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Electric Vehicle Symposium & Exhibition

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Montréal, Québec, Canada

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DRIVE ELECTRIC INNOVATION
PROPULSER L'INNOVATION EN MOBILITÉ ÉLECTRIQUE

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Societal Drivers for the Future Transport System in Europe: the Mobility4EU Project



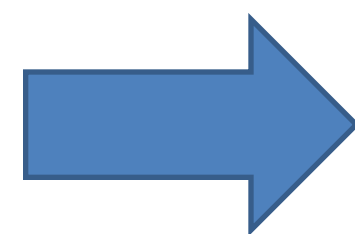
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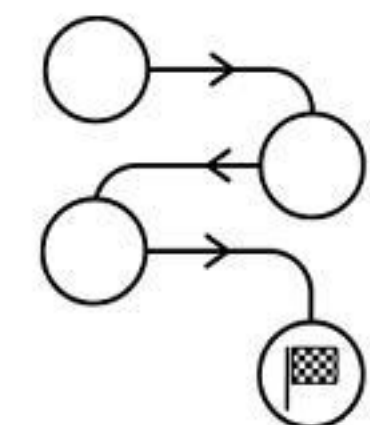
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Challenges for the European transport and mobility system

- **European society is changing:**
 - **Economy:**
 - Growing globally mostly outside Europe
 - New market developments: e –Commerce , car sharing, MAAS
 - Teleworking, part time working
 - **Demographics and social**
 - Ageing and disability
 - Migration and Urbanisation
 - Liquid modern society
 - **Climate change and fossil oil depletion**
 - **Safety and security**
 - **Technology:**
 - Digitalisation, Big Data, Smart Cities, IOT, ITS, Integrated transport systems
 - Electrification



A plan for and integrated European transport system coming up to all societal challenges and considering all modes of transport is needed!



MOBILITY4EU: A project to develop an action plan for the transport and mobility system of Europe 2030 :

Targets:

- Identifying and assessing societal challenges and analysing the influence of SOCIETAL DRIVERS on transport demand and supply
- Developing an ACTION PLAN AND ROADMAP for innovative solutions for mobility to advance the agenda of the transport sector and society at large.
- Taking into account user needs by engaging relevant stakeholder and general public in a PARTICIPATORY PROJECT.





