems & strong legacy knowhow enabling ability to manage new built & re-signalling

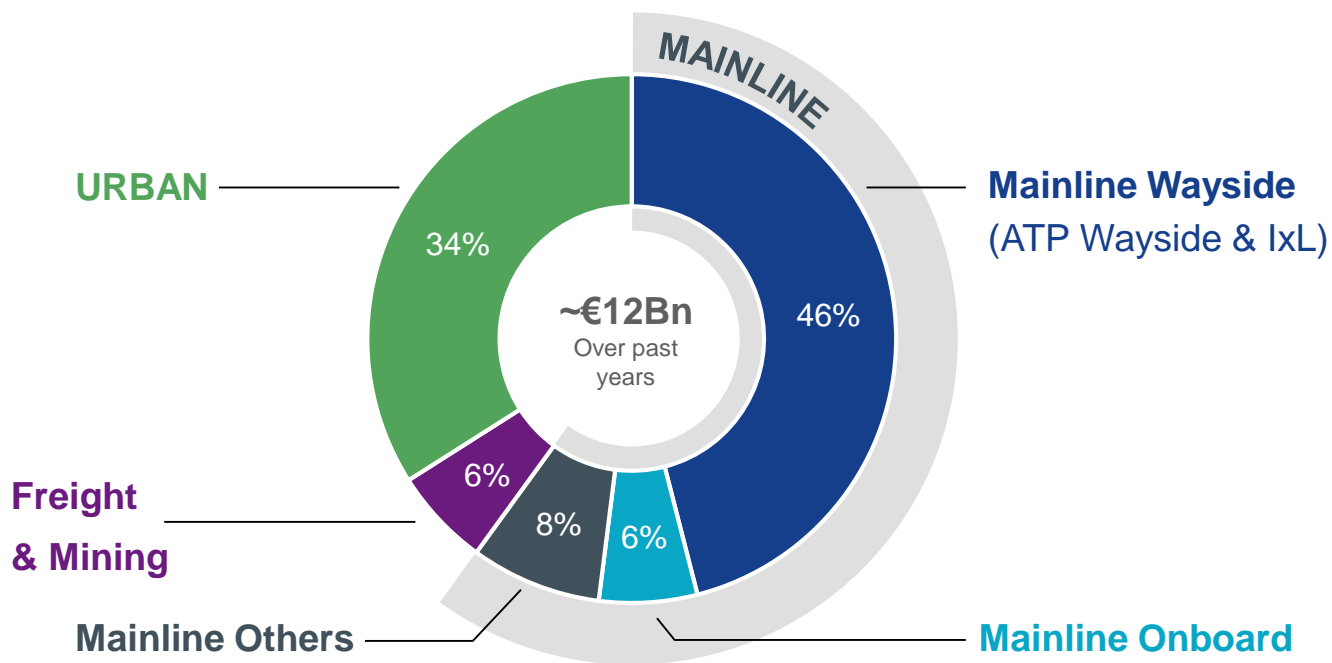
Signalling Market Overview

Global volume increase, Stable segment breakdown



Accessible Market Segment Breakdown¹

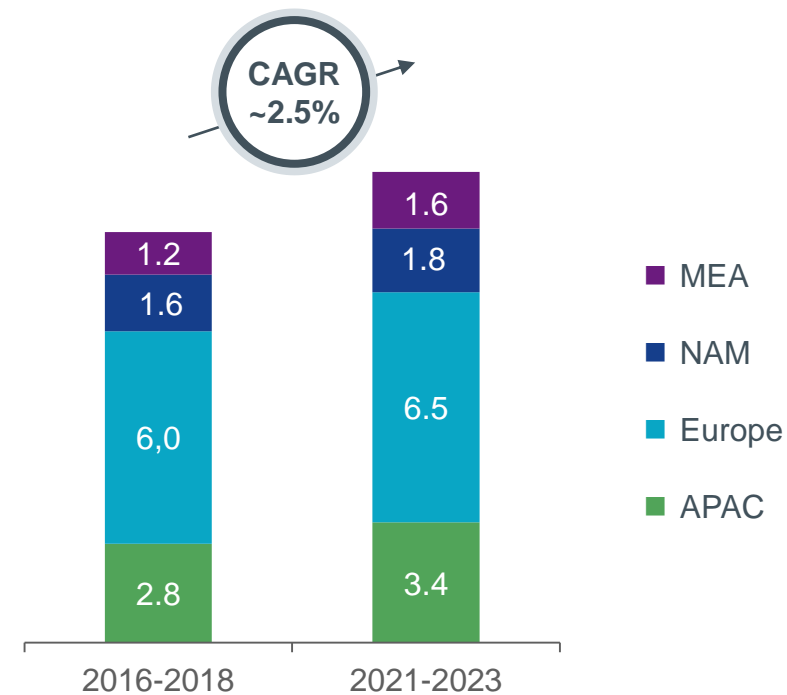
UNIFE Accessible market



GLOBAL VOLUME DRIVEN BY MAINLINE, ESPECIALLY EUROPE WAYSIDE

Accessible Market Geography Breakdown¹

UNIFE Accessible market



URBAN DRIVEN BY NEW-BUILT IN APAC & NETWORK REVAMPINGS IN EUROPE

ALSTOM – 24/06/2019 – P 80 ¹ Excluding Services
Source: UNIFE study 2018 & Company data

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Main Signalling Players Revenue (2018)




**ALSTOM
AMBITION**

**Gain Product
&
Market Leadership**

ALSTOM – 24/06/2019 – P 81 Source: Company data & players' publication, estimates comparing only signaling and telecom related businesses, including internal sales

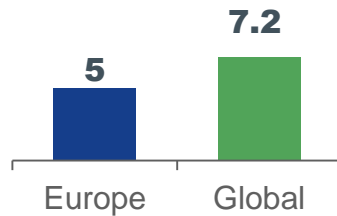
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Strong Mainline Perspectives

Driven by Europe & ETCS upswing



Mainline addressable market 2019-2023 (avg/yr)
(in €Bn)



Europe ~70%
of Global Mainline
market

Interlocking upgrade - *Route control*

- Sustained trend across Europe

ETCS roll-out - *Train protection*

- 10 to 15% coverage as of today
- Major near-term nation-wide deployments: NL, IT, DE

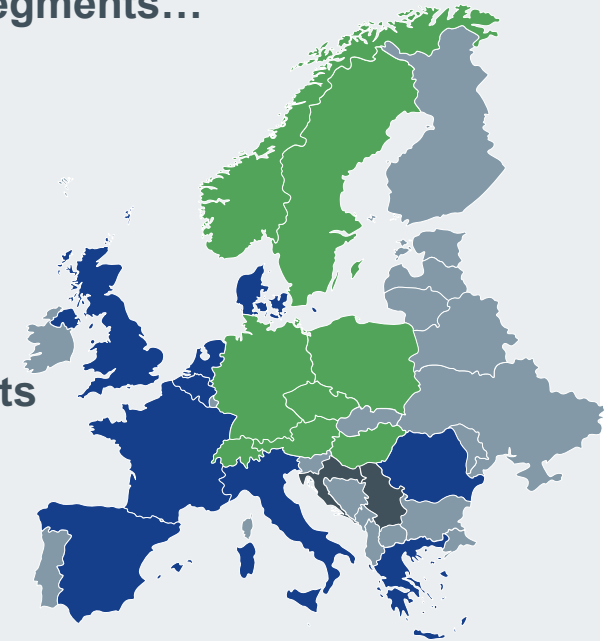
ALSTOM KEY ASSETS

- Strong track record in all segments...

- #1 on ETCS Onboard
- Interlocking homologated in 12 countries
- ETCS wayside deployed in 10 key countries

- ...in major European markets

- On-Board
- On-Board & Wayside
- Wayside



Unique expertise to deliver national roll-out:
Leadership in 1st nation-wide big-bang deployments
(Denmark & Norway)

Steady Urban Market Growth

Buoyant Global Demand



Over
€4Bn
market
per year

New lines construction

- Standalone market driven by 2 countries:
 - ➔ China over 10 lines per year
 - ➔ India over 20 lines in 15 cities within 5 years
- More than 8 turnkeys worldwide by 2023

Network revampings

- 10 cities with planned resignalling projects by 2023

ALSTOM KEY ASSETS



- 🇨🇳 #1 in China with CASCO
- 🇮🇳 #1 in India
- #1 in turnkeys

Extensive & global achievements

URBALIS in every continent of the world

Proven capability to deliver utmost complex projects

Integrated portfolio including rolling stock & systems

Sustained Freight & Mining Trend

Primarily steered by North America



~€0.3Bn market in NAM per year

Product Business

- Private customers, mainly U.S. & Canada
- Short-cycle delivery framed in 5 to 10 yrs contracts
- Value-for-money driven & Specific operation features:
 - Remote location → Lighter infrastructure
 - Harsh environment & climatic conditions
 - CAPEX reduction & OPEX optimisation incentive

ALSTOM KEY ASSETS ▼

- Leader in North America Market
Long-term cooperation with all “Class-I” rail road operators



- Best in-class products & Customer value innovation

- Virtual block based systems
→ Capacity increase without full resignalling
- Next generation point machines
→ Down time reduction to keep trains running
- IoT & data analytics powered systems
→ Predictive maintenance for maximum availability

