

Introduction of the Roll2Rail and IT2Rail projects

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Shift2Rail: A Key Initiative for a step change!



Start of rail research within H2020!



Roll2Rail



IT2Rail



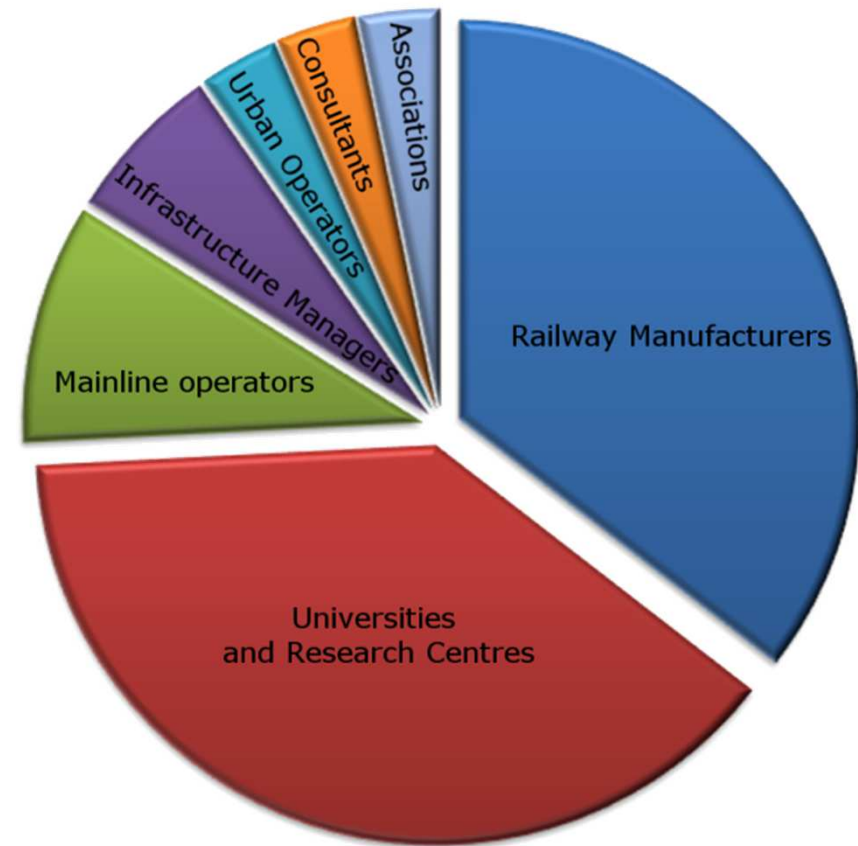
In2Rail





Facts and Figures

- Total budget: **16€ Mil**
- Duration: 30 months
- **31 Partners**
- **12 EU** member states
- 11 Work Packages





Introduction and context



- Roll2Rail will feed directly into **S2R IP1**
- IP1 and Roll2Rail will focus on **technological innovations in different subsystems of the vehicles** (like Traction, Brakes, Running Gear, Car Bodyshell, Train Communications, Noise, Train Interiors and Energy Performance)
- The aim is to **develop key technologies and remove blocking points for radical innovation** in the field of railway vehicles





Radical Innovation
Interior Design
Braking Systems
Noise Reduction
Composite Materials

