Building a vision for transport in EU 2030

The project Mobility4EU

AMAA 2016
Smart Systems for the Automobile of the Future
23 September 2016 - Brussles, Belgium

Action Plan for the Future of Mobility (CSA)

Duration: 1 Jan 2016 – 31 Dec 2018 **Funding:** DG RTD

Consortium: 19 partners from 11 countries

- VDI/VDE-IT (Germany)
- VUB (Belgium)
- Ifsttar (France)
- CERTH (Greece)
- Deep Blue (Italy)
- SIEMENS (Germany)
- CRF (Italy)
- Zaragoza Logistics Center (Spain)
- Bauhaus Luftfahrt (Germany)
- Echandia Marine (Sweden)
- ST Micro (France)
- HUMANIST (France)
- Osborne Clarke (Belgium)
- Transport Authority of Barcelona (Spain)
- Dutch Passenger Association (Netherlands)
- International Longevity Centre (UK)
- Budapest Association of Persons with Physical Disabilities (Hungary)
- VTT (Finland)
- ICCT (Germany)

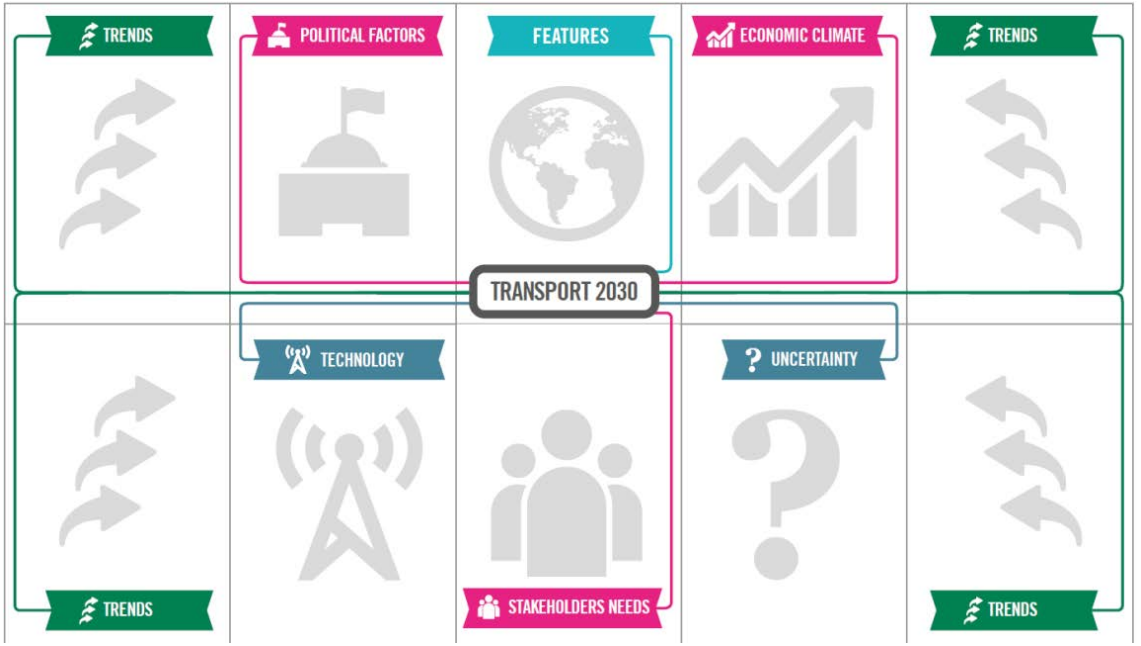
Objectives

- identify and assess **societal trends and challenges** that will influence future transport demand and supply
- find and categorise promising **cross-modal technical and organisational transport solutions**
- establish a **future vision of a transport system in 2030**
- develop an **action plan including a roadmap** for the implementation of that vision
- **recommend tangible measures in research, innovation and implementation**
- **engage a broad stakeholder community** into the consultation processes of the project and its implementation
- **sustain the work of the project beyond its duration**, e.g. in the form of a new European Transport and Mobility Forum

Creating the Context Map

Societal Requirements and Current Challenges for Transport (03 May 2016, Berlin)

- What are the **features of the transport system in 2030**?
- Which **political, economic and societal factors** will probably determine mobility demand in 2030?
- Which **technology frameworks** will probably enable the supply of transport solutions in 2030?
- Which **uncertainties** will remain?



