Financing and funding options for Sustainable Urban Mobility

HIGH LEVEL TRAINING COURSES ON SUSTAINABLE MOBILITY
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Stefan Werland
The SUMP Approach
Sustainable Urban Mobility Planning

Structured framework for developing and implementing a Sustainable Urban Mobility Plan
Published in 2013
Key Features:
• Strategic plan
• Focused on mobility needs of people
• Sectoral planning document but emphasis on integration, participation, evaluation

→ Presentation: Case Example: Sustainable Urban Mobility Plan of the AMB
More encompassing, more detailed
Core document and topic guides on dedicated issues
Release of draft document: 6th SUMP Conference, June 18
Subsequent feedback process
Final Document: Civitas Conference, Graz, October 2019
Harmonization of energy and mobility planning
Sustainable Urban Logistics Plan
**Funding and Financing of SUMP measures**
Sustainable Public Procurement in SUMP
SUMPs in Metropolitan Areas
Electrification of urban mobility
Shared mobility
National and regional frameworks
Linking transport and health in SUMPs
Urban Vehicle Access Regulations
SUMP 2.0
Updated SUMP Cycle

Milestone: Sustainable Urban Mobility Plan adopted
9.1 Finalise 'Sustainable Urban Mobility Plan' document
9.2 Develop financial plans and agree cost sharing
9.3 Assess quality of the SUMP
8.1 Describe all actions in detail
8.2 Estimate costs and identify funding sources
8.3 Agree priorities, responsibilities and timeline
8.4 Ensure wide political and public support
7.1 Create and assess long list of measures with stakeholders
7.2 Define integrated measure packages
7.3 Plan measure evaluation and monitoring

Milestone: Measure implementation evaluated
12.1 Analyse successes and failures
12.2 Share results and lessons learned
12.3 Consider new challenges and solutions
11.1 Monitor progress and adapt
11.2 Inform and engage citizens and stakeholders
10.1 Plan implementation of actions in detail
10.2 Procure goods and services
10.3 Coordinate implementation process
10.4 Manage implementation

Milestone: Decision to prepare a SUMP
1.1 Evaluate capacities and resources
1.2 Create inter-departmental core team
1.3 Ensure political and institutional ownership
1.4 Plan stakeholder and citizen involvement
2.1 Assess planning requirements
2.2 Link with other planning processes
2.3 Agree timeline and geographic scope (based on functional urban area)
2.4 Consider getting external support
3.1 Identify information sources and cooperate with data owners
3.2 Analyse problems and opportunities [all modes]

Milestone: Strategy development
5.1 Agree common vision of mobility and beyond
5.2 Agree objectives and co-create mobility strategy for all modes with citizens and stakeholders
6.1 Identify indicators for all objectives
6.2 Agree measurable targets

Milestone: Analysis of problems and opportunities concluded
4.1 Develop scenarios of potential futures
4.2 Discuss scenarios with citizens and stakeholders
3. Analyse mobility situation

Milestone: Implementation and monitoring
11. Monitor, adapt and communicate
11.1 Monitor progress and adapt
11.2 Inform and engage citizens and stakeholders

Milestone: Set up working structures
1. Set up working structures

2. Determine planning framework
2.1 Assess planning requirements
2.2 Link with other planning processes
2.3 Agree timeline and geographic scope (based on functional urban area)
2.4 Consider getting external support

3. Analyse mobility situation
3.1 Identify information sources and cooperate with data owners
3.2 Analyse problems and opportunities [all modes]

4. Build and jointly assess scenarios
4.1 Develop scenarios of potential futures
4.2 Discuss scenarios with citizens and stakeholders

5. Develop vision and strategy with stakeholders
5.1 Agree common vision of mobility and beyond
5.2 Agree objectives and co-create mobility strategy for all modes with citizens and stakeholders

6. Set targets and indicators
6.1 Identify indicators for all objectives
6.2 Agree measurable targets

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Purpose of the topic guide on funding and financing sources

- Compile and structure the available funding and financing options (beyond general city budget)
- Provide good practice examples
- Inspire the search for financing and funding sources
- Link to knowledge resources

- Originates from literature analysis and inputs from city representatives
- Non-comprehensive overview of potential sources
- Applicability of most instruments depends on national legal framework, i.e. cities’ legal competence to raise charges.

