Sustainable transport and SUMPs

STEP-UP | Luca Lucietti

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European Regional Development Fund

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Transport and mobility planning framework

• **Mobility Master Plans** (MMPs) are intended to represent the global transport policy of a large municipality, including urban goods movements. MMPs aim to improve air quality and public health, promote accessibility and social justice, making cities more pleasant and increasing economic performance. In the UK, the equivalent document is the **Local Transport Plan.**

• National Law n. 340/2000 in Italy introduces the **Urban Mobility Plans** which include the planned interventions in the overall mobility system. Urban Mobility Plan is defined as a 10-year systematic and integrated planning instrument for managing mobility in urban areas, including infrastructural measures. It is not mandatory, but it is identified as a fundamental prerequisite for all municipalities or conurbations with populations over 100 000 in order to receive national funds to co-finance mobility projects.

• The European "**Covenant of Majors**" initiative, addressing "20-20-20" target (20% decreasing of greenhouse gas emissions by 2020 and 20% increasing of energy saving as well as using energy produced from renewable sources).

• **Sustainable Energy Action Plan** (SEAP), according with the Covenant of Majors initiative, is aimed at describing a the set of measures and interventions in the different fields to be implemented in a concrete manner and planned timeframe.

Transport and mobility planning framework

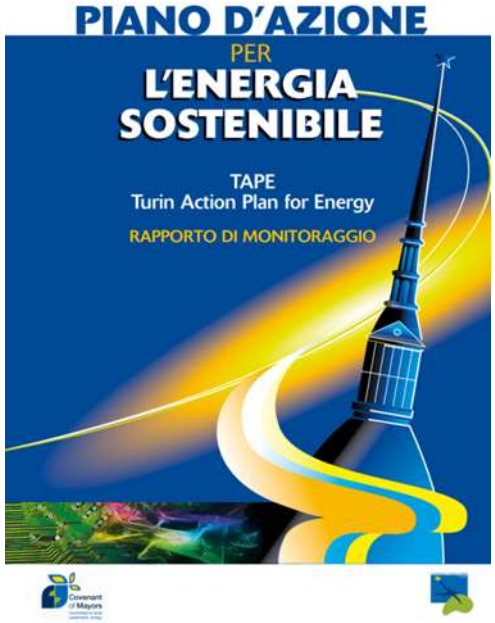
Common strategic objectives of the **Urban Mobility Plan** are:

- satisfaction and development of mobility needs
- reduction of air and noise pollution as well as the reduction of energy consumption
- increasing transport and traffic safety
- minimizing individual usage of private car and traffic moderating
- increasing transport capacity and quality of service
- enhancing competitiveness and efficiency of public transport versus private cars
- increasing modal spit towards public transport and sustainable mobility modes
- reducing traffic congestion through integrated solutions of the transport system
- encouraging use of alternative transport modes with lower environmental impact

Common strategic objectives of the **Sustainable Energy Action Plan** (transport-related measures only) are:

- strategic cycle network design and cycling promotion for home-work trips
- development of a recharging network for electric vehicles
- progressive increasing of green buses in substitution to diesel buses
- using green vehicles for last-mile delivery in the city center
- promoting electric car sharing for urban and peri-urban areas
- implementation of measures aimed at facilitating traffic flows and reducing congestion
- modulation parking rates aimed at discouraging private car use in favour of public transport and cycling

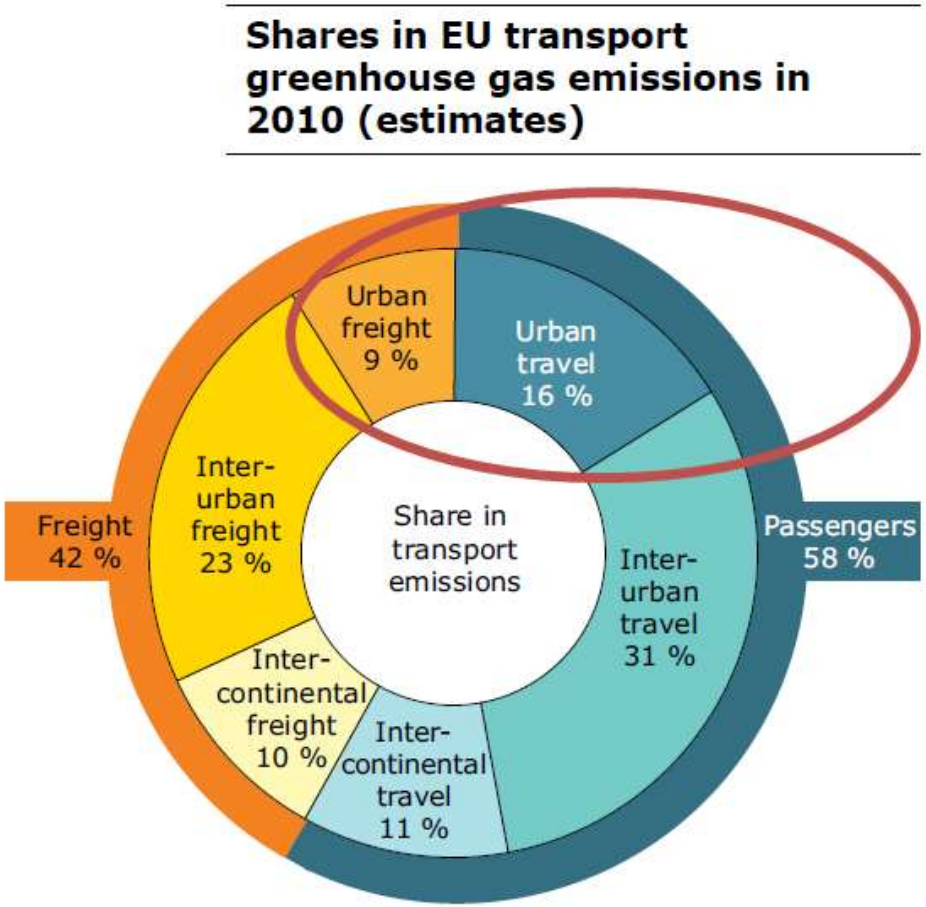
Transport and mobility planning framework