First workshop

Societal Requirements and Current Challenges for Transport (03 May 2016, Berlin)

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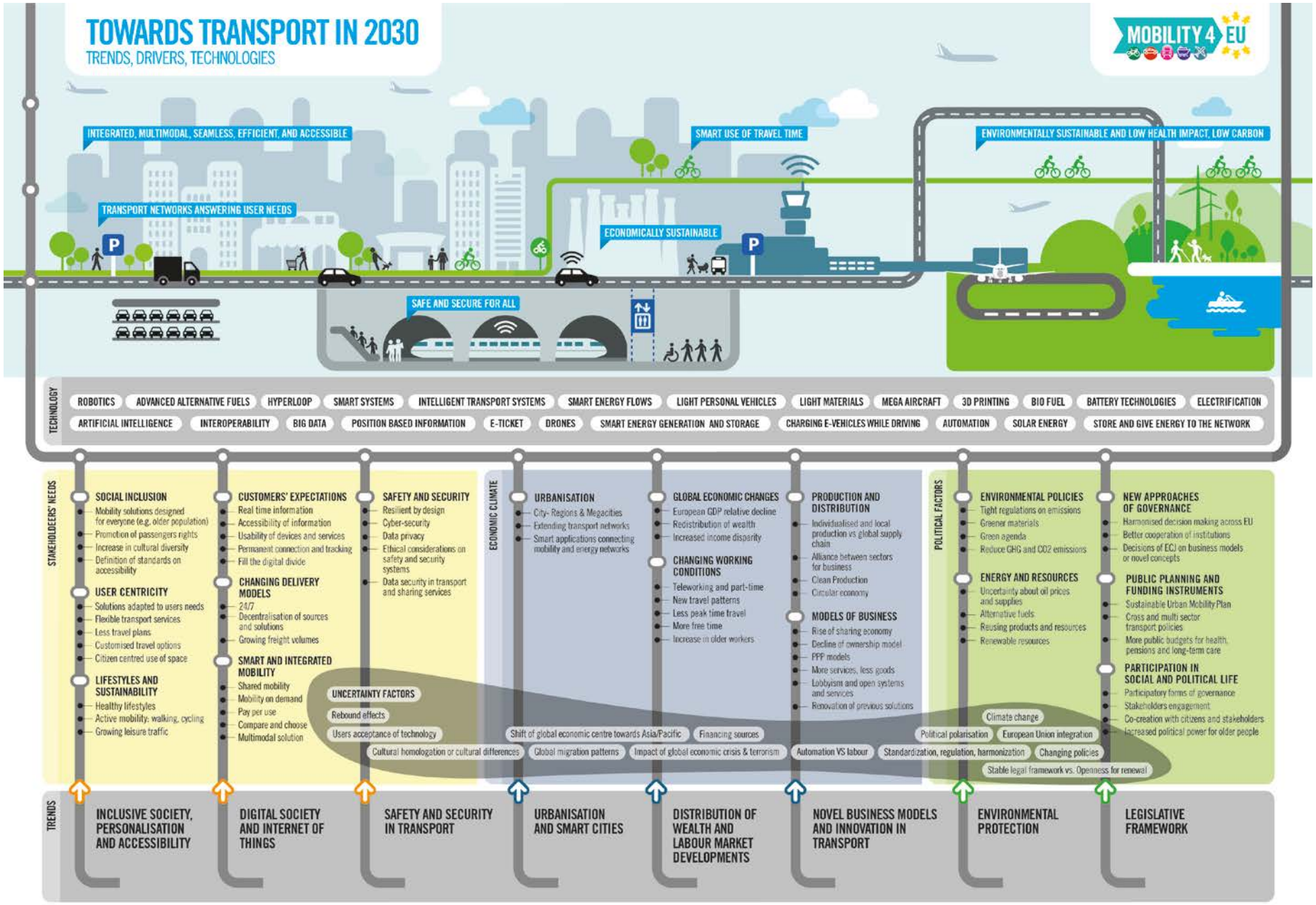
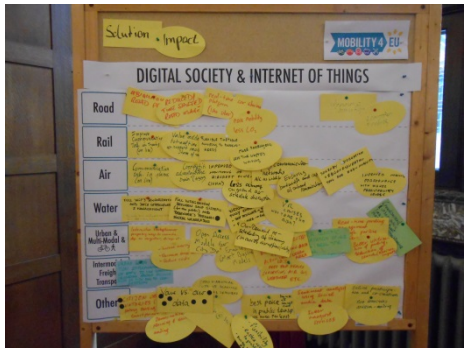