Train throughput +20%

Installation downtime ÷4

- Operational excellence in short cycles management

- High-performing supply chain
- Quality of service & responsiveness

A Unique Global Footprint

Competitive & Customer-focused



7,000
Employees

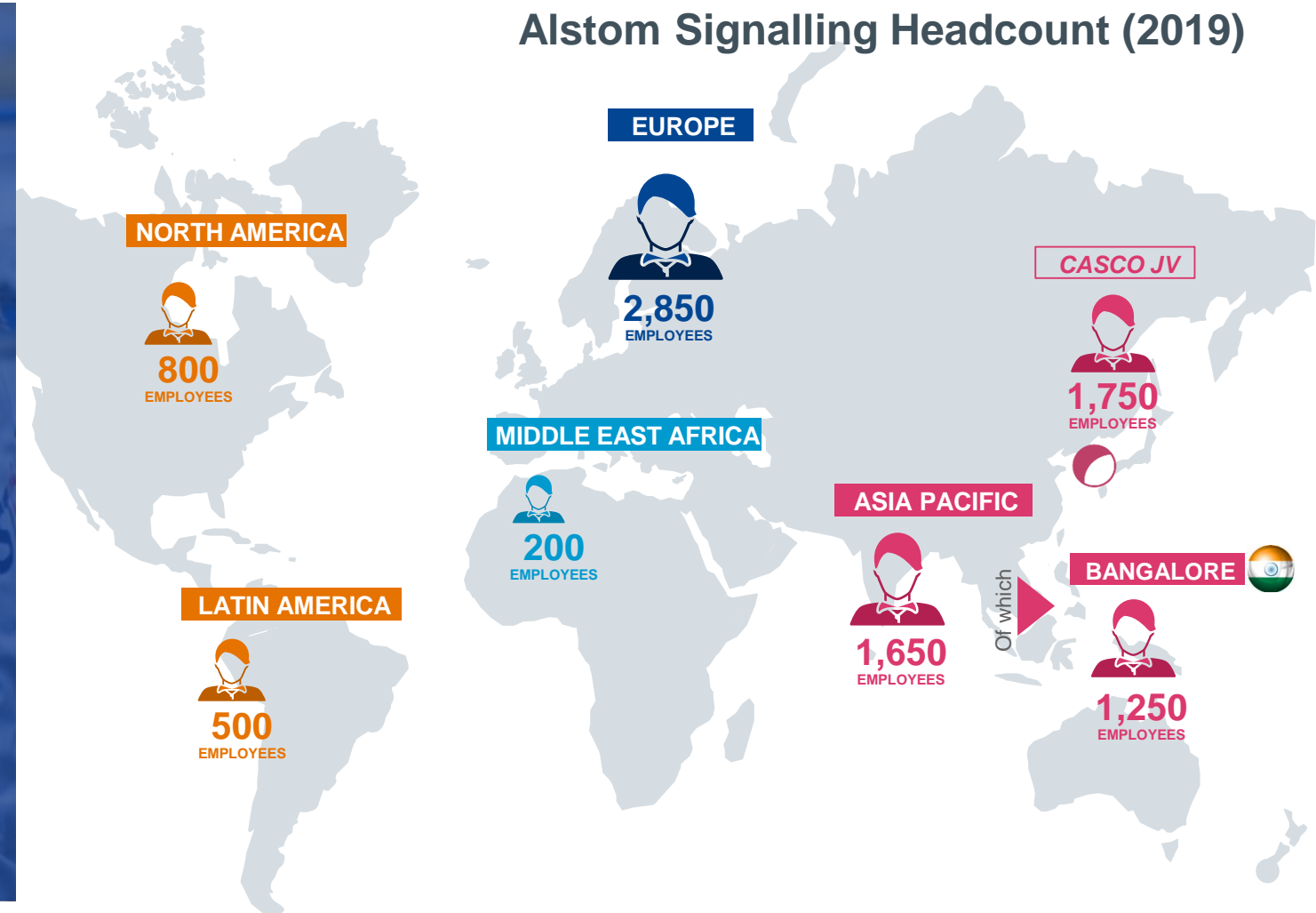
AMONGST WHICH

4,500
Engineers

- 2 development hubs: Europe & Bangalore
- Customer-centric deployment teams across the globe

2,000
engineers
by 2023

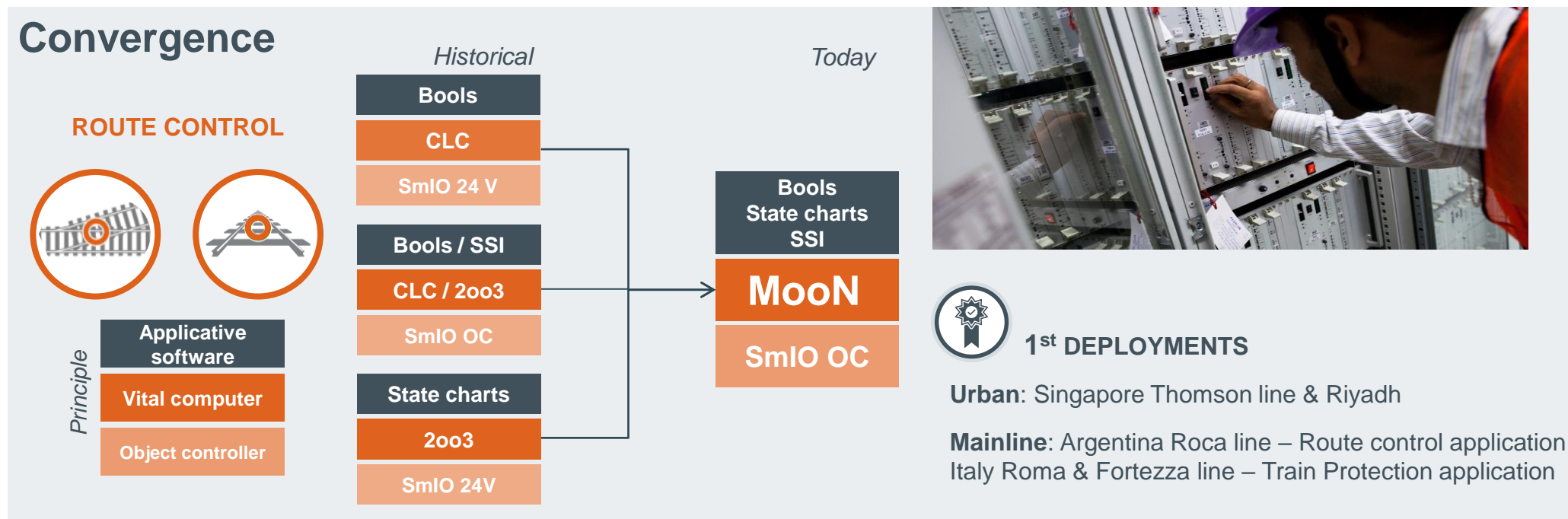
**A global footprint
ready to address all markets**





HARDWARE & SOFTWARE PLATFORMING

- **1 single trackside computer & associated object controller family** for all applications in all countries



ECONOMIES OF SCALE (product cost)
ENGINEERING FOCUS ON FEWER TECHNOLOGIES

Innovating towards Competitiveness & Efficiency

Digital Processes



**DIGITAL
PROCESS**

- **Digital Twins**
 - ➔ **Advanced systems lab tests** thanks to "virtual replica" of all equipments & their functions
- **Cloud-based testing**
 - ➔ Internet-based platform **to boost our capacity** & ease multi-sites deployments: software testing from **anywhere at anytime**

Strengthened simulation capacity
➔ *Early, quicker & advanced system tests from any location*

Cloud vs internal test bench cost



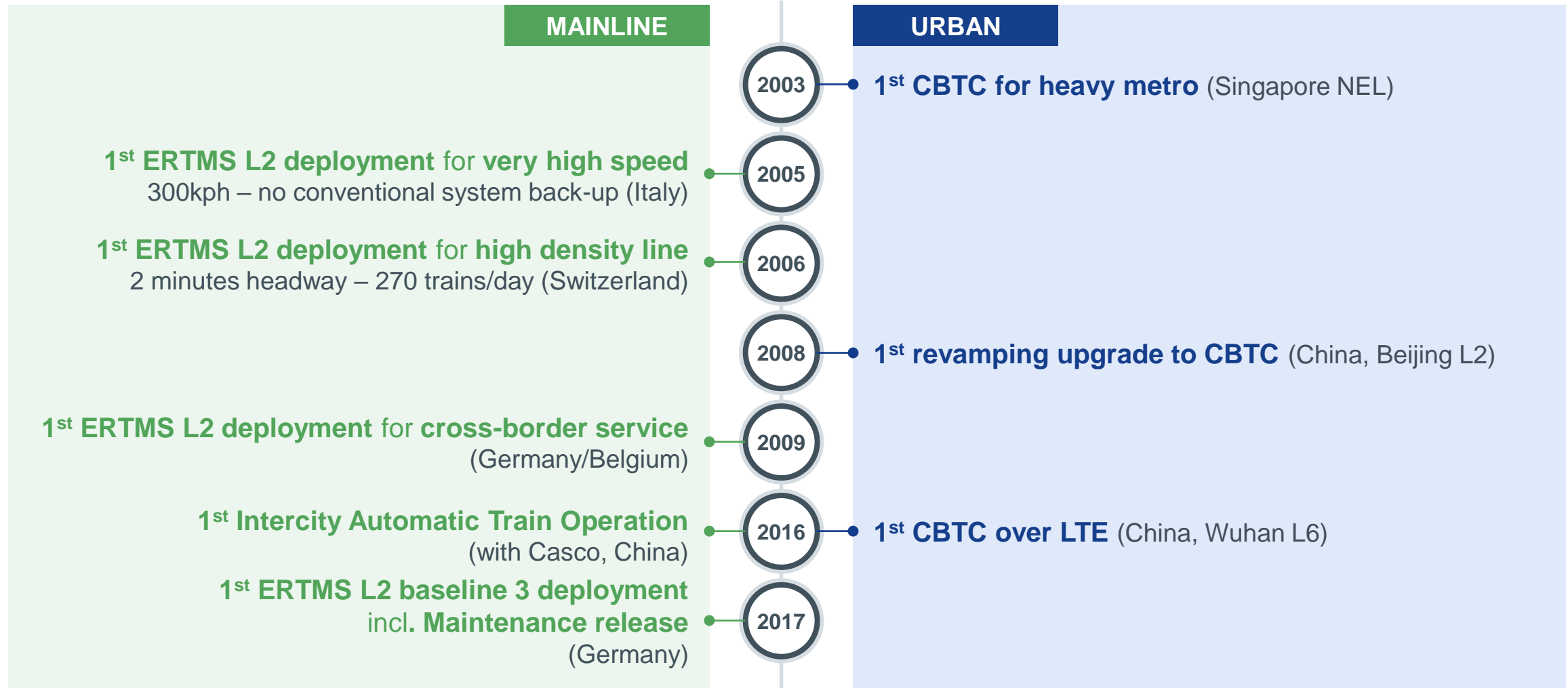
Data verification lead-time



Speed up delivery
Reduce # of engineering hours
Reduce capital & operating costs

Leading Technology Breakthrough

More than 15 years track-record



Creating customer value through digital technology

Towards "Digital Train"



