

| Siemens Mobility Italy

SMO SWE RC-IT CS – Maintenance service for
locomotives

| Railcover[®]


Modular services for locomotives

Join the community and profit from a larger fleet!

Full service: Railcover®



Maintenance &
Technical support

Railcover®	Scope and approach	Your benefits	What's more?
<p>Railcover® is the modular service concept for locomotives from Siemens Mobility.</p> <p>No matter, if you are an operator, a leasing company or a financing institute, we have the right solution for you!</p> <p>Our scope ranges from Full-Service to case-by-case maintenance and perfectly combines central elements, to gain synergies out of the entire Siemens Mobility fleet, with local expertise, in order to be very close to your daily operational needs.</p> <p>We work in compliance to the latest Entity in Charge of Maintenance (ECM) regulation EN 2019/779.</p>	<p>Thanks to our wide workshop network and mobile teams, no long and expensive transfer of the locomotive is necessary and the locomotive can be maintained at the next workshop, making best use of operational downtimes.</p> <hr/> <p>Just-in-time deliveries of spare parts together with 24/7 technical helpdesk contribute to shorten repair times and ensure highest availability at a fair price.</p> <hr/> <p>The Railcover® modular concept can be tailored to your specific case, so that even in the course of a contract the maintenance model can be adapted to your actual needs, supporting your operation and ensuring you flexibility, even in volatile markets.</p>	 <p>If you wish to learn more about our service portfolio elements like keepership and lifecycle care, please visit our website</p>	

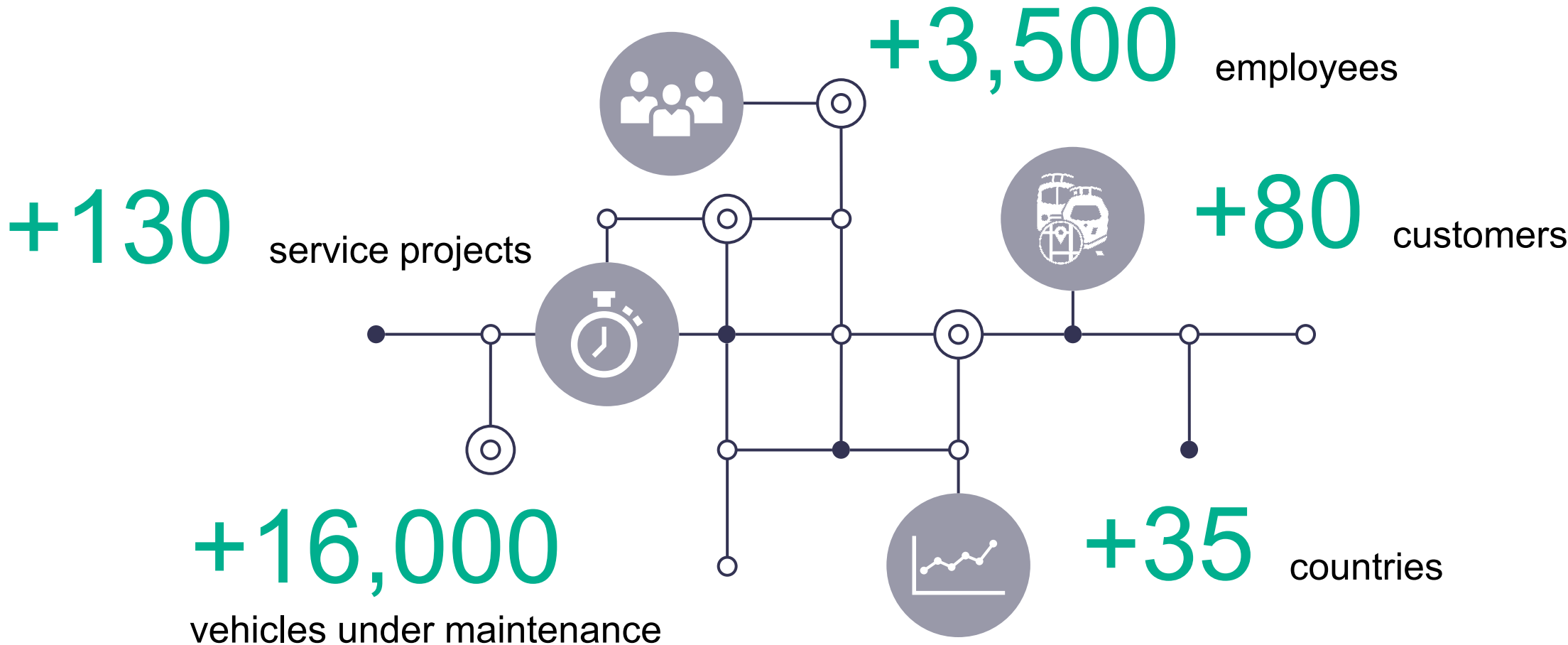


Railcover[®]

Modular services for locomotives

Siemens Mobility Services in a nutshell

Strong global service footprint



Different customers with different needs

We tailor our solutions to your specific case



“I need somebody to take over the Entity in Charge of Maintenance (ECM) role as I want to focus just on **my core business.**”



“I have my own maintenance organization, but I want to benefit from **manufacturer’s know-how** to increase fleet availability.”



“I don’t have a warehouse, but I need **spare parts as fast as possible** to repair my locomotive.”