Compiling the Opportunity Map

Novel and Innovative Mobility Concepts and Solutions (05 July 2016, Brussels)

- Distribution of wealth and labour market developments
- Inclusive society, personalisation, accessibility
- Urbanisation and Smart cities
- Environmental protection
- Digital society and Internet of Things
- Novel business model and innovation in transport
- Security in transport
- Safety in transport

Compiling the Opportunity Map

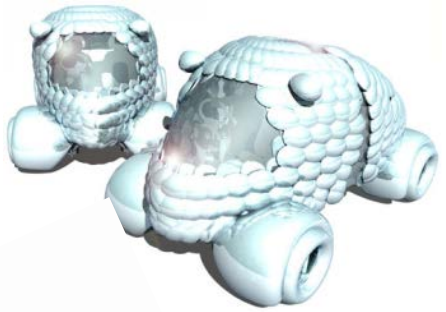


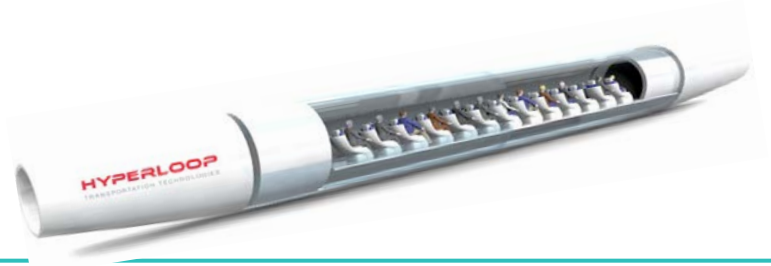
Novel and innovative solutions

Societal trends and drivers

Modes

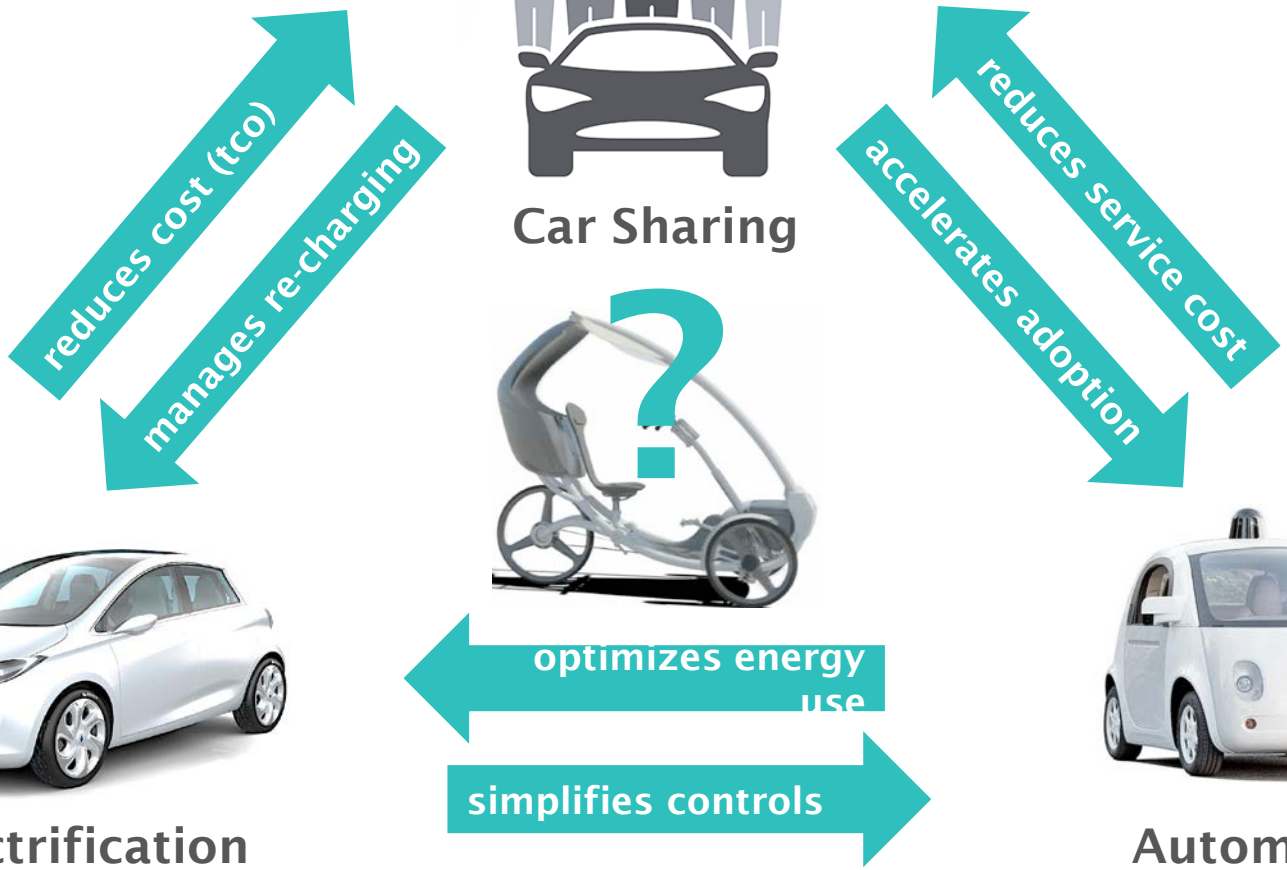
	Distribution of wealth, labour market	Inclusive Society, Personalisation, Accessibility	Urbanisation, Smart Cities	Environmental Protection	Digital Society, IoT	Novel Business Models, Inno-vation Systems	Safety	Security
Road	Big data in transport behavior and location analytics	Vehicle architec-tures to improve accessibility	Shared mobility and co-created concepts	Ecodesign methodologies	Car Platooning for connected vehicles	Dynamic access regulation and pricing of the use of shared infrastructure	VRU protection as e.g. sticky coating	Hijack-safe security protocols for conencted cars and infrastructure
Rail	Personal rapid transport	Ensured first/last-mile connection	Automatized trains	Regional train service with higher frequency and shorter travel time	Asset management just in time	Mobility as a service	Information and Communication Systems (ICS) for signalling	Resilient design for rail services
Air	4h-door-to-door	Cabins designed under health and accessibility aspects	Low-noise aircraft	Light (solarpowered) electric aircraft	Automation of passenger drop-off baggage	Air-plane on demand	Advanced air traffic managment	Checkpoint of the future
Water	More flexible commute through integrating waterborne transport	Design for VEC	Floating delivery hubs	Ultra-efficient and alternatively powered shiip	Automation on rivers and canals	Pallet shuttle barge as multimodal logistic concept	Advanced HMI for crew	Monitoring and tracking of shipping containers
Urban/ Rural	Shared mobility for commuters	Urban personal transportatin devices	Intelligent Parking	Zero emission buses	Gamification for active modes	Comprehensive route planners (plan, book, measure impact)	Cooperative driving	Nominative ticketing
Inter-modal Freight	Integration of passenger and freight	24/7 delivery	urban consolidatin centers	Impact calculation in freight, Modal shift	Physical internet	Logistics as a service	Truck platooning	Smart incident management