→ If you feel that something is missing let me know!
Overview
Funding and Financing Options

Project / SUMP measure
(e.g. PT service; new tramline)

- Increase public budget
  - Local revenues
  - National funding
  - International regional, bi-lateral programmes
- Reduce (direct) costs of projects & services for public budget
  - external finance
    - Debt, Municipal & Green bonds
  - private sector involvement
    - Pricing measures for car use
    - Development charges and value capture

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Funding and Financing Options

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- Project related income
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International regional, bi-lateral programmes

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Reduce (direct) costs of projects & services for public budget

private sector involvement
Local Revenue Streams

Project generated income

- Fares, tickets sales
- Lease of advertising space in vehicle and at stations

- Easy to understand why users should contribute, but:
- Trade-off between attracting passengers, social concerns and cost coverage
- PT fares normally cover only a share of expenses
- Income generated only after start of service
- Uncertainty related income to be expected
Local Revenue Streams
Pricing measures individual car use

- Parking management
- Congestion charging
- Road pricing

- Can form part of a push & pull approach, depending on how revenues are used
- Often hard to introduce due to political resistance (other than PT, roads are considered a public good)
- Needs capacities for enforcement
- Upfront costs (depending on technology)
Local Revenue Streams
Pricing measures individual car use

Parking Management

- Relatively easy to implement
- Most cities have legal competences to introduce parking management schemes
- Most parking spaces are publicly owned
- Residents may profit from reduced parking pressure, which increases acceptance
- Requires controls and enforcement

*Presentation: Krakow – Parking system financing model*

- CIVITAS Park4SUMP [https://park4sump.eu/](https://park4sump.eu/)
Local Revenue Streams
Pricing measures individual car use:

Road Pricing / Congestion Charges

- Dynamic fees can be a means to foster low carbon technologies or to shift traffic load to off-peak periods
- (Initial) resistance from urban dwellers, shop owners, etc.
- Roads are considered public goods (other than public transport)
- High upfront investments needed
- Legal concerns:
  - Are cities allowed to raise these kind of charges?
  - Automated number plate recognition and data protection
- Few examples in the EU: London, Durham, Stockholm, Gothenburg, Bologna, Znojmo, Valletta

*Presentation: Milano – Congestion Charges*
Success factors for pricing measures

- **Inform** the public about the objective of the charging system, its intended impacts, and how revenues will be used.

- **Communicate** the measure in a positive way: as a way to make other mobility options more attractive.

- Stress the role of the charging system as **component of an encompassing mobility strategy**.

- Conduct a **trial period** to allow road users to accustom to the new system, to test alternative travel options, and to experience potential benefits of the scheme.

- Consider concerns about **equity and fairness**, e.g. through exemptions for vehicles used by disabled people.
Charges on employers (not: employees) to subsidise public transport

**Example: Workplace Parking Levy in Nottingham**

- Levy on workplace parkings (ca. €430 per parking place and year)
- Applies to employers with > 10 commuter parking places
- Employers can reclaim part or all of the cost of the from their employees
- ca. €9m p.a.; Income was invested into the city’s transport infrastructure, including procurement of 45 e-buses and extension of the tram network.
- Over 40% of journeys to work are now taken by public transport, cycle trips increased by 1/3 since 2010
Local Revenue Streams
Employers Contributions

Example: Dienstgeberabgabe in Vienna

- Fixed levy on employees: 2€ per employee and week
- exemptions elderly employees, employees with mental and physical handicaps, part-time employees, employees of public authorities, etc.
- Income is ring-fenced for the extension of Vienna’s Metro
Local Revenue Streams
Employers Contributions

Example: Versement Transport in Île-de-France

- Tax is calculated as a percentage of the wages
- Private and public employers
- Île-de-France Mobilités uses the tax to pay transport operators and for investment costs
- The tax contributed, in 2017, to 42% of the total operation costs and part of Île-de-France Mobilités investment costs
Rationale

- Provision of high quality transport services increases value of surrounding land and property.
- Transport projects are precondition for new land development.
- New developments generate new burden on infrastructure (more traffic, congestion, etc.)