A wide service portfolio, suited for any customer

We tailor our Railcover® solutions to your specific case



Railcover®

Modular approach for service
across national borders



Wide European **workshop network**



Locomotive specialists in eleven countries
ready for interventions on site



Spare parts delivered within 24 hours
from our **central warehouse** possible



Helpdesk available 24/7 in different languages



**Locomotive data can be visualized
remotely** using Railigent®



International and experienced **ECM
organization** and **Asset Management**



SIEMENS

Wide European Network

Best use of operational downtimes



World Distribution Center

Network of Workshops

- 80+ workshops in 16 countries, thereof 50 ECM-approved
- Major hubs of the TEN-T corridors covered
- Network in continuous expansion along new Vectron homologated countries
- 20+ mobile teams with Siemens specialists across Europe

24 h

Delivery of spare parts within Europe



High speed logistics & central warehouse

Within full service we take care of the complete spare part chain for you



We take care of spare parts on your behalf, ensuring that the right part arrives on time at the right place. Thereby you can reduce your assets.



- Central warehouse located close to **Frankfurt** airport for late cut-off times for air freight
- All maintenance-relevant spare parts on stock (currently **4,950 different article-types for Vectron**)
- **Delivery on the next working day** within Europe as standard
- Local satellite storages to further decrease the delivery times in selected regions



MoBase – Online spares marketplace

Within full service we take care of the complete spare part chain for you

More than
400,000 units for locomotive

3 min online ordering time |
Around the clock |
From anywhere

24 h EU-wide
delivery time



The screenshot shows the MoBase website interface. At the top, there is a navigation bar with the MoBase logo, a search bar, and links for 'Categories', 'My account', and 'Cart'. The main content area displays the product 'Pantograph SA AC1 b' with the article number '82V00081025250'. Below the title are three images showing different views of the pantograph. To the right of the images is a sidebar with 'Article Condition' (New) and 'Service Level' (Fastest possible). Below this is a quantity selector (set to 1) and a blue 'Add to cart' button. There is also an 'Add to wishlist' button. Below the images, the product description reads: 'Pantograph SA AC 1 b, width of collector head 1950mm, carbon collector strip with a.d.D, speed 200 km/h, max steady current 700A, incl. two insulating hose, without supporting insulator'. Below the description is a table of 'Technical Specifications'.

Characteristics	Details
Additional material number	8WL0189-6YH84-2
Weight	705 kg
Quality Management Control Key	E31
Import Code Number	85359000
Country of Origin	AT
Export Control Class (A1)	N
Export Control Class (ECCN)	N
Material Classification	Adhesive part A1 nach DIN 6701 / Welded part CL1 DIN EN ISO85
Platforms	Victrol

At the bottom right of the product page, it says 'Sold by: SIEMENS'.

- ✓ Search option by article numbers or keywords
- ✓ Part numbers easy identifiable via wide picture library
- ✓ Access available on request for any customer

All strings come together in our Support Centers

Any time available to support your daily business



We make sure that your locomotives are always **up and running** by optimal maintenance planning



- Up to **24/7 phone availability** to restore regular operations from locomotive experts and engineers
- **ECM III** role within Full Service
- **Remote troubleshooting** and **predictive maintenance** supported by Railigent®
- Spare part and tool management
- **Various languages** available
- **Best use of operational downtimes** for maintenance