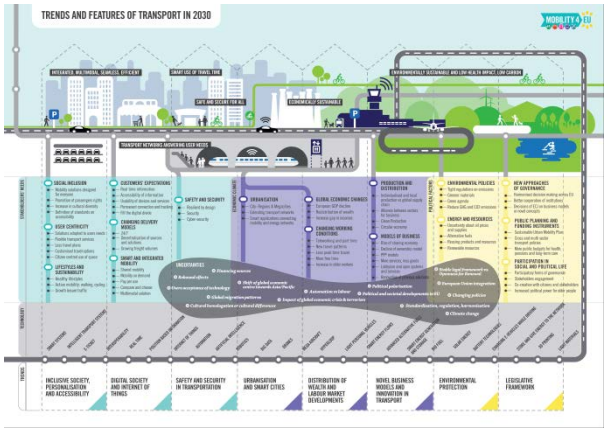


Prioritization of solutions (Example)

Synergies



Methods: Story Map & MAMCA



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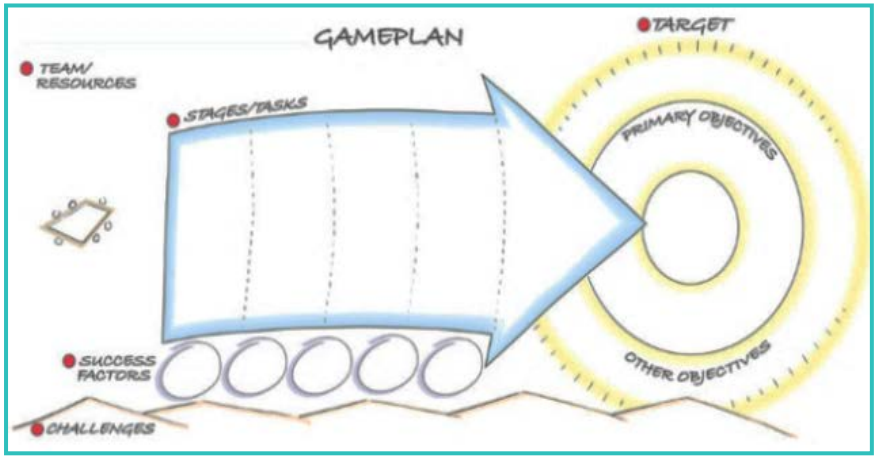
Opportunity Map

