

New financial schemes for European transport infrastructure projects

Interim Report

Authors

Former European Commission Vice-president H. Christophersen

Professor K. Bodewig, European Coordinator

Professor C. Secchi, European Coordinator

This report includes considerations and proposals for future reflection and potential development in line with the opinion of the Authors and does not constitute an official position of the European Commission.

The projects identified in this interim report have been chosen by the Authors for illustrative purposes and their inclusion in the report does not entitle them to preferred access to national or European resources. They have not been subject to any specific assessment by the Commission, the EIB or the Member States and hence do not imply their support. The inclusion of these illustrative projects does not prevent them from accessing other EU or national sources than the financial instruments that may be developed in the framework of the Connecting Europe Facility and the Investment Package proposed by the Commission.

I. Introduction

This Report is a contribution to the Debate surrounding the context of the 'Jobs, Growth and Investment Package' proposed by President Juncker and follows the informal Transport Council of 16 and 17 September 2014 in Milano, where *"Former Vice President Christophersen and Coordinators Bodewig and Secchi have been asked [by the Italian Presidency of the Council] to prepare a Report, in consultation with the EIB, identifying projects along corridors particularly suited for such new financial schemes in the context of the 'Jobs, Growth and Investment Package' proposed by President Juncker. Ministers will review this Report at their meeting on the third of December"*.

This Report as presented to the Transport Ministers' Council of 3rd December 2014 should be seen as a preliminary contribution to a wider work to be presented in the course of 2015, accompanying the implementation of the CEF Financial Instruments and other measures that may be taken in the context of the 'Jobs, Growth and Investment Package' to be proposed by the Commission under the Presidency of Mr Juncker.

As requested by the Council Presidency, the focus of the report is twofold: first, it focuses on the identification of projects along corridors particularly suited for the CEF financial instruments and new financial instruments that will be developed by the Commission. Secondly, given that the Authors wanted to put this identification of projects in a wider analysis of the context as regards the use of those instruments, this Report also focuses on including proposals for measures to improve the framework for investing in transport infrastructure, notably with the view to favouring accelerated implementation of projects that are lagging behind, are developed slowly or are even blocked.

In light of this, the report builds upon Mr Christophersen's presentation to the Ministers and upon the lines of actions recommended by Prof. Bodewig and Prof. Secchi in their previous Report,¹ which was broadly supported by the Ministers. This part of the Report will also include a proposal for strategy to establish a solid relationship with potential investors interested in the financing of long term transport infrastructure projects of European interest, in line with the policy priorities of the European Union as defined in the Regulations for the development of the Trans-European Transport Network and the Connecting Europe Facility. The proposed strategy, if accepted by the Ministers and the European Commission, will be pursued by the Authors as a follow-up to this Report and will be presented to the future Transport Council meetings.

The Final Report could also be transmitted to the ECOFIN and European Council, as some topics to be addressed by the Authors will go beyond transport specific issues and may need to be discussed in a wider context.

¹ Attracting investments towards transport infrastructure, potential lines for action, Prof. K. Bodewig and Prof. C. Secchi, paper presented at the Informal Transport Council of 16 and 17 September in Milano

II. Context for transport infrastructure investments

Section 2.01 Overview of investment needs

Transport facilitates trade and connects people and businesses. Good transport connections are vital for Europe's growth and competitiveness. To make the EU internal market work, cross border connections remain insufficient, in particular in the rail sector. Sound transport investments both sustain aggregate demand in the short run and secure solid investment returns in the long run. Apart from physical infrastructure, investments are needed to transform the transport system towards low carbon technologies and to deploy intelligent transport system to make better use of existing infrastructure. Extensive innovation in propulsion, navigation and alternative fuels are also therefore needed. Investing in Europe in these innovative sectors will also contribute to the improvement of the global industrial competitiveness of the EU by ameliorating investment opportunities in sectors in which Europe and business leaders operate (in innovative construction, energy providers, clean and intelligent vehicles, logistical services, engineering consultants and alike). For instance, traffic management systems developed in Europe, such as SESAR and ERTMS, can be exported outside Europe, reinforcing the competitiveness of European users and manufacturers of those systems.

Long run transport investment levels (new investments) in developed EU economies have traditionally accounted for approximately 1% of GDP whilst new Member States (MS) have been spending more as a percentage of GDP in order to catch up and complete their basic networks. However, the recent trend - exacerbated by the financial crisis - is that this level of investment has decreased. The EU-27 average in 2011 was 0.7% of GDP². The short term impact of such underinvestment may appear easily managed but in the long term it creates a backlog of maintenance, rehabilitation and new investments which will create further bottlenecks for trade and growth in Europe.

The infrastructure gap between old and new Member States has been reduced, but differences remain. In some old Member States, the quality of infrastructure has deteriorated due to insufficient maintenance spending and ageing networks, while in most new Member States basic network still needs to be completed in addition to making sure that maintenance of the existing and future infrastructure is adequately financed.

Therefore, the investment needs in the European transport system are huge. A study made in the context of the 2011 White Paper calculated that in order for the European transport infrastructures to be able to cope with the expected increase of demand, investments of €1.5 trillion were necessary for the period 2010 – 2030.

The Commission and the MS estimated that the development of the TEN-T network for the period of 2014 – 2020 would necessitate about €500bn of investments, out of which €250bn for the investments concerning the main bottlenecks, the missing cross-border sections on the rail

² International Transport Forum database (OECD)

and inland waterway networks of the core networks and its Corridors, as well as for the deployment of the horizontal priorities such as SESAR and ERTMS.

The Commission is currently collecting information of the investment needs identified by the Member States, the regions and infrastructure managers to ensure the completion of the Corridors in line with the requirements of EU legislation. At this stage, the investment needs identified for the period 2014 – 2030 amounts to more than €600bn, and input from many stakeholders is still missing.

In addition, in a number of countries with mature transport networks, there is an issue with the renewal of ageing infrastructure where mature assets are coming to an end of their useful working lives. Such projects generally offer strong economic returns, however historically rehabilitation has often been deprioritised in favour of more urgent investments as the impact of not renewing assets is only felt over time. Such investments also make sense from an environmental sustainability perspective as long as the project does not increase capacity and there are no better alternatives. The disadvantages caused by crumbling infrastructure eventually become significant both socially and environmentally. Rehabilitation needs of existing networks are estimated at some EUR 20 billion per year.

Section 2.02 Benefits of investing in infrastructure

In September 2014, the IMF has published a new study (published in the October 2014 World Economic Outlook report), examining the macroeconomic effects of public investment in a large number of countries, including also the EU.

The IMF study confirms again that stock of public capital, a proxy for infrastructure, has declined significantly as a share of output over the past three decades. The study suggests that in countries with existing and rising infrastructure needs, now is a good time for an infrastructure investment push. It also recalls that, in the case of advanced economies stuck in a low growth and high unemployment environment, increased public infrastructure investment is one of the few remaining policy levers to support growth.

One of the most striking findings³ of the study is that, according to the evidence gathered in a sample of advanced economies, "an increase of 1 percentage point of GDP in investment spending raises the level of output by about 0.4 percent in the same year and by 1.5 percent four years after the increase".