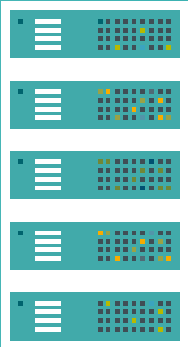




Data Transmission



Data Processing



Data Evaluation

Advanced algorithms



Expertise domain Know-how



Best practices



Data Visualization

Smart Monitoring

Remote data visualization supporting fast troubleshooting

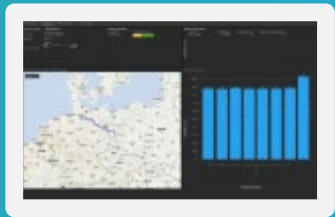


Support Centers



Smart Data Analysis

Efficient root cause investigations



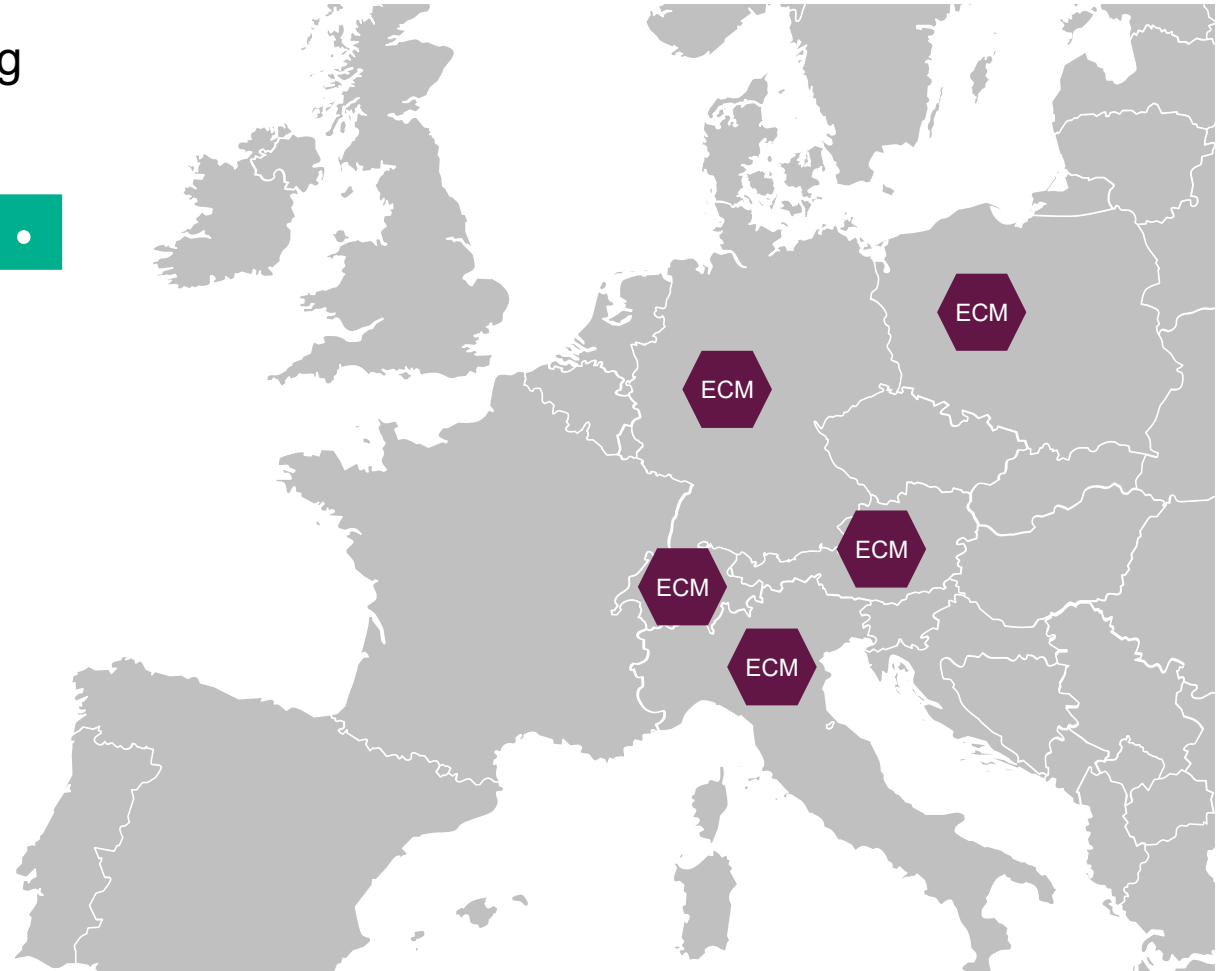
Siemens Mobility as Entity in Charge of Maintenance (ECM)

A trusted partner to ensure the safe operations of your fleet



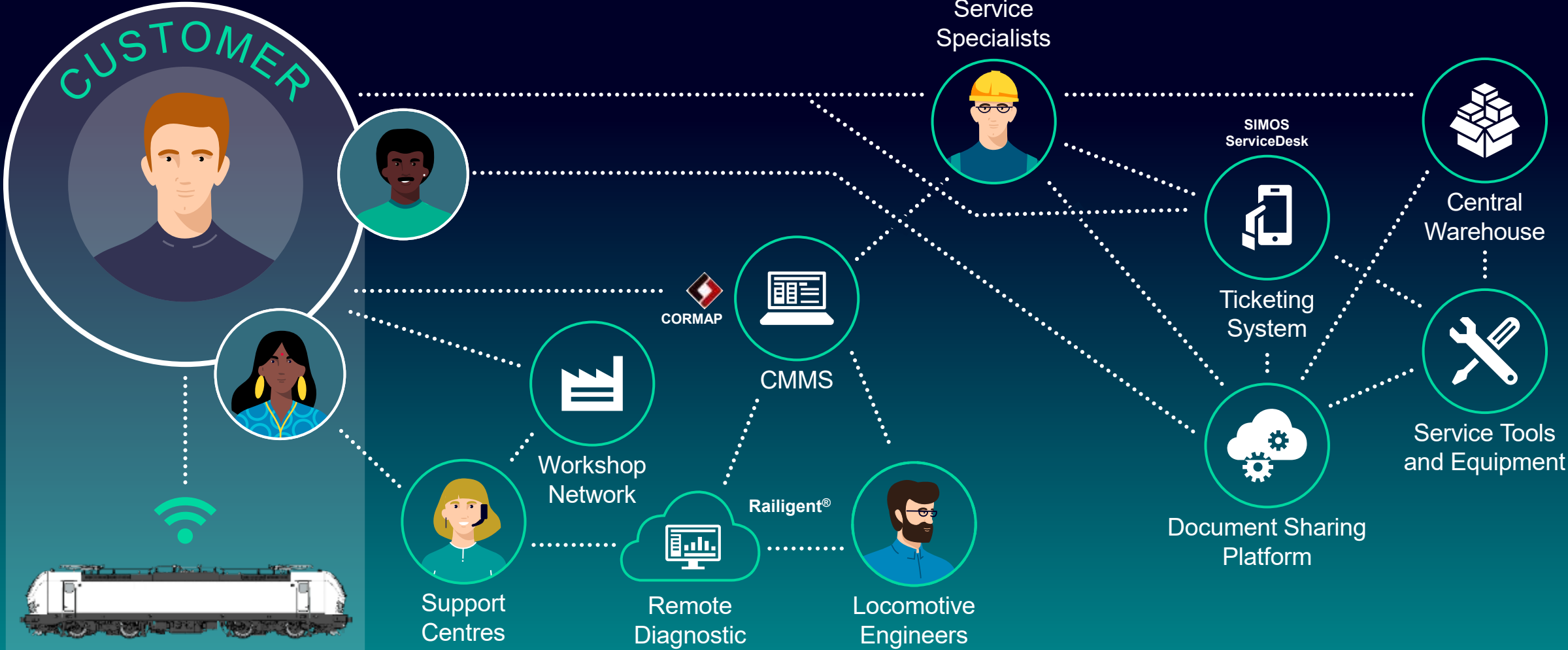
As ECM we offer a comprehensive package including all four functions and **increasing operational availability**

- Certified in five countries according to EU 2019/779
- Certification on-going for other countries
- Compliance with national regulations
- Extension of maintenance intervals
- Development of Condition Based Maintenance models
- Long experience in the ECM-role since 2014
- Europewide Siemens' ECM community in place to share best practices



