Session C3
HOW TO FINANCE YOUR SUMP MEASURES AND BUILD A STRATEGIC INVESTMENT PLAN

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SUMP Guidance on Financing & Procurement
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How to increase the impact of public resources in urban mobility by better procurement? Ivo CRÉ, Polis

EIB ELENA investment support facility
Ozhan YILMAZ, European Investment Bank

Financing the construction of Thessaloniki’s Metro
Samuel Alexios SALEM, Transport Authority of Thessaloniki
Financing and funding options for Sustainable Urban Mobility

6th European Conference on Sustainable Urban Mobility Plans
Groningen, 17-18 June 2019

Stefan Werland
SUMP 2.0
Topic Guides

- Harmonization of energy and mobility planning
- Sustainable Urban Logistics Plan
- Funding and Financing of SUMP measures
- Sustainable Public Procurement in SUMP
- SUMPsi in Metropolitan Areas
- Electrification of urban mobility
- Shared mobility
- National and regional frameworks
- Linking transport and health in SUMPsi
- Urban Vehicle Access Regulations
Purpose of the Topic Guide on Funding and Financing

- Increase accessibility of available knowledge, experiences and information
- Structure funding and financing options
- Provide good practice examples
- Link to relevant research projects and other knowledge sources
- Inspire the search for financing and funding options

- Originates from literature analysis and inputs from city representatives
- Applicability of most instruments depends on national legal framework!
Overview
Funding and Financing Options

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

Increase public budget

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

Local revenues

National funding

EU funding bi-lateral programmes

external finance

private sector involvement

Project related income

Pricing measures for car use

Development charges and value capture

Debt, Municipal & Green bonds

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Local Revenue Streams
Project generated income

Project related income

- Fares, tickets sales
- Lease of advertising space in vehicle and at stations
- Data as source of income?

- Commonly used
- 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 to expected income
Parking management

Congestion charging / road pricing

Demand management tool: aim at dis-incentivising private car use

Rationale: internalising external costs of private car use

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)

Requires legal competencies to raise charges

Needs capacities for enforcement

Upfront costs (depending on technology)

Objective is to reduce private car use → if successful, they are no reliable, long-term source of income!
Local Revenue Streams
Pricing individual car use / demand management tools

Parking Management

Pros:
- Relatively easy to implement, widespread throughout EU
  - Most cities have legal competences to introduce parking management schemes
  - Most parking spaces are publicly owned
  - Moderated implementation costs
- Acceptance: residents may profit from reduced parking pressure

Cons:
- Requires control and enforcement
- Adequate charges (that exceed PT fares)
- Risk of relocating parking pressure to adjacent districts

→ Widely used throughout the EU

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Local Revenue Streams
Pricing individual car use / demand management tools

Road Pricing / Congestion Charges

Pro:

- Dynamic fees can
  - foster low carbon technologies
  - shift traffic load to off-peak periods
  - Can induce car pooling

Cons:

- resistance from urban dwellers, shop owners, politicians...
- High upfront investments
- 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, Milano, Znojmo, Valletta

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Push & Pull approaches

Instrument mix that combines disincentive for private car use and incentives to use PT, bikes, walking.

Examples:

- Barcelona used parking fees to implement bike sharing system
- Amsterdam: Use of revenues from parking fees

Use of parking fees in Amsterdam

Source: The Amsterdam Mobility Fund, 2014
Employers Contributions

- Charges on employers (not: employees) to subsidise public transport
- May be based on different objects:
  - Workplace parking places
  - Number of employees
  - % of wages payed by the employer

Example: Workplace Parking Levy in Nottingham

- Levy on workplace parkings (ca. €430/a per parking place)
- Applies to employers with > 10 commuter parking places
- Employers can reclaim cost of the from their employees
- ca. €10m p.a.; invested into the city’s transport infrastructure, including 45 e-buses and extension of the tram network.
Local Revenue Streams
Employers Contributions

Example: Dienstgeberabgabe in Vienna

- Fixed levy on employees: 2€ per employee and week
- exemptions for 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

Photo: Wiener Linien (Vienna)
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
Local Revenue Streams

Other potential approaches

- Charges on privately owned parking spaces, e.g. commercial car parks, shopping malls
- Brazilian Vale-Transporte: In cities employers are required by law to buy and provide public transport tickets. Employers can withhold 6% of salaries to cover these costs.
- Finance the introduction of LEZ though fines
- ...

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Rationale

- Provision of high quality transport services increases value of surrounding land and property.
- New developments generate new burden on infrastructure (more traffic, congestion, etc.)
  - Make those who profit contribute take over parts of the cost

Instruments

- **Mobility Tax** (Barcelona) Surcharge on property tax; revenues go to AMB (transport management authority)
- **Stamp Duty Land Tax** (England and Northern Ireland): Owner pays a when he purchases a property above a certain value
- **Community Infrastructure Levies** (England and Wales): Land developers pay taxes that can be used for public services and infrastructure
Ring-fencing local revenues for sustainable mobility

Pros:
- Additional source of income
- Increases acceptance of ‘push-measures’

Cons:
- May reduce contributions from general public budget
- Less reliable source of income: revenues hard to predict
- Successful push and pull approaches degrade their own source of income
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Pricing measures for car use

