



| Transforming the Everyday

Siemens Mobility USA 2022

Global megatrends will shape our lives in the coming decades ...

Digitalization



By 2025, the digital universe will reach **175 zettabytes**

Demographic change



The earth's population will increase from 7.7 billion people today to **9.7 billion** by 2050

Climate change



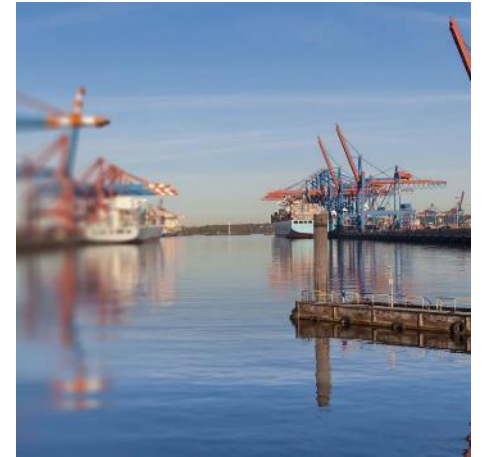
By 2050, a global temperature increase **of 2°C** is expected

Urbanization



By 2050, **70 percent** of the world's population will live in cities (2018: 55 percent)

Globalization



Due to increasing traffic, gas emissions will increase up to **60 percent** by 2050

We share a #PassionForMobility

36,800

employees worldwide

81%

Coworkers, that are proud to work for Siemens Mobility

1,420

patent applications since 2015/2016



3,500

employees across North America

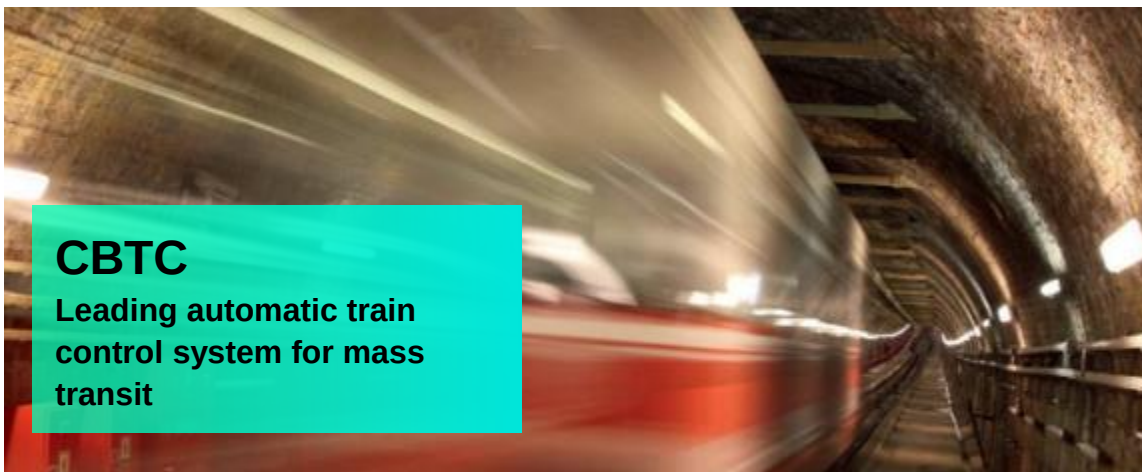
100+

R&D employees

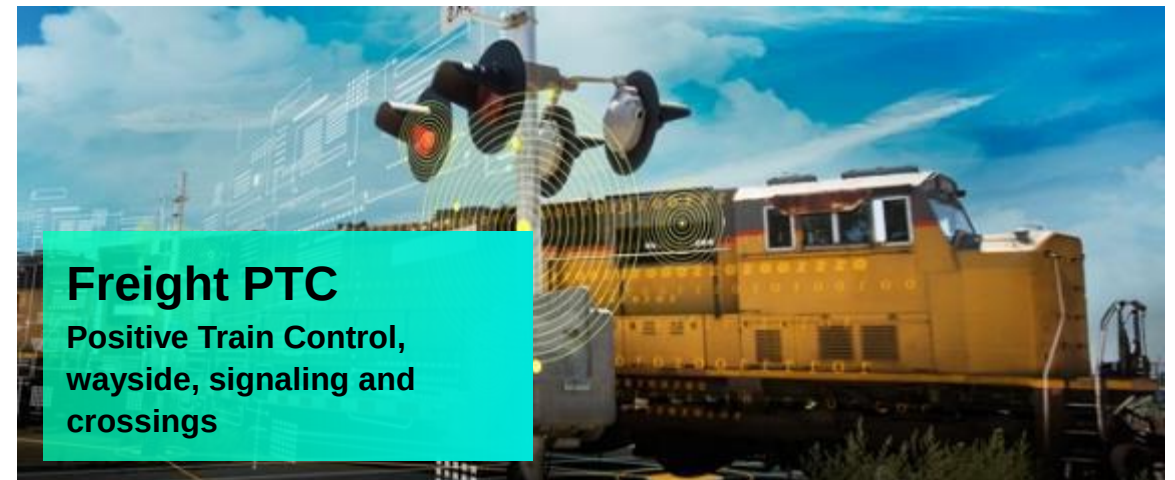
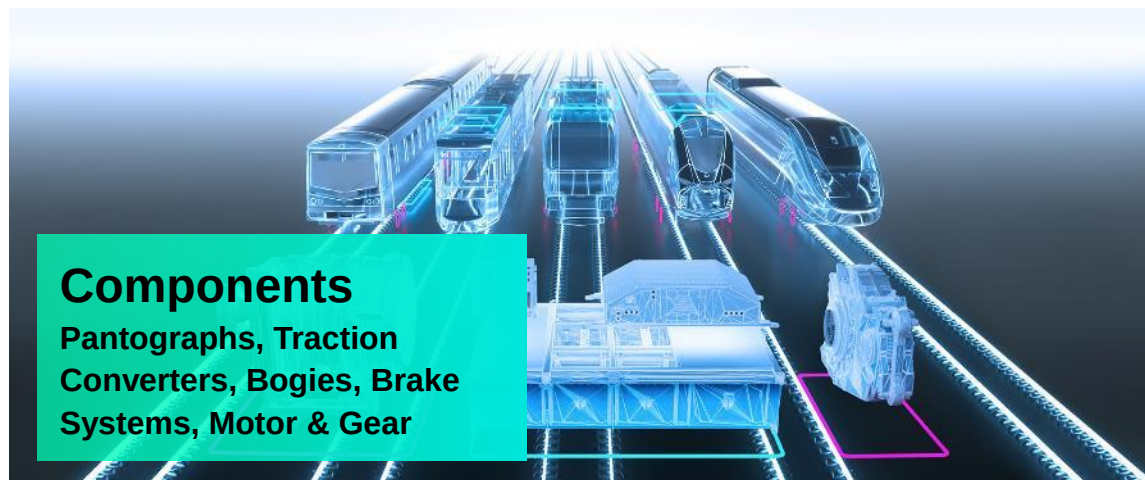
8