In addition, "the boost to GDP a country gets from increasing public infrastructure investment offsets the rise in debt, so that the public debt-to-GDP ratio does not rise". In other words, by spending more today on infrastructures, Member States can actually improve the state of public

³ In that regard, see also McKinsey (2013), *Infrastructure productivity: How to save \$1 trillion a year*. McKinsey Global Institute, January 2013.

finances, both by means of additional income resulting from multiplicative effects across a large number of economic sectors⁴ and by means of savings on future repairs and maintenance costs.

In exchange, the risk of continued structural underinvestment is to worsen public finances balances (more levels of debt and public expenditure) in the medium and long terms. The IMF study makes it clear that the potential gains from infrastructure investment are shaped by a number of factors:

- The degree of economic slack. The short-term boost to output is substantially larger when public investment is undertaken during periods of economic slack and monetary policy accommodation, with the latter limiting the increase in interest rates in response to the rise in investment.
- The efficiency of public investment. The output effects are also bigger in countries with a high degree of public investment efficiency, where additional public investment spending is not wasted and is allocated to projects with high rates of return.
- How it is financed. Evidence from advanced economies suggests that public investment financed by issuing debt has larger output effects than when it is financed by raising taxes or cutting other spending.

The IMF concludes that today, "for economies with clearly identified infrastructure needs and efficient public investment processes and where there is economic slack, there is a strong case for stepping up public investment". Many advanced economies are stuck in low growth and high unemployment environment, and borrowing costs are low. Increased public infrastructure investment is one of the few remaining policy levers to support growth.

Section 2.03 The scarcity of public resources requires their optimal allocation and additionality of their use

Public resources allocated for grants are scarce: they stem from EU funding sources (CEF and Cohesion Policy, almost exclusively), national public resources of Member States central budget and local authorities – be it upfront funding available or funding anticipated through credit mechanisms from national development banks or other mechanism (rotating funds, etc.). As shown above, public investments in infrastructure have dramatically decreased in the context of the financial crisis. Even if public investments in infrastructure increase again, the level of public investment available will not match the needs identified and their use should be maximised.

⁴ Upstream and downstream markets related to the provision of infrastructure equipment and to the provision of services based on the use of that equipment.

In order to ensure a credible critical mass of funding, the following features of public resources are required:

- 1) **Additionality.** Different sources of funding have to be added or merged together in order to complement rather than substitute each other;
- 2) **Timely availability.** Public resources have to be made available when they are needed to projects that are ready to absorb them and without which the projects would not happen.

Sound EU budget management calls for ensuring that EU resources are additional to those of the Member States, providing mutual leverage and concentration, thus speeding-up the key projects and reducing their actual time-to-market, in order to deliver the expected positive results for the economy.

Additionality is enshrined at macroeconomic level in the Cohesion Policy and it is one of its funding principles (Common Provision Regulation – Reg. (EU) No 1303/2013 – art 95⁵). For the sake of the effectiveness of the stimulus package described in this paper, ideally, additionality ought to be verified at Sectoral level preferably within the scope of the concerned EU Regulations, primarily Cohesion Fund Regulation and the CEF Regulation – therefore ensuring a total national envelope devoted to TEN-T Core Network.

With regard to the planning process of the projects, different cases are possible:

- 1) **Ex ante complementarity** of national and EU resources, which are included in a comprehensive plan or project.
- 2) **On-going complementarity:** the project is missing some resources and its financing is defined thanks to EU Committed funds needed to start up / proceed with the implementation phase.

If however the project is already endowed with all the necessary (national) resources and ready to start / has already started, the complementarity and additionality of EU resources has to be ensured reallocating the national resources freed from the EU contribution to other national projects within the Core Network. Besides the complementarity issue, it is crucial to ensure that available money is allocated according to the right projects at the right time – i.e.: according to actual projects' needs over time, also through anticipation of cash flows through credit mechanisms. The latter are widely used in the case of national co-financing of the Cohesion Policy.

It is therefore desirable, on the one hand, to have certainties of national resources allocated to core projects, and, on the other hand, to match in an optimal way the allocation of cash-flow (expenditure) and development needs of the projects, so that resources are made available over time according to the needs of each project (e.g.: through a rotating fund mechanism). It is equally important to avoid allocating resources in a rigid way to projects that do not progress properly (preference to “fund-like” mechanisms to be further explored).

⁵ Art 95.3 states that: « Member States shall maintain for the period 2014-2020 a level of public or equivalent structural expenditure on average per year at least equal to the reference level set in the Partnership Agreement.”.

Section 2.04 Why use private finance for transport infrastructure financing?

The provision of transport infrastructure has typically been the responsibility of the public sector and this trend continues today. However, there have been significant private sector investments associated with transport infrastructure that generates revenues from users: toll roads, ports and airports. In a fiscally constrained environment, encouraging private participation in transport investment has to become an important part of the solution to accelerate investment.

The use of private finance is a matter of national policy for each country, but some Member States have already adopted concession financing, public private partnership models or have provided stable regulatory environments to encourage private sector investments.

Private financing shall not be seen as a privatisation exercise. It favours a procurement model that allows optimal risks allocation and sets incentives for the project's costs and revenues to be optimised during its implementation stage as much as its operational phase. It is notably useful for dealing with different technical options.

Section 2.05 Private investors have funds to invest

The level of liquidity available on the capital markets is estimated to be very high. The OECD (2014) reports institutional assets of \$75 trillion at the end of 2010, including pension funds (\$20.4 trillion), insurance companies (\$24.3 trillion) and investment companies (\$28.8 trillion). As pointed out in the Chatham House Report "Building Growth in Europe, Innovative Financing for Infrastructure"⁶, pension funds and insurers are major investors in a large number of developed economies, with assets representing over 60% of GDP in countries such as Canada, the Netherlands, the United Kingdom and the United States. In Europe, insurance and pension companies alone hold around €12 trillion of assets, equivalent to over 90% of EU GDP. Institutional investors are a reliable source of long-term capital, as they need to match their liabilities with long-maturity assets. This makes institutional investors particularly suitable to undertake counter-cyclical, long-term investments in sectors of the real economy characterized by high productivity and therefore able to generate stable streams of revenues.

Moreover, even if their level of investment in infrastructure is still limited, a growing interest in infrastructure debt is appearing. Such debt is usually long-dated and provides more attractive yield than other fixed-income products such as government or corporate bonds. This then allows the institutional investors to match their long-dated liabilities such as pensions and insurance pay-outs. This interest is reinforced by the current relatively low yield for government bond in high rated countries.

Therefore a high potential can be unleashed by favourable international, European and national regulatory environments (both in terms of procedures and of boundary conditions / asset rating – e.g.: Solvency 2 – for insurance companies/institutional investors, and Basel 3 for the banking system).

⁶ Paola Subacchi, Stephen Pickford, Davide Tentori and Helena Huang, September 2014

III. Measures to create a better environment for investments

The potential of using public and private funds to develop transport infrastructure project exists, as shown above, and the investment needs are huge. However, besides the lack of available funds, bottlenecks are preventing the development and implementation of projects; in other cases, those factors do not prevent projects from happening but considerably slow down their implementation.

