

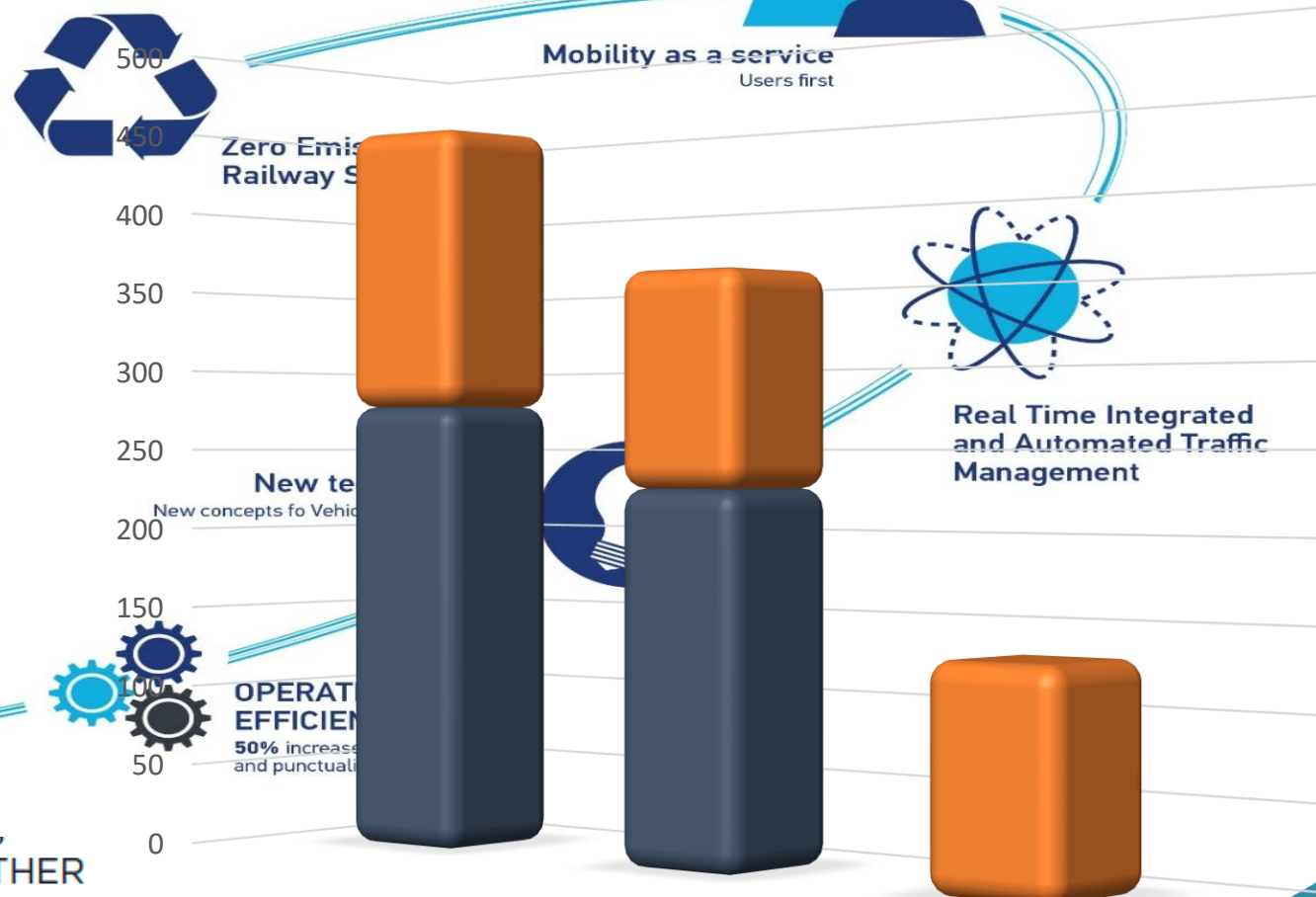
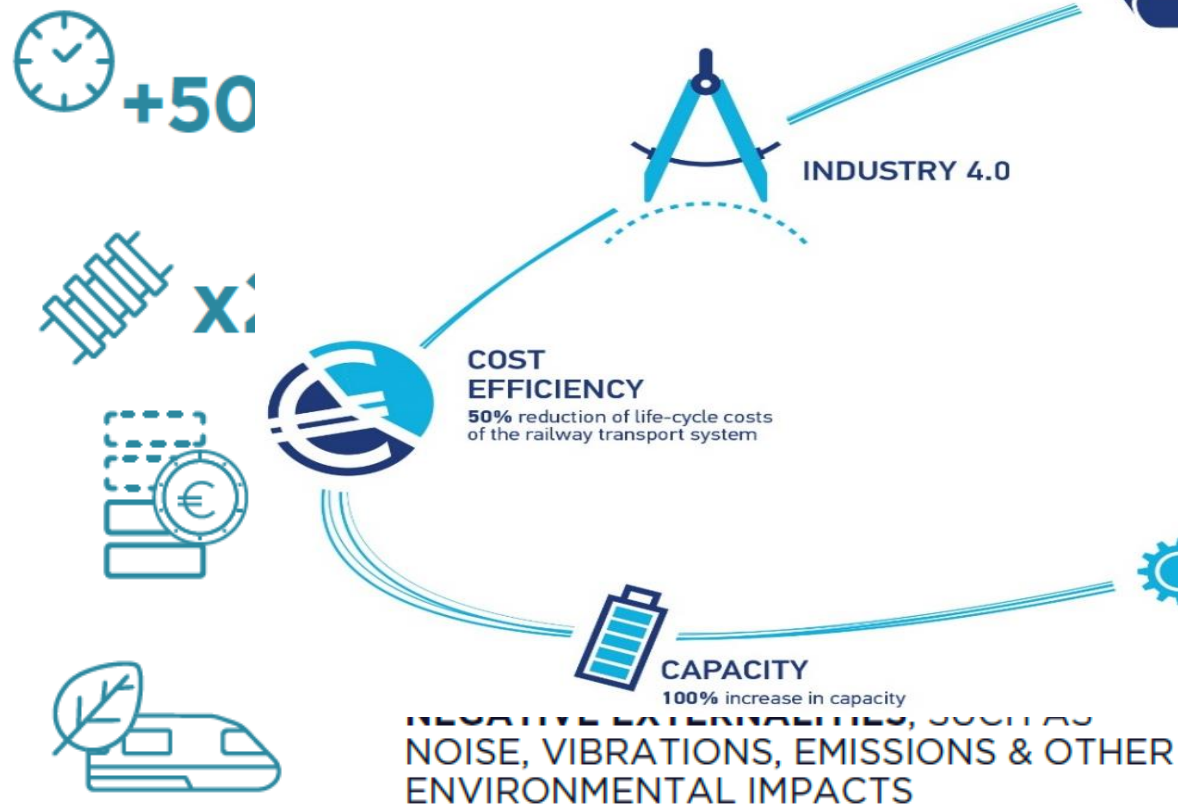
2nd International Scientific Discussion: the S2R Programme

