

Pre-Press Conference – InnoTrans 2018

June 13, 2018 | Sabrina Soussan and Michael Peter

Global megatrends lead to increased traffic volumes

Cities will grow

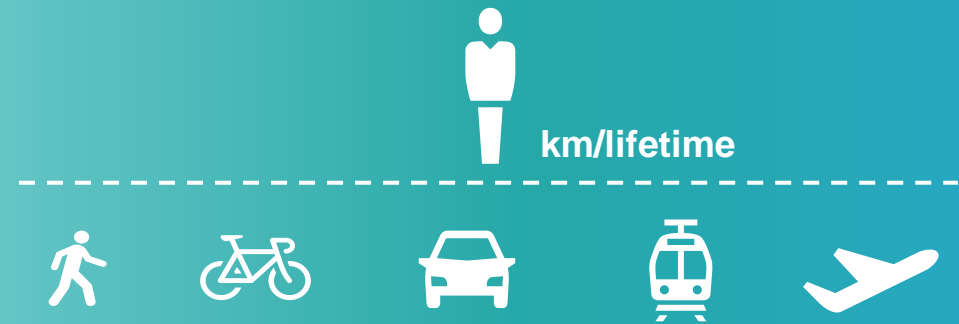


By 2050: Worldwide, additional **2.5 bn** people will live in cities

United Nations, World Urbanization Prospects: The 2018 Revision

Unrestricted © Siemens AG 2018

Travel distance increases



Since 1965: In the UK, the distance a person travels has increased by **70%**

Department of Transport, England Transport stats 1965 – 2015

In an era of interconnected and digitalized mobility,
travel behavior is changing



One single interface

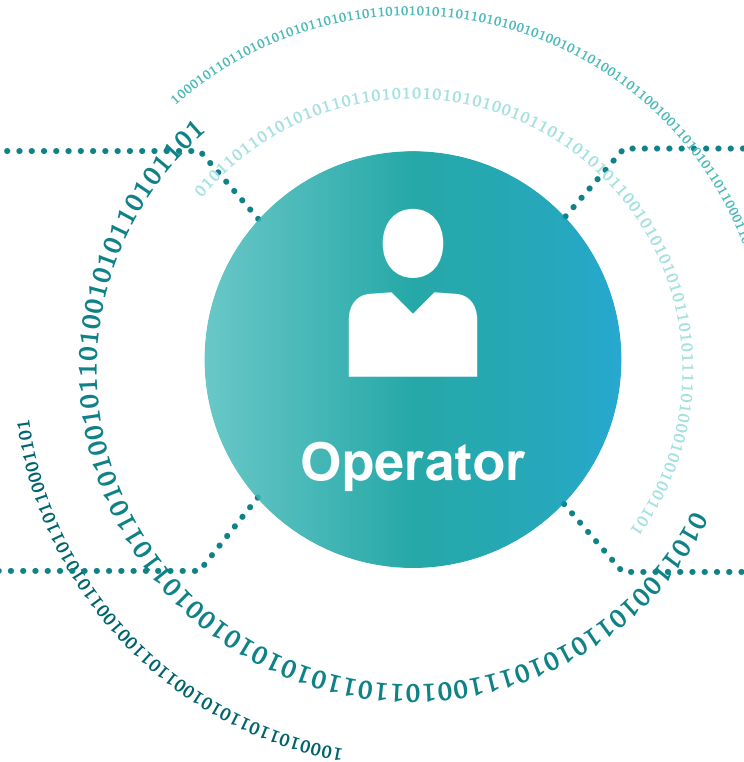
In the face of new competition, transport operators need to expand their offering

Digital Experience

Last Mile Solution

Reliability

Affordable Prices



What does this mean for railway vehicles ...



© Deutsche Bahn AG/Uwe Miethe



... digital ride experience and enhanced passenger information systems

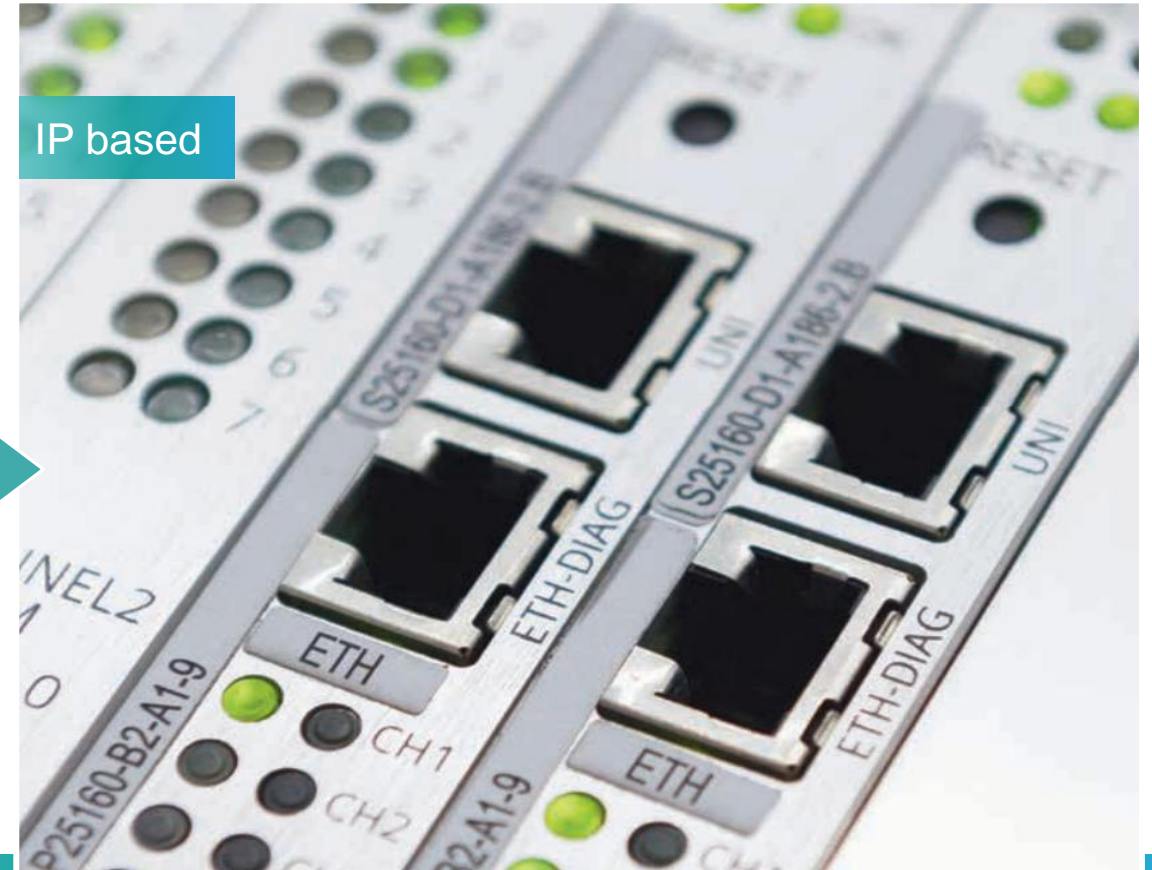
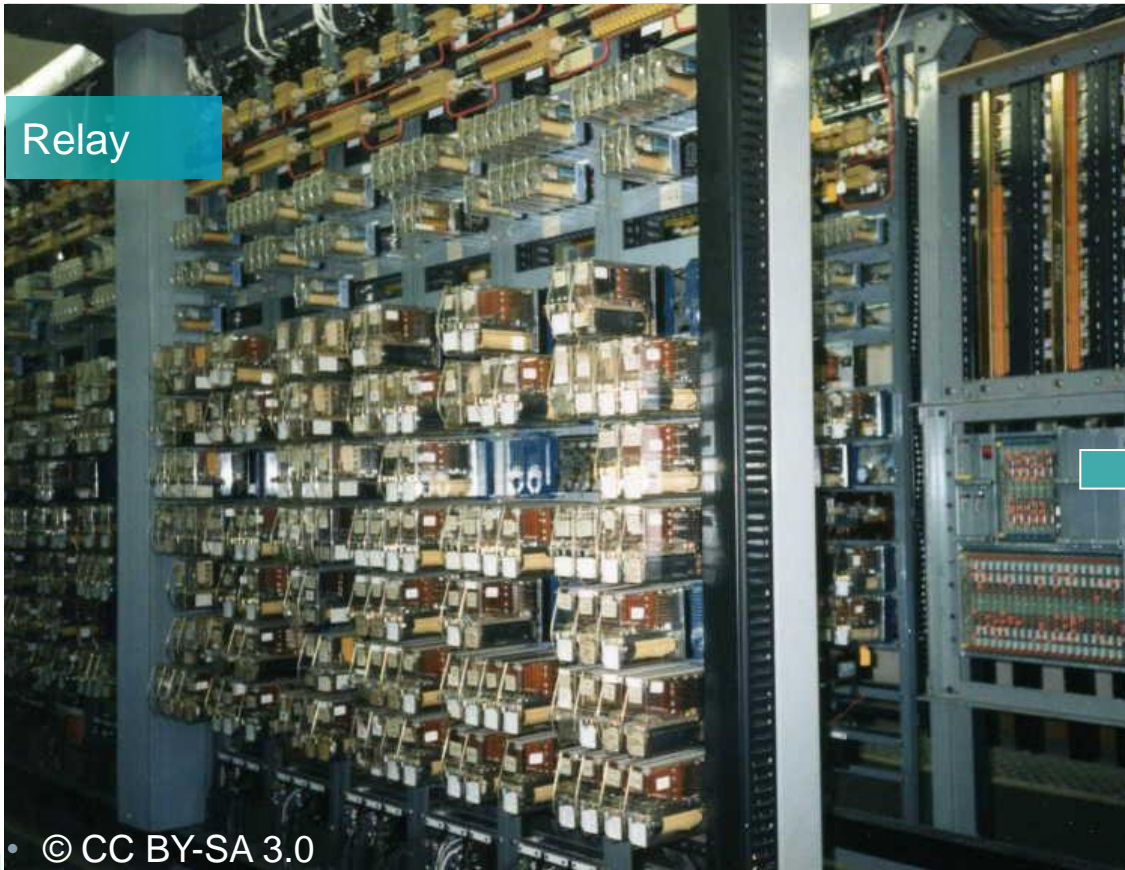
What does this mean for operations ...