Section 3.01 The creation of a visible project pipeline

In countries where administrations know that fewer projects will be funded and there is pressure to reduce expenditure, project preparation is being scaled back. Consequently there are fewer “on the shelf” projects awaiting funding. This, combined with the long lead times for preparing complicated infrastructure projects due to public approval procedures, means that accelerating major new transport investments is complex. In turn, this necessarily creates a lack of long term visibility in the project pipeline preventing public and private investors from planning their investments.

Investors need visibility in order to adapt their investment needs, and the objective of this Report is to provide evidence that there is a strong pipeline of projects to be invested in. On the other hand, project promoters, notably the administrations, need confidence that there will be financing available for their projects. Therefore, a project pipeline and clarity on the potential sources of funding have to go in parallel. This interim Report has to be seen as a first step in the direction.

The work on the identification of projects will be conducted together with the Member States, the relevant authorities, the European Investment Bank and other Development Banks, and should lead to the creation of a list of projects, to be regularly updated, which would provide visibility to investors.

Section 3.02 Necessary support to project promoters & administrations in using private finance

Both public and private sector promoters in the transport sector can require support, however their needs are different. Public sector promoters at the national / local levels of some Member States are confronted with a lack of capacity to structure and deliver infrastructure projects. In many countries where this procurement model is not commonly practiced, the availability of the PPP programmes are limited due to the lack of the specialist skills required.

Some Member States are also reluctant to use private finance to contribute to the financing of their investment programmes, either because they prefer focusing on the absorption of EU grants even the project could be implemented without grants, or because they encountered difficult experiences with badly structured PPPs that in turn, created unfavourable environment for private investments

In order to have a real step change in the way transport infrastructure is financed in Europe, **strong dedicated technical assistance should be developed**, for instance through the deployment of teams possibly supported with EU funds, to support the implementation of the EU financial instruments aiming at attracting private investors to infrastructure financing.

This technical assistance should be first made available at the level of the administrations. PPPs and project finance models need to be better understood by the administrations and project promoters

alike. PPPs should be partnerships, not "privately funded government projects": in other words, the reasons for using the PPPs should not primarily stem from budgetary constraints, but efficiency gain based on performance indicators, also thanks to more efficient procurement mechanisms. Risk sharing techniques allowing private sector financiers to accept project risks and weaker counterparts than they might currently be inclined to accept should be explored. Public authorities should be adequately equipped to assess those risks to find the right risk-sharing arrangements to avoid placing the burden of too much risk on the tax-payers.

Technical assistance to administrations should also consist in a dedicated support to the development of the project pipeline: dedicated teams should go to the Member States to help them identify projects that could use project finance and advise them in adapting their procurement procedures/legal framework to encourage them to do so. It requires thorough knowledge of the local markets. This dedicated technical assistance should come in addition to the more classic technical assistance done for instance by JASPERS for classic project preparation where needed (cost-benefit analysis, environmental issues, and feasibility studies).

The technical assistance of this kind should also be made available at the level of projects in a multitude of ways. Dedicated financial engineering team should be able to provide support to individual operations by proposing financing structures customised to the needs of the projects, by advising project promoters on the use of financial instruments as an alternative to grants (full or partial), by providing options with different risk/cost/complexity scenarios for financing structures and by advising project promoters on options for sourcing additional co-lenders to complement EIB's products.

Section 3.03 Barriers to be resolved to facilitate investments in transport

A number of regulatory barriers are creating difficulties for transport projects to materialise and to receive the necessary long term investments. These barriers are even more problematic for private investors, who have difficulties in assessing the risks linked to those barriers.

The barriers identified below call for further consultation and discussion with investors and relevant authorities, in particular at the level of the different services of the European Commission. If the Council endorses the fact that the points identified below are creating barriers to investments, the Authors of this report will organise appropriate consultation in order to propose possible solutions to resolve these issues.

(a) Streamlining of permitting procedures

Transport infrastructure projects, notably when they are cross-border, call for clear, simplified and harmonised rules in order to appraise projects and issue permits (including Environmental Impact assessment, Nature 2000 impact, expropriation procedures...). A simplification and acceleration of permitting procedures, for instance through one-stop-shop systems, with a streamlining of the different national or local rules, would facilitate the implementation of the projects and reduce the long lead time between the concept and the implementation.

(b) Adaptation of procurement procedures & administrative capacity

In many Member States, procurement procedures are not adapted to the use of private/project finance to finance infrastructure projects. Guidelines and standard procurement procedures should be promoted.

Procurement procedures are often ill-adapted because of the lack of understanding of the requirements for private financing and the mechanisms of risks transfers by the administrations.

(c) Clarification of EU state-aid rules

Generally speaking, infrastructure has been increasingly subject to state aid court inquiries and decisions, with a risk to hamper or delay investments, especially those of the private sector. In this context there has been a consistent and growing demand from Member States and stakeholders for improved consistency and clarification of the rules applying to infrastructure projects' development and financing. This calls notably for an ex ante screening / validation before entering the tendering / contracting phase. In this way, the project promoters could be warned at an early stage about the possible need to (pre)notify their projects to the Commission under the state aid rules.

A key appraisal scheme which is favourable for large projects having an impact at EU level is the "Important projects of Common European Interest (IPCEI)" rule for large projects of EU interest, because of size and cross-border effects. It is important to highlight that a project can result as a series of actions (and therefore could apply to Corridors). The rule can apply to 'integrated project', that is, a group of single projects inserted in a common structure, roadmap or programme.

Whichever way is adopted for the treatment of each specific project, an ex-ante screening is called for to keep the inherent regulatory risk acceptably low, notably if the involvement of private capitals is sought for.

(d) Statistical treatment of PPPs

The on/off balance-sheet treatment of a privately-developed project is key information for decision-makers when assessing compliance with the Stability and Growth Pact. The Commission should look at the potential scope to review the guidance and standard clause on the current EUROSTAT rules and risk transfer mechanism, in order not to penalise concessions and PPPs for project implementation. This should be done in the context of the rules of the Stability and Growth Pact, while fully exploiting the existing flexibility of the Pact.

The ESA2010 rule include the criteria used to assess if a PPP has to be included or not in State Expenditure – it is therefore highly desirable to provide formal clarification on the conditions a PPP must fulfil to be kept off-balance sheet and highlight the potential role for EU Guarantees within this framework (i.e.: guarantees triggered / brokered by the EU support). It is as important , even when transport infrastructure projects are privately financed, that the public authorities are providing guarantees or reimbursing the long term debt contracted for those projects.

In general terms, the role of public guarantees is pivotal to enhance leverage – therefore, two elements have to be explored:

- 1) off-balance-sheet treatment of national guarantees (including from national development banks)

2) role of EU guarantees (including from EIB / other financial facilities).

(e) Provide the right incentive to private investors for long term investments

The framework of financial regulations (Basel III, Solvency II, etc.) is being perceived by some Member States and long term investors as a barrier for the supply of private long-term finance. Financial regulation should seek to mobilise current high levels of liquidity and put it to productive use (investment with long term economic growth impact, e.g. infrastructure). The right incentives should be provided to institutional investors (Solvency 2) or the banking sector (Basel 3) to include among the assets long-term infrastructure projects.

