



Quantifying the effects of SUMPS

ESD workshop - 1 October 2014

Background

European support framework for the implementation of Sustainable Urban Mobility Plans in EU Member States.

Interest on how different urban measures can be used to render transport activities more sustainable

Understand impacts and effects that policy measures might have on the environment, society and the economy.

Five step assessment

- 1. Identify scores for policies (five expert sources)**
- 2. Normalize scores (one template for all sources)**
- 3. Assess the average urban profile of cities within NUTS3 zones according to:**

Transport activity

Population

Employment in NUTS3

Commuting rates

Rail and Road Accessibility

Urbanization rates

Density

- 4. Establish a tailored NUTS3 weighting system**
- 5. Quantify the potential range of effects on CO2**

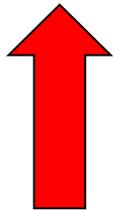
Normalizing the scores

Common template according to GIZ A-S-I approach which classifies a policies potential to

avoid unsustainable transport practices,
shift from unsustainable to sustainable transport modes,
improve on current behaviour in transport activities.

Related to L. SCHIPPERS ASIF methodology:

$GHG = \underline{A}ctivity * modal \underline{S}hare * energy \underline{I}ntensity * carbon\ intensity\ of \underline{F}uel$



avoid



shift

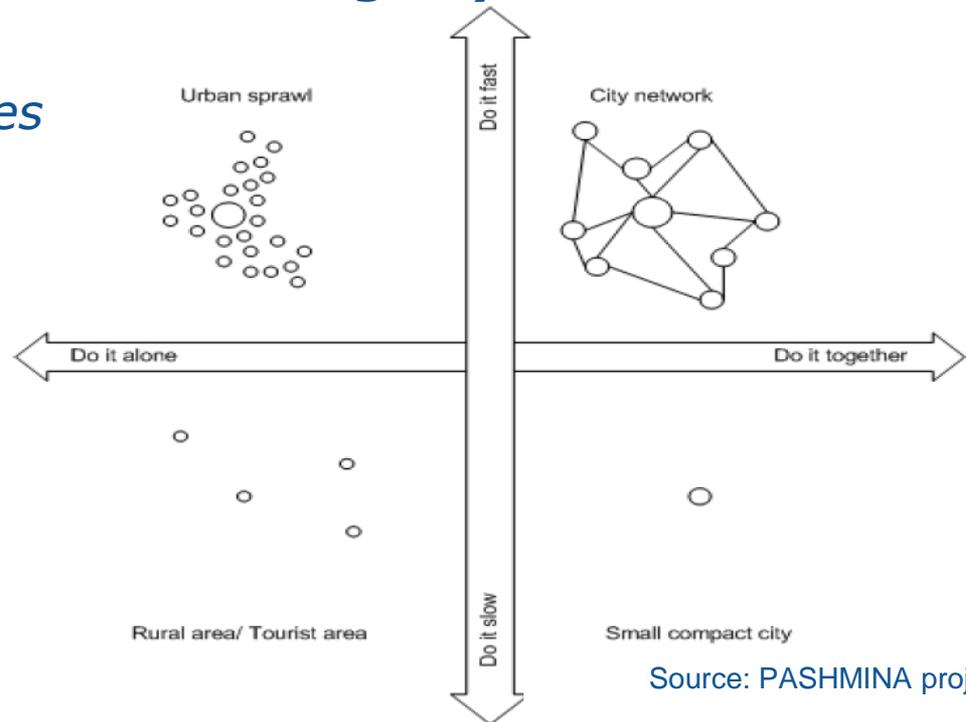


improve

Weighting system

Different effects of policy measures according to 4 urban profiles developed for the PASHMINA project (2011). These profiles are determined to the following key factors :