An integrated service organization with customer in focus for best-in-class availability

A robust digital landscape supports maintenance operations



We generate value-add for you

No matter which service scope and contract type you choose

Reduce costs



- ✓ Short transfer times ...
to maintenance, thanks to extensive workshop network
- ✓ Avoid unexpected standstills ...
and the related costs caused by malfunctions
- ✓ Best use of your existing organization ...
by supplementing it with our service elements and know-how
- ✓ Pay per use ...
thanks to price per km or operating hour¹

Increase availability



- ✓ Spare part delivery in 24 h ...
from our central warehouse within EU
- ✓ Short repair times ...
thanks to our wide European network of mobile teams and maintenance workshops
- ✓ 24/7 expert helpdesk ...
to support locomotive drivers anytime
- ✓ Optimal use of operational downtimes ...
for maintenance activities

Gain flexibility



- ✓ Modular service concept ...
tailored to your specific needs
- ✓ Extendible operational area ...
anytime, thanks to our pan-European service concept
- ✓ Tailored maintenance plan ...
fitting to your specific operational profile¹
- ✓ Focus on your core business ...
by benefitting from our vast experience as Entity in Charge of Maintenance

¹ Only available under specific contract types

Global locomotive service footprint

700+

locomotives
under service

60+

service projects
on-going

40+

customers

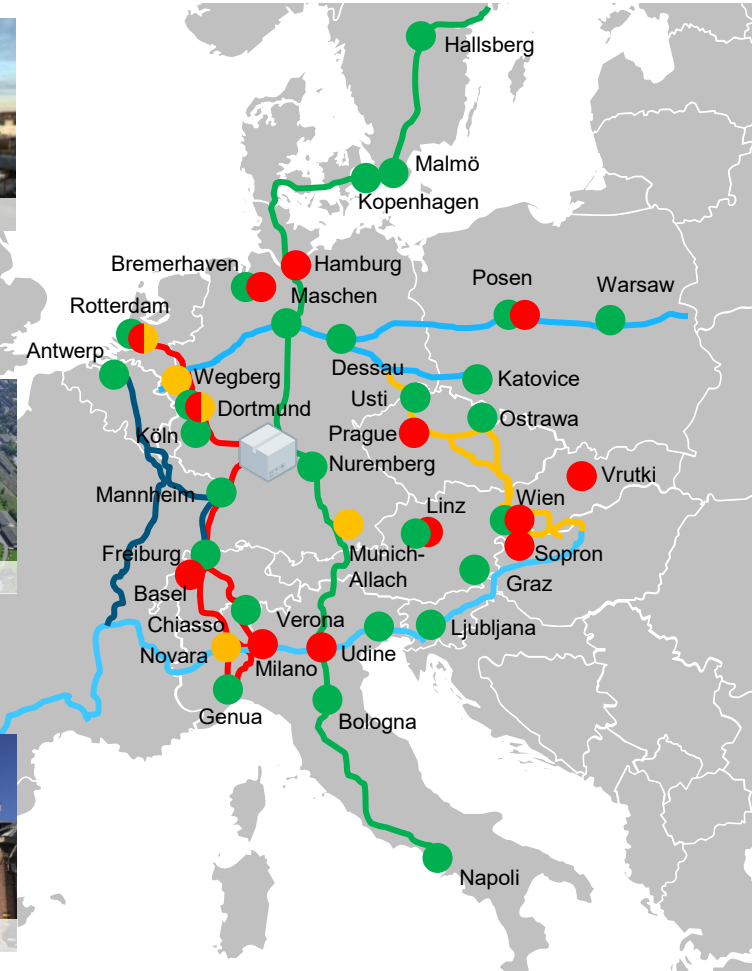
20+

countries



Pan-European Network – Support at any time

Best use of planned standstill times and reduction of transport time



Development of a European network of maintenance workshops

- European main freight corridors
- World Distribution Center (WDC), near Frankfurt
- Rail Service Center for revisions and/or repairs
- Excerpt of existing partner workshops for light maintenance and repairs
- Workshop future plans** for light maintenance and repairs

Rail Service Centers

Our expertise at your disposal

Munich-Allach



2 service tracks for all types of **preventive** and **corrective maintenance**, **revisions** and **accident repairs**

3 voltage testing units for multi-system locomotives, additional examinations for train protection systems, adhesives and welding certification



Novara



4 service pits inside the workshop thereof 2 for daily maintenance and 2 for heavy maintenance and 1 external pit of 36 m length and 3 parking tracks

Wide workshop area of **1.200 sqm** thereof 900 sqm indoor, outdoor parking areas, storage areas of 100 sqm



Wegberg-Wildenrath (PCW)