Section 3.04 Facilitate earmarking of transport revenues for transport infrastructure projects

Transport infrastructure often produces revenues and societal benefits which are not monetised. If and when they are monetised, they are not earmarked to finance the maintenance or the development of new necessary infrastructure. The de-coupling between State budget and infrastructure financing seems to be of paramount importance for the remedy of the traditional incoherence between political priorities (by nature short/mid-term) and transport investment needs (long-term).

"Polluter-pays" and "user-pays" principles should for instance be more widely applied to reduce the burden of tax-payer for the construction and maintenance of transport infrastructure. In addition, the external benefits of sustainable infrastructure should be further identified and potentially rewarded, for instance by facilitating cross-financing schemes between the different modes of transport (e.g. using revenues of road tolls to finance railways in sensitive environmental areas). It would be a way of eliminating distortion induced by asymmetric and inefficient taxations across transport modes, so as to promote more energy-efficient modes and their development.

An enlarged role for Emission Trading Scheme (ETS) ought to be considered in the on-going revision of the ETS mechanism in order to generate income for a sustainable mobility project. Currently, we see a rather opposite distortion – e.g.: railways pay carbon taxation on top of the whole (production plus taxation) cost of energy, including when they divert demand from more a polluting transport mode, thereby reducing carbon emissions. On the other hand, aviation fuel is still tax-free, and road transport is often subsidised in periods of crisis. The overall effect of this situation is such that it creates a negative distortion heading transport away from the Common Transport Policy and leading to a suboptimal use of infrastructure, increasing the energy dependency and the external debt of the Union.

Another way of facilitating the earmarking of transport revenues for transport projects is to have a life cycle approach⁷. It allows including as part of the costs of the project not only its construction, but also its maintenance and operation. Concession-type deals have genuine advantages if applied correctly to projects with significant demand, in particular: it can generate alternate sources of

⁷ See notably Bodewig, K. et al. (2013), Strategy for the Future of Sustainable Transport Infrastructure, Final report of Commission "Sustainable Transport Infrastructure Financing", October 2013

finance for the Government, it can reduce Government expenditure and risk, it can provide a natural earmarking of revenues to improve infrastructure and last but not least if the cost of service is well reflected in the tariff, it can balance the transport system by conditioning the users' behaviour.

Beyond concessions, the integrated approach of the process life-cycle is part of the *raison d'être* of PPPs, which include in their approach the complete life of the project to be built or upgraded: Design & Build and Operate & Maintain stages. The financing a project is applied to all other four stages and the revenues allows covering, at least partly, all stages.

In Germany, the experience with the expansion and upgrade of motorway sections under the PPP A-Model shows that it is at least as cost-efficient as the conventional method of construction. The procurement of German federal roads by using life cycle approach proved efficient, with a strong competition and adequate pricing guaranteed by an efficient risk allocation. All projects have had a reduced construction time in combination with high levels of quality in construction and operation. Overall, this model managed to combine a positive effect on economic growth by allowing an early implementation of projects while reducing the impact of the annual public budget.

IV. List of sectors and projects pre-identified to make potential use of financial instruments

The analysis below is focused on projects that could attract private financing by way of financial instruments, in order to be able to make the best use of the €300bn package to be presented by the Commission in case the package is focused on leveraging EU funds by increasing the use of financial instruments. The Connecting Europe Facility could indeed make a significant contribution to the €300bn investment package by making more use of innovative financial instruments.

The volume of the pre-identified transport projects having a potential to attract private financing via financial instruments amounts to €140bn (including classic infrastructure projects and "soft" infrastructure projects related to the implementation of intelligent transport systems or clean fuels). These projects only consist of projects located on the 9 Trans-European Corridors, but it must be born in mind that the Trans-European Transport Network is much wider than these corridors and that all projects located on the TEN-T are eligible to CEF financial instruments.

Section 4.01 General remarks on the project pipeline for innovative financial instruments

Theoretically, all transport infrastructure projects could use innovative financial instruments, since they mostly consist in securing the provision of long-term debt at reasonable costs by providing guarantees to attract long-term investors on infrastructure projects. Therefore, any project for which public authorities are ready to commit to reimburse long-term debt could benefit from financial instruments. It can be a way for authorities to spread the financing of a project over the long-term, in order to reduce the immediate impact on the budget.

However, the use of financial instruments has a cost (the price of the guarantee), and should be used for projects for which it makes sense to attract private investors, i.e. projects that have financial profitability over the long-term (even if the profitability is low or concerns only a part of

a project), clearly identified revenue streams and for which the risks can be shared between the public and the private sectors. The ideal case is when the use of the infrastructure by the user can cover the cost of construction and the cost for maintenance, but combination of user revenues and reimbursement by public authorities is quite common. However, the level of existing national debts and the rules of the Stability and Growth Pact prevent member states and local authorities from engaging in high level of new long term debt.

Such projects should not benefit from grant funding, or only as a partial source of funding. However, it is often the case that such projects receive public funding, for instance through Cohesion funds, other EU funds or national budget, while the use of the public budget would be more efficient in providing guarantees allowing private financing.

Some transport sectors are suited to the use of private finance: construction or refinancing of motorways with dense traffic, projects increasing capacity in ports and airports, dedicated rail connections between important airports and urban centres, deployment of efficient traffic management systems, in particular on-board vehicles (for instance for SESAR and ERTMS), deployment of infrastructure for clean transport (electricity along major axis or in urban areas, LNG in ports and in boats).

Financial instruments can be used for both the deployment of classic infrastructure projects (motorways, railways, ports...) or for "soft" transport infrastructure, including the deployment of intelligent transport systems or clean fuels in transport. Estimates of investment needs are provided for soft transport infrastructure, on the basis of recent information collected in the sectors. Findings and recommendations in the final report could similarly apply to investments in the energy sector.

For classic infrastructure projects, the figures given are based on the on-going analysis of the projects identified for inclusion in the future Corridor work plans, on the basis of information on concrete projects provided by authorities and project promoters.

For these two categories of transport infrastructure projects, the estimate volume of investment that could benefit from innovative financial instrument to attract private financing is at €140 billion.

In addition, urban transport is also a sector in which investment needs are huge, since most journeys begin and end in cities and most of the traffic is happening in urban and industrial nodes. In many urban areas, increasing demand for urban mobility has created a situation that is not sustainable: severe congestion, poor air quality, noise emissions and high levels of CO2 emissions. Urban congestion jeopardises EU goals for a competitive and resource-efficient transport system. CEF financial instruments could support the deployment of sustainable urban mobility plans. The EIB and national development banks are of the opinion that the number of projects in this field is potentially very high, with projects which represent relatively small amounts (average of €50 to €100m). These projects could attract private financing if regrouped with a portfolio approach. The level of investments needs is difficult to estimate at this stage and should be collected from national and local authorities. For instance, in France, the "Ecotaxe" was supposed to contribute

to the financing of about 120 (mostly) urban projects worth a total of €6bn. The Ecotax being cancelled at this stage, these projects will be looking for alternative financing solution.

The projects identified below should be seen as illustrative and as a preliminary contribution of the Authors to the more extensive work on the identification of projects and the identification of adapted financial schemes, which will be done in coordination with the EIB and the Member States, building upon the work of the Commission/EIB Special Task Force in the context of the "300bn investment plan".

