The SUMP concept and how to evaluate a SUMP

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SUMI

The SUMP concept

- Systematic **concept development** by the European Commission
  - Thematic Strategy (2006), Action Plan (2009), White Paper (2011), Urban Mobility Package (2013)
  - SUMP support **projects**, **Coordination Platform**
  - regular **conferences**, knowledge base in **ELTIS**
- **Update** of SUMP ("SUMP 2.0") in 2019
- SUMP increasingly a requirement or benefit to attract **EU funding** for urban transport investments
  - **European Court of Auditors** recommendation (Special Report 06/2020) to link funding to SUMPs for 2021-2027: Conditionality for ERDF and CF
  - already a "competitive advantage" for TEN-T funding and some ERDF programmes
- SUMP is becoming the **mainstream** mobility planning concept in Europe, but still needs more support by national and regional governance levels
- **International take-up** of SUMP is well underway

European Platform on Sustainable Urban Mobility Plans

GUIDELINES FOR
**DEVELOPING AND IMPLEMENTING A
SUSTAINABLE URBAN MOBILITY PLAN**

SECOND EDITION

The essence of SUMP: Eight principles

1. Plan for sustainable mobility in the "functional urban area"

2. Cooperate across institutional boundaries

3. Involve citizens and stakeholders

4. Assess current and future performance

5. Define a long-term vision and a clear implementation plan

6. Develop all transport modes in an integrated manner

7. Arrange for monitoring and evaluation

8. Assure quality

The SUMP cycle (2ⁿᵈ edition)

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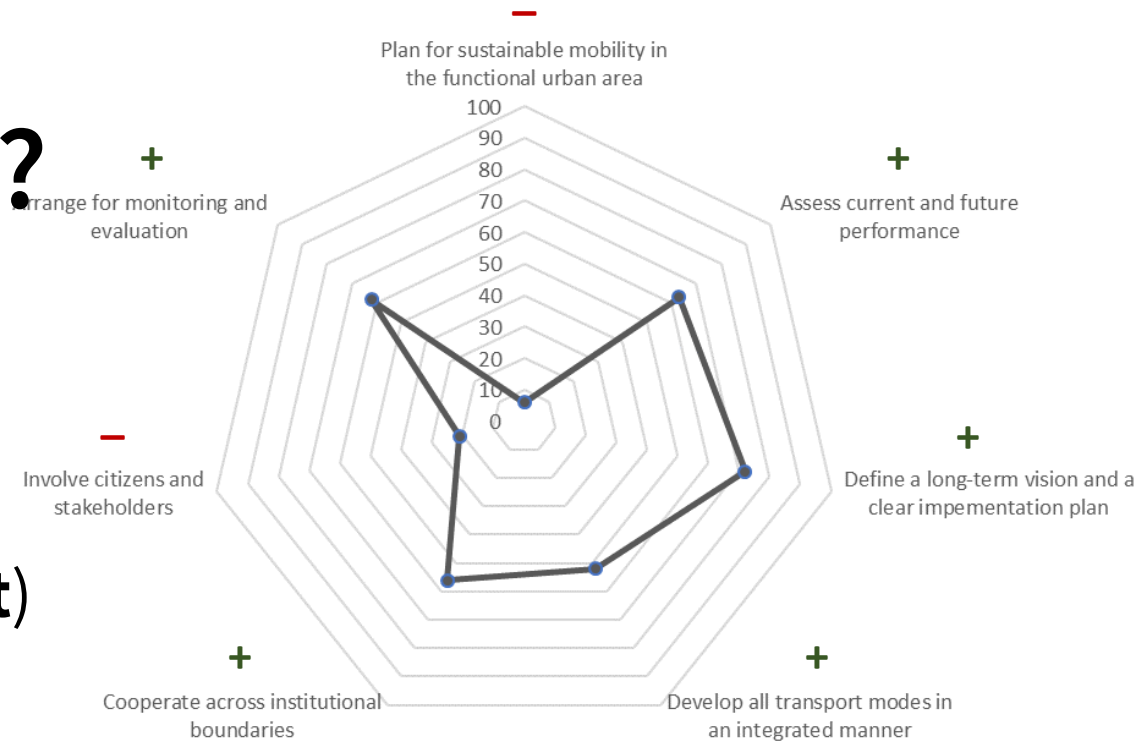
How to evaluate the effectiveness of a SUMP?