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... they become automated

What does this mean for infrastructure ...



... less cabling and hardware

With digitalization, we enable mobility operators worldwide to ...



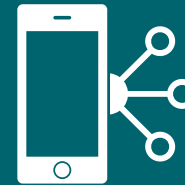
...make trains and infrastructure intelligent



...increase value sustainably over the entire lifecycle



...enhance passenger experience



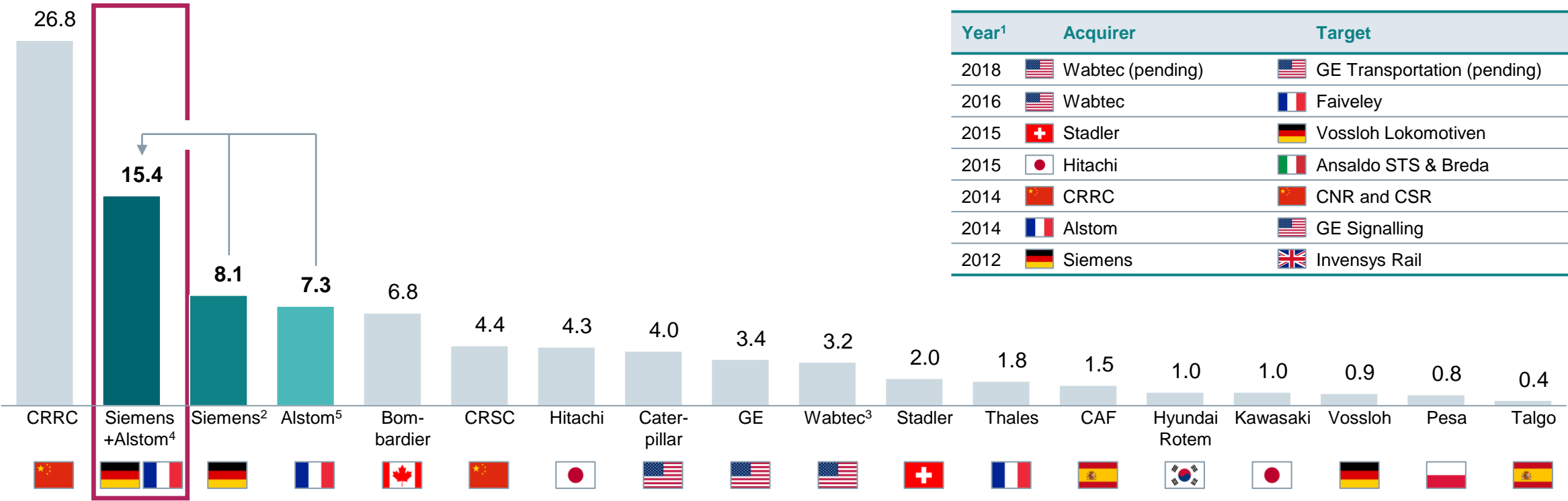
...guarantee availability



Our industry is consolidating



Revenue of rail activities (€ bn) Last available financial year⁵



Ongoing industry consolidation over recent years ...

Year ¹	Acquirer	Target
2018	Wabtec (pending)	GE Transportation (pending)
2016	Wabtec	Faiveley
2015	Stadler	Vossloh Lokomotiven
2015	Hitachi	Ansaldo STS & Breda
2014	CRRC	CNR and CSR
2014	Alstom	GE Signalling
2012	Siemens	Invensys Rail

Rank second in mobility industry

¹ Announcement date | ² Including revenue related to Rail Traction Business currently reported in Process Industries and Drives | ³ Pro-forma including Faiveley
⁴ Transaction still pending | ⁵ For Alstom FY2017

„We are Siemens Mobility“

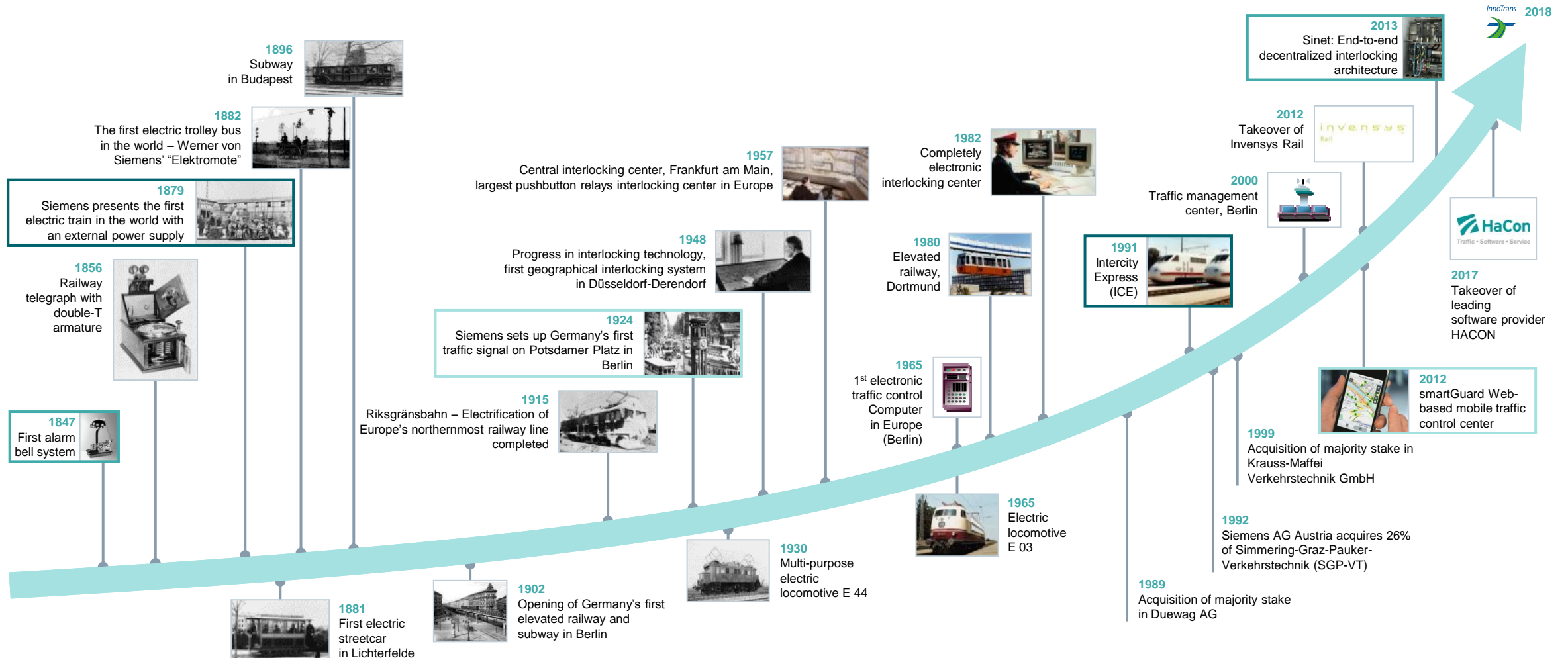
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VIDEO



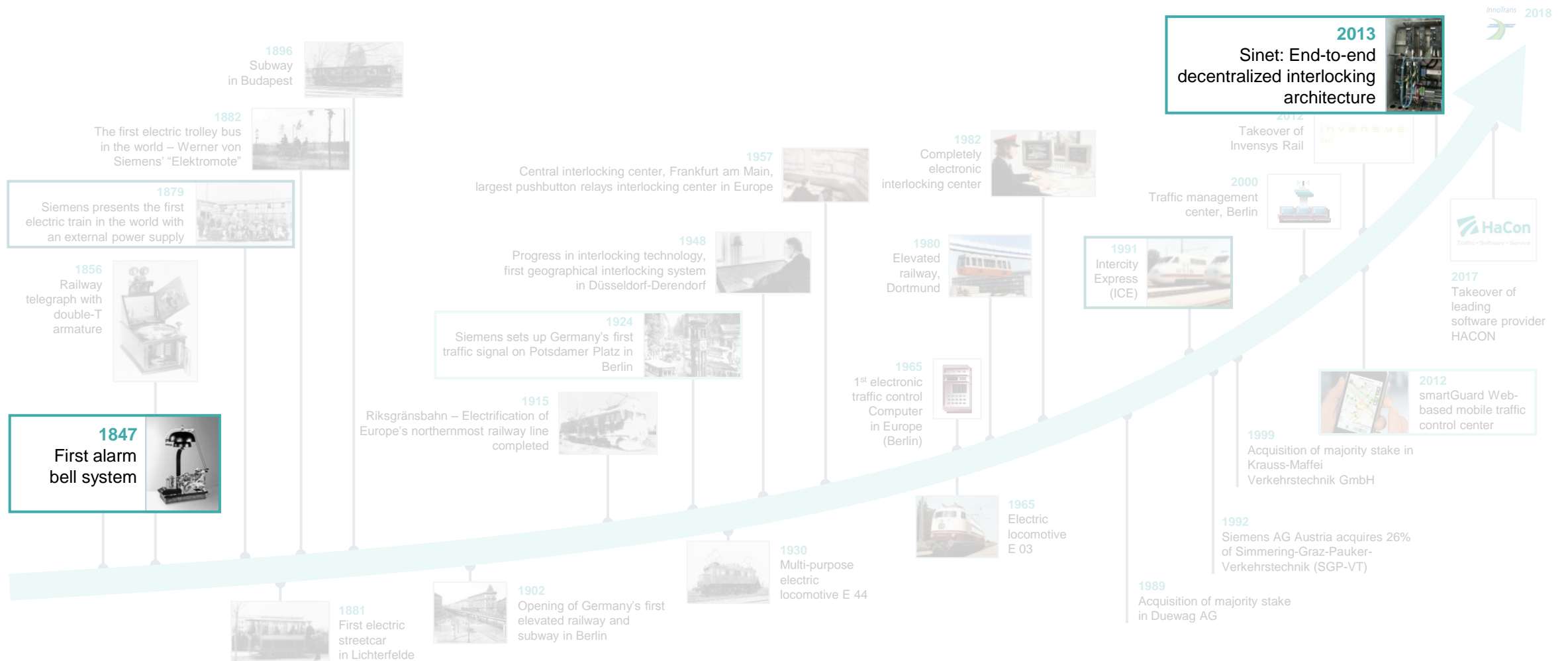
We look back at an extraordinary journey