Manufacturing sites across the US

We provide integrated mobility solutions ...



... more solutions



Organizational structure Siemens Mobility

Siemens Mobility

Marc Buncher (CEO)	Bernd Blumenstein (CFO)
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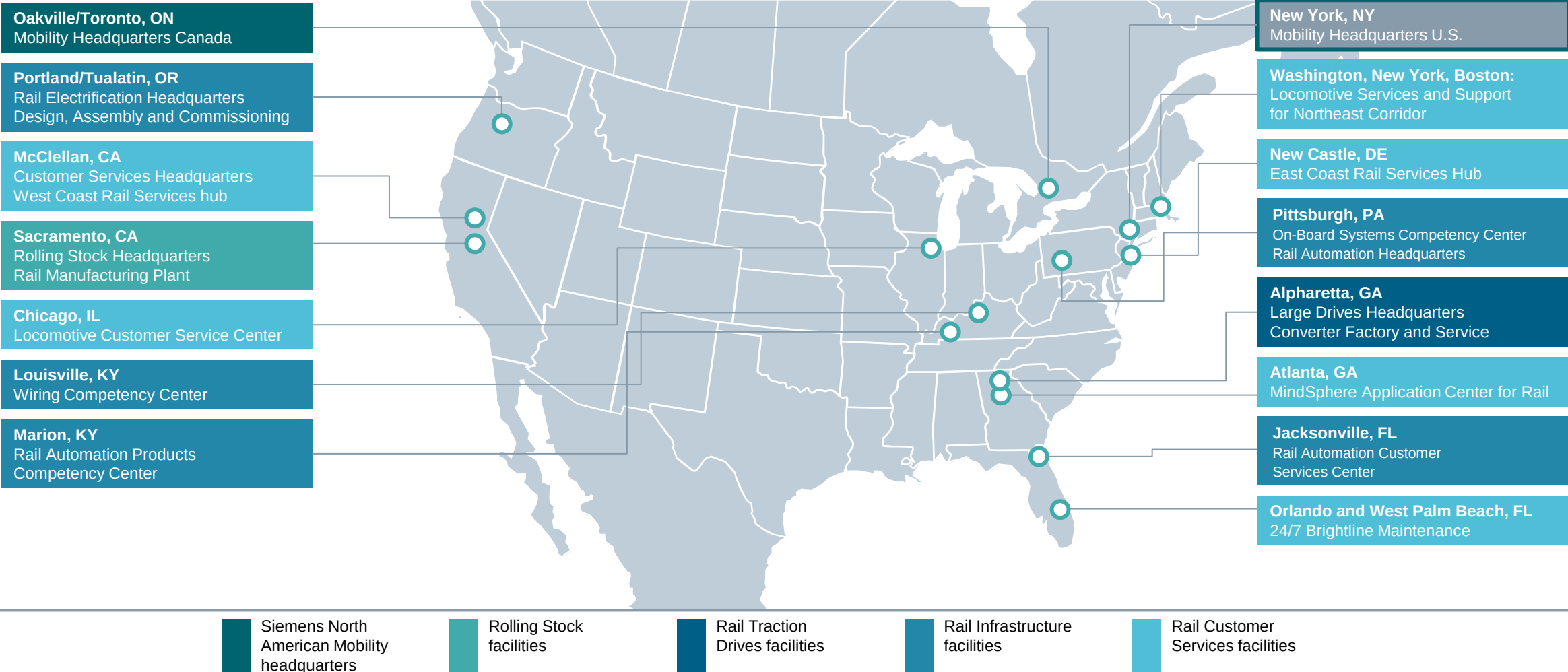
Business Units