MOBILITY4EU: The Consortium

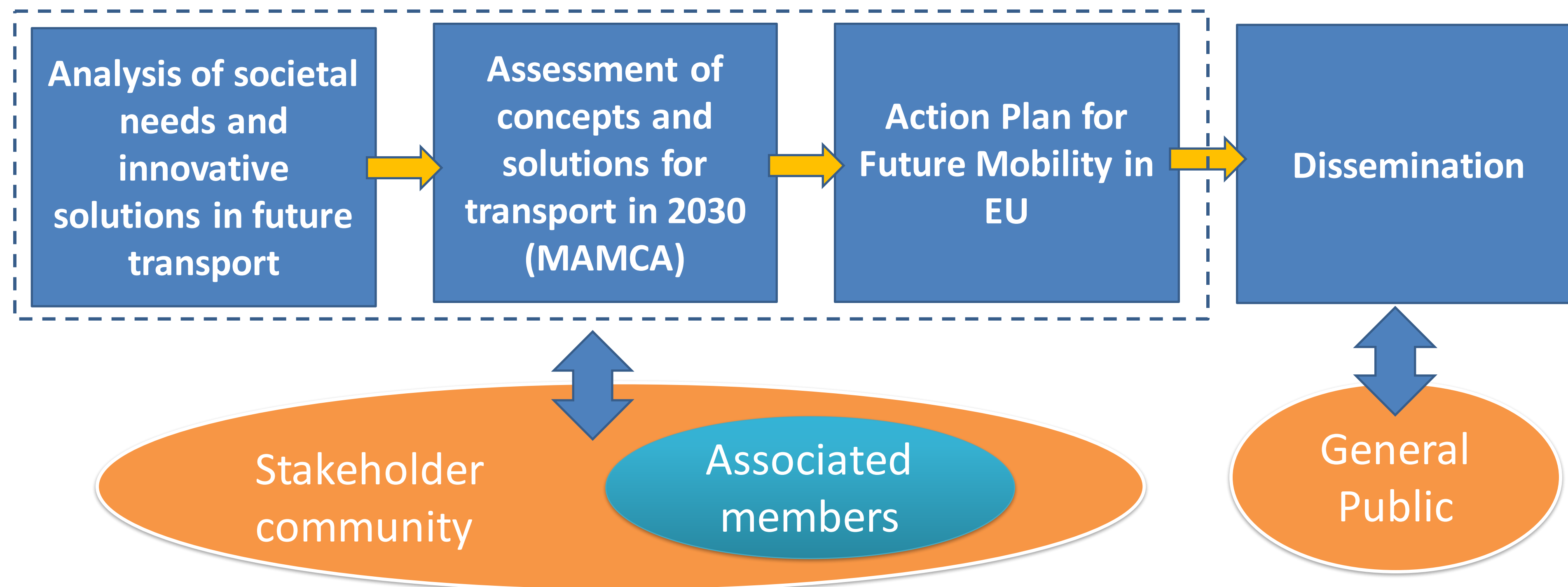


Duration: : 1 January 2016 – 31 December 2018

Funded by the European Commission within the H2020 Programme



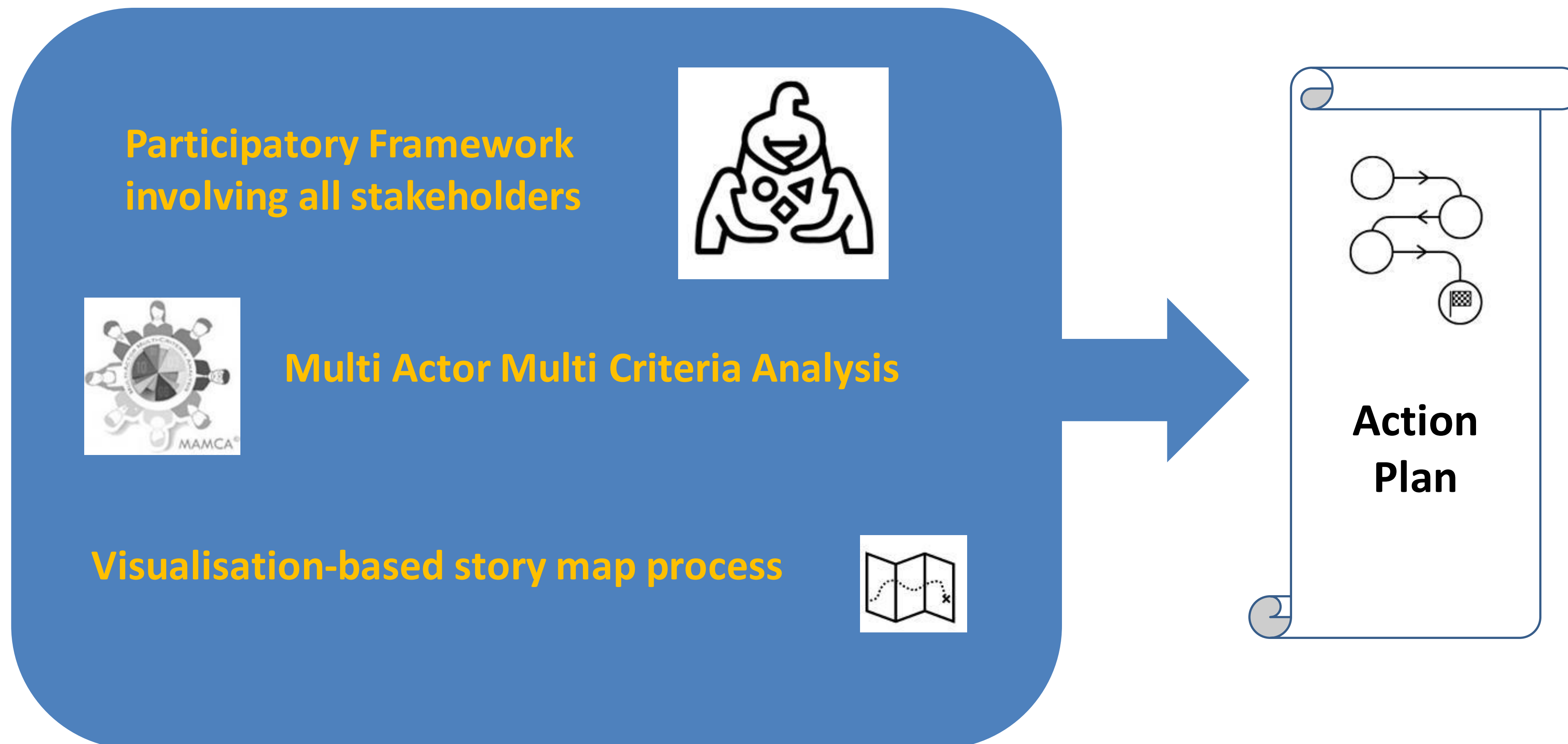
MOBILITY4EU: A project to develop an action plan for the future transport and mobility system of Europe



