



# **ECTRI ANSWER TO THE PUBLIC CONSULTATION on EIB TRANSPORT LENDING POLICY**

***“Towards a Refined Policy for EIB Lending to the Transport Sector”***

**June 2011**

The European Conference of Transport Research Institutes (ECTRI) is an international non-profit association that was officially founded in April 2003. It is the first attempt to unite the forces of the foremost multimodal transport research centres across Europe and to thereby promote the excellence of European transport research. Today, it includes 28 major transport research institutes or universities from 20 European countries. Together, they account for more than 4,000 European scientific and research staff in the field of transport. ECTRI is committed to provide the scientifically based competence, knowledge and advice to move towards its vision to have “an efficient, integral European transport system that provides completely safe, secure and sustainable mobility for people and goods”.

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## 1. Introduction

The *European Conference of Transport Research Institutes* (ECTRI) is a Brussels-based Association of 28 major transport research providing organisations located in 20 European countries. ECTRI represents the main surface transport related scientific community in Europe. It works with all transportation stakeholders from academia, industry, public agencies, and other areas. Its activities encompass a multidisciplinary, interdisciplinary, and systemic approach to transportation issues in Europe independently of any specific mode or vested interest (industrial or otherwise). The central approach taken in ECTRI's activities, reflected in its membership criteria, is "multimodal", considering the interdependencies and interactions between Transport modes, and looking at the transport system in an integrated way.

After having participated in the public meeting on the European Investment Bank (EIB)'s Transport Lending Policy organised by the EIB on June 6<sup>th</sup>, 2011 in Brussels, ECTRI would like, through this written document, to further contribute to the emerging discussion on the future of the transport lending policy and related public consultation opened by the EIB. The present answers are based on inputs from the ECTRI Thematic Working Group (TWG) on Transport Economics and Policy, which brings together more than 40 experts of the field coming from 20 major transport research centers across Europe.

The ECTRI contribution is structured around the following issues:

- Main issues for EIB derived from the White Paper (par. 2)
- Remarks on the Guiding Principles, the Project Appraisal Guidelines and the Operational Selection Criteria (par. 3)
- Answers to specific questions of the "call for public views" (par. 4)

## 2. Main issues for the European Investment Bank (EIB) derived from the new White Paper

Three major challenges confront the Transport Sector in the coming decade:

- According to the Agenda 202, the EU has committed itself to a 20% reduction of GHG emissions compared to 1990, a 20% renewable energy share of overall consumption as well as energy efficiency improvements. A minimum target of 10% for bio-fuel has been set.
- As for the Climate Change, there should be significant reductions in emissions by adopting green technologies.
- The Internalization of External Costs: all positive and negative externalities on environment, on economic development and human capital will be identified and incorporated into the evaluation, not only at the local level but also at the global level (at the level of the transport system but also at different geographical and time scales).

Two citations from Commissioner for Transport Siim Kallas, are useful references and should serve as guidelines for refining EIB lending policy to the Transport Sector:

*“Transport 2050 is a roadmap for competitive transport sector that increases mobility and cuts emissions. We can and we must do both. The widely held belief that you need to cut mobility to fight climate change is simply not true. Competitive transport systems are vital for Europe’s ability to compete in the world, for economic growth, job creation and for people’s everyday quality of life. Curbing mobility is not an option; neither is business as usual. We can break the transport system’s dependence on oil without sacrificing its efficiency and compromising mobility. It can be win-win.”*

*“The Transport 2050 roadmap to a Single European Transport Area sets out to remove major barriers and bottlenecks in many key areas across the fields of: transport infrastructure and investment, innovation and the internal market. The aim is to create a Single European Transport Area with more competition and a fully integrated transport network which links the different modes and allows for a profound shift in transport patterns for passengers and freight. To this purpose, the roadmap puts forward 40 concrete initiatives for the next decade”.*

From the ECTRI point of view, the main themes for refinement can be summarized as follows:

- Nation states and institutions including EIB are confronted with many Grand Challenges: Climate change, environmental sustainability, energy efficiency, safety and security of supply (e.g. resources, food, raw materials, energy).
- Constraints: scarce resources, liveability, public acceptance, stakeholder commitment and fairness. In the interest of policy coherence, consistency in standards-setting within the EU community and convergence among the Member States (plus the ascension countries), projects financing should take into account the promotion of social inclusion, equity and fairness. Achievements in these socio-economic objectives would enhance public acceptance and empower stakeholder commitments.
- Mitigate damages (on environment, congestion, safety, economic activity and employment), enforce security and overcome a state of irreversibility → Smart ‘green’ growth is the main target. In practical terms, this refined planning concept means the pursuit of sustainable economic growth with new employment opportunities. A major undertaking in the transport sector is to identify and to promote ways and means by which the mobility needs would be met but without imposing *unwittingly* hefty environmental costs, depletion of scarce resources and irretrievable negative social-economic consequences. Above all, it is vitally important to support and finance transport projects that promote sustainable socio-economic developments and arrest the perpetuation of negative ecological trends. The spectrum of attaining a state of *irreversibility* must be avoided. Stop the on-going reliance on

fossil fuels, reduce the carbon footprint and restrict GHG emissions are a few of the examples.

- To confront the new challenges in a new paradigm, the following steps are called for:
  - Coherent and consistent conceptual framework,
  - Integrated evaluation methodologies,
  - Innovative appraisal technique

### **3. Remarks on the Guiding Principles, the Project Appraisal Guidelines and the Operational Selection Criteria**

Concerning the basic “Guiding Principles” in EIB lending policy, ECTRI recommends taking explicitly into account the following aspects:

- Co-modality: multi-modal → integrate social, economic and environmental concerns, efficient ‘green’ modes [proposals should be benchmarked and best practices identified to ensure the EU co-modality concept will be actualized]
- Seamless: door-to-door → attention to logistics