

Филипп Ситроен - Генеральный директор UNIFE

«Европейская железнодорожная промышленность - Где мы сейчас? Куда мы идём?»

Philippe Citroën - Director General, UNIFE

«The European Rail Industry – Where are we now? Where are we going?»

29 August 2019 - EXPO 1520

10:00 – 12:00 Round Table – Evolution of ISO/TS 22163 (IRIS) in Russia

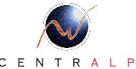
- UNIFE represents the **European Rail Supply Industry** (rolling stock, infrastructure, energy, telecommunication and signalling sub-systems)
- UNIFE is a **trusted partner of European and international institutions** in all matters related to rail transport
- UNIFE holds a unique network of **over 100 full members** of the largest and small sector and 13 associated members (e.g. MAFEX), representing almost 1000 suppliers of railway equipment
- UNIFE is engaged in **building strategic partnerships** with key international partners

World leaders

UNIFE members have a 84% market share in Europe and supply 46% of the worldwide rail production



UNIFE MEMBERS



ASSOCIATE MEMBERS



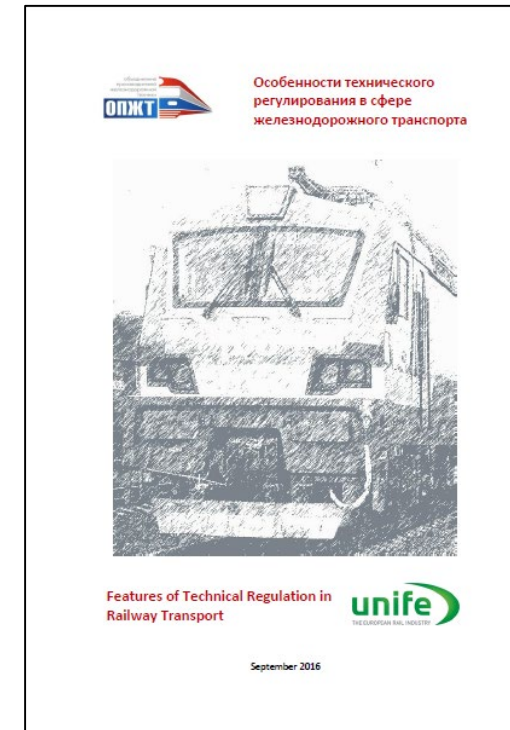
UNIFE Cooperation with NP UIRE (НП ОПЖТ): Milestones

Russia and CIS continue to be a major market for UNIFE member companies and a priority in UNIFE's international affairs activities

- **May 2012:** Launch of cooperation, with a Memorandum of Understanding signed in Sochi and TF8 technical activities
- **September 2014:** First joint publication on the authorisation of railway products in the Custom Union and EU revealed during InnoTrans 2014
- **September 2015:** UNIFE participates in the EXPO 1520
- **September 2016:** Second joint publication on the authorisation of railway products and technical regulation revealed during InnoTrans 2016
- **August 2017:** Third joint publication revealed for Expo 1520
- **September 2018:** Joint session during InnoTrans 2018 on JSCo'RZD', NP UIRE, UNIFE cooperation, IRIS development
- **June 2019:** Cooperation meetings during UNIFE General Assembly 2019, Dublin

Upcoming:

- **September 2020:** Fourth joint publication on latest technical developments in EU and Russia, and renewal of Memorandum of Understanding planned for InnoTrans 2020.