- Technology and providers for all modes products and services
- Service providers for transport and mobility
- Policy makers at all levels (city-region-national-Europe)
- User specific groups and communities that are vulnerable to exclusion: young-, elderly-, disabled people, pedestrian, bikers, car drivers. Public transport users....
- Research providers

JOIN THE STAKEHOLDERS GROUP @ WWW.MOBILITY4EU.EU

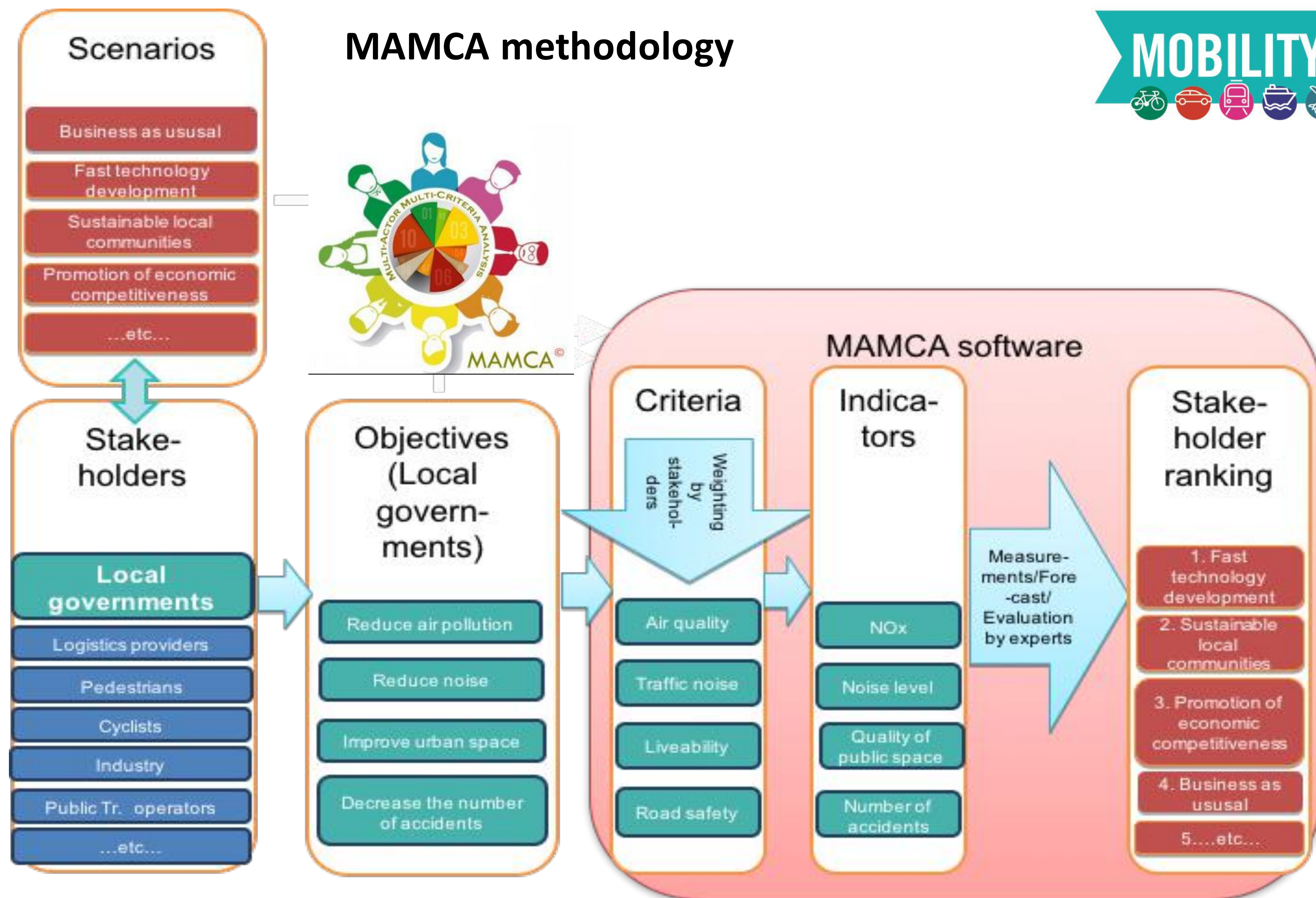
MOBILITY4EU: A project to develop an action plan for the future transport and mobility system of Europe