2030 Vision Panorama

Story Mapping Process

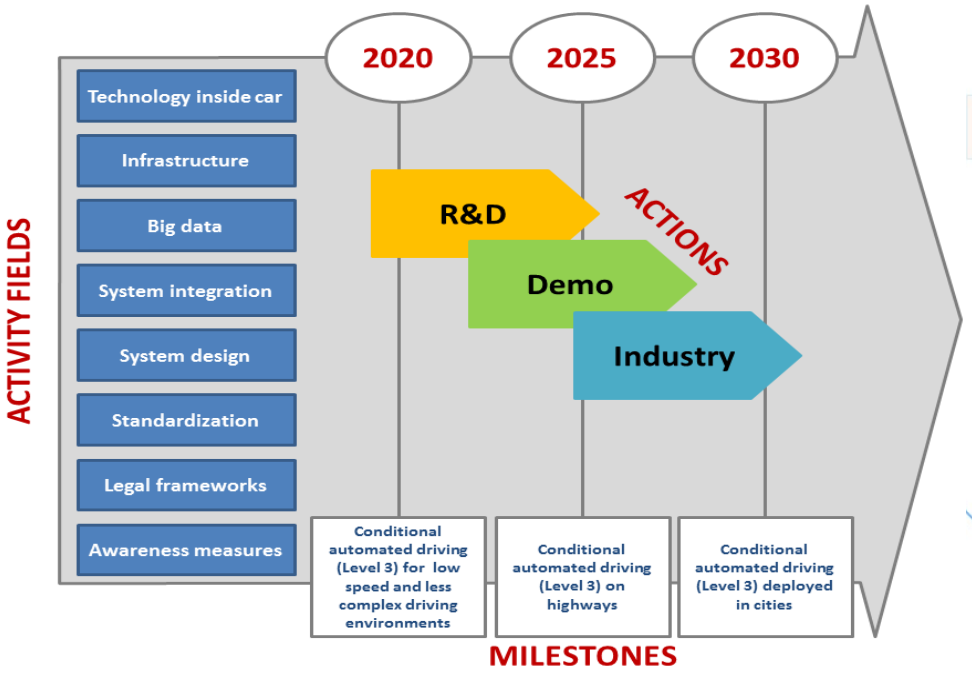
Stakeholder Dialogues

Multi-Actor Multi-Criteria Analysis (MAMCA)

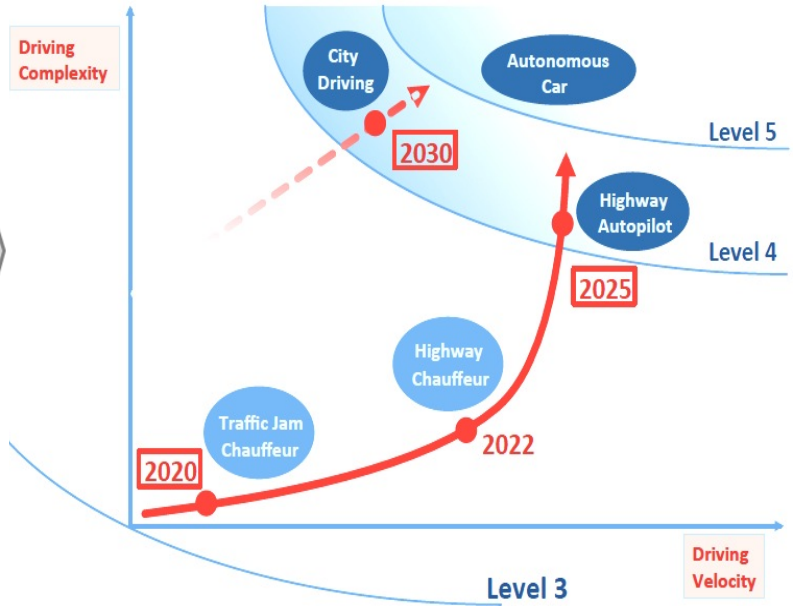


Roadmap - „the Action Plan“

Action Plan: Vision and Roadmap



Roadmap



Vision

Example:
European Roadmap Smart Sytems for Automated Driving, EPoSS, 2015

- Pursuing the drive for synergies

Convergence of automation and electrification

Driverless electric pods hitting the road – The Lutz Pathfidner project
Neil Fulton, Programme Director, Transport Systems Catapult (UK)

Beyond Cars – Media and urban design redefining the autonomous EV
Lino Vital Garcia-Verdugo, Automotive R&D consultant, Independent design researcher

- Scouting for new solutions

Disruptive approaches to urban electric mobility

EU- projects from the Call on Light EVs

- *SilverStream*
  Riccardo Groppo, Ideas & Motion srl (Italy)
- *Resolve*
  Martin Perterer, KTM-Technologies (Austria)
- *ESPRIT*
  Bodo Schwieger, team red Group (Germany)
- *WEEVIL*
  Jon Madariaga, Tekniker (Spain)

Associated Partners

AGE Platform (BE)

Athens Development and Destination Management Agency (GR)

AVERE (BE)

European Cycling Federation (BE)

Fincantieri (IT)

Knowledge Transfer Network (UK)

Low Carbon Vehicle Partnership (UK)

MOV'EO (FR)

Procter & Gamble (BE)

Rupprecht Consult (DE)

Liaised with ALICE

And more contacted….. **Let us know if you are interested!**

Contribute to Mobility4EU

- Stakeholder consultation starts late fall 2016
  - Online surveys
  - Workshops
  - Continuous updates on website