→ Make those who profit contribute to costs of transport services and infrastructure

Instruments

- **Stamp Duty Land Tax** (England and Northern Ireland): Owner pays a tax when he purchases a property above a certain value
- **Planning obligations** and **Community Infrastructure Levies** (England and Wales): Land developers pay taxes that can be used for public services and infrastructure
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external finance

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Project related income
Pricing measures for car use
Development charges and value capture
Debt, Municipal & Green bonds
International, regional, and bi-lateral programmes
National level funding programmes

National level support programmes focus on:

- SUMP preparation and development
- procurement of low-carbon vehicles

Example: The German National Electric Bus Funding Programme

- Government fund (Ministry for the Environment)
- €300 mio. to support public transport operators and municipalities with exceeding NOx limits
- Covers 80% of additional investment costs for e-buses and charging infrastructure, compared to diesel buses
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International, regional, and bilateral programmes

Bilateral Initiatives

Example: Regional and/or Development Banks

- Development Banks provide investment loans for projects that finance economic development

→ Presentation: EIB Financing schemes in North Africa

Example: MobiliseYourCity Partnership

- Contributing Partners: EU, France, Germany
- Development cooperation partnership
- Focus is on technical assistance to partner countries and cities, but also supports partners with investment plans
- No dedicated budget for implementing transport projects but close links to development banks (ERBD, AFD, KfW)
International, regional, and bilateral programmes
Bilateral programmes

Example: Cluj Napoca, Romania

- Swiss-Romaian cooperation for the procurement of e-buses
- Switzerland provided funding for the procurement of 11 e-buses (85% + 15% from city budget)
International, regional, and bilateral programmes
EU funding

European Financial Institutions and Support Programmes

→ Alex Saz-Carranza, European Investment Bank (EIB) - Financial schemes for sustainable mobility
International, regional, and bilateral programmes
EU funding

European Structural and Investment Funds (ESIF)

- implemented by Member States and their regions
- delivered through nationally co-financed programmes
- funds are used to support economically viable projects that promote EU policy objectives, amongst others on ‘sustainable transport networks and bottlenecks’.
- The ESIF contain five separate funds, of which the European Regional Development Fund ERDF and the Cohesion Fund may be relevant for urban transport and mobility projects.
International, regional, and bilateral programmes
EU funding

European Fund for Strategic Investments (EFSI)

- Joint initiative of European Commission and European Investment Bank
- Supports strategic investments in European key areas, including transport
- Guarantee mechanism, which allows the EIB to provide funding for higher risk projects
- At least 40% of EFSI financed projects will aim to contribute to climate action in line with the Paris Agreement.

Connecting Europe Facility (CEF)

- Fund for pan-European infrastructure investment in transport, energy and digital projects,
- Focus on cross-border activities, aims at a greater connectivity between member states.
- Operates through grants, financial guarantees and project bonds.
International, regional, and bi-lateral programmes

EU funding

**LIFE Programme**
- Environmental and climate action
- Focus on demonstration projects

**Horizon 2020**
- Research and Innovation Programme
- Local authorities can partner with research institutions and other stakeholders to receive funding

**Climate KIC**
- European Climate Innovation Initiative, including decarbonising urban mobility

**More information**
Eltis website [http://www.eltis.org/resources/eu-funding](http://www.eltis.org/resources/eu-funding)
The Covenant of Mayors for Climate and Energy [https://www.eumayors.eu/support/funding.html](https://www.eumayors.eu/support/funding.html)

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International, regional, and bilateral programmes
EU funding: Support Instruments

**ELENA**
- joint initiative by the EIB and the European Commission under Horizon 2020
- provides grants for larger project development costs (> EUR 30 million with 4-year implementation period)
- Public or private entities can apply for an up to 90% coverage of project-related expenses for technical assistance, internal staff, external expertise.
- Having a SUMP is one criterion in the evaluation of applications.

**JASPERS** (Joint Assistance to Support Projects in European Regions)
- European Commission, EIB and EBRD
- offers support to public authorities and promoters in the preparation and implementation of ESIF projects.

**JESSICA** (Joint European Support for Sustainable Investment in City Areas)
- European Commission, EIB and Council of Europe Development Bank (CEB).
- supports sustainable urban development through financial engineering mechanisms.
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Project related income
Debt Mechanisms & External Finance
City Bonds, Revenue Bonds, Green Bonds

City Bonds
- debt instruments to unlock external investment capital for expenditures, including transport infrastructure projects and service operation.
- yield immediate capital, while repayments can be extended over a long time period of approx. 20-30 years.
- Fixed interest rate

Revenue Bonds
- Bonds where interest rates are paid from project revenues (tolls, fares, etc.)