Challenges and Solutions for the European Transport System:

Societal drivers							
Modes	Environment	Safety	Demographic Change	Urbanisation	Lifestyles and economic Development	Digitalisation	Smart Integration
Road	Biofuels, EV Lightweight Efficiency	ADAS, VRU Protection, Markings, Shared space	Human Factor,, Entertain- ment	Public Shuttles, Electricity charging infrastructure	Car Sharing, Uberfication Manufacturing, Peak car	Automated Driving, Platooning	Navigation, Charging, Tolling
Urban transit	Energy storage, Quick electric charge (bus, tram)	Automation	Accessibility of vehicles and infrastructure	Transit Oriented Urbanism (TOD)	Personal transit, Stations as “places to be”	Transit automation, On- Trip ICT use	Ticketing, Real-Time Information
Rail	Hydrogen Fuels Cell Trains	Automated Trains, Speed	Flexible Interiors	Underground Freight Pipelines	Shuttles	Infrastructure, Monitoring	Ticketing, Real-Time Information
Water	LPG, Wind, Solar Boats, Emissions	Operation in extreme Environment	Cruise Ship Design	Z-Emission Access Links	Small Series Production Concepts	Automation on Rivers & Canals	Hubs and Ports
Air	Lightweight, Electric Aircraft	Airspace Control, Security	Accessibility of Aircrafts	Low Noise Aircrafts, Airports as cities	Rapid Certification	Unmanned Freight Drones	On-Trip Information, Seamless
Intermodal	ZE-Road Links	Emergency Operations	Neighbor- hood level freight	City Logistics Network Nodes,	Network Reliability, Upgrading, Last mile of logistics	Physical Internet	ITS, Data Standards, Routing
Others	Virtual Travel	Monitoring Drones	Mobility Robots	Urban Cablecar	Airships, Pipelines	Swarm Robots	Hyperloop, Personal Rapid Transit

MAMCA methodology





Project Title: **NHTV Promethee** Evaluation Type: **Promethee Project**

1-Alternatives 2-Actors 3-Criteria 4-Weights **5-Evaluation** 6-Multi Actors

Citizens | Government | CCCC

CITIZENS

Evaluate Alternative

[Evaluation Table](#)

[Set Parameters](#)

Evaluation Analysis

[Evaluation and Weight Chart](#)

[Criteria Evaluation Radar Chart](#)

[Criteria Group Evaluation Radar Chart](#)

