EUROPEAN COMMISSION

DIRECTORATE-GENERAL
JOINT RESEARCH CENTRE

Report of the STTP Stakeholder Workshop on Economic and Social Issues

Participants:

Stakeholders: Anne-Sophie Parent (AGE- AGE Platform Europe), Arne Richters (Transport & Environment – T&E)

Chairs: Dirk van Vreckem (DG MOVE), Alessandro Damiani (DG RTD), Eva Boethius (DG INFSO)

Rapporteur: Panayotis Christidis (JRC)

Venue: Brussels, 10 March 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 autumn 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.
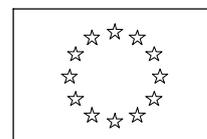
2. SETTING THE CONTEXT

A presentation on the STTP provided the stakeholders with insights on: the STTP rationale, objectives, structure, preparatory phase and indicative planning as well as on the expectations from the 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.

Discussions during the workshop were structured in accordance with a previously circulated questionnaire: (1) Transport Vision and Activities: current status, development perspectives and expected impacts; (2) Achieving the Vision, essentially focussing on: barriers, shortcomings, funding and organisational requirements; (3) Specific issues of interest to the stakeholders and EU added value.

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.

The views of stakeholders are important inputs to the scientific process leading to the STTP Communication, as work is now focussed on identifying key technology areas and suitable instruments. If stakeholders wish to provide additional input, they can do so during the public consultation (now open until the 28th of May). Stakeholders are also welcome to give their opinions by sending emails to move-sttp@ec.europa.eu. The Commission will take into consideration any input received in time.

3. QUESTIONNAIRE: SUMMARY OF MAIN DISCUSSION POINTS

Although eleven stakeholder organisations were invited, only AGE and T&E attended the hearing. The discussion therefore covered only a certain part of economic and social issues, though all participants intended to extend the discussion to the concerns other sectors of society and the economy may have. On the positive side, the limited number of participants allowed an extensive and fruitful exchange of opinions between the stakeholders and the European Commission services.

3.1. Transport Vision and Activities

The levels of mobility and the resulting transport demand have been historically rising. It is expected that the tendency will continue. The stakeholder groups believe that policy makers have to cater for the societal and economic need for more mobility and make sure that the all users' needs are met while the environmental impacts are minimised. Car ownership levels are not expected to fall drastically, but there is room for innovative solutions in e.g. car sharing. There is however the issue of income discrimination as regards access to transport, which is expected to worsen in the future. Demographic
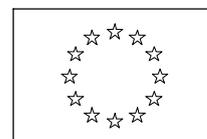
trends and climate change were identified as the main challenges and common solutions for the two should be found.

In the context of an ageing society, transport is expected to become an even more important priority at the level of the individual. Surveys already indicate that transport and mobility are the top worry for the elderly, more important even than housing. An ageing population is a challenge but answering the needs of the elderly can also be seen as an emerging market. Moreover solutions to ageing related mobility issues will benefit other groups such as families with children, women, etc.

The rights of users with special needs are expected to become even more important in the future. The EU has just ratified (January 2011) the UN Convention on the Rights of People with Disabilities. The Convention aims to ensure that people with disabilities enjoy their rights on an equal basis with other citizens for a range of issues, including access to transport. The resulting legal obligation at EU level concerning transport standards could be an important dimension to explore.

Major differences in the mobility needs of men and women can be also identified. Transport policy is to a large extent based on the mobility needs of male users who follow conventional work and life patterns and do not sufficiently take into account the needs that the multiple roles of women in a changing society raise. Access to transport modes, vehicles and infrastructure or the design, timing and frequency of transport services need to be planned accordingly.

Energy use and environmental impacts are also major concerns and will certainly be the main drivers for innovation in transport. The EU should analyse its competitive advantages and define a strategy to meet its transport policy objectives (e.g. decarbonisation), applying the several technologies that are or will be available.

Bringing technologies to the market is a risky and lengthy process. The fundamental approach should be that new technologies make life easier and are based on technological merit. For example, fuel standards are useful, but their merit is not clear from the consumer perspective. As a result, apart from regulation, it is difficult to stimulate the introduction of new fuels. In general, support for specific technologies should be circumspect, unless it is clear that they provide a mobility solution. For example, it is arguable whether electric vehicles improve the users' lives or simply complicate it. In the second case, the uptake will be limited.