DIGITAL TRAIN

- **Energy efficiency & System performance**
→ ATO over ETCS L2 pilot (Netherlands)
- **Driving automation**
→ SNCF Driverless freight train pilot
- **Ultra-availability & ultra-capacity**
→ URBALIS Fluence: first train-to-train concept

Capacity increase

Up to 20%

Energy saving

Up to 40%



Prototype by 2023

Capacity increase

+6 Trains /hr

Headway reduction

-12s

Compared to conventional CBTC



Smarter trains,
lighter infrastructure

- Advanced operational flexibility
- Reduced OPEX

Boost our Service Offering to Drive Value



Market evolution

- Market Size: €3.9bn
- Obsolescence as increasing issue
- Legacy systems with low flexibility
- Increasing cyber vulnerability
- Synergies with Infra maintenance



Alstom ambition

- Increase share of long-term Maintenance (Level 1-3)
- Supply and repair excellence
- Full lifecycle partner

CLEAR ROADMAP



Customer
Focus

- 1 Integration into Global Parts Governance
- 2 Advanced diagnostics & monitoring solutions
- 3 Pro-active Obsolescence services / Virtualisation
- 4 Legacy-specific lifecycle support for configuration, performance and interface adaptations
- 5 Cybersecurity support



Strong market perspectives for Alstom unique portfolio & knowhow



4 Levers



Services

Bernd BURGSTÄHLER – Services VP

2019 Capital Markets Day

Services at Alstom

Already strong market position thanks to a diversified portfolio of solutions



Diverse portfolio

Wide coverage



Parts



4,000 customers with **25%** coverage of installed fleet



Maintenance



13,000 vehicles, **139** depots in **41 countries** under contract



Modernisation



10,000 traction systems and **5,000** vehicles modernised



Signalling Services



40 ongoing Service contracts

ALSTOM

Leader in services
among OEMs¹

Service: **highest growth**
and **profitability** contribution

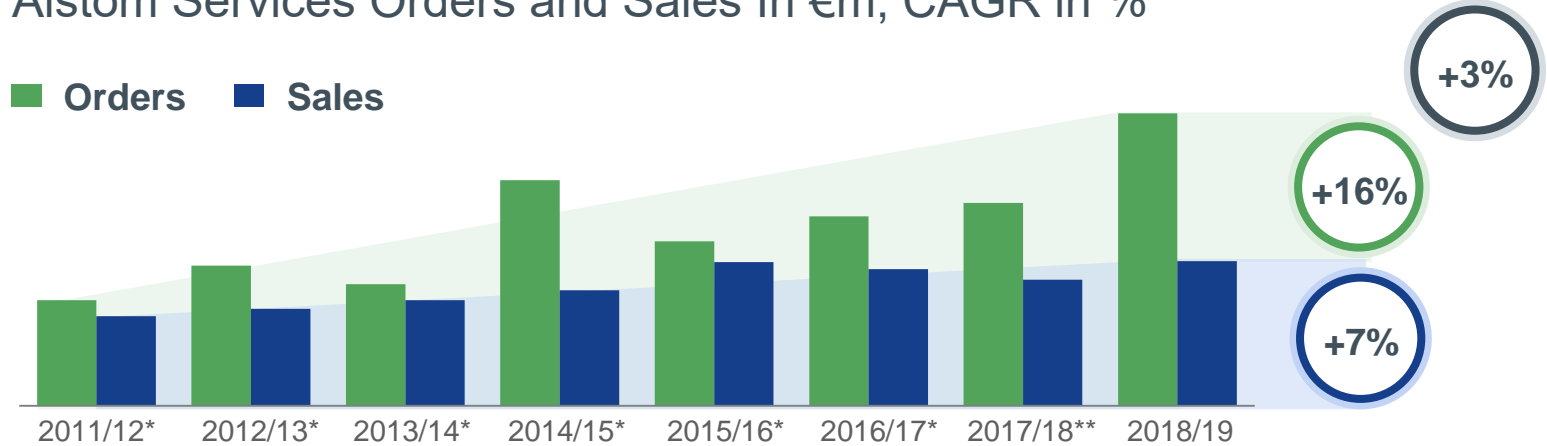
Long-term contracts
with exceptional high rate on
contract **renewals**
and **repeat orders**

Long term growth

Orders and sales historically outperforming the market

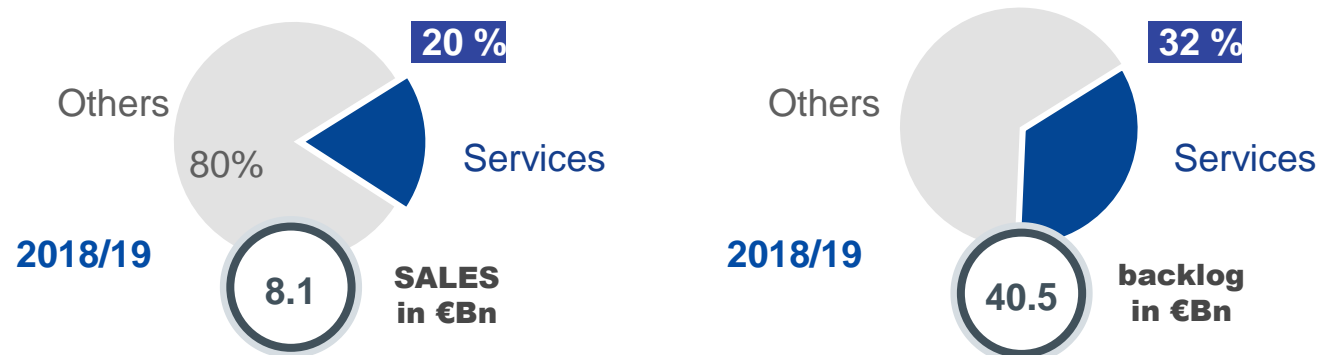
Solid growth

Alstom Services Orders and Sales In €m, CAGR in %



* Under IAS 11 ; ** Restated for IFRS 9 & 15

Strong shares of services in Alstom sales and backlog



KEY RESULTS

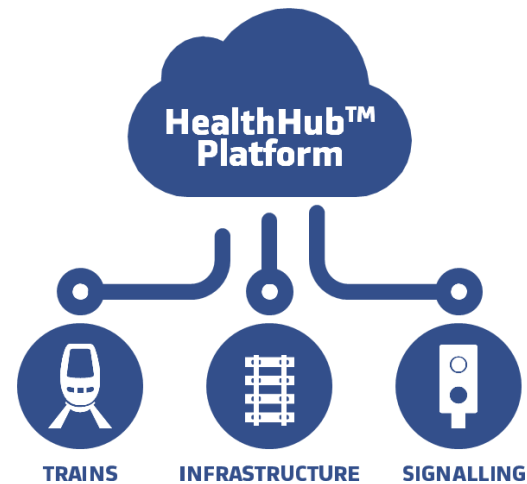
- Alstom orders and sales **outperforming the market**
 - Sales CAGR: double the market growth
 - Orders CAGR: x5 market CAGR
 - Book-to-bill of 1.6 over the last 5 years
- Strong **service penetration** in Alstom portfolio
 - Service share constantly increasing
 - 32% Service in total backlog (€40.5bn)

Value creation through innovation and technology

To achieve this leadership position we've developed innovative solutions with strong customer benefits



Integrated Digital solutions...



Condition monitoring



Health Management



Fleet Support Centers



... Creating benefits for customers

Improved reliability



Decreased in-service breakdowns
(# of SAF on reference solution)

Increased availability



Reduced maintenance time
(# of hours/train in depot)

Cost savings



Reduced lifecycle costs
(€ per km)

