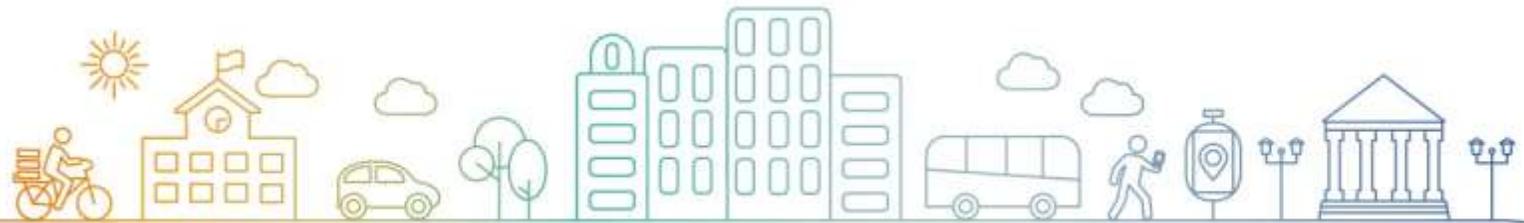




The content of this presentation does not reflect the official opinion of the European Union.

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26-27/11/2018  GRAZ, AUSTRIA



This presentation contains the following information:

- Summary of inputs of participants
- Summary of harvest of Working sessions I and II (What)
- Summary of harvest of Working sessions III (How)



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Outline of the event's format and your role:

- The 5 W's of STRIA (Henriette)
- The road to STRIA (Florian)
- Summary of your responses (Fred)



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Your team of expert rapporteurs:

- Florian LENNERT (LSE, InnoZ)
- Fred DOTTER (Mobiel 21)
- Elena PATATOUKA



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The 5 W's of STRIA

Henriette VAN EIJL



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WHY: EU policy context

- **COP 21:** commitment to limit the temperature increase below 2°C (aiming at 1.5°C – baseline 1990)
- The 2015 Energy Union Communication defines the strategy to attain the **2030 Climate & Energy targets:**
 - < 40% GHG emissions reduction;
 - < 27% of EU renewable energy consumed;
 - < 27% improvements in energy efficiency.



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Five mutually-reinforcing dimensions:

1. Energy security, solidarity and trust;
2. A fully integrated European energy market;
3. Energy efficiency;
4. Decarbonising the economy;
5. **Research, Innovation and Competitiveness: STRIA: Strategic Transport R&I Agenda;**

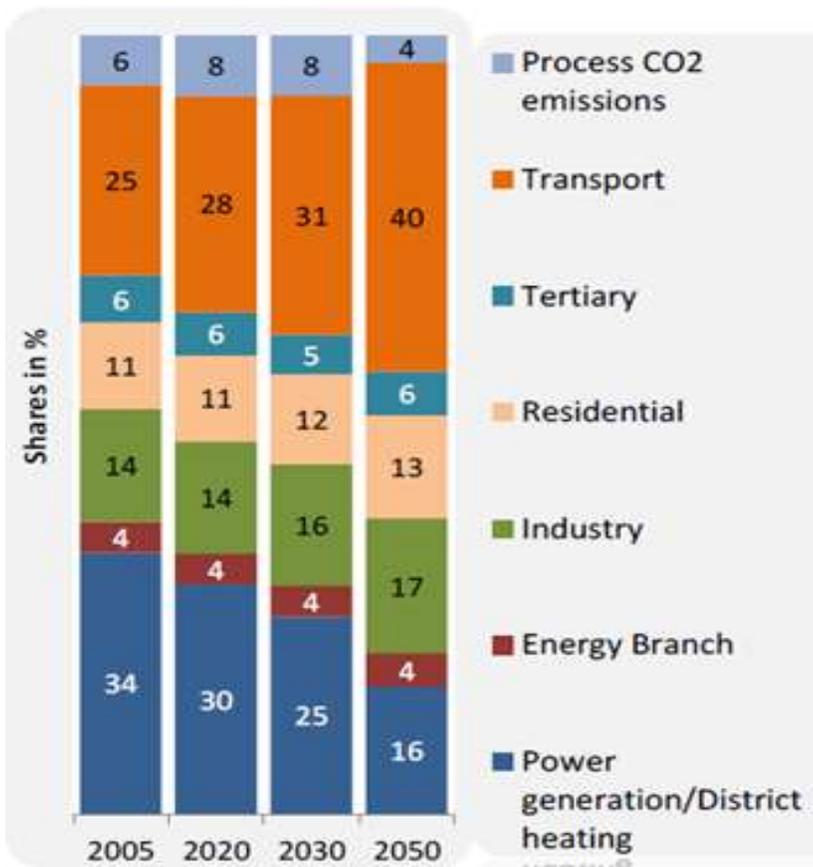


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Transport: the climate challenge...