3.2. Achieving the Vision

A major change in the thinking behind coordination of R&D and innovation in transport may be necessary. Instead of working in silos (modes, etc.), options for better coordination should be explored. The selection of technology areas in which to invest and instruments to apply can depend on the technological readiness. Different levels of maturity can be addressed with different instruments.
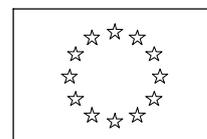
Improving standardisation at EU level can facilitate the introduction of innovative solutions to an EU-wide market. Legal barriers that may create national fortresses should be removed. The STTP should explore options for funding of innovative transport solutions.

Looking into how to accommodate the specific needs of the elderly and disabled has resulted in many applications in transport that are now of general use. But it is important to make sure that increased level of automation will not be at the cost of service or staffing levels. For example, automated ticketing systems should not mean that support and assisting staff are completely superfluous. It is also important that technological solutions are accompanied by information to users and training of transport operators.

The OECD has carried out interesting work on transport and society. Among the main messages is the "design for all" principle. Applying such a principle will probably stimulate rather than impede innovation in EU transport. Even old European cities have found ways to adapt their infrastructure to improve its accessibility to all.

The STTP should invest in technologies that are not in the limelight. It can help hedge bets at EU level and should preferable focus on technologies that are not evident today (e.g. energy absorbing paints). But at the same time it should avoid driving industries to a dead end (as for example in the case of Swedish biofuel policy). Several promising technology areas (from the point of view of helping meet policy objectives) are not currently commercially viable and therefore do not attract sufficient industrial interest nor investment. Such areas include new and composite materials or energy efficiency of power systems where, even if R&D is carried out in industries, innovation does not reach the markets because of the lack of financial stimuli.

The combination of obstacles and challenges in transport can be also seen as an opportunity for innovation. Links and synergies between Smart Mobility, Smart Cities and Active Ageing should also be explored to develop a comprehensive approach.

Better ways of coordinating at EU level should be explored. This begins with the achievement of the single market. The US is more efficient in coordinating and bringing new technologies to the market due to its more uniform market and funding structures (e.g. venture capital).

Fundamental research may be necessary in areas where the EU is strategically weak, as for example in batteries for cars. In such cases, EU coordination of R&D would certainly add value. European companies are not very large, so they need to thread with caution. A strategic plan at EU level would help companies manage risks better.
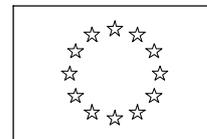
A number of technological areas where EU coordination would provide added value were identified:

- Applications for more independent mobility, real time information devices, ICT technologies
- Cross- cutting solutions for more than one mode of transport
- User information systems for the environmental impact of their transport choices
- Prospective research could help identifying significant new societal trends (e.g. teleworking or internet shopping)
- Electric vehicles and user friendly recharging systems
- Standardisation and interoperability of smart ticketing applications
- Hydrogen application for transport
- Specific improvements for conventional technologies (variable valve timing, aerodynamic design, fuel efficiency)
- Smart intermodal navigation systems
- Harmonised signalling systems

3.3. Sector-specific/additional points

A main concern for the stakeholders is that it is not sufficient to look only into the technological dimension. Support from the environment and availability of infrastructure is also very important. There are several good potential solutions to mobility problems, especially from ICT applications, but many times they are not taken up. Internal market issues may be important obstacles and coordination at EU level could help overcome structural barriers.

It is also important that the EU regions are involved in the process. They have the competence to implement the changes required in the transport system and know what the challenges are. There is also work at regional level on how to meet user requirements.

The EU has a vested interest in transport industries and services, so it is important that we do it right. There is however a problem in translating R&D into deployment and perhaps this is where the EU needs to intervene.

The STTP should address user needs and solutions, not necessarily technologies. It is also very important to bring all actors together in forums to discuss the whole innovation chain.

4.   CONCLUSIONS AND NEXT STEPS

It is very important that demographic, gender & special needs issues are taken into account for the impact assessment of the STTP. The assessment should go beyond impacts on employment.
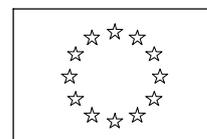
The EU added value would be higher if the focus is on long term issues and principles that would drive the industry to find the solutions. If prioritisation is necessary, from the public policy point of view it should be possible to identify the research centres and areas that can provide innovative solutions.

Both soft measures to help the uptake of innovation and hard measures in the form of legislation and standardisation are suitable, depending on the specific issue.

The current mismatch as regards to the incentives for cooperation between industry and the public sector should also be addressed. Industry is mainly interested in collecting data and refining the product development cycle, while the public sector is interested in the demonstration of the applicability of the technologies. Different instruments that allow flexible co-funding, industry-controlled demonstration, clear intellectual property rights, harmonised approaches to ethical and legal issues can be the right incentives to promote collaboration. Examples from other countries or other sectors (e.g. medical research) can be used to address precompetitive support, pooling of R&D resources, and participation of SMEs or infrastructure development.

