

# Integration of Rail into a MaaS ecosystem

June 2021



# Shift2Rail Objectives



**INCREASE** RELIABILITY & PUNCTUALITY **BY 50%**



**DOUBLE** RAILWAY CAPACITY



**HALVE LIFE-CYCLE COSTS** OF RAILWAY TRANSPORTS



CONTRIBUTE TO **REDUCTION OF NEGATIVE EXTERNALITIES**, SUCH AS NOISE, VIBRATIONS, EMISSIONS & OTHER ENVIRONMENTAL IMPACTS



CONTRIBUTE TO THE **ACHIEVEMENT OF THE SINGLE EUROPEAN RAILWAY AREA**

**S2R PROGRAMME, ABOUT  
€ 1BLN and A NEW  
APPROACH TO R&I IN  
RAILWAY**

**working together &  
driving innovation**



**28**  
MEMBERS



**412**  
PARTICIPANTS



**29**  
COUNTRIES

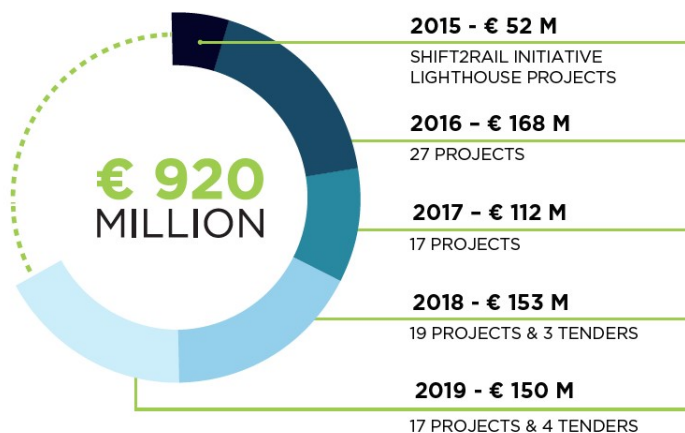
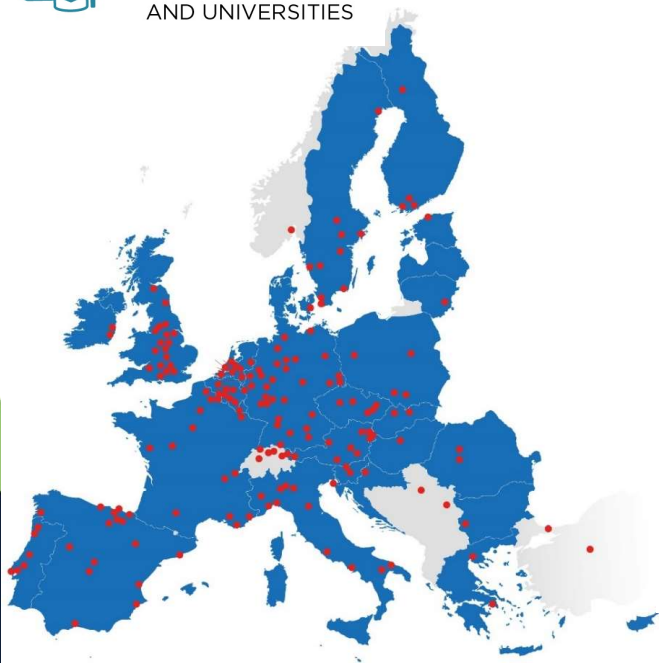