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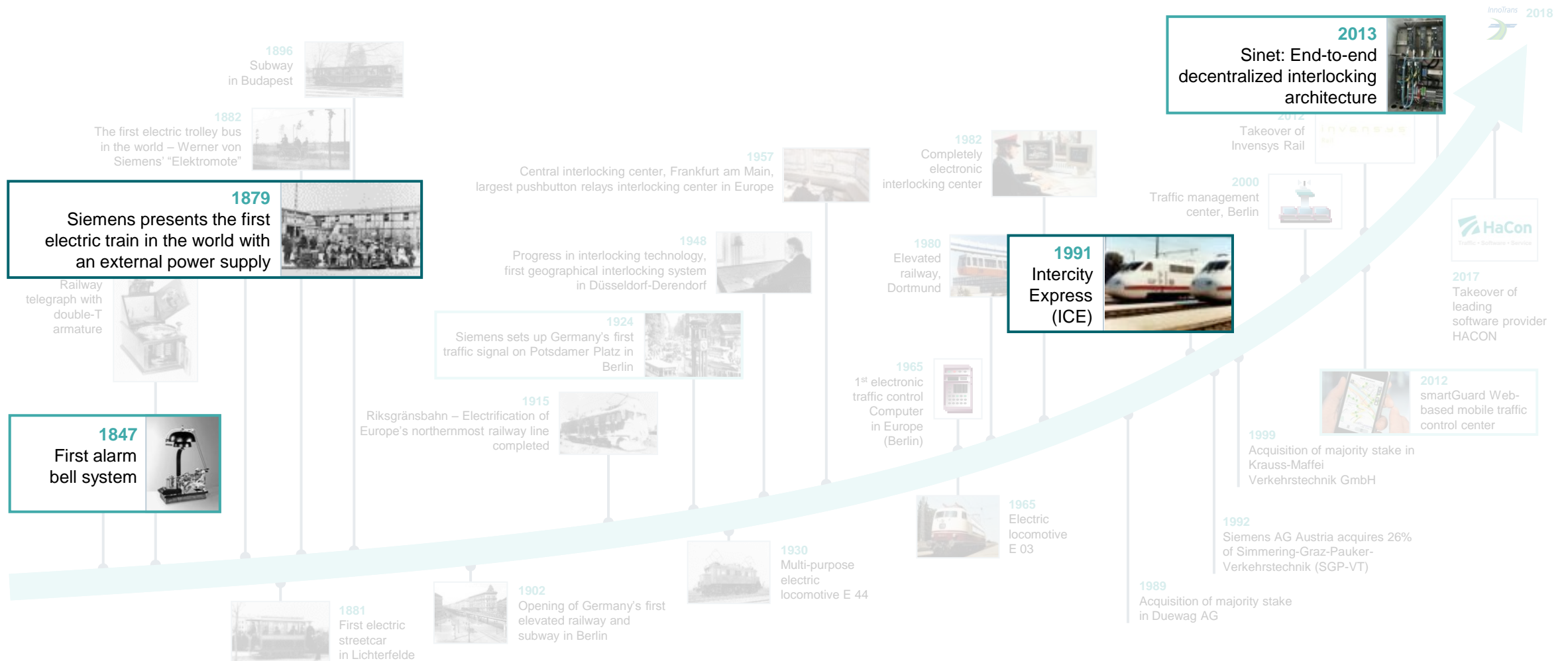
We look back at an extraordinary journey

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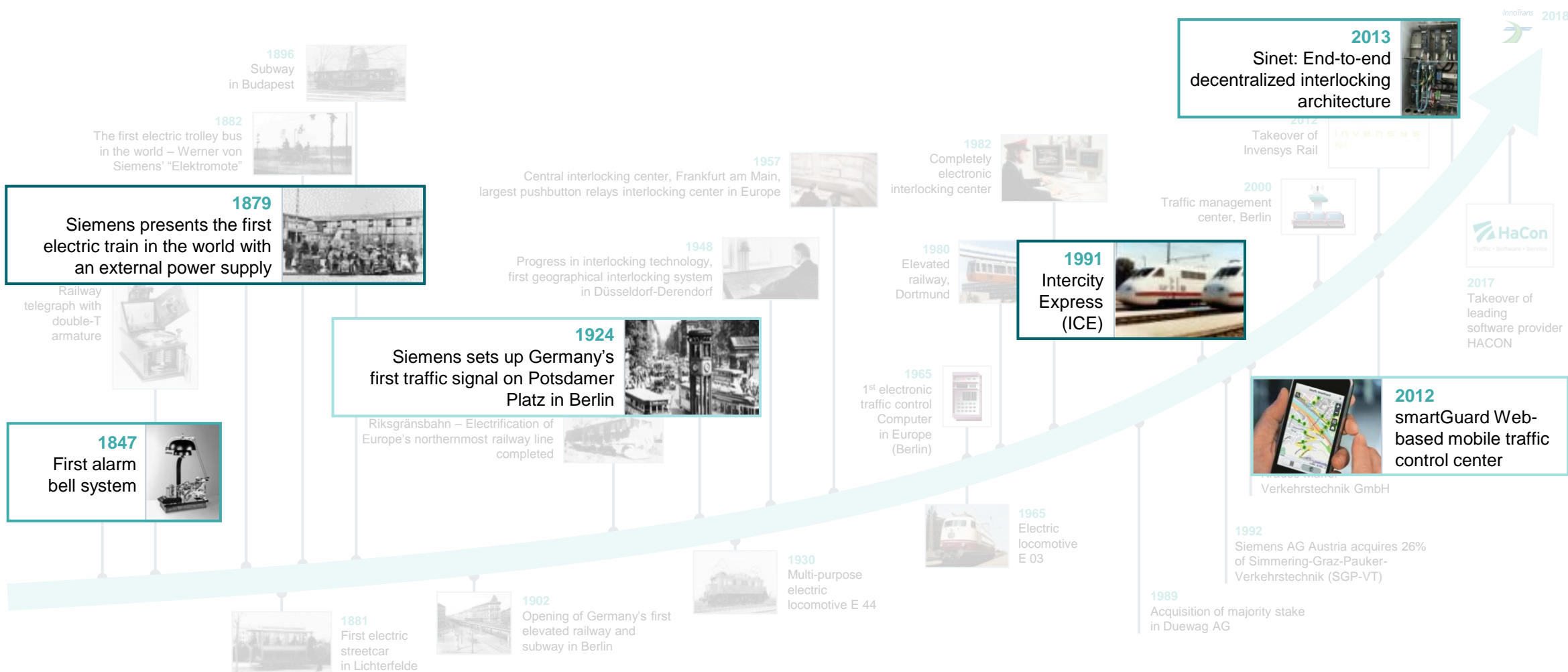
We look back at an extraordinary journey

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We look back at an extraordinary journey

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We are Siemens Mobility



Legally separate
entity



Globally



Along the entire
value chain



Shaping connec-
ted mobility!



We share a #PassionForMobility

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30,453

employees worldwide

91%

of employees „willing to go beyond expectations to help Siemens succeed“ (Siemens Global Engagement Survey 2017)

