Target Groups and scope
The main target groups for these guidelines are:
• PT operators
• public transport authorities (PTAs)
• Other decision makers with an interest in public transport funding and financing

The guidelines are intended to give an overview of existing funding and financing options such as financing institutions and schemes of various kinds. Organisations dealing with mobility management, planners of transport and regional development and stakeholders such as suppliers of equipment, consultancy services and other organisations such as trade unions may also find these guidelines valuable.

For easier reading these colours are used in the text:
Red = Important points for target groups to watch out for.
Green = Conclusions or recommendations

Objectives and definitions
Funding is in this Guideline defined as how the costs of operations are covered in a short or medium term perspective, the fiscal year, one accounting period or (at the most) one Public Service Contract period. The main objective of a stable funding scheme is to ensure that the necessary funds are available in the medium or even long term for the production of Public Transport Services including both operation and the necessary investments in infrastructure and rolling stock.

Financing primarily concerns repayable loans for investment in for instance infrastructure, new rolling stock and other equipment with a long economic life. The main objective of a financing scheme is to dispose of the necessary means at the time of investment, i.e. to bridge the gaps in funding streams at the lowest possible financing costs.

In this context it should be noted that the EU now demands more transparency from the PT sector. EU Regulation 1370/2007, Articles 4 and 6, deal with compensation to PT operators. These matters are dealt with more in detail in the Guideline on Public Service Contracts (PSC).

The importance of long-term policy stability and political consensus as far as possible concerning funding and financing of PT must be emphasized. There are too many discouraging examples also in MS with long PTA traditions, for instance: 2005 the Stockholm PTAs politically appointed board decided to introduce a flat fare for the whole region. Less than one year later, after the elections 2006, the new board decided to revert to a zone fare system.

The model or models chosen will vary from country to country or from city to city. In any case the division of responsibilities between various actors must be made clear. This concerns first of all the public actors, if private actors (such as those involved in Private Public Partnership schemes, PPP) are involved this is even more important.

PT funding and financing are issues of highest priority, particular in the new MS. In the 1990s, funding for PT was cut back in many cities of new MS. In Budapest for example, municipal subsidies to the PT companies were reduced by two thirds between 1990 and 2000. According to several surveys, capital financing of PT infrastructure and equipment is perceived to be the most pressing transport problem of local authorities and operators in the new MS.
**Funding checklist: questions and their importance for stakeholders**

<table>
<thead>
<tr>
<th>Questions to be answered or problems to be solved</th>
<th>ORGANISATIONS OR STAKEHOLDER (EXAMPLES)</th>
<th>Political bodies on various levels</th>
<th>Transport authorities’ management</th>
<th>Transport operators (public or private)</th>
<th>Trade unions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can funding needs be reduced through internal improvements?</td>
<td>XX</td>
<td>XXX</td>
<td>XXX</td>
<td></td>
<td></td>
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<tr>
<td>Can funding needs be reduced through higher fares?</td>
<td>XXX</td>
<td>XXX</td>
<td>XX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will the suggested funding result in improved PT?</td>
<td>XX</td>
<td>XXX</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Will the suggested funding be accepted by various stakeholders?</td>
<td>X</td>
<td>XXX</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is special legislation or framework needed?</td>
<td>XXX</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Does special legislation or framework exist?</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
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<td></td>
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<tr>
<td>Can special legislation or framework be implemented?</td>
<td>XXX</td>
<td>XXX</td>
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</tr>
</tbody>
</table>

XXX = most important, no Xes = not important.

Regardless of the funding option or options that will be pursued this checklist should be useful. All the questions may not be universally relevant and other questions may be more relevant.