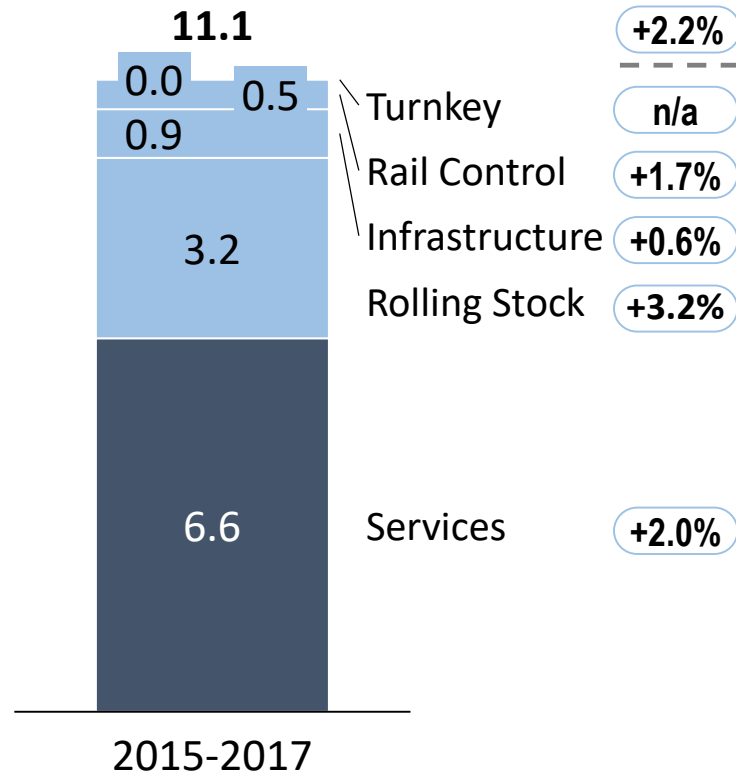


THE MARKET IN RUSSIA IS EXPECTED TO GROW AT 2.2% CAGR IN THE FUTURE

Market volume p.a. [EUR bn]

CAGR¹⁾

Key developments



- Strongest growth forecast for ROS segment – Growth in Russian market driven especially by investments in high-speed trains (e.g. Vladimir-Kazan route), freight wagons and by urban projects (e.g. Moscow and St. Petersburg)
- Russia's slight market volume increase of around 0.6% p.a. for infrastructure is especially driven by its light rail segment
- Benefiting from the investments in further high-speed trains and light rails, rail signaling is expected to grow steadily
- The service segment shows stable growth for the period until 2023, mainly driven by service for ROS, benefiting from the additional ROS orders (esp. high-speed and light rail)