**109**  
SMEs

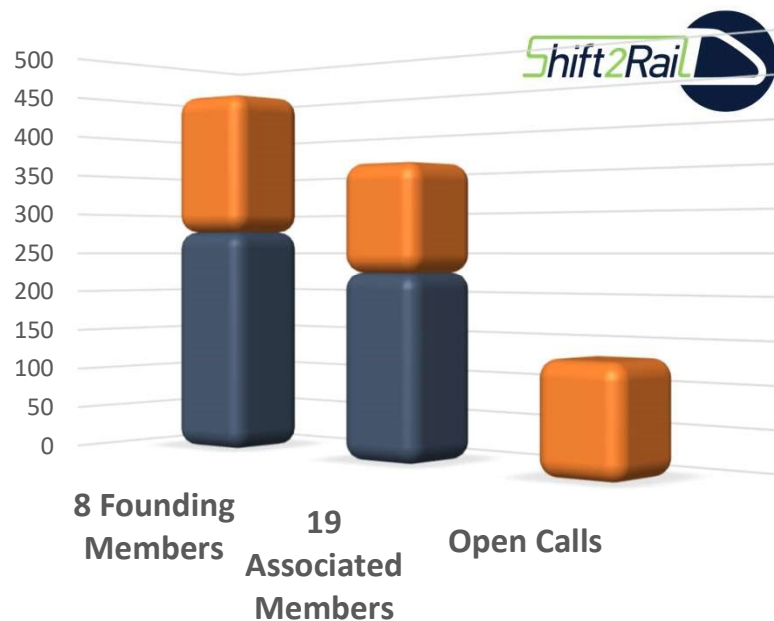


**113**  
RESEARCH CENTRES  
AND UNIVERSITIES

## AN OPEN and ACTIVE ORGANISATION



\*incl. at least 120M€  
of additional activities



Values as at 1 Sept 2016 in Million EUR

# S2R Solutions derived from Technical Demonstrators



**IP1** Cost-efficient and Reliable Trains, including high-capacity trains and high speed trains



**IP2** Advanced Traffic Management and Control System



**IP3** Cost-efficient, Sustainable and Reliable High Capacity Infrastructure



**IP4** IT Solutions for Attractive Railways Services



**IP5** Technology for Sustainable and Attractive European Rail Freight



**CCA** Cross Cutting Activities

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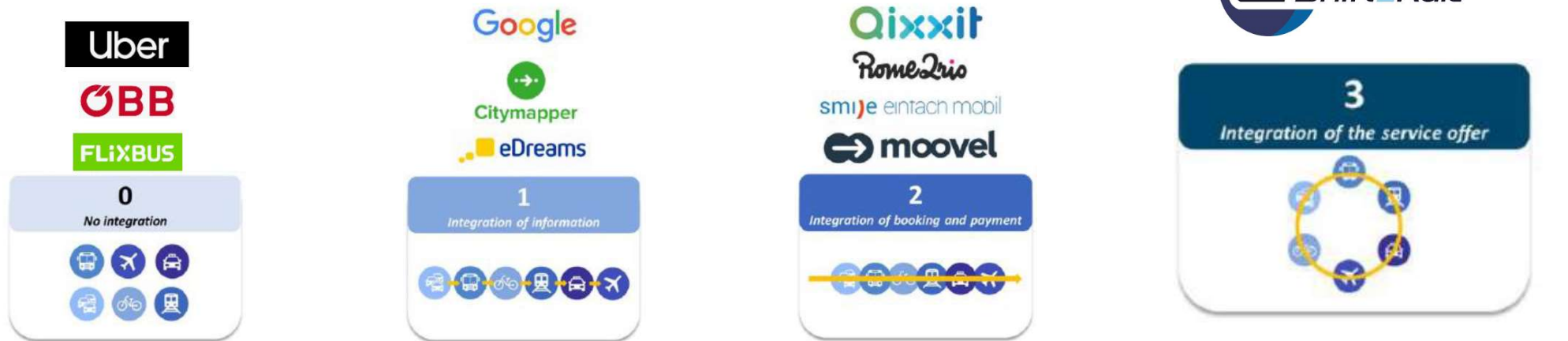


**IP5** Technology for Sustainable and Attractive European Rail Freight



**CCA** Cross Cutting Activities

# IP4 – Expected Key Results

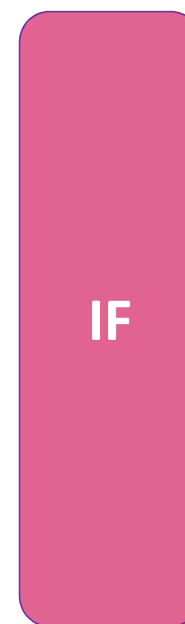
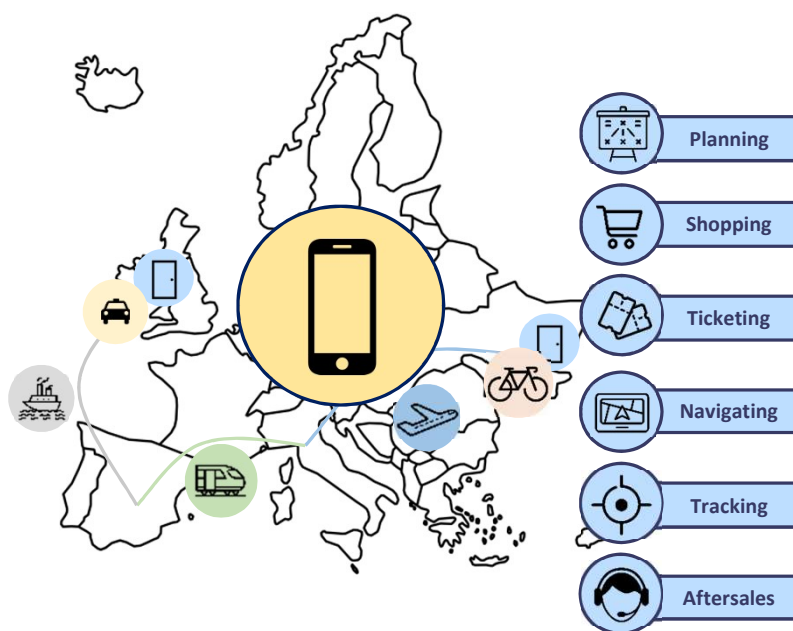