Value creation through customer focus

From "vendor" to "solution provider" – Example ITALY

2008/09

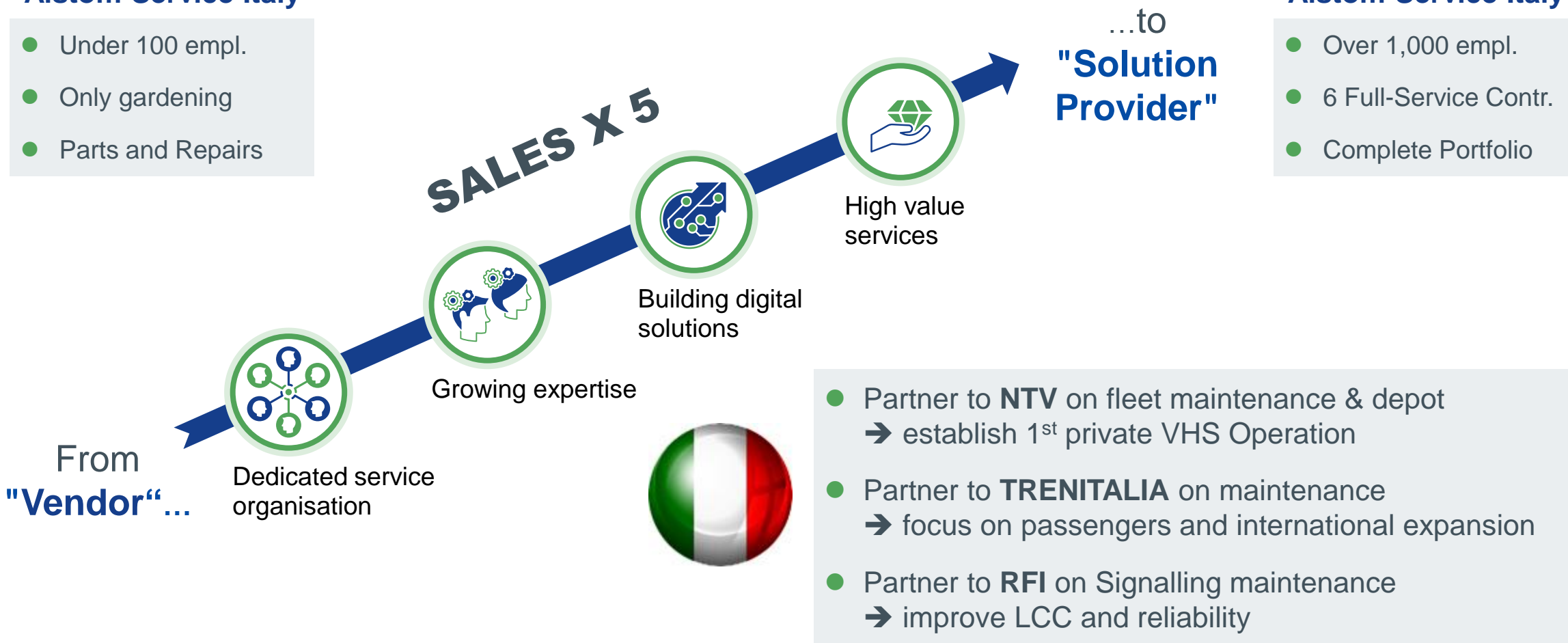
Alstom Service Italy

- Under 100 empl.
- Only gardening
- Parts and Repairs

2018/19

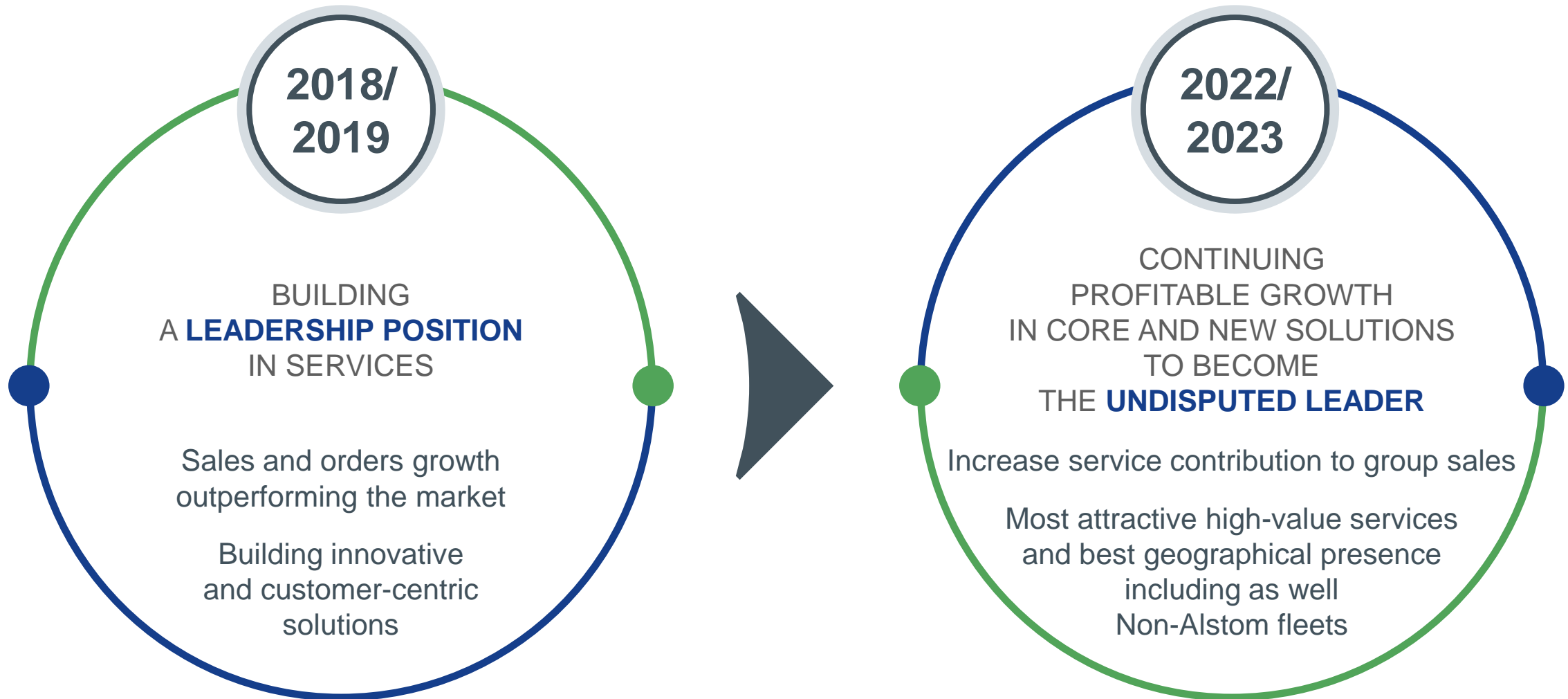
Alstom Service Italy

- Over 1,000 empl.
- 6 Full-Service Contr.
- Complete Portfolio



Our ambition: becoming the undisputed leader

Acceleration plan in services to keep on growing profitably

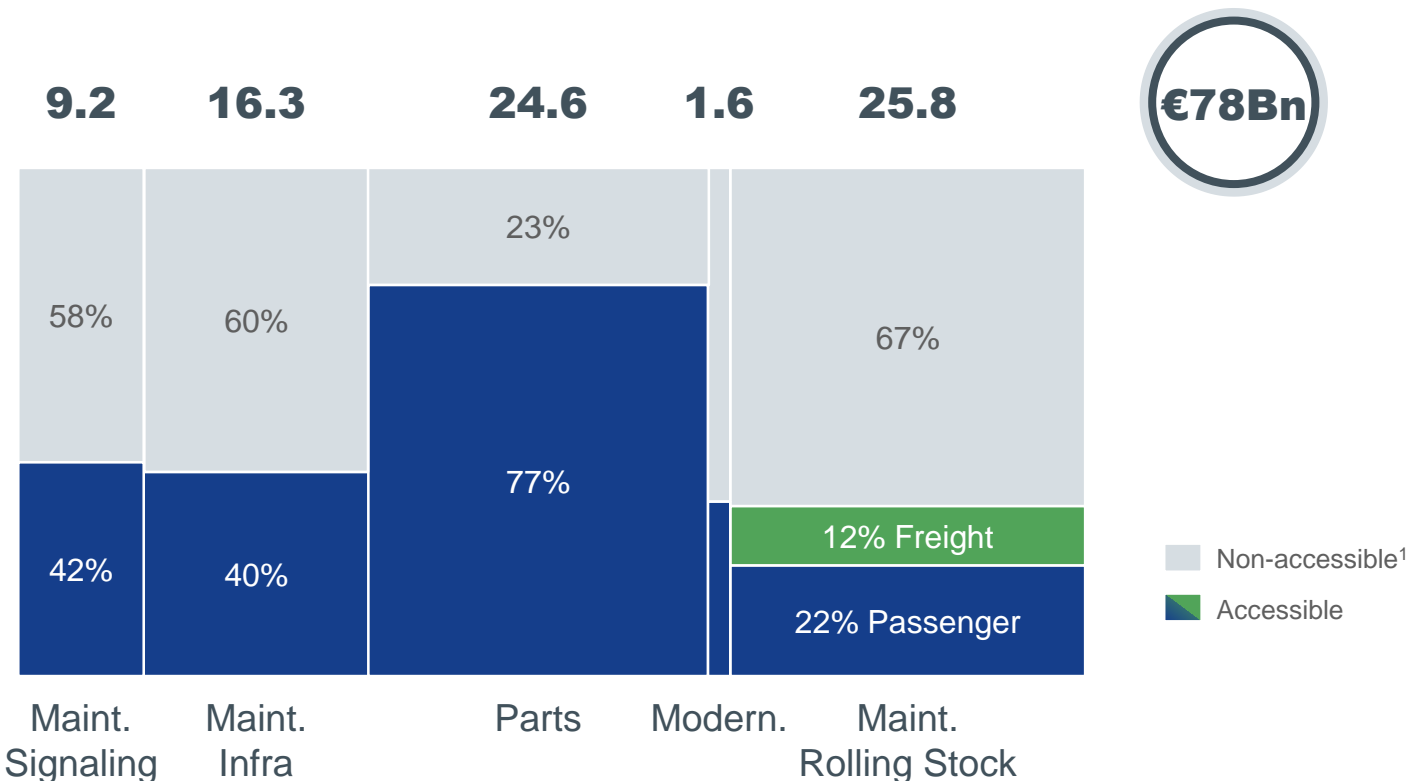


Very strong market potential

Existence of large untapped pools and key long-term drivers enable profitable growth



Large untapped pools...