Green Bonds
- bonds are bonds with proceeds ring-fenced for sustainable projects, including sustainable mobility related projects.
- Re-direct finance towards sustainability solutions
- (long-term) Investors see threats for conventional business models and opportunities of new, green solutions
Example: RATP Green Bonds Programme, 2017

- French state-owned public transport operator RATP (Régie Autonome des Transports Parisiens) launched a green bonds programme in 2017
- Proceeds will be invested into future projects or are used to refinance existing projects:
  - renewal of railway rolling stock,
  - upgrading of a metro line, and
  - purchase of electric locomotives for the maintenance of RER infrastructures.
- RATP aimed at a €500 million with a 10-years issue. The fond was three times oversubscribed.
The Climate Bonds Initiative Standards for Transport Projects

- sector specific criteria for transport projects:
  - urban trams,
  - metro systems
  - bike transport systems
  - fully electric vehicles
  - hydrogen fuel cells
Figure 1: Summary of land transport products and projects that would automatically qualify under the standard (green), automatically not qualify (red), or need further consideration in order to determine eligibility (orange) under the relevant criterion or criteria listed

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Private Sector Involvement
Different kinds of PPP arrangements

- A PPP is an arrangement between a public authority and a private partner for delivering an infrastructure project and/or service under a long-term contract.

- Involvement of profit-seeking private sector in the delivery of public goods can be highly contentious, depending on political/economic culture.

- Risk that PPPs provide profits for private sector while socialising losses

- PPPs do not substitute for effective municipal governance!
  - performance based contracts
  - clear quality standards and levels of services,
  - performance monitoring and reporting obligations
  - recurring re-negotiation and adaptation contracts
  - environmental and social standards (e.g. ticket prices)
  - clear rules for non-compliance and enforcing mechanisms.
Objective: reduce the direct costs for public budgets and share risks.

Private partner takes over investment costs and gradually recoups his costs:
- reimbursed by the public authorities, or
- concessions to collect user fees.

Potential roles of private sector:
- Investor (expects revenues)
- Transport infrastructure developer
- Service provider
- Transport operator
Figure 9.1 Types of Public–Private Partnerships

Source: Ardila-Gomez / Ortegon-Sanchez 2016: Sustainable Urban Transport Financing from the Sidewalk to the Subway. Worlsbank Group, p.80
Private Sector Involvement
Different kinds of PPP arrangements

Private companies as service providers

- Private operators provide transport services
- Private partner receives performance based payments for the provision of a service
- City / regional authorities define tariffs, quality and accessibility standards, networks,
- Regulation (EC) No 1370/2007 on public passenger transport services (17) states that “...competent authorities are free to establish social and qualitative criteria in order to maintain and raise quality standards for public service obligations, for instance with regard to minimal working conditions, passenger rights, the needs of persons with reduced mobility, environmental protection, the security of passengers and employees as well as collective agreement obligations and other rules and agreements concerning workplaces and social protection at the place where the service is provided. In order to ensure transparent and comparable terms of competition between operators and to avert the risk of social dumping, competent authorities should be free to impose specific social and service quality standards.”

→ Presentation: Financing department on Mobility Area – Management model of Public Transports operator and incentive contracting system
Private Sector Involvement
Different kinds of PPP arrangements

▶ Build-Operate-Transfer (BOT):
  • private sector enterprise receives a concession to build and operate an infrastructure asset (e.g. a road) for a defined period of time.
  • private party earns income from the project (e.g. fares, tolls) to recoup its investment.
  • Public authority can define basic levels of service.
  • After the concession period, the asset is reverted to the public sector.

▶ Build-Own-Operate-Transfer (BOOT):
  • Private enterprise develops and operates a project for a defined period.
  • private party earns income from the project, to recoup its investment.
  • private party owns the asset, public sector buys the asset at a predefined price or market price.
Key Messages

- No one size fits all solutions
- Different financing and funding instruments cover different project life cycle stages:
  - financing options need to be combined to cover all project stages, from planning, implementation and design to the operational phase → combine different funding sources
  - Parts of SUMP processes/activities that do not generate revenues → require funding programmes
  - PT fares generally do not suffice to cover expenses → cross subsidise from other sources
  - Public funding programmes or guarantees can complement external financing and make a project bankable
Key Messages

EU
- Funding & Support Programmes

National
- Funding & Support Programmes
- Payments for the provision of local and regional public transport services
- General municipal budget
- Road charges, parking fees
- Value capture

Local
- (Green) City Bonds
- Project related income: public transport fares, advertisement, etc.
- Loans

Private Sector
- PPP: Build-Operate-Transfer and Build-Own-Operate
- Voluntary Capture
- Integrate Private Service Providers

Construction and procurement
Service provision, Operation and maintenance
No one size fits all solutions

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Push & Pull: Political resistance against the implementation of pricing measures:

- combine Push instruments and pull instruments