Transport and GHG emissions scenario

- 60 % GHG

emissions from transport (inc. aviation) by 2050 compared to 1990



Transport and GHG emissions scenario

- 60 % GHG emissions from transport (inc. aviation) by 2050 compared to 1990

-40%

Reduce international bunker GHG emissions by 40% by 2050, compared to 2005

10%

For each EU Member State, the share of renewable energy consumed in transport must be at least 10% by 2020.

95g CO^2/km

Reduce average CO_2 emissions of new cars to 95 g/km by 2020

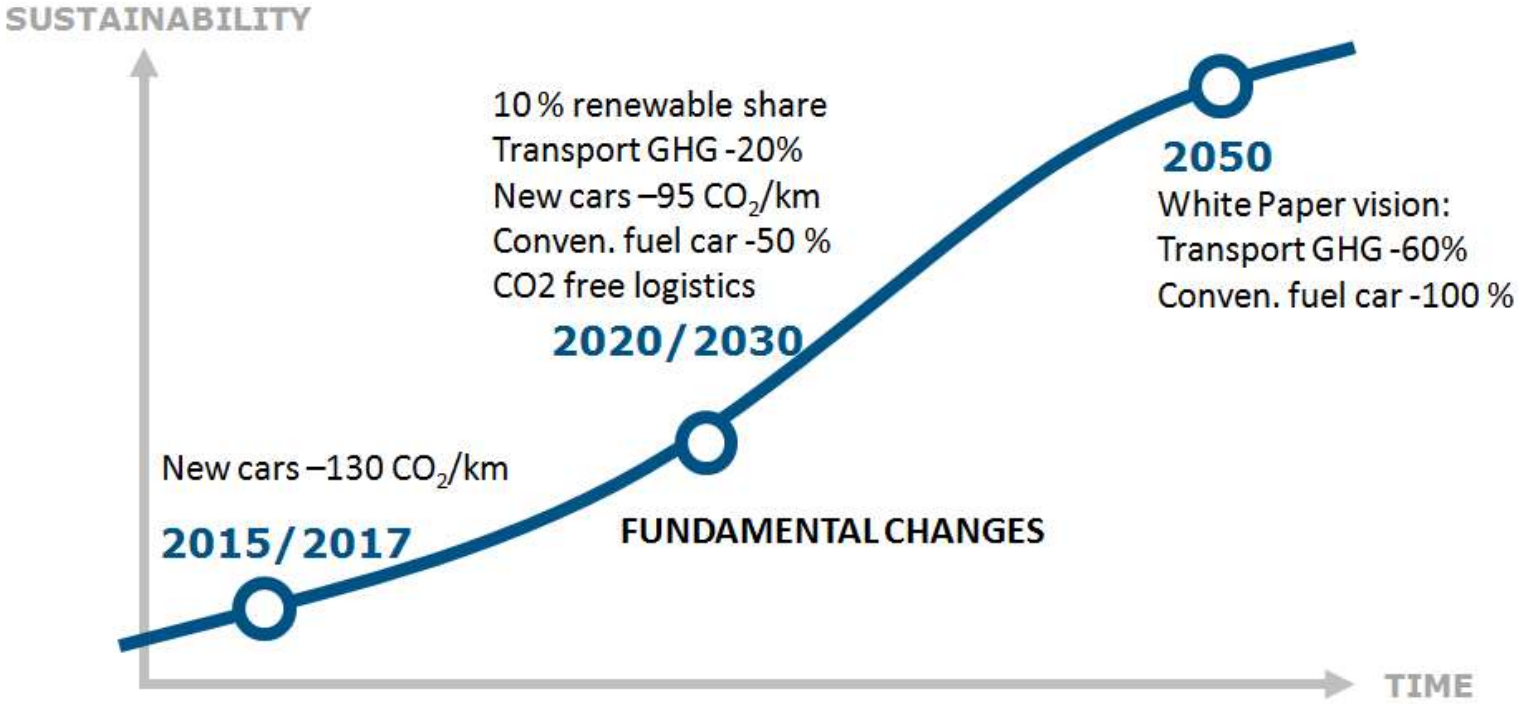
147g CO^2/km

Reduce average CO_2 emissions of new vans to 147 g/km by 2020

Source: EEA, 2013.