1,106

patent applications
since 2014/2015



16,500

employees for more than 10 years with
Siemens Mobility

2018

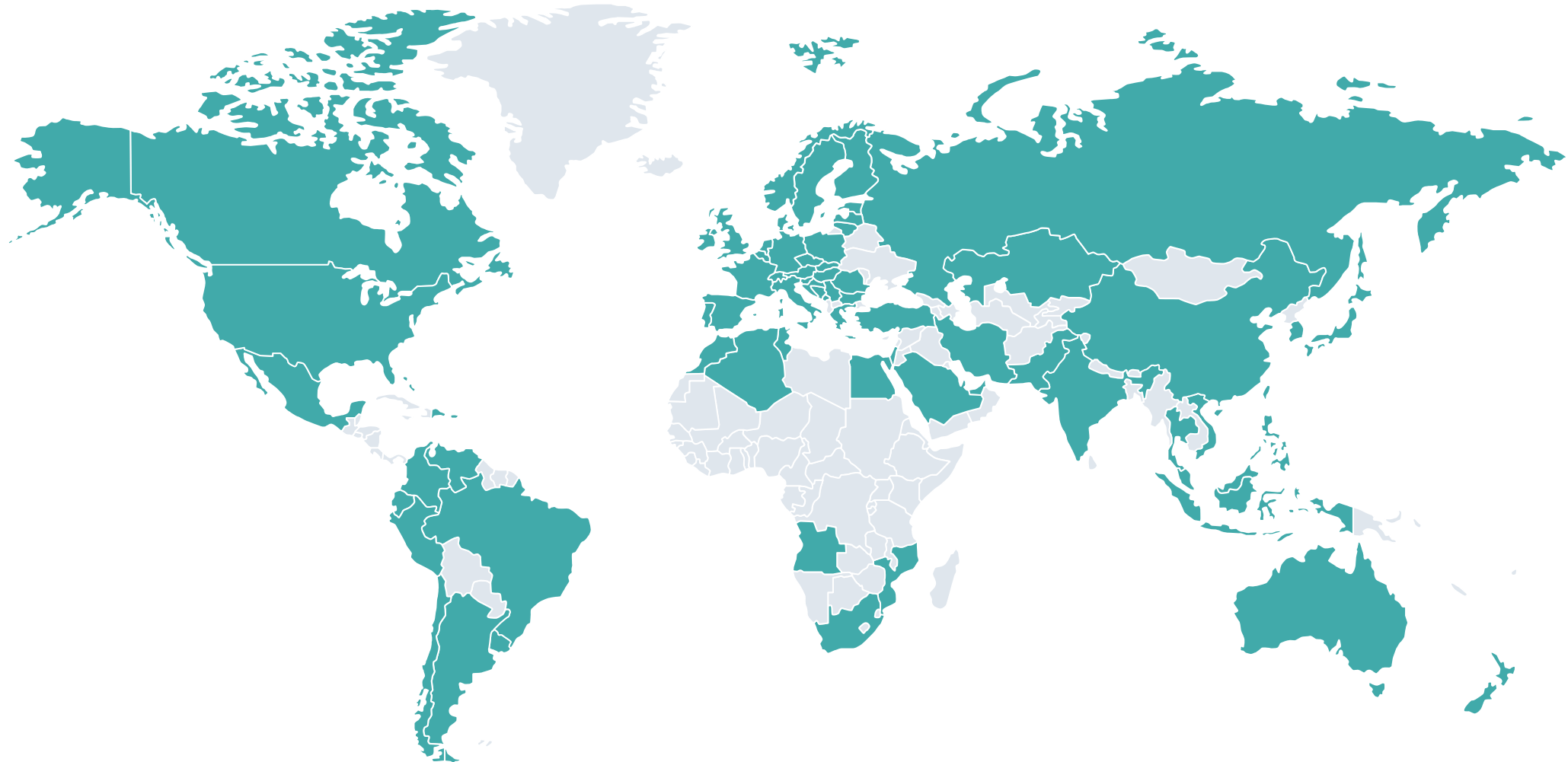
R&D employees

850

apprentices

**We are close to our customers –
Locations all over the world**

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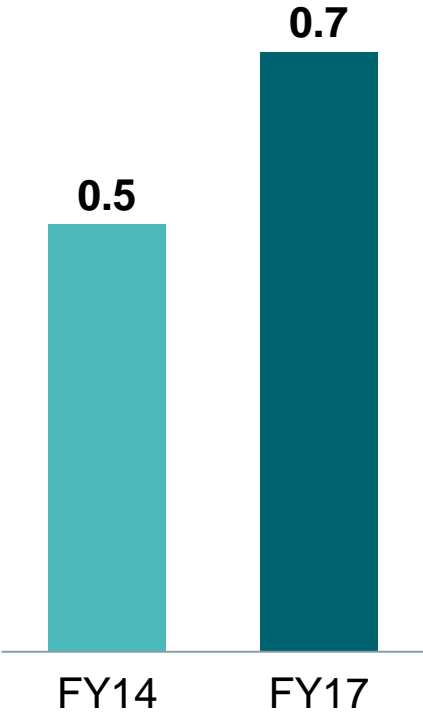
Excellent growth and industry leading margins



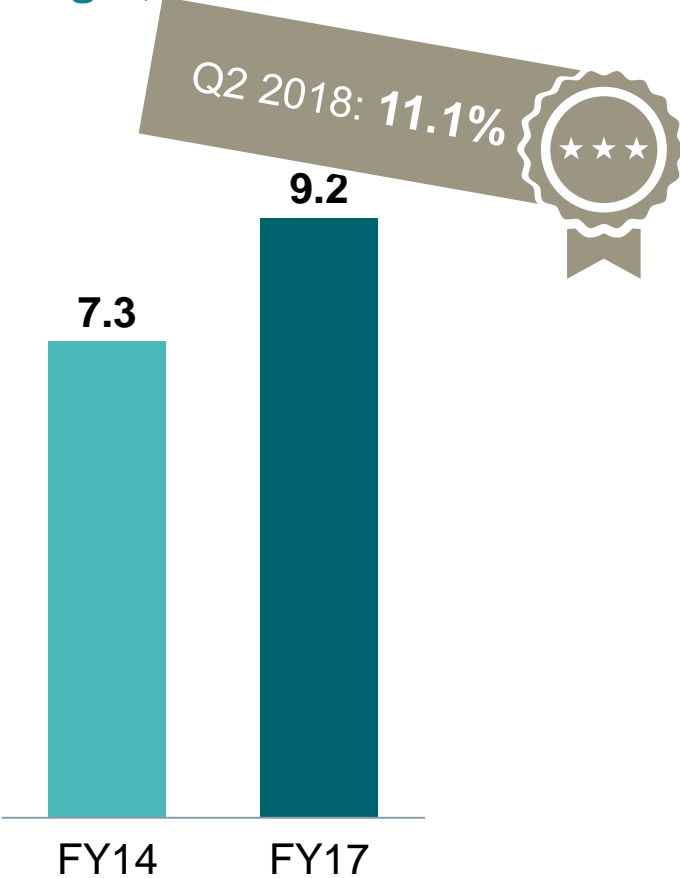
Revenue, in € bn



Profit, in € bn

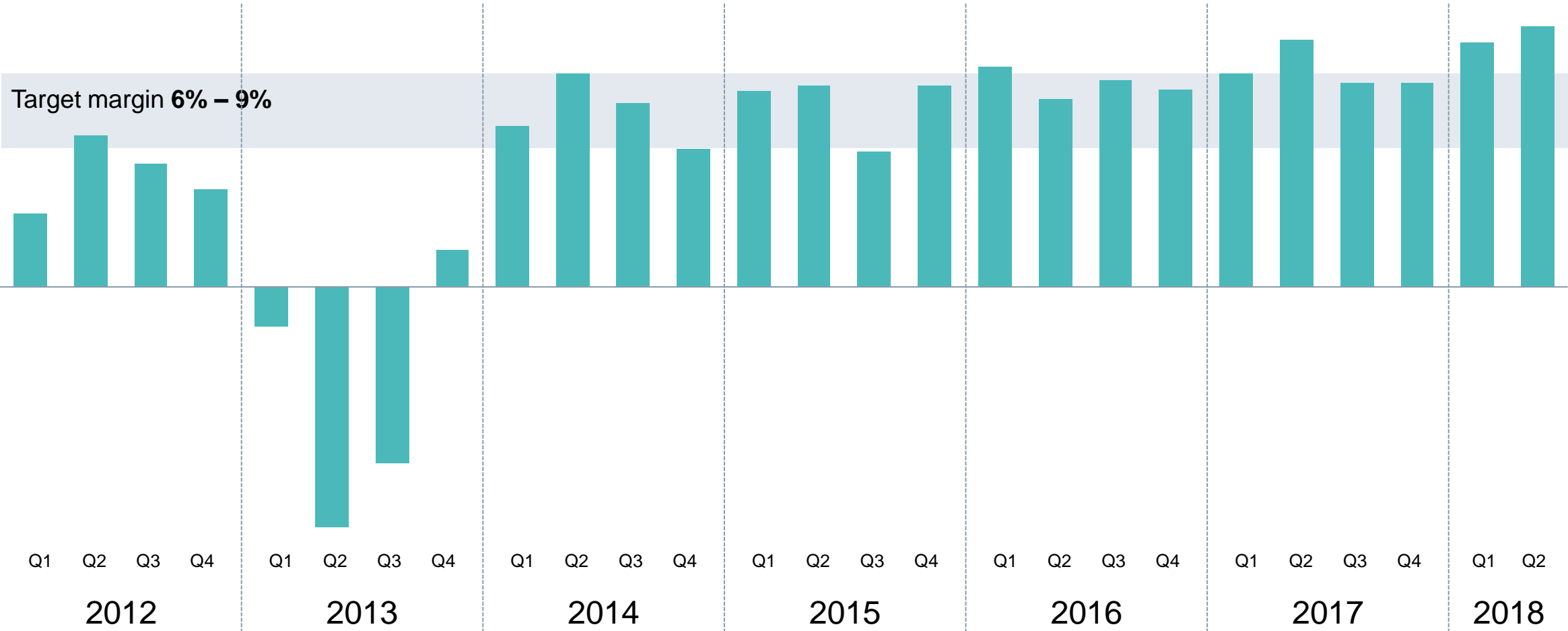


Profit margin, in %



Mobility Division only

Profit margin – Stable value generation



From 2012 to 2018 Siemens Mobility underwent several organizational changes and acquisitions. Figures are therefore not comparable from year to year. Rail Traction business not included.

SIEMENS ALSTOM

Siemens Alstom transaction is still pending and subject to regulatory approval and closing.