4 October 2018

@Shift2Rail_JU
#Horizon2020



S2R VISION



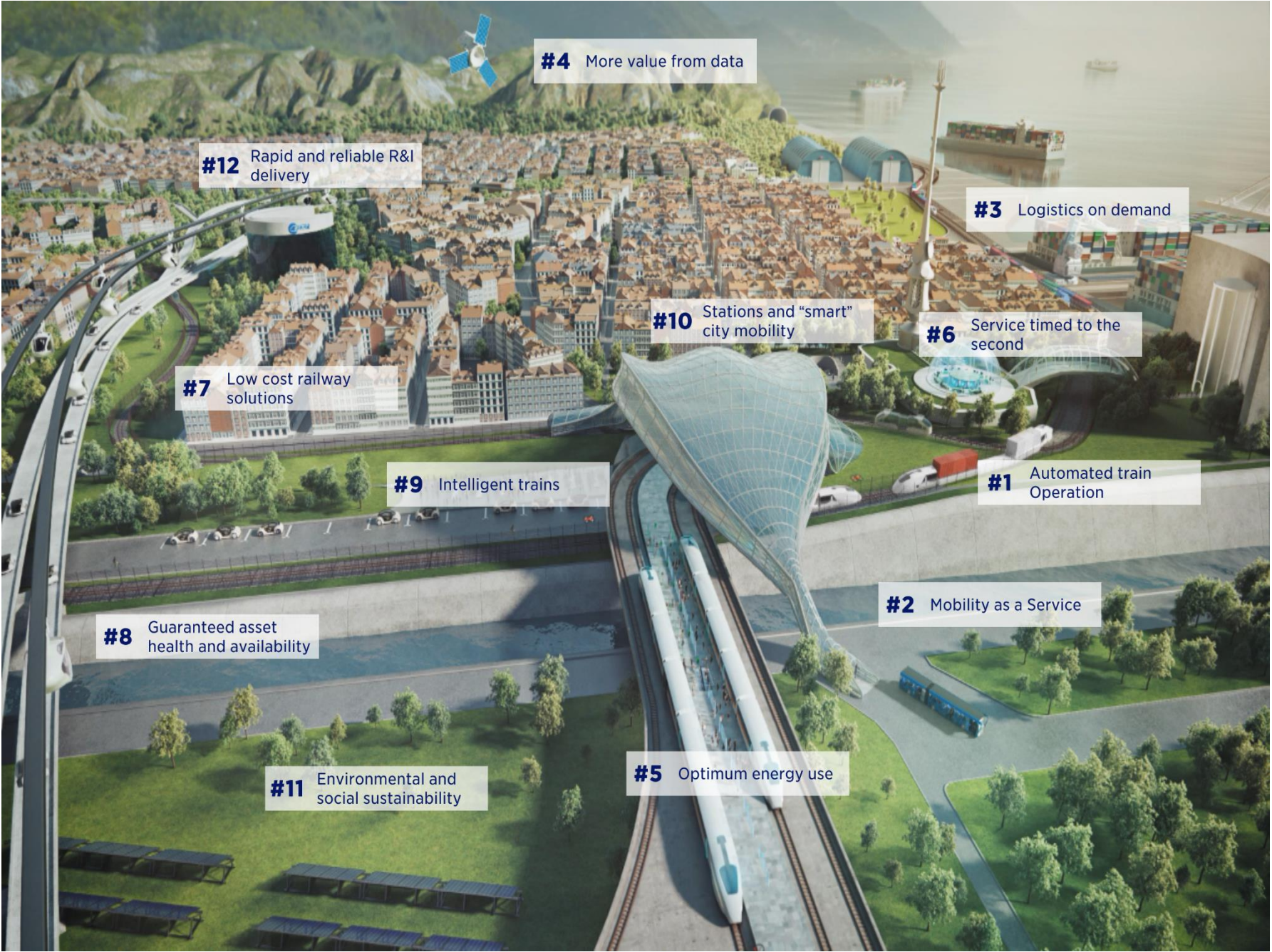
To deliver through railway research and innovation the capabilities to bring about the most sustainable, cost-efficient, high-performing, time driven, digital and competitive, customer-driven transport mode for Europe

