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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

**Working Party on Transport Trends and Economics**

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agenda item 5)

**FINANCING SCHEMES OF TRANSPORT INFRASTRUCTURE**

Note by the secretariat

At its seventeenth session (20-21 September 2004), the Working Party decided to continue discussing various approaches to financing of transport infrastructure with applying different financing techniques at its further sessions. In addition, the Working Party asked the secretariat to prepare, for its next session, a review of related work on Private-Public-Partnership (PPP) schemes for the financing of transport infrastructure carried out in the UNECE, as well as in other international organizations. This note was prepared to answer this request by the Working Party.

In addition, the Informal document 2005/No. 1 prepared for this session, should also be taken into consideration when discussing issues related to implementation of PPP schemes in the transport sector, as it provides a very good review of both theoretical aspects and practical experiences with PPP financing schemes.

## **Background**

The Working Party initiated discussion about the financing schemes of transport infrastructure at its sixteenth session in 2003. At that session, the experience with using different methods of financing of a number of member countries was presented and accumulated experiences shared among participants. In particular, Canada, Denmark, Finland, Germany, Netherlands, Poland, Slovakia, Slovenia, Sweden, Switzerland, Turkey and United Kingdom shared their experiences with other countries. This information is available in documents TRANS/WP.5/2003/7 and Add.1-5. At the same session, the secretariat presented a note which reviewed some recent trends in infrastructure financing in Europe, and briefly looked at investment funding sources, instruments and techniques. Moreover, three Informal documents were also distributed during the session dealing with financing schemes of transport infrastructure in general and trends in transport investment funding. Finally, the document highlighted the approach taken by the European Commission for financing of Trans European Networks.

Following the session of the Working Party, the revised secretariat's note, under the title "Financing of Transport Infrastructure", was submitted to the joint ECMT, UNECE, EC and EIB Seminar on "Transport Infrastructure Development for a Wider Europe" held on 27-28 November 2003 in Paris. Another valuable contribution presented at the Seminar was "*Public-Private Partnerships for Transport Infrastructure Projects*" by the European Investment Bank.

Noting the interest for the topic under consideration by member Governments and sensing the need to look further at particular aspects of financing of transport infrastructure, the Working Party decided to continue discussing various approaches and experiences gained with applying different financing techniques at its further sessions. In order to identify best practices for the involvement of the private sector in financing of transport infrastructure projects, at its seventeenth session in 2004, the Working Party considered the experiences with privately financed and successfully concluded transport infrastructure projects from several member countries. At this session, the Working Party discussed the issues mentioned above on the basis of experiences from Canada, Croatia, Germany, Lithuania, Poland and Romania. The seventeenth session of the Working Party decided to continue discussing various approaches to financing of transport infrastructure and, to that end, expressed particular interest to gain more insight into the work on Private-public partnership schemes for the financing of transport infrastructure carried out in the UNECE, as well as in other international organizations.

## **UNECE**

In order to find solutions to common financial constraints, UNECE member States had for some time given a high priority to new techniques for attracting private finance for infrastructure. To this end, the UNECE in 1996 established a BOT Expert Group as a result of a decision taken by member Governments to promote the concept of PPPs in infrastructure development in central and eastern Europe and the CIS countries. The work of the Group progressed steadily since its inception, and one of the Groups objectives was to prepare Guidelines on best practices on financing techniques including the development of Public-Private Partnership.

In December 2000, under the auspices of the UNECE Working Party on International Legal and Commercial Practice, the BOT Group presented its *Guidelines*<sup>1</sup> to an international Forum on “Public –Private Partnership for Infrastructure Development: The next Steps”. In two volumes, the Guidelines cover PPP policy and implementation and technical considerations. In the third volume - Case Studies, specific transport PPP projects (the Arlandabanaan light rail, shadow toll roads from the UK and the cross Israel highway) were used to highlight practical experiences with PPP projects. Another important document presented at the same meeting was “*Negotiation Platform for Public-Private Partnership in Infrastructure Projects*”.<sup>2</sup>

The Forum agreed to establish a Public-Private Partnership Alliance to assist Governments in the implementation of socially and environmentally sustainable PPPs. In 2002, the UNECE PPP Alliance was established in cooperation with the regional development banks, EBRD and EIB. The Alliance purpose was to promote the use of PPPs as the vehicle to build and maintain the vast infrastructure needs of the transition economies of Central and Eastern Europe and the CIS. The Public Private Partnership (PPP) Alliance was thus established to improve awareness, capacity and skills of the public sector in developing successful PPPs in the UNECE region.<sup>3</sup> The PPP Alliance’s programme envisaged the establishment of several expert sub-groups including one on transport. The programme stressed that PPPs in the transport sector are typically difficult to implement but that, at the same time, there were a growing number of successful transport projects being implemented in smaller European countries, which could provide useful learning for other countries, particularly for the transition economies.

