



Results of the D-rail EU research project ERA perspective

D-Rail Final Seminar Stockholm, 12 November 2014 Safety Unit

Background on ERA activities (freight derailments)

Background: 2007-2009

Work achieved by ERA on freight train derailments

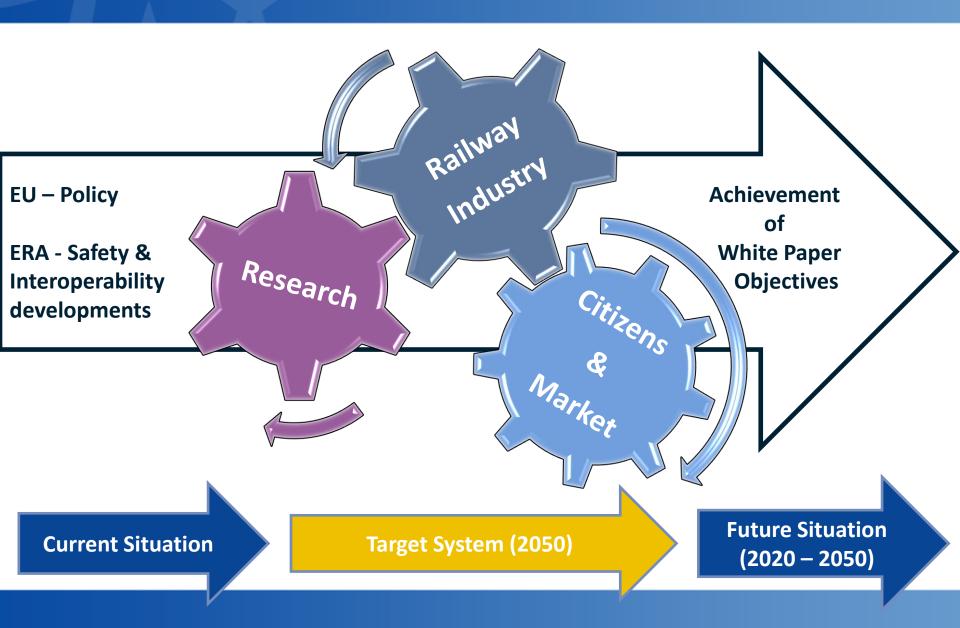
- > Detailed examination of the freight train derailments risks
- Need for better controlling freight train derailment risks, in particular their economical impact for the sector
- Recommended the European Commission to use mechanical derailment detectors only on a voluntary basis, because
 - > they may introduce a potential new risks (confirmed in 2011)
 - > their cost-effectiveness is questionable

Background: 2010

A changing context

- In an open market, Infrastructure Managers and Railway Undertakings are responsible for safe operations
- National Safety Authorities supervise the safety performance of IM/RU at national level
- Small / Isolated improvements may not suffice to deliver the white paper objectives on transport
- Derailments have a negative impact on the rail market share
- Railway freight catastrophes are not acceptable for EU citizens

Background: 2010



Background: 2010

ERA expressed key objectives for a research project

- Achieve breakthrough improvement in the reduction of freight derailment number
- Reduce freight train derailment impacts for the sector (human, environment, asset)
- Prepare future target railway system (2020-2050) reducing derailments

SST.2011.4.1-3.

Reducing the occurrences and impacts of freight train derailments

"Typically the expected benefit is to reach an absolute reduction of derailment impacts which would at least balance the mechanical effect of railway traffic increase on accident numbers."

ERA perspective on D-Rail results

D-Rail provides for key inputs on:

- > Future Train and Infrastructure condition monitoring
- Further harmonisation of safety data exchange
- > Potential innovation on electronic derailment detection

Contribution to EU policy

- > Expected benefits are achievable: up to 50 % derailments
- Implementation of Monitoring / Maintenance / Supervision
- > Improved collaboration between IM—RU—ECM is achievable
- Can be cost effective
- Feasible with existing technologies

ERA perspective on future developments

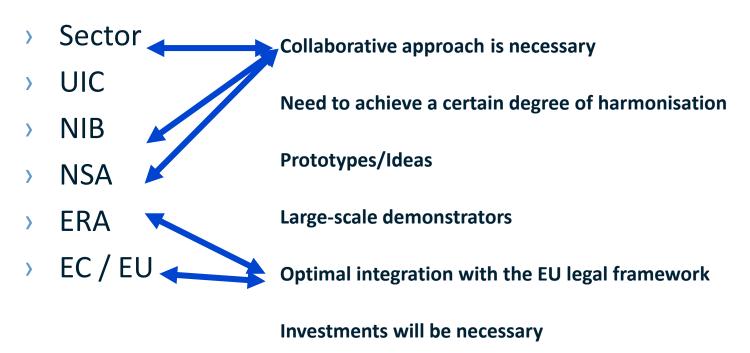
Detailed system specifications

Cost-effective solutions are identified



Potential change to legal framework

Cost-effective solutions are identified



Investing for future benefits



- > UIC
- > NIB
- > NSA
- > ERA
- EC / EU

Cost-effective solutions are identified

Collaborative approach is necessary

Need to achieve a certain degree of harmonisation

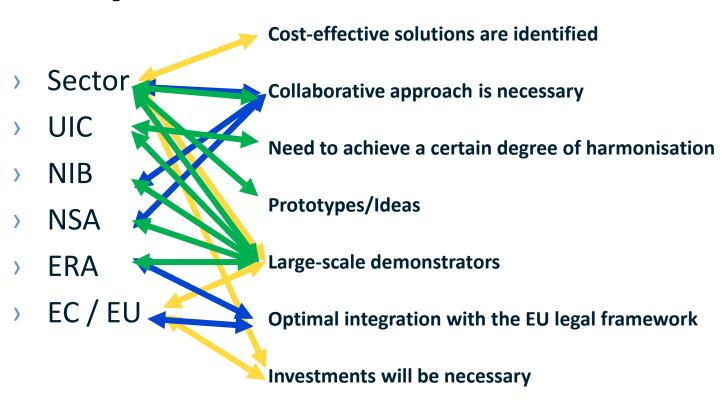
Prototypes/Ideas

Large-scale demonstrators

Optimal integration with the EU legal framework

Investments will be necessary

Everyone is concerned!



Current opportunities

- Input to Shift to Rail
- > Input to Horizon 2020
- Connecting Europe Facilities
- Other EU funding?

Do not miss them!

ERA will continue to

- Examine D-Rail results in detail
- > Inform other parties on D-Rail results
- Liaise with DG Move and DG R&I, when necessary
- Consider (future) full system specifications, if provided
- Consider (future) amendments to current legislation, when necessary



Making the railway system work better for society.

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