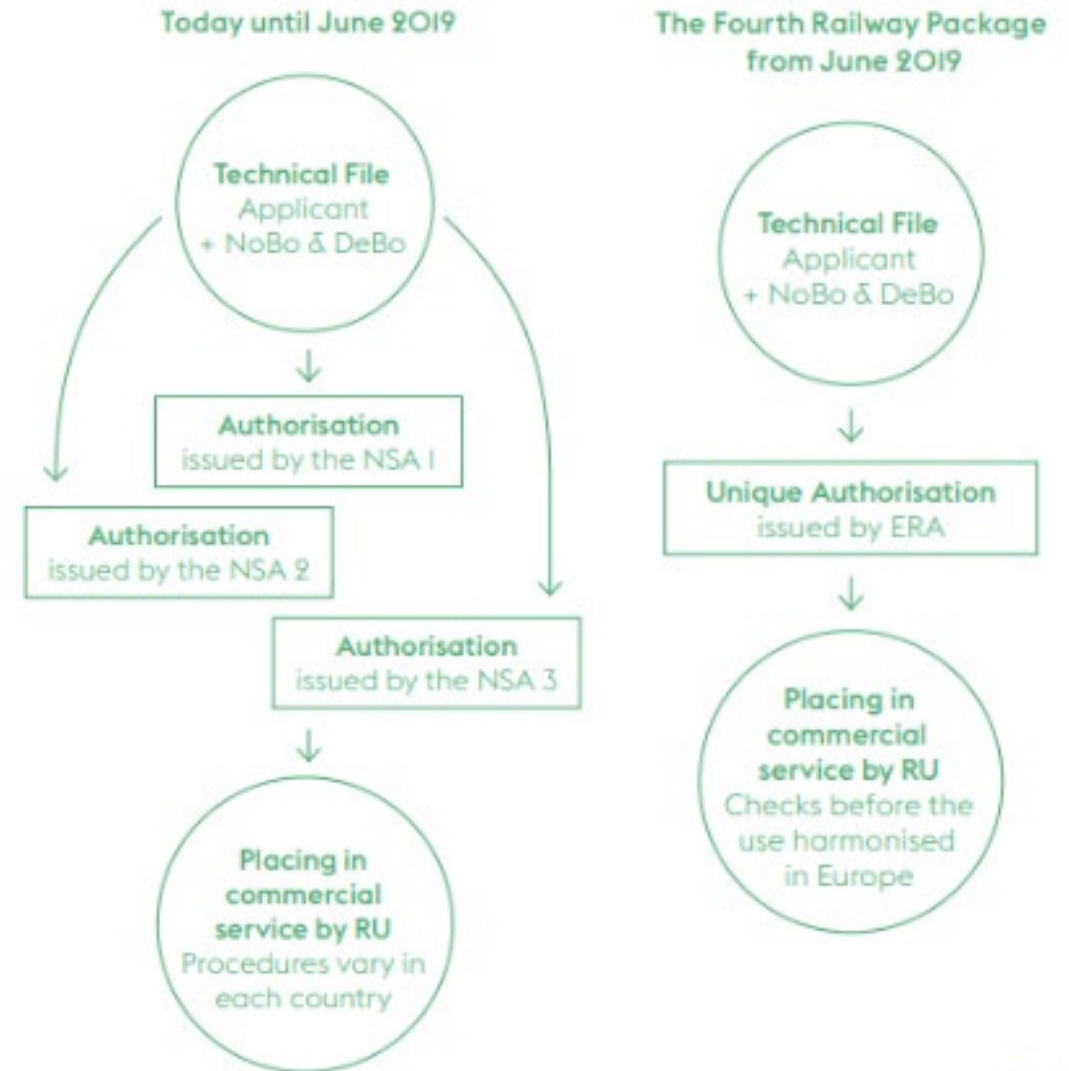


1) Compound annual growth rate 2021-23 vs. 2015-17

Where are we in Europe? Where are we going? The Fourth Railway Package Technical Pillar

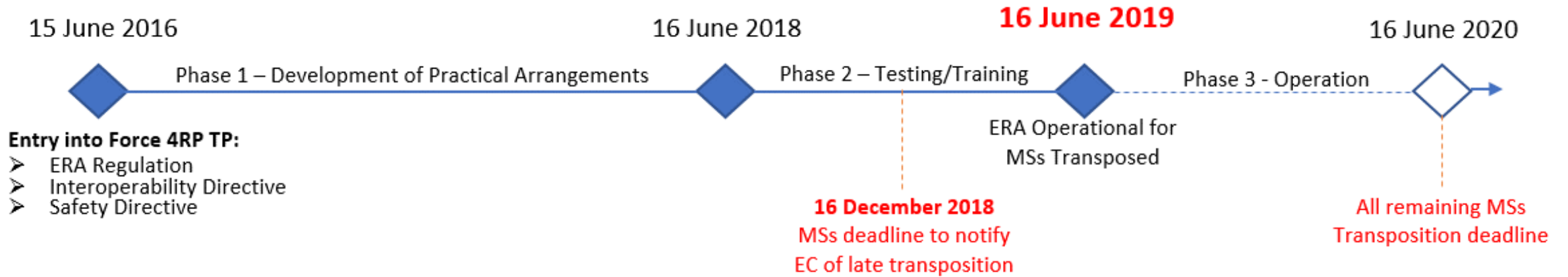
- After adoption in 2016 of the Technical Pillar of the Fourth Railway Package has **entered into operation 16 June 2019**
- **To reduce time and cost of vehicle authorisation by 20%** by removing technical and administrative barriers
- Create a **Single European process for vehicle authorisation** via the One-Stop Shop IT Tool - more transparency and certainty for industry stakeholders
- European Union Agency for Railways (ERA) to grant all multi-country authorisations – **no more duplication of assessment by National Safety Authorities (NSAs)**

Goal: Single European Railway Area (SERA)



Where are we in Europe? Where are we going? The Fourth Railway Package Technical Pillar