Section 4.02 Potential projects identified for the use of EU financial instruments

(a) Soft transport infrastructure

Building the European transport system of the future is not only about building the railways, inland waterways, ports and motorways adapted to the future needs. It is also about adapting the transport system of the technologies of the 21st century, with two main aspects: developing efficient pan-European traffic management systems to make the best use of the existing and future infrastructure, and rolling-out the necessary infrastructure for greening the transport system, with the deployment of electricity fast-charging points along the main roads and in urban centers, of biofuels, LNG or CNG refuelling points in ports and airports. The deployment of the ground infrastructure must be accompanied with the adequate deployments of adapted fleets, by retrofitting vehicles with the new technologies or by buying new fleets of vehicles. Progressively, European roads will have to be equipped with IT infrastructures, enabling the new generations of vehicles to receive information on road signs, road works, accidents and car jams, improving traffic conditions. The first step is the introduction of the "e-Call", compulsory in the EU from 2017.

These sectors could benefit from the use of private finance, since in most of the cases, these investments have, in addition to their evident socio-economic and environmental benefits, a clear medium to long term profitability, for instance by lowering the energy consumption of the fleets, allowing to reimburse the initial higher investment costs.

Please find below some examples of projects that could be mature enough to be implemented in the first years of the new Commission.

(i) Deployment of ERTMS on-board trains

ERTMS is the European Rail Traffic Management System, ensuring the interoperability of trains beyond the national borders. The ERTMS system must be implemented along the rail tracks, but also on-board vehicles. The investment needs, in terms of retrofitting existing locomotives or by buying adapted locomotive, exceed largely the available public financing. The Commission is currently running studies to identify dedicated financial models that would support the investments in rolling-stock through dedicated funds. These funds, securing long-term funding to spread over the life time of the vehicles the initial investments costs and securing investors towards the technological risk associated to the ERTMS system, could be implemented in 2016.

The equipment of existing rolling-stock requires about €1bn of investment until 2020, and more investments are needed in new rolling-stock.

(ii) Greening of maritime transport

Maritime transport is subject to new environmental regulations aiming at reducing the emissions from ships, in particular for Sulphur. The Baltic Sea, the North Sea and the English Channel have been designed as sulphur emission control areas (SECAs) and limited the maximum sulphur content of the fuels used by ships operating in these sea areas to 1.5%. The maritime companies in these areas are therefore looking at adapting their fleets as the new legislation will apply from 2015, by retrofitting the existing fleets with scrubbers or LNG propulsion systems, or by buying new ships. It is estimated that it corresponds to €5bn to €10bn investment needs in the next years.

These investments are profitable in the long run as the new ships will be more fuel efficient. Investors and LNG is cheaper than diesel. However investors are reluctant to provide the financing for these types of equipment as technological risks is perceived as being still high. Dedicated long term funds could be set up rapidly.

(iii) Alternative fuels infrastructure along major roads

Electric vehicles are being made available by car manufacturers but demand for these vehicles is still rather low as the necessary infrastructure, in particular outside city centres, is missing. The Clean Power for Transport directive foresees that Member States should present action plans to roll-out the necessary infrastructure. However, neither car manufacturers nor infrastructure builders want to take the financial risk and MS are facing financial constraints that lead to immobility. A solution would be to be established through PPPs dedicated investment vehicles along corridors, involving national and local authorities, public banks, car manufacturers, electricity suppliers and existing oil stations...These entities would be in charge of the calls for tender for the deployment of the charging points on the corridor. The entity will contract the debt and attract investors, supported by guarantees from the EU. The Commission has launched a study to identify pilot consortia, with view to implement the scheme in early 2016.

(iv) Deployment of SESAR and the European Single Sky

The SESAR project is an initiative of the European Union aiming to modernise and harmonise the European Air Traffic Management (ATM) System from a technological and operational perspective. It is an essential component of the broader Single European Sky (SES) initiative. SESAR contributes to achieving the SES high level performance objectives in terms of increasing the capacity of current European ATM system, while reducing their costs and the environmental impact of flights, yet increasing the level of safety. In 2015, the SESAR Deployment Manager – a consortium of key industrial players charged with the implementation of the system, will examine also the financial needs and the modalities allowing the actors involved, public authorities, airports, airlines and aviation manufacturers among others, to cover investment costs and obtain stream of revenues.

With €3bn of EU funds in combination of grants and financial instruments, €30bn of investments on the ground and on-board could be generated.

(b) Project categories and example of projects for classic transport infrastructure

On the basis of the projects identified for inclusion in the future Corridor work plans, DG MOVE, with the support of the EIB - and in parallel to the work conducted by the Commission, the EIB and the Member States in the context of the Special Task Force for Developing an Investment Project Pipeline in the EU – made a selection among the projects **ready for implementation before the end of 2017**, which would benefit primarily or solely from the use of financial instruments to attract private investments, i.e.: suitable for financing rather than funding. Total investment volume amounts to €127bn. These projects are mostly falling in the categories of transport projects identified below. An annex with the complete list of project is provided with this note.

Category of projects	Total Value (million EUR)
Airport expansion	2,059.00
Dedicated rail connections ⁸	29,889.56
Increasing capacity in ports	12,915.14
Inland waterways	17,613.00
Logistic platforms	2,389.70
Motorways	63,017.56
Total	127,883.96

It must be noted that the high investments needs in the railway and inland waterways sectors, which are at the core of the European transport infrastructure strategy in line with the EU environmental objectives, can also benefit from the use of financial instruments when blended with grants, for instance for the Connecting Europe Facility or the European Structural and Investment Funds. The overall amount of railway and inland waterway projects suitable for blending could represent a very high amount of investments and the following work of the Authors will consider the opportunities in these areas.

⁸ Identified at this stage as suitable for financial instruments (subset of Rail investments ready to start/.on-going).

It must also be noted that the Corridors represent only a share (about the half of it) of the comprehensive Trans-European Transport Network (TEN-T), and that all projects on the TEN-T are potentially eligible for the financial instruments. DG MOVE will cooperate with the EIB to identify projects outside the corridors that could make use of the financial instruments.

The list of projects presented below is illustrative and will be developed in the final Report.

(i) Projects increasing capacity and connectivity of ports with hinterlands

The port sector has traditionally benefited from grants for their development. However, the increased competition between the ports in attracting trade flows and the limited availability of public finance are pushing ports to consider private financing, notably since traffic revenues increase with the improvement of their capacity to attract trade flows. These revenues can cover (part of) the construction and maintenance costs. There are also a number of projects in this area. Here are some examples of projects that are more mature for the use of financing schemes:

- Amsterdam Ijmuiden lock

The "Amsterdam Sea Lock" project concerns the upgrading and expansion of the sea lock that gives access to the North Sea to the port of Amsterdam and the whole North Holland province. The capacity of the existing lock is considered as a bottleneck in order to be able to welcome the new generation of container ships. The project is important for the Rhine – Alpine and North Sea – Baltic Corridor as it is a major interface for external trade. Works should start at the end of 2015 and be completed by 2019. The overall budget of the project totals €895m. **A project bond guarantee issued by the EIB, with about €35m provisioning from the EU budget, would help close the financing of the project, in addition to a grant from the CEF.**

- Calais port 2015

The project aims at increasing the capacity of the port of Calais to accommodate more traffic with larger vessel, in particular for freight and passenger traffic across the Channel, on the North Sea – Mediterranean Corridor, improving the traffic flows between UK, Ireland and Continental Europe. Construction would start at the end of 2015 and the project would be operational in 2020. The costs of the project are around €800m and will be done through a PPP model, guaranteed with a Project bond instrument with provisioning from EU budget around €30m, reducing the level of grants to be given by the EU and national and regional authorities.