- Transport = 33% of the final EU energy consumption (including international aviation but not international maritime);
- Depends on fossil fuel for 94% of its energy needs;
- By 2030: expected to become the largest source of CO2 emissions in the EU.

Business as usual is not an option



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WHAT: Strategic Transport R&I Agenda – EC Staff Working Document - May 17

Presented (with extensive consultation and expert rapporteurs) roadmaps with options towards low carbon transport and mobility: 'what' and 'how' in 7 areas:

1. Cooperative, connected and automated transport
2. Transport electrification
3. Vehicle design & manufacturing
4. Low emission alternative energies for transport
5. Network and traffic management
6. **Smart mobility and services (incl. urban)**



7. Infrastructure



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WHO & WHERE: The Graz Forum aims

To produce a plan for the implementation of the STRIA roadmap on 'Smart mobility and services' in urban areas that:

1. Prioritizes 15-20 actions to implement the STRIA roadmap on '**Smart mobility and services**' in **urban areas** with future commitments from lead organizations.
2. is a **co-created document**, based on a consultation process of more than 100 representatives from all sectors and from across the EU.



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WHEN: timeline?

- Update of conference website with presentation materials
- Dec – Jan: Open consultation to update actions and to add other ideas
- April 2019 (TBC): draft Action Plan and Validation workshop open to all in Brussels
- May – June (TBC): finalise Action Plan and large event with other STRIA roadmaps
- 2nd half of 2019 onwards: implementation + follow-up events
- TRIMIS (EC JRC): mechanism to ensure that all 7 STRIA roadmaps are implemented, monitored and updated



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The road to STRIA 'Smart mobility and services' (urban)

Florian LENNERT



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STRIA Roadmap Smart Mobility Systems and Services 2017

- Scenarios of Transport Decarbonisation
- Levers of Decarbonisation
- Levers of Innovation
- Challenges of Integration
- Opportunities for Innovation Action



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Levers of Decarbonisation

- Fuel, Vehicle and Circulatory Efficiency
- Fuel Substitution
- Modal Shift
- Land Use and Demand Management



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Levers of Innovation

- Intelligent Traffic Management
- Electrification/Alternative Fuels
- Smart Urban Development and Infrastructure
- User Behaviour/Use Innovation
- Mobility as a Service
- Automated/Autonomous Services
- Mobility on Demand Systems and Services



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Challenges of Integration

- Integrated Innovation: Demand AND Supply Side
- Public Transport=Shared Mobility / Shared Transport=Public Mobility?
- Multifunctional Infrastructure: Moving People AND Goods
- Energy Transformation AND Transport Transformation
- Open Data, Privacy and Economic Value
- From Invisible Hand to Invisible Mind?



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Opportunities for Innovation Action 1

- Modal Shift: Intelligent and Integrated Mass Mobility Systems
- Density, Accessibility, Walk/Cyclability, Spatial Equity
- From Carsharing to Ridesharing: Personal Public Mobility-on-Demand
- Renewable Energy, Open Smart Grids and Fuel Substitution
- From Multimodality to Multimodularity: Shared Infrastructure/Space



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Opportunities for Innovation Action 2

- Standardisation, Governance and Public Digital Infrastructure
- Externalities and Co-Benefits: Health, Ecological and Social Value
- Public Private Co-Production/Integrated Operating Models
- Infrastructure Dividend and Utility Models of Mobility



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The 5 priority areas with the greatest transformation and disruption potential in urban areas by 2030, and or even 2050