Market Segments of global Rail Service Activities

...and strong growth drivers



Liberalisation

- New market entrants
- Maintenance outsourcing
- Traffic increase



Operators looking for more efficiency

- Performance contracts
- TSSAs



Emerging new value-added services

- Technology-driven solutions
- Data Services
- Cybersecurity

ALSTOM – 24/06/2019 – P 98 ¹ Non-accessible: e.g. because of political entry barriers (China) or inhouse policy of National Operators
 Source: UNIFE 2018

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Key attributes

Alstom can leverage some tangible assets to meet its ambition



**Large installed
base**

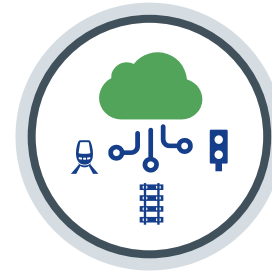
+ 50,000

Alstom vehicles
in Service



**Customer
Intimacy**

**Best in class
local
presence**



**Cutting-edge
technology**

**Condition Monitoring
and Prognostics
with
Healthhub**



**Highly-skilled
workforce**

+ 7,000

Technical experts
in services
worldwide

Growth strategy

Focused on four high-value opportunities



**Continued growth
in core solutions
and new solutions**

- 1** Open new revenue streams in parts
- 2** Expand our leadership position in maintenance through operational excellence and digital
- 3** Enhance our position on green modernisation

1 Open new revenue streams in parts



Market evolution

- Market Size: €19Bn
- Suppliers extending their offering to service
- Increasing dynamic on buyers' side



Alstom ambition

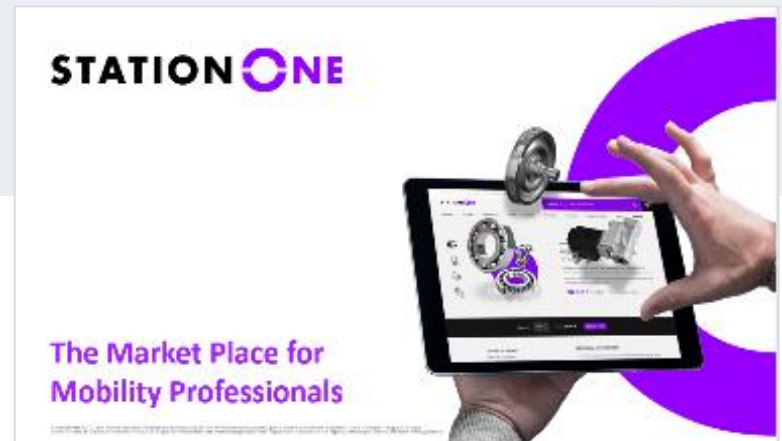
- Increase coverage on Alstom and non-Alstom fleets
- Reduce cash in material
- Shorten repair loops (localisation)
- Improve margin (efficiency and pricing policy)

CLEAR ROADMAP



Customer
Focus

- 1 Worldwide integrated organisation
- 2 Smart diagnosis tools and localisation of repairs
- 3 Strengthening of Alstom IP rights / co-developments
- 4 Entering into new revenue streams, like e.g. commodities, 2nd tier equipment & overhauls



② Expand our leadership position in maintenance



Market evolution

- Market Size: €8.6Bn
- Various schemes: bundle with RS, O&M, PPPs
- System Maintenance growing (full TCO evaluation)
- Technology push (remote data access and AI for analytics & prognostics)



Alstom ambition

- Preferred Partner for Operators
- Further increase backlog with long-term contracts
- Value selling of HealthHub solutions (Gain sharing)

CLEAR ROADMAP



Customer
Focus

- ① Extend Prognostics & Health Management
- ② Full coverage with Fleet Support Centers
- ③ New partnering schemes on Leasing and Operating
- ④ Explore expansion in Freight Maintenance



3 Enhance our position on green modernisation



Market evolution

- Today's Market Size: €0.6Bn¹, but high potential growth
 - CO₂-free requirements
 - Diesel Multiple Units becoming obsolete
 - Increased passenger expectations



Alstom ambition

- Become market reference for “green modernisation”
- Leverage on industry lead on Hydrogen solutions
- Excellence in contract execution

CLEAR ROADMAP



Customer Focus

- 1 Partnering with Lessors / Roscos
- 2 Green re-tractioning
 - Smart power module exchange (GTO – IGBT)
 - Hydrogen conversions & extensions
 - Battery and Hybrid solutions



Promising financial outcome

Revenues, earnings and cash increase

Revenues

- Penetration of large and growing markets

Margin

- Natural contribution of high value activity
- Increased value through digitalisation

Cash

- Low capital intensity, strong cash generation



- Already in a **leadership position** in services among OEMs thanks to innovation and customer focus
- **Outperforming the market growth** for the past 10 years
- **Growing** business with large untapped pools
- **Strong assets** to be leveraged
- **Clear roadmap** to accelerate growth and profitability



Become the undisputed leader

**Strengthen market position
in high-value services**

**Increase Service contribution
to group sales with positive impact on
group profitability**

Innovation

Marc GRANGER – CSO

2019 Capital Markets Day

A long history of value creation through innovation

2000's



First large size and fully automatic metro in the world

1980's



First deploying Gate Turn-Off Thyristor in train systems

2007



World rail speed record – 574.8km/h

Historically, Alstom at the forefront of innovation and technological progress in rail

And more recently new product launches to keep on differentiating



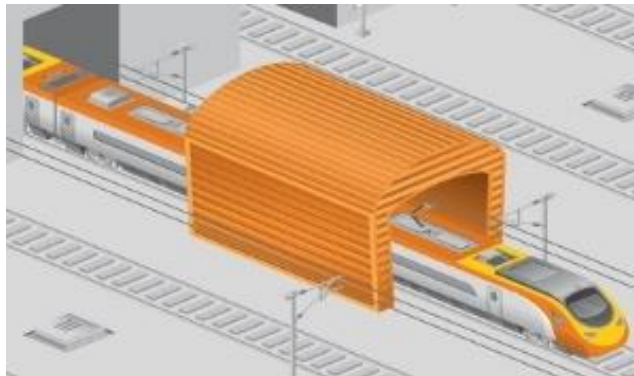
● Rolling stock - Coradia iLint



● New platform - Aptis



● Signalling - Fluence



● Services - Health Hub



● Systems - SRS



● Systems - Hesop

Renewed platforms with strong efficiency gains

Successful renewal of our platforms...

Tramway



Citadis XO5 Alu

Metro



Metropolis

Regional



Coradia Stream

High-speed



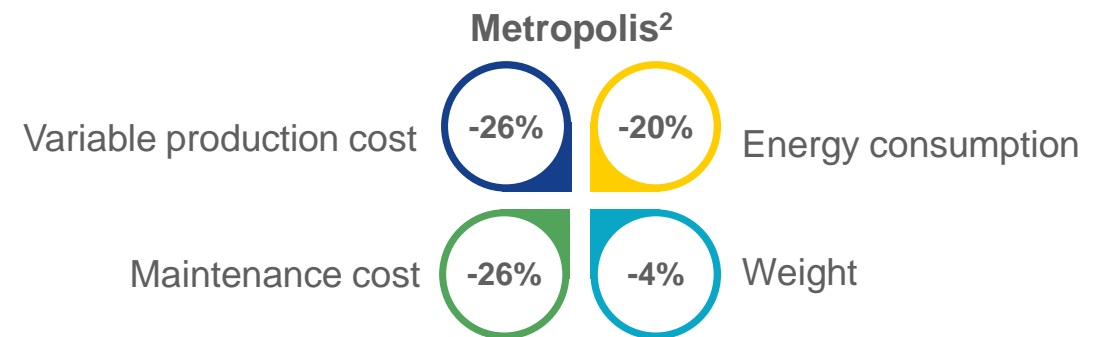
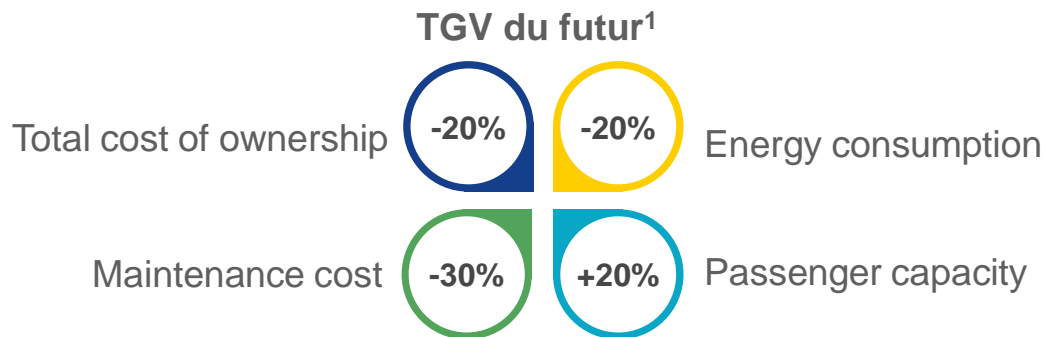
Avelia Liberty

Locomotive



Prima H4

... with direct business impacts for our customers



Leveraging these renewed platforms to expand our worldwide presence

New business model ...

STATION ONE

The first online marketplace dedicated to the railway sector



IDENTIFICATION OF PARTS



ORDERING



DELIVERY

... and solutions to improve efficiency

INDUSTRY 4.0

Implementation of cutting edge technologies into internal processes



AUTOMATION: HIGHEST-CAPACITY WELDING ROBOT



SMART GLASSES FOR REMOTE CONTROL



3D PRINTING



MANUFACTURING EXECUTION SYSTEM



QES: AUTOMATED TRACEABILITY IN PRODUCTION LINE

A continued R&D investment to drive innovation

A continued investment in R&D



R&D investments
2015/16 – 2018/19

Initiative to foster internal creativity



- Yearly, company wide innovation contest
- 2018: 599 innovations submitted, 57 sites, 27 countries
- Successful track record: HealthHub™, Hesop™, Coradia iLint™

Leading in inventions and patents...