Ambitious timeline followed since 2016 for the successful implementation of the Fourth Railway Package Technical Pillar



- **Recast Directives** adopted June 2016
- Multiple **EU Implementing Regulations** drafted and adopted in 2018/2019 to outline new authorisation process
- Full set of **Technical Specifications for Interoperability (TSIs) revised** in 2019
- **Removal of >90% of National Technical Rules** of Member States related to vehicle authorisation

Guidance to be given in UNIFE – NP UIRE Booklet #4, InnoTrans 2020

Where are we in Europe? Where are we going? **TEN-T Policy - 9 TEN-T Core Network Corridors**

Trans-European transport network (TEN-T) policy - an ambitious EU transport infrastructure and investment policy with the aim to **create by 2030 a single multimodal European core network** that will connect:

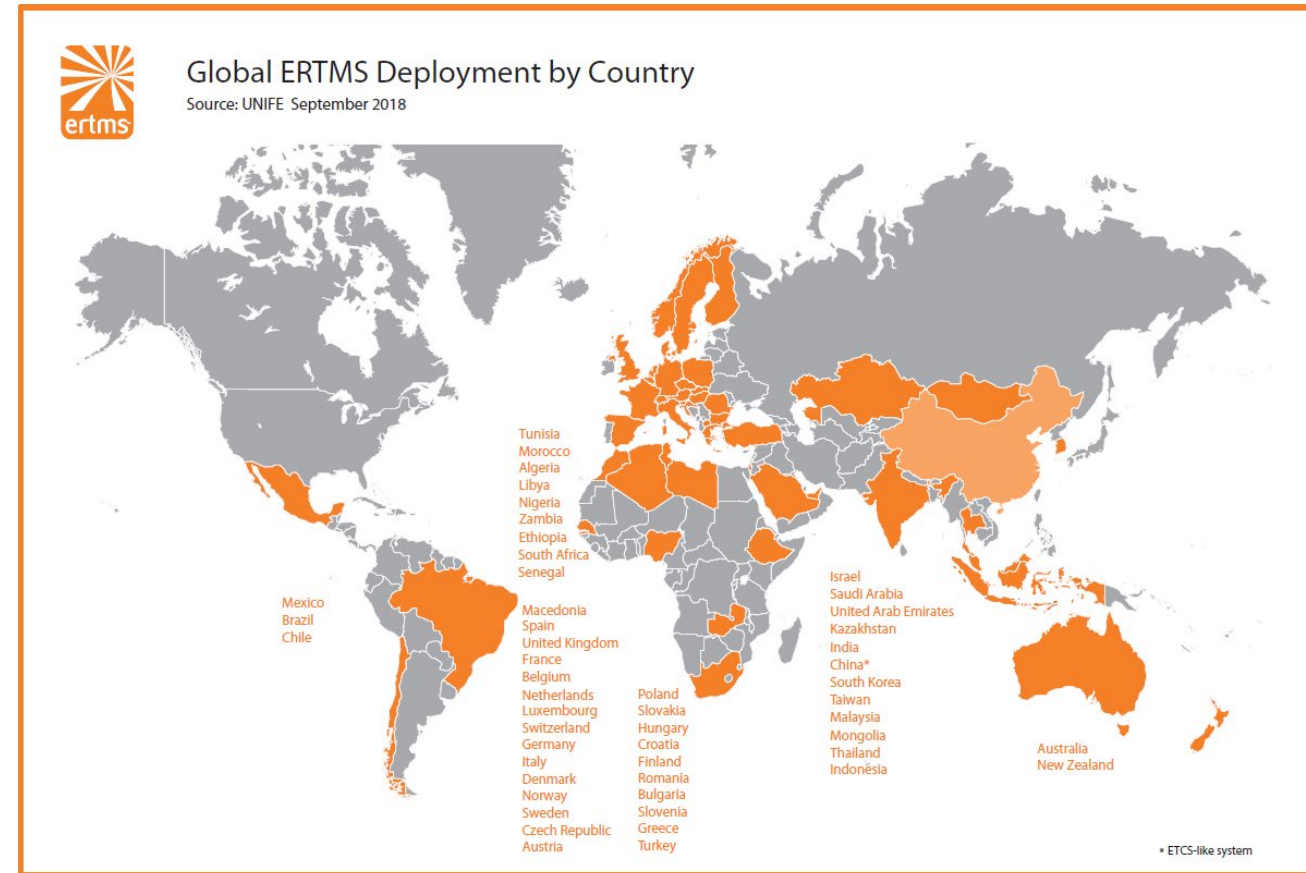
- **94** main European ports with rail and road links
- **38** key airports with rail connections into major cities
- **15,000 km** of railway line upgraded to high speed
- **35** cross-border projects to reduce bottlenecks