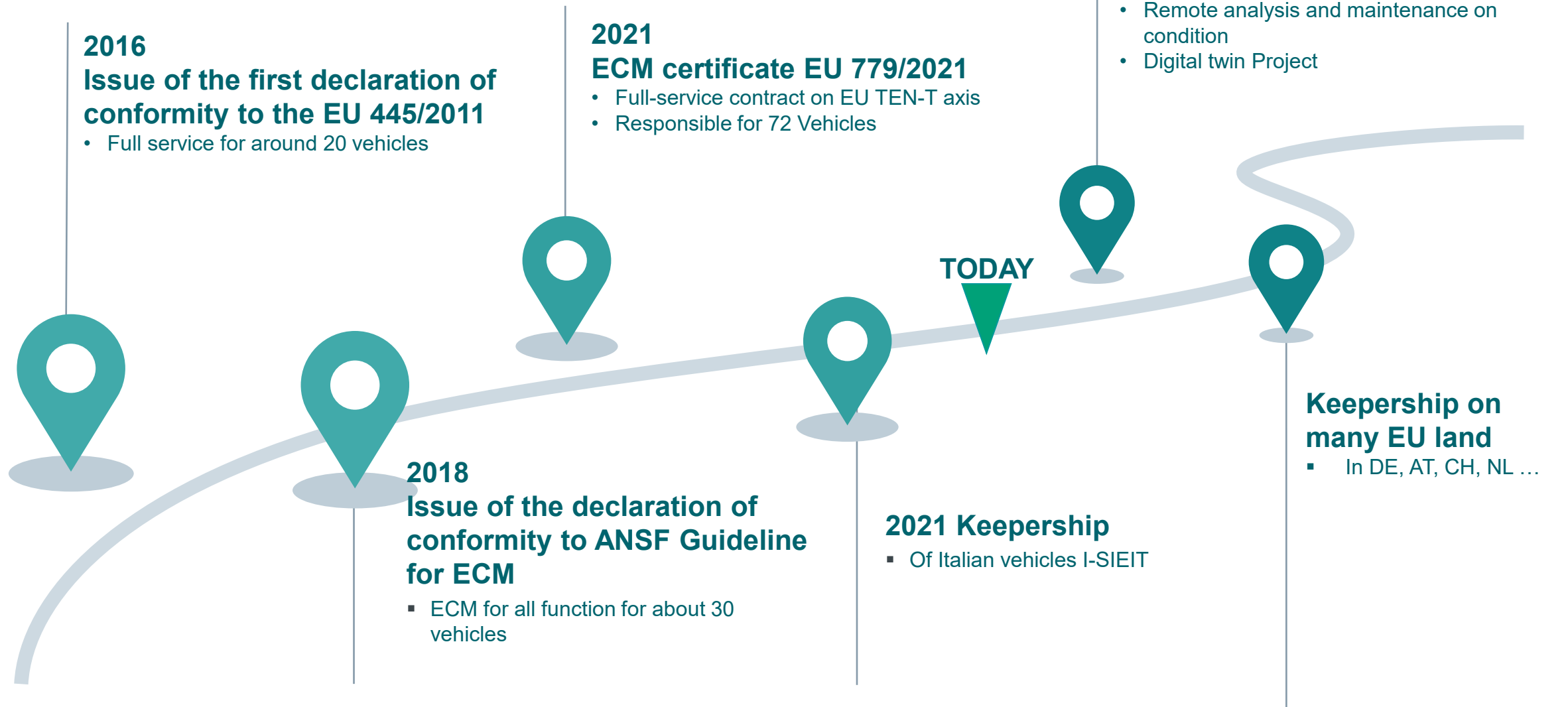


Reliable service partner for **refurbishment** and **accident repair**

44 hectares of infrastructure for the **testing, validation and certification** of rail systems worldwide



A short story of the ECM in Italy



The pillars of the locomotives service

ECM, engineering and quality	Operations	Field services
<p>The scope is to grant the safety of the vehicles for all the maintenance activities, grant the conformity of the vehicles and their configuration to the applicable standard, develop the maintenance plans and technologies to grant the safety in operations of the vehicle</p> <p>We work in compliance to the latest Entity in Charge of Maintenance (ECM) regulation EN 2019/779.</p> <p>Periodical safety assessment is set up with the railway undertakings whose vehicle we are ECM, to monitor common sets of KPI and the applications of the required standards and laws</p>	<p>Planning of the interventions Respect of the maintenance plan</p> <hr/> <p>Monitoring of the availability and the performance of the fleet according the service contracts</p> <hr/> <p>Collection of the information, via the CMMS tool to support the ECM II in the development of the maintenance system and to share with the manufacture of the vehicles the returns of experience</p>	<p>The own workshops The technicians The tools and instruments (metrological system, equipment in general) Logistic and warehouse</p>

The Service for the locomotives

Facts and figures

The ECM enrollment in our team means

- Safety of the vehicle toward the daily service
- Development of the maintenance plans
- Monitor the upgrade of the vehicle
- Grant the conformity to the TSI standards
- Monitor the availability and reliability of the vehicles
- Monitor the obsolescence of the components
- Support the customer in the asset management
- Make preventive, corrective works and upgrades of the vehicles

Locomotive Types

- ES64X4 Vectron DC and MS
- ES64U4 E190 Taurus
- ES64F4

Customers

- Adriafer (RU)
- DB Cargo Italia (RU)
- CFI (RU)
- FUC (RU)
- Fuori Muro (RU)
- GTS Rail (RU)
- Inrail (RU)
- MRCE (RoSCo)
- Locoitalia/ Railpool (RoSCo)
- SBB Cargo International (RU)

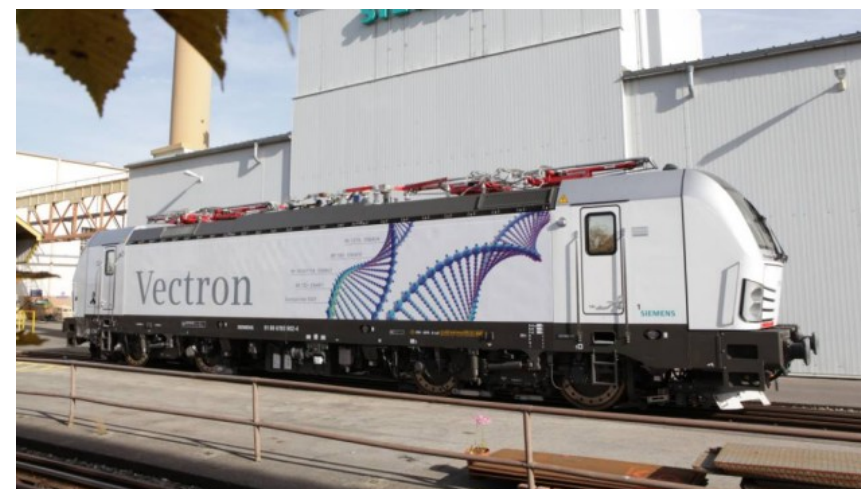
- RU Railway Undertaking
- RoSCo Rolling Stock Company

