



# **EC/ERA view on future communications**

**UIC Conference**

**Paris, 11<sup>th</sup> September 2013**



# Strategy for the evolution of Railway Communication System

**GSM-R will be used for many years (at least 2028). The investments done will be preserved.**

**BUT** an evolution is required and we need to be prepared for the future:

- think on the ownership of the network

- bandwidth requirements

- different technical solutions

- different needs for voice and data communication

**THEREFORE** any evolution shall ensure compatibility with GSM-R.

**ETCS should evolve towards a bearer independent architecture.**

**TAKING INTO ACCOUNT** that technologies evolve within a 5-7 year cycle: a decision taken today on the technology to be used in 20 years will be outdated when the target date is reached.



# Strategy for the evolution of Railway Communication System

**There are various communication needs in the railway business ...**

**..., but EU can only have a word in the communications dedicated to allow seamless travel of a train throughout Europe, and dedicated to ensure the minimum level of safety of the network and its QoS.**

**EU regulations must be limited to essential requirements.**

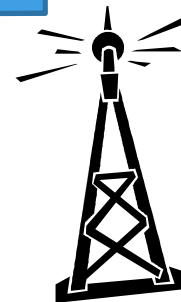


# Strategy for the evolution of Railway Communication System

## HOW to organize?

EC: to define the **MINIMUM requirements** that will have to be respected for “legal reasons” (and to establish the migration from the present situation)

but the full design of the future system should be guided by the standards and market needs.



Industry

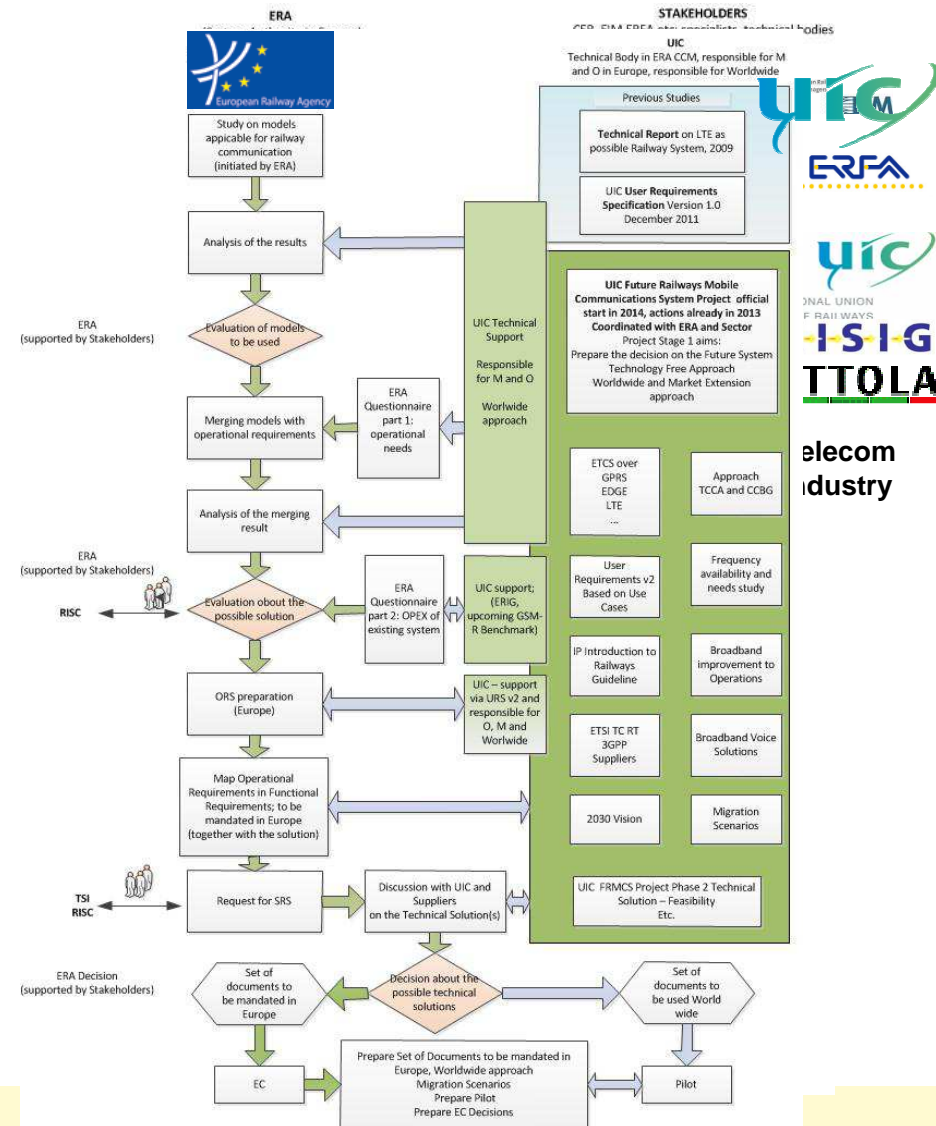


# Strategy for the evolution of Railway Communication System

**ERA strategy to prepare for the evolution:**

a) to continue the support to the initiatives that promote bearer independence for the ETCS application