**Commercial funding**

- **Direct commercial revenues**
- **Fares**
- **Other business**
  - advertising
  - services
  - sale of products
  - premises and facilities
  - freight transport

**Funding**

**Commercial revenues (mainly fares) and PSC revenues (compensation payments)**

Before going into the details about commercial and non-commercial funding it is important to point out that most PT in Europe does not cover its costs through (commercial) fare revenues, some kind of compensation from public funds is needed. Practically all PT operators therefore have a mix of fare revenues directly from passengers and revenues from a Transport Authority, a City Administration etc. according to a Public Service Contract (PSC). A more detailed description of the PSC conditions is found in SPUTNICs Deliverable D5 Policy and Research Recommendations – here it should just be mentioned that blanket subsidies to PT are no longer permitted according to EU Regulation 1370/2007.

Due to the public service character of PT the establishment of concessionary or reduced fares for user groups like students, elderly people etc. is very common in Europe especially in post-socialist countries. In Russia there used to be 64 categories of people exempted from paying for PT. Even in fairly wealthy MS free travel for senior citizens exists, for instance in Brussel, BE, and Göteborg, SE. Still, in the new MS operators often are not compensated adequately for these heavy fare concessions imposed by the state. However, EU Regulation 1370/2007 now demands that PT concessionary fare obligations and PT operators’ costs which are not covered by fares must be compensated in a transparent manner through a PSC.

**Commercial funding**

Direct commercial revenues - and among these the passengers fares - are the most obvious source of PT funding across Europe. However, the share of PT fares related to the overall costs is in most European cities fairly low (between 30% in Bucharest and 82% in London), usually because of social or environmental reasons: the revenue-earning potential of PT gets entangled with problems of affordability for low-income passengers and difficulties of tapping non-passenger beneficiaries of PT infrastructure. When there is a market of choice-travellers, fares are kept low to keep them from switching to...
cars or attract them away from cars. On the other hand, when people’s income increase, quality of services may matter more than its price.

Before looking for alternative (non-commercial) funding sources for PT it is therefore always advisable to check every option to increase the commercial revenues (see checklist above). Main options to do so are:

- adjustments in the tariff and fare system to optimise overall revenues (yield management)
- creation of additional revenues from other (side) businesses (see below)

It is important to establish a regulatory framework which permits PTAs or their operators to engage in commercial funding apart from fare revenues. The framework should outline for instance which kind of funding should be permitted, who should decide about it and what level of revenue that can be expected from various kind of funding. The core question is whether it fits into the operator’s strategy and whether it should be part of the operator’s core activity.

With growing financial pressure the importance of alternative sources of commercial revenues (in addition to passenger fares) has been emphasised. However, the share of such supplementary income varies greatly. Whereas in Brussels only 1% of total income is generated by commercial ways other than the sale of tickets, it is a remarkable 12% in Zurich (the average in Western Europe might be around 5%). These solutions often come along with new forms of collaboration, for example the CarGoTram in Dresden (operator and car manufacturer Volkswagen) or the CargoTram in Zurich (operator and the city’s waste disposal service). Besides the supplementary income these activities often have a positive side effect in terms of Public Relations.

These are some examples:

**Advertising**

This is the main supplementary source of commercial revenue for PT operators in most European cities. The significance of this business varies greatly: in Paris 11% of total revenues are generated through advertising, in Dublin it is only 1%. Some cities are quite negative towards advertising for “design” or “style” reasons. Some cities claim technical reasons for not permitting advertising – low-floor vehicles have little space for advertising.

**Renting/selling of premises and facilities**

PT operators can make use of their premises and facilities by renting shops and offices, spaces for vending machines (e.g. at bus stops), car parks or by leasing the right of way to use the infrastructure or to communication companies in order to lay any kind of transmission wires. In Dublin, buildings are hosting telecommunication masts, fibre optic cables are installed into railway track beds and overhead-lines are used to carry voice and data signals. This business is closely connected to land value capture described below, the border line may not be quite clear everywhere. Some PT operators, especially those involved in metro/rail operations, may have better chances of getting additional revenues from renting of their premises.