European Environment Agency

Transport and GHG emissions scenario



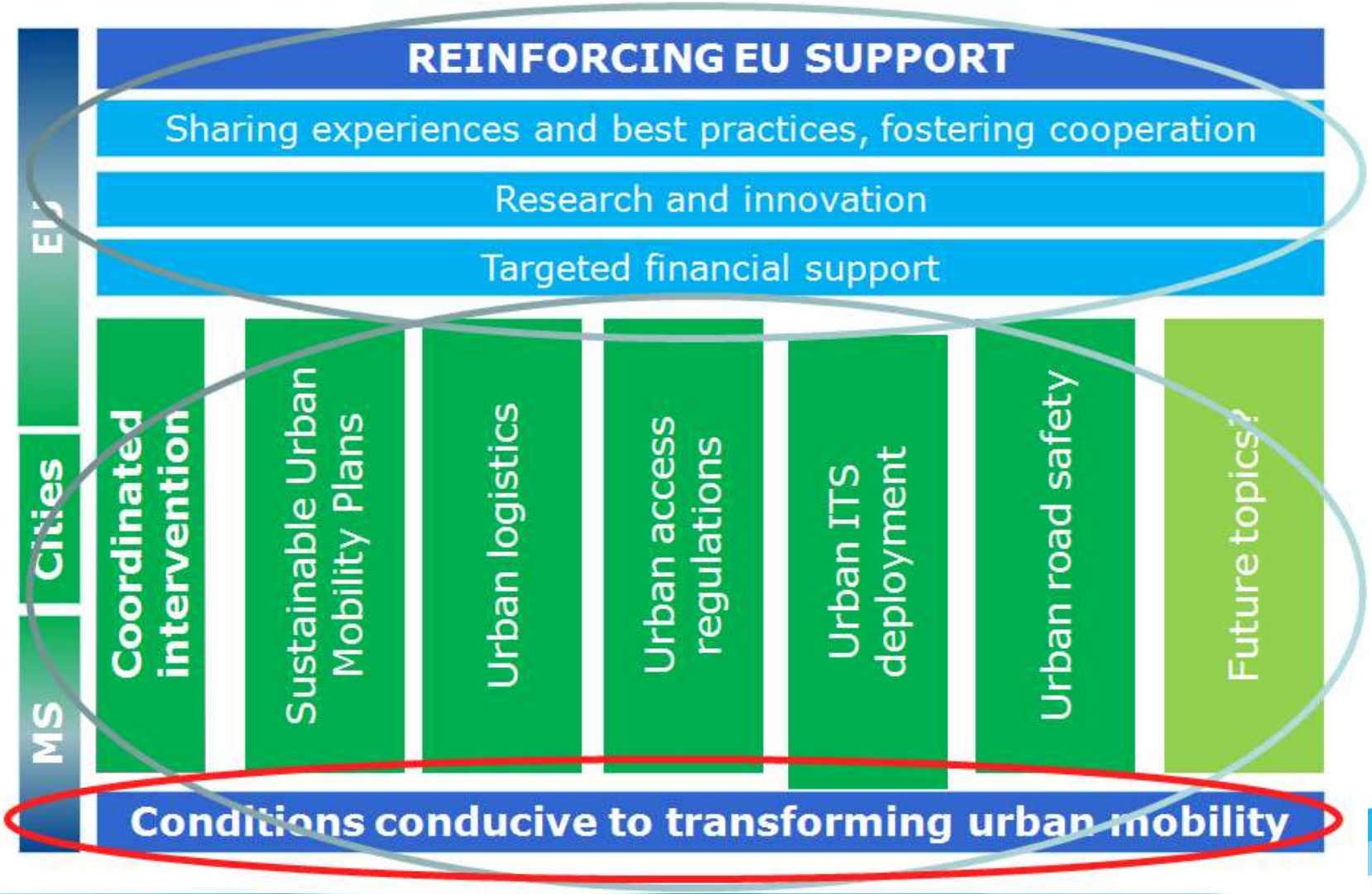
2015-2017: specific targets.

2020/2030: comprehensive policies or specific targets.

2050: long term vision.

European Environment Agency

How to move forward



How to move forward: from the traditional transport planning to Sustainable Urban Mobility Planning

Traditional Transport Planning	⇔	Sustainable Urban Mobility Planning
Focus on traffic	⇔	Focus on **people**
Primary objective: Traffic flow capacity and speed	⇔	Primary objectives: **Accessibility** and **quality of life**
Modal-focussed	⇔	**Balanced development** of all relevant **transport modes** and shift towards sustainable modes
Infrastructure as the main topic	⇔	**Combination** of infrastructure, market, services, mechanisms, information, and promotion
Sectorial planning document	⇔	Sectorial planning document consistent and **complementary to related policies**
Short- and medium-term delivery plan	⇔	Short- and medium-term delivery plan embedded in a **long-term vision and strategy**
Related to an administrative area	⇔	Related to a **functioning area** based on travel-to-work patterns
Domain of transport engineers	⇔	**Interdisciplinary** planning teams
Planning by experts	⇔	Planning with the **involvement of stakeholders** using a transparent and participatory approach
Limited impact assessment	⇔	Intensive **evaluation** of impacts and shaping of a **learning** process