The Service for the locomotives

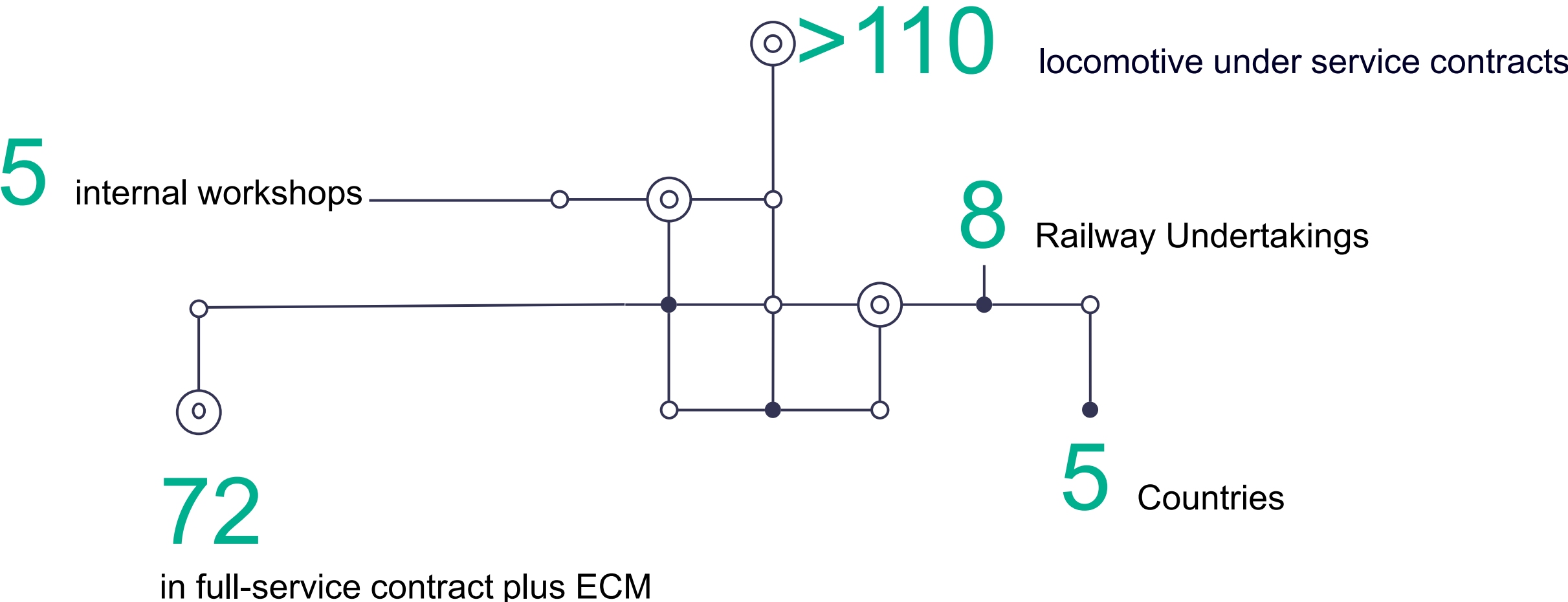
The fleet

Locomotive Types

- ES64X4 Vectron DC and MS
- ES64U4 E190 Taurus
- ES64F4



Locomotive Service



The corridors

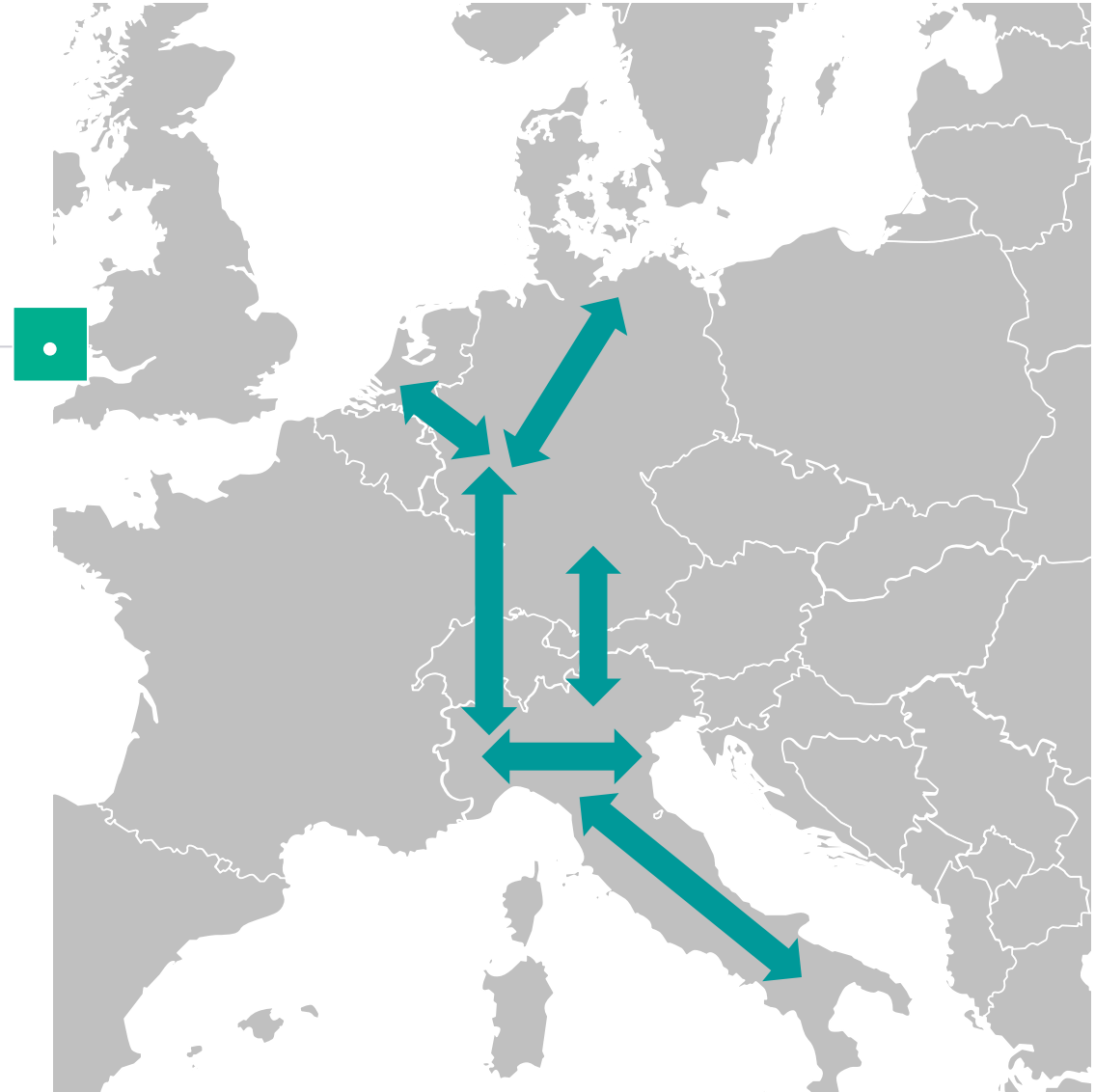
Our customers work both with national transports and in the in/out rail services

International service mainly :