**Providing additional services**

In Stockholm, the underground metro has a mobile phone network which is rented to telecom providers thus generating extra income for the PTA. Currently the project is ex-
panded to offer WiFi-Internet-access in all bus-stop weather shelters. In Bucharest, PT operators offer car services to third parties (mechanic, electric, tin, dye work and vulcanisation), vehicle renting or printing works.

**Sale of products**

Some PT companies make use of their extensive distribution network by selling additional goods. In addition to travel tickets for the tube, London underground ticket offices also sell tickets for major tourist attractions. Other sales take more the form of merchandising making use of the image of public transport. In Berlin, the BVG sells underwear bearing the names of metro stations (e.g. panties labelled "Jungfernhöfe" – "Maiden's heath"). This may not be politically correct everywhere...

**Freight transport**

The Matkahalotto Group in Finland for example offers freight services in connection with PT, making use of the company's comprehensive scheduled bus network. On certain lines bus operators get more money from freight than from passenger transport. Sometimes they remove passenger seats to have more space for freight transport – in addition to the usual 10³ luggage room. This is fairly common in sparsely populated countries but it is not an urban PT solution, however. Some cities have also investigated freight transport to city centre stores by means of metro/light rail tunnels.

There is still potential to increase these commercial side revenues in order to relieve the financial pressure on PT. However, the average potential is limited to a maximum of 5-10% of total turnover. Furthermore, risks such as neglecting restructuring potentials or negative image effects have to be assessed carefully and a tight controlling is needed. Independent of the answers, the examples merit at least a thought.⁵

**Non-commercial funding**

PT costs (mainly for operations and sometimes for investments) that cannot be covered by the direct commercial revenues (fare revenues and any other additional business) have to be funded by other sources which usually - in some way or the other - involve the public authorities, who either provide the necessary funds from their regular budget or the necessary legislation to levy the funds from other subjects. There is a broad variety of funding models to cover these uncovered costs of urban PT. Four main categories can be distinguished:

**General budgetary resources**

General budgets are probably the most common source for funding the uncovered costs of PT. It can be seen as the compensation of PT operators for public service obligations, that is for services or tariffs they would not provide for commercial reasons solely. However, with the tightening of public authorities' budgets this source of funding is increasingly drying out.

**Tax exemptions**

Financial support can be implicit, for example in the form of government guarantees for borrowing or in the form of tax exemptions for PT operators. The UK and Ireland know fuel tax rebates for PT operators. In Switzerland, PT operators are exempted from corporate taxes and vehicles with particle filters benefit from an 80% rebate on fuel taxes. However, fuel tax rebates may be seen as a distortion of the principles of fair and efficient pricing in transport ("polluter pays"), if they are prohibited other means of funding must be sought.

**Specific taxes earmarked for PT**

The variety of possible taxes is broad and in theory only limited by imagination. Even if they are economically justified such taxes are often extremely politically sensitive especially if they mean taxing certain groups of society that profit indirectly from PT services (beneficiary pays principle). Accordingly, the measures can be distinguished according to the subjects or beneficiaries taxed:

- **Car users** benefiting from reduced congestion thanks to PT. Examples of earmarked taxes include fuel taxes, vehicle taxes, road pricing (e.g. congestion charging scheme in London) and parking fees. By offering or accepting free car parking many cities distort a level playing field between different modes of transport.

- **An employer** through employees' taxes, as an efficient PT system allows better access to the employment catchment area. Under the name of "versement de transport" French authorities like cities and regions can levy a tax from companies with more than 9 employees for financing local PT. The tax is levied on the wage bill and is limited to a maximum of 0.5% (2.5% in the conurbation of Paris). In the Paris metropolitan region 35% of overall PT costs are funded by the "versement transport" (compared to only 25% by passenger fares).