Figure 1: Differences between traditional transport planning and Sustainable Urban Mobility Planning

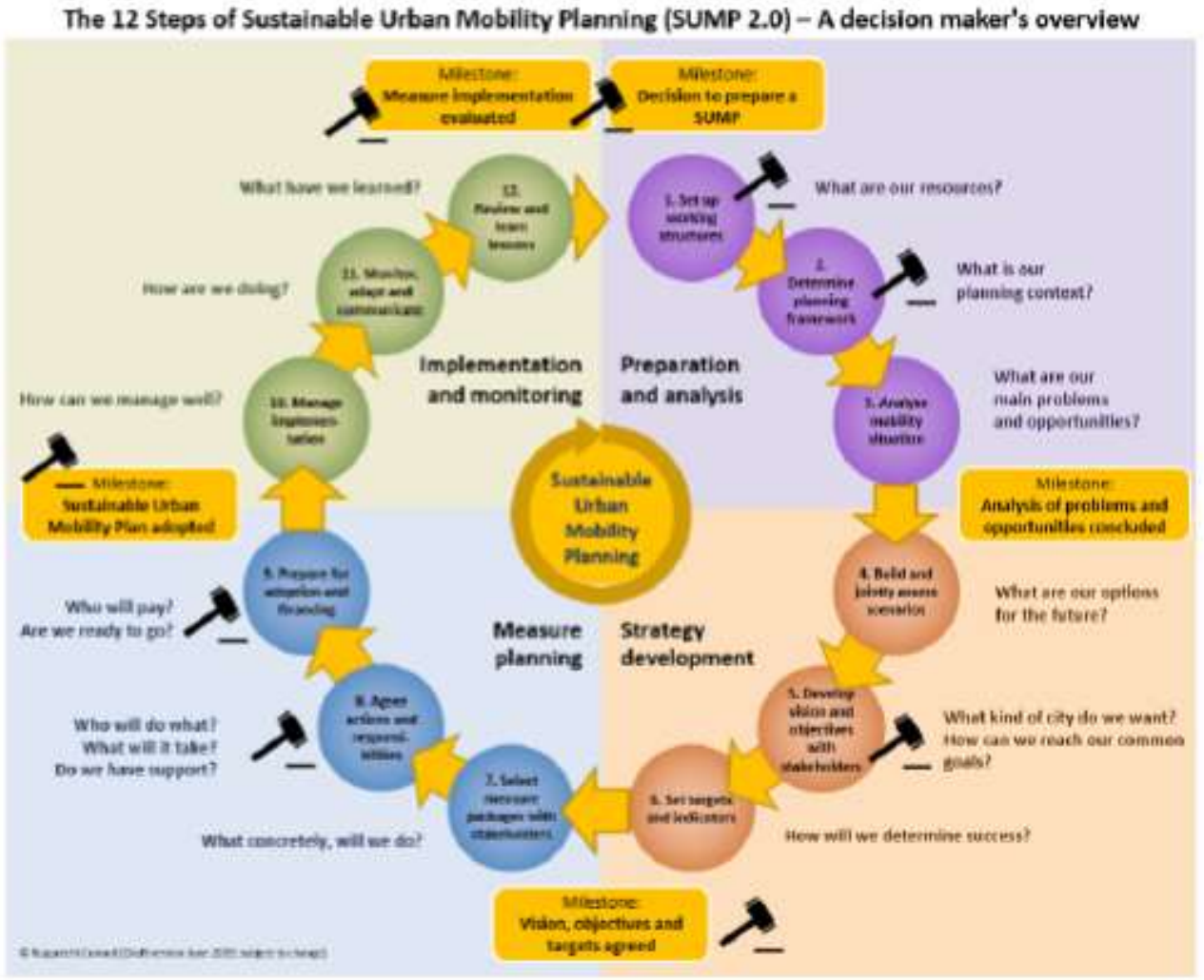
- Cities are almost always connected with areas around them by daily flows of people and goods.
- The geographic scope of a SUMP needs to be based on the "functional urban area", depending on local context, this might be a city and its surrounding peri-urban area, an entire polycentric region, or other spatial constellations.
- New business models provide "Mobility as a Service", changing attitudes among travellers result in an increase in shared mobility and cycling.

How to move forward: Sustainable Urban Mobility Plan

European Platform on Sustainable Urban Mobility Plans

Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan (Second Edition)

Final Draft for SUMP Conference,
12 June 2019



Sustainable Urban Mobility Plan: strategic objectives

A **Sustainable Urban Mobility Plan** is a strategic plan designed to satisfy the **mobility needs** of **people and businesses** in **cities and their surroundings** for a better quality of life.

It builds on **existing planning practices** and takes due consideration of **integration**, **participation**, and **evaluation** principles

• Sustainable Urban Mobility Planning focuses on a process that can support the required "step change" to cope effectively with the complex problems that cities are facing .