Drop us a note

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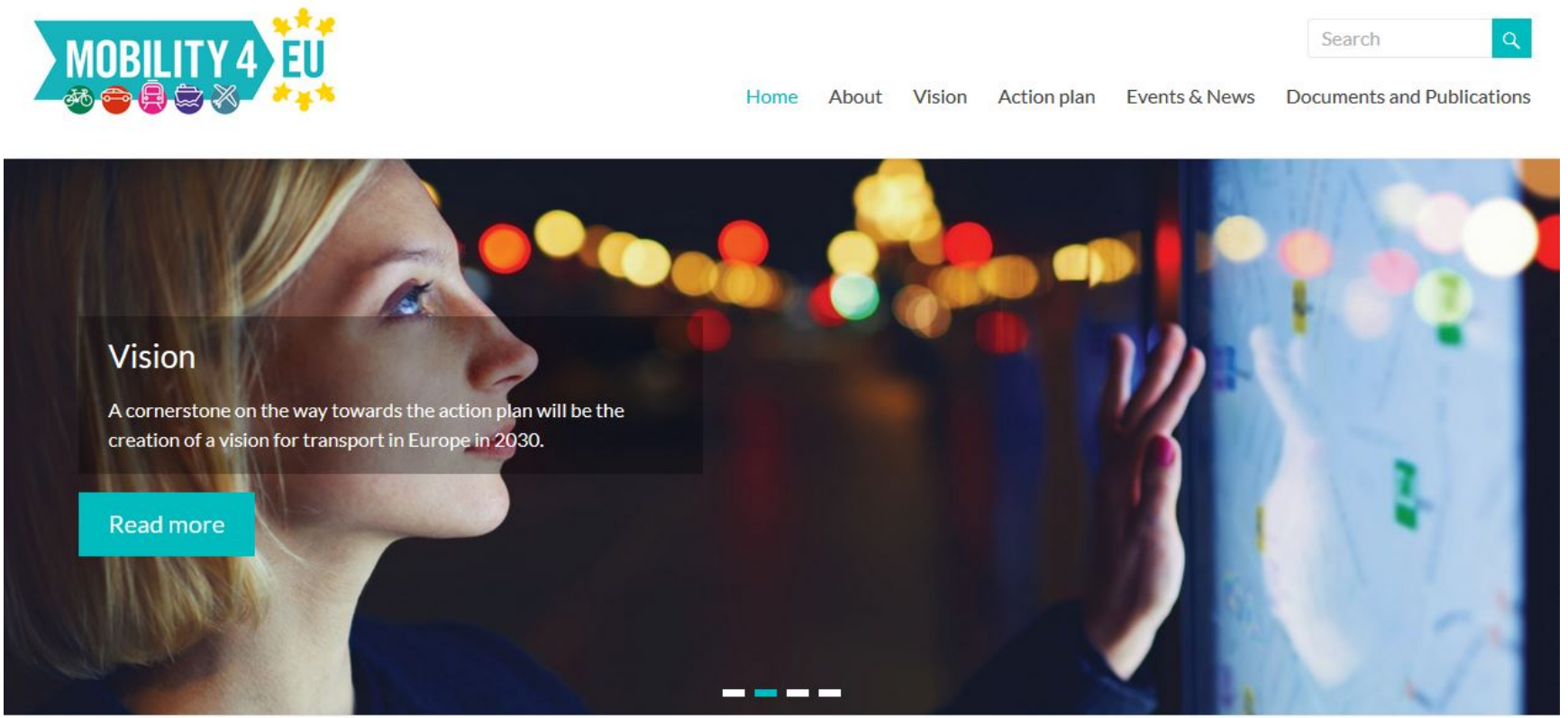
Keep in touch



www.mobility4eu.eu

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MOBILITY 4 EU
Action Plan for the future of mobility in Europe (690732)

Project funded by the European Commission within the H2020 Programme (2014-2020)

EUROPEAN COMMISSION
European Research Area

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