- Dublin & Cork

The development of the port of Cork requires important works relocating installations, improving maritime access and reducing the impact of the heavy road traffic in the city centre. Construction is urgent and should start in 2015, given the expected growth in traffic (exports from the south Ireland region and beyond). Combination of port works, motorways access and railways connections could exceed €200m. A similar project in Ireland concerns works for Alexandra Basin redevelopment in the Port of Dublin, part of the North Sea- Mediterranean Corridor, with around €200m of investment costs.

- Koper

The port of Koper needs greater depth of the entrance channel to basins and basins, additional port infrastructure capacities as well as the supporting and connecting public infrastructure because of the increased size of vessels, growing volumes and confirmed new market potentials. With costs around €200m, it will contribute to building and modernization of the port and the Slovenian economy to make it more dynamic and competitive and will provide an improved interface between the maritime traffic and the Mediterranean and Baltic – Adriatic Corridors.

- Barcelona

The project aims to improve the railways connections of the port, at two different levels. The first concerns the rationalization and enhancement of the railway installations existing within the port area. Those works are urgent to improve the performance of cargo handling and storage operations, reducing environmental impacts and facilitating transit and fluidity of operations. The second is to tackle the bottlenecks affecting the connection of the port with the general railway network, reducing also negative urban impacts. The project should be completed by 2018-2019. The costs of the project are around €300m. This project is one of the examples of ports investments projects in Spain, with also projects in Algeciras or Bilbao for instance.

- Venice Port

The project relates to the construction of an offshore Port HUB for large ships avoiding oil carriers to transit on the Laguna and able to host up to Ultra Large Container Vessel (seawall, oil terminal, pipeline and container quay). Works should be completed by 2019 with a cost around €900m.

- High speed/high capacity railway link Milan-Genova (Port and city centre) “Terzo valico dei Giovi”

The “Terzo Valico dei Giovi” line runs between Liguria and Piedmont, through twelve municipalities in the provinces of Genoa and Alessandria. The new line is approximately 53 kilometres long, including 39 km of tunnels, and also has 14 km of interconnections with the existing rail network, for a total of 67 km of new infrastructure. The line will permit a significant expansion in Italy’s freight transport offer, enhancing rail links between the Genoa and northern Tyrrhenian port system and north Italy and Europe. Investment costs are around €6 billion.

(ii) Inland waterway locks or canal upgrades

Inland waterway locks could benefit from financial instruments for the financing of their upgrade (in order to allow bigger barges) since they can capture revenues as barges pay for using the locks. Project consisting of the upgrading of existing canals with heavy traffic could also benefit from financial instruments.

- Kiel Canal (Nord-Ostsee-Kanal)

The Kiel canal is the world's busiest artificial waterway, runs for almost 100 km right through Schleswig-Holstein and links the North Sea with the Baltic. An average of 250 nautical is saved by using the Kiel Canal instead of the way around Skaw. The canal is essential for the trade between the countries of the Baltic area with the rest of the world and needs to be upgraded, in particular the locks, to accommodate bigger ships. Costs for the upgrade are around €770m. The project is expected to be complete within seven years.

- Canal Seine – Scheldt

The 105-kilometre-long canal will connect the Seine and Scheldt rivers and facilitate the transport of goods through inland waterways. When the new Seine Nord connection is ready, it will allow large vessels to transport goods between the Seine river (and the Paris area) and the ports of Dunkirk, Antwerp, and Rotterdam, or further into Europe allowing for the increase of trade flows in a fuel-efficient and ecologically friendly manner. The cost of the project is around €4bn and works could start in 2017 and end in 2023. An EU grant is expected to cover 40% of the costs. The remaining 60% could be brought by private investors supported by guarantees from the EU.

- Terneuzen – Gent

The Ghent–Terneuzen Canal, also known as the "Sea Canal" (Zeekanaal) is a cross-border canal linking Ghent in Belgium to the port of Terneuzen on the Scheldt estuary in the Netherlands, thereby providing the former with better access to the sea. It is part of North Sea – Mediterranean corridors. A new lock must be built in Terneuzen, with investment costs around €1b, to be structured as a PPP, possibly combining grants and financial instruments.

- Lifting of bridges over the Canal Albert

Bridges over the Albert canal are too low to allow the traffic of modern barges, constituting a bottleneck for the inland waterway traffic on the North Sea – Mediterranean Corridor. Costs are around €200 million.

(iii) Projects increasing capacity in airports

For the same reasons as for ports, the airport sector is looking to attract private finance to cover its development need to capture the foreseen major passenger traffic increase. Passenger traffic in airports is expected to increase rapidly in the next years, nearly doubling by 2030. However, Europe will not be in a position to meet a large part of this demand due to a shortage of airport capacity. This capacity should be developed in order for Europe to continue attracting tourists and business travellers from all over the world.

- Helsinki airport

Finavia is starting a major development programme at Helsinki Airport. The aim is to ensure that Helsinki Airport will be able to maintain its strong competitive position in transit traffic between Europe and Asia. The focus will be on increasing check-in and transit travel capacity and on

improving traffic arrangements. The total costs related to the different projects involved are around € 900 million.

- Kasteli airport

Kasteli will replace Crete's existing Heraklion airport, Greece's second-largest behind Athens with nearly six million visitors a year. It will be located on the south western side of the country's eponymous Air Force Base. The new airport will feature a 3.2 kilometre-long runway and at least five fixed boarding bridges. The new roads will have a total length of 24 kilometres. The construction phase is expected to be completed by 2019. The project will be developed on a design, build, finance, operation and maintenance basis for a period of 35 years.

The airports of **Lisbon, Tallinn and Riga** are also planning capacity extensions in the next years. For all these airports projects, no EU grant will be provided, and the expected increase in traffic charges should be able to cover most of the investments without major contribution from public authorities. Investors should be able to contribute to these investments if supported by EU guarantees covering part of the risk related to the traffic.

(iv) Dedicated rail connections between important airports and urban centres

These projects are limited in number but very important in size. They are suited for financial instruments since users are ready to pay for the use of an efficient link between the airport and the city, as proven with the Arlanda Express train in Stockholm.

- CDG express

CDG Express is a planned project to connect Paris-Charles de Gaulle Airport and Paris by a 32km-long rail line. With 62 million passengers per year, Paris-Charles de Gaulle is the 2nd European airport in terms of traffic and suffers from not having a direct dedicated rail connection with the centre of Paris. The project could start in 2017 and has a cost of €1.8b.

- Malpensa T2-T1– Milano city centre.

