



# Technological and financial innovations for urban rail projects

Polis conference  
Rotterdam, 2 December 2016

Philippe Citroën  
UNIFE Director General

- UNIFE represents the **European Rail Supply Industry** (rolling stock, infrastructure, sub-systems and signalling)
- UNIFE is a **trusted partner of European and international institutions** in all matters related to rail transport and industrial competitiveness
- Over 85 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



# UNIFE Members



# Associate Members



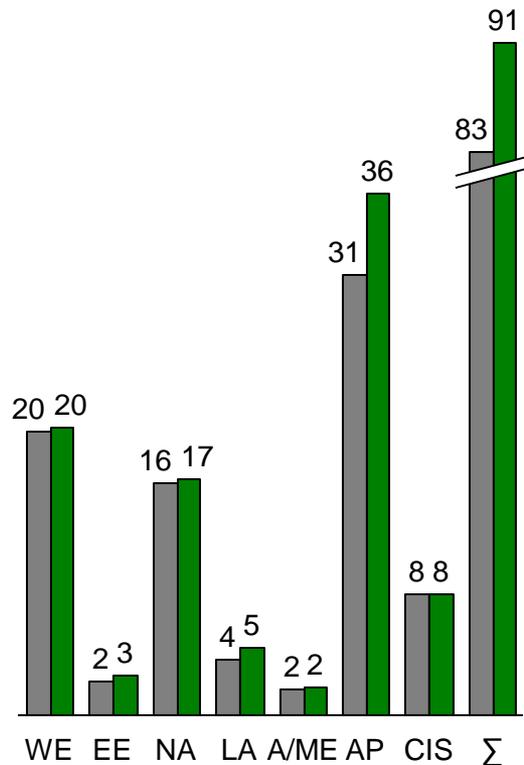
## UNIFE members' contribution to urban mobility