SUMP Self-assessment

- Tool to evaluate the SUMP itself
- Focus is on **process** (& its **improvement**)
- https://www.sump-assessment.eu/

Sustainable urban mobility indicators (SUMI)

- Tool to evaluate effectiveness of **measures** and to **compare** (over time and with other EU cities)
- https://ec.europa.eu/transport/themes/urban/urban_mobility/sumi_en

An overview of the SUMI project

SUMI was an EU-funded project, providing technical support on sustainable urban mobility indicators.

Key activities

- **Review and "Europeanisation"** of indicator set originally developed by the World Business Council for Sustainable Development (**WBCSD**)

- Provision of **technical support** to 46 European urban areas to test the indicator set

- Collection of **learnings** from the cooperating urban areas

- Preparation of **recommendations** for the EC

- Development of **benchmarking tool** (finalised, about to become available)

Some key facts on SUMI

SUMI consortium

RUPPRECHT CONSULT
Forschung & Beratung GmbH
Project Coordinator

TRT

TRANSPORT & MOBILITY LEUVEN

POLIS
CITIES AND REGIONS FOR TRANSPORT INNOVATION

UITP ADVANCING PUBLIC TRANSPORT

EURO CITIES

Project duration

December 2017 – August 2020

46 urban areas in SUMI

Country	City (large urban area)	City (small urban area)
Austria	Vienna	Klagenfurt
Belgium	Antwerp	Leuven
Bulgaria	Sofia	Burgas
Croatia	Zagreb	Dubrovnik
Cyprus	Nicosia	
Denmark	Copenhagen	Aalborg
Estonia		Tartu
Finland	Helsinki	Oulu
France	Bordeaux	La Rochelle
Germany		Bielefeld
Greece	Athens Thessaloniki	Ioannina
Hungary	Budapest	Szeged
Ireland	Dublin	

Country	City (large urban area)	City (small urban area)
Italy	Rome Milan	Perugia
Latvia		Daugavpils
Lithuania		Klaipeda
Netherlands	Rotterdam	
Poland	Warsaw	Gdynia
Portugal	Lisbon	Guimaraes
Romania	Timisoara	Oradea Arad
Slovakia	Bratislava	Žilina
Slovenia	Ljubljana	Nova Gorica
Spain	Barcelona	Vitoria-Gasteiz
Sweden	Gothenburg	
United Kingdom	Manchester Edinburgh	Milton Keynes

SUMI goal #1:
Review and "Europeanisation" of WBCSD indicators

- Indicator set originally developed by WBCSD to be used by **any city in the world**

- EC's objective: indicator set for EU cities, in line with standardised **EU data formats and data sets** available at the EU level, and taking into account **EC policies and targets**

- WBCSD's indicator set retained in principle but basis of **underlying data** and **calculation algorithms** revised to some extent for majority of indicators

SUMI indicators

Core Indicators

#1: **Affordability** of public transport for the poorest group

#2: **Accessibility** for mobility impaired groups

#3: **Air pollutant** emissions

#4: **Noise** hindrance

#5: **Road deaths**

#6: **Access** to mobility services

#13: Emissions of **greenhouse gases**

#14: **Congestion** and delays

#15: **Energy** efficiency

#16: Opportunity for **active mobility**

#17: **Multimodal** integration

#18: Satisfaction with **public transport**

#20: Traffic **safety** active modes

plus **Modal Split**
(not an indicator but parameter for several indicators)

Non-Core Indicators

#7: Quality of **public spaces**

#8: Urban functional **diversity**

#9: Commuting **travel time**

#12: Mobility **space** usage

#19: **Security**

Note: Numbering different from SUMI page on DG MOVE website [https://ec.europa.eu/transport/themes/urban/urban_mobility/sumi_en]

Example: Greenhouse gas emissions

Definition: Well-to-wheel GHG emissions by all urban area passenger and freight transport modes

$$G = \frac{\left(\sum_{ij} A_{ij} * \left(\sum_{ck} S_{ijk} * C_{ijkc} * I_{jk} * (T_k + W_k) * (1 + F_{ijk}) \right) \right) * 1000}{cap}$$

Parameters:

G = **Greenhouse gas emission** [tonnes CO2(eq.) per capita, per year]

Aij= **Activity volume** (distance driven by transport mode i and vehicle type j) [million vkm per year]

Sijk = Share of **fuel type** k per vehicle type j and per transport mode i [fraction]

Cijkc = Share of **emission class** c per vehicle type j and per transport mode i [fraction]

Ijk = **Energy intensity** ... driven for vehicle type j and fuel k [ℓ/km or ...

Tk = ... **CO2 emission** per energy type unit ... considered [kg/ℓ or ...