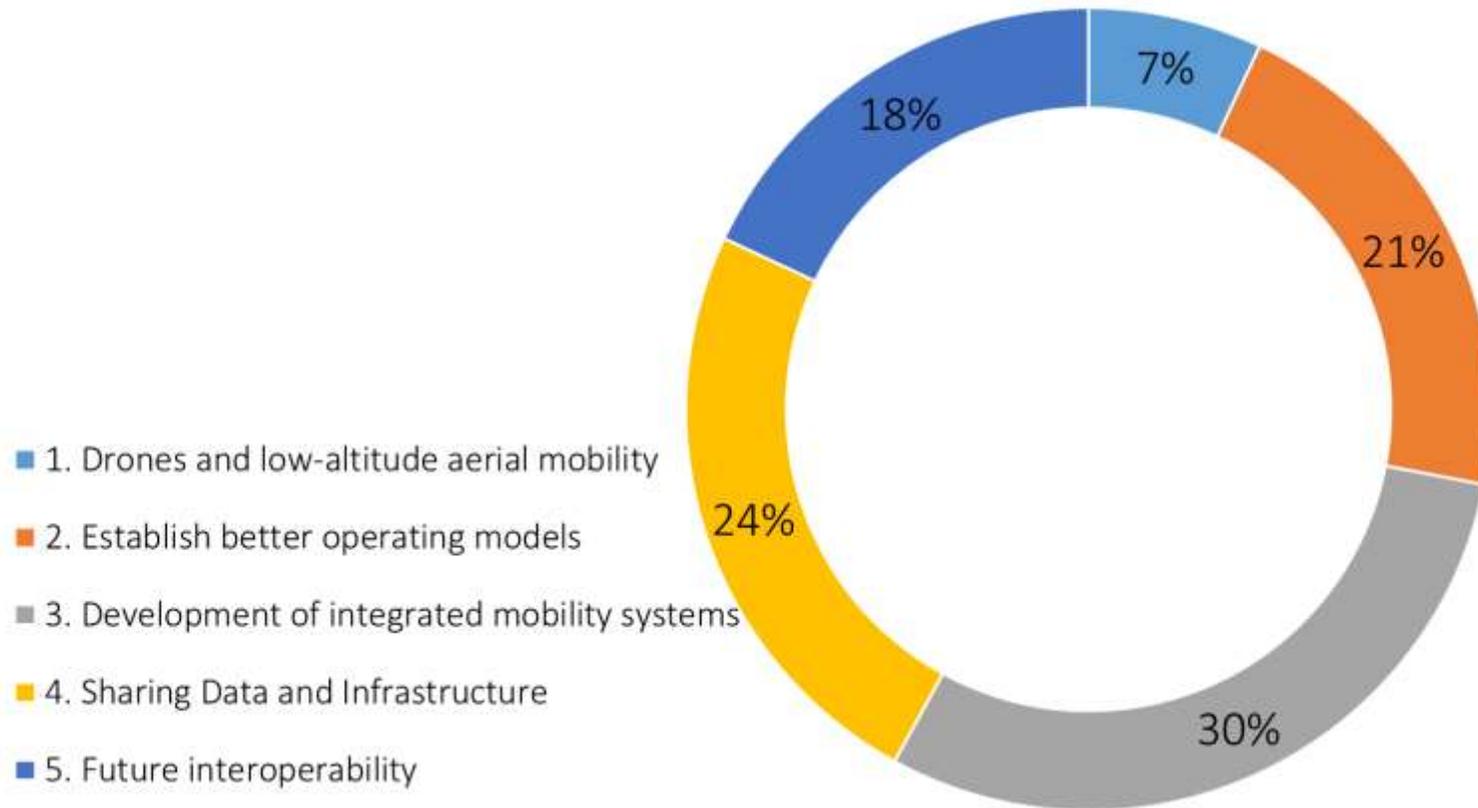
Fred DOTTER



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- 1. Drones and low-altitude aerial mobility
- 2. Establish better operating models
- 3. Development of integrated mobility systems
- 4. Sharing Data and Infrastructure
- 5. Future interoperability





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1. Drones and low-altitude aerial mobility

- Integration and adoption of **drones** in urban life: significant transformation on **technological** level, importance for RTI **capacity building**
- Increase of **competitiveness** of European businesses, creation of jobs and the global standing of the EU as business location
- How can aerial mobility open up **opportunities for all**: going beyond the "happy few rich" whilst creating negative externalities for all the rest
- Requirement of substantial public funds for implementation steps



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2. Establish better operating models (1/3)

- **Changing boundaries between Public and Private**, changing roles & responsibilities, increase of private mobility services instead of public actors, PP partnerships
- New structure for **engagement of stakeholders** enable them to work in new models of operation, new relationships i.e. cities, transit agencies, OEMs, tech companies, consumers are all being faced with.
- **Social inclusion** as a priority, 'responsible mobility', **citizen participation in urban mobility lab**
- Analysis of change of mobility behaviour, use of travel time, **understanding of the diversity of social groups, lifestyle/generation/income/gender trends** and multiple **mobility needs** before designing mobility services



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2. Establish better operating models (2/3)

- Need of an **integral approach**: socioeconomic and environmental impacts of transport and user / public acceptance
- New ways of **procurement, operating and delivering integrated services**. Develop and test **governance and regulatory strategies**
- Focus on **regulation / sustainable urban planning**, implementation of **Sustainable Mobility Plans (SUMP)**s)
- **Legal Framework of new concepts** such as MaaS, Autonomous driving, electrification