- Metro
- Tram
- Light rail
- Signalling systems (CBTC)
- Urban infrastructure

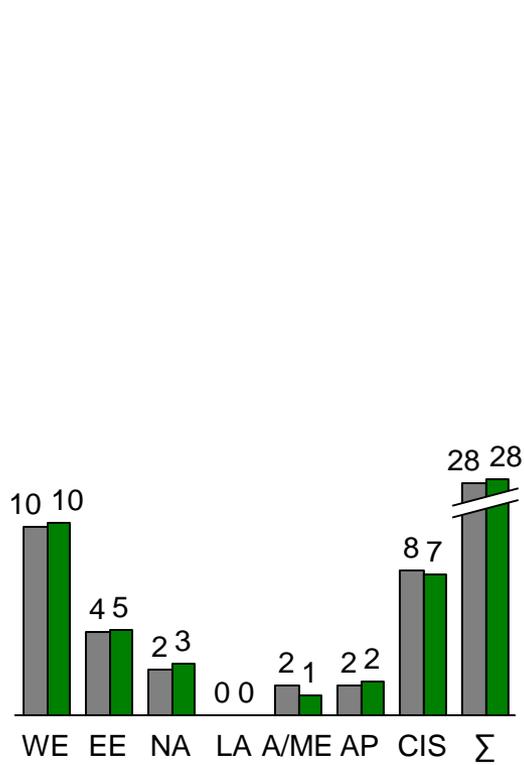


# Urban rail – a growing segment

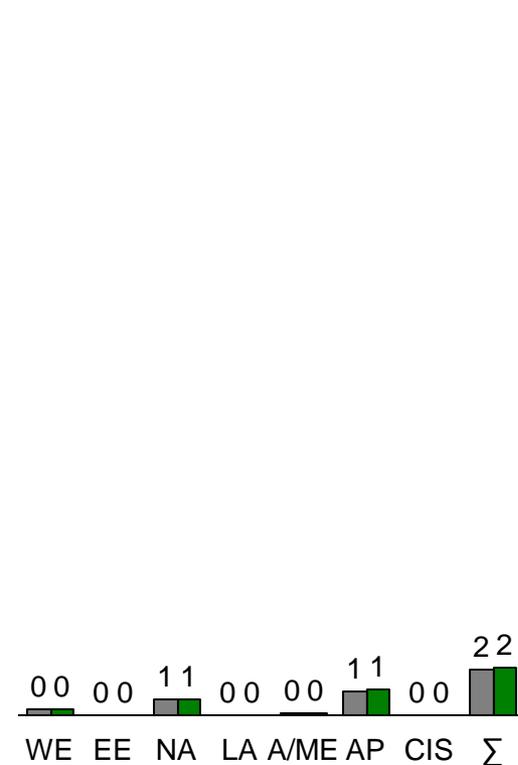
**Metro ['000 #]**



**Light Rail ['000 UNIFE-SU]**



**Automated Systems ['000 #]**



■ 2013 ■ 2015

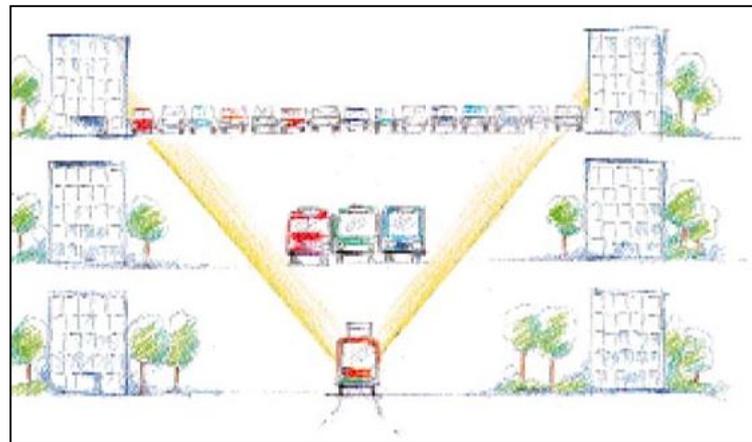
Not reflecting the additional five focus countries of the 2016 study

Source: Roland Berger WRMS 2016

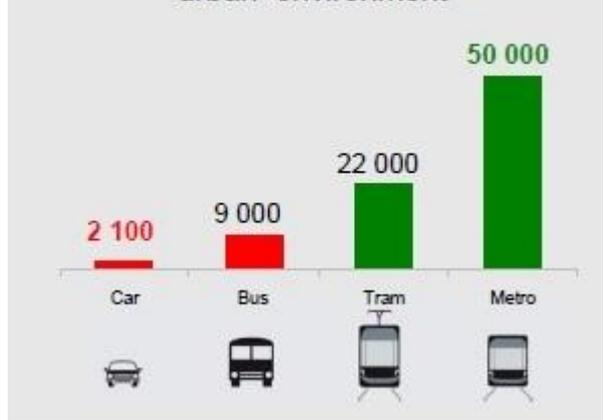
- Increasing urbanisation = increasing congestion = increasing emissions from urban transport
- Increased demand for mobility and safety
- Need to reduce transport emissions (Transport White Paper 2011 – Delli report 2015)
- Need for more (EU) investments
- COP22 – the Moroccan example



- Rail uses considerably less land and carries higher numbers of passengers
- Rail has the least CO2 emissions of all modes of transport
- Rail consumes dramatically less energy than other modes of transport
- Wider economic and social impacts



Number of people transported per hour in urban environment





- **Total budget: 7,3 M€ (4.3 M€ EC funding)**
- **Project duration: 39 Months**
- **Project start/end: 1<sup>st</sup> January 2012 / 31<sup>st</sup> March 2015**
- **Partners: 17 (rail suppliers, operators and research centres)**

<b>OSIRIS Solutions</b>	<b>Energy Savings</b> (in ref. to total system for an entire year)
Technical innovations on board and ground (3)	5% to 6%
Operational innovations (8) lighting, escalators etc.	1,7% to 4,6%
ST&LT passenger forecasting	2,3%
<b>TOTAL</b>	<b>8.2 to 12.1%</b>