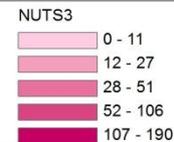
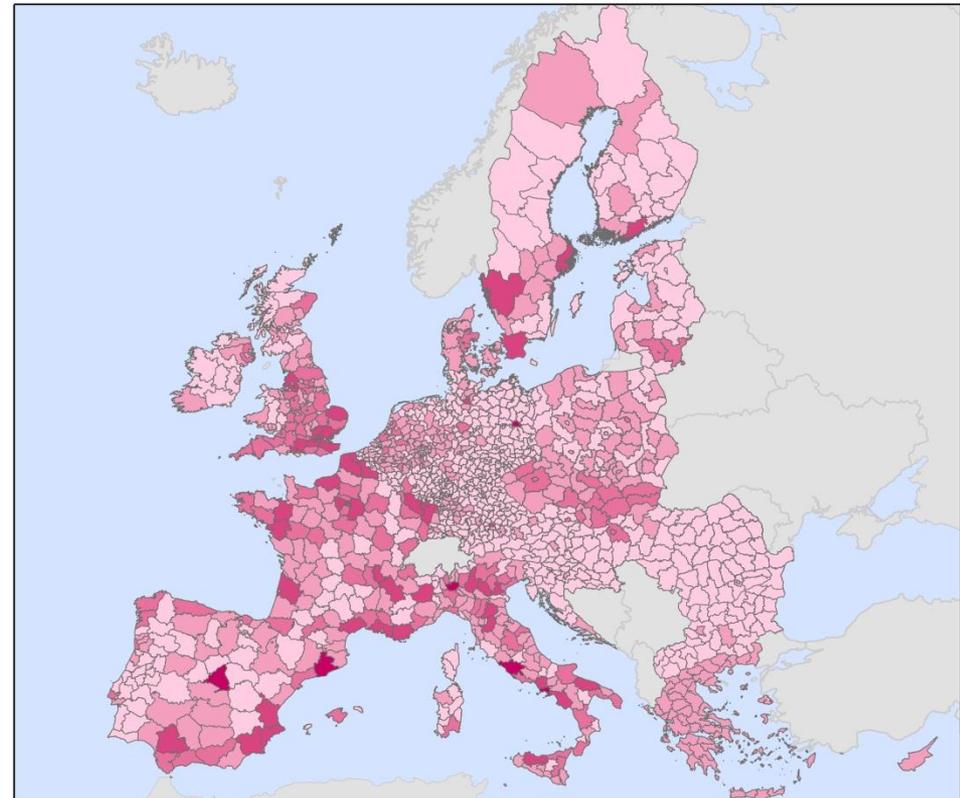
- *population*
- *consumption opportunities*
- *production opportunities*



Results

*Total potential:
7.0% - 8.8%
(coherent with
GHG Trans-PoRd, 2010 results)*

2030 - CO2 REDUCTIONS (ktonsCO2)



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Selection of results for the six MS

Country	Urban Emissions 2010 ktons CO2	Urban Emissions 2030 ktons CO2	Reductions 2030 ktons CO2	Percentage
Croatia	761	1020	70 - 80	6.9% - 8.6%
Czech Republic	3482	3686	263 - 330	7.1% - 9.0 %
Hungary	2085	2365	166 - 208	7.0% - 8.8%
Poland	6918	8934	625 - 784	7.0% - 8.8%
Slovakia	2162	2831	201 - 252	7.1% - 8.9%
Slovenia	296	284	20 - 25	6.9% - 8.7%
MS-6	15704	19120	1345 - 1679	7.0% - 8.8%
EU-28	247 729	209 130	14 605 – 18 306	7% - 8.8%

Country	Avoid ktons CO2	Shift ktons CO2	Improve ktons CO2	Reductions 2030 ktons CO2	Population
Croatia	27 - 34	22 - 27	21 - 26	70 - 80	4302847
Czech Republic	104 - 130	81 - 101	79 - 99	263 - 330	10462088
Hungary	65 - 82	51 - 64	50 - 62	166 - 208	10014324
Poland	246 - 308	192 - 241	188 - 235	625 - 784	38167329
Slovakia	79 - 99	62 - 77	60 - 76	201 - 252	5390410
Slovenia	8 - 10	6 - 8	6 - 7	20 - 25	2046976
MS-6	529 - 663	414 - 518	404 - 505	1345 - 1679	70383974
Total EU-28	6504 - 8152	5080 - 6367	4960 - 6216	16544 - 20735	503379305