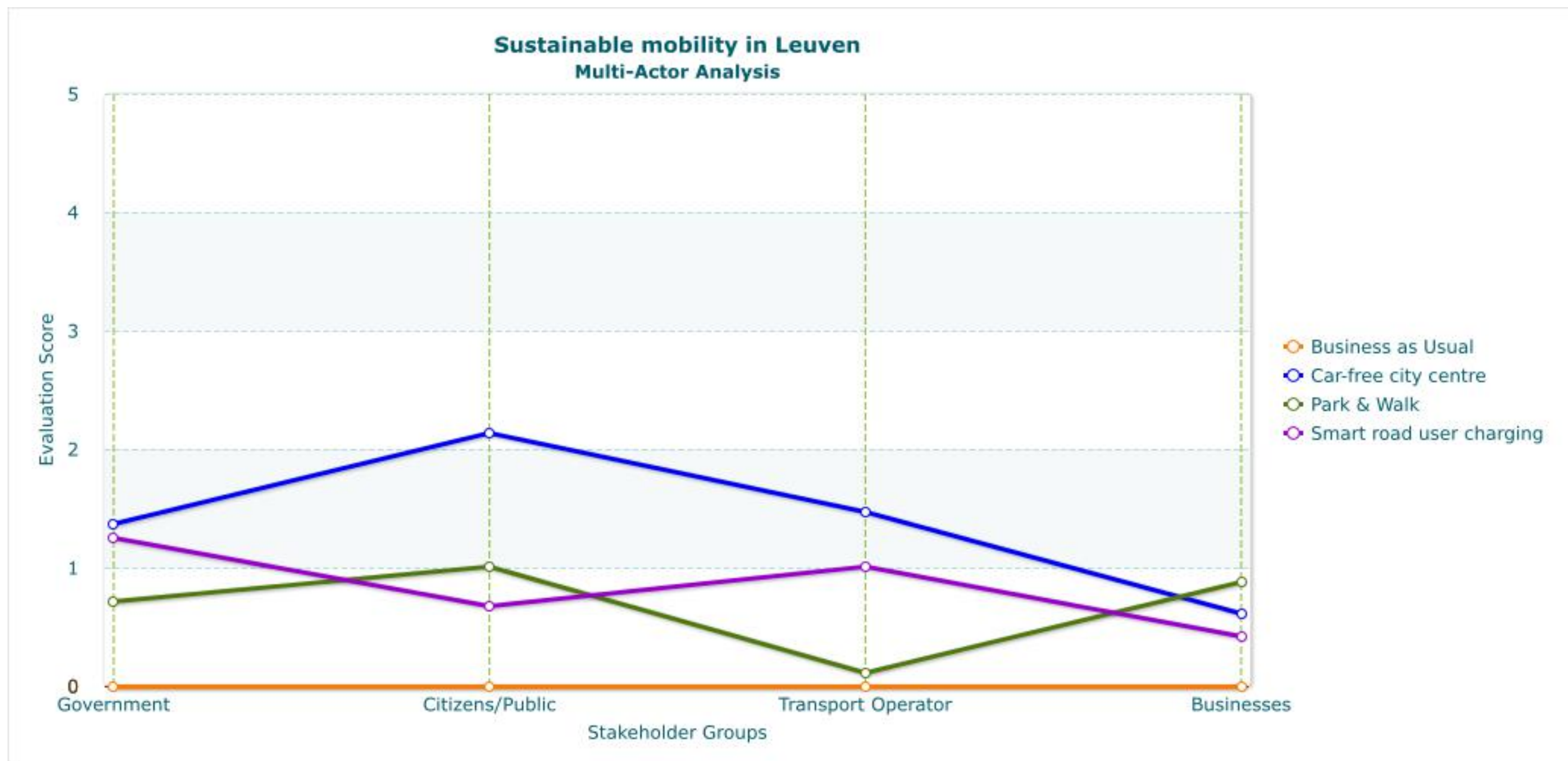
[Criteria Group Evaluation Chart](#)

Evaluation Table

Alternative	Air quality	Equity	Health of citizens	Noise	Evaluation Score
A	1.0000	1.0000	1.5000	1.1000	
B	0.9800	1.0100	0.5000	0.9900	
B1	0.9800	1.0100	0.5000	0.9900	
C	0.9800	1.0100	0.5000	0.9900	
A-	0.9900	1.0000	0.5000	0.9900	

Save & Validate

MAMCA Output



Conclusions

- Current and future societal trends urge for an action plan for transport and mobility that involves disruptive technologies and multimodal solutions
- The MOBILITY4EU project will develop such a plan based on a participatory approach involving a broad societal stakeholder community and using a scientifically-sound consensus-building methodology
- Electrification of vehicles will play a key role in the solutions of the future

mobi.vub.ac.be/mobi/research-tool/mamca/

www.mobility4eu.eu