Siemens Alstom¹ – Generating more value out of a position of strength

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65.000
employees

Over **60**
countries

€15.6 bn
revenue

€59.3 bn
backlog



Siemens Alstom

A global player
in Rolling Stock,
Signaling,
Services,
and Systems

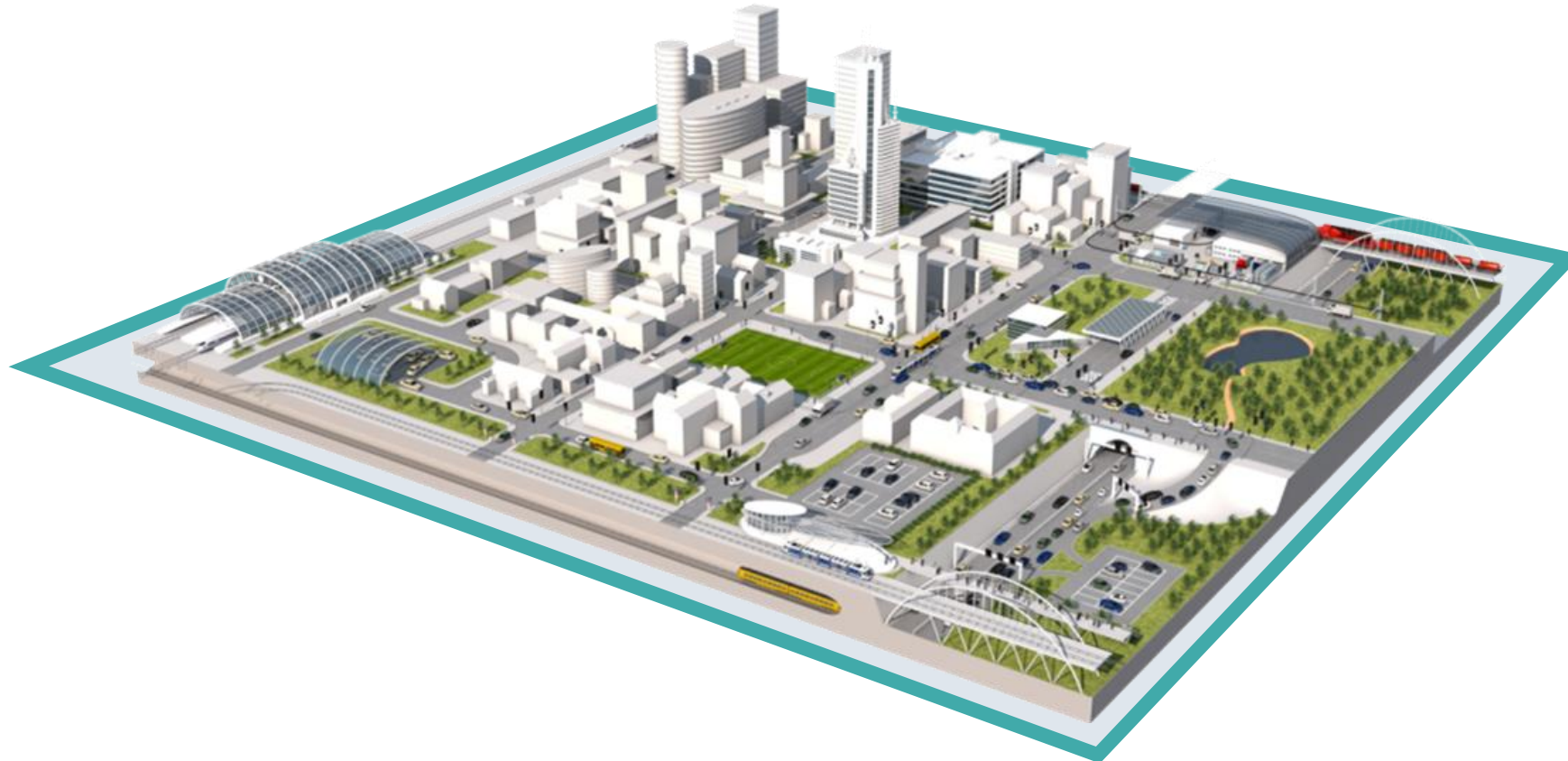
¹ Siemens Alstom transaction is still pending
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Serving our customers along the entire value chain – We are shaping connected mobility



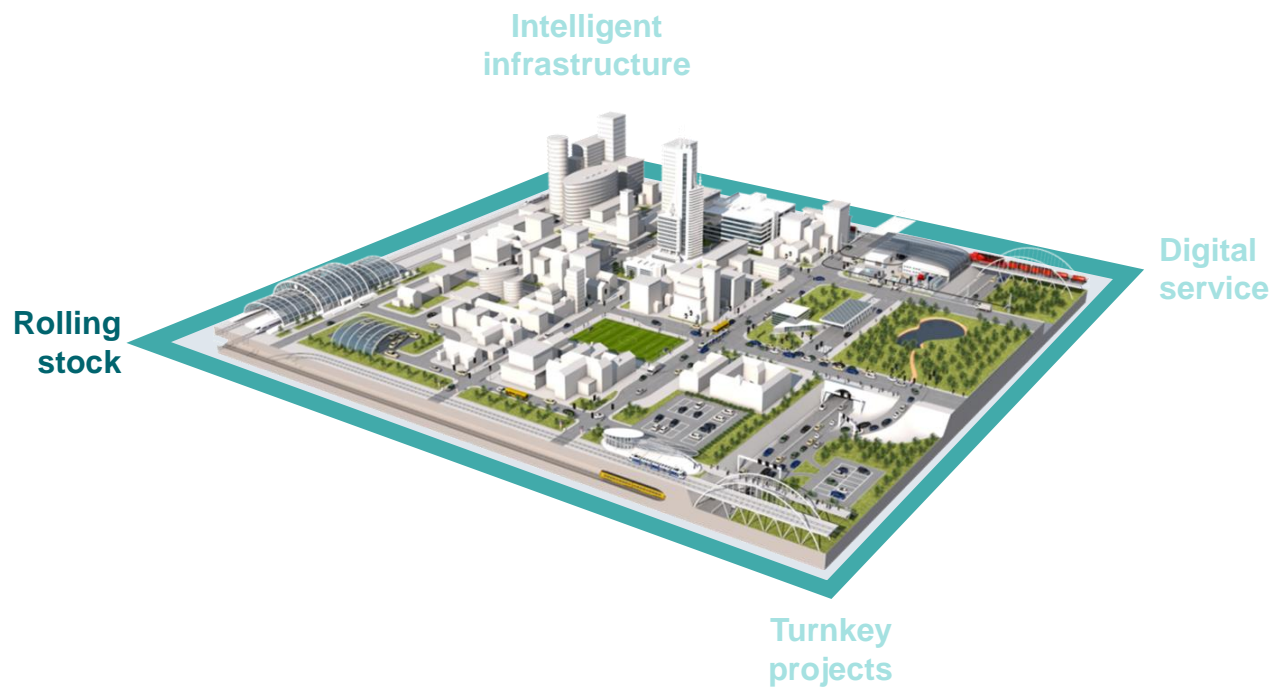
Intelligent infrastructure

Rolling
stock



Digital
service

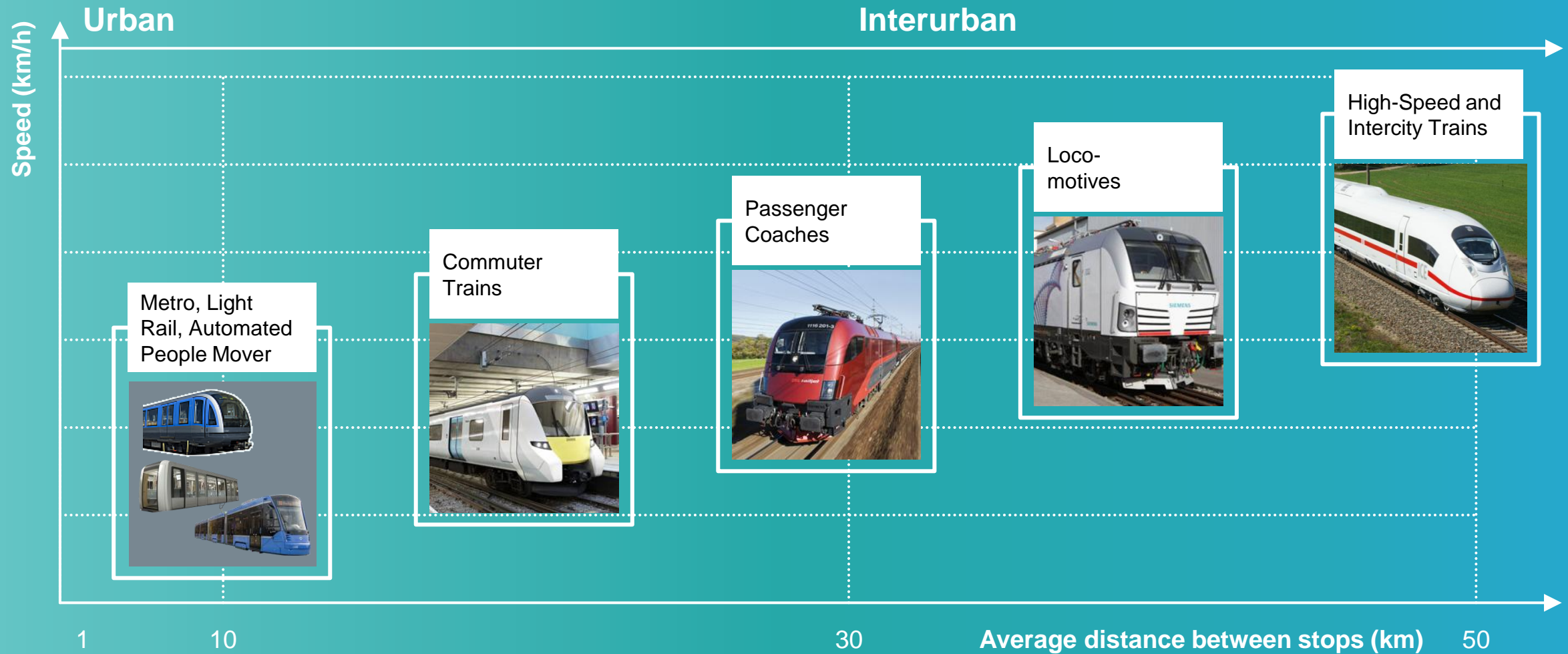
Turnkey projects



Shaping
connected
mobility with

Rolling stock

A portfolio for all distances and speeds



Vectron

Strong platform
and cross-
border reach



Mireo

Modularization
for flexible and
comfortable
commuting



New drive systems

Battery power
and fuel cells



SiAPS

Super efficient
auxiliary power
supply for trains



Shaping connected mobility at ...