- ✓ One trip: multiple single tickets → one multimodal ticket
- ✓ European Level
- ✓ Ease integration of the Travel Service Providers
- ✓ Personalised experience in every step of the travel
- ✓ Location Based Experience, Contract Management, Business Analytics
- ✓ Provide the framework, tools and technologies to allow data exchange among different actors and systems



# Seamless Multimodal Travel Across Europe

- Complete door-to-door multimodal travel
- Across Europe
- Access through a travel Companion all travel services (planning, shopping, ticketing, navigating, tracking, aftersales )
- Open framework providing full interoperability to all Travel Service Providers



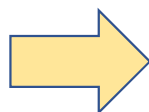


# Seamless Multimodal Travel Across Europe

Travel  
Companion



- Unique ID
- Tickets stored in Virtual Wallet
- Services tailored to preferences
- Real time notifications
- Location Based Experiences



Travel Service  
Providers  
Functionalities

- Clearing & Settlement
- Configuration of multimodal agreements
- Business Analytics



# Market uptake through testing and demonstrations

Demonstrate the benefits of IP4 through pilots focused on shared mobility services and seamless passenger experience, conducted in different demonstration sites in Europe.

- Build bridges between IP4 technologies and TSPs
- Overcome the technical and non-technical barriers for the adoption of new integrated mobility platforms
- Prepare the demosites for demonstration (e.g., administrative issues, legacy systems, etc.)
- Analyse the impact of S2R technologies on business models and on the behaviour of passengers.

## Members Participating



## Open Call Projects



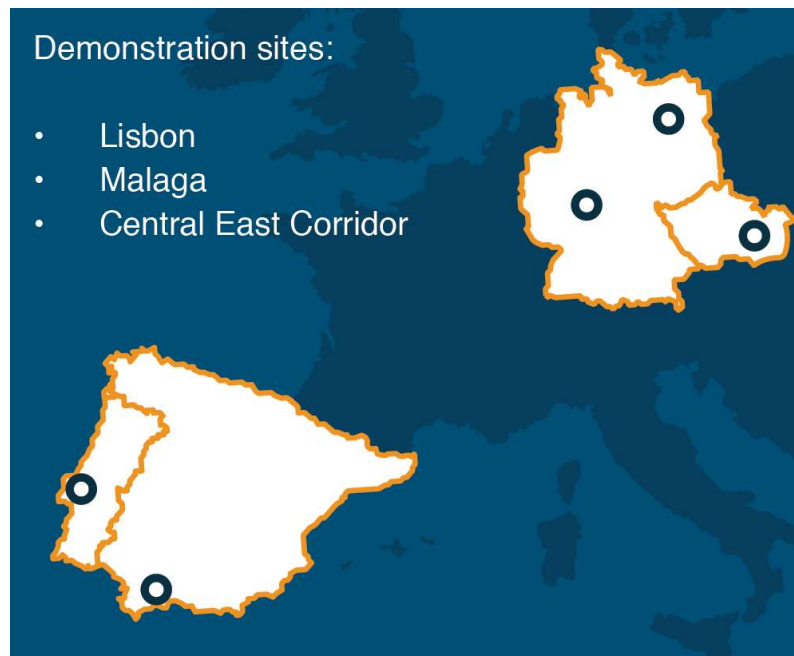
# Market uptake through testing and demonstrations



The project will demonstrate the benefits of IP4 through pilots focused on shared mobility services and seamless passenger experience, conducted in three different demonstration sites in Europe.

## Demonstration sites:

- Lisbon
- Malaga
- Central East Corridor



# IP4 Timeline



First version of the application to book Co-modal travels.

Inclusion of new Mobility Services in the ecosystem

Starting MaaS concepts

Assess the impact of S2R IP4 ecosystem on the demo sites:

Analyze regulatory and behavioral aspects of the IP4 multimodal transport services market place :

- on the business logics;
- on the creation of new business models;
- and on the behavioral response of passengers

Demonstrations of new IP4 functionalities: RIDE2RAIL and IP4MaaS

2018

2019

2020

2021

2022

First converter demonstrating semantic interoperability using FSM and TAP-TSI

Defined Rules, Processes and Governance Structure for the IF

Innotrans 2018 - First prototype software for booking transport services

Demonstration of MaaS features

Demonstration in three test sites (Lisbon, Malaga, European Corridor)

