EUROPEAN COMMISSION

DIRECTORATE-GENERAL
JOINT RESEARCH CENTRE

Report of the STTP Stakeholder Workshop on Research Coordination Structures

Participants:

Stakeholders:

Caroline Alméras (ECTRI), Oliver Althoff (ERA-NET Transport), Steve Phillips (FEHRL), Marcus Van Leeuwen (Joint Programming Initative 'Urban Europe')

Chairpersons: M. Kopczynska (MOVE), J. Gaudin (RTD), H. Koepman (INFSO)

Venue: Brussels, 17 February 2011

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1. SCOPE OF THE WORKSHOP

The European Commission is currently developing a Strategic Transport Technologies Plan (STTP). The adoption of the STTP is foreseen for mid-2011 and it will play a main role in the definition of the Commission's future transport research and innovation priorities. The aim of the STTP is to match the most appropriate policy instruments to the needs of different technologies at different stages of the development and deployment cycle. It will address the entire innovation chain, from basic research to market uptake. The STTP will facilitate coordination of European and national public and private efforts and help achieve greater leverage through flagship EU instruments.

The STTP will include roadmaps for a set of leading edge technological solutions, including the supporting organisational, financial and governance frameworks, which are necessary for a future competitive and clean European transport system. The availability of appropriate research coordination structures has been identified as a potential critical issue for the transition to such a transport system.

The involvement of the stakeholder community is crucial to reach a shared European vision on the role of transport technologies as a follow-up to the White Paper and to produce a credible and widely supported STTP. At the same time, the process of preparing the STTP will help to identity the measures needed from the different stakeholders to attain their goals, and will exploit synergies across them.

2. SETTING THE CONTEXT

A presentation on the STTP provided the stakeholders with insights on: rationale, objectives, structure, preparatory phase and indicative planning as well as expectations from stakeholders' hearings. It was emphasised that the term 'technology area' within the STTP is a comprehensive set of methods, practices and technologies with a shared focus of application.

Discussion has been structured in accordance with the circulated questionnaire but dedicating specific attention to the following set of questions:

First part:

- What is the likely evolution of transport, and how should policy react?
- What contribution can technology make, and are there barriers to technological innovation?
- How can the STTP and the EU help?

Second part:

- How to overcome fragmentation in research?
- How can market uptake of results be enhanced?

Building on these elements for discussion as well as on received and incoming written contribution, the aim is to use stakeholders' input to contribute to a realistic view of what are the governance mechanisms and instruments suitable to achieve the vision 20 years in advance and what are the technologies, including organisational and regulatory aspects, that will allow us to get there.

The *leit-motiv* of the discussion is therefore: how coordination and funding mechanisms as well as governance structures can be designed and defined in order to help the European Commission achieve its transport policy and transport research policy objectives, while at the same time optimising resource use by investing in properly selected and prioritised technology areas.

The discussion therefore centred on how technology areas are expected to help the European Commission achieve its transport policy and transport research policy objectives on the one hand, and how the European Commission can optimise resource use by investing in properly selected and prioritised technology areas via properly designed governance and funding schemes on the other.

Stakeholders' advice is one of the inputs to the scientific process leading to the STTP Communication, as work is now focussed on identifying key technology areas in the ITS domain. Additional input was requested by mid-March at the very latest. Stakeholders

were also informed that opinions are also welcome via the Internet public consultation to be launched soon for 8-week duration or by sending emails to move-sttp@ec.europa.eu. The Commission will take into due consideration any input received within given time constraints.

3. QUESTIONNAIRE: SUMMARY OF MAIN DISCUSSION POINTS

3.1. Transport Vision and Activities

- What is the likely evolution of transport, and how should policy react?
- What contribution can technology make, and are there barriers to technological innovation?

1. Research coordination mechanisms/governance schemes and funding instruments at EU level are currently primarily designed to coordinate and implement research activities thus bringing consistency between research prioritisation and policy objectives.

   At the same time though, such schemes and instruments also define innovative solutions: the systematic exchange of both information and good practices exerts impacts on feedback mechanisms into the design and implementation of new research priorities.

2. A clear leverage effect via broader results' dissemination opportunities is among the positive factors recognised to research collaboration at EU level regardless of RTDI specific phase. Projects that are part of broader thematic clusters are expected to be more effective (such as via dedicated Coordination and Support Actions).

   Focusing on innovation, current research coordination mechanisms/governance schemes and funding instruments determine the boundary conditions within which the research results can move further down the innovation chain. Yet, specific instruments are differently efficient in function of the specific phase in the RTDI chain of the technology area investigated.

3. Dialogue with the national level has been promoted by the European Commission via several instruments in FP 6 and 7. It certainly requires to be enhanced further in a structured form without adding excessively to administrative burdens. ERANET+ is an example where relevant topics can be identified with focus by both MS and EC: certainly, this is not an instrument suitable for application to any technological areas.

4. It was discussed whether research priorities carried out via EU collaborative research funding schemes undergoes the risk of being second-order priorities, as the minimum common denominator to be found among diverging industrial interests at national level. There is not a single solution, as industry characteristics vary widely and lack of or difficult collaboration patterns emerge independently of the collaboration

mechanisms/governance schemes that may or may be not put in place. Certainly, the EU has a clear role as facilitator and has played it so far to a satisfactory level.