- **Land value capture** is not very common in Europe, but has already been implemented in a number of projects in Madrid ("pasillo verde", extensions metro lines 1 and 10).⁷ A slightly different approach was chosen in Copenhagen, where the land of a development area (Ørestad) was given for free to a (public) consortium with the obligation to build and run a metro in order to develop the area. The Copenhagen experience is described as Best Practice Case in the SPUTNIC Deliverable D4 (see www.sputnicproject.eu).

- **Shopkeepers** profit from better accessibility which improves their turnover (although shopkeepers often complain that restrictions to car traffic and parking will seriously harm business). Many US cities use a supplement to sales taxes for funding PT. In Georgetown (US) PT is (at least partly) funded by the local trade association. Another example is tourism industry that profits from PT in terms of transport infrastructure and in terms of a sound environment, quiet recreational areas, attractive inner cities etc. For example in the Engadine tourism region (St. Moritz, Switzerland) part of regional PT is funded by a tourism tax (per overnight stay) and another part by the private mountain cableways; in the latter case the funding is not based on a tax but on a voluntary agreement. The Engadine funding scheme is described as a good practice case in the SPUTNIC Deliverable D4 (see www.sputnicproject.eu).
Cross utility funding
In some countries (e.g. in Germany) the PT operator is cross-subsidised by profits of other utilities within the same authority or commune such as water, electricity or waste disposal (this comes along with fiscal advantages). However, cross subsidising could be a problem in terms of distortion of competition; it also reduces transparency and hinders effective controlling and benchmarking and thus reduces efficiency. The deregulation of the energy and utilities markets will also make these transfers more difficult, they may soon be completely forbidden.

Special funding options for infrastructure and equipment (incl. rolling stock)
Special purpose infrastructure funds
Many MS have special purpose infrastructure funds that aim at providing extra funds external to the regular public budget. These are primarily aimed at the funding of large, single investments in infrastructure and sometimes rolling stock but not for operations. Conditions vary greatly and their use is often politically sensitive.

EU funding
EU Structural and cohesion funds have a central role to play in realising the EU's objectives towards implementing the EU transport policy and improve environment friendly transport modes. In the 2007-2013 period, the EU will distribute 308 billion Euros in structural and cohesion funds. Approximately half of this amount will go to the new member states and the acceding countries of central and Eastern Europe. Thereof, at least 40 billion Euros is planned to be invested in transport. However, so far only a small proportion of these funds have been used by local/regional PT. Some of these funding schemes demand that each MS contributes 50/50 with the EU.

Additionally the TEN-T (Trans European Networks:Transport) funding should be mentioned although this is outside the scope of SPUTNICS work. More info on http://ec.europa.eu/transport/infrastructure/index_en.htm

Financing
All financing institutions demand something in return form the organisations they give or lend money to. They demand not just interest payment but they generally demand to see concrete improvements such as reduced operational costs, setting up a Public Service Contract, higher customer satisfaction or the involvement of new actors in PT. In other words a carrot and stick system. Conditions vary and they should be analysed in detail before deciding about anything. PT stakeholders should make sure that the conditions can be met!

Financing by International Finance Institutions
Many authorities or operators in the new MS make use of loans with international finance institutions (IFI) such as the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB) or the World Bank. The World Bank is very active in transport improvement programmes but not so much in Europe. IFI loans have the advantage of committing the local authority to co-financing, which helps stabilise longer-term financing. They also bring rewards in creating pressure for reforms and cost-reduction within companies, as for example in Budapest (HU) and a number of Polish cities. Sofia, BG, has succesfully upgraded its bus and tram fleet with EBRD financing. However, the Bucharest cases detail the barriers to obtaining financing for PT from IFI, while underscoring the problems with loan guarantees and conditions. For example, IFI loans are no options for smaller cities which most often have no credit rating.

European Investment Bank, EIB
EIB was created by the Treaty of Rome in 1958 as the long-term lending bank of the European Union. The task of the Bank is to contribute towards the integration, balanced development and economic and social cohesion of the EU Member States. The EIB raises substantial volumes of funds on the capital markets which it lends on favourable terms to projects furthering EU policy objectives. The EIB continuously adapts its activity to developments in EU policies.