This project involves the development of a PPP model for building, maintaining and operating new, fast and easy connections between the Malpensa airport T2, T1 and then to the railway towards the centre of Milan and its metro system, suburban services and national railway network. The cost of the project amounts to € 140 million for the first phase (on-going) – additional investments would complete a faster connection to both Milan centre and CH, allowing 4 different railway undertakings to use the infrastructure. The economic prospects of the project, in the light of the current traffic volumes of passengers and the expected growth should ensure the viability of the project, provided that construction and start-up operation risks are properly covered.

In addition, High Speed rail projects connecting major cities together could also benefit from such schemes, with revenues from the traffic covering (part of) the initial investments and operations, as for instance with the Tours – Bordeaux LGV in France. Projects are not numerous and take time to be developed but represent high investment needs.

(v) Motorways

This sector has limited access to EU grants, as motorways are only eligible for cross-border sections in the CEF, and since ESIF funding for motorways in the future should be reduced in line with EU sustainability objectives. The road sector is used to the blending of public and private funds and user payment schemes are developed in most MS. Therefore this sector has the potential of making use of innovative financial instruments (as demonstrated by the pilot phase of project bonds for which the two transport projects are motorway projects) even if it is not the highest EU priority.

Projects in this sector are numerous and are important for the completion of an integrated and secure road network. Among them, the most advanced as regards potential use of new financial schemes are the A4 upgrade in Italy, **the Passante di Mestre** (€600m), the extension to 6 lanes of the **A 10** in Germany, with works planned between 2017 and 2019. In the Netherlands, the project pipeline is solid, with for instance the **north eastern Rotterdam Bypass** to connect the A13 and A16 motorways (€900m) or **the Ring road of Utrecht** (€1bn); In France, the **A355 around Strasbourg**, the **Bratislava ring road and D3** in Slovakia, the **D11 in Czech Republic**, the **A1 Tuszyn - Pyrzowice, in Poland** or in Romania, some sections of the **Comarnic – Brasov** motorway could benefit from such schemes. **Using financial instrument for the road sector will also push the implementation of the user pay principle, allowing Member States to keep resources for the other modes of transport and to do these projects without or with limited use of public debt.**

(c) Potential use of financial instruments for rehabilitation, upgrading and maintenance of existing infrastructure

As pointed out in the section on investment needs, existing infrastructure also needs substantial investments for Europe to keep its competitive advantage thanks to an efficient transport system.

Support to rehabilitation has been flagged as a major issue in particular on German roads or on the French conventional railway network or non-tolled roads around the EU in general.

Section 4.03 Flagship projects where EU funding should be concentrated to accelerate their deployment

The Commission intends to focus available financing on the projects that have the highest EU added value: projects on major missing cross-border projects, major bottlenecks and other cross-border sections to be improved. The CEF gives priority to the development of infrastructure for the greener modes of transport, such as railways and inland waterways, with an ad hoc treatment for MS without such networks.

The priority projects identified below are **requiring a combination of EU grants, long-term loans and national co-funding** in order to be delivered in a reasonable time frame. Grant funding from the CEF will not be sufficient to cover all the needs and MS have difficulties in providing the necessary co-financing, notably due to the current fiscal consolidation. Financial instruments may be combined with public funding in some cases, for instance for the Canal Seine – Escaut.

Major missing cross-border projects include Vitoria-Dax (ES-FR, including upgrading of the existing connection through Irun-Hendaye), Evora – Merida (PT/ES), Seine – Escaut (FR/BE/NL), major projects on the Scandinavian – Mediterranean Corridor of which the Fehmarn Belt (DK/DE) and the Brenner Base Tunnel (IT/AT), major projects on the Mediterranean Corridor including Lyon – Torino (FR/IT), as well as the Rail Baltic (FI/EE/LV/LT/PL). The Commission estimates that the first five projects mentioned could absorb altogether up to €5bn between 2014 and 2020, whereas the cost of the Rail Baltic project has been estimated at €3.6bn by the recent study.

Further to the major missing links, trans-European traffic flows are hindered by the existence of major bottlenecks between major economic centres, ports or urban areas. Amongst the major bottlenecks for example the Stuttgart – Ulm railway connection in Germany on the Rhine Danube Corridor, the Danube locks in the Iron Gates at the border between Romania and Serbia, the Halle/Leipzig – Nurnberg high speed railway connection, the bridges over the Albert Canal or the Perpignan – Montpellier high speed rail line connecting the high speed networks of the Iberian Peninsula and France.

There are also a number of cross-border sections to be improved to facilitate the cross-border traffic flows throughout Europe. For instance, projects such as the upgrading of the common section between Bulgaria and Romania of the Danube and of the railway connections Katowice (PL) – Zilina (SK), Munich (DE) – Salzburg (AT) or between Arad (RO) – Sofia (BG) – Thessaloniki (EL) need major works.

These projects will have priority for grants under the CEF, but will need the support of other instruments in order to accelerate their deployment, for instance through EIB loans (projects may be risky for the EIB standard approach; it would require the EIB to accept to take more risks than usual). It may also be useful to attract private investors towards the financing of these projects by securing them with the help of EU financial instruments.

The use of EU financial instruments for these projects may help finding solutions that allow excluding these projects from the calculation of the national debt, which seems to be one of the major constraints faced by most MS for the implementation of those projects.

V. Financing models to maximise the use of public funding

The increased use of innovative financial instruments is possible in the transport sector, which has some experience with their use, only if the right framework is being put in place. In addition to the regulatory framework outlined above in part III, one of the conditions is extending the risk coverage of the financial instruments to target projects that would not happen without EU support. The EU contribution to these instruments should be used to push the Commission's financial partners – in particular the EIB – to take more risk in order to finance projects that can have a stronger impact on growth and that would not materialise without EU support. It includes the possibility to take more risks with the existing instruments, but also the possibility to use other types of instruments in order to capture the needs of the different types of projects that are in need of EU support.

Section 5.01 *Improvement of existing financial instruments*

(a) The CEF Debt instruments

In line with the recommendation made in the paper of Prof. Bodewig and Prof. Secchi⁹, the already existing instruments, i.e. the Project Bond Initiative and the LGTT, will be enhanced by widening their scope. The Delegation Agreement between the Commission and the EIB for the implementation of the CEF Debt instrument is currently under negotiations in order to continue under the Connecting Europe facility the Project Bond instrument and the LGTT, which had been set up at the end of the previous financing period. The European Investment Bank and the Commission have agreed, among other, to extend the risk coverage of LGTT beyond traffic risks, in line with the risks covered by the Project Bond instrument. The maximum level of the guarantees for both instruments will be raised from 20% to 30%, facilitating the use of the instruments for good projects in Member States with more difficult financing conditions (i.e. lower sovereign rating).

In addition to these two instruments, which target project finance, final beneficiaries of the new CEF instruments may include corporates undertaking infrastructure investments in transport sectors not typically covered by project finance such as rail, maritime or air. Moreover, senior lending to riskier project companies in these sectors may be envisaged to the extent that capital market solutions are not possible.

