UNIFE – The future of rail
Innovate with the EU Rail Supply Industry

Philippe Citroën
UNIFE Director General

UN Workshop on innovation in the railways
Geneva – 21st November 2018
About UNIFE
UNIFE represents the **European Rail Supply Industry** (rolling stock, infrastructure, energy and signalling sub-systems)

UNIFE is a trusted partner of European and international institutions in all matters related to rail transport

100 full members of the largest and small and medium-sized companies in the rail supply sector and 16 associated members including 14 National Associations, representing almost 1000 suppliers of railway equipment

**World leaders:**

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

UNIFE Members

Associate Members
A strategic industry for the European economy

400 000 JOBS IN EUROPE!

INNOVATIVE

WORLD LEADER & EXPORTER
UNIFE World Rail Market Study 2018
All regions predicted to grow — **Africa/Middle East and Latin America** are expected to show **strongest growth** rates

Total market growth rates per region [CAGR\(^1\), %]

- **World rail supply market**: 2.7%
- **North America (NAFTA)**: 3.1%
- **Latin America**: 4.8%
- **Western Europe**: 2.2%
- **Eastern Europe**: 2.7%
- **Africa/Middle East**: 5.2%
- **CIS**: 2.7%
- **Asia Pacific**: 2.5%

---

1) Compound annual growth rate 2021-2023 vs. 2015-2017
Growth is driven by both the **advantages** of railway transport and major trends

**Advantages of railway transport as a means of sustainable mobility**

- Greenest transportation mode
- Best safety record
- Driver of economic growth
- "Productive" travel time for customers, comfort
- Easy access for whole population
- High capacity

**Main trends driving the growth of the rail supply industry**

- Megatrends (Security, Sustainability, Urbanization, Globalization, etc.)
- Fundamental transformation due to digitalization, AI
- Increased private financing
- Standardization and localization
- Liberalization of rail operators
- E-mobility
The European Rail Supply Industry Vision aligned... with the European Rail Sector Vision
Rail supply industry’s view on Research and Innovation

Evolution of existing modes & pressure of new mobility concepts contribute to setting-up a connected and integrated mobility landscape.

The concept of seamless co-modality is becoming key to answer economy’s & society’s mobility drivers.

Rail transport is already bringing many benefits notably in terms of capacity, low carbon footprint, comfort and safety.

Research and Innovation is of paramount importance to implement this new vision with Rail as the backbone of the mobility of tomorrow.
ERRAC 2050 Vision in a nutshell

“In 2050, rail transport in Europe is the backbone of an intermodal “Mobility as a Service” in cities and outside for both passengers and goods, meeting the needs of EU citizens and society. The suppliers and service organisations of the European rail industry are seen as the world’s thought leaders for railway products and services.”

http://errac.org/
Innovate with the EU Rail Supply Industry to build up the future rail transport system and transform the existing one
An industry committed to research & innovation

- The **world leadership** of the export-oriented rail industry is also due to its **Research/Development/Innovation (RDI)** capacities.

- Innovation is in the DNA of the European rail supply industry, which currently **invests 3.6% of its annual turnover in RDI** and has developed innovations such as high-speed trains, ERTMS (European Rail Traffic Management Systems) and automated metro systems.

- **Shift2Rail**: A public-private Joint Undertaking of €920 Million (50% financed by the EU, 50% financed by the European Rail Supply Industry) for the period 2014-2020 to increase attractiveness and competitiveness of rail transport.

- **Shift2Rail Members**: EU Manufacturers, Railway Undertakings, academia and research institutes.
1. Automated rail transport
2. Mobility as a seamless service
3. Digitalisation
4. Towards an efficient Zero Emission Railway
5. Maintenance of the future
6. Enhancing the security and the protection of the rail system
7. Optimized infrastructure
8. Digitization of the supply chain (Industry 4.0)
9. New certification framework
Shift2Rail:

- Breakthrough for Rail R&I: for the first time, continuity and stability of the whole rail sector’s innovation efforts is fully ensured.
- Long term budget stability, over 7 years: commitment to reach the demonstration objectives;
- It is a great platform for cooperation: high value added of having railway undertakings, infrastructure managers and manufacturers within same projects;
- It will enable to illustrate proof of concept (through demonstrators including high-speed) for policy dossiers;
- SMEs participation fairly high.
UNIFE strongly calls for the continuation of the Shift2Rail Joint Undertaking within the next Research and Innovation framework programme Horizon Europe 2021 – 2027.

UNIFE’s nine key-enables shall be at the core of Shift2Rail 2 objectives.

The European rail supply industry's vision for Shift2Rail 2

- Automated Rail Transport
- Zero Emission Railways
- Optimised Infrastructure
- Mobility as a Seamless Service
- Maintenance of the future
- Digitisation of the Supply Chain
- Enhanced Security of Rail system
- New Certification Framework
- Digitalisation
- Shift2Rail 2 to enable rail transport to tackle and be part of the solution vis-à-vis the ongoing mega-trends
- Shift2Rail 2 to embrace the increasing need for shared mobility, customer-focused, digital and intermodal transport solutions
- Shift2Rail 2 to reinforce the attractiveness of rail transport toward passengers and business
Digitalisation: a priority for the EU Rail Supply Industry
For the rail sector, the digital transformation is both a challenge and an opportunity:

- The deployment of IT and enabling technologies in rail is, in several cases, still at an early stage.
- Other modes of transport are pushing on their technological progress.
- Digitalisation, not merely as an objective, but rather as a mean to achieve more ambitious and paramount goals.
UNIFE’s view on the digitalisation of Railways

- A cooperative approach by all stakeholders is essential to reach the digitalisation of the railway sector in Europe.

- A permanent dialogue between sector stakeholders and decision makers is needed.

- EU institution should strongly support the digitalisation of the railways.

- Legislation and regulation at the EU level should be supporting the digital transformation of the transport sector, while also providing the necessary safeguards and funding for its achievement.
  - UNIFE is committed to engage with the European Commission to build a clear roadmap on Digitalisation.
  - UNIFE has been calling on the EU institution to support the establishment of a sector platform for digitalisation.
UNIFE’s Digitalisation Platform is open to all UNIFE’s Members who are willing to feed the current & future debates on digitalisation of the rail transport:

- In September 2016, UNIFE publishes its “vision” on the digitalisation of the European railways.
- **Six major digital trends** which the rail sector shall master are highlighted.
- A new Vision Paper is being prepared for 2019, also in view of the negotiations on the EU budget – i.e. CEF; Digital Europe Programme.
Want to know more about UNIFE?

- Read our « About UNIFE » guide
- Consult our website: www.unife.org
- Follow us on twitter: @UNIFE