Between 2004 and 2008, EIB support for the urban transport sector amounted to over EUR 14 billion of direct financing. Some 69 urban transport projects were financed, of which 61 were located in the EU. These included the construction, extension or rehabilitation of public transport infrastructure (metro, light rail or tramway systems) and the acquisition of rolling stock in capital cities (London, Athens, Madrid, Sofia and Belgrade, for example) and other major towns (Barcelona, Valencia, Malaga, Marseille, Florence, Gdansk, Istanbul, etc.).

More info on http://www.eib.org/infocentre/search-page.htm

European Bank for Reconstruction and Development, EBRD
EBRD was established in 1991 when the Soviet Union was crumbling and ex-soviet countries in central and Eastern Europe needed support to nurture a new private sector in a democratic environment. The EBRD's approach is strongly supportive of transition towards decentralisation of service responsibilities to local or regional levels; commercialisation of the operating companies providing local services; and environmental improvement as a consequence of investments that conserve environmental resources and reduce pollution.


Financing through private sources
Operators, PTAs or other stakeholders who seek financing through PPPs or other private sourced must fully understand the financing scheme in order not to fully depend on banks financing institutions or consultants. This may sound as a superfluous or even slightly insulting statement but experience has shown that stakeholders who have been used to the public sector's way of doing things have had problems. The
Public sector must retain some influence if it is not to hand over all the power over PT to others. The Ørestad (Copenhagen) Best Practice Case Study (see SPUTNIC Deliverable D4) shows some good and bad points.

Public Private Partnerships (PPP) are mostly used for specific stand-alone projects for instance connecting a city centre with a new suburb. In such stand-alone schemes the number of passengers and revenues may be reasonably easy to calculate especially if the operator gets freedom to set the fares. PPPs can be quite difficult to apply in local transport when the new line/system is integrated with existing PT services and fare schemes thus making revenue calculations difficult.

Practical examples of PPP include a joint venture between the city of Görlitz/Germany and Veolia (all PT services are operated by a joint company), London Underground and PPP company, London Underground PPP on infrastructure maintenance and a new stretch of the metro line 9 in Madrid, including the building and operation of 18 km of metro and 4 stations based on a 30-year concession. The main advantages of PPP are increased efficiency, relief of public budgets, sharing of risks between public and private sector, entrepreneurial initiative and use of private management techniques. The disadvantage is that the public sector loses the influence over perhaps important infrastructure for many years or that contract conditions are unclear and open to disputes.

The Private Finance Initiative (PFI) is another mechanism through which the public sector can improve value for money in partnership with the private sector. PFI are widely used in Europe whenever public infrastructure has to be built. The main triggers for the introduction of PFI projects are the lack of public financing and belief that certain services can be delivered with a better value for money and with better innovation by the private sector. In most cases a special purpose company is founded in which the several partners of the consortium are united. The difference with PPP is that the level of involvement of the authorities. In general within a PPP the authorities are one of the fully responsible partners and bear the whole share of the financial and organisational risks. On the contrary within a PFI the risks are fully covered by the participants of the special purpose company, while the authorities are customer. There are several mix forms available that include the advantages of PPP and PFI.

Sources of further information
- SPUTNIC Project Documents, especially Report D4 (Best Practices and recommendations) and all material related to the third Working Group Meeting in Leipzig (see www.sputnicproject.eu)
- Public Transport International 06/2003, UITP
- VOYAGER Project

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Notes
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7 PPP in Madrid – Best Practice Case, Carlos Cristobal-Pinto, in: Public Transport International 06/2003
8 SPUTNIC D4 Best Practices and recommendations
9 A survey of PT in 6 cities of Central and Eastern Europe, REC, 2006
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