Transport and SSH in Horizon 2020: an inseparable duo

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Transport at the heart of SSH

- liveability of our cities
- efficiency and sustainability of our economies
- how people and goods circulate
- carbon footprint of human activities and the impact on environment and climate
- economic and social integration of Europe
SSH at the heart of Transport

- need to underpin transport policy with solid data, models, trends, technology watch and scenarios
- ex: shift traffic from road to rail, or user demand from private to public transport, and from high to low emission vehicles
- social acceptance and economic viability of the introduction of new technologies and solutions
- passenger behaviour and safety (ex: distracted driving from use of electronic devices)
- accessibility, equity, protection of vulnerable users, particularly in an ageing society
SSH in FP7/Transport

- 100 + projects, 1000 + participants, 100 + M€ EC contribution

- Examples:

  - **USEMOBILITY**
    Understanding behaviour for eco-friendly mobility
    Survey on user motivations, options and scenarios for shifting from car use to sustainable public transport

  - **TRACY**
    Transport needs for an ageing society
    Action plan to address the needs of older people in the development of future concepts and solutions

  - **GHG-TRANSPORD**
    Reducing ghg emissions of transport beyond 2020
    Analysis of the mitigation potential offered by a broad portfolio of transport technologies and policy measures
- Transport economics
- Intermodality and integration of transport modes
- Safety, ageing, vulnerable users
- Transport and climate change
- Transport and tourism
- Modal options and social behaviour
- Mapping R&I capabilities
- Long term scenarios
- Outreach, participation, dissemination of results
- International cooperation
- Programme evaluation and impact
Transport main challenges: competitiveness and sustainability

- Innovate to preserve market-shares and jobs (fierce international competition)
- Resource efficiency vs climate change and oil dependency (achieve the 20/20/20 energy-climate-environment targets)
- Curb noxious emissions, improve air quality (30% of all CO₂ comes from transport)
- Network capacity and modal shift vs saturation and congestion (congestion costs: 1 to 2 % of GDP)
- Smart solutions for safety and security (28000 road fatalities/year)
• The challenge: to achieve a transport system that is
  • resource efficient
  • environmentally friendly
  • safe and seamless
  • for the benefit of citizens, economy and society

• The logic: a holistic approach that
  • recognises modal specificities;
  • integrates the socio-economic dimension;
  • responds to policy requirements;
  • is focused on the societal challenges;
  • takes into account the imperatives of competitiveness
TRANSPORT in Horizon 2020: addressing the societal challenges

Intelligent Transport Systems

- Competitive
- Smart
- Integrated

Socio-economic dimension

- Rail
- Road
- Water
- Urban
- Air

Logistics

- Growing transport needs
- Affordability
- User friendliness
- Timeliness
- Intermodality
- Accessability
- Security
- Safety

Green
- $\text{CO}_2 + \text{GHG}$ emissions
- Air quality
- Climate resilience

Energy frugality
- Oil dependency
- Resource efficiency
- System performance

Transport and infrastructure

Meeting the political challenge of both improving mobility by smarter utilisation of a more integrated transport system and making it greener by radically reducing greenhouse gas emissions will require not only technological solutions, but also better understanding of transport behaviour and the effect of policy instruments.

Therefore social and behavioural sciences have to play a more important role in the transport research strategy than in the past, both in relation to successful implementation of new technologies and optimal utilisation of the transport system, including the balance across modes.

(from the Copenhagen Forum report, 2012)
• **Section 4:**
  'Socio-economic and behavioural research and forward looking activities for policy making'
  - data, models and scenarios
  - user needs and behaviour
  - transport economics
  - policy support

• **SSH in other sections, examples:**
  - transport impact on climate and health
    - user behaviour and demand/car use patterns
    - improving mobility in urban areas
    - reduction of congestion and accidents
    - safety: reducing risk and impact of human errors
  - equipment, infrastructures and services:
    accessibility, user friendliness, inclusiveness
DATA, MODELS AND SCENARIOS

- data collection, evidence gathering, causality

- transport system models

- mobility needs and patterns; evolution of demand

- mobility scenarios and societal trends

- prospective studies, technology foresight
USER NEEDS AND BEHAVIOUR

- user behaviour and perceptions
- social acceptance
- accessibility and equity
- protection of vulnerable users
TRANSPORT ECONOMICS

- economic issues and trends
- business models
- transport and land use, territorial development
- local and regional specificities
- transport and social cohesion
- skills and jobs requirements
POLICY SUPPORT

- support to policy analysis and development
- impact of policy measures
- internalisation of externalities, taxation and pricing models
- strengthening the European Research Area
- transport R&I development and uptake
Summing up
New in H2020 re Transport & SSH

- **societal challenge** approach
  - societal pull vs technology push

- **research + innovation** approach
  - focus on application - attention to user requirements

- **interdisciplinary** approach
  - engineering + economics + social s. + behavioural s.

- **embedding SSH** throughout the challenge
  - in transport: dedicated section + embedding

- **implementation** aspects
  - priority setting, project implementation, valorisation