Financial support by the European Union through:
Connecting Europe Facility (€24bn in 2014-2020 period), Structural Funds, European Investment Bank loans, European Fund for Strategic Instruments (InvestEU in 2021-2027 period)



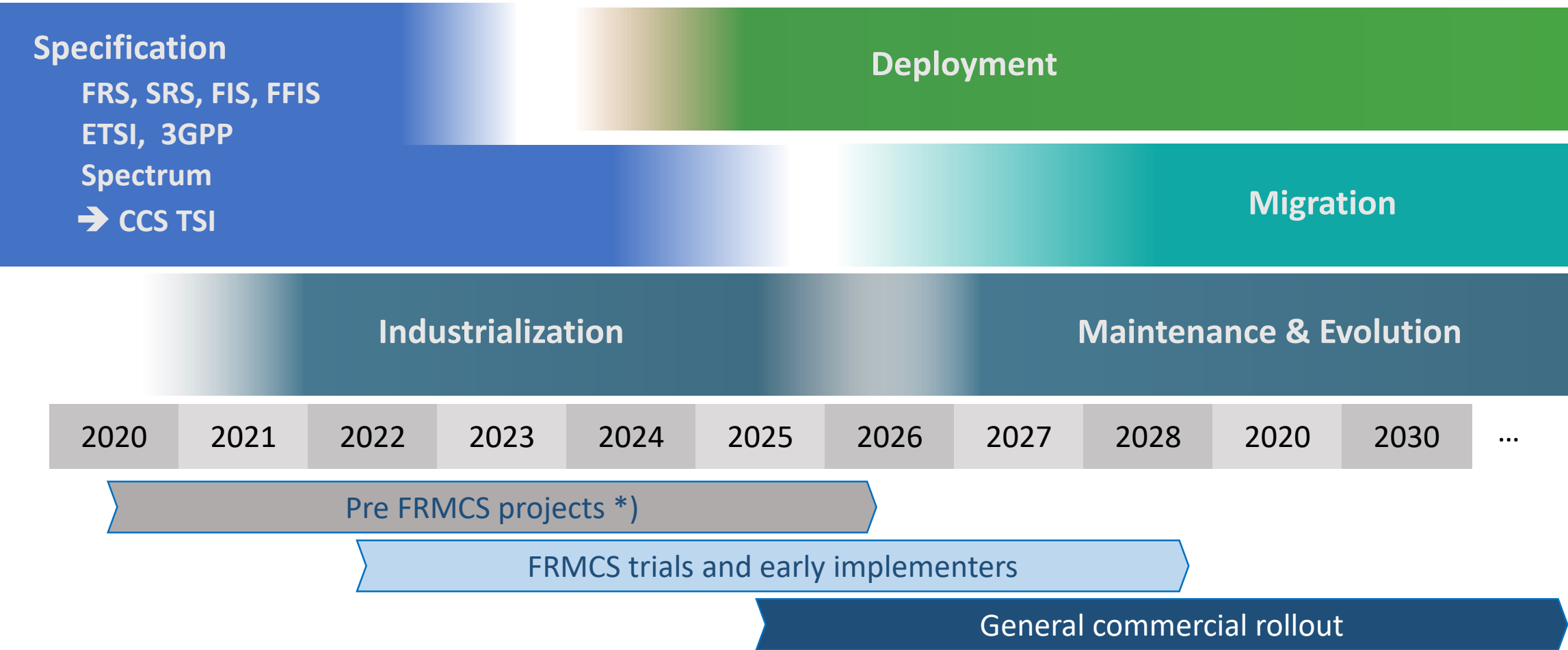
Where are we in Europe? Where are we going? ERTMS – A Global Standard

