



Strategical Views on Spectrum

17/18 May 2017

UIC Conference

CER - EIM

Railways in Europe

COMPARISON OF SIZE OF THE DIRECT GROSS VALUE ADDED OF DIFFERENT TRANSPORT MODES IN 2011



8.6 bn

passengers were carried by the EU rail sector in 2014 – more than there are people living in the world.



80%

of the modal split is obtained by high speed trains in relation to air transport when travel time by train is less than 2.5 hours.

The railways are an essential mean of transport

Railways in Europe



LINES

> 220 000 km of lines



Lines in highly
rural area



PASSENGERS

About 400 billion
passenger.kilometres



Densed traffic in
urban nodes



FREIGHT

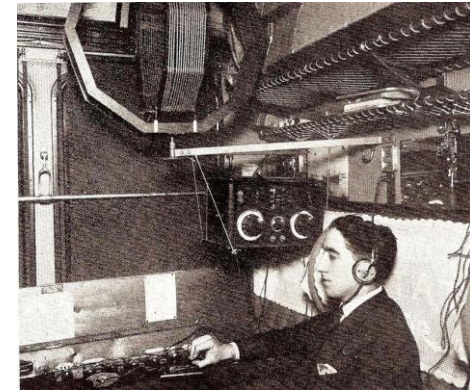
Over 405 billion
tonne.kilometres



Goods transported
on Transeuropean
freight corridors

Telecom and railway: a long history

For two centuries, telecom have played a key role in the railway industry

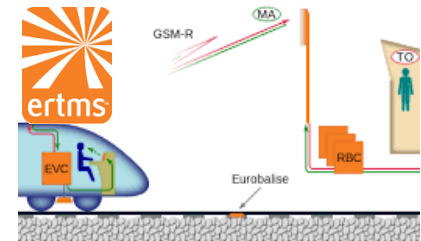


And for tomorrow

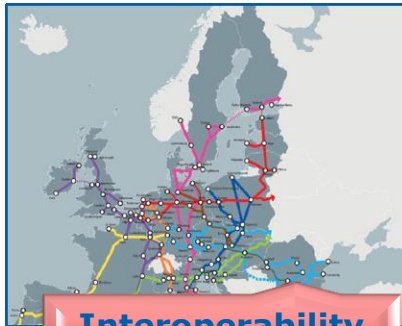
FRMCS is to become the backbone of a **Single Digital European Railway Area** offering:

- Rail safety
- Traffic efficiency
- Punctuality
- Energy and cost savings
- New innovations

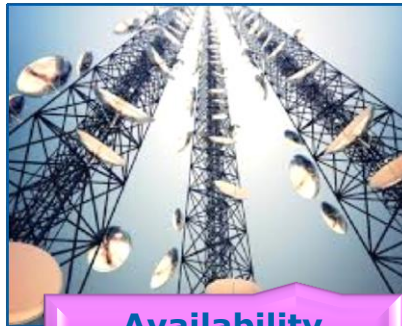
As acknowledged with the **2016 ERTMS Memorandum of Understanding**