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2. Establish better operating models (3/3)

- **Harmonization:** regulation awareness and sense of urgency in the **Member states, Cross-border** regulation (national and European standards) for transport of passengers and goods, Stimulate multimodal journey planners, alignment of payment systems. **Proactive regulation for cities**, regulation of scarce space in cities, of public space and public infrastructure (under what conditions are companies allowed to use it)
- **Competition law:** prevent monopolies in transport ('uberisation phenomenon')
- **Incentives and restrictions** (push-and-pull measures / areas)
- Focus on **finance and resources: new forms of payment**, funding of public mobility services, economic impacts of new mobility, **new business models**





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3. Development of integrated mobility systems (1/2)

- Digitalisation, automation, electrification
- Relevant Examples: Traffic management , autonomous transport, shared electric vehicles
- 'Public automated transport' could also be disruptive or '**Individualisation** - Customisation' /
Modernisation of **public transport**
- Mixed forms of traffic ('old and new') including active modes of transport
- Optimization of **multimodal travel chains**



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3. Development of integrated mobility systems (2/2)

- Current challenges: **congestion, road safety, inadequate public transport**
- **Active transport modes:** Walking and cycling, active travel combined with public transport
- **Energy – transport nexus:** identify energy consumption or GHG footprint of new mobility services, Climate Change Adaptation and Mitigation solutions, Positive energy districts, Clean vehicles



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4. Sharing Data and Infrastructure (1/2)

- Increasing **availability of data**, open data, data collection, storage, analytics
- Related arising challenges such as **privacy** and **cybersecurity** have to be addressed
- **Focus on cities, public space**: optimize the value of public space and public infrastructure. The **attractiveness of public space** for active mobility will be one key factor to support decarbonisation of urban mobility
- Transport's impact on **land use**, land valuation, street/neighbourhood design, municipal budgets and communities, geofencing (connected zoning control) with vehicle industry



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4. Sharing Data and Infrastructure (2/2)

- Strong cohesion between urban, suburban, regional and rural areas
- **Modularisation of infrastructures/new materials/ new forms/design of infrastructure** in cities for better adaptation to changing needs (towards green cities, circular economy principle, restoring biodiversity)



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5. Future interoperability

- Education and capacity building: transportation skills and future generation training



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What actions would have the greatest impact on transport decarbonisation?

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1. Drones and low-altitude aerial mobility

- Implementation of **drones** and **low-altitude aerial mobility**, cargo drones
- Drone-taxi landing pads integrated in multimodal hubs such as train, metro and bus stations



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2. Establish better operating models (1/3)

- **Public-private co-design** of transport mobility services, integration of smart mobility solutions to the **public transport sector or to PPP**
- Shared mobility – combination with public transport (e.g. BANKMAT) in order to reduce car ownership, car trips, travel time, decline in transport emissions
- Actions related to **finance: Better financing schemes for public transport operation**, Long term agreements and demands on fuels on all kind of vehicle emission limits
- Actions on regulation / sustainable urban planning at **EU, National, Regional, Local, Urban level**, regulations on interoperability, National and EU street sign standardization process, competition/ market, harmonization





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2. Establish better operating models (2/3)

- Policies that incentivize shared rides and discourage single occupancy vehicles: i.e. empty seat tax, vehicle-kilometers of travel (VKT) occupancy based lane/route prioritization, **Speed regulation** for conventional trucks, **taxation** on motorised individual mobility
- Restrictions for driving/parking a fossil driven car in urban areas, **City tolls**
- Making the **SUMP principle mandatory for obtaining funds** for financing of transport measures / strategies
- **Actions on social inclusion**, 'responsible mobility', citizen participation: analysis change of mobility behaviour / citizens' needs to **improve accessibility** and users' acceptance



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2. Establish better operating models (3/3)

- **GPS-data collection on mobility patterns** and strategic networks to meet the needs of various groups of people and goods (age, socio-economic, spatial)
- **Improving monitoring of mobility practices by minorities and social groups at risk**, usually neglected by "big data" analysis
- Invest in **neighborhood** communication, exchange, sharing and co-creation systems, simplified/micro SUMP's for small cities
- **New governance strategies** through better understanding of the **role of the different stakeholders** involved in mobility, increasing significance of **partnerships** between traditional stakeholders and new actors entering in order to develop a common framework





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3. Development of integrated mobility systems (1/3)