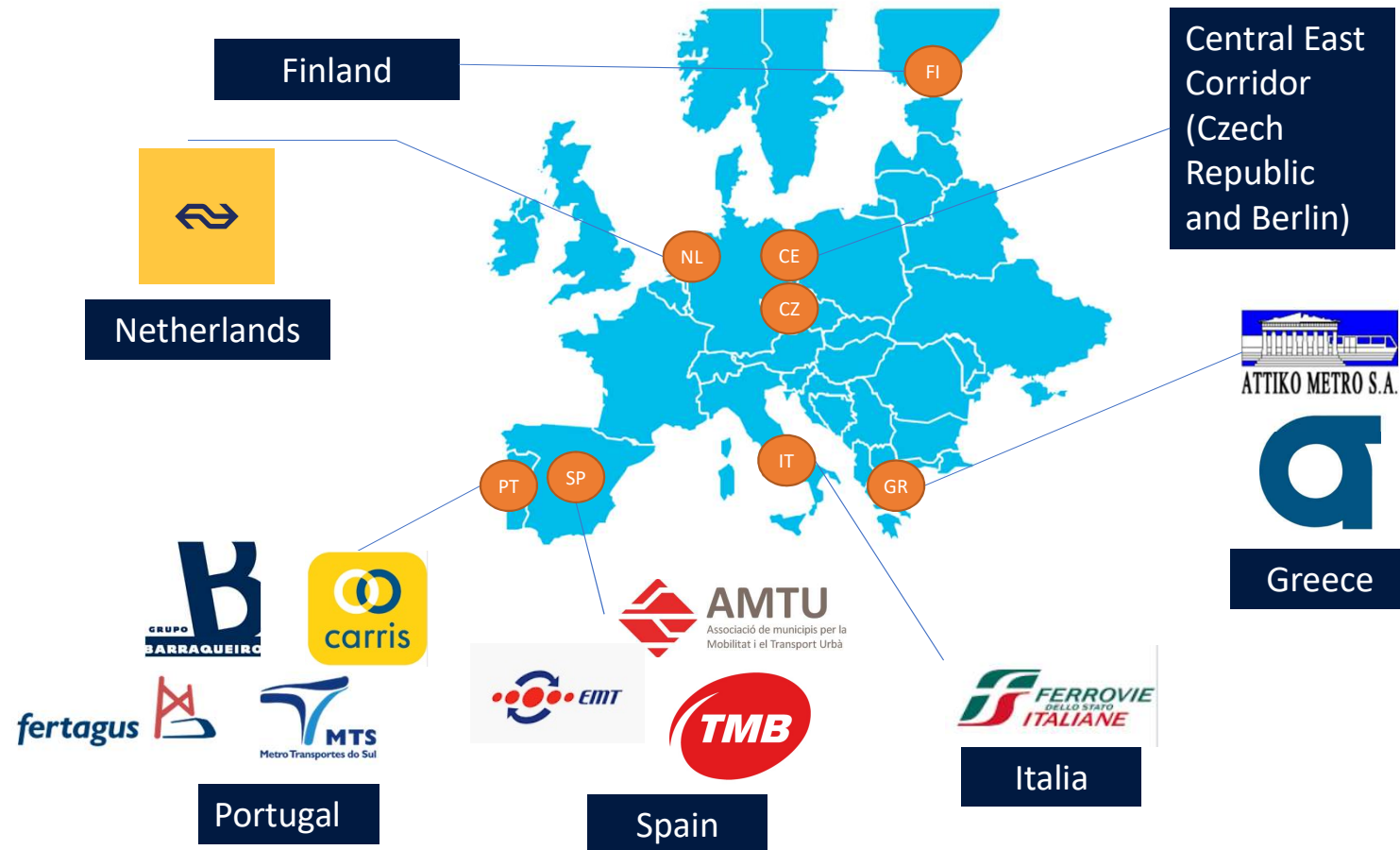
Demonstration of connection of a “3<sup>rd</sup> party application” with the IP4 platform

Full integration and demonstration of the complete set of IP4 ecosystem

# MaaS and Multimodal platform uptake through testing and demonstrations



Area	Operator
Lisbon	CARRIS
	Fertagus
	EMEL
Lisbon Area	MTS
Malaga	EMT
Czech Republic	KORDIS
Germany	DELPHI
Rhein-Main area)	RMV
Barcelona	AMTU
Athens	TMB
	OASA
	AMETRO
Netherlands	Nederlandse Spoorwagen
Padua	Ferrovie dello Stato
Helsinki	HSL PTA, HKL
	metro , Traficom,
	Viavan, City of Helsinki, Kyyti



Thank you!



## Founding Members



## Associated Members



### Virtual Vehicle Austria Consortium (VVAC+)



### European Rail Operating community Consortium (EUROC)



### Swi'Tracken Consortium



### Smart DeMain(SDM) Consortium



### AERFITEC



### Competitive Freight Wagon Consortium(CFW)



### Smart Rail Control (SmartRaCon) consortium





SHIFT2RAIL.ORG