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Stakeholder hearing
Economic and Social Issues

Thursday, 10 March 2011, 09.30 – 13.00
Meeting Room SDME 1F

- AGENDA -

Chairpersons: D. Van Vreckem, DG MOVE
                      A. Damiani, DG RTD
                      E. Boethius, DG INFSO

09.30 – 09.40   Welcome and introduction of the participants
                      (*All*)

09.40 – 10.00   Objectives of the STTP, purpose of the hearings
                      (*R. Juriado,* DG MOVE)

10.30 – 11.30   General questions (Part 1 of questionnaire)
                      (*All*)

11.30 – 12.30   'Economic and social issues' specific questions (Part 2 of questionnaire)
                      (*All*)

12.30 – 12.50   Open floor for further stakeholder interventions
                      (*All*)

12.50 – 13.00   Summary
                      (*chairpersons*)

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APPENDIX 2

Social and Economic Issues Questionnaire

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.

1.   GENERAL QUESTIONS

   1.1.   **Transport Vision and Activities**

   *1.1.1.   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

        1.1.2.   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, ageing population; influence of the market structure on future market potential; possible effects of legislation etc

        1.1.3.   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
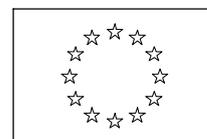
1.1.4. If these targets are met, what will be the contribution to EU policy goals in the field of transport?

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.)

1.1.5. 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

1.1.6. 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

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

1.2. Achieving the Vision

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

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

1.2.2. Are there barriers to innovation? Is there a need for change in the innovation system?
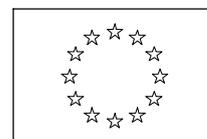
Indicate: For the mode in question any weaknesses in the current system

> *1.2.3. 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)?

> *1.2.4. 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?*
>
> *1.2.5. 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

## 2. SECTOR/ISSUE SPECIFIC QUESTIONS: AERONAUTICS AND AIR TRANSPORT

2.1. A Passenger Centered Smart and Adaptive Mobility serving EU citizens

> *2.1.1. What are the main obstacles that prevent a passenger friendly and seamless air travel from door to door that is customised to the needs of the different types of passengers? How to better connect the European air transport system with other modes and with the transport system in other regions of the world? How to improve resilience after crisis events?*

Indicate: which technologies should be developed to allow a seamless air travel, which key stakeholders should be brought together?

> *2.1.2. For which type of missions air transport is particularly well suited for passengers and freight transport (including on an environmental point of view)? In which cases air transport can potentially serve well European integration?*

Indicate: the barriers that prevent air transport to be deployed for missions where it is better suited than other modes and technologies to be developed to allow its deployment?
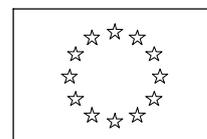
2.2. A Competitive and Innovative European Aviation sector?

2.2.1. Which actions need to be carried out at European level for this sector to support European competitiveness in a globalised sector?

Indicate*: who are the key stakeholders, what are the best instruments to support competitiveness and the main areas where the European effort should focus?*

2.2.2. Innovation: see 2.2.2

2.3. A Sustainable Environmentally Friendly Air Transport system

2.3.1. Given the yearly air traffic increased observed in the past years in Europe, the technology advances that reduce the environmental impact of aviation, will this sector be able to meet objectives such as those fixed by ETS and EU2020 in a sustainable way? What about noise?

Indicate: *what are the technologies/fuels capable of answering these challenges? Are there regulatory / economic barriers for their implementation?*

2.3.2. What problems can we expect in terms of energy supply and availability of resources for the manufacturing of vehicle and the construction and maintenance of infrastructures?

Indicate: *what are the potential solutions to achieve sustainability?*

2.4. Integrated Safety and Security at Air Transport System Level

2.4.1. Is the level of safety of air transport high enough? Is key safety information handled and shared in an efficient way? Is Europe enough involved in safety standards and regulations? Is the way safety is handled in the different components of the air transport system continuous and coherent?

Indicate: *Indicate potential tools, instruments, technologies, actions to solve issues?*

2.4.2. Is the way security is handled in the different components of the air transport system continuous, coherent, cost and time efficient?

Indicate: *Indicate potential tools, instruments, technologies, actions and collaborations to solve issues?*

APPENDIX 3

List of Respondent(s)

- AGE Platform (European Network of Organisations of and for people over 50).