5. The ambition level of priorities definition within collaboration structures/governance schemes varies also with the own objectives of the latter, where different considerations come into play, such as to develop closer cooperation links between academia, research institutes and groups. The mode-focussed French poles are one such example in transport RTDI.

6. A role is identified (but not characterised in detail) for the EU to act as an aggregator for intermodal research, where ownership is distributed among much wider and diverse research chain elements. Indeed, a variety of experiences exist at national level.

   Focus on cross-mode collaboration/integrated approach is relevant for RTDI activities in the area of infrastructure upgrading/maintenance in front of extreme weather events.

3.2. Achieving the Vision

- How can the STTP and the EU help?

- How to overcome fragmentation in research?

- How can market uptake of results be enhanced?

7. Not only it is highly unlikely that one type of collaborative mechanism/governance scheme or even funding instrument may fit a variety of needs but regionalisation of research could also be considered where a twofold function for the Commission to aggregate and disseminate the research community is envisaged: (a) early-stage involvement and (b) knowledge transfer including context adaptation and accompanying multi-lingual translation requirements.

8. The opportunity was raised for the Commission to move to performance-based specifications to give built-in value for innovation, including standardisation, but mostly a system to reward the most innovative contractors.

9. Another useful instrument to bridge the 'innovation' gap would be the revision of public procurement with accompanying measures including for example European labelling/certification schemes to lower local authorities' risk-aversion.

10. RSFF is an FP7 instrument needs to be better exploited in the future in the transport sector and is seen as a crucial tool to enhance deployment and innovation.

11. Full RTDI chain approach needs to be tackled better: the European Innovative Partnership looks like a promising tool for improvement of governance solutions. It

may be accompanied by innovative funding solutions mixing flexibly different existing funding instruments. First priority for Innovation Partnership should be sufficiently determined yet ambitious, i.e. targeting at delivering a reliable transport system which is both affordable and inclusive and includes both environment and health protection targets.

12. Increasing the pace of building trust is crucial to reduce transaction costs due to increased coordination efforts: possibly this can be better achieved by clearly defining mid- to long-term objectives and by establishing clear roadmaps with intermediate targets. Already today, funding coordination at EU level is a clear incentive for MS to cooperate closely together.

    Cost reduction and effectiveness should be a driver when defining those innovation needs which contribute to shaping competitiveness, but it can also be expected to be an effective mean to tackle risk-aversion to innovation.

    Sub-optimal solutions at EU level can be optimised at national level but better communication may help to bridge the gap needed to avoid market failure.

    The role of partnership composition is important to increase the chances of success rates for funded projects where risk reduction is certainly an issue. In other areas involvement of industrial partners will not otherwise happen.

13. Coordinated approach is the core issue at stake regardless of the array of instruments available (but better coordination at that level is equally a need), such as coordination of different schemes like Marie Curie and collaborative research.

14. European TRB may prove beneficial to overcome fragmentation and to structure a community of researchers. Leverage effects on collaborative research results would need to be assessed with respect to both the opportunity of regular networking/dissemination events along the lines of the TRA and the dialogue mechanisms and governance structures which could be based on existing platforms.

15. TRKC is a good – yet not sufficient – example of dissemination which needs to be part of research projects by establishing a functional link between 'TRKC-like' specific knowledge transport portals which may prove considerably more effective compared to today's inclusion of dissemination as a standard project deliverable. It can be expected that promoting interaction between projects and 'TRKC-like' dissemination instruments lead to wider and more active assessment and use of project results. A Technical Advice Framework using suitably packaged project results at EU level would also have an important cohesion function despite the need to adapt research organisation and content to the specific contexts where it is carried out and implemented. At the same time, international cooperation and competitiveness considerations need to be added based on careful assessment when considering the dissemination of project results.

16. The concept of prize schemes for achieving given results figures among the instruments to be implemented to simplify the implementation of research framework programmes[1] and is considered to represent a good option for specific RTD topics and areas.

3.3. Sector-specific/additional points

N/A

4. CONCLUSIONS AND NEXT STEPS

The consideration shared by stakeholders that existing research coordination instruments at EU level are suited to transport research and research policy needs with the signalled additional effort required to enhance coordination between the European, national and regional levels implies that no step changes are expected in the organisation and the layouts of European transport research. Strategic values of EU support at both research funding and regulatory level will be part of the Scientific Assessment accompanying the STTP.