Rolling Stock  Michael Cahill (Business Head) Chris Halleus (Commercial Head) Short-distance, regional and long-distance rolling stock, and product and system solutions for passenger rail transport.	Components  Yagnesh Kikaganeshwala (Business Head) Traction systems that are both innovative and well-proven – providing the highest degree of reliability but with minimum maintenance costs. Traction converters and motors are the core of the traction system	Customer Service  Michael Tyler (Business Head) Natalie Liggett (Commercial Head) Services and tools for rail infrastructure and rolling stock providing support throughout the life of customer vehicles.	Rail Infrastructure  Tobi Bauer (Business Head) Sabrina Wecking (Commercial Head) Innovative products and solutions for Rail automation, Rail Electrification and in the area of intermodal mobility, apps and backend systems for intermodal mobility	Turnkey  Enrico Fontana (Business Head) Raj Ghosh (Commercial Head) Planning, design, installation, commissioning, and maintenance as an integrated rail solution. This may also include delivery of depot equipment.
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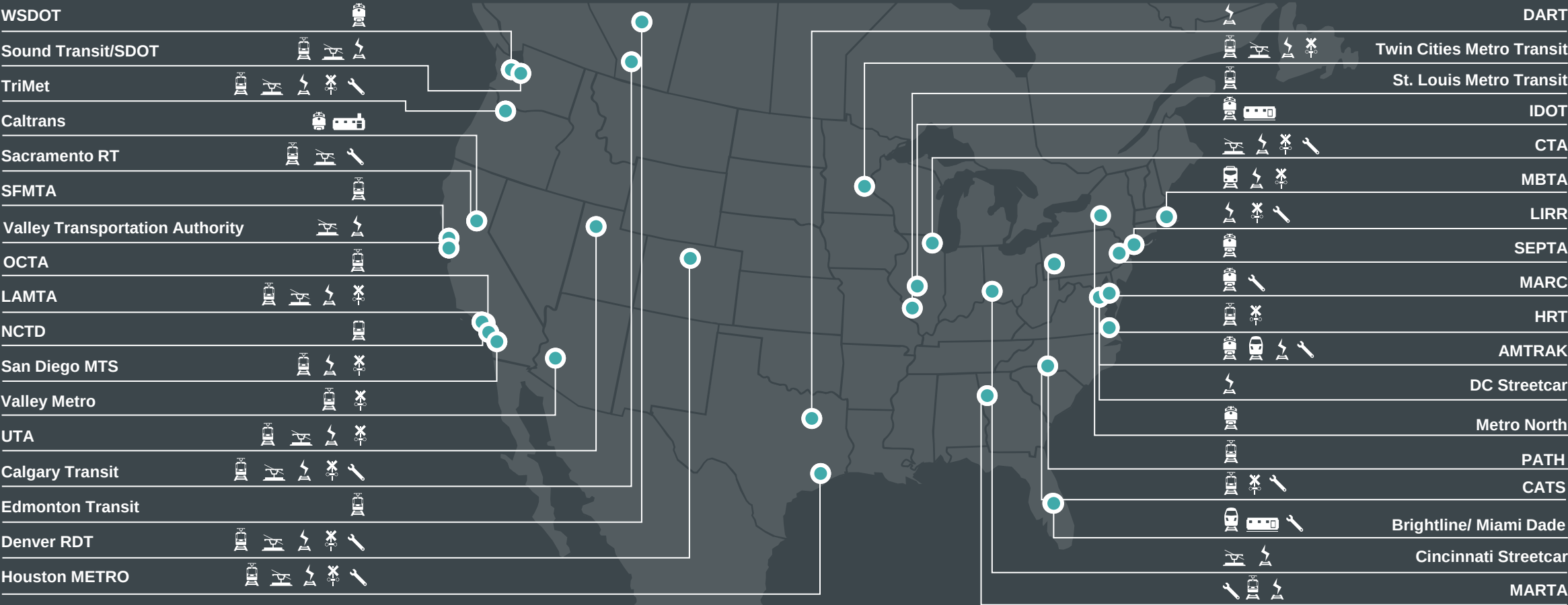