• A sustainable transport system should meet the following basic **criteria** :

● Is accessible and meets the basic mobility needs of all users

● Balances and responds to the diverse demands for mobility and transport services by residents, businesses and industry

● Guides a balanced development and better integration of the different transport modes

● Meets the requirements of sustainability, balancing the need for economic viability, social equity, health and environmental quality

● Optimises efficiency and cost effectiveness

● Makes better use of urban space and of existing transport infrastructure and services

● Enhances the attractiveness of the urban environment, quality of life, and public health

● Improves traffic safety and security

● Reduces air and noise pollution, greenhouse gas emissions, and energy consumption

● Contributes to a better overall performance of the trans-European transport network and the Europe's transport system as a whole.

Sustainable Urban Mobility Plan: characteristics

• A **clear vision, objectives and a focus on achieving measurable targets** that are embedded in an overall sustainable development strategy

•A **long-term vision and clear implementation plan**. A long-term strategy and a plan for short-term implementation, specifying the timing for implementation, clearly allocating responsibilities and identifying resources and finances

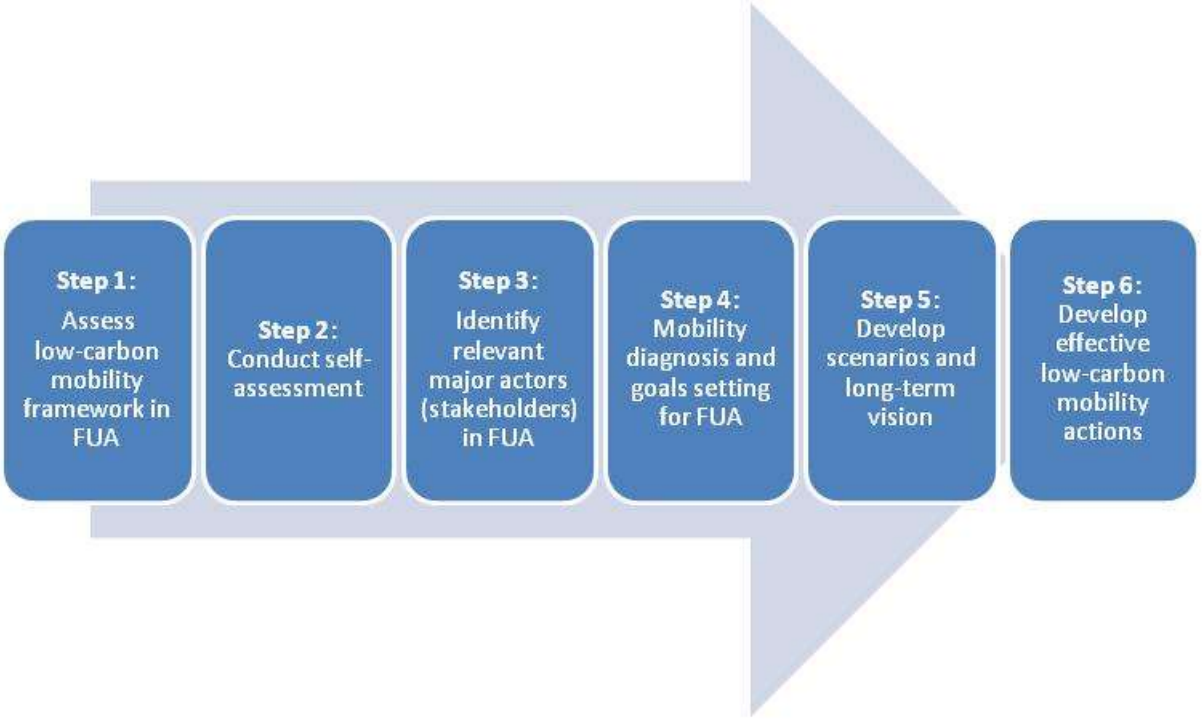
•A **participatory approach** that involves citizens and stakeholders from the outset and throughout the planning process

•A **pledge for sustainability** to balance economic development, social equity and environmental quality

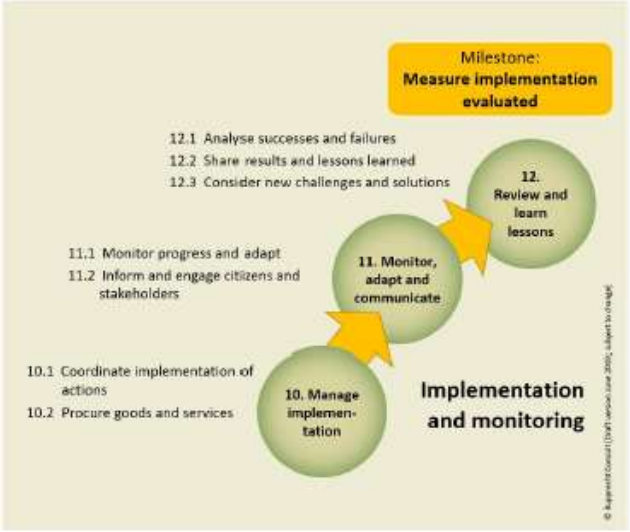
•An **integrated approach** that considers practices and policies of different policy sectors, authority levels, and neighbouring authorities