EU funding bi-lateral programmes

Development charges and value capture

external finance

Debt, Municipal & Green bonds

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

private sector involvement

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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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Example: Cluj Napoca, Romania

- Swiss-Romanian cooperation for the procurement of e-buses
- Switzerland provided funding for the procurement of 11 e-buses (85% + 15% from city budget)
European Support Programmes

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 contains five separate funds, including
  - European Regional Development Fund ERDF and
  - Cohesion Fund
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
- Potential linkages:
  - urban nodes,
  - multi-modal logistics,
  - new technologies & Innovation
- Operates through grants, financial guarantees and project bonds.
EU Funding, 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.
EU Funding, bilateral programmes
EU funding: Support Instruments

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

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

**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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Debt Mechanisms & External Finance
Bank Loans / EIB Financing

EIB Financing Instruments

- loans for mobility projects (>50 Mio €) in line with EU objectives
- EIB covers 50% of project costs; other 50% from other sources
- Projects must be financially viable (i.e. provide returns, limited risks)
- PT related projects are accepted with lower expected economic rates of return (compared to road or aviation projects)
- EIB’s 2011 Transport Lending Policy
- the EIB prioritises urban public transport projects through the VA method. Particular priority is attributed to:
  - (i) increase in capacity of public transport networks
  - (ii) innovative projects such as [...] schemes based on the user/polluter pay principles.
International, regional, and bilateral programmes
Bank Loans / EIB Financing

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.

European Energy Efficiency Fund

- Financing instruments for energy efficiency investments, including e-mobility, car sharing, etc.
- Aims to attract private investments to sustainable mobility projects
International, regional, and bilateral programmes
Bank Loans / EIB Financing

Cleaner Transport Facility
- Supports investments in low carbon fuelled vehicles
- Combines lending, funds, guarantees, advisory services
Debt Mechanisms & External Finance
Bank Loans / EIB Lending

Blending of EIB loans:
› Combination of EIB loans and other financing / funding instruments

Case Example: Thessaloniki Metro Funding

Main Line
1.615 Million EURO

- EU- Subsidies
- European Investment Bank - Loans
- Greek State Funding

Source: Samuel Salem, Transport Authority of Thessaloniki (TheTA): «Financing the construction of Thessaloniki’s Metro», presentation at the 6th SUMP Conference, June 2019
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, often institutional investors

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
Debt Mechanisms & External Finance
City Bonds, Revenue Bonds, Green Bonds

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

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Debt Mechanisms & External Finance
City Bonds, Revenue Bonds, Green Bonds

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.

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.
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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.

**Objective of PPPs: reduce the direct costs and risks for public budgets**

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

- PPPs differ in terms of the attribution of risks among the partners

- Risks involved in PPP arrangements:
  - Demand risk: Level of revenues, e.g. from ticket sales, fares
  - Technical risks e.g. related to construction activities, or new technologies
  - Performance risk, e.g. costs of maintenance
  - ...
Different kinds of PPP arrangements:

- Design-Build-Finance-Maintain-Operate
- Build Own and Operate (BOO)
- Build Operate and transfer (BOT)
- Lease for O and/or M
- Service Delivery Scheme
- Design - Build

Degree of private sector risks:

Degree of private sector involvement in providing service:

Degree of public sector involvement in providing service:

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

Private companies as service providers

- 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.”
Private Sector Involvement
Different kinds of PPP arrangements

Private companies as service providers

- Arrangement with defined tariffs, quality, service hours, network, and accessibility standards.

- Contracting:
  - Private partner receives performance based payments for the provision of a service
  - Example: Lump Sum payments for the provision of PT services (meeting defined level of service and quality standards)
  - Provision of a bike sharing system (with minimum quality standards)
  - Public: demand risk – Private: maintenance risk

- Concessions:
  - Private partner pays for the exclusive right to operate a PT system/line (tendering process)
  - Only profitable projects
  - Private Partner takes over the financial, technical, and demand risk
Private Sector Involvement
Different kinds of PPP arrangements

Provision and operation of Infrastructure

- **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.
Private Sector Involvement
Different kinds of PPP arrangements

PPPs and municipal governance

- Involvement of profit-seeking private sector in the delivery of public goods can be highly contentious, depending on political/economic culture.
- Fear 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 defined levels of services
- environmental and social standards (e.g. ticket prices)
- performance monitoring and reporting obligations
- recurring re-negotiation and adaptation contracts
- clear rules for non-compliance and enforcing mechanisms.
Key Messages

- No one size fits all solutions
- Push & Pull: Political resistance against the implementation of pricing measures:
  - combine Push instruments and pull instruments
- Different financing and funding instruments cover different project life cycle stages:
  - Funding & financing options need to be combined to cover all project stages, from planning, implementation and design to the operational phase → combine different funding sources
  - 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
EU

- ELENA
- H2020 / CiViTAS

bilateral

- bilateral programmes

national/regional

- National Funding & Support Programmes
- Financial transfers for the provision of PT services

City/region

- General municipal budget
- Value capture
- (Green) City Bonds and debt instruments
- Cross-payments from ring fenced taxes & fees
- Project related income: fares, advertisement, etc.

private sector

- PPP: BOT, BOOT
- Voluntary Capture
- Concessions, Contracts

Plan development and preparation

Construction and procurement

Service provision, Operation and maintenance

- EIB / Commercial Banks Loans
- ESIF / CEF