Capacity
Reliability

Wireless

Energy Efficiency

Attractiveness
Mechatronics

Rolling Stock

Passenger Comfort

Next Generation

Light vehicles

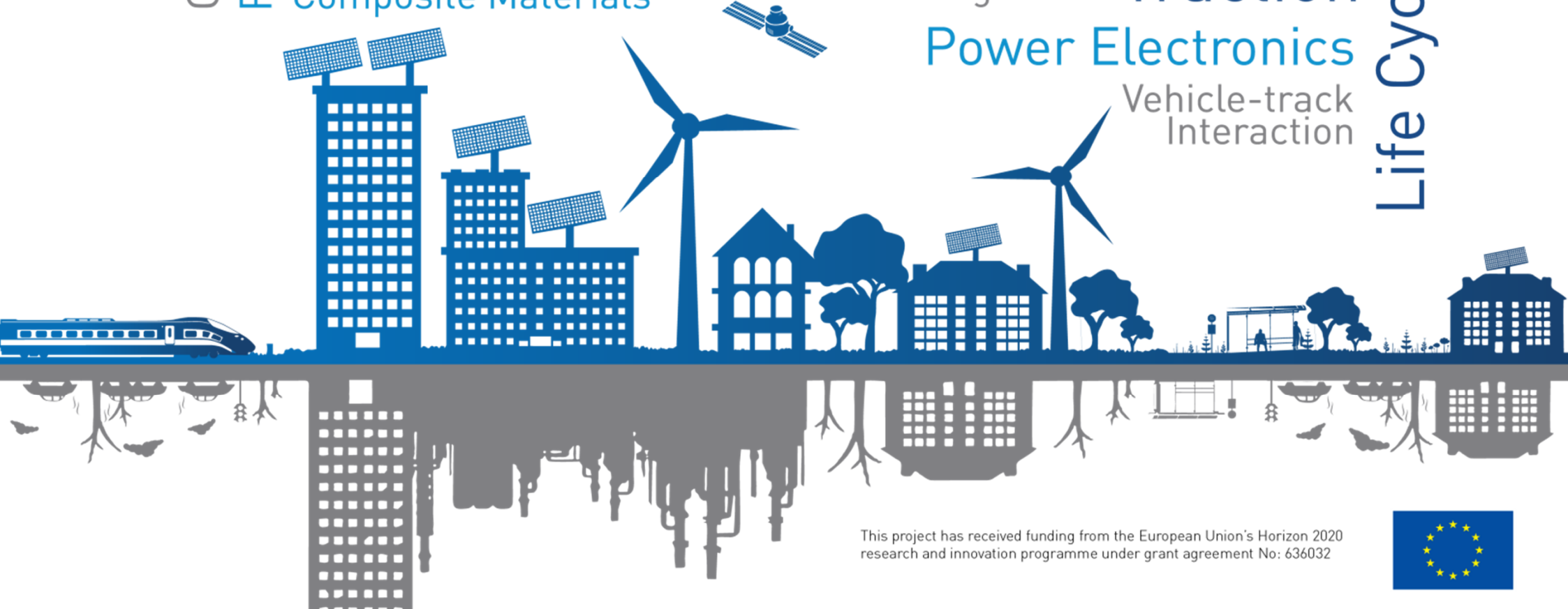
Running Gear

Traction

Power Electronics

Vehicle-track
Interaction

Life Cycle Costs



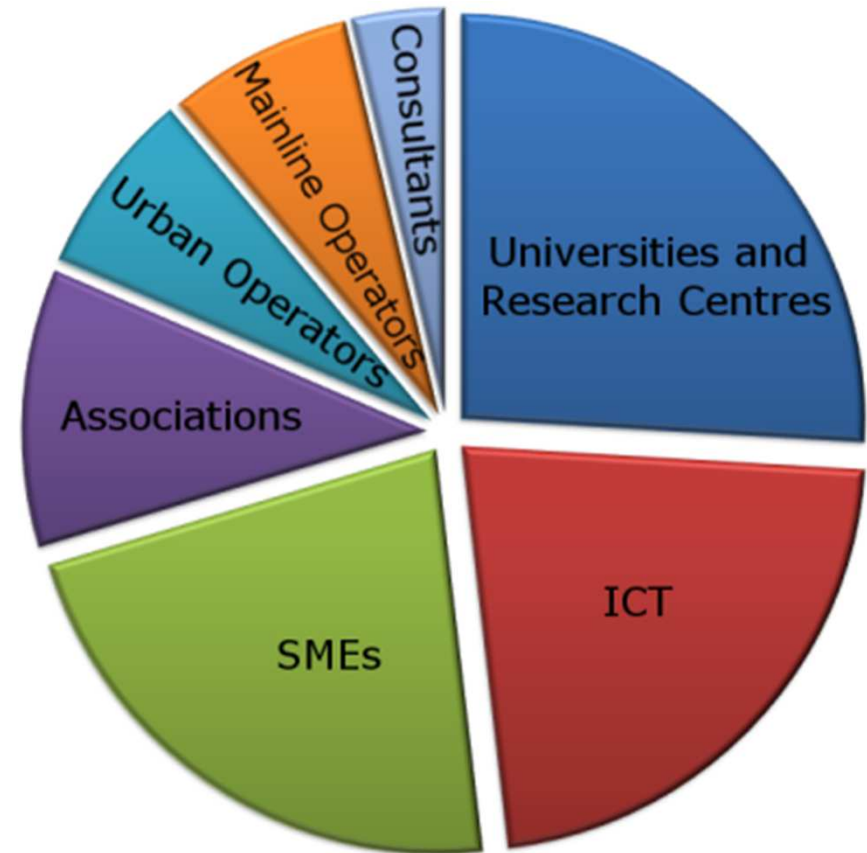
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No: 636032