Patents



Number of
patent requests
filed in 2018/19



Global
innovators
in 2018/19



INPI Palmares
2019

...And prestigious recognitions

- **Aptis**: Innovation award at the Busworld trade show – 2017
- **Coradia iLint**: GreenTech award 2018 in the category Mobility
- **Mastria**: finalist at the Smart City Expo World Congress

New product offering opportunities

Mega trends



Globalisation



Sustainability



Terrorism



Urbanisation



Gen Z



Cybersecurity

Technological innovations



Autonomy and
new power sources



Big Data /
Analytics



3D printing



Automation



Networking &
Communications



Sensing



AI and
Machine Learning

Social and business model innovation



Open platform
ecosystems



Crowdfunding



Sharing
economy



Outcome
economy



Crowdsourcing

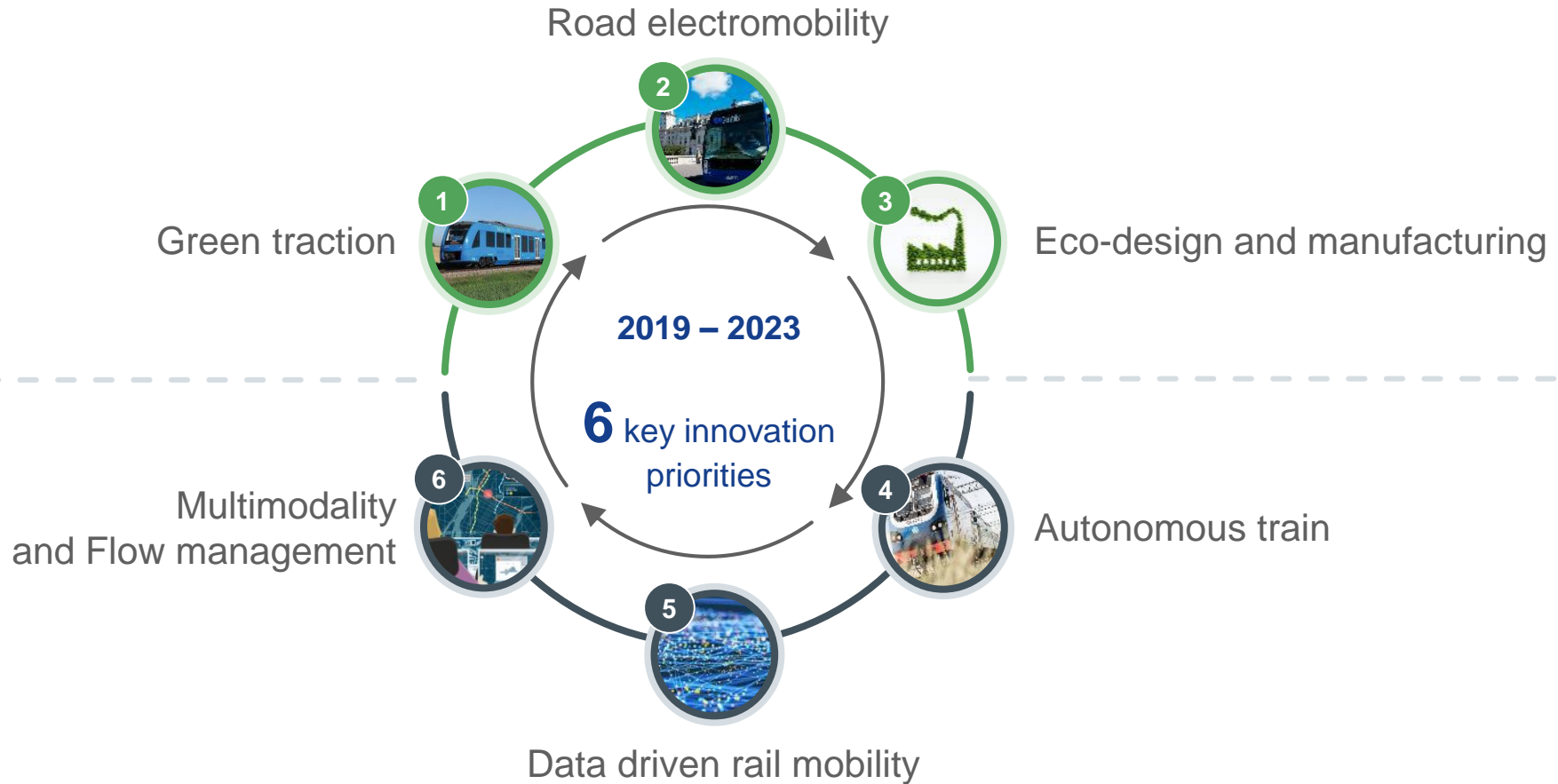
Creating "must-have" and new business opportunities

Green and smart mobility ambition

2019 – 2023: Six key innovation priorities in green and smart mobility

**GREEN
MOBILITY**

**SMART
MOBILITY**



1

Green traction

A future breakthrough in rail (Opportunities)

A future growth driver...



-60% CO₂ emissions expected in transport by 2050 (vs.1990)



Increasing number of cities declaring "**Diesel ban**"



Large portion of networks are likely to remain **un-electrified** (~50k km in France, UK and Germany)

...Already a challenge for Alstom clients



RMV will have the world's largest fleet of fuel cell trains in passenger transport

Knut Ringat, MD



About 120 diesel trainsets in our vehicle pool will reach the end of their life time with in the next 30y, meaning we will have to replace them

Carmen Schwabl, MD

ALSTOM – 24/06/2019 – P 114

Ambition: Alstom as a key green player

Top sustainable train provider



COMPLETE PORTFOLIO

- Battery trains
- Hybrid trains
- Hydrogen trains

GLOBAL REACH

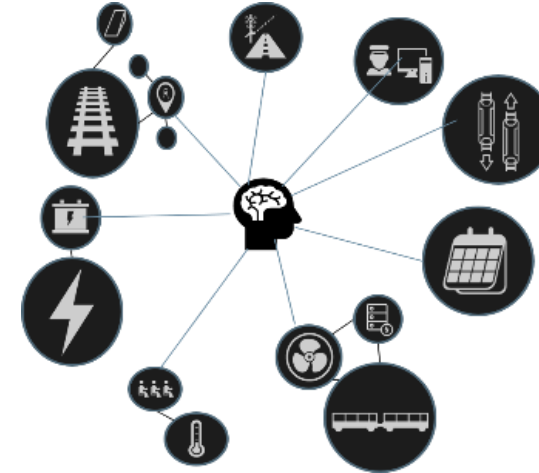
- Fast deployment in early adopter countries
- Expansion in 10 countries by 2025

- Rolling stock – Silicon Carbide (SiC)



- Up to - **20%** lower train energy consumption
- - **12%** lower traction maintenance costs
- **+10%** better reliability
- **Noise reduction** on transformer and traction case

- Systems – Rail efficiency application



- Strategic **partnership with Cosmo Tech**
- A powerful simulation tool to improve the **global efficiency** of a rail system
- Optimisation of **energy consumption** and **operational performance**

Key impacts

Low carbon road mobility potential



x2 Demand for mobility
by 2050...



while **÷2** CO₂
emissions...



...and reducing air pollution in cities
90% EU people today live in areas exposed to
non compliant air quality levels

50%

eBus share of the
European bus market by
2025, ie **7,500 ebuses/yr**
in 2025 in Europe

A disruptive concept

- New architecture
- Improved passenger experience
- More maneuverable



A promising start

- ✓ Commercial successes
- ✓ Roadshows in more than 30 cities
- ✓ 95% availability

Towards autonomous drive implying system approach



ECO-DESIGN

23% solutions in Alstom's portfolio are classified as **eco-designed**

-17% energy consumption reduction since 2014

65% of newly developed solutions eco-designed

- 23% energy consumption reduction in solutions



ENVIRONMENTAL EXCELLENCE IN MANUFACTURING

-12.5% energy intensity reduction since 2014

40% electricity consumed in sites coming from renewable sources

80% electricity consumed in sites coming from renewable sources



4

Autonomous train

On track to reach our strong ambition



Participation in Easymile



Remote cab pilot



Autonomous train consortium



Driverless tram in depot



OUR OBJECTIVES

2021

Autonomous shuttle system in service

2022

Automatise first train depot

2023

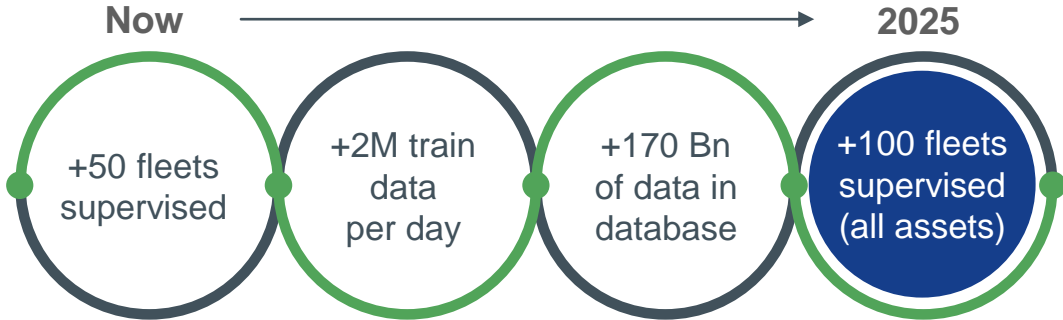
Complete autonomous train prototype

5

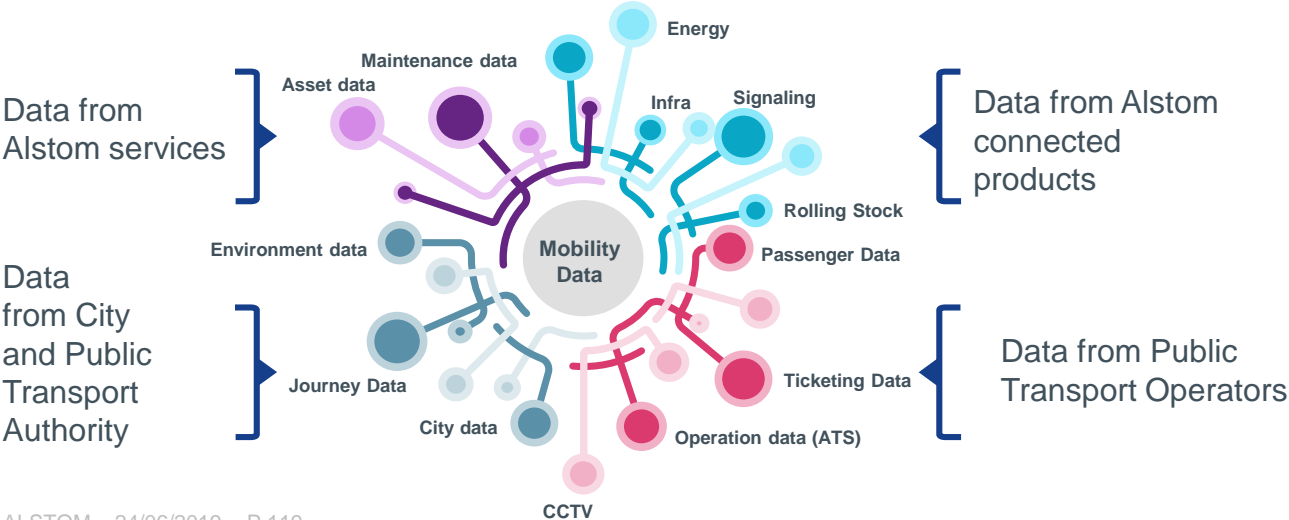
Data driven rail mobility Data leads to new range of digital solutions