- Implementation of integrated and sustainable mobility systems
- Implementation of intelligent traffic lights connecting the cars, intelligent driving, intelligent traffic management , new 3D road markings standards, attractive intermodal urban mobility systems
- Improvement of public transport services: on-demand, smaller vehicles where large capacity is not required
- ‘Last mile’ mobility solutions, development of shared micro-hubs



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3. Development of integrated mobility systems (2/3)

- Encouragement of the development of MaaS, enforcing smart mobility solutions with the aim of **reducing vehicle-km in passenger transport**, e.g. car sharing, mobility as a service, user-center on-demand door-to-door solutions
- Promotion of **active transport modes in combination with public transport**: i.e. Initiatives to foster public private partnerships such as Car2Go/DriveNow joining public transport operators and bike sharing systems
- **Actions on energy – transport nexus**: Attractive intermodal urban mobility systems, wide choices of decarbonised transport possibilities, e.g. **biofuels for aviation, maritime, HDV, hydrogen fuelled transport infrastructure, hybrid aircraft**



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3. Development of integrated mobility systems (3/3)

- Electrification / Electric mobility, policies that incentivize energy efficient transport modes
- Broad implementation of zero emission vehicles in transport of people and freight, bring Clean Development Mechanism (CDM) accreditation to transport
- Intelligent trans- city corridors with applications like Eco-efficient Green Light Optimization
- Environmental (no-drive) zones, Treatment of logistics activities in Urban Vehicle Access Regulation (UVAR) Schemes
- The promotion of green vehicles may result in a rebound-effect, because **without the need of fossil fuels** it becomes “green” to drive





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4. Sharing Data and Infrastructure (1/2)

- Introduce a **neutral and analytically savvy moderator** – such as an academic research institution –**to build trust and collaboration among competitive players**
- Actions focusing on cities, public space and physical infrastructure: **easy-to-use public transit** including new services like ride-hailing and autonomous vehicles
- Creating **attractive smart public space for active mobility, adequate parking space**
- Focus on **green recreational and leisure areas on urban neighborhood level** (common rooftop gardens, living streets to avoid "escape mobility" from a city centre to a green area outside of an urban region)



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4. Sharing Data and Infrastructure (2/2)

- Production of food in urban indoor farms (to grow the food nearby where consumers live)
- Free cities from lorries and set up **city logistics system** that do the last mile deliveries in the majority of the trips with **cargo bikes and electric assisted cargo bikes**
- **City marketing**: increasing the awareness of citizens to make use of new mobility services
- Carry out **large-scale and city-led lighthouse demonstrations** along with high-quality research and testing processes
- Implementation of low-cost and temporary changes to the urban tissue, especially regarding infrastructure (*'tactical urbanism'*)



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5. Future interoperability

- Generating an integral approach: combination of the separated services that are currently not interoperable/ providing contradictory advices to user
- Combining **transport aspects with land use planning ones, energy and health aspects**
- Define programs / calls for this integrated and **holistic approach** which takes into account both, **infrastructure aspects as well as soft measures** (organisation, information, marketing, awareness raising, participation and testing new behaviour).
- **Actions on education and capacity building:** define programs / calls for this integrated and holistic approach which takes into account both, infrastructure aspects as well as soft measures (organisation, information, marketing, awareness raising, participation and testing new behaviour).



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Next step in the agenda - Round I and Round II of collaborative working sessions in the 5 priority areas of the STRIA roadmap.

Aim: define up to 5 priority R&I actions for each area

1. Drones and low-altitude aerial mobility
2. Establish better operating models
3. Development of integrated mobility systems
4. Sharing Data and Infrastructure
5. Future interoperability



Location: House of Architecture

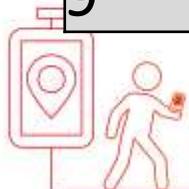


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No.	Table title	name moderator/host
	26/11/2018 - Round 1 - 15.45-16.45	
1	Drones and low-altitude aerial mobility	Florian Lennert
2	Establish better operating models	Piotr Rapacz
3	Establish better operating models	Octavia Stepan
4	Development of integrated mobility systems	Fred Dotter
5	Development of integrated mobility systems	Henriette van Eijl
6	Development of integrated mobility systems	Anastasios Tsakalidis
7	Development of integrated mobility systems	Torsten Klimke
8	Sharing Data and Infrastructure	Marcel Rommerts
9	Future interoperability	Robert Missen



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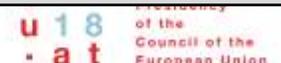
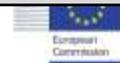


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 26-27/11/2018 ◉ GRAZ, AUSTRIA