- **Shift2Rail: the first European public-private partnership – with a total budget of € 970 Million – entirely dedicated to R&D in the rail sector started in July 2016.**
- **3 major challenges**
  - ✓ **CAPACITY** (*to cope with growing EU demand*)  
Up to 100% increase in capacity
  - ✓ **RELIABILITY** (*to better satisfy users*)  
Up to 50% increase of reliability
  - ✓ **LIFE CYCLE COSTS** (*for more competitiveness*)  
Up to 50% of reduction of Life Cycle Costs
- **Impacting all segments of the rail market, but little involvement of urban operating companies**



- **Public-Private Partnerships (PPP)** have already proven to be successful for the completion of many rail projects, (particularly in the fields of urban mobility, rail connections to airports etc.) with the participation of European rail manufacturers
- Just a few examples:



**Milan Metro Line 5**



**Reims LRT**



**Nottingham LRT L2**

- **Urban rail projects** (i.e. tram & metro systems) **should be boosted thanks to the EFSI**. However, so far no urban rail projects have been supported under the EFSI

## EFSI – an opportunity for urban rail

- While **public grants will remain of vital importance** to finance rail projects, UNIFE has welcomed from the start the proposal of the Commission to create the EFSI and to **mobilise private investment for strategic projects**
  
- In view of the **extension of the EFSI beyond 2018**, it is important to ensure that there are **more favourable conditions for urban rail PPPs**:
  - UNIFE welcomes the EPEC *Guide to the Statistical Treatment of PPPs*, published in September, that will hopefully bring more predictability for public authorities and potential private partners
  - The statistical treatment of PPPs should incentivise public authorities to use them for urban rail projects
  
- **The industry is ready to be an active partner, yet the European Institutions need to ensure favourable conditions for more private investment in urban mobility**



- **UNIFE welcomes the funding of urban nodes within the CEF:**
  - Support for “Grand Paris Express”, Birmingham International Station, ERTMS deployment on Madrid and Barcelona commuter lines, planning of a regional rail project (RTW) in Frankfurt am Main etc.
  
- **Urban transport systems get an important support from European Structural and Investment Funds (ESI Funds):**
  - Bucharest metro line extension; 2<sup>nd</sup> metro line, construction of several tram lines with the rolling stock purchase in Warsaw etc.
  
- **EIB loans have been promoting sustainable urban mobility:**
  - Acquisition of trams in Krakow and Silesia; Crossrail and upgrade of Tube stations in London; upgrading of metro in Lille Métropole, Bucharest metro etc.
  
- **ELENA (“European Local ENergy Assistance”) facility provides major help in preparing investment programmes:**
  - Introducing tramway networks in the Region of Skåne

- **The EIB is considering to finance the purchase of rolling stock (22 vehicles), the refurbishment and construction of related infrastructure, including the renewal of the signalling system (the project has been approved on 04/12/2015 but still has to be signed)**
- **The project will help using the energy use, as the new rolling stock will have regenerative braking thus reusing the energy that is released when braking**
- **The new rolling stock will also facilitate the use of public transport to persons with reduced mobility**
- **Once the project is signed, the EIB will provide EUR 100 million (from the total cost of EUR 200 million)**



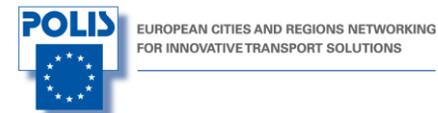
- Consistency between urban mobility plans and EU Transport agenda
- Key role of urban rail as the main provider of sustainable public transport and e-mobility
- Need to boost investments in urban rail, including research & innovation – from Shift2Rail to Shift2Rail 2
- Ensure best use of existing EU instruments (CEF, Structural Funds, EFSI) and explore alternative financing
- Address issue of East/West investment divide in Europe

**Dedicated conference organized by the  
Maltese Presidency of the Council of the EU**



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**DEVELOPING URBAN RAIL TRANSPORT:  
ENVIRONMENTAL PERFORMANCES AND FINANCING SOLUTIONS**  
Malta, 27-28 April 2017

*Event organised with the support of:*





# **UNIFE – Promoting rail market growth for sustainable mobility**