CONTRIBUTE TO THE ACHIEVEMENT OF THE SINGLE EUROPEAN RAILWAY AREA

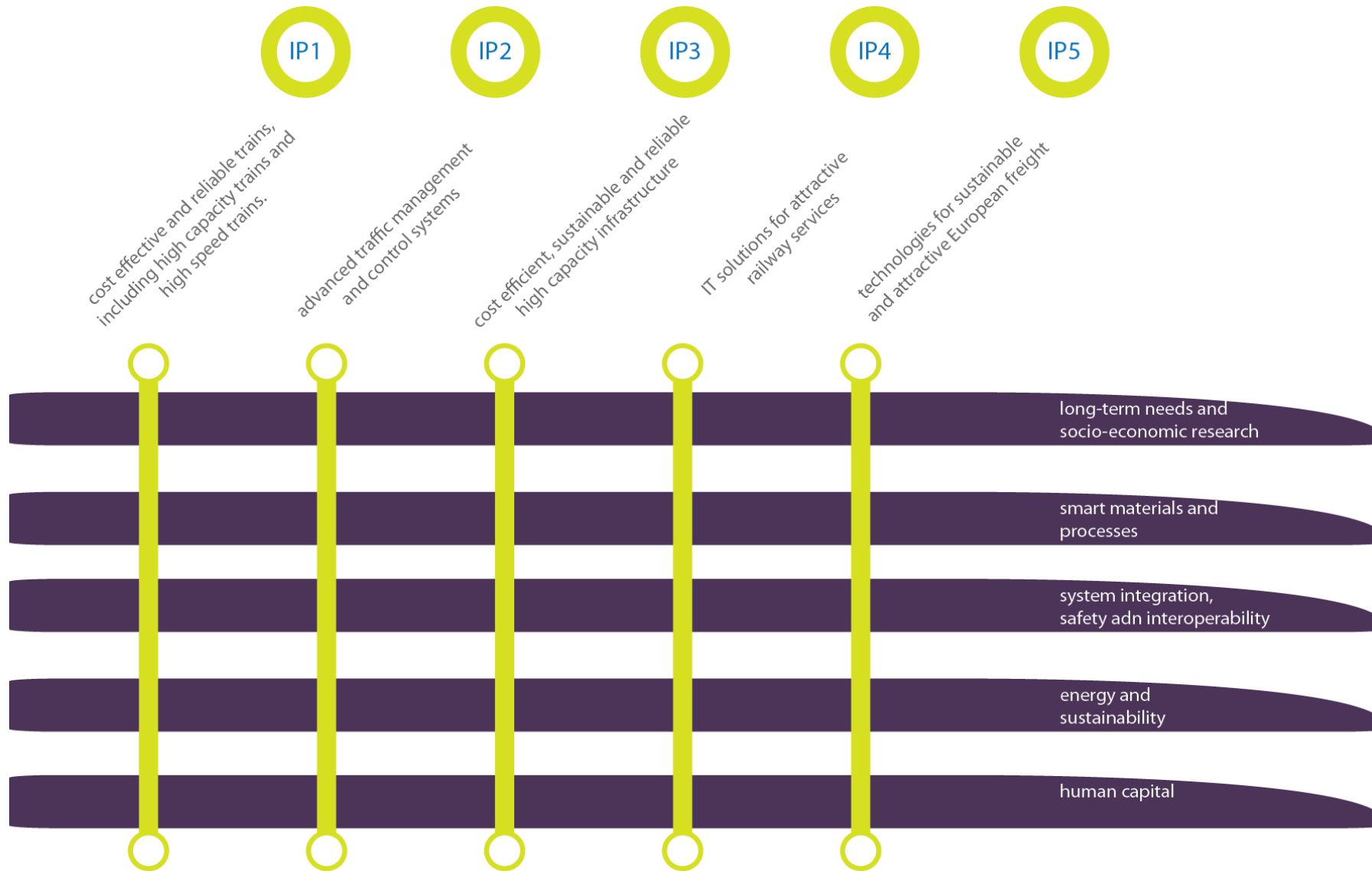
8 Founding Members 19 Associated Members Open Calls