- to Germany and Netherlands (Rotterdam) via the Gotthard and Simplon axis or via the Brenner pass

National service mainly :

- On the East – West freight corridor (TEN-T)
- On the Adriatic and Mediterranean corridor (TEN-T)



The corridors

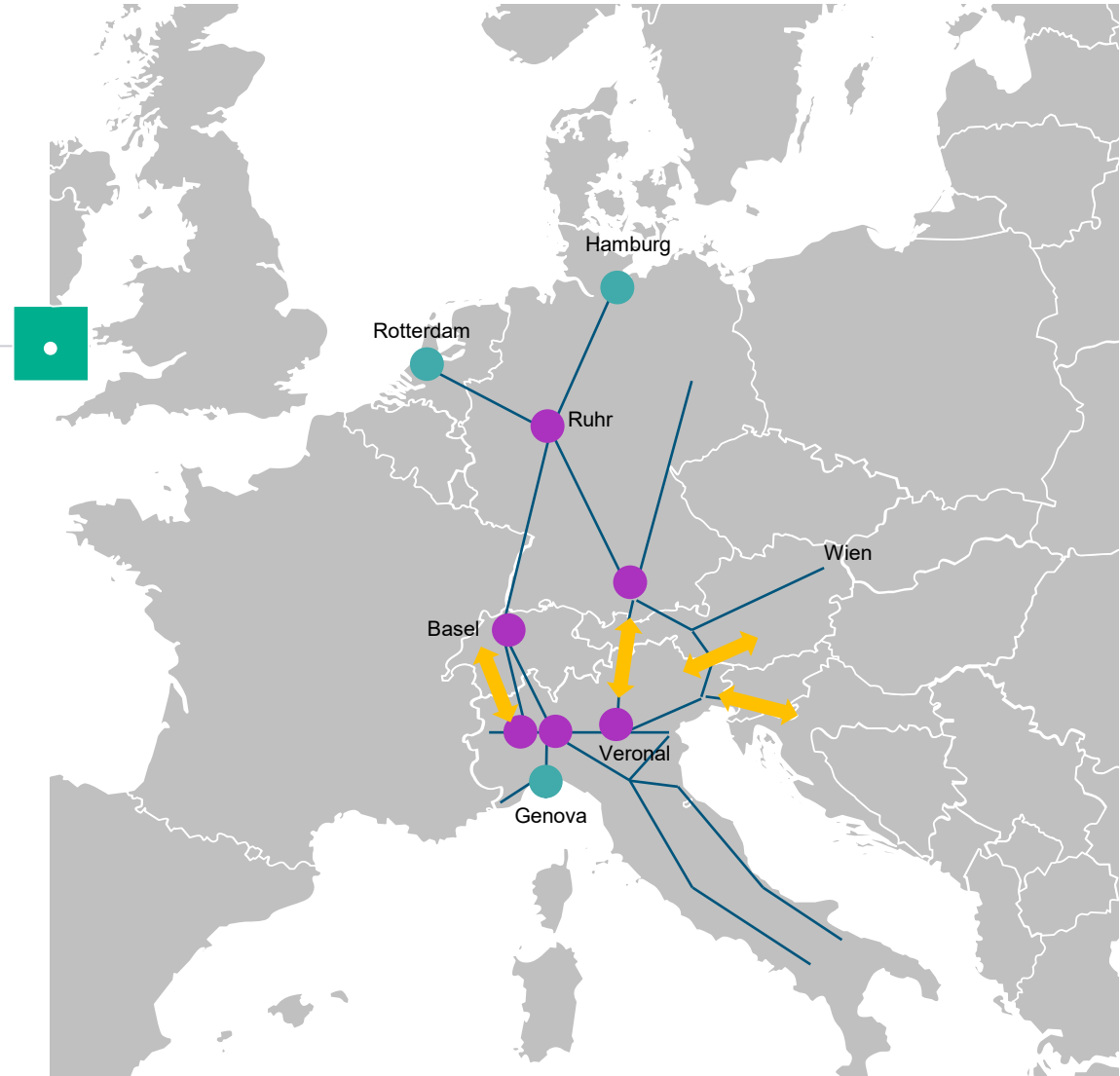
Going in detail

International services:

- Via the transit of Domodossola, Luino, Chiasso for CH, Brennero for AT and DE, Tarvisio for AT and Villa Opicina for SLO - HZ, present also in Ventimiglia Transit for FR

National service mainly :

- On the East – West freight corridor (TEN-T)
- On the Adriatic and Mediterranean corridor (TEN-T) to Nola and Bari

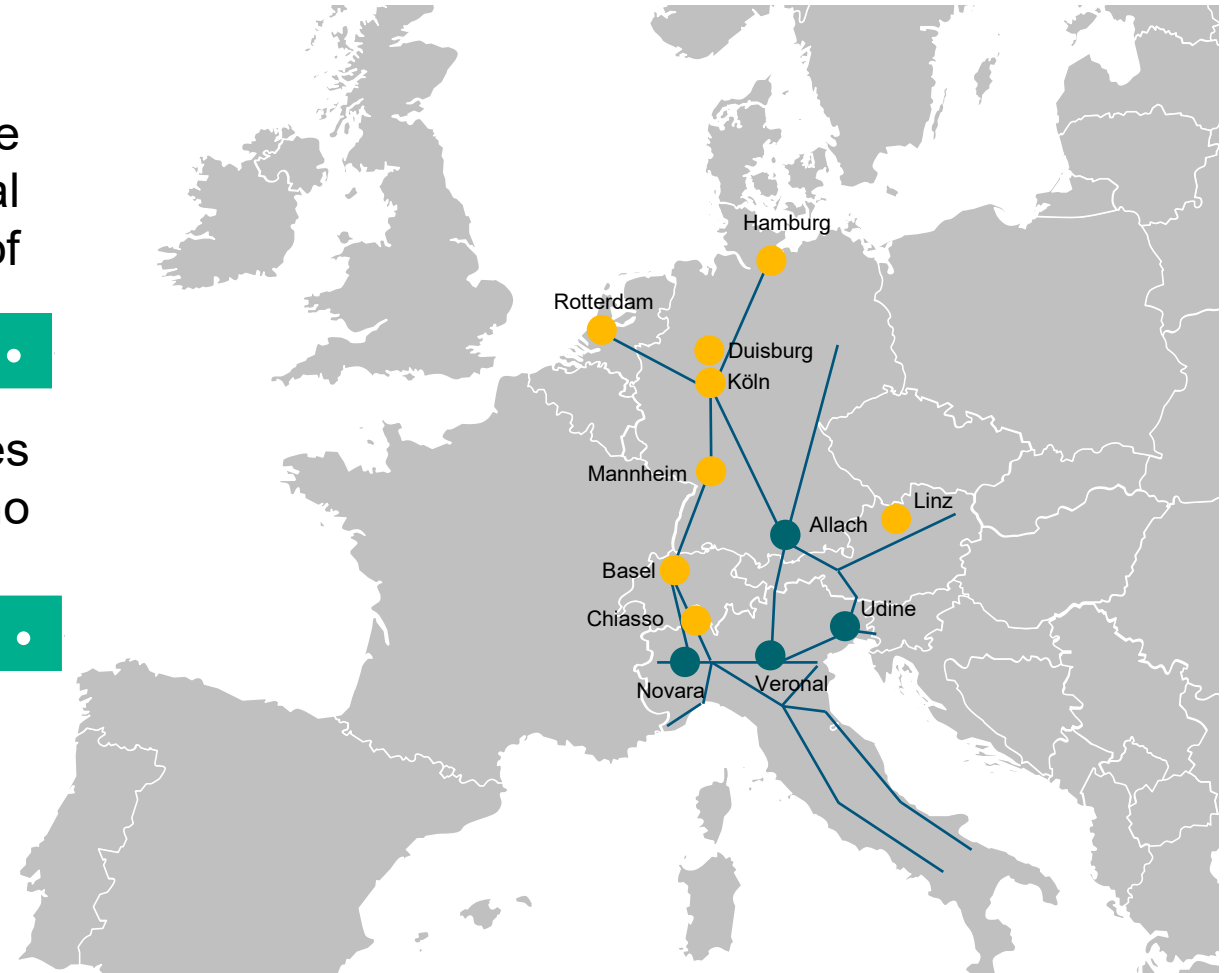


EU service network

We organize the service for the vehicles on the international routes via both a network of external service providers and together with the support of dedicated teams from the Headquarter

We project and plan the service in all the countries where operate di vehicle via our office in Milano under a unique point of contact

- ● own workshop
- ● external suppliers



Italian workshops network

The service in Italy is based on own personnel

Main hub:

- Novara (own workshop)
- Udine (in the customers premises)

Others

- Asti (external workshop)
- Bari (in the customers premises)
- Bozzolo (Mantua)
- Nola (Naples) (in the customers premises)
- Verona (external workshop)



Novara Improvement and development

Novara



A second building is under refurbishment, this will more than double the prior work areas
6 working pits for inspection and light maintenance will be added to the prior four. Electrical test facilities will be added.

Works are on going and the finish is scheduled within 2021