- Total track (km) contracted with ERTMS: > 90 000
- 51 countries are using ERTMS
- Total number of vehicles equipped with ERTMS: > 16 400
- Unique Standard: Improved Interoperability, Safety and Performance
- ERTMS is a pillar of the Digital Railway with specific focus on stability to execute the ERTMS Deployment Plan (EDP).



Where are we in Europe? Where are we going? Future Railway Mobile Communication System (FRMCS) – making it real!

Current view on the FRMCS timeline



Where are we in Europe? Where are we going? **Shift2Rail (European Rail Research PPP – Budget: 920m€)**

- **Research and Innovation in the rail sector are of paramount importance** to answer the societal challenges (Climate change adaptation, decarbonisation, digitalisation...)
- ***Shift2Rail, the new and ambitious European Research & Innovation Programme (Public-Private Partnership)***, will deliver new technologies aiming at improving the performance of the railway system.
- **Shift2Rail - A whole industry solution:** Supply industry, IMs and RUs will work together with the support of academia

Shift2Rail Key Objectives:

- Cutting the life-cycle cost of railway transports by as much as 50%
- Doubling railway capacity
- Increasing reliability and punctuality by as much as 50%

www.shift2rail.org



Where are we in Europe? Where are we going? **Digitalisation of rail transport**

- Research and Innovation (R&I) plays a fundamental role in fostering the Rail sector's digitalisation and sustainability efforts.

Enabling Rail as the backbone of tomorrow's multimodal, integrated, sustainable mobility

Supporting the Rail sector's technological advancements

Improving Rail performance in terms of: Energy efficiency; Life-cycle cost of rail components;

