

Ministerie van Infrastructuur en Waterstaat

> Retouradres

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Partnerships: Transforming Europe's rail system/Shift to
Rail JU

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Dear Keir Fitch,

We welcome the analysis and ideas presented by the European Commission in the consultation paper to strengthen the governance and effectiveness of rail research and innovation. Furthermore, we welcome the proposed Partnership 'Transforming Europe's rails system' within the upcoming Horizon Europe program. It should help to increase the impact of European rail research on the rail market and should strengthen the link between research and needed benefits from research to society. In 2013, we informed the European Commission about our position regarding the then ongoing consultation on Shift to Rail. Part of that reaction, that is still valid today, has been incorporated in this letter. Regarding the problems and policy areas for an EU-coordinated approach to R&I in the rail sector we have the following remarks.

Regarding the governance and the institutional options of the EU coordinated approach to R&I in the rail sector, we would support a governance structure that foresees in a transparent rail research program that is challenging for the sector and that enables both experienced and new participants to apply for participation in all its areas and activities. More possibilities regarding participation should exist for SME's, as they are fundamental for fuelling innovation. We would also support a governance structure that is built on a well-defined research program from its inception, in which the programs must be flexible and could be adjusted to the needs of the market and society if required. We suggest a midterm review in the program assessing if the initial goals are being achieved and if adjustments need to be made because of shifting priorities or new developments. This midterm review should offer the possibility to adjust the programme significantly if needed. There should be space for fundamental research, but also focus on applied research.

Regarding the content of the program we would like to emphasise that: - In many parts of Europe the rail network is intensively used. The numbers of users of the rail network, being passengers or freight trains, is increasing. Innovation should also focus on how to achieve a more efficient rail network usage, which can cope with a strong growing demand of services and occupancy rates. Priority should be given to targeted research on operational excellence of the railways that positively impacts reliability of railway services, optimizes the use of scarce infrastructure capacity and ultimately drives down operational costs



of railway transport. Centers of excellence related to i.a. railway infrastructure capacity and traffic management and innovative logistical concepts. In this regard realizing Automatic Train Operations (ATO) is a key element that Shift2Rail JU should support for the next programming period;

- Although many innovations take place at this moment in the railway sector, in our opinion not enough attention is given to how these innovations fit in the current railway eco system and what the impact of these innovations would be;

- There is an opportunity to connect better between the modality Rail and other modalities, and how to cope with and accommodate the growth that is predicted in passenger and rail freight transportation;

- The program should enable resource-efficient asset management of infrastructure and focus on innovative methods for inspection, maintenance and renewal to enlarge the operational capacity of existing and new infrastructure against lower costs;

- A balance should be found between rail freight needs and rail passenger needs and also between infrastructure manager needs and railway service's needs. International transport and overcoming bottlenecks regarding interoperability should be given high priority. In addition, the needs of rail freight wagon innovation should be addressed. Regarding sustainability of railway transport research aimed at lowering railway noise (and vibrations), priority must be given to research on measures at the sources of noise and vibrations;

- The program should allow for multi-modality research and demonstration projects that are for at least 50% focused on rail transport. Research and innovation activities in relation to ERTMS development should be given a priority. More specific the design and implementation of so-called 'standard architectures' for infrastructure and material in order to prevent costly migrations. Regarding ERTMS, close cooperation with the ERTMS user group, the so-called founders of OCORA and EULynx is necessary;

- Digitalisation should be one of the most important fields of research, as developments in this field are of vital importance, as well as automation. Concrete goals should be elaborated, e.g. reducing the time distance between trains in order to achieve higher frequencies of trains in urban areas without big spatial impact and high investment costs;

- There should be more focus on customers and end user's needs, the user should be in a central position from which innovations and product development are being driven. In the end, the user is the most important. Not the technology. More attention should be given to the implementation of solutions and technologies during the next programming period;

- We are all aware of the fact that huge challenges exist regarding climate and sustainability. Decarbonisation is becoming a vital aspect. More EU citizens could make use of sustainable modalities like the train. Opportunities exist to increase the usage of passenger trains for distances up to 800 kilometres. There should be focus on developing solutions for existing cross border problems regarding ticketing, tariffs and travelling information in order to promote an efficient journey when crossing borders. International rail services should be an integrated and supported experience from start to finish without distinction between national and international services, while using other modes of transport to provide seamless connections and service extensions. This requires innovation and pragmatic implementation in the fields mentioned;

- The use of field labs and testing of solutions in a practical environment should be promoted, as workable solutions and innovations should be strived for. Without more testing in field labs goals will not be achieved.

- More funds should be allocated to projects with high probability of implementation including the projects through the open calls. Innovation is moving faster and faster and life cycles are becoming shorter. More space for adaption is needed;

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- New ideas and technologies should be explored. There should be space to do research, being fundamental or applied research, on disruptive technologies. The demand for long distance transport and the urgency to combat climate change ask for disruptive innovations in mobility. Hyperloop is an example of this. Europe has the possibility to have a leading role in the Hyperloop development. Multiple European Hyperloop companies are emerging and rail related parties are cooperating and investing in the concept. Shift to Rail JU can support these kind of innovations. Topics as standardization, interoperability, safety levels, regulation and certification need to be addressed. The development of Hyperloop can benefit from the expertise in the rail domain, several spillovers effects to other innovations in the European rail sector are expected to occur. Shift to Rail JU should offer the possibility of substantial funding, based on open innovation, for a Hyperloop test track as soon as possible. Cost reduction to ensure viable business cases is of vital importance here.

The above mentioned ideas and suggestions are meant to improve the proposed Partnership 'Transforming Europe's rails system'. As stated before, it should help to increase the impact of European rail research on the rail market and should strengthen the link between research and needed benefits from research to society.

To conclude, we would like to emphasise that simplification of processes and lowering of administrative burdens are essential elements in order to achieve even more results regarding the proposed institutionalised partnerships.

Of course, we would be more than happy to discuss further with you the topics mentioned in this letter.

Kind regards,

Head of Unit Rail Freight and Safety Ministry of Infrastructure and Water Management Bestuurskern Dir.Openbaar Vervoer en Spoor Veiligheid en Goederen

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