[1] *Simplifying the Implementation of the Research Framework Programmes,* COM(2010)187 of 29 April 2010

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APPENDIX 1

Stakeholder hearing Research Coordination Structures

Thursday, 17 February 2011, 14.00 – 17.30
Meeting Room DM28 08/67

- AGENDA –

Chairpersons: *M. Kopczynska*, DG MOVE
J. Gaudin, DG RTD
H. Koepman, DG INFSO

14.00 – 14.10	Welcome and introduction of the participants (*All*)
14.10 – 14.30	Objectives of the STTP, purpose of the hearings (*M. Rommerts*, DG MOVE)
14.30 – 15.30	General questions (Part 1 of questionnaire) (*All*)
15.30 – 15.45	*Coffee break*
15.45 – 17:00	Research Coordination Structures specific questions (Part 2 of questionnaire) (*All*)
17.00 – 17.20	Open floor for further stakeholder interventions (*All*)
17.20 – 17.30	Summary (*chairs, M. Rommerts*, DG MOVE)

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APPENDIX 2

Research Coordination Structures questionnaire

1. INTRODUCTION

These questions are designed to facilitate the stakeholder hearings. We would appreciate, if you could send us your answers to the questions 1 week before the next meeting. Please answer them in the way you consider most appropriate to convey your key messages. It would be helpful, if you could identify to which mode/technology area your answer relates to. To help answering the questions some suggestions are given regarding what could be explained under each question.

2. GENERAL QUESTIONS

2.1. Transport Vision and Activities

2.1.1. Current state of play within transport?

Indicate: market readiness/penetration of the different technologies within the activity area for each mode or cross-modal issues; on-going or planned public, public-private or private initiatives relevant for the STTP; type and scale of initiatives at which level - International/EU/MS/Regions

2.1.2. Likely evolution of transport?

Indicate*:* major trends in the transport sector (technology and actors); evolution of transport needs (volume and quality); likelihood of structural changes as a result of new business models, globalisation, competition; influence of the market structure on future market potential; possible effects of legislation etc

2.1.3. Key technology penetration targets (2020, 2030, and 2050)? What are the main assumptions underlying these estimates? What are the main barriers to overcome to achieve them?

Indicate*:* main constraints and showstoppers, risks, needs for technological breakthroughs, resource/feedstock availability, consequences for the current infrastructure, etc

2.1.4. If these targets are met, what will be the contribution to EU policy goals in the field of transport?

***Indicate**:* Contribution to (1) achieving low-carbon transport (reducing CO2 emissions and dependency on imported oil), (2) achieving seamless mobility in a Single European Transport Area (establishment of a seamless European TEN-T network that is intelligent, efficient, and green, single European 'transport ticket' for passengers and freight), (3) competitiveness and innovation (e.g. future market sizes for a given technology, European share of new market, additional jobs, export revenues), (4) other policy goals (such as reduction of congestions, local/urban pollution, noise reduction, damage to cultural heritage, etc.)

2.1.5. Contribution to the overall ('well to wheel') energy efficiency?

Indicate: Effects on energy efficiency in electricity and fuels supply, as well as in use; evolution over time and depending on market penetration, etc

2.1.6. Are there any interactions with other community policies and initiatives?

***Indicate**:* Potential contribution of the technology to other EU policies; need for measures and initiatives in other policy areas to support the market penetration of the technologies

2.1.7. Which are the main competing or synergetic technologies within the activity area? (in relation to the indicated market penetration targets)

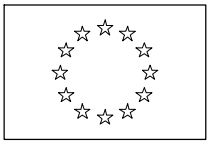
2.2. Achieving the Vision

2.2.1. Is your vision achievable under a 'business as usual' scenario?

***Indicate**:* Current support programmes and policy measures and their expected impact

2.2.2. Are there barriers to innovation? Is there a need for change in the innovation system?

***Indicate**:* For the mode in question any weaknesses in the current system



2.2.3. Does the considered mode/sector already benefit from or plan to set-up initiatives to bridge the gap between the current state of technology and a cost-effective market entry? What would be the critical mass (e.g. investment) needed for such initiatives? What new approaches could be considered to accelerate innovation?

***Indicate**:* i.e. how could the STTP help the sector; which actions of it would be most effective; what impact could be expected with respect to 'business as usual (i.e. No STTP)?

2.2.4. What actions need to be carried out at European level? What actions would be better implemented at national and or regional level? Is there a need, or a potential benefit, to integrate or to better coordinate action carried out at different levels?

2.2.5. International Dimension - Is there a potential for international cooperation? What type of cooperation?

***Indicate**:* Major initiatives in other countries; assessment of specific opportunities for international cooperation

3. SECTOR/ISSUE SPECIFIC QUESTIONS

Research coordination structures:

1. RTDI in at least 3 interlinked transport components, i.e. vehicle/vessel, infrastructure, fuel/energy carrier have been dealt with somewhat separately, sometimes with additional fragmentation generated by non-coordinated objectives, planning and timelines, different funding schemes, limited R&D result communication leading to sub-optimal market uptake, etc. What are the essential elements in designing a coherent approach to overcome such fragmentation? What would be the ideal target for such a coordination effort to keep it both practical and creative?

2. Could you identify at least 3 non-mode specific examples where enhanced coordination at EU level (supported by regulatory measures / economic incentives if relevant) may prove beneficial in your view to achieve the goals of improving RTDI performance in the transport sector in terms of enhanced results' market uptake?

APPENDIX 3

List of Respondents

- ECTRI – European Conference of Transport Research Institutes
- EPTS – European Platform of Transport Sciences
- ERA-NET – Transport
- FEHRL – National Road Research Centres in Partnership