The UNECE Public-Private Partnership Alliance held its first meeting in March 2002. Among other items, the meeting had on its agenda two items dealing with transport related projects. Two case studies were presented - one on the A 1 Motorway concession in Poland and the potential PPP project in Latvia. The second item dealt with ports and airports and, after presentations, panels continued to discuss wider issues involved in the introduction of PPPs in the area. Also for this meeting, the secretariat prepared a document “*A Review of Public-Private Partnership for Infrastructure Development in Europe*”.<sup>4</sup> The document describes the development of public private partnerships for infrastructure in Europe and the role in promoting PPPs of government PPP Units/Task Forces or similar bodies. The document also identifies the main ingredients for successful PPP Units and concludes by examining how the PPP Alliance can help in the establishment of PPP units.

The second meeting of the PPP Alliance was held jointly with the session of the Working Party on International Legal and Commercial Practice in November 2003. At this meeting, the PPP Alliance agreed that its priority was educating and informing the public sector, exchanging

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<sup>1</sup> Draft Guidelines for Private Public Partnership for Infrastructure Development, ECE/TRADE/NONE/2000/8.

<sup>2</sup> Given the lack of information about PPPs among civil servants, the UNECE has prepared a number of guidelines on best practices and on topics where Governments need specific support. One specific weakness is in the area of negotiating contracts on PPPs with the private sector. Thus, the PPP Alliance prepared a “Negotiating Platform” to help Governments in their negotiations to protect the public interest.

<sup>3</sup> Document TRADE/WP.5/2002/2 provides detailed information on the role of the PPP Alliance.

Document TRADE/WP.5/2002/6 provides detailed information on the PPP Alliance’s programme.

<sup>4</sup> TRADE/WP.5/2002/13.

best practice, and assisting Governments with establishing PPP Units and task forces. For this meeting, the UNECE secretariat produced “Draft Guidelines – Good Governance in Public Private Partnership in Infrastructure: Lessons learned from selected case studies”.<sup>5</sup> This discussion paper was based upon case studies in order to identify relevant issues related to governance in PPPs and to make some recommendations that could be further elaborated into a set of Guidelines on Good Governance for public private partnerships in infrastructure development.

The third PPP Alliance meeting was held in September 2004. The Task Force which was established by the PPP Alliance at its second session in 2003, together with the secretariat, prepared a “best practice” Guideline aimed at policy makers and representatives of the private sector and NGOs. It was designed to be of special use to these three constituencies in countries which are at a pre-PPP stage in their creation of an appropriate enabling environment for PPPs. “*Governance in Public Private Partnerships for Infrastructure Development*”<sup>6</sup> includes chapters on the relationship between PPPs and governance, key issues, benefits, key lessons, actions required, benchmarking success and case studies. The section on case studies presents four transport projects.

The above-mentioned volume of work on PPPs produced over the years in UNECE provides an important source of information and guidance for Governments applying or having the intention to apply private-public partnerships in the area of infrastructure and in the transport sector in particular. The UNECE work in this domain is particularly relevant as it aims at improving a legal and regulatory framework governing PPPs and the building capacity at both the local and national levels to develop PPP projects.

## **OECD - ECMT**

In 1999, the European Conference of Ministers of Transport (ECMT) organized a Seminar on Public-Private Partnerships (PPPs) in transport infrastructure financing in Paris. The objective of the Seminar was to review and exchange experience with PPPs and suggest policy and practical lessons from these experiences. It particularly examined the possibilities and constraints in the Central and Eastern European countries. The Seminar was organized around background papers from key actors, including Governments, private sector and private and international banks. A number of case studies were provided by participants.

At the Ministerial meeting in Warsaw in May 1999, the ECMT Council of Ministers supported the conclusions and recommendations on public-private partnerships in transport

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<sup>5</sup> TRADE/WP.5/2003/7.

