

# **Shift2Rail – The present and future of European rail research**

**Philippe Citroën**  
**RFE breakfast-event**  
**3 May 2017**

# A strategic industry for the European economy

**400 000 JOBS IN EUROPE!**



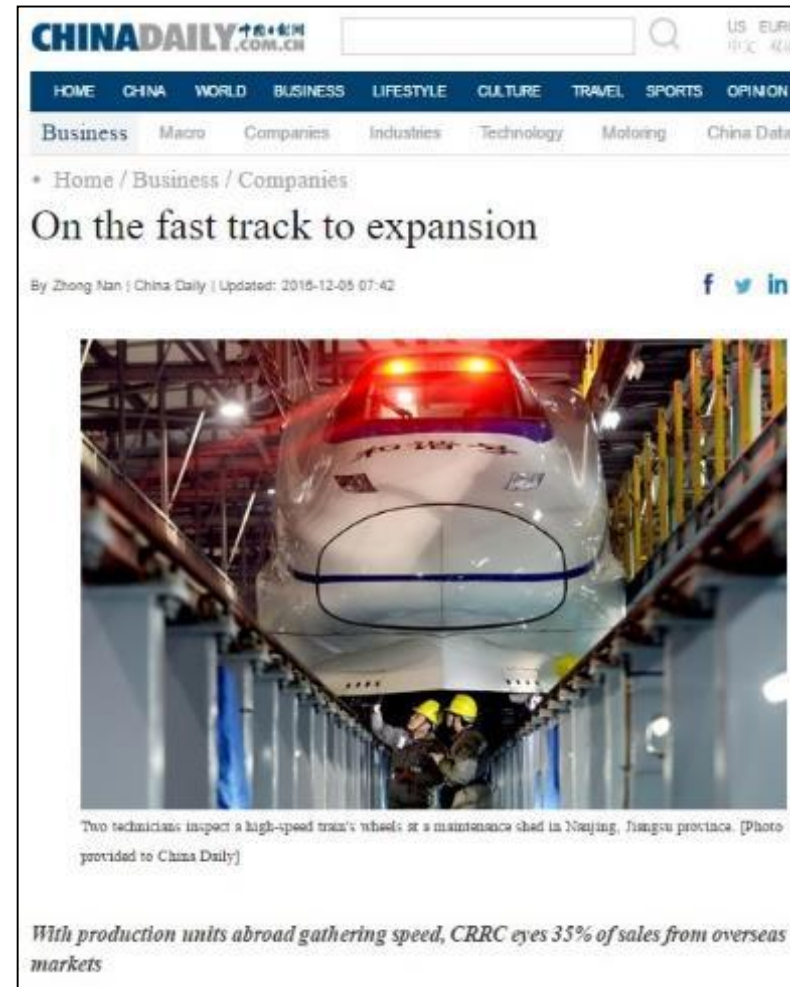
**INNOVATIVE**



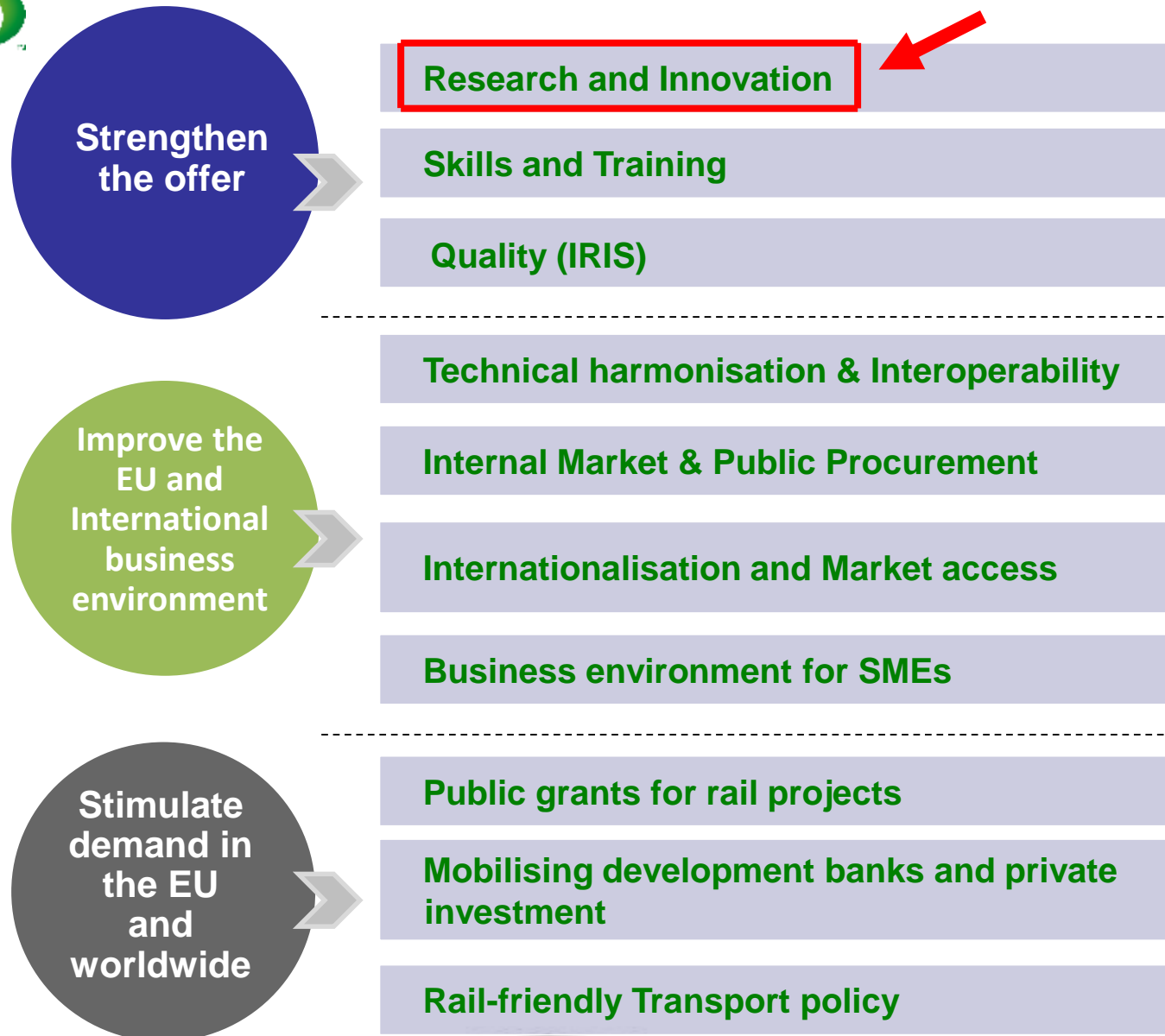
**WORLD LEADER & EXPORTER**



- **Fierce competition with Chinese, Japanese and South-Korean rail manufacturers**
- **Chinese manufacturer CRRC is by far the world's largest train builder with total sales amounting to \$ 35.4 billion in 2015**
- **Recent announcement by CRRC on its ambitious export targets:**
  - from 7% of the total sales in 2015, the company aims at bringing its overseas sales to 35 percent of its total sales by 2025!



# Key factors for the world competitiveness of the EU RSI



## **Shift2Rail – A key milestone for the European Rail Industry**

- UNIFE is currently coordinating two Shift2Rail Lighthouse Projects that started in May 2015



- Roll2Rail is mainly contributing to Shift2Rail Innovation Programme 1 “Cost-efficient and reliable trains, including high-capacity trains and high-speed trains”
- IT2Rail is a first step towards the long-term Shift2Rail Innovation Programme 4 “IT Solutions for Attractive Railway Services”



# Roll2Rail

**Increase the capacity of the railway system and bring flexibility to adapt capacity to demand**

**Increase availability, operational reliability and therefore punctuality of the vehicles**

**Reduce life cycle costs of the vehicle and the track**

**Increase the energy efficiency of the system**

**Improve passenger comfort and the attractiveness of the rail transport**

**Reduce the environmental impact of railways**





# IT2Rail

# Shift2Rail Lighthouse Projects - IT2Rail: Expected Outcomes

**Jane** is provided with a personalized, customizable and secure digital "Travel Companion" (TC) environment



**Jane** plans her trip to attend her fashion show



**Jane** builds her multimodal travel solutions, manages her booking and shopping through her preferred one-stop shop



**Jane** uses TC's wallet to validate entitlements



Assistance to navigate at interchanges, taking into account **Jane's** mobility constraints (luggage, reduced mobility)