Facts and Figures

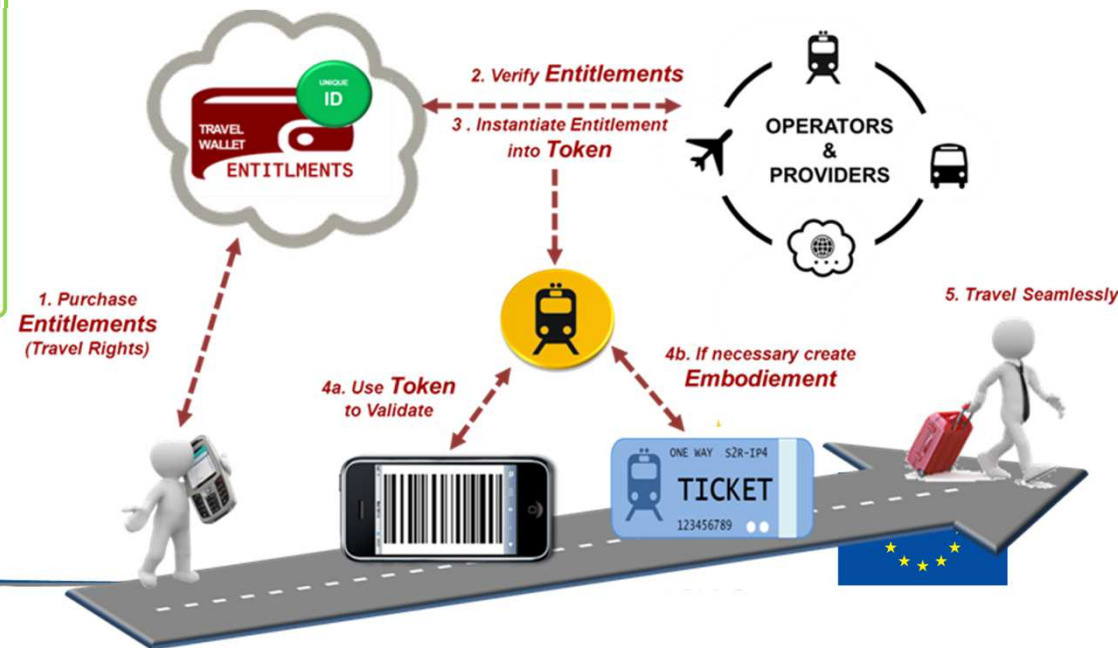
- Total budget: **12€ Mil**
- Duration: **30 months**
- Partners: **27**
- **9 EU** member states
- 9 Work Packages





Introduction and context

- IT2Rail will feed directly into **S2R IP4**
- IP4 and IT2Rail are dedicated to **solutions for transport multimodality, seamlessness and sustainability** (like Interoperability Framework, Shopping, Booking & Ticketing, Trip Tracking, Travel Companion, Business Analytics)
- The aim is to transform the **European citizen's global travel interactions into a fully integrated and customised experience**





Shopping

Real time

Innovation

Open Interfaces

Door to Door

Seamless Travel

Business Analytics

Digital

Multimodal

Ticketing

Tracking

Web of Transportation

Travel Companion

One-stop Shop

Connectivity

Technical Enabler Cloud

Re-accommodation

Attractive Railway

Services

Interoperability



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 636078



Impact of Roll2Rail and IT2Rail and their continuation in Shift2Rail



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Reduced life cycle costs of rolling stock and the track

Increase capacity of the railway system

Punctuality and operational reliability increase

Reduction of energy consumption

Improve environmental performance

Improve quality of service and customer experience

Increase Market Uptake

Increase Competitiveness of the European Industry

**Societal Impact:
Promoting Modal Shift**

Impact to Standards and Regulations



Thank you for your attention!