Key Siemens Mobility Locations in the U.S. and Canada

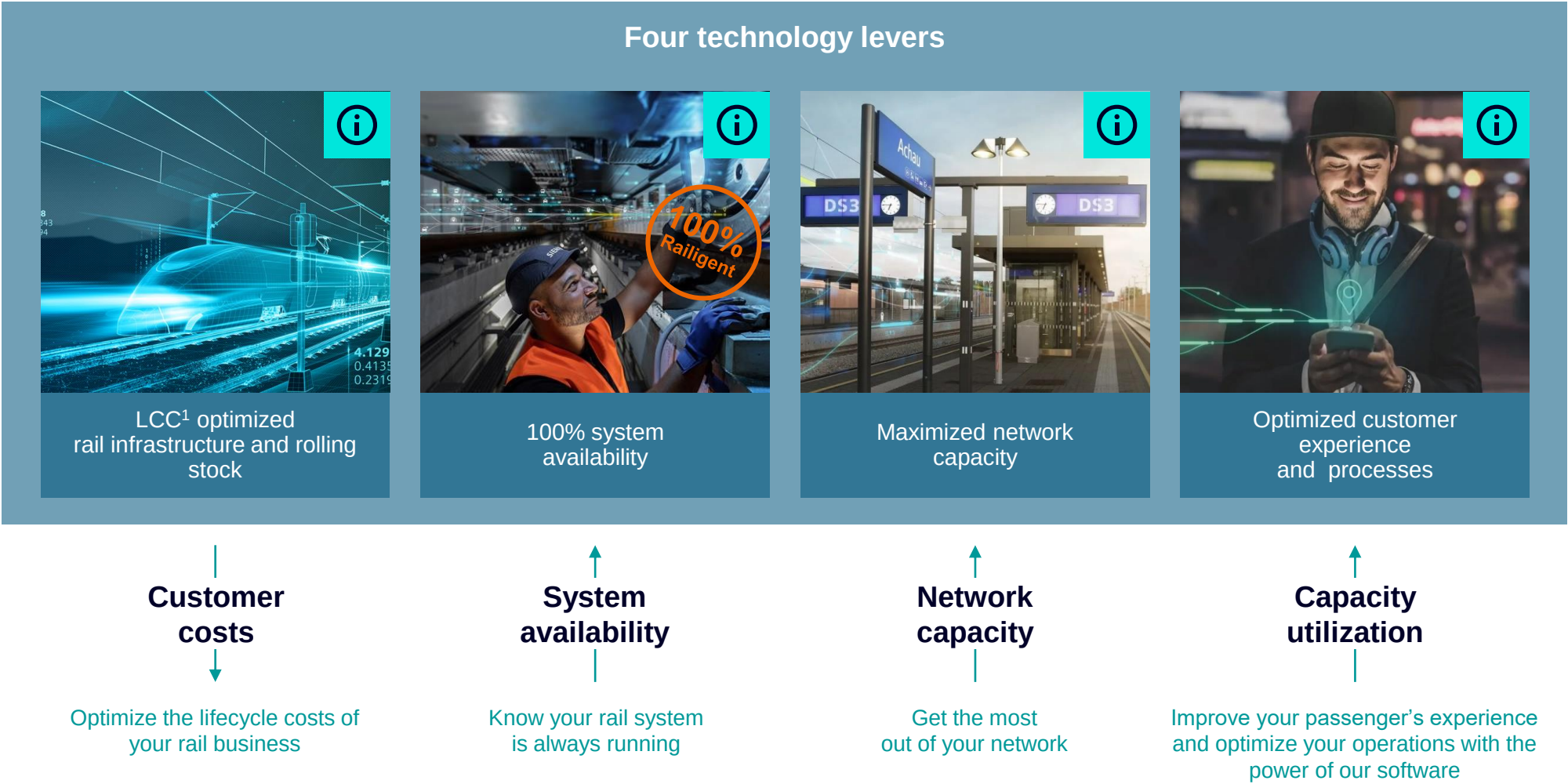
Customer value through proximity, vertical integration & customized services



Mobility in the US and Canada – Customer value through proximity, vertical integration and customized services



Our strategy is leadership through technology...



