S2R prepares the way into the future for Railways in Europe

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What is Shift2Rail

Public-Private Partnership
R&I platform for rail
Working together
Drive innovation by 2024

COST EFFICIENCY
50% reduction of life-cycle costs of the railway transport system

CAPACITY
100% increase in capacity

OPERATIONAL EFFICIENCY
50% increase in reliability and punctuality
Single European Railway Area

Attractiveness & competitiveness of the European Railway System

Leadership on the global market

Objectives

Shift2Rail

Single European Railway Area

Attractiveness and competitiveness

Leadership on the global market

- Improved services and customer quality
  - Improved reliability
  - Enhanced capacity
  - Customer experience

- Reduced system costs
  - Lower investment costs
  - Reduced operating costs
  - Externalities

- Enhanced interoperability
  - Respect and adaptation of TSIIs
  - Removal of remaining open points

- Simplified business processes
  - Improved standardisation
  - Simplified authorisation and certification

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Key documents

- **Shift2Rail JU Regulation**: general objectives.
- **The S2R Master Plan**: a high-level strategic vision and key priority research areas.
- **The S2R Multiannual Action Plan (MAAP)**: detailed, long-term investment plan that concretely identifies the projects, milestones and deliverables.
- **The S2R annual work plans contain** the specific topic scope and links across projects.
Programme structure

IP 1: Cost-efficient and Reliable Trains, including high capacity trains and high speed trains
IP 2: Advanced Traffic Management & Control Systems
IP 3: Cost-efficient, Sustainable and Reliable High Capacity Infrastructure
IP 4: IT Solutions for Attractive Railway Services
IP 5: Technologies for Sustainable & Attractive European Freight

Long-term needs and socio-economic research
Smart materials and processes
System integration, safety and interoperability
Energy and sustainability
Human capital
System approach

Technology Demonstrators (TDs):
Projects which specify, develop and demonstrate a specific technology, resulting in a laboratory tested and/or simulated prototype

Integrated Technology Demonstrators (ITDs):
Projects integrating / combining TD prototypes at system level (both in lab and on-site) and testing system performance

System Platform Demonstrators (SPDs):
Assessment of the whole system level performance based on the results of TDs and ITDs. SPDs will bring S2R’s innovative solutions to a technology maturity level for a new generation of railway systems

Railway system of the future
High-Speed / Mainline Passenger Transport, Regional Passenger Transport, Urban/Suburban Passenger Transport, Freight Transport

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TOTAL JU BUDGET = 920M€

FOUNDING MEMBERS CONTRIBUTION TO S2R JU:
Min. 270 M€

UNION CONTRIBUTION TO S2R JU:
Max. 450 M€
INCLUDING 52 M€ already committed under H2020 - WP 2014 rail topics

FOUNDING MEMBERS (Max. 180 M€)
ASSOCIATED MEMBERS (Max. 135 M€)
OPEN CALLS FOR NON-JU MEMBERS (Min. 135 M€)

SMEs = Min. 20% - 90 M€
WHAT’S GOING ON

41 (44) PROJECTS ONGOING

CALL 2018 UNDER PREPARATION

MAAP STRATEGIC REVIEW

S2R MID TERM EVALUATION

R&I 2018 AND BEYOND

STANDARDS’ ROADMAP

R&I BEYOND 2020

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IP3 - Cost-Efficient and Reliable High-Capacity Infrastructure

- INFRASTRUCTURE & STATIONS: 88M€
- ASSET MANAGEMENT: 50M€
- ENERGY: 15M€

Total: 153M€
IP3 - Cost-Efficient and Reliable High-Capacity Infrastructure

**IP3 PROJECTS (M€)**

**INFRASTRUCTURE & STATIONS**
- In2Track: 6.3
- S-CODE: 5.0
- FAIR Stations: 1.2* *(0.4 for IP1)

**IN2RAIL : 13**

**ENERGY**
- In2Stempo: 13.4
- In2Dreams: 2.2

**ASSET MANAGEMENT**
- In2Smart: 16.4
- MOMIT: 0.6

*LightHouse Call 2015-2016 Call 2017*
IP5 - Technologies for Sustainable & Attractive European Rail Freight

IP5 – €83.5M

- Strategies and Business Analytics
  - SMART RAIL
  - FR8RAIL

- Electrification & Telematics
  - FR8RAIL
  - INNOWAG

- Access & Operations
  - ARCC, SMART
  - FR8HUB
  - OPTYARD

- Wagon design
  - FR8RAIL
  - INNOWAG
  - FR8HUB

- Terminals, hubs, yards ...
  - FR8HUB

- New freight propulsion systems
  - FR8RAIL
  - FFL4E
  - DYNAFREIGHT
  - FR8HUB

- ATO
  - ARCC
  - SMART

#Shift2Rail
USER FIRST: USER CENTRIC MOBILITY AS A SERVICE
Thank you

imagine, together we make it...

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