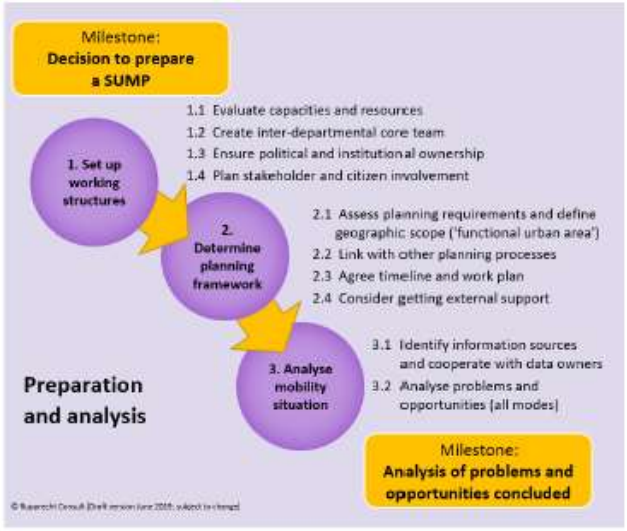
•A **review of transport costs and benefits**, taking into account wider social costs and benefits

Sustainable Urban Mobility Plan: overall steps

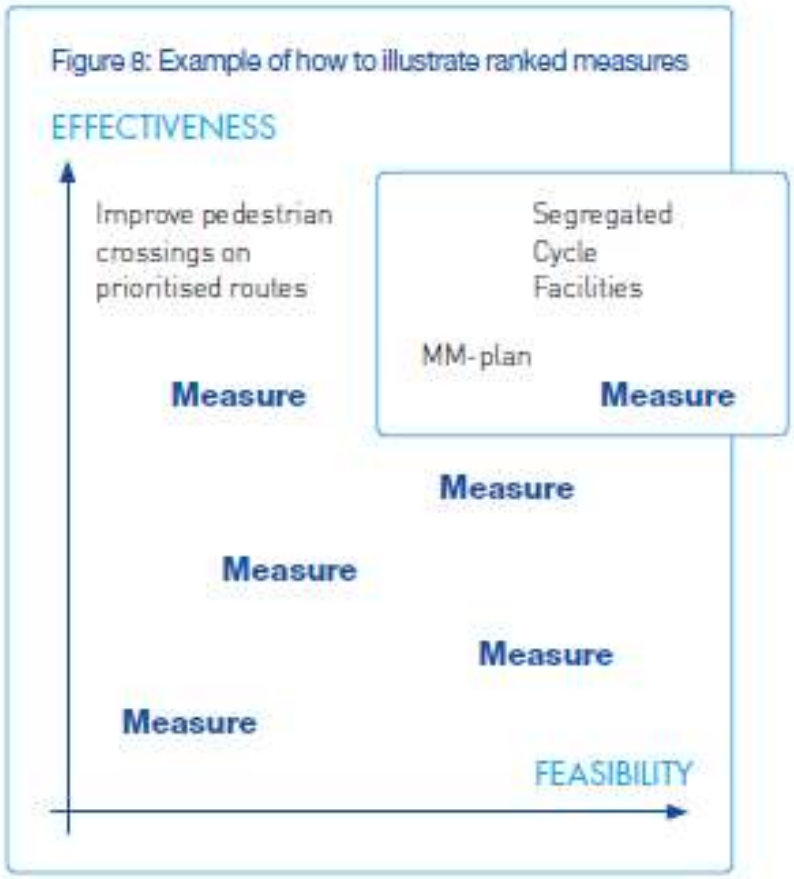


Sustainable Urban Mobility Plan: overall steps





Sustainable Urban Mobility Plan: measures selection



1. Walking
2. Urban freight
3. Travel information
4. Traffic safety
5. Traffic management
6. Taxes and fares
7. Site-Based Travel Plans
8. Roadspace reallocation
9. Public transport Enhancements
10. Personalised travel planning
11. Parking
12. New public transport systems
13. New models of car use
14. Marketing and rewarding
15. Land use planning
16. Integration of modes
17. Inclusive urban design
18. e-ticketing
19. Environmental zones
20. Electric Battery and fuel cell vehicles
21. Cycling infrastructure
22. Congestion charges
23. Cleaner Vehicles
24. Bike sharing schemes
25. Access Restrictions

