The Future Role of ERA in Shift2Rail
A joint undertaking with 900 M€ budget for 10 years

**Shift2Rail: driving innovation on railways**

- Improving quality of rail services by increasing reliability and punctuality by as much as 50%;
- Reducing congestion and CO2 emissions by doubling railway capacity;
- Cutting the costs of infrastructure and rolling stock by up to half;
- Retaining Europe’s leadership in the global rail market.
• ERA has Observer Status
  • on the Governing Board
  • On Working Parties

• “Shift2rail shall............ bring in the experience and expertise of the ERA on issues relating to interoperability and safety”
1 (b) to contribute to the achievement of a Single European Railway Area

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(d) The removal of technical obstacles, in particular by endeavouring to close points which remain open in TSIs due to lack of technological solutions and by ensuring that all systems and solutions developed by the JTI are fully interoperable;
“ERA shall contribute to the definition and implementation of the Master Plan in particular by performing the following advisory tasks:

1. Proposing amendments to the Master Plan and Work Program to ensure research needs relating to the Single European Railway Area are covered.

2. Proposing after consultation with the stakeholders technical standards for research, development and validation activities with a view to guaranteeing interoperability and safety of the results.

3. Reviewing the common developments for the future system and contributing to defining target systems in regulatory requirements.

4. Reviewing project activities and results with a view to ascertaining their relevance to the objectives identified in Article 2 and to guaranteeing the interoperability and safety of research results.”
ERA is a unique source of independent advice for the Commission in that it combines technical competence (as “System Authority”) with comprehensive understanding the framework of the Single European Railway Area:

- Low knowledge of the framework in the research community is a threat to market uptake. (many contributions still talk about “homologation” and “railways”) The research work needs support to make sure their outputs
  - fit the framework
  - are interoperable and consistent with safety regulation

- ERA has the ability to take the overview and help establish
  - Proposals/projects that are re-cycling and/or duplication
  - Proposals that will “make the most difference”
The TSIS define the common specifications for the “target (shared) system”. As Shift2Rail develops new technology the TSIs will need to evolve (TSIs already have provisions for innovative solutions)

- Research must take account of the need for assessment methods for new solutions, because to be useable a project/product need to be certifiable/authorisable - bad example: composite brake blocks 10 years from production to certification.

- In order to close TSI open points researchers need to fully understand the issues

- To enable ERA to quickly assimilate new technology into the TSIs a common approach is needed to ensure it can be evaluated to be “the most viable solution”

- Conclusion: ERA and Shift2 Rail need to work closely in parallel each sharing with the other their knowledge and progress on common issues
Recent examples

Research projects can contribute to:

› The closure of open points:
  › AeroTrain and the crosswind requirements

› The removal of technical barriers:
  › Transfeu and the finalization of EN 45545-2, directly quoted in the LOC&PAS TSI

› A simplified vehicle authorization:
  › Acoutrain and a methodology for a simplified assessment

› Future evolution of regulatory requirements
  › Impact of the Acoutrain results on the future Noise TSI

› Business objectives (increased capacity, energy reduction...) that may impact the regulatory framework
The Agency and the 4th Railway Package
4th Railway Package

railway package – an ambitious strategy to deliver better quality and more choice in railway services in Europe

Rail is critical for the effective functioning of the European economy. It plays a key role in addressing rising traffic demand, congestion, fuel security and decarbonisation. The Commission is proposing to stimulate innovation by promoting and funding research and to foster growth by opening up markets to new entrants, cutting red tape and ensuring fair treatment for all.

Over 8 billion passenger trips are made by rail each year.

Rail carries about 11% of all freight traffic across Europe, with estimated revenues of €13 billion.

Source: DG move estimates / Eurostat
The principle

ONE
STOP
SHOP
Making the railway system work better for society.

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