Railway needs spectrum



**Interoperability
Harmonisation**



**Availability
Global coverage**



**Migration to
successor**



**Digitalisation
Innovation**



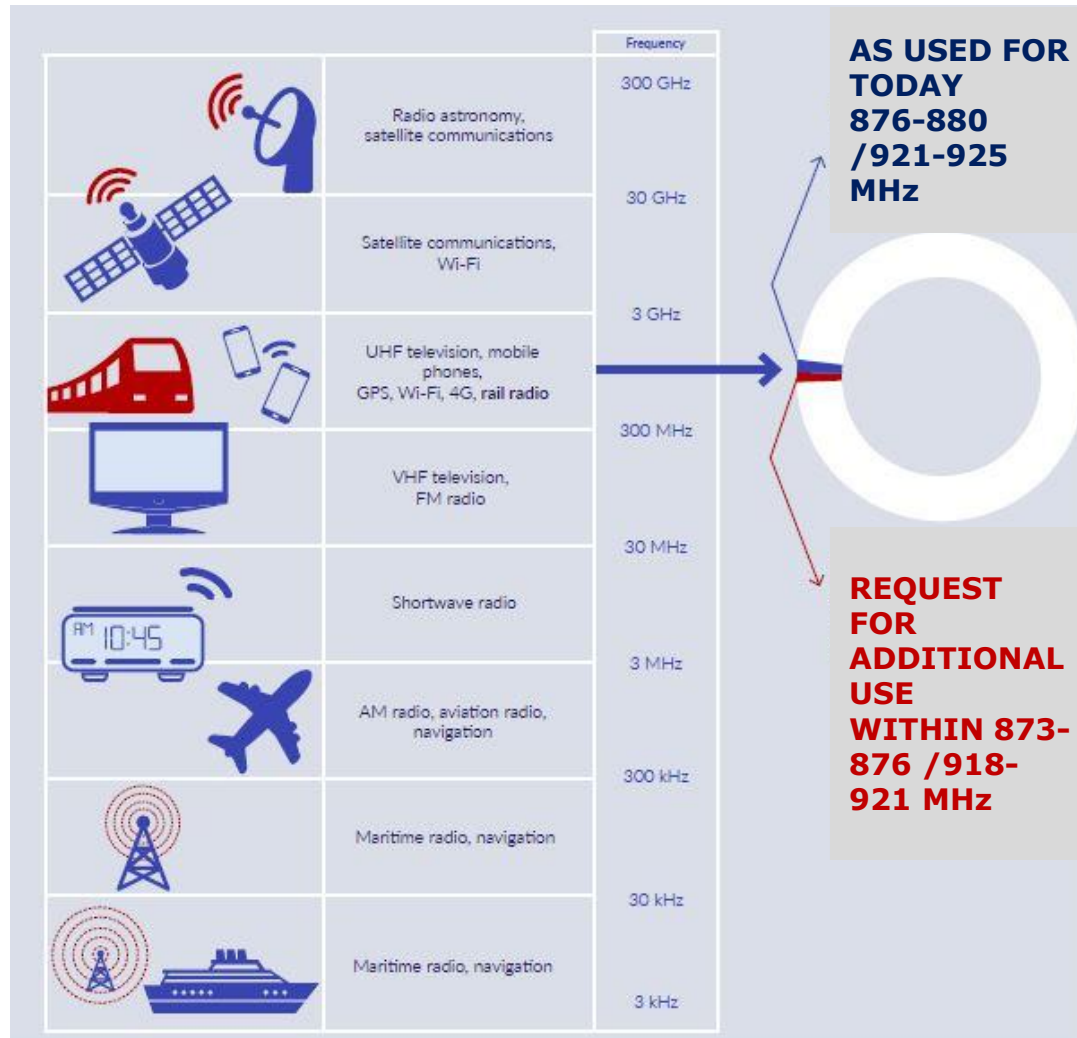
Safety



**Competiveness
Standards**

Additional harmonized spectrum is a key asset for all those reasons

The most favourable option



Our message

- *Current harmonized spectrum is an essential asset for railways today and harmonized spectrum will also be needed tomorrow to ensure safe and uninterrupted train operations*
- *The 873 - 876 MHz / 918 - 921 MHz band, in addition to the current GSM-R band, is the most favourable option to reuse infrastructure investment and allow a smooth migration*
- *CER and EIM strongly support the efforts for the harmonization within the 873 - 880 MHz / 918 - 925 MHz band for FRMCS. It is imperative to provide, on the long run enough, capabilities in terms of enhanced services and applications to manage the future of railway operations*
- *It is in the view of CER and EIM essential to provide an acceptable migration path for those EU countries that have invested in GSM-R infrastructure*



The Voice of European Railways



For more information:

Hélène ARFAOUI KAYNAK
helene.arfaoui-kaynak@sncf.fr

Erica WILLBORG
erica.willborg@trafikverket.se