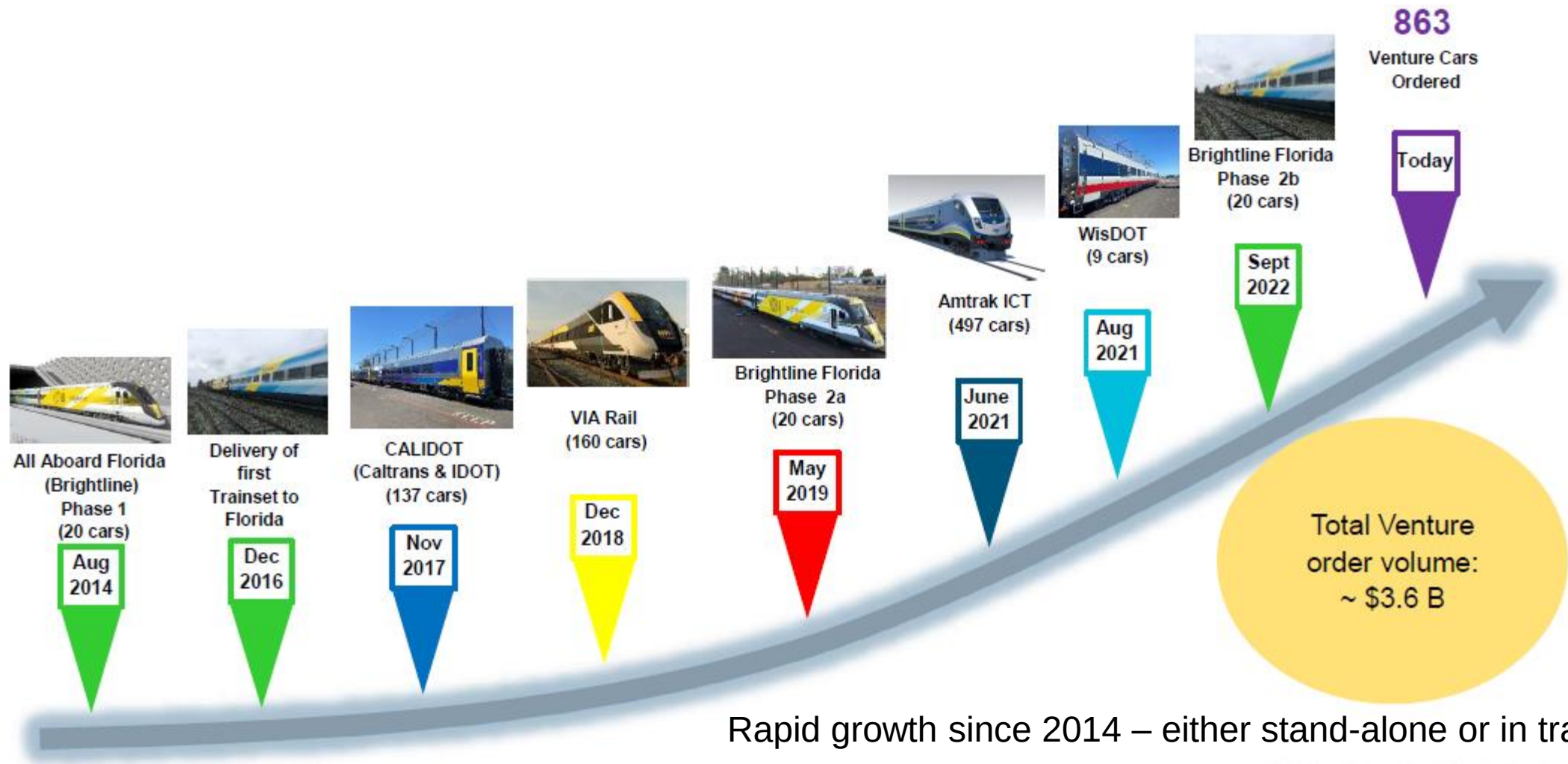
1 LCC = life cycle cost

Key Current Segments of the North American Rail Rolling Stock Market

Served market		Not served or barely served			
Light Urban Transit  Mostly developed in Western, Tier 2 cities - Siemens entry point into NAM rail market in 1980s - Emerging Battery powered vehicles - Stable market, moderate growth: Renewal market for >30 yr-old vehicles complements limited system expansion Market size : \$300M-\$500M Market position: #1	Commuter Rail  Traditionally: EMU, DMU or Push Pull - Emerging market beyond NEC - Potential shift to single decker (Accessibility) - Limited electrification outside of NEC and CA - Emerging interest in green technology → Opportunity Market size : \$0-\$500M Market Share : 10% (push-pull)	Heavy Urban Transit (Metro)  Mostly stagnant replacement market Dominated by NYC (>8,000 Cars) - Overcapacities , unattractive pricing - Custom, utilitarian products - Unique legacy infrastructures hinders platform app. - No fit for Global MO platforms, except components Market size : \$0-\$1B Market Share : <1%	Mainline: Intercity Passenger  USA: AMTRAK, BL // CAN: VIA Rail - Good transportation modal share on corridors - Largely self-sustaining business model - AMT: NEC Fleet renewal pot. expansion with Biden \$ - VIA: corridor fleet renewal, potential HFR expansion - Emerging interest in Green Power technology Market size : \$0-\$1B Market position: #1	Mainline: Long-Distance Passenger  USA: AMTRAK // CAN: VIA Rail - Seasonal Tourist trains profitable - Off-season: unprofitable, but politically preserved - AMT: 30- to 40-year-old Fleet renewal planned - VIA: 50 yr-old trains need renewal - Unique sleeper trains for long-distance routes - Cautious interest in Green Power technology Market size : \$0-\$1B Market position: # 1	Mainline: Freight  Six Class 1 railroads dominate market - Fleet : 25,000 Diesel Locos - Lower Technology, low price market - Established duopoly : barrier to entry with "good enough", simple technology - Reluctant interest in Green power → potential opportunity in components Market size : \$3B Market Share : 0%