European Platform on Sustainable Urban Mobility Plans

2020 CIVITAS SUMPS-UP

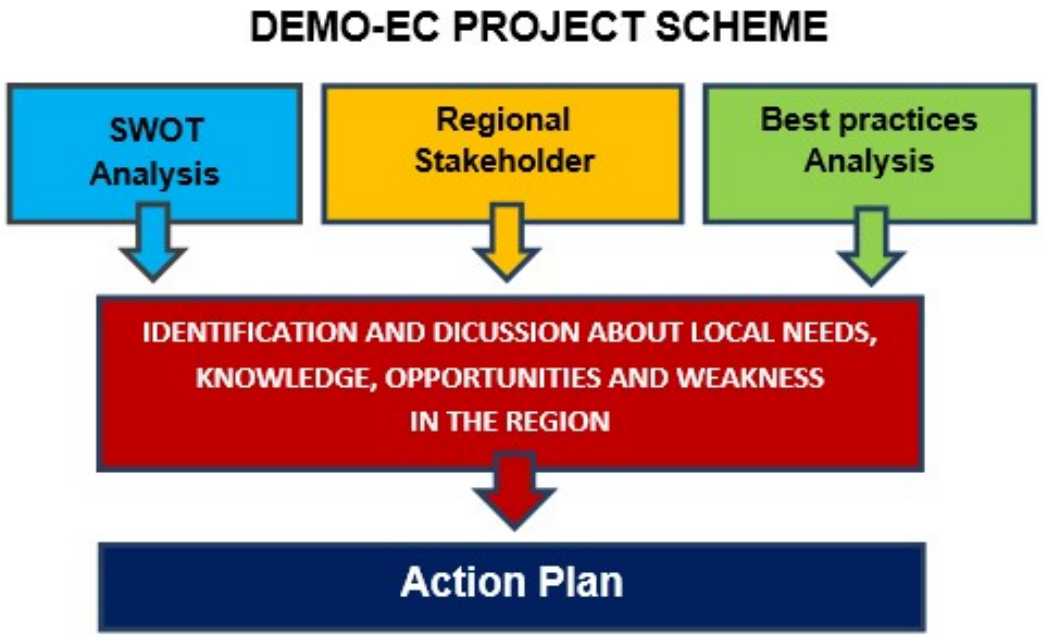
THE CIVITAS INITIATIVE IS CO-FINANCED BY THE EUROPEAN UNION

www.sumps-up.eu

Relevant funding opportunities

- HORIZON 2020
- European Structural and Investment Funds
  - Some 8 billion Euros were allocated for urban mobility projects over 2007-2013
- Connecting Europe Facility (CEF) funds for TEN-T projects (Trans-European Transport Network)
- EIB (European Investment Bank) loans and other financial products
- INTERREG programme, CENTRAL EUROPE, for regional sustainable development projects
- LIFE+ programme, for sustainable development projects

Case studies: Sustainable Mobility Action Plan Liguria



Case studies: Sustainable Mobility Action Plan Liguria

Car reduction

The Regional Government improve policies as guidelines aimed to reduction of car use as issue in different local reality (pedestrian and cycling zones):

- ***PEDIBUS:*** In many areas of the cities is active the modal shift from car to walking in home-to-school daily trips in different cities in the Region (from 2013)

- ***RETE CICLABILE LIGURE (RCL) network*** **with 5 cycle routes** in the region to connect Italian and European cycle networks

In Liguria Region a lot of walking/cycling paths are old railway lines not used for several years

Smart Ticket

Case studies: Sustainable Mobility Action Plan Liguria

E-mobility

Project at Regional Level

"Progetto Mobilità Sostenibile Genova e Savona"

OBJECTIVES

Definition of the optimal position of the charging stations and installation.

In 2014: **project approved** by the Region within PNIRE programme

In 2015: **Memorandum of Understanding** between the municipalities of Genova, Arenzano, Cogoleto, Cairo Montenotte, Savona

In 2018 (May): end of **design phase → Whitin 2019 installation of new 22 charging stations**

City	car+car	Power	Car+moto	Power
Arenzano	2	44(22+22)		
Cogoleto	2	44(22+22)		
Cairo Montenotte	1	44(22+22)		
Savona	4	44(22+22)	6	25.7 (22+3.7)
Genova	3	44(22+22)	4	25.7 (22+3.7)
TOT	12		10	

In total there will be 52 charging stations

13

Case studies: Sustainable Mobility Action Plan Liguria

E-mobility

Incentives for E-mobility

OBJECTIVE: Create a sustainable development model for improve environmental condition in urban areas with economic incentives for citizens

- **Car tax exemption for electric and hybrid cars for 5 years**, the longest exemption for hybrid cars *in the north of Italy*
- **Free parking pass for electric vehicles in Blu Area** park in Genova and **urban goods vehicles access in LTZ** (Limited Traffic Zone)
- **Scrapping incentive in Genova** for electric scooter and bike (December 2017)

- **Free parking pass for electric** vehicles in municipality area of **La Spezia**
- **Electric cars** (8 cars, 16 charging/parking stations) and **electric bikes** (25 bikes) available for employees of Municipality of **La Spezia**

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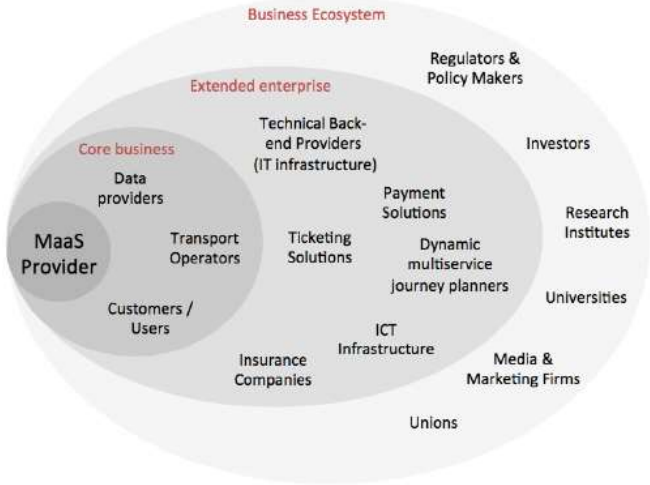
Case studies: MaaS

Mobility as a Service (MaaS) is a mobility distribution model in which customer's major transportation needs are met thanks to one single integrated service provider combining transportation infrastructures, travel information, payment services and more.