<sup>6</sup> Another problem area is organizing open and competitive tenders for PPPs with many Governments accused of lacking transparency. The general public supports open and competitive tendering, because it appreciates that the legitimate winners from competitive tenders are more likely to provide it with a better service. The UNECE went further than simple recommendations and provided benchmarks for Governments, so that policy makers could check to determine the extent to which they had put in place the various institutions, procedures and practices for meeting good governance criteria. For example, the setting up of a national auditing office to evaluate whether PPPs had achieved their public interests objectives is one benchmark of good governance.

infrastructure financing reached at the above-mentioned Seminar. In addition, the Council agreed on a set of recommendations that should provide a framework in which to develop PPPs.<sup>7</sup>

More recently, the Working Group on Transport Infrastructure Investment of the Joint OECD/ECMT Transport Research Centre, held its first meeting in February 2005. This Group is launching a research project on transport infrastructure investment: Funding future infrastructure needs. Although not exclusively dealing with PPPs, the focus of the study/project is on the use of off-budget financing mechanisms employed for inland transport infrastructure development and maintenance, in both individual projects and overall networks.

The study will consider the three principal off-budget funding alternatives available: innovative public sector approaches; public-private financing; and full private funding. Comparisons will also be drawn with approaches in other transport modes (e.g. ports and airports) and types of infrastructure. The study will examine the circumstances under which countries are using these off-budget financing mechanisms for transport infrastructure and recent experiences to identify the key factors contributing to whether they can be considered successes or failures. It will further compare the costs, benefits, advantages and disadvantages of each model, taking into account the objectives, modes and technologies employed in specific projects. It will focus, in particular, on the best approaches to the overall design, tendering and contractual process, and regulatory frameworks that protect the public interest, as well as ways of reducing transaction costs. The study will be based on the experience of OECD/ECMT member countries, but it may also consider experiences of other countries. The study is expected to be completed by the end of 2006.<sup>8</sup>

This Working Group has also circulated a questionnaire aimed at collecting a variety of experiences in transport infrastructure funding. The questionnaire had three sections – infrastructure funding approaches with eight questions, governance issues/oversight arrangements with five questions and the outlook with only one question. The results obtained by the questionnaire showed that there are a number of diverse objectives for use of private funding as well as a number of challenges arising from private involvement in infrastructure funding. There were also a number of challenges and impediments cited in attracting private capital to transport infrastructure projects.<sup>9</sup>

Finally, a very thorough Report on successful examples of public-private partnerships and private sector involvement in transport infrastructure development was prepared for the Working Group. The Report was commissioned by the Joint OECD/CEMT Transport Research Centre to document and synthesize findings from case studies of successful public-private partnerships and private sector involvement in transportation infrastructure funding (i.e. public-

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<sup>7</sup> ECMT, Council of Ministers, Conclusions and Recommendations on Public-Private Partnerships in Transport Infrastructure Financing, CEMT/CM(99)20/FINAL.

<sup>8</sup> Further details about the project and the study could be found in the following documents: CEMT/OCDE/JTRC/TI1/M(2005)1 and CEMT/OCDE/JTRC/TI1/(2005)1.

<sup>9</sup> OECD/ECMT Joint Transport Research Committee, Working Group on Transport Infrastructure Investment: Funding Future Infrastructure Needs, A Synopsis of Countries' Responses, Discussion document for the meeting of 22-23 February 2005, Room Document 2.

private partnerships) in order to assist national officials to develop policies and project design and execution approaches most likely to lead to success for different types of projects.<sup>10</sup>

### **European Union (EU)**

In 2004, the European Commission presented a *Green Paper on Public-Private Partnership and Community Law on Public Contracts and Concessions*. This document discusses the phenomenon of PPPs from the perspective of Community legislation on public contracts and concessions. Community law does not lay down any special rules covering the phenomenon of PPPs. The aim of the Green Paper was to launch a debate on the application of Community law on public contracts and concessions to the PPP phenomenon. It was expected that this debate would concentrate on the rules that should be applied when taking a decision to entrust a mission or task to a third party. In fact, the aim was to show the extent to which Community rules apply to the phase of selection of the private partner and to the subsequent phase, with a view to identifying any uncertainties, and to analysing the extent to which the Community framework is suited to the imperatives and specific characteristics of PPPs.<sup>11</sup>

In 2005, the Commission presented a report based on 195 replies it received to the list of questions set out in the PPP Green Paper. Governments or individual ministries from 16 member States and many other public authorities, associations with private and/or public entities, enterprises and individuals provided their contributions. The Green Paper had 22 questions covering the following aspects: selection of the private partner; the contractual framework for PPPs; subcontracting; institutionalized PPPs; perceived barriers to the introduction of PPPs; and collective consideration. The executive summary and detailed replies are available from the Commission's staff Working Paper "*Report on the Public Consultation on the Green Paper on Public-Private Partnership and Community law on Public Contracts and Concessions*".<sup>12</sup>

A project funded by the European Commission under the Transport RTD Programme of the 4th Framework Programme - Private Operations and Financing of TEN's (PROFIT), carried out by several consultancy and research institutions, was completed in 2001 and the final study *Public Private Partnerships: introduction, handbook, recommendations and conclusions* was published the same year.