Population percentage from EU Total : 14%

CO2 Reduction potential percentage from EU Total : 8%



Measure	City Network	Urban Sprawl	Tourist / Rural	Small
Investment and maintenance, including safety, security and accessibility	LOW	MED	LOW	LOW
Public transport coverage (line density, stop density, walking distances between stops) & public transport frequencies.	LOW	LOW	MED	MED
Interoperable ticketing and payment systems	LOW	LOW	LOW	LOW
Taxi Services (individual and collective)	LOW	LOW	LOW	MED
Dedicated walking and cycling infrastructure investment and maintenance & Bike sharing schemes	LOW	MED	LOW	LOW
Improvement of the efficiency of city logistics by the use of ICT	MED	LOW	LOW	LOW
Measures to improve the energy efficiency and environmental performance of vehicles and/or use of alternative modes.	MED	LOW	MED	LOW
Corporate, school and personalised mobility plans (or workplace travel plans)	LOW	LOW	MED	MED
Car sharing & carpooling schemes.	LOW	LOW	LOW	MED
Telecommunications	MED	MED	LOW	LOW
Multimodal connection platforms	MED	MED	MED	MED
Multimodal travel information provision	MED	LOW	LOW	LOW
Park and Ride areas	LOW	LOW	LOW	LOW
Reallocation of road space to other modes of transport, e.g. dedicated bus lanes	MED	MED	LOW	LOW
Parking management	MED	MED	MED	MED
Dynamic traffic management measures	LOW	LOW	LOW	LOW
Low speed zones	LOW	MED	MED	MED
Information and marketing campaigns	LOW	MED	MED	MED
Promotion of eco-driving	LOW	MED	LOW	MED
Congestion charging zones (area and cordon charging)	LOW	LOW	MED	MED



Measure	Avoid	Shift	Improve
Investment and maintenance, including safety, security and accessibility	MED	LOW	MED
Public transport coverage (line density, stop density, walking distances between stops) & public transport frequencies.	MED	MED	LOW
Interoperable ticketing and payment systems	LOW	MED	LOW
Taxi services (individual and collective)	LOW	LOW	LOW
Dedicated walking and cycling infrastructure investment and maintenance & Bike sharing schemes	MED	MED	LOW
Improvement of the efficiency of city logistics by the use of ICT	MED	LOW	MED
Measures to improve the energy efficiency and environmental performance of vehicles and/or use of alternative modes.	LOW	LOW	MED
Corporate, school and personalised mobility plans (or workplace travel plans)	MED	LOW	LOW
Car sharing & carpooling schemes.	MED	LOW	LOW
Telecommunications	MED	MED	LOW
Multimodal connection platforms	LOW	LOW	LOW
Multimodal travel information provision	MED	LOW	MED
Park and Ride areas	LOW	LOW	LOW
Reallocation of road space to other modes of transport, e.g. dedicated bus lanes	MED	MED	MED
Parking management	LOW	MED	MED
Dynamic traffic management measures	LOW	LOW	LOW
Low speed zones	LOW	MED	LOW
Information and marketing campaigns	LOW	LOW	MED
Promotion of eco-driving	LOW	LOW	LOW
Congestion charging zones (area and cordon charging)	MED	MED	MED



Measure	Economic	Social	Environmental
Investment and maintenance, including safety, security and accessibility	-	LOW	LOW
Public transport coverage (line density, stop density, walking distances between stops) & public transport frequencies.	MED	MED	MED
Interoperable ticketing and payment systems	LOW	LOW	LOW
Travel information provision systems	LOW	MED	MED
Taxi services (individual and collective)	-	LOW	LOW
Dedicated walking and cycling infrastructure investment and maintenance & Bike sharing schemes	MED	MED	LOW
Freight distribution centres & Freight delivery points	MED	MED	MED
Improvement of the efficiency of city logistics by the use of ICT	MED	MED	MED
Measures to improve the energy efficiency and environmental performance of vehicles and/or use of alternative modes.	-	LOW	LOW
Corporate, school and personalised mobility plans (or workplace travel plans)	LOW	MED	MED
Car sharing & carpooling schemes.	-	LOW	LOW
Telecommunications	LOW	LOW	MED
Multimodal connection platforms	MED	LOW	LOW
Multimodal travel information provision	LOW	LOW	MED
Park and Ride areas	LOW	LOW	LOW
Reallocation of road space to other modes of transport, e.g. dedicated bus lanes	LOW	LOW	MED
Parking management	LOW	LOW	LOW
Dynamic traffic management measures	MED	LOW	LOW
Low speed zones	MED	MED	MED
Information and marketing campaigns	LOW	LOW	MED
Re-orientation of public space	LOW	LOW	MED



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Thank you!