26 November Round 2 17.00–18.00

No.	title table	moderator
11	Establish better operating models	Piotr Rapacz
12	Establish better operating models	Octavia Stepan
13	Development of integrated mobility systems	Torsten Klimke
14	Sharing Data and Infrastructure	Henriette van Eijl
15	Sharing Data and Infrastructure	Marcel Rommerts
16	Sharing Data and Infrastructure	Anastasios Tsakalidis
17	Future interoperability	Robert Missen
18	Future interoperability	Florian Lennert

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Harvest of Sessions I and II: The main outcomes of the 'What' Sessions

Piotr RAPACZ, Torsten KLIMKE, Marcel ROMMERTS, Robert MISSEN, Florian LENNERT



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1. Drones and low-altitude aerial mobility

- Drones, what are they good for?
- Need to understand 3rd urban dimension/smart city³
- Challenge: noise, energy supply, security, safety, visual pollution?
- Detaching mobility from infrastructure
- Drones for Life – clear applications for emergency uses
- Need for city/citizen-led development of future drone solutions
- Who owns the airspace/need for regulation
- Important for European competitiveness/other regions leading development





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2. Establish better operating models (1/2)

- a. Defining new models of institutional and legal framework across all governance levels and stakeholders for better mobility:
 - covering SUMP + regional and possibly national aspects;
 - with relevant indicators/KPIs (in particular for small/medium cities)
 - with legal enablers at national/EU levels to support urban mobility
 - covering accessibility aspect also thanks to the new mobility services.
- b. Integration/adaptation of traditional public transport model with new mobility services:
 - public procurement aspect
 - financing aspects: how to ensure public funding while revenues are falling
 - new financing schemes linked to new shared mobility schemes.





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2. Establish better operating models (2/2)

- c. Define/revise model for cost and benefit (C&B) analysis for green urban mobility investments:
 - revise C&B methodology by introducing/better covering societal and environmental cost categories linked with transport investments (example of HEAT tool of WHO Europe?)
 - research possible algorithms supporting such investments
 - analyse possibility of not including such investments in local governments' deficits.
- d. Social aspects driving mobility towards better quality of life:
 - understanding the needs of different social groups
 - research acceptance for disruptive changes in mobility and managing social conflicts
 - most effective ways of having the voices and needs of citizens and key stakeholders heard (city citizens' parliaments to debate solutions? CIVITAS-creation workshops?)





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3. Development of integrated mobility systems

- a. Understanding and designing the data eco-system
- b. Re-think the car-oriented city, also beyond the transport bubble
- c. Look at the values of different needs (including the ones of non-users)
- d. Internalisation of externals costs / creating viable and sustainable business models
- e. Applying and integrating new technologies
- f. Introduce (policy) living labs and its evaluation and knowledge-share (“Governance Erasmus”)



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4. Sharing Data and Infrastructure

- a. Data: the user perspective
 - Modal shift, user response, tools, new modes
- b. Data sharing: the technical perspective
 - Trusted environment, privacy, interfaces
- c. Data for policy
 - Needs, incentives, silos, data collection, decisions

Furthermore: There were many other ideas, also beyond data; passengers and freight; build on what exists



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5. Future interoperability (1/2)

- a. Interoperability of physical, technical, social, and spatial systems; Public digital infrastructure
- b. Standards, like water only useful to walk on if its frozen. Present interoperability, different statuses in different sectors
- c. Technology is not the problem but will bring problems
- d. Vertical Mobility. Standards still to 2 dimensional, we need to integrate 3rd dimension. Who owns the airspace in a city, who can charge, regulate the use.



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5. Future interoperability (2/2)

- e. Freight interoperability: need for more modelling, to see the effects on demand of interoperability
- f. How will interoperability affect health?
- g. Developing the optimal platform for interoperability. What is the minimum and maximum amount of regulation that is needed for the platform to work well?



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How do we implement the priority areas?

Florian LENNERT



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1. Carry out large-scale and city-led lighthouse demonstrations

- Focus on **Cities**. Cities provide a test field for urban air mobility and connected driving or other innovative projects (i.e. e.g. using bio-diesel from waste cooking-oil, testing electric buses with superchargers, car-sharing services, etc.)
- Carry out large-scale and **city-led lighthouse demonstrations**, create city-led **Living Labs**



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2. Develop and test innovative and robust arrangements for public-private co-design of transport and mobility services

- Focus on **public-private projects**
- **Targeted research** at the concerns of both the public and private sector (e.g. MaaS land use/municipal budget/equity impacts, key tax/fee/regulatory levers, to name a few) help guide discussions and shape future policy/models.
- Develop and test innovative mobility services in the **multiple scales/interrelated levels: city, region, national level, EU**