(*Source: M, FINGER (2015) 'Mobility as a service: from the regulation of transport tot the regulation of transport as a service', European Transport Regulation Observer*)

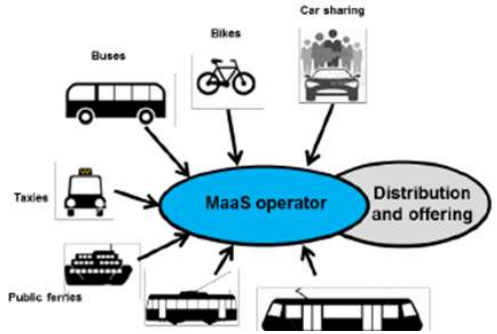


- MaaS is a paradigm change in transportation towards offering personalized and smart mobility services reflecting users' different needs

- MaaS is to be the best value proposition for its users, providing an alternative to the private use of car that may be as convenient and more sustainable

- MaaS is all about multimodal passenger transport, shared mobility, multimodal traveler information, integrated booking/ticketing/payment, etc.

- MaaS is fed by scheduled public transport services, parking, private sharing mobility services, on-demand public transport services, etc.



Case studies: MaaS

Expected impacts of **Mobility as a Service**:

- reducing private car use
- decreasing private car ownership
- facilitating behavioural change towards sustainable mobility modes
- increasing collective passenger transport use and ride sharing
- reducing CO2 emissions
- reducing congestion and traffic levels
- increasing public transport system's revenues by reaching new customers
- improving attractiveness of PT system
- increasing of PT commercial speed

Known barriers and obstacles to collaboration in MaaS ecosystems
The perceived risk of cannibalisation
The perceived risk to brands
The perceived risk of losing existing customer relationships
The lack of a shared vision for MaaS
A lack of understanding of what MaaS is within key organisations
The pervasive role of existing roles and identities
Misaligned values within different organisations
Uncertainties regarding the MaaS business case and associated business models
A lack of key competences within certain organisations
The lack of an entrepreneurial mindset, or "not invented here" syndrome
A lack of understanding related to users' wants and preferences
A lack of understanding related to key customer segments
A lack of understanding related to willingness-to-pay and overall market demand for MaaS

Case studies: MaaS in the city of Turin

The City's Department of Mobility supports the implementation of experimentation activities and **defines policies and guidelines to regulate** the entire process

URBI **supplies MaaS technology and signs commercial agreements** with mobility operators integrated into the MaaS platform

Torino Wireless **supports the coordination among stakeholders, the feasibility and operational implementation** of the Living Lab

5T **facilitates the technical integration** of the systems and manages the operation of the Living Lab

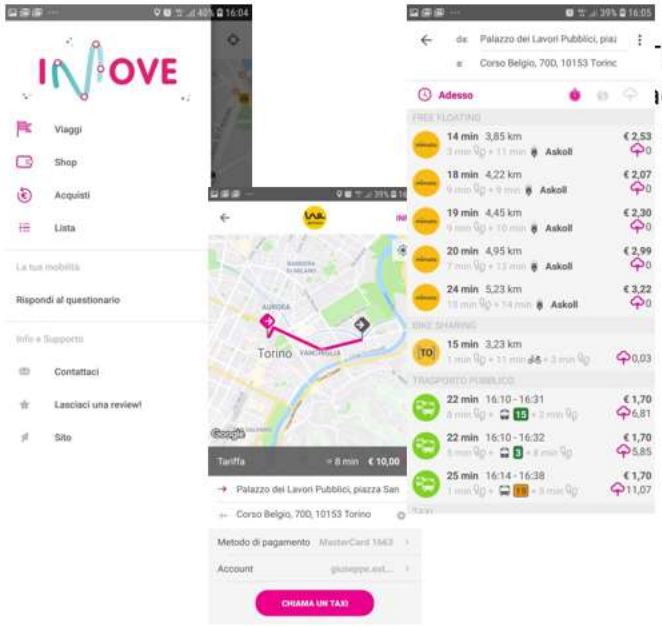
- **URBI business** as MaaS platform for companies in the target FUA of Turin

✓ **Mobile app** (Android and iOS) of the MaaS platform for companies to:

- search on map the nearest vehicle (ride sharing, taxi, car sharing) and bike sharing
- compare by time or costs
- reserve (and open) the chosen vehicle and bike
- buy integrated public transport tickets

Case studies: MaaS in the city of Turin

The MaaS Technology Platform [IMOVE]



The City of Turin is testing the technology platform, accessed - for free for the entire duration of the LL through a **mobile app:**

- **Route planner, booking and p**ayment (and validation) for the following means of transport: local public transport, bike sharing, car sharing, taxi;
- **Collection of anonymous and aggregated data on users,** regarding use of the app, mobility choices made, kilometres travelled;
- **Monthly corporate billing for costs** for work to work mobility-job of employees, during the trial period.

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Contact

Lucietti Luca

Transport engineer

luciettiluca@gmail.com

3339780642

www.italy-croatia.eu/acronym