InnoTrans



Highlights
2018

In recent weeks, people have been spotting something ...

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[DE] #seeitnovo – The mobility of tomorrow in every day practise [updatedx2]

Written by Railcolor Headquarters · on 08.05.2018 · in Siemens, Siemens NOVO test car

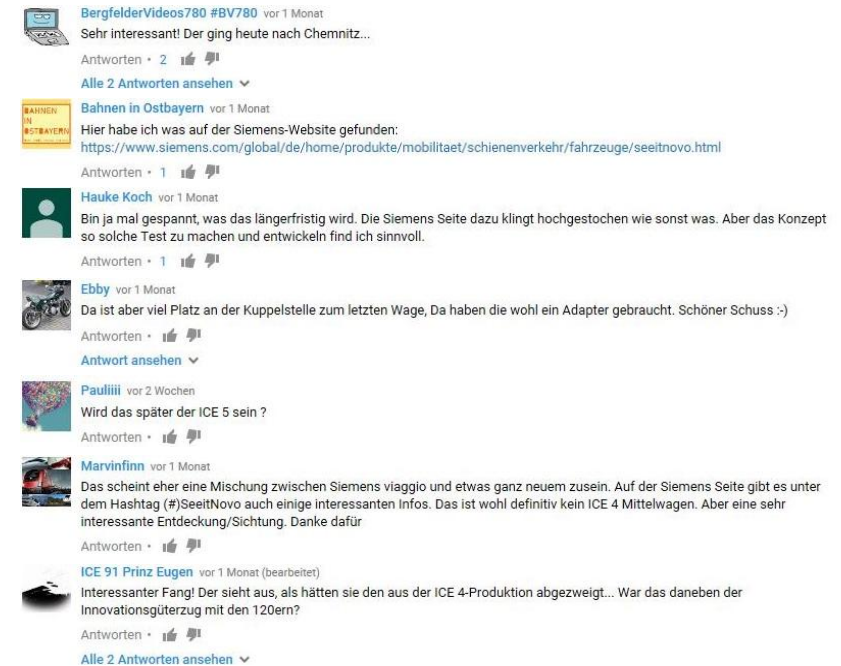
Siemens has released the 'Novo' test car – a car that will be used to validate new concepts in everyday practice. Siemens states it is a concept train 'derived from a different way of thinking – rediscovering the familiar'.

The Novo test car is built to test the robustness of new ideas, to see how they function in real life, as Siemens doesn't want to rely on digital simulations only. The test car was released on 09.04.2018. A nice video can be seen [here](#).

The #seeitnovo hashtag in social media should deliver more information about the project in the future.

Some first (technical) data:

- Length (over buffers): 29.27 m
- NVR: 93 80 5811 101-1 D-SIEAG



4,170 ♥

People already like
#seeitnovo

133,497

Single interactions



But they are wondering –

What is this
test car
all about?



#seeitnovo



#seeitnovo

Velaro Novo



Velaro Novo delivers on all targets with its key qualities



... make infrastructure intelligent

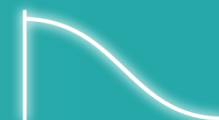
... increase value sustainably over the entire lifecycle