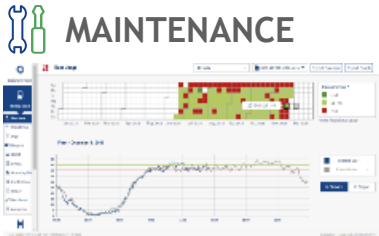
Alstom Railway Data



... And combining all the mobility data & our expertise



... Lead to new digital solutions



Condition monitoring
Predictive maintenance



Traffic management
Energy management



Mobility analytics
within smart cities



Automatic threat detection
Cybersecurity monitoring

WITH ALREADY SOME COMMERCIAL SUCCESSES



5

Data driven rail mobility *Innovative technology to build new solutions*

Advanced technologies



IoT sensor



Big Data



Artificial Intelligence



Computer Vision



IoT security & connectivity



Container Automation

Mobility Data Platform Framework | Cloud & On Premise



Mobility Data Operating System



Data Science and Analytics for Mobility



Reliable IoT for Railway



Train and wayside Cyber Security

MOBILITY SOLUTIONS



OPERATIONS



MAINTENANCE



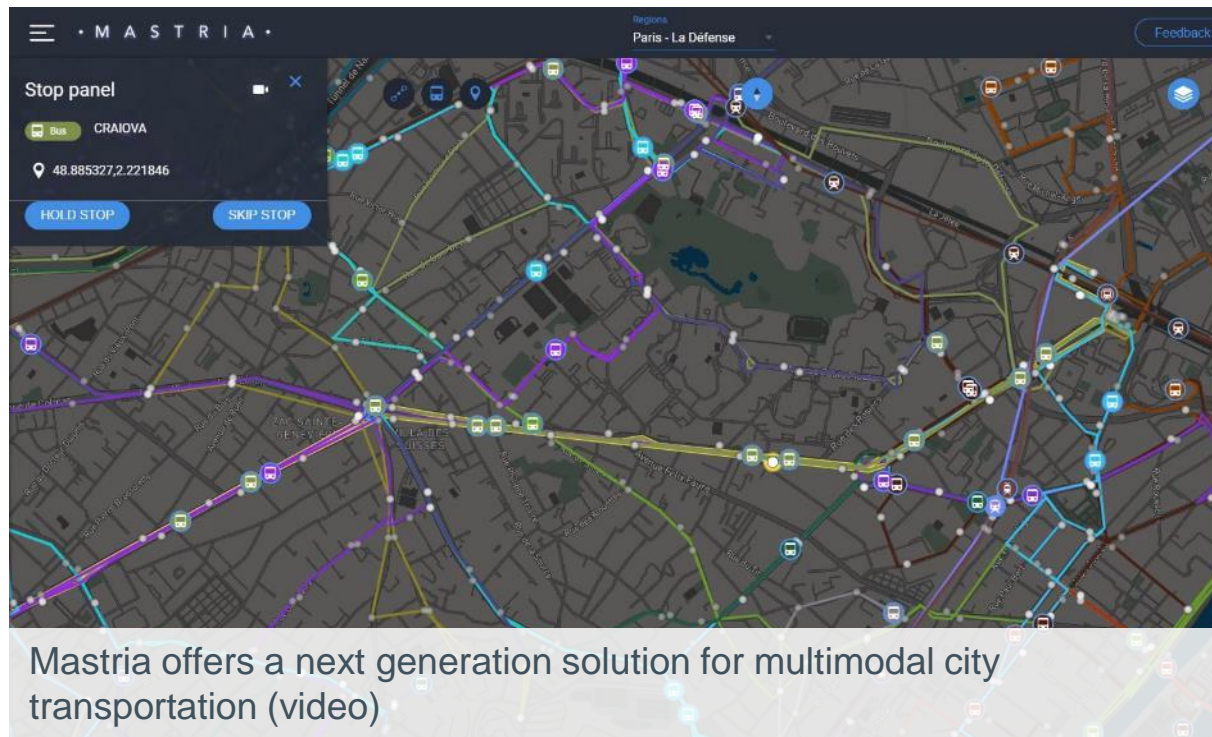
SECURITY



CITY FLOW



- **Coordinates** all public transport modes from **rail & road**
- **Offers alternative mobility solutions** rapidly in case of incidents
- Optimises operations with **mobility analytics**