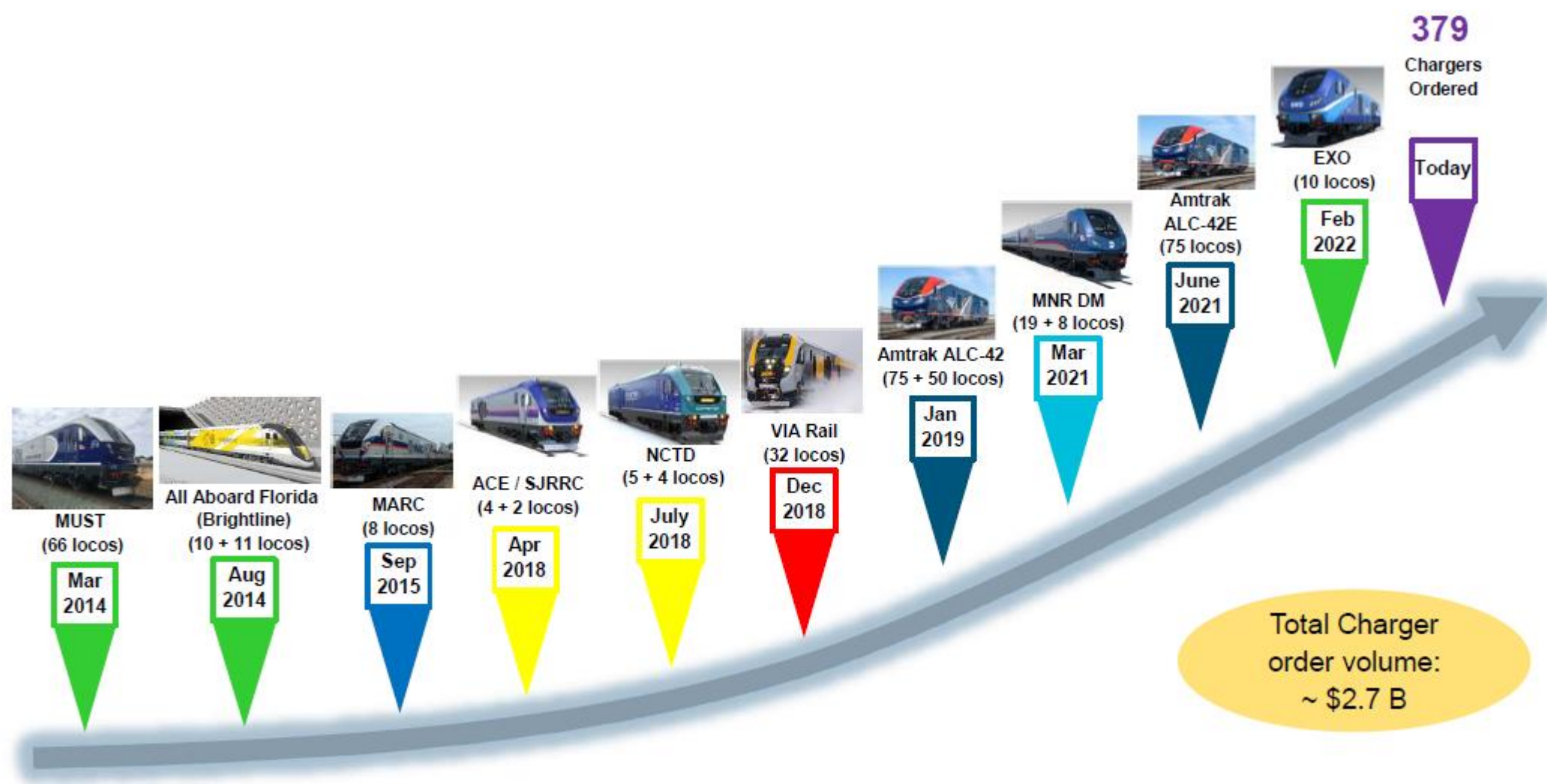


Venture Platform – Single decker passenger cars



Rapid growth since 2014 – either stand-alone or in trainsets

Charger Platform – Diesel Electric locomotives



Rapid growth since 2014 – either stand-alone or in trainsets

Light Rail Product Portfolio

Low Floor	High Floor	Low Floor - Future
S700 LRV – 70% Low Floor  BUY AMERICA S700 Streetcar - with OESS  BUY AMERICA	S200SF SF Muni  BUY AMERICA S200 Calgary 10  BUY AMERICA	S100 – 100% Low Floor   BUY AMERICA S800 – S700 Extended   BUY AMERICA

Low Floor: New Infrastructure, New Systems
High Floor: Legacy Infrastructure

Rolling Stock Case Study: Brightline

Brightline Florida

Brightline Florida (aka: All Aboard Florida)

New Rail Service between Miami and West Palm Beach

- 2012 : Idea launched
- 2013 : Market sounding, Investment funding
- 2014 : Civil works started, Siemens Trainsets contracted
- 2018 : Start of Operations
- 2023 : Expansion to Orlando

The customer success story

- Real Estate with Rail "Feature" : Monetizing underutilized Freight lines
- Focused high end development in Miami, Fort Lauderdale, WPB and connect to Disney
- Next: Orlando and Tampa

The Siemens success story

- Opportunity premature for market but confident in our abilities
- Leveraged small starter project into market leading position for Venture coaches (>800 sold) and Charger Locomotives (>300 sold)
- Success shaped market expectations for modern rail transportation in North America
- Shaped offering and supply chain for rest of market



Visionary ideas can succeed quickly in the US, even without direct government funding

Rolling Stock Components Business Segment: Alpharetta, GA

Overview



- Location of Traction Drives US headquarter
- Additional on-site functions: CRM, Project Management
- Shop floor area: 16,000 m²
- Employees: 113
- Buy America compliant Traction portfolio
- ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 certified
- EHS focus: Zero Harm Culture

• Main functions in value chain:



Plant highlights

- Flexible portfolio to serve across all rail platforms.
- Continuous investment in the plant for additional motor and gear manufacturing capabilities.
- Overhaul capabilities for motors and gears
- Ability to meet both FRA and FTA Buy America requirements
- PMP® certified project managers
- Lifting capabilities of up to 45 tons
- In house service and repair capabilities
- Strong safety record – over 1400 days without lost time incident