... enhance passenger experience

... guarantee availability



Intelligent motion



Reduced total costs



Aerodynamic excellence



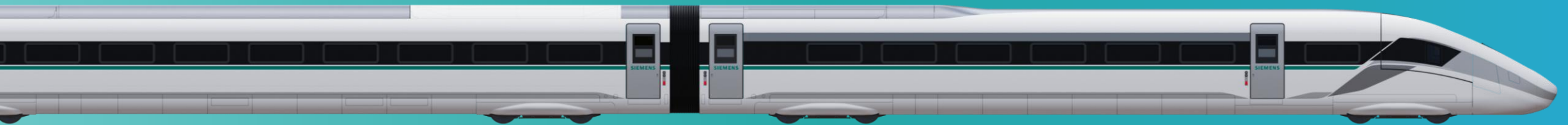
Variable train



Proven technology



From 250 – 360 km/h



Investment
-20%

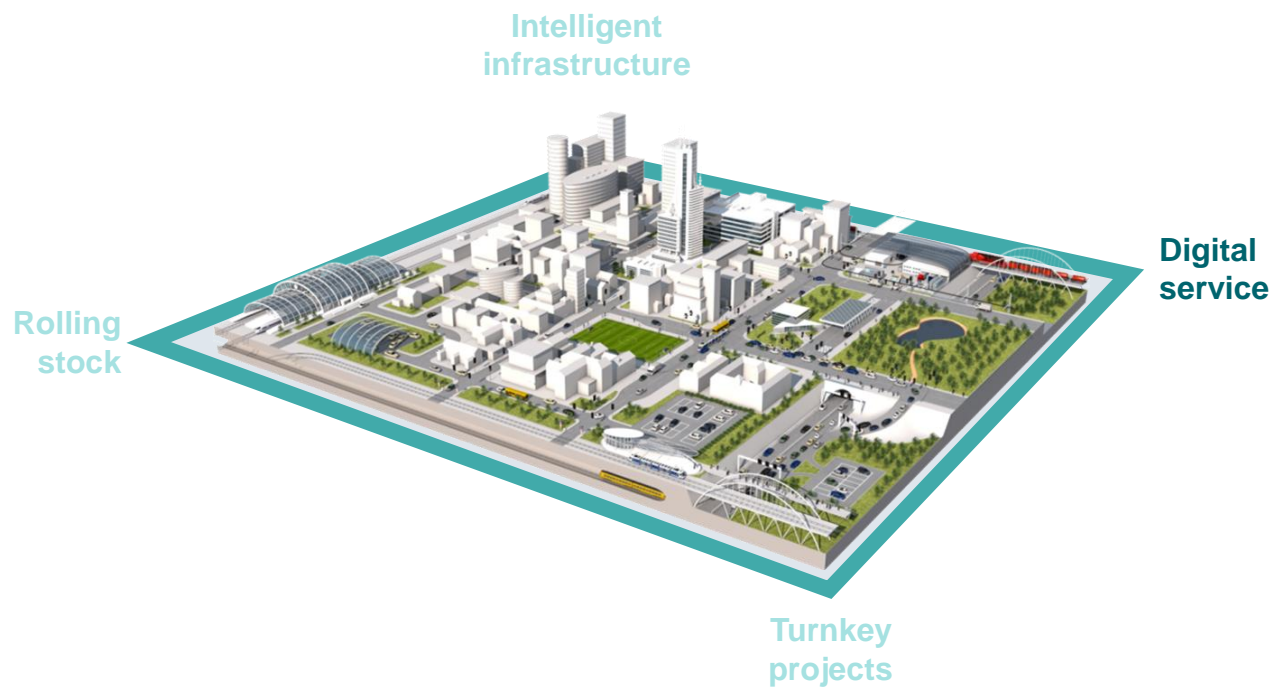
Available space
+10%

Maintenance
-30%

Mass
-15%

Energy consumption
-30%

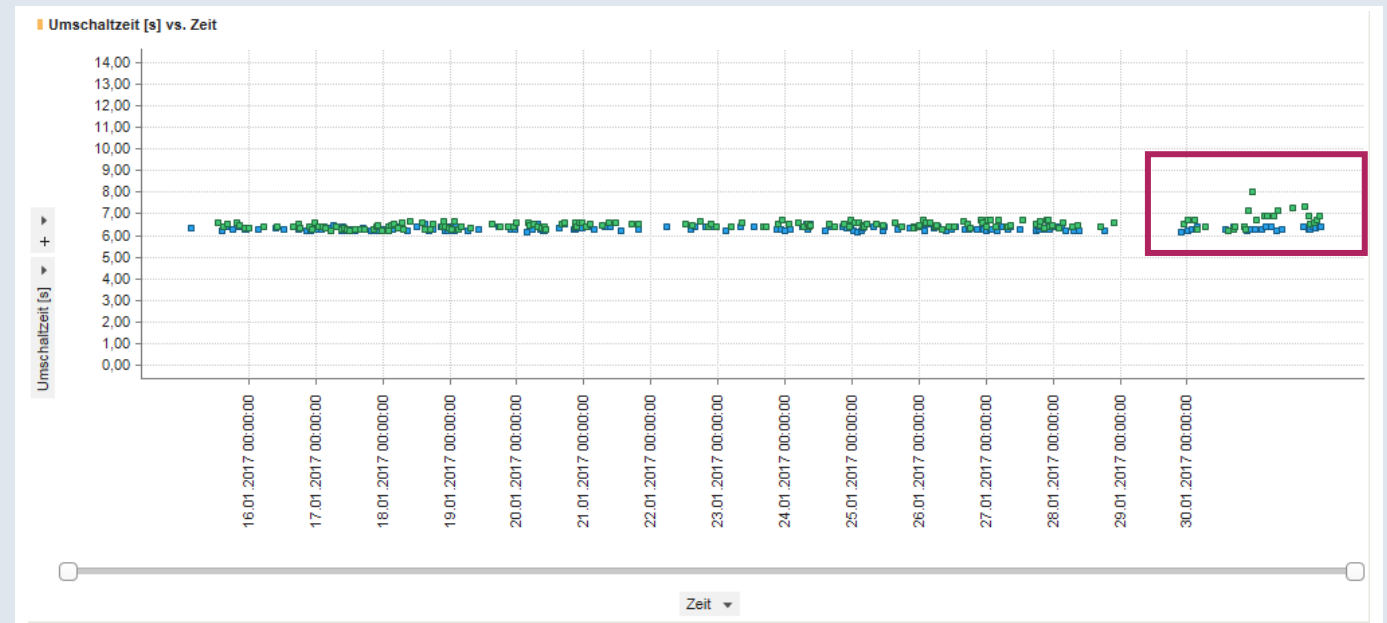




Shaping
connected
mobility with
**Digital
service**

Big Data

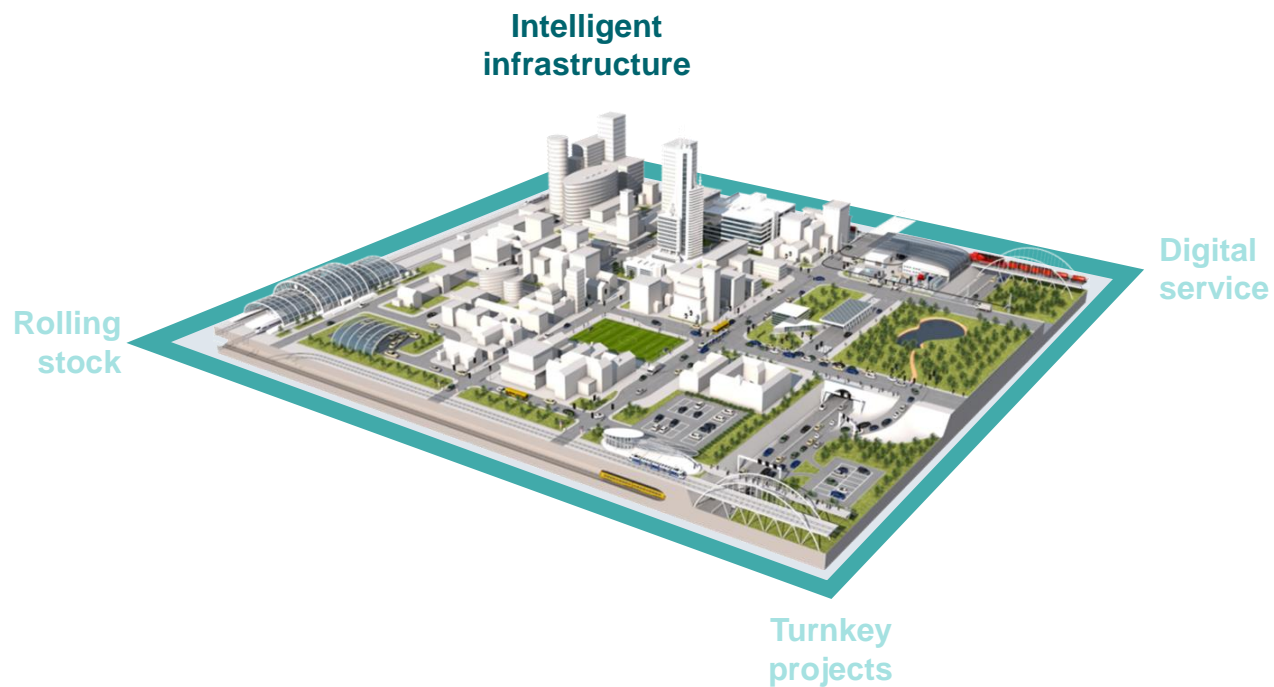
Failure Prediction
based on artificial
intelligence