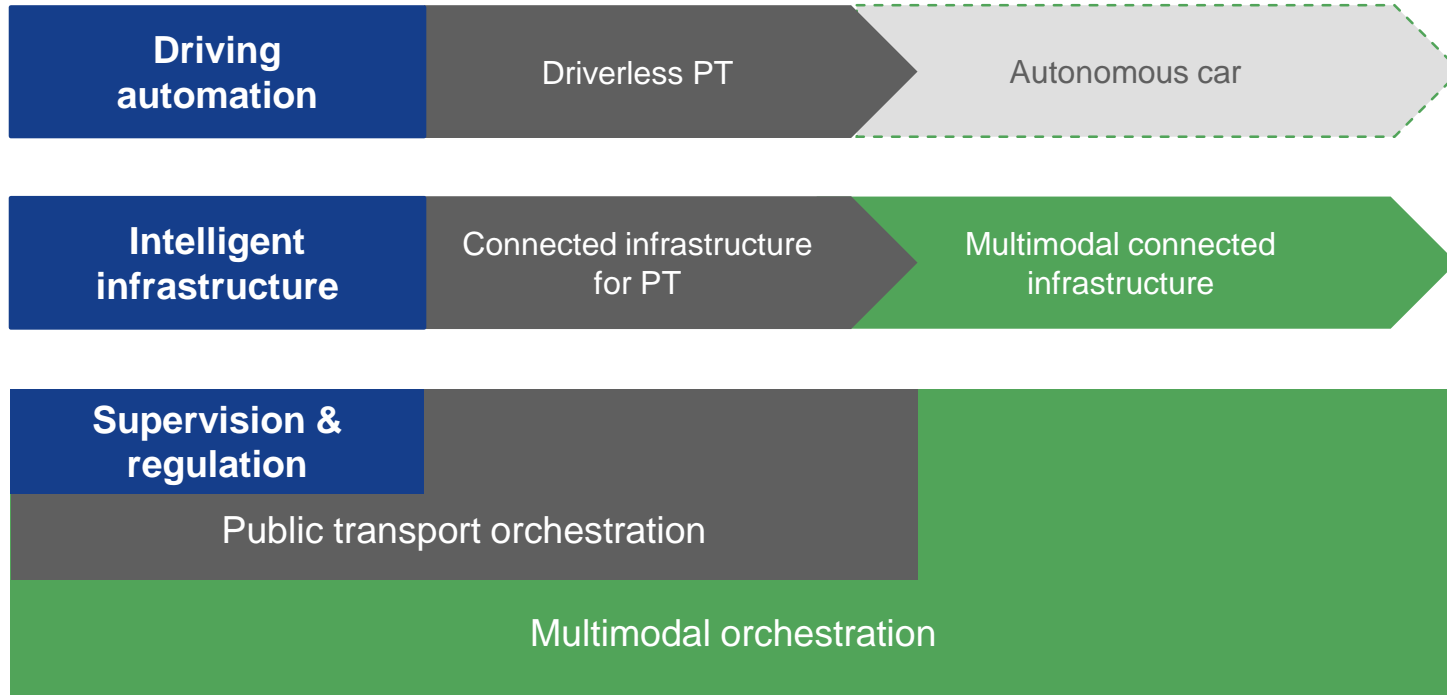


**ON-GOING PILOTS IN PARIS AREA
AND IN TUSCANY**

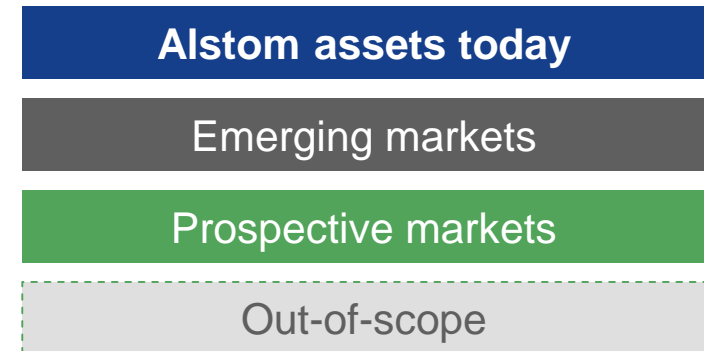
6

Multimodality & Flow management

Exploring new emerging markets



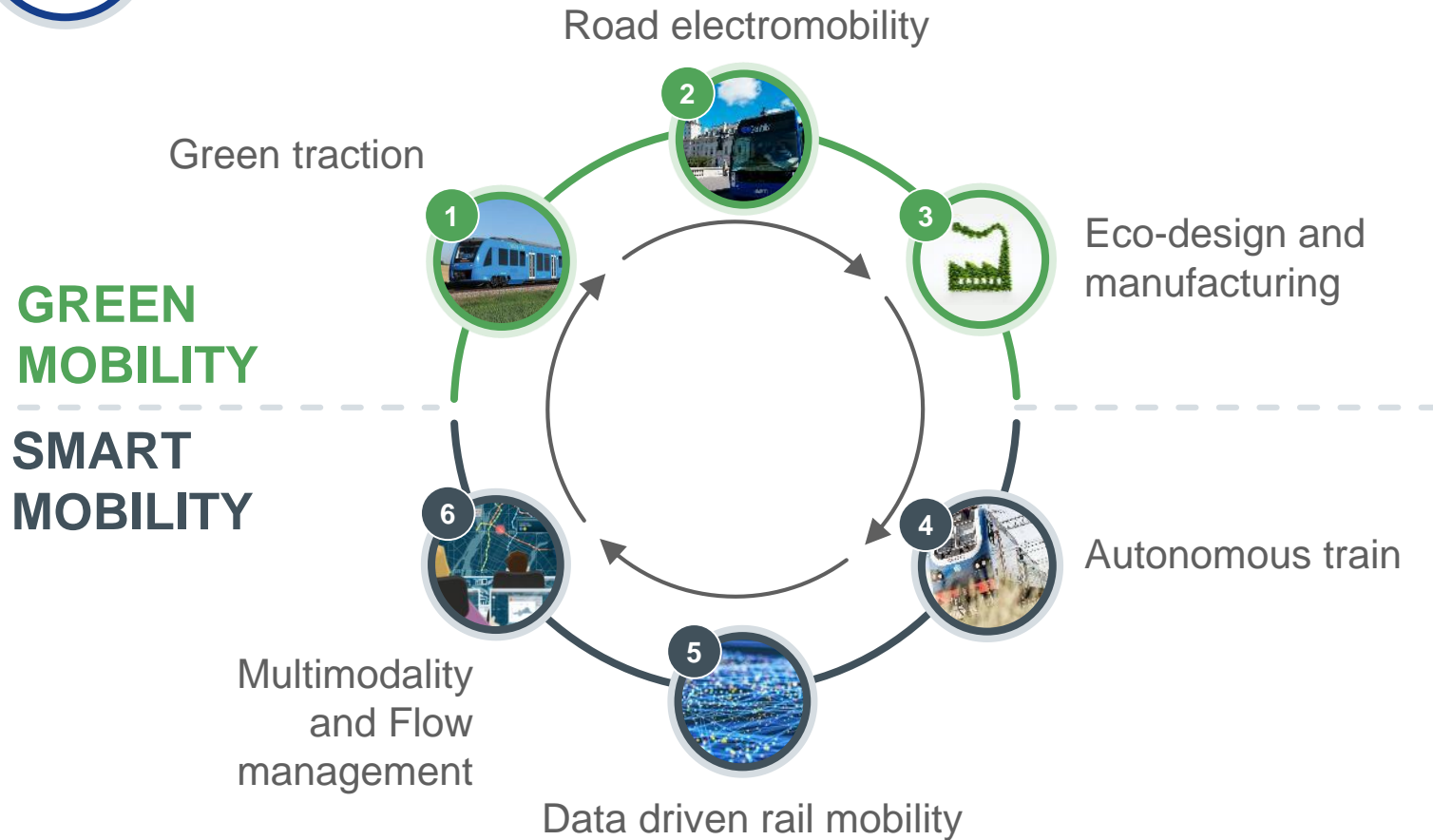
- Complex transport systems, as currently available in rail, will emerge in road
- These new systems will first appear in public transportation
- City orchestration will emerge to improve mobility services and reduce congestion



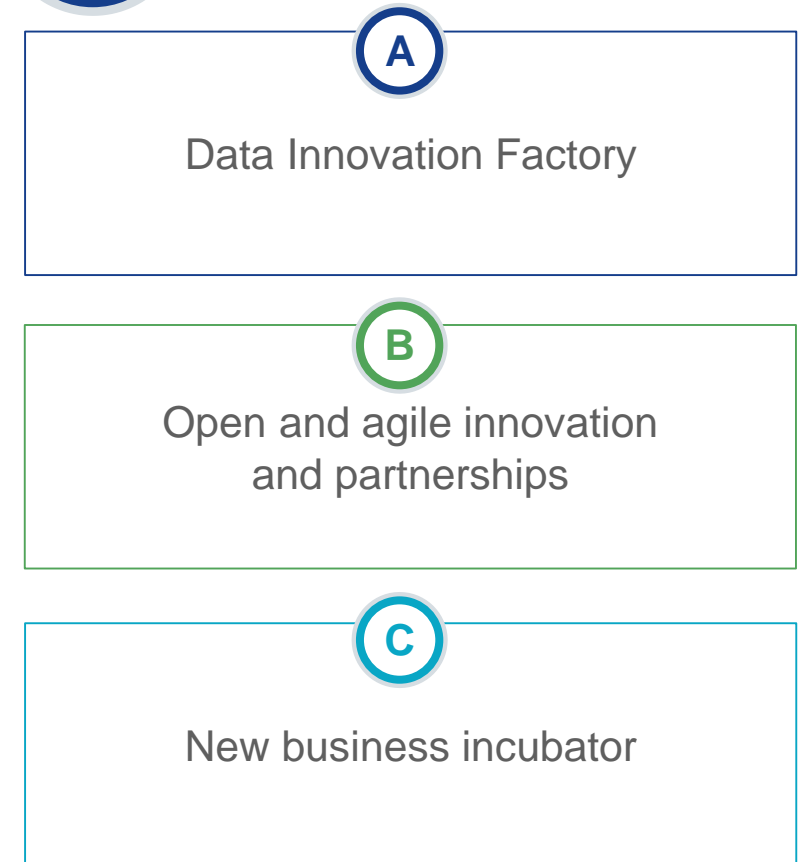
2019 – 2023: Strategic enablers to support Alstom innovation priorities



6 innovation priorities



3 enablers



B

Open and agile innovation and partnerships



Green mobility



- Partnership signed in 2017
- Focus on technologies for electric and hybrid systems



- Joint contract in Germany on May 2019

Smart mobility

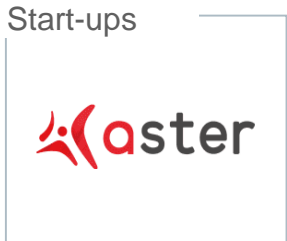


- Partnership signed in 2017
- Focus on cybersecurity of transport systems



- Investment in 2017
- Focus on electrical autonomous systems

Exploring new opportunities and attract talents



BY 2023: STRENGTHEN AND MULTIPLY OUR PARTNERSHIPS AND OPEN INNOVATION INITIATIVES

R&D and innovation embedded in Alstom's organisation to sustain our **leadership** and build a new one in **green** and **smart** mobility

A new **open and agile innovation** mindset enabled by key capabilities: business incubator, data innovation factory, partnerships & ecosystem



Questions & Answers

2019 Capital Markets Day

Closing remarks

Henri POUPART-LAFARGE – Chairman & CEO

2019 Capital Markets Day

On track to be **THE LEADING GLOBAL INNOVATIVE PLAYER** in our markets for a sustainable and smart mobility to create greater value for passengers, clients and shareholders

Leveraging the achievements of our 2020 plan

- Key player in all geographies and businesses
- Innovative, recognised, and diverse product portfolio
- Competitive offering and strong execution

Growing and stable market with opportunities

- Robust macro-economic drivers
- Positive rail market outlook - smart and green mobility momentum
- New trends and technologies creating new opportunities

Clear objectives, supported by a sound strategy

- Continue to outperform market growth – #1 or #2 in our markets geographies and lines of business
- Lead in smart and green solutions
- Industry leading margins and cash generation



AiM

Appendix 1 - Non-GAAP financial indicators definitions



This section presents financial indicators used by the Group that are not defined by accounting standard setters.

● **Orders received**

A new order is recognised as an order received only when the contract creates enforceable obligations between the Group and its customer.

When this condition is met, the order is recognised at the contract value. If the contract is denominated in a currency other than the functional currency of the reporting unit, the Group requires the immediate elimination of currency exposure through the use of forward currency sales. Orders are then measured using the spot rate at inception of hedging instruments.

● **Order backlog**

Order backlog represents sales not yet recognised on orders already received. Order backlog at the end of a financial year is computed as follows:

- order backlog at the beginning of the year;
- plus new orders received during the year;
- less cancellations of orders recorded during the year;
- less sales recognised during the year.

Order backlog corresponds to the transaction price allocated to the remaining performance obligations, as per IFRS15 standard quantitative and qualitative disclosures requirements.

● **Book-to-Bill**

The book-to-bill ratio is the ratio of orders received to the amount of sales traded for a specific period.

● **Adjusted EBIT**

When Alstom's new organisation was implemented in 2015, adjusted EBIT ("aEBIT") became the Key Performance Indicator to present the level of recurring operational performance. This indicator is also aligned with market practice and comparable to direct competitors.

Going forward (1st application for Half Year 2019/2020 publication), Alstom has opted for the inclusion of the share in net income of the equity-accounted investments into the aEBIT when these are considered as part of the operating activities of the Group (because there are significant operational flows and/or common project execution with these entities), namely the CASCO Joint Venture. The company believes that bringing visibility over a key contributor to the Alstom signalling strategy will provide a fairer and more accurate picture of the overall commercial & operational performance of the Group. This change will also enable more comparability with what similar market players define as being part of their main non-GAAP 'profit' aggregate disclosure.

aEBIT corresponds to Earning Before Interests and Tax adjusted for the following elements:

- net restructuring expenses (including rationalization costs);
- tangibles and intangibles impairment;
- capital gains or loss/revaluation on investments disposals or controls changes of an entity;
- any other non-recurring items, such as some costs incurred to realize business combinations and amortisation of an asset exclusively valued in the context of business combination as well as litigation costs that have arisen outside the ordinary course of business;
- and including the share in net income of the operational equity-accounted investments.

A non-recurring item is a "one-off" exceptional item that is not supposed to occur again in following years and that is significant.

Adjusted EBIT margin corresponds to Adjusted EBIT in percentage of sales.

Appendix 1 - Non-GAAP financial indicators definitions



- **Free cash flow**

Free cash flow is defined as net cash provided by operating activities less capital expenditures including capitalised development costs, net of proceeds from disposals of tangible and intangible assets. In particular, free cash flow does not include the proceeds from disposals of activity.

The most directly comparable financial measure to free cash flow calculated and presented in accordance with IFRS is net cash provided by operating activities.

Alstom uses the free cash flow both for internal analysis purposes as well as for external communication as the Group believes it provides accurate insight regarding the actual amount of cash generated or used by operations.

- **Net cash/(debt)**

The net cash/(debt) is defined as cash and cash equivalents, other current financial assets and non-current financial assets directly associated to liabilities included in financial debt, less financial debt.

- **Pay-out ratio**

The pay-out ratio is calculated by dividing the amount of the overall dividend with the "Net profit from continuing operations attributable to equity holders of the parent" as presented in the consolidated income statement.