The research started with the premise that one of the most promising tools to minimize public costs of the Trans European Networks (TEN) is private financing, as recognized amongst others, by the High Level Group on Public Private Partnership Financing of Trans-European Transport Network Projects (European Commission, VII/321/97). Given that a major barrier to the realization of TEN projects is the gap between their socio-economic rentability and financial profitability, Public-Private-Partnerships (PPP) can offer an attractive option for successful and accelerated implementation of TEN projects. The private party can invest to the extent that the TEN project is attractive from a financial point of view. The public sector can contribute in order to secure socio-economic benefits.

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<sup>10</sup> Final Report, Successful Examples of Public-Private Partnerships and Private Sector Involvement in Transport Infrastructure Development, CEMT/OCDE/JTRC/TI1/WD(2005)14.

<sup>11</sup> Commission of the European Communities, Brussels, 30.4.2004, COM(2004) 327 final.

<sup>12</sup> Commission of the European Communities, Brussels, 3 May 2005, SEC(2005) 629.

The central purpose of the PROFIT project was to assist the decision-making process in the above context by providing structured information and guidelines concerning the process of application of PPPs to finance and operate TEN projects. The primary target audiences of the PROFIT project were government officials in member States, for example officials in transport ministries and their advisors, who have relatively limited experience with PPPs. As project promoters, national government authorities are the entity responsible for setting up TEN schemes as PPPs.

Part I gives a short introduction to the theory of PPPs and the PPP potential of TEN projects. It offers a general understanding of what factors are important to the success of PPPs.

Part II starts with the presentation of the PPP methodology developed in this study: an integrated socio-economic, financial and risk analysis framework to set up a (TEN) project as a PPP. This methodology is then developed into a practical handbook. The Handbook part can be used as a form of checklist to assess whether participants seeking to negotiate a PPP are going about the process in an effective manner. Its aim is to offer a quick-scan guide to the PPP process as a whole. This is done by breaking down the PPP process to subsequent steps by identifying activities that should be undertaken. References are made to the Annex part where the different steps/topics are further elaborated in detail. The handbook is valid for all types of PPPs in TEN-projects. Obviously, each project will have its own characteristics and each PPP process will be potentially different. It must, therefore, be stressed that the handbook is not aiming to suggest how to produce a perfect PPP. Finally, this section can be used by private investors to understand the attitudes and handle the procedures of the public sector in terms of PPP schemes. The PROFIT manual thus provides first guidance in the overall process of PPP formulation and implementation.

Part III is the Annex. The goal of the Annex is to offer the reader additional/ background information on the different steps in the PPP process as mentioned in part II. The different chapters can also be read separately by interested parties who want to know more on PPP and appraisal methods. Part IV presents the conclusions and recommendations.

## **The World Bank**

The World Bank's Infrastructure Action Plan adopted in 2003 established a series of measures to revitalize the Bank's infrastructure activities and requires the Bank to provide a broad range of options for private and public sector infrastructure service provision.

In order to further promote renewed interest for infrastructure financing, the Bank organized its 2005 Transport Forum under the heading - "Public and Private Sector Role in the Supply of Transport Infrastructure and Services". The Forum had a plenary and four sessions dealing with the evolving roles of the public and private sectors in transport, government roles in the transport sector, evaluating the social impacts of transport and matching project structure with Bank instruments. Each session had a number of relevant presentations and discussion papers. One of the important contributions was a document "*Public and Private Sector Roles in the Supply of Transport Infrastructure and Services*"<sup>13</sup> which provides a framework for Bank

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<sup>13</sup> Public and Private Sector Roles in the Supply of Transport Infrastructure and Services, Operational Guidance for World Bank Staff, Paul Amos, The World Bank Group, Transport Papers, TP-1, May 2004.

Group staff for identifying and assessing the different models for public and private roles in the transport sector; highlights policy and regulatory issues which are important in judging the suitability of different models; and summarizes the range of instruments available to the Bank Group to support particular models.

Also in 2005, a Seminar “Public Private Partnership (PPP) Options in the Transport Sector in Russia” was held in Moscow, to discuss the role of the public and private sector in transport infrastructure in the Russian Federation. The presentations provided a general analysis of Public Private Partnership (PPP) options, with in-depth focus on highways, ports, railways and air transport. The agenda and presentations made at the Seminar are available from the World Bank Internet site.

