



## **Position Paper**

On the mid-term review of the  
2011 White Paper on Transport



# Midway towards a Sustainable Transport

## Introduction

DLR welcomes the European Commission's Communication on a sustainable future for transport and appreciates the opportunity to participate in the review of the 2011 White Paper – 'Roadmap to a Single European Transport Area'. DLR has contributed to the discussions on the Green Paper and White Paper with position papers and considers this consultation a crucial part to advise the European Commission as an independent research organization.

The purpose of this position paper is to identify a series of issues in the current implementation of the 2011 White Paper and to propose corrective actions necessary to achieve its vision. DLR shares the European Commission's goal of establishing a sustainable transport system that meets society's economic, social, and environmental needs while being conducive to an inclusive society and a fully integrated, competitive Europe. We feel it as essential as necessary step to broaden the scope of sustainability to the dimensions of economy, society, and environment.

## Coherent scope of implementation

DLR considers the goals of the Roadmap to be beneficial, appropriate, and ambitious. However, current efforts to implement this strategy show that more clarity and coherence is needed to tie the individual efforts into addressing the White Paper's holistic goals.

The issue of coherence is especially evident in cross-modal aspects. Although the individual modes progress well towards their own goals, there is limited advancement on cross-modal issues. This is an effect both of sectors being overly focused on their own challenges and of a lack of a coherent strategy across individual sectors (e.g. rail, aviation, urban mobility).

A positive example of cross-modal cooperation is the well-defined and agreed strategy in ACARE that includes the vast majority of stakeholders from the aeronautics and aviation sectors and addresses the interfaces of air transport with other transport modes. A less positive example is the lack of stakeholder groups in the implementation of Joint Technology Initiatives (JTI). Shift2Rail, for example, does not address train stations nor rail passengers; hence, missing both of the significant challenges in this sector (passenger flows and their transition between rail and other modes) as well as acceptance and backing by all stakeholders. Furthermore, in the main implementation instruments (Clean Sky and SESAR) of the ACARE's Strategic Research and Innovation Agenda (SRIA) not all aspects mentioned in the SRIA are tackled (e.g. airport processes are neither included in Clean Sky nor in SESAR).

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## Balance of focus

The concerns addressed in the White Paper are currently not focused in the implementation in a balanced way. Hence the focus on implementation of some of issues is coming short. For example, the White Paper accommodates well the needs and rights of passengers; however, this ambition is much less visible in its key implementation Shift2Rail. The JTI lacks the substantial contribution of rail operators as founding partners and does not place the needs of passengers at the forefront by significantly involving passenger organizations. Similar challenges can be observed in the current Horizon 2020 (H2020) calls for proposals in which users' needs play an minimal role in research and innovation priorities.

## Truly joint initiatives

The primary focus of the European Commission on the manufacturing industry represents another challenge to the Roadmap's implementation. This is particularly visible in the JTI in transport in which crucial goals of the 2011 White Paper (e.g. on rail and aviation) are mainly driven by private sector stakeholders. The current outline of the JTIs is strongly oriented towards short-term benefits of segments of the private sector rather than progress on less profitable objectives, such as addressing societal challenges, that are key elements of the White Paper. This makes it rather doubtful that the JTI contribute to the goals of With Paper to their full potential.

It is essential that the Commission fosters involvement of all stakeholders, as seen in the past, to mitigate the isolation of individual efforts and drive aspects of the White Paper that are currently insufficiently addressed. DLR considers it necessary to promote the implementation of European initiatives (ETPs, JTI, etc.) not only as isolated groupings of stakeholders within a specific sector, but, more importantly, to foster initiatives that are truly joint and interfaced into the transport landscape in general.

## Innovation is based on substantial and long-term research

Although European research and innovation strategies like the ACARE SRIA are addressing short, mid- and long-term efforts, their chain of development is currently not appropriately covered in European programmes. Apart from the previously mentioned isolation of large initiatives (JTI, cPPP, etc.), these measures are typically oriented toward the needs of certain major industrial stakeholders and, therefore, focused on relatively high Technology Readiness Levels (TRL) or even product development. This is adequate to produce solutions and even products that target a

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specific subject in the relatively short term, but the prioritization of short-term innovation sacrifices research which is fuelling any innovation in the longer term. Hence, the focus on “fast innovation” will neglect the research platform which is the foundation and driving force of future innovations.

As there are few additional resources reserved for long and mid-term research in H2020 (with the exception of the aeronautics and aviation sectors), this will result in the precarious situation that even with more efforts and resources, substantial innovation cannot develop from a under-developed and limited research base.

For example, the introduction of SESAR-1 resulted into a fundamental shift of almost all research that is carried out in this field towards higher TRLs. This has substantially weakened the research in the sector in the mid- and long term and, therefore, was harmful for a sustainable and coherent long-term innovation strategy that considers the full chain from fundamental research towards innovation for market readiness. This deficit was already taken into account for the set-up of SESAR 2020, where a substantial part is foreseen for long-term exploratory research.

Another example is the current handling of proposals in Horizon 2020. Proposals, and in particular those targeting Mobility for Growth, are evaluated with a strong focus on impact to ensure that a potential project shows ambitions to produce a tangible outcome and hence manifest a concrete impact in its field. In general, this is a good concept to foster demanding ambitions amongst applicants, but this is counterproductive for more fundamental research. As low-TRL research tends to have sparse immediate results or effects, it remains much harder to compete in H2020 and, therefore, high-TRL proposals tend to be more successful with negative long-term effects to the research landscape.

## Conclusion / Recommendations

Research has always been the key driver of innovation. Research fuels Europe’s competitiveness and long-term prosperity. This is demonstrated in sectors that are very open to research such as aviation. Sectors such as rail, that are less open to research and new ideas, are facing much steeper competition by third parties.

To achieve the key goals of the 2011 White Paper, a clear and coherent implementation strategy is necessary that covers the full chain from fundamental research to innovation and market uptake. A more balanced and weighted approach is needed to join the yet isolated efforts and implement the advancements. The strategy needs to consider a long-term perspective beyond the scope of the White Paper to make sure that not only short and mid-term goals are pursued at the cost of long-term developments that will present even larger challenges in the future.

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## DLR at a glance

DLR is the national aeronautics and space research centre of the Federal Republic of Germany. Its extensive research and development work in aeronautics, space, energy, transport and security is integrated into national and international cooperation initiatives. In addition to its own research, as Germany's space agency, DLR has been given responsibility by the federal government for the planning and implementation of the national space programme. DLR is also the umbrella organisation for the nation's largest project management agency.

DLR has approximately 8000 employees at 16 locations in Germany: Cologne (headquarters), Augsburg, Berlin, Bonn, Braunschweig, Bremen, Goettingen, Hamburg, Juelich, Lampoldshausen, Neustrelitz, Oberpfaffenhofen, Stade, Stuttgart, Trauen, and Weilheim. DLR also has offices in Brussels, Paris, Tokyo and Washington D.C.

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