Products Components	High-Speed & Intercity Trains	Commuter Rail & Regional Rail	Metros	Trams & Light Rail	Locomotives
TIC	●	●	✓	✓	✓
APS	●	●	●	✓	●
Gear boxes		●	✓	●	✓
Motors		●	✓	●	✓
Legend: ✓ Current Projects ● Manufacturing Capability					

S70 USA LRV
High power LRV concept



Amtrak ACS64
First hi-speed US Loco



**Charger
SC-44 / SCB-40**



Rail Infrastructure Business Unit

Signaling Products	Automated Rail	Mass Transit Solutions	Electrification	Mainline Signaling	Software
					
• Railroad crossing systems • Signals • Track circuits • Axle Counters • EoT's • Asset Connectivity Solutions	• PTC Onboard Units • PTC Back Office Server (BOS) • Dispatch Systems • Movement/Trip Planning • Broken Rail Detection	• CBTC Solutions • Vital/Non-Vital communications • Northeast Corridor Onboard Train Control	• Traction power substation design and supply • Catenary Design and Supply • Static Frequency Converters • Capacity/Demand planning	• European Train Controls Solutions • High Speed	• Ticketing • Journey Planning • Static Frequency Converters • Capacity/Demand planning
Louisville, KY Marion, KY Germany, Spain	Jacksonville, FL New York, NY Minnetonka, MN	New York, NY Louisville, KY Pittsburgh, PA Germany, Spain, France	Portland, OR Germany	Las Vegas, NV Germany	Jacksonville, FL New York, NY Germany

Our services for 100% system availability for maintainers, operators and asset owners

No matter which assets you operate ...		Rolling stock & components		Rail infrastructure		Turnkey systems
... we have the right services ...	Spare parts & Repair Fast and reliable spare parts and components services.	Maintenance & Technical support Maximum availability and safety of rolling stock and rail infrastructure from single overhauls to full service.	Lifetime extension & Improvements Ensured and improved asset functionality, safety and value during the entire life cycle.	Digital services Digital decision support as well as high availability and cyber security of your software and systems.	Qualification & Training Latest rail knowledge, expert consultancy and certified validation of vehicles .	Asset management & Technical operations Operational performance and asset value protection .
... and the right level of services to enable your core business	Standard services on-demand Dedicated services and selective support if you have own maintenance resources and capabilities.		Tailored services Tailor-made services that optimally complement the capabilities of your organization.		Asset lifecycle partnership SMO takes care of the full maintenance of your assets and rail system or even more.	



Getting to know RailTerm

170 employees

Across Canada and the US

Established
1996

Serving 70 clients

Across NAM

RailTerm
a services provider to railway operators

Key Locations in Canada
Montreal, Ottawa, Toronto

Services

Rail Traffic Control
Railway Systems Engineering
Track, Signal, Overhead
Catenary and Traction Power
Maintenance