**Jane** receives notification of significant event affecting her itinerary. She is offered some options for re-routing and re-accomodation

Business Analytics provide relevant feedback of traveler data to operators and service providers, to ensure more robust and responsive operations



- UNIFE is currently coordinating three Shift2Rail Open Call projects and involved in another Open Call project that started in November 2016



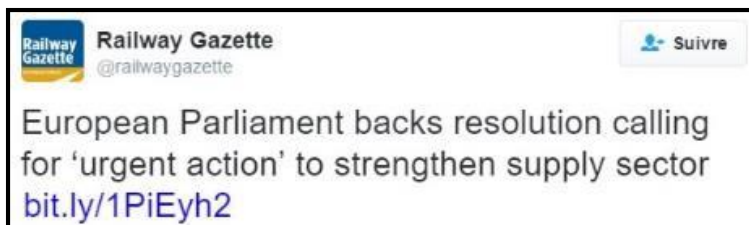
UNIFE - Coordinator

- Dynafreight and Innowag are contributing to Shift2Rail Innovation Programme 5 “Technologies for Sustainable & Attractive European Rail Freight”
- GOF4R and ST4RT are contributing to Shift2Rail Innovation Programme 4 “IT Solutions for Attractive Railway Services”

**Shift2Rail is one step...The European Rail Industry  
calls for additional support and a Shift2Rail 2.0**

## Key EP recommendations fully supported by UNIFE in the field of Research and Innovation:

- “Swift and timely **implementation of all Shift2Rail R&D activities** as soon as possible”
- European Commission to “explore and **exploit additional sources of financing for Shift2Rail**”
- European Commission to “exploit **additional EU funding instruments for rail technology outside of Shift2Rail** (e.g. dedicated rail research calls in Horizon 2020 outside of Shift2Rail, InnovFin, CEF, Structural Funds, EFSI)”
- Commission and the Member States to “increase their support for innovation projects developed by **rail clusters** and other initiatives that bring together **SMEs**, larger companies and research institutes at local, regional, national and European level”
- “One focus of research activities should be **digitalisation**”





# Ongoing action – the EU Industrial Dialogue for the Rail Supply Industry



**Martina Werner**  
@MartinaWernerEU

Following

Kick-off forum by @EU\_Growth to follow-up on the @Europarl\_EN resolution on the #rail supply industry. We need to secure jobs and growth.



UNIFE The RAIL IND. @UNIFE · Mar 2

Dir. General Philippe Citroën thanks @EU\_Growth @Trade\_EU for promoting a level-playing field against unfair industrial competition #rail



2



2

# Some initial inputs for Shift2Rail 2.0

- **Continuity** with Shift2Rail - Improve reliability, capacity and LCC
- **Tackle global trends in a multi-modal context** (for instance urbanization – increase of urban and intercity traffic)
- **Response to digitalization challenges** within the new mobility concept (focus on safety, cyber-security, automated mobility, mobility as a service)
- **Industry 4.0:** Digitization of the European Rail Industry



- **Discussions on the EU Multiannual Financial Framework post-2020 – what budget for (rail) research?**
- **Consequences of Brexit on EU budget and programmes**
- **Increasingly high focus on connected/automated/electric cars – need to reinforce the key messages on rail's sustainability credentials**
- **Make Shift2Rail a success story for the EU citizens and the rail sector as a whole**





- **Staying at the forefront of Research and Innovation will be a key factor if Europe wants to win the industrial battle against foreign (and especially Asian) competitors**
- **The S2R programme is indispensable to the competitiveness of the European rail industry**
- **In the context of the ongoing MFF Mid-term Review, UNIFE particularly welcomes the Chapter on a “renewed European rail industry innovation agenda” of the EP *Resolution on the Competitiveness of the European Rail Supply Industry***
- **UNIFE calls for additional support and Shift2Rail 2.0 in the next EU Research Framework Programme (FP9) → European PPP for rail research are of paramount importance for the competitiveness of the European Rail Industry.**

**Thank you for your attention!**