Overall, with the new CEF Debt instruments, the EIB will finance CEF eligible operations through senior loans and guarantees falling under their standard credit criteria without support of the EU budget. Under the CEF Debt Instrument, similarly to the Risk Sharing Finance Facility set up under Horizon 2020, senior loans and guarantees would only be granted to higher risk (typically sub-investment grade) operations. As such, the CEF Debt instrument will be fully complementary to standard EIB loans and guarantees and will contribute to responding to the investment needs identified. With the support of the risk sharing arrangement under CEF, additional lending capacities would now become available at the EIB.

(b) Combining grants and private finance

For some transport projects that are important for the realisation of the Trans-European transport network by closing the missing links and solving the bottlenecks, financial instruments alone may not be sufficient for the realisation of a project, as for instance, only a part of the investment costs can be covered by the revenues from the projects, even in the long term. In order to make sure these necessary projects are realised, while maximising the use of the public budget by covering with grants only the share of the investment that cannot be repaid, blending financial instruments and grants from the EU budget will be necessary.

However, the differences in procedures, in calendars, make this type of arrangement rather difficult to implement. Guidance should be provided by the Commission, notably with the

⁹ Attracting investments towards transport infrastructure, potential lines for action, Prof. K. Bodewig and Prof. C. Secchi, paper presented at the Informal Transport Council of 16 and 17 September in Milano

support of the Innovation and Network Executive Agency, to facilitate this blending for project promoters, when necessary.

Section 5.02 Beyond CEF instruments

The Connecting Europe facility and its financial instruments will not suffice to realise the investments needs identified. Beyond the mere capacities of the EU budget or of the EIB, new partnerships will have to be developed, in particular with International and National Financial Institutions. This partnership should not be limited to the provision of long-term debt to projects, which is the core of their activities, but to pool resources in order to attract together private investors. The Commission should engage more actively with those entities (among which NIB, CDC, CDP, KfW, ICO, BKG or the Green Investment Bank) to assess the potential for further cooperation.

Attracting private finance in infrastructure financing is not only a question of partnership, but also a question of the type of instruments to be put in place. A number of mechanisms have already been implemented at national level, in a somewhat uncoordinated manner at European level. They are for instance public/semi-public loans and guarantees, dedicated investment funds or specialised investment vehicles.

Some of these mechanisms, while being partially supported by authorities, have managed to make sure that the productive investments thereby supported were excluded from the balance sheet of the relevant Member States, as in the example of the Ferhman belt and Oresund fix link projects. This model of State guarantee applied by Denmark will be further studied by the Authors, in particular in order to address its possible replicability across the EU Member States.

This type of mechanism should be studied and replicated where possible as it is important to ensure that productive investments, for instance in infrastructure, cannot be realised because of their potential inclusion in the deficit and debt calculation under the Stability and Growth Pact.

VI. Towards a partnership with potential investors

The establishment of a structured dialogue with potential long term investors that could be interested in infrastructure financing is paramount to ensure the success of the initiative that are going to be implemented under the CEF or with the new measures proposed by the Commission in the context of the "300bn investment package".

As outlined above, liquidity is available on the markets, but one must ensure that there is a match between the project proposed, the instruments offered, the regulatory framework and the requirements of investors to which these instruments and projects will offer new opportunity for investments.

Obvious partners for the financing of transport infrastructure projects have been the **commercial banks**, which historically constituted one of the leading sources of finance to European privately, financed infrastructure projects. The financial crisis negatively impacted the capacity of the public sector to invest, many banks suffered losses and have abandoned the infrastructure lending sectors

without being fully replaced as others had to reduce their overall lending volume in order to comply with stricter regulatory capital requirements (Basel III).

In this context, new partners must be found, and the most logical ones are **institutional investors**. Institutional investors such as **pension funds, insurance companies and wealth funds** are showing an increasing interest for moving into infrastructure investment given its potential to match long-term assets and provide diversification. For instance, the stability provided by the regulated model in energy and natural monopoly situation in transport corresponds to pension funds' investment profile, characterised by relatively low rates of return – around 5%-8% – and long investment horizons.

These investors are also becoming increasingly ready to invest directly in infrastructure assets. This is new, as their exposure to infrastructure has traditionally been via listed companies (such as utilities), or via real estate portfolios. However, for such new classes of investors to invest, there need to be investment opportunities available, i.e. equity opened to participation and/or debt products. Hence, the need for new products, and possible enhancements, that would allow channelling the investment into the infrastructures of European importance. It must be noted that some of these investors, in particular pension funds, are politically driven, with investment guidelines established by law. Discussions at political level may be necessary in order to influence the investment profiles of these investors to direct them towards transport infrastructure financing.

Other partners should be contacted to assess the potential for cooperation, notably **Pension funds of large corporates, sovereign funds, investments and hedge funds, investor platforms, private equity funds, foundations**. It must be noted however that the type of returns expected by some of these investors may greatly differ from the type of financing necessary for transport infrastructure projects; therefore priority for cooperation should be given to long term investors and institutional investors (pension funds and insurers) as their investment profile matches in particular the infrastructure needs.

Rating agencies are also to be contacted as they have a key role in assessing the projects for investors which do not have the capacity to analyse on their own the projects.

VII. Conclusions – next steps

At first sight, the situation is difficult. The investment needs are huge, projects are waiting for funds, but classic public funding is limited. Therefore, the use of public resources should be focused where it really make the difference, for projects that have socio-eco added value and no financial profitability. In the field of transport, grants from the EU budget should be mostly reserved for the key cross-border projects and bottlenecks for the cleaner modes of transport, as foreseen in the Connecting Europe Facility Regulation.

However, public money can also be used efficiently to attract private investment on project with long term financial profitability, through guarantees for instance, and sometimes in combination with grants. Investors have funds to invest and are interested in the long term maturities of infrastructure.

This major step change in the financing of projects cannot happen on a wide scale without changes in the general framework for investments. First of all, changes are necessary in the regulatory environment with the view to facilitating the implementation and financing conditions of these investments that have a major impact for competitiveness and sustainable growth.

It also requires major changes in project preparation, to adapt the projects to the sources of financing. Technical assistance should be made available to help administrations and project promoters delivering good projects.

Finally, it requires adapted and innovative financial instruments, adapted to the specific population of projects, be it in classic transport infrastructure or for the investment in a greener and more efficient transport system. The EU budget should be used to cover more risks than in the business as usual approach.

This Interim Report was prepared in parallel with the preparation of the *Investment Package* announced by European Commission's President Juncker and the works were concluded before the publication of the package. The Authors are however confident that some of their remarks will be echoed in the Commission proposal. The Authors intend to present a Final report to the Council in spring 2015, with the view to accompany the implementation of the *Investment Package* and make sure that European transport projects will be in position to benefit from the new instruments designed by the Commission.

In this context, the topics identified above must be discussed further with a broad range of stakeholders. This consultation will include the following aspects, which are not exclusive:

- Cooperation with the Member States authorities, Corridors' European Coordinators and the EIB on the identification of projects;
- Consultation with the EIB, national promotional banks or dedicated investment vehicles for the identification of adapted financial schemes and technical assistance;
- Consultation with the European Commission' services responsible for state-aid, long term investment regulations and statistical treatment of infrastructure investments in the public debt calculations;
- And structured permanent dialogue with long term investors, trade associations of institutional investors, major private companies pension funds, and global investors and sovereign funds outside the EU should also be constructed, as well as with rating agencies.