Wk = **Well to tank CO2 equivalent emission** per energy type unit considered [factor]

Fijk = **Non-CO2 GHG correction** (CO2 equivalent) [factor]

cap = Capita or number of **inhabitants** in the ... area [#]

k = **Energy type** (petrol, diesel, bio..., ...icity, hydrogen, etc.) [type]

i = Transport **mode** (pass... tram, bus, train, motorcycle, inland vessel, freight train ... ...) [type]

j = **Vehicle** ... ...vailable, specified by model (e.g. SUV, etc.) [type]

... multiplication by 1,000 to transform unit from kg to **tonnes**

[https://ec.europa.eu/transport/themes/greenhouse-gas-emissions-indicator_en]

Not all data is available for urban areas in all EU Member States & using proxy data is problematic!

How to bring indicator in line with goals set out in EU Climate Law?

How can SUMI be used?

Results from benchmarking tool on SUMI page on DG MOVE website
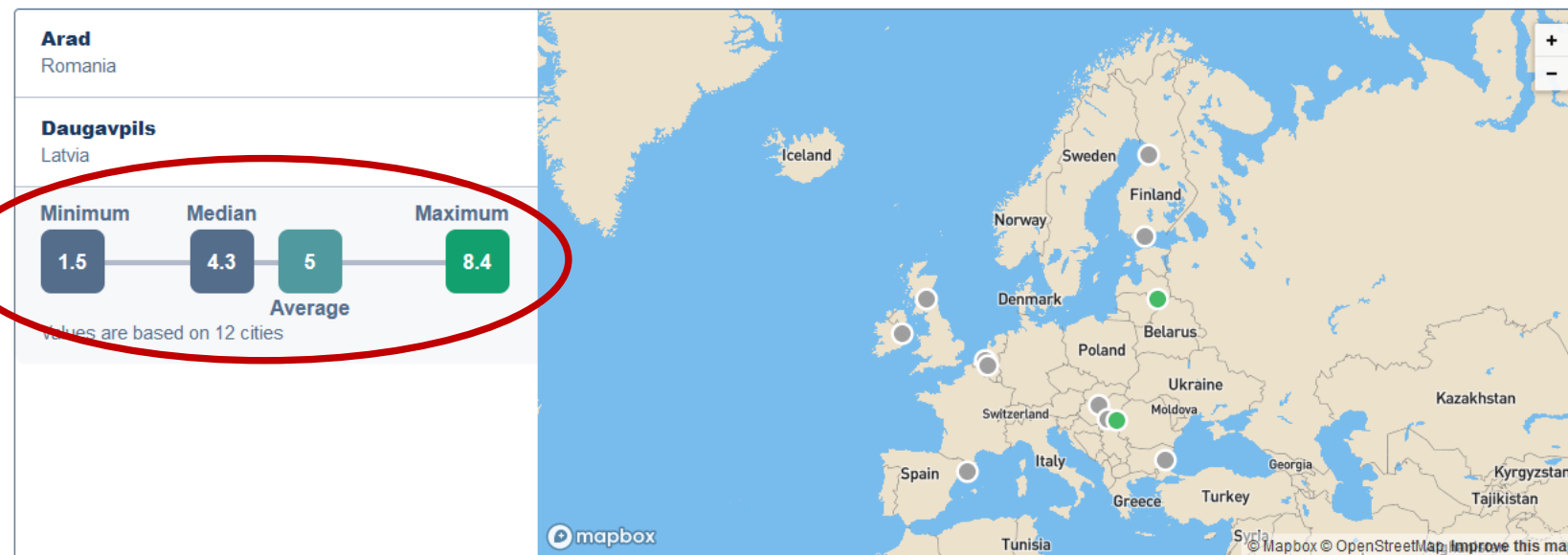
🌐 **Greenhouse gas emissions**

Overview

Well-to-wheels GHG emissions by all urban area passenger and freight transport modes.

Best scoring cities
The top-scoring cities are shown below, listed alphabetically and marked with a green dot on the map. This is the 90th percentile, but with a minimum of 2 and a maximum of 5 cities. The 90th percentile is the group of cities that score better than 90% of cities for which a score is calculated (all dots on the map). All scores are out of 10. Select the city population category on the right to get information on cities with a similar population size (deselect to get information on all cities again).

City population

| Small | Medium | Bigger | Large |

Arad
Romania

Daugavpils
Latvia

Minimum	Median		Maximum
1.5	4.3	5	8.4
		Average	

Values are based on 12 cities

Data availability is a key challenge!