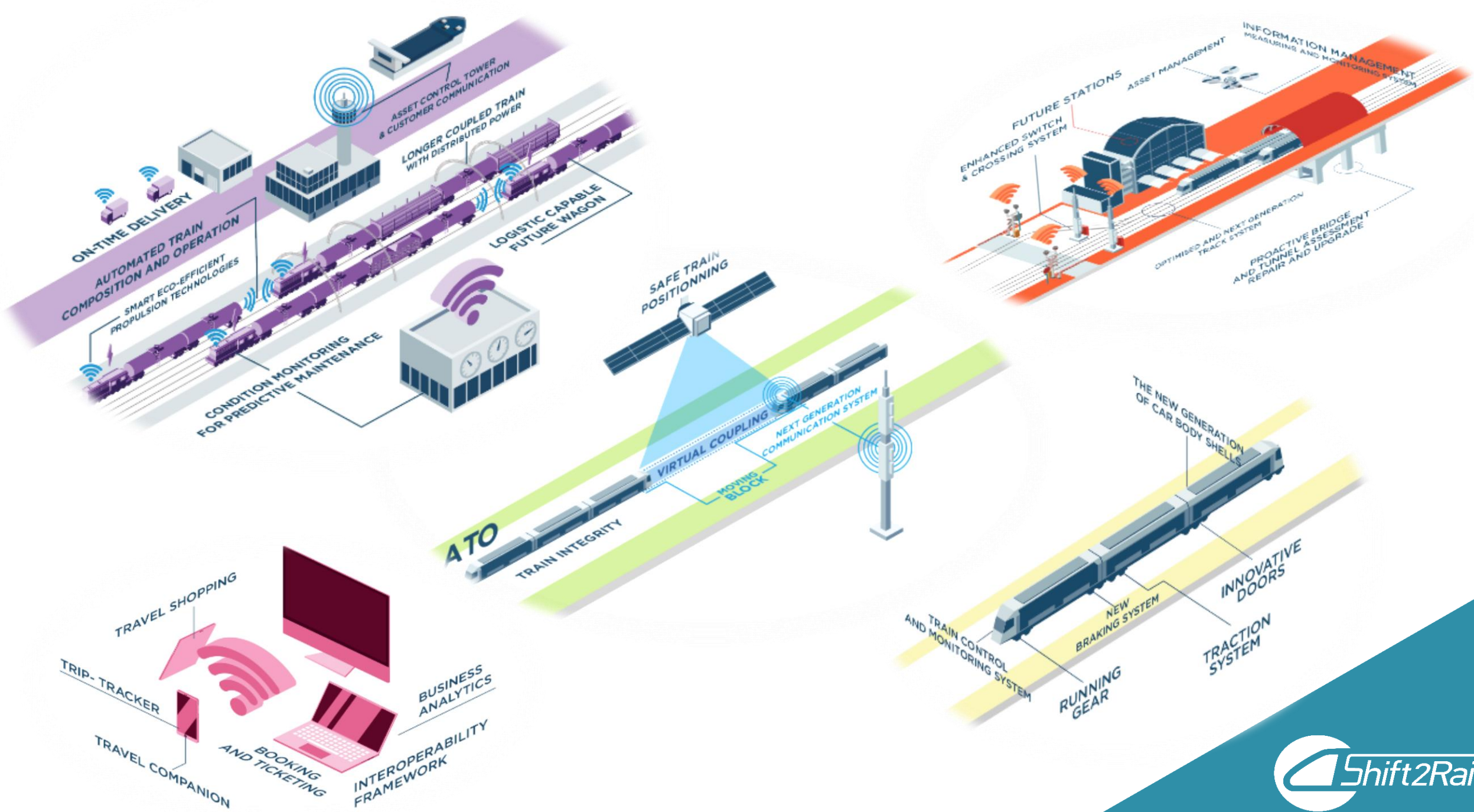
INNOVATION CAPABILITIES



R&I for Innovation Capabilities



**S2R PROGRAMME:
INTEGRATED
CONSISTENT
DELIVERY ORIENTED**



From “piecemeal” to S2R DigitRail System Architecture

- ✓ **Innovation:** evolutionary, by steps or disruptive
- ✓ **Time to market:** moving from R&I to deployment => **system approach to decrease fragmentation**
- ✓ **“Do not reinvent the wheel”:** **Open System Interface (or interconnection) model**
- ✓ **Innovation Skills and Competences :** still the same needs in the Digital Railway?