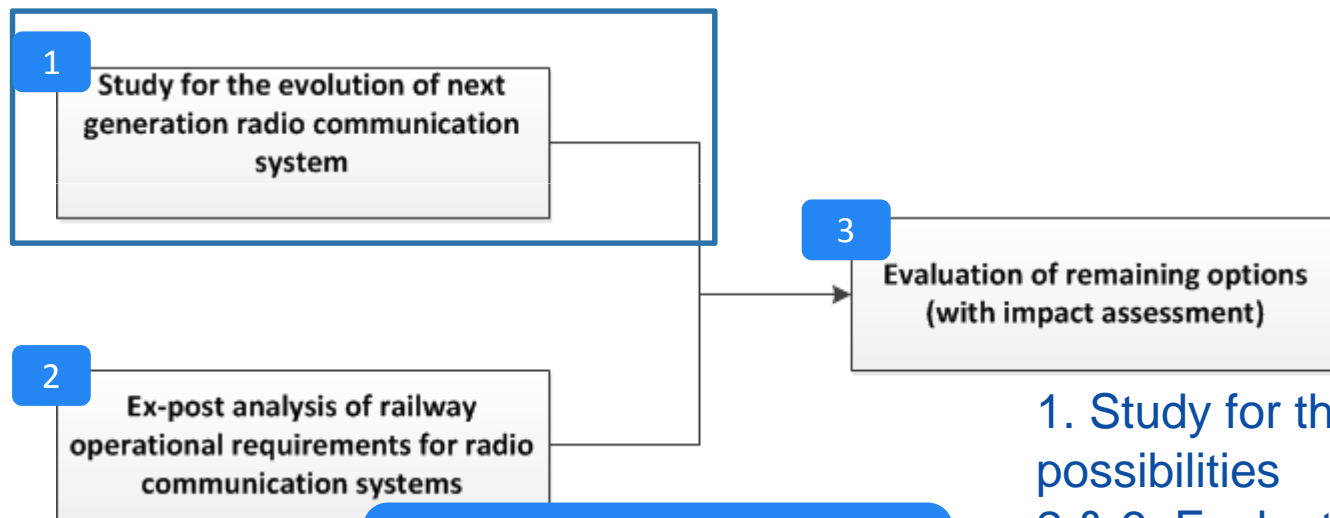
b) to be aware of the different possibilities for the evolution, questioning the assumptions, and try to find the basic requirements that will have to be respected in Europe.





# Strategy for the evolution of Railway Communication System

## FEASIBILITY ANALYSIS OF THE DIFFERENT RADIO COMMUNICATION SYSTEMS



NEED OF CHANGES IN CURRENT SET OF REQUIREMENTS ?

1. Study for the evolution possibilities
- 2 & 3. Evaluation of the possible models: Impact Assessment
4. Decision on solutions
5. Specifications

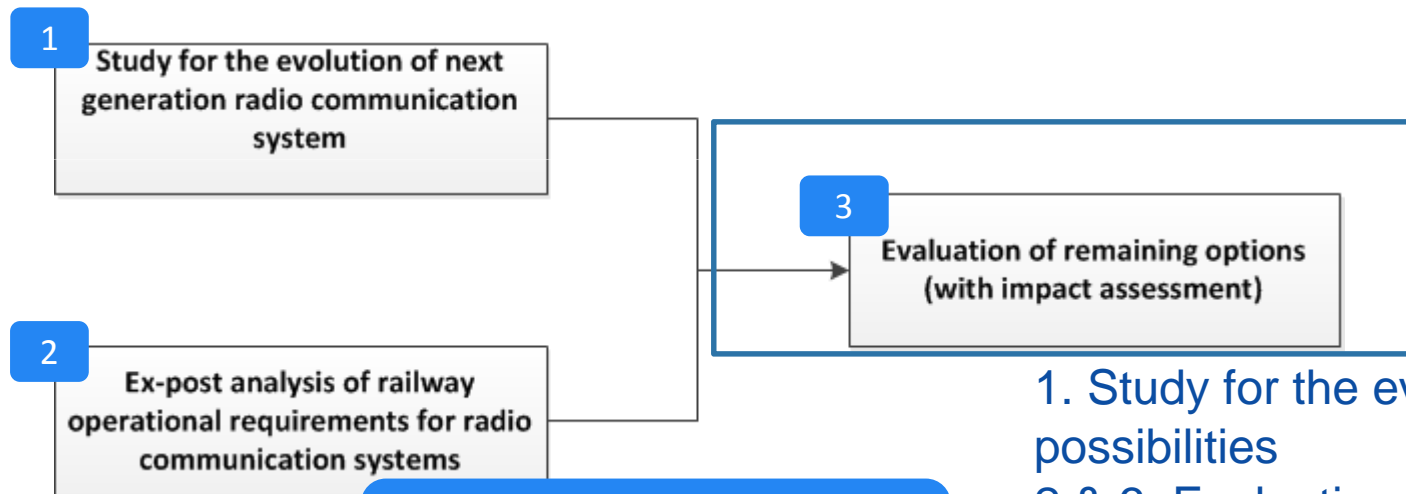


# Study for the evolution of Railway Communication System

- Schedule: Start of activities: end of Q3/13  
End of activities Dec/13 – Jan/14.
- Out of the scope:
  - \* Evaluation of different specific solutions (no technical details)
- Objectives:
  - a) **to analyse the current situation** with respects to the communication system used for voice and data for the rail traffic management, taking into account other sectors where similar communication needs are found (aviation, maritime traffic, blue light services).
  - b) **possible evolution of the communication needs and different network ownership models**: open the eyes to the models used in other environments.
  - c) cost-benefit analysis (qualitative) of the possible evolution models presented for the system.



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## Next steps

Q1 2014: Brainstorming sessions, including ERTMS Steering Committee

H1 2014: Ex-post analysis of GSM-R use

2014: Impact assessment.

2015: Roadmap on what evolution paths to be followed

2018 : New communication systems defined

2022: available for deployment



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