- **473 indicator spreadsheets** filled-in by cities and reviewed by SUMI project
- **Indicators perceived as most difficult** (in terms of data availability)
  - # 1: **Affordability** of public transport for the poorest group
  - # 2: **Accessibility** for mobility-impaired groups
  - # 3: **Air pollutant** emissions
  - # 6: **Access** to mobility services
  - #13: Emissions of **greenhouse gases**
  - #14: **Congestion** and delays
  - #15: **Energy** efficiency
  - #18: Satisfaction with **public transport**
  - **Modal Split**

Have you faced any barrier regarding the collection of data?
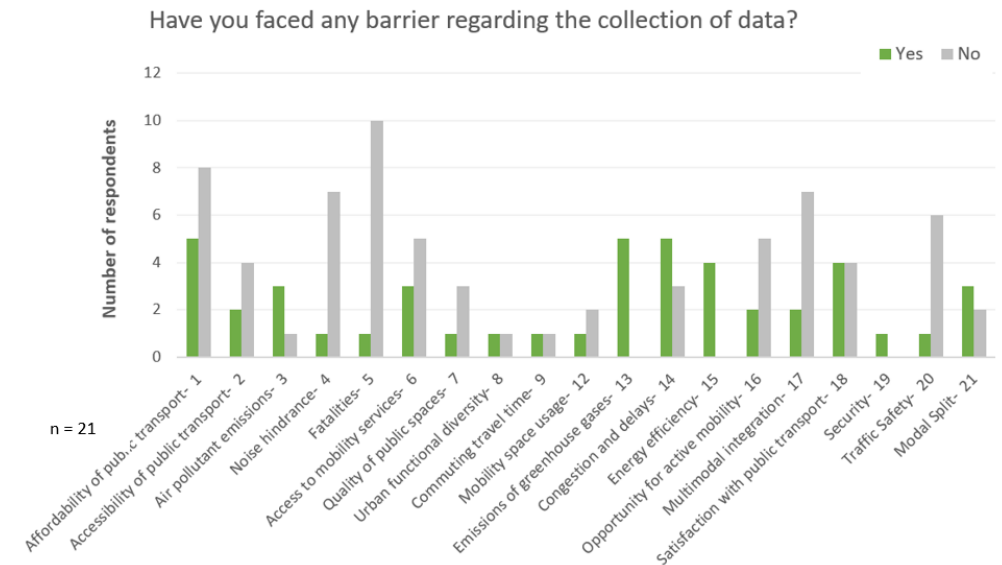
Towards a common European framework for SUMI
Six key recommendations to EC

1) Further **refine/ adapt** the indicators (esp. those with data collection problems)

2) Link SUMI indicators to **SUMP** in a comlementary manner

3) Define desired **scaling** of indicators, taking into account related EU policy goals

4) More adequately represent **logistics**-related urban transport aspects in indicator set

5) Involve specialised **EU data providers** as contributors of data for specific indicators

6) Encourage and **incentivise** cities to adopt the indicators set (after further refinement)

Linking SUMI to SUMP

- A **minimum set of indicators and data** should be defined **for SUMP**, enabling an evaluation of specific SUMP objectives or targets (including EU policy goals)

- The use of the SUMI indicators could be a **condition for financial support** for the development of SUMPs

- **National programmes** could take up the set of indicators to be conditional for financial support for the development of SUMP and the indicator set could be integrated into **national SUMP Guidance**

How can SUMI and SUMP contribute to meet climate goals?

- Transport is the least performing sector in CO_2 reduction. Sustainable mobility (and CO_2 reduction) are the **essence of SUMP** (& basis for all measures)

- **Complementarity** of SUMP and SUMI:

  ▪ SUMP provides a **methodology for planning**,

  ▪ SUMI provides a methodology for **assessing the effectiveness** of the SUMPs

- SUMP creates **foundations** for carbon-neutral policies

  ▪ establishes cooperation for **connected policy making** (institutions, policy fields)

  ▪ advocates **climate policy packages** (integration of infrastructure, systems, services) with strong **stakeholder support**

  ▪ addresses the **appropriate planning level**, i.e. the functional urban area

  ▪ creates a **factual base effective measures** for the climate transition

- SUMP increases **resilience** of urban areas

  ▪ facilitates creation of goal-oriented, **integrated strategies and systems**, i.e. lower vulnerability

  ▪ enables **quick and flexible** reactions to disruptions (due to agreed goals, data basis, institutional readiness)

Thank you!

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