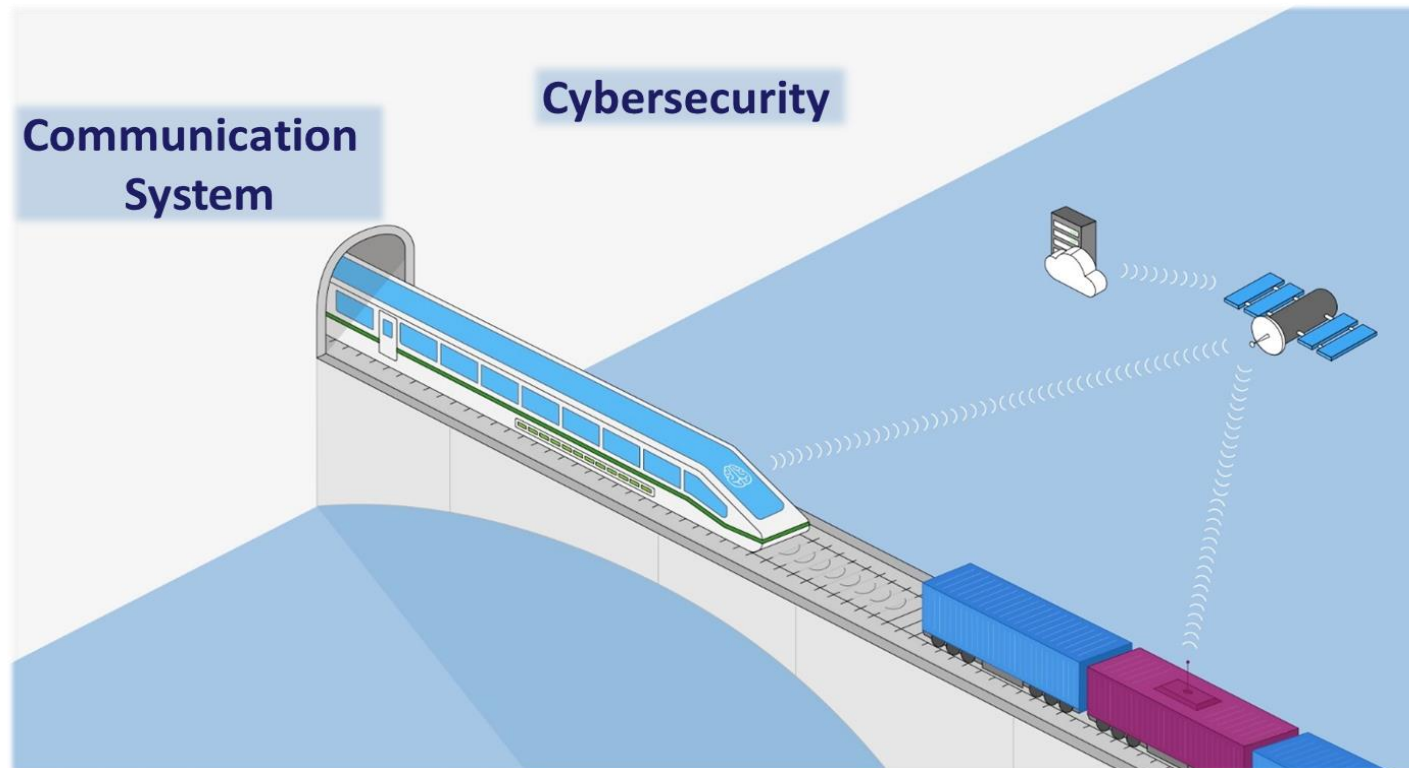
THE FUTURE RAIL SYSTEM: TRAINS MAXIMIZING THE SYSTEM PERFORMANCE BY A COMBINATION OF DISTRIBUTED INTELLIGENCE AND SUPERVISION BY 2030

- ✓ **Enablers:** digital technologies, automation, artificial intelligence, data, cloud and supercomputing, **connectivity**, satellite, but also **new regulatory concepts and framework**, traction, braking systems, etc....
- ✓ **Deployment:** from zero on site testing through integrated testing to revenue services testing, large real time demos, transition models



Automation, Digitalization and Sustainability: agree on the automation intelligence

- on the vehicle
- on infrastructure
- a mix of both
- shared intelligence between modes *a railway could be responsible for example of the network management of automated car systems*