Products

TrainMaster RTC
Software

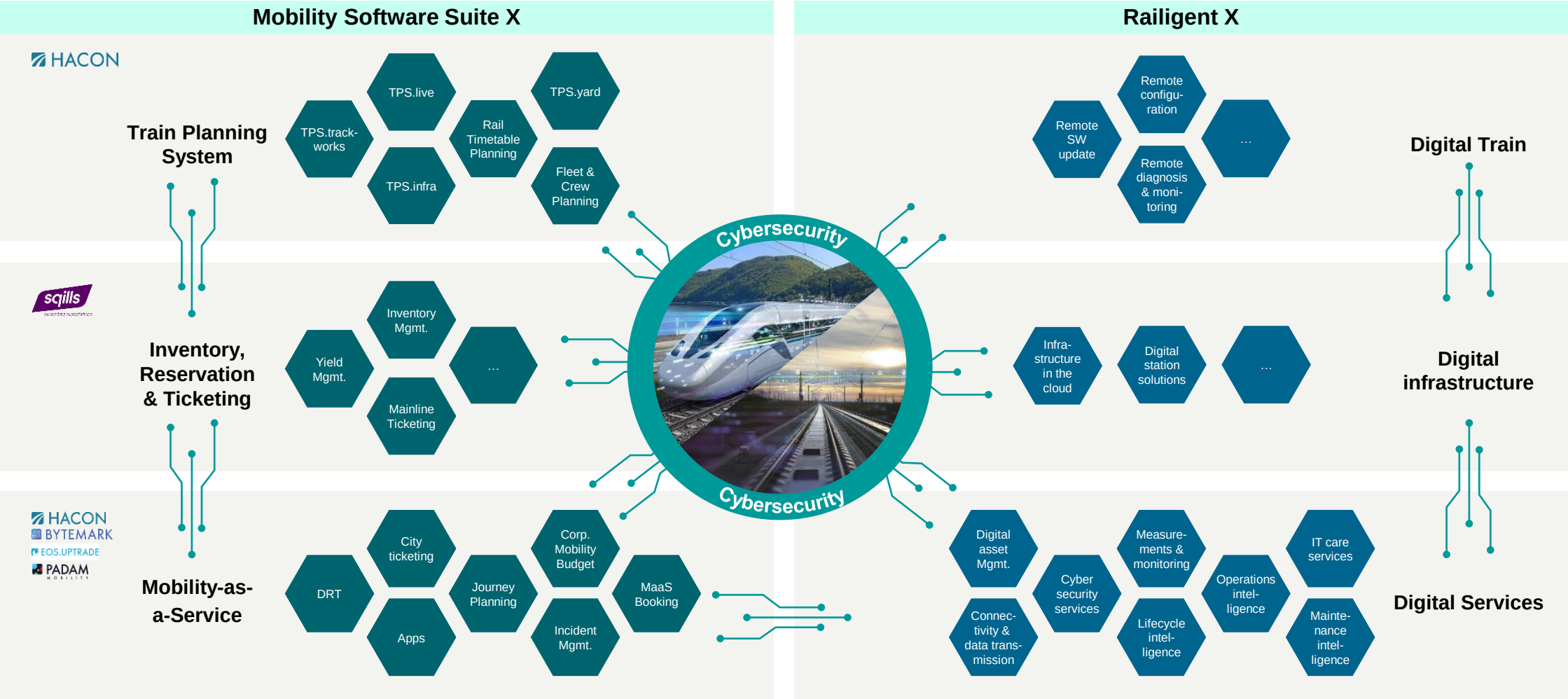
Founders joining the executive team

Rob Wheeler and François
Prénovost

13 employees based in the US

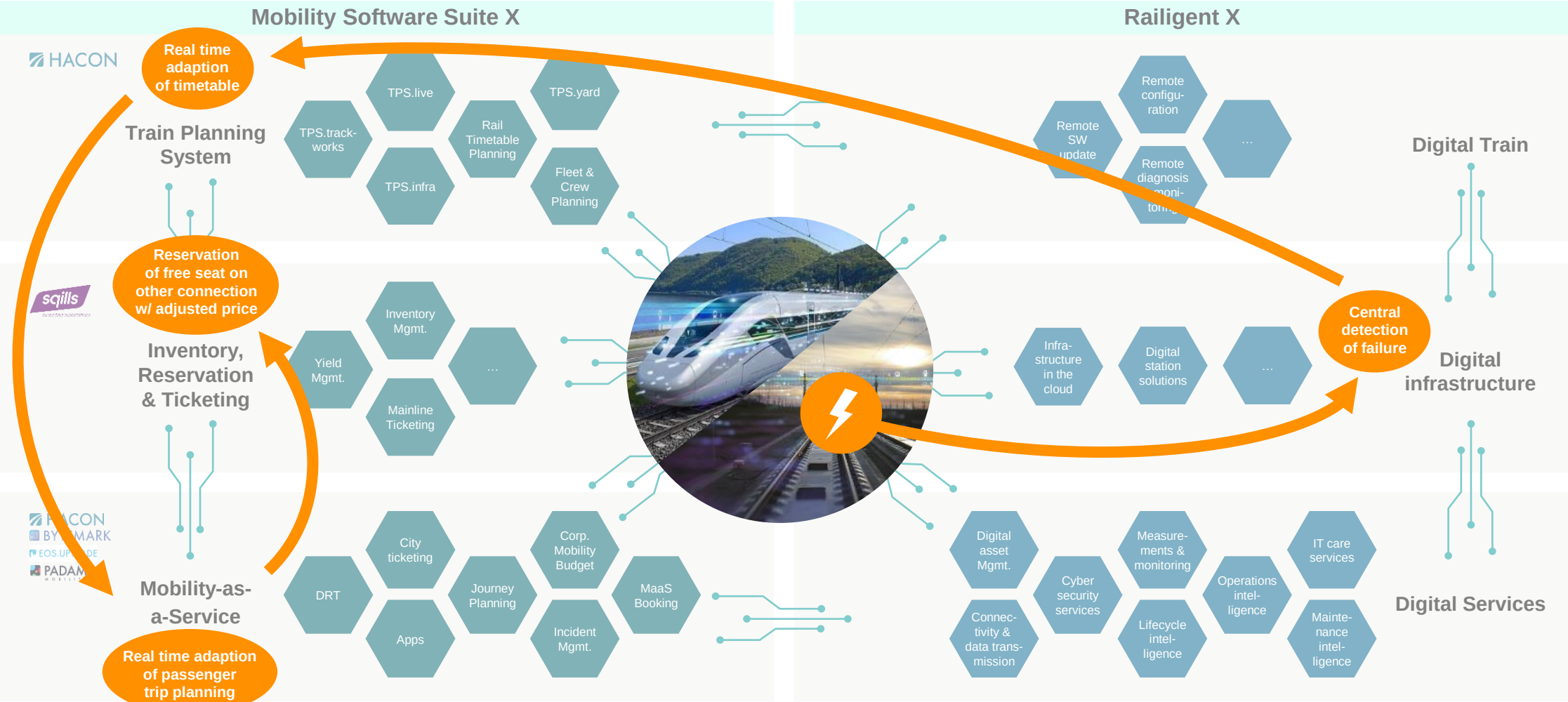
reporting to Siemens Mobility US.

With an interoperable and connected ecosystem of digital solutions, we can provide additional value to our customers and change ultimately the railway system



Application Programming Interface

By creating open interfaces, we enable continuous data exchange between the different sub-systems of the railway network



Application Programming Interface



| Shaping connected mobility

Thank you