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3. Develop and test implementation of governance, regulatory, and public procurement strategies (1/5)

- Inform citizens and include them in projects
- **Energy Agencies** can enforce actions, e.g. car sharing, mobility as a service, zero emission vehicles
- Actions from **relevant organisations**, e.g. POLIS, UITP, etc. but also usage of experience and knowledge from various RTOs
- **Funding and cooperation at EU level** could advance a faster and broader implementation



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3. Develop and test implementation of governance, regulatory, and public procurement strategies (2/5)

- Mobility Centers, Labs and Universities disseminate results to stakeholders, providers and scientific community
- **Link in with national R&D** (funding) activities, exchange expertise & practices
- Enable smart charging and create a level playing field for mobility service providers, transparency on data and open infrastructure
- Establish a framework and roadmap for combined mobility as a service that is followed by **all the stakeholders involved**, e.g. the example of Sweden.



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3. Develop and test implementation of governance, regulatory, and public procurement strategies (3/5)

- Examples of **National or Federal Railways** strengthening sustainable modes of transport, e.g. OBB in Austria
- Examples of **National flagships for traffic management**, e.g. Connecting Austria, can be upgraded and contribute to European level Initiatives related to innovation, e.g. drones, automated mobility
- **Data collection, analysis and strategic networks** to promote active mobility and evidence based policy making at a city or Regional, National, EU levels.





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3. Develop and test implementation of governance, regulatory, and public procurement strategies (4/5)

- Actions to turn innovations into demonstrations and implementation in industrial scale in the direction of enhancing effective transport capacity, reducing traffic congestion, increasing safety and comfort.
- Labs undertake pilot projects with government, industry and research
- International conferences / events for sharing knowledge, linking experts and teams



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3. Develop and test implementation of governance, regulatory, and public procurement strategies (5/5)

- National funding support , apart from EU's H2020, for University research
- Maximize the value of STRIA roadmap through innovation plans for bike-sharing, expanding the electric vehicle rapid charging network, investing in digital connectivity supported by a clear strategic vision on 5G and Fibre



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27/11/2018 – HOW 11.00 – 12.00		
No.		name moderator
21	Drones and low-altitude aerial mobility:	Florian Lennert
22	Establish better operating models	Piotr Rapacz
23	Establish better operating models	Octavia Stepan
24	Development of integrated mobility systems	Torsten Klimke
25	Development of integrated mobility systems	Fred Dotter
26	Sharing Data and Infrastructure	Anastasios Tsakalidis
27	Sharing Data and Infrastructure	Marcel Rommerts
28	Future interoperability	Robert Missen
29	Future interoperability	Henriette van Eijl

Free seating – max 15 participants per table



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Harvest of Session III: The main outcomes of the 'How' session

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1. Drones and low-altitude aerial mobility (1/4)

- Need to define Drone, currently there is a semantic/conceptual confusion. VTOL; Drone,, flying taxi etc. Need to create a broad but focused definition: Vertical Mobility, 3rd dimension mobility; 3D Mobility, Urban Air Mobility. Air Transport to include freight. Next Gen Air Mobility. Air Transport in a Digital Economy
- We have a set of different valid motivations for air transport
- Innovation Driver: Helicopter is a bottleneck technology, too expensive for many uses cases, not enough pilots
- Disruptive power of drones is to disconnect infrastructure from mobility. No need for fixed and expensive infrastructure with emissions and spatial footprint
- Rethinking logistics becomes possible, network model rather than hub and spoke



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1. Drones and low-altitude aerial mobility (2/4)

- Core use cases: Supervision, Recreation, Mobility, Logistics
- Supervision: sensor platform application is mature, applications also already in use for security, precision agriculture, infrastructure maintenance etc
- Personal Air Mobility: The Future is now. Flyer by Kitty Hawk, Hoverbike already flying now. Technology development is exponential, urgent need to think about integration
- Utopia is needed not Dystopia. The dream of flying is a fundamental human desire. Need to inspire and manage.
- Darpa, XPRIZe, Moonshots, example Hyperloop competition. European Moonshot is needed for urban air mobility: Competition or Prize



Citizen/User integration vital



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1. Drones and low-altitude aerial mobility (3/4)

- Lighthouse/Living Lab for Air Mobility to include rural areas allowing for large-scale experimentation, demonstration
- 100-200kg, for Logistics, sports (?) (Formula E is driving eMobility on the road)
- Safety, Security, Air Transport Regulation, Certification of drones, Europe could define logistics standard
- Public Air Mobility/Aerial Public Transport. Disrupt the Disruption.
- Network of Aviation Industry Sites and Cities – Air Industry of the Future
- Emergency Transport / Drones for Life. Replacing Helicopters, more affordable. Easier scalable in production
- European Innovation for Sustainable Development and Humanitarian Logistics
- Military to Civilian Tech Transfer
- Charging/Landing Infrastructure/Design.