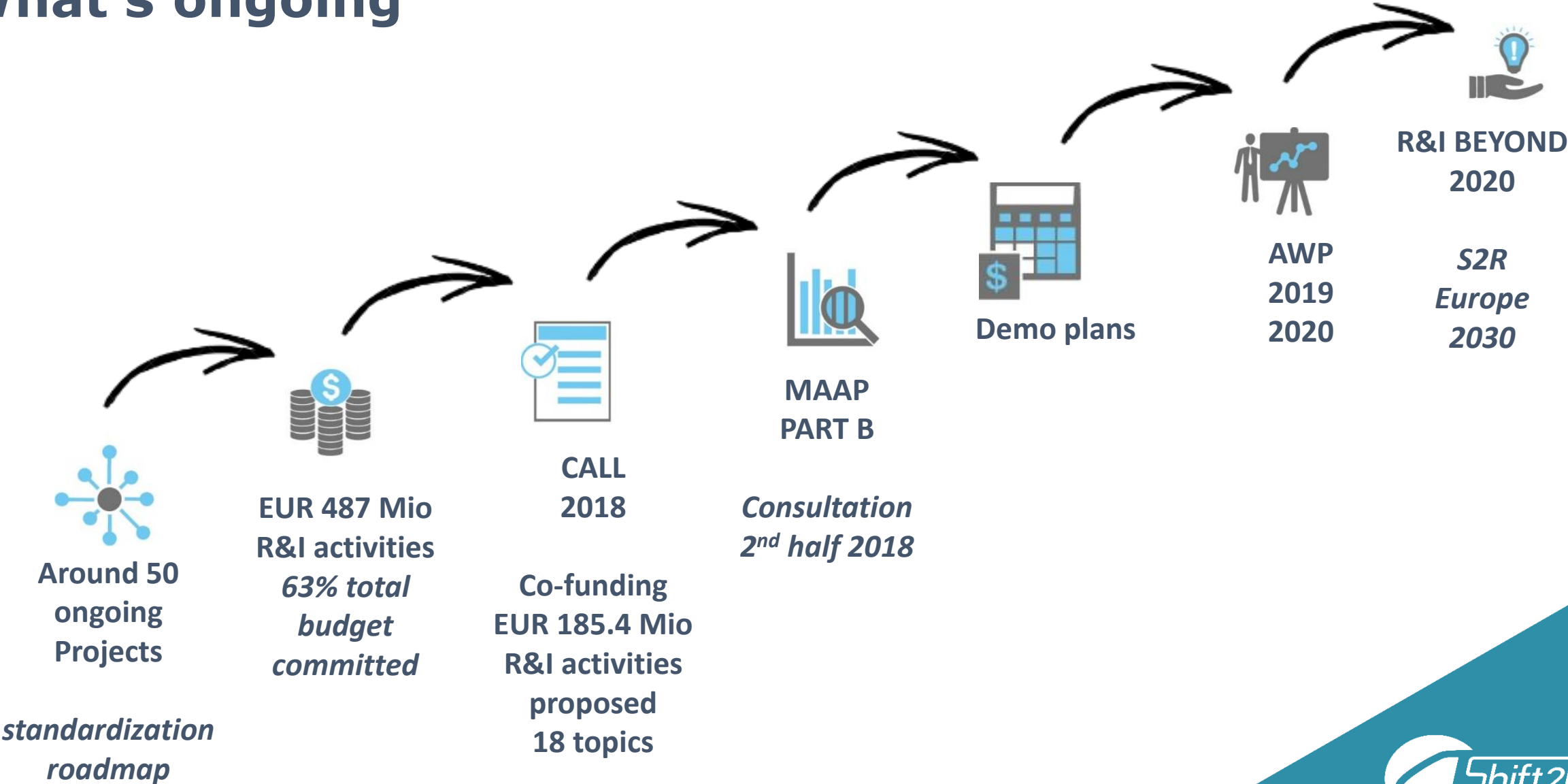


Together to deliver S2R DigitRail System Architecture



Participants in the Shift2Rail initiative as at 01/08/2018

What's ongoing





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carlo.borghini@s2r.europa.eu