The goal of the World Bank Institute's *Public-Private Partnership in Infrastructure (PPPI)* program is to support developing countries' efforts to establish a sound regulatory and business environment conducive to the development of public-private partnerships for the provision of affordable and sustainable infrastructure services. The program aims at: providing knowledge and expertise on options and mechanisms for securing public-private partnerships in the provision of infrastructure services; exposing policy makers in developing countries to the principles and foundations of effective regulation; educating regulators and competition authorities on modern economic and financial regulation tools; and providing a better understanding of the constraints on and the interests of main contracting parties in an infrastructure project transaction. The PPPI program covers the following topics: infrastructure reforms and private sector participation: market structure, PPP contract design, basics of regulation; regulatory instruments: economic and financial models, regulatory accounting, asset valuation, cost of capital, efficiency measurement; and institutional aspects: setting up of regulatory agencies, regulatory processes.

The *Public-Private Infrastructure Advisory Facility (PPIAF)* is a multi-donor technical assistance facility aimed at helping developing countries improve the quality of their infrastructure through private sector involvement. Launched in July 1999, PPIAF was developed at the joint initiative of the Governments of Japan and the United Kingdom, working closely with the World Bank. PPIAF pursues its mission through channelling technical assistance to governments in developing countries on strategies and measures to tap the full potential of private involvement in infrastructure and identifying, disseminating, and promoting best practices on matters related to private involvement in infrastructure in developing countries.

PPIAF funds a range of activities in eligible sectors and across all developing regions. At the end of December 2004, the PPIAF portfolio covered 368 activities in more than 94 countries, for a total value of US\$84.1 million. PPIAF funds a variety of transport-related activities ranging from the design of training material for policy makers who are introducing private participation into the investment and operations of their ports and highways to strategies for reforming airports, railways and seaports. Agencies seeking to develop regulatory capacity in transport have also received support from PPIAF as have Governments looking for assistance in the design of innovative transactions for their transportation assets. From the time of PPIAF's inception through fiscal year 2003, transport activities have represented 15% of PPIAF's portfolio in value terms (although many multi-sectoral projects include transportation-related components). To date, the sub-sectoral breakdown of PPIAF transport activities is as follows:

roads and urban transport (4%), railways (3%), ports (2%), airports (2%), and multimodal activities (4%).

### **Stability Pact**

Within the Stability Pact's Working Table II, the Office of the Special Co-ordinator organized in 2004 a meeting to launch an informal task force on Public Private Partnerships (PPPs) in South East Europe (SEE). The objective of the task force is to promote PPP projects in SEE through the implementation of pilot projects. It will work in close cooperation with the SEE Balkan Infrastructure Development (BID) Facility, funded by the IFC, the United States and a number of European bilateral donors, which will soon become operational in Sofia. The task force will seek to promote pilot projects in different infrastructure sectors and in different SEE countries. Task force members are drawn from IFIs and the business community, particularly members of the Business Advisory Council for SEE (BAC) and work is under way to develop a shortlist of potential projects.

### **United States General Accounting Office**

The General Accounting Office of the United States was asked to examine cases where state and local governments have used active private sector sponsorship and investment on major highway and transit projects where the private sector was the primary stakeholder in designing, financing, constructing, operating, and maintaining such projects. Among its objectives, GAO (1) identified the extent to which States have used active private sponsorship and investment to finance and build highway and transit projects; (2) identified some advantages, from the perspective of state and local governments, resulting from private sponsorship and investment and some tradeoffs; (3) determined challenges that the private sector faced in these projects; and (4) presented legislative proposals that could help increase private sponsorship and investment in highway and transit projects.

The GAO's report "*Private Sector Sponsorship of and Investment in Major Projects Has Been Limited*"<sup>14</sup> found that active private sector sponsorship and investment has been used to a limited extent in the United States to fund, construct, and operate major highway and transit projects; as a consequence, the nation's experience with active private sector sponsorship and investment has been limited. Only six such major projects have been completed or started in the last 15 years - five toll road projects and one transit project. To accomplish these projects, states enacted or used existing legislation to authorize private sector participation and awarded a franchise to a private consortium to build the project and to own and operate it for a limited time. Three of these consortia were private, for-profit companies that invested equity and issued commercial debt to finance the project; the other three were non-profit corporations formed by the public and private sectors, that issued tax exempt bonds to fund the projects. The franchise agreements that States had with each of the consortia ranged in length from 30 to 50 years and included, in four of the five toll road projects, non-compete clauses whereby, for a specified period, the States agreed not to build new roads or improve existing roads that would compete with the toll road.

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<sup>14</sup> The complete report is available from the GAO Internet site:  
<http://www.gao.gov/new.items/d04419.pdf>