Boosting the development of zero-emission, energy-efficient technologies



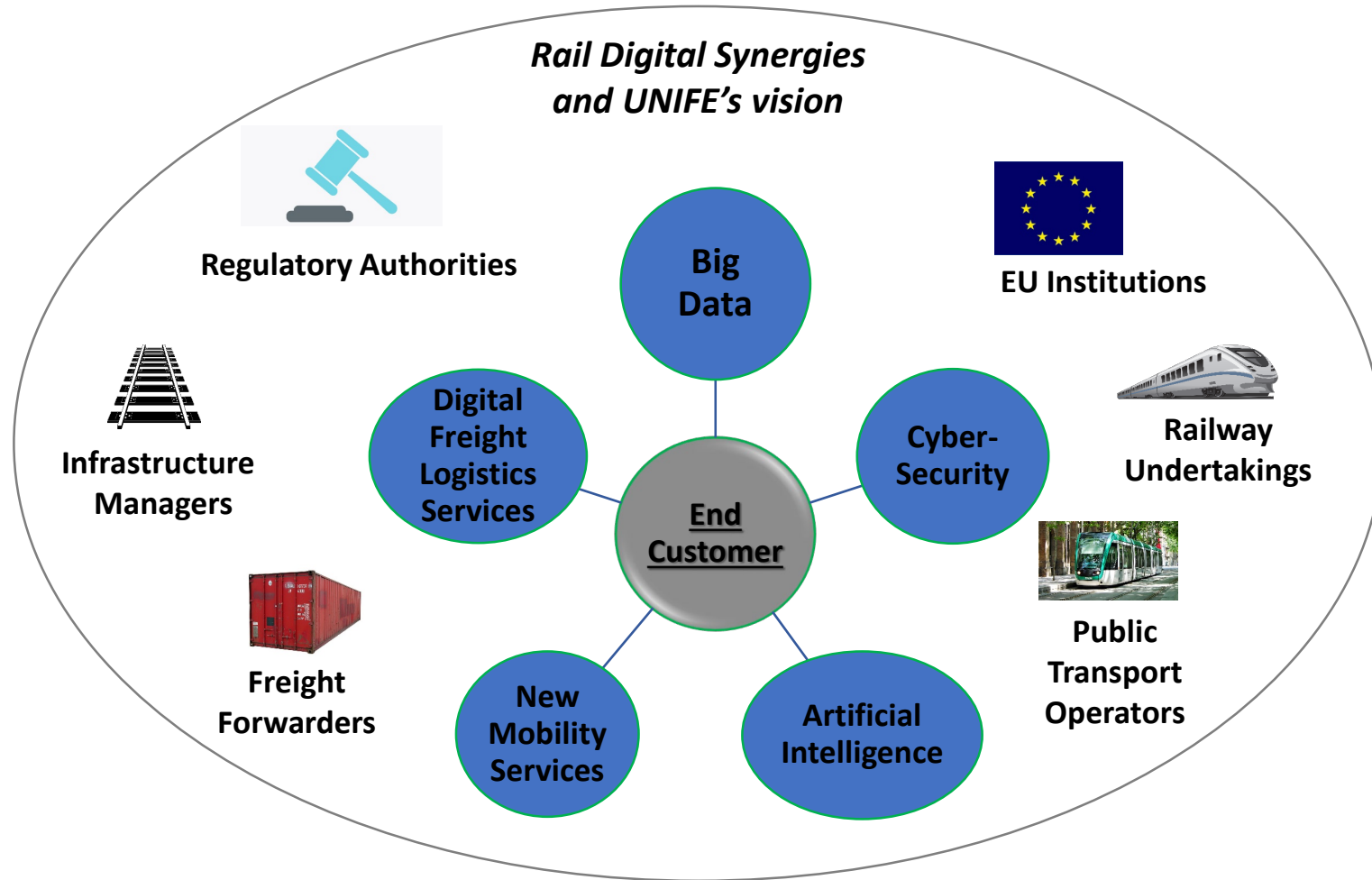
- The Rail sector R&I common vision is delivered through the European Rail Research Advisory Council (ERRAC)
- ERRAC's 'Rail Vision 2050' sets out the long-term roadmap for railways to embrace the new technologies and master the raising digital mega-trends.

- UNIFE has published its "vision" on digitalisation **"Digital Trends in the Rail Sector"**
- **Five majors focus areas** have been identified as priorities for the rail supply industry.
 - 1) Big Data;
 - 2) Cybersecurity;
 - 3) Artificial Intelligence;
 - 4) New Mobility Services;
 - 5) Digitalisation of Freight Logistics.

Where are we in Europe? Where are we going? **Digitalisation of rail transport**

UNIFE's Digital Vision stands on three main principles:

- Sectorial synergies and cooperation between all rail's stakeholders.
- Effective collaboration & dialogue with the EU Institutions and Regulatory Bodies.
- Priority given to the interest of the final customer.



UNIFE has created the IRIS Certification™ scheme in 2006 and still develops it:

- Based on a recognised standard
- Set with challenging rules for assessment
- Aim to increase trust of the customer

Last evolutions in 2017 :

- Requirements in ISO/TS 22163
- Performance assessment

UNIFE has also contributed to create the International Rail Quality Board (IRQB) in 2018.



Where are we in Europe? Where are we going?

Conclusion – Aiming for the Future railway and rolling stock

- Improve regulatory framework to create the Single European Railway Area and **facilitate harmonisation and interoperability of rolling stock**
- Focus on the **deployment of ERTMS** and development of the **future interoperable railway communication system (FRMCS)**
- **Innovation and research:** Developing solutions addressing the challenges of future urban and intercity traffic in a multimodal transport context and addressing the end-users' needs with implementation **supported by regulation and standardisation**
- Increased **digitalisation** of rail products and services (e.g. Automated rail transport)
- Improved Infrastructure of **multimodal freight corridors** for sustainable transport networks and support modal shift to rail



Thank you for your attention

UNIFE looks forward to the continued cooperation with
NP UIRE (НП ОПЖТ) and Russian railway stakeholders