Public Acceptance through Sports / Racing/Industrial Drone Marathon

Prize for best use case for public acceptance



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1. Drones and low-altitude aerial mobility (4/4)

- Emergency services
- Public Transport
- Public Stake in Development
- Procuring Air Management System / Who controls Urban Air/ Interfaces to existing Air Traffic Control Regimes
- Regulation of intersection of horizontal and vertical space
- Responsible research and innovation/critical examination of externalities und unintended consequences/Risk assessment
- Standards/Regulations for landing/charging pads
- Governance integration across local, regional and European





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2. Establish better operating models (1/3)

- Set up collaborative initiatives (between public, private, academia, industry) to stimulate decarbonisation of urban mobility through new operating models. To look into:
 - What type of mobility service / combination of services is suited for a certain area?
 - Regulation / Demand / Access Restriction / Efficiency of the use of public space
 - Integration of new mobility services with the land-use framework
 - New subsidy schemes for shared collective transport across the urban area (FUA) / in “between” the urban areas



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2. Establish better operating models (2/3)

- Living Urban Mobility Lab combining policy and technology innovations.
 - Social dimension incl accessibility is a key element
 - Need to include social diversity and social inequalities into the research
 - Technology has to be responsive to social needs
 - All stakeholders to be involved
 - Time-span should be expanded
 - Legacy strategy as mandatory element
 - Scale of Living Labs should not be pre-defined on EU-level
 - Not necessarily city-led only



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2. Establish better operating models (3/3)

- Interdisciplinary research on areas related to urban mobility for decarbonised transport.
 - Gap between national and local levels (focus on different things)
 - Need to get from privatization of profits and communalization of costs
 - EU to be more ambition to set new roles
 - Cultural fail is OK as long as we learn from it
 - Wider issues, such as land-use, conditions for people to work and live, have to be tackled before proposing IT solutions
 - Political will key to success



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3. Development of integrated mobility systems

- Introduce and fund a new level of governance
- Enable cities to assess best practice and scale it up
- Develop ownership and clear leadership
- Enhance transferability (use best existing models, adapt them to the needs of cities, regions, ...)
- Note that there is a difference on speed, culture and reality in Europe
- Involve all sectors and levels
- Make the cooperation between local and regional level mandatory
- Think multidisciplinary, multisectoral and multimodal
- Sell sustainable mobility like ice-cream
- Urban innovation lab on transport data (eco-system)
- Develop better foresight models and scenarios for disruptive technologies (to enable better policy making)
- Re-think our cities comprehensive
- Understand and manage the dynamic transformation process that has already started





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4. Sharing Data and Infrastructure (1/2)

- We need to design a system for “systematic market scale up”
 - From local experiments to roll-out
 - Certainty for private sector
 - Localisation aspect not to be underestimated
- Disruption don't wait
 - Need eco-system for experimentation
 - Evaluate and share
 - Empower cities



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4. Sharing Data and Infrastructure (2/2)

- Research and innovation cannot provide all answers
 - Regulation (standards, privacy, ...)
 - Value chain
 - Monopolies
 - Funding, roll-out



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5. Future interoperability

- How can cities be “brokers of knowledge”?
- How to get private sector industry involved in research projects?
- How to educate the public sector to manage “disruptive” ideas?
- What makes a good pilot project?
- Are big projects for big players only?
- Should it be city led or city driven?
- Interoperability = seamless service for freight and passengers
- What is a (suitable) regulatory framework?



- “Federation” model of data and “White label”





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Feedback: We agree on many things

Florian LENNERT



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Connecting the 'What' and the 'How'

Henriette VAN EIJL



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1. Who will lead the actions? I will lead ...
2. How to coordinate various levels?
3. What is the most important message you want us to take back to Brussels?



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The next steps

Henriette VAN EIJL



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What happens after this event?

- Update of conference website with presentation materials
- Dec – Jan: open consultation to update actions and to add other ideas
- April 2019 (TBC): draft Action Plan and Validation workshop open to all in Brussels
- May – June (TBC): finalise Action Plan and large event with other STRIA roadmaps
- 2nd half of 2019 onwards: implementation + follow-up events
- TRIMIS (EC JRC): mechanism to ensure that STRIA roadmaps are implemented, monitored and updated



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