Barcelona-Madrid line

100 percent
availability with
digital service





Shaping
connected
mobility with

Intelligent infrastructure

Rail automation, electrification, road and intermodal solutions

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Main-line Rail Automation



Mass Transit Rail Automation



Rail Electrification



Freight and Products Rail Automation



Intelligent Traffic Systems



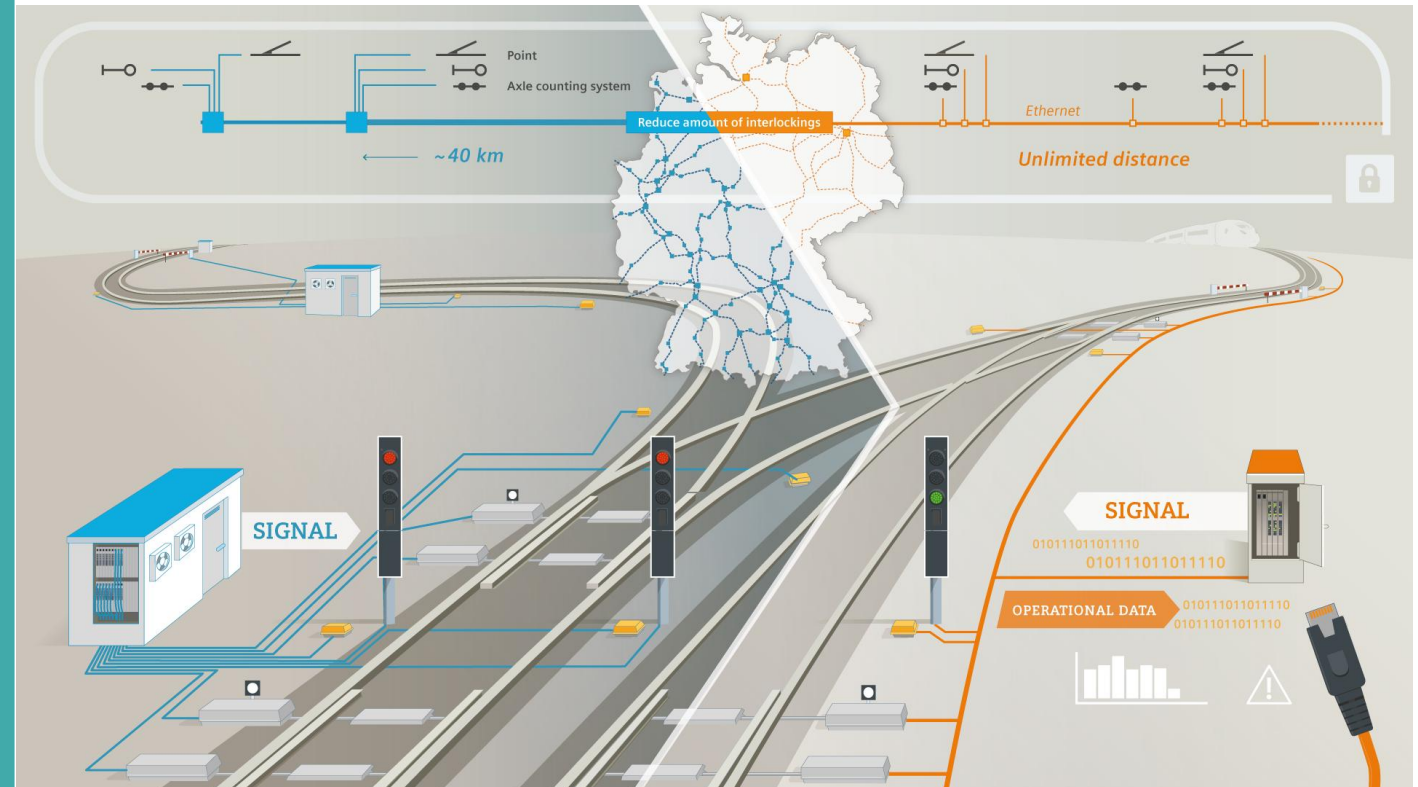
Inter-modal Solutions



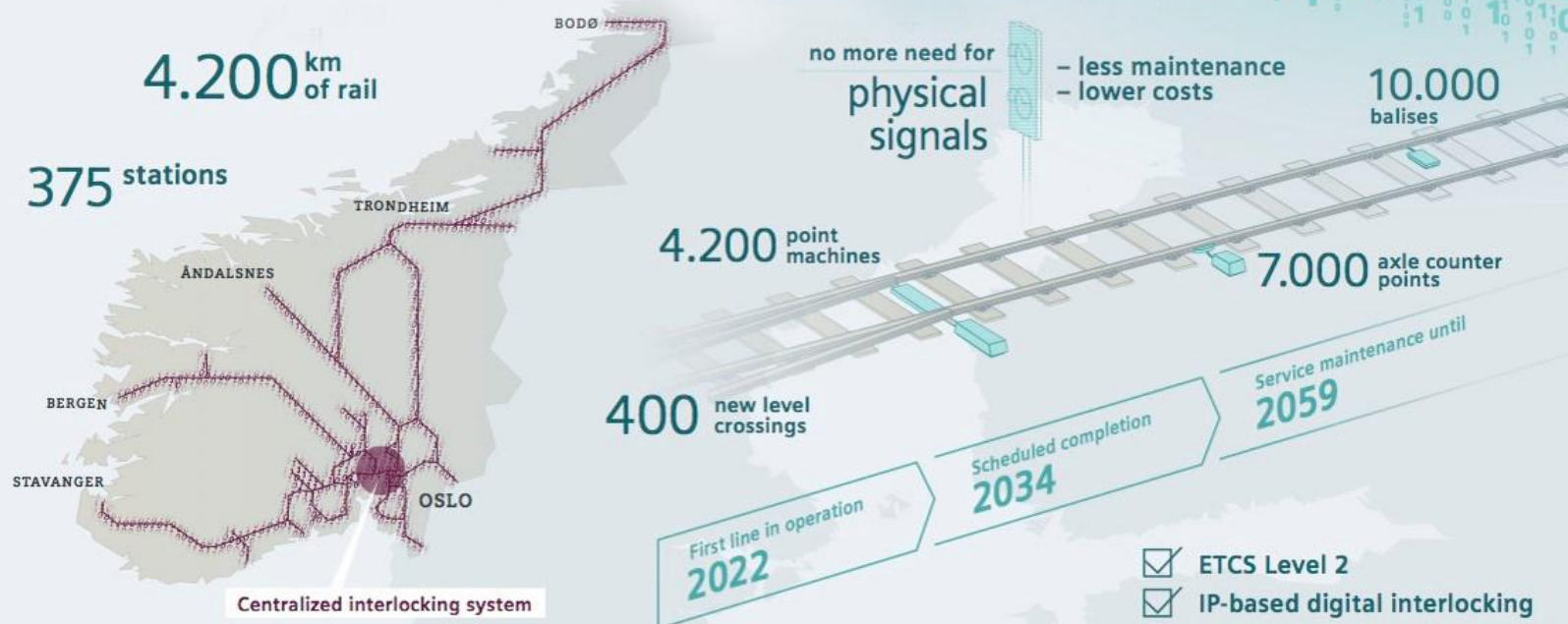
Sinet Technology

Reducing amount of
interlocking buildings

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Shaping connected mobility with advanced infrastructure – Digitalization of the Norwegian Railway



Move logic to cloud

Conforms with
highest security
levels. No more
project specific
hardware



Digital station

3 seconds
less dwell time
increases system
capacity by 5%



Real-time Electrification Network Prediction

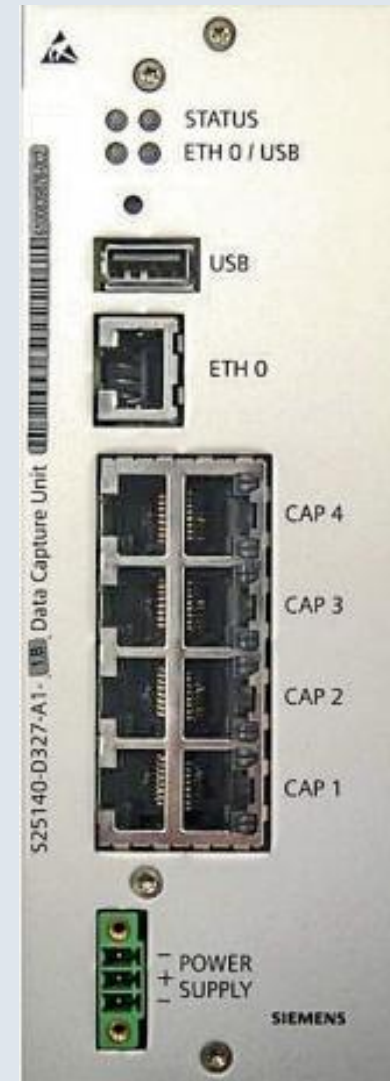
Up to 100%
network availability



Data Capture Unit

Achieving cybersecurity in a connected environment

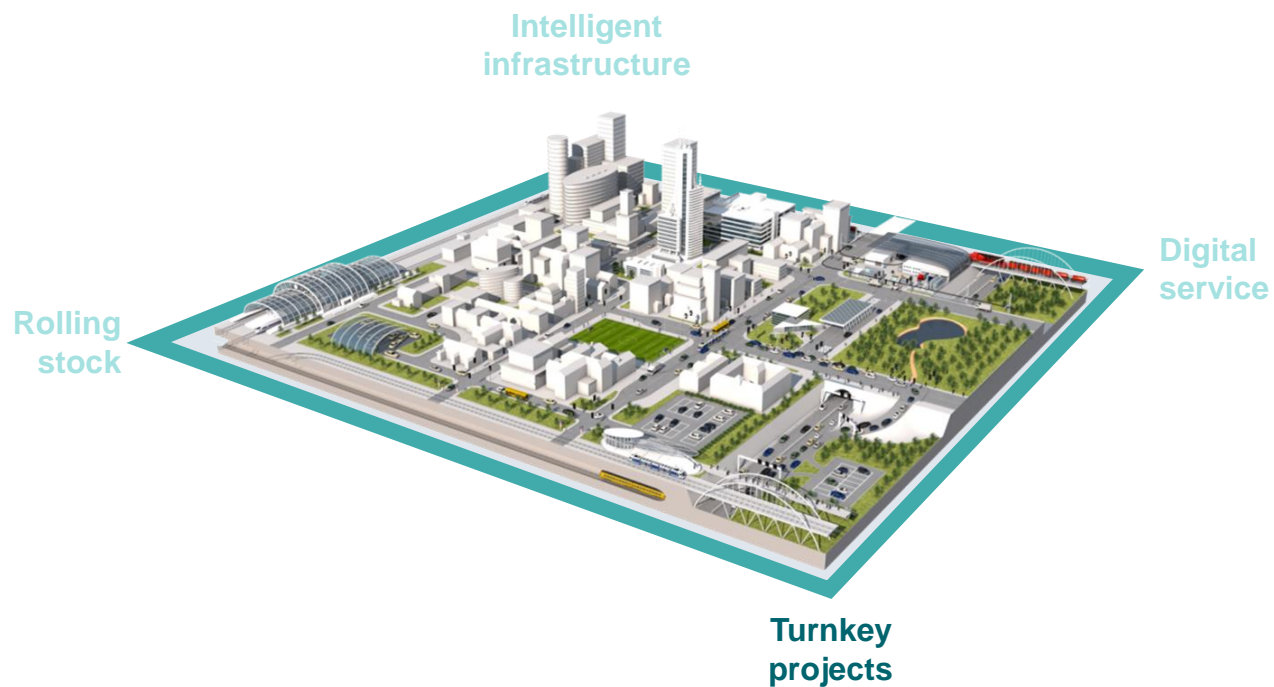
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Flow AI Application

Traffic flow optimized
by 4% using artificial
intelligence

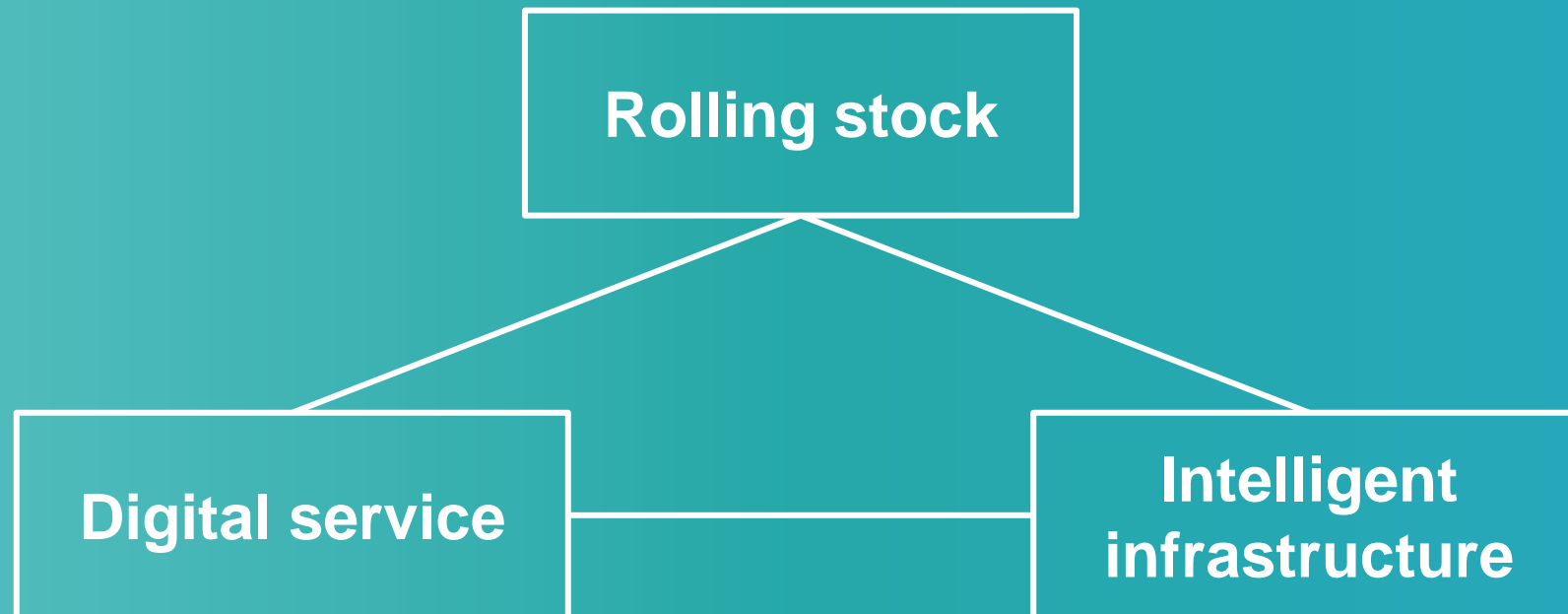




Shaping
connected
mobility with

Turnkey projects

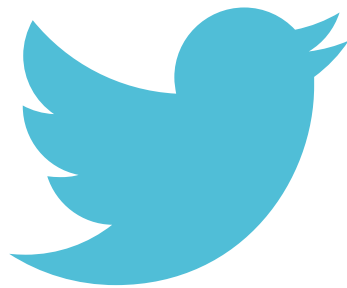
Combining the entire portfolio



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June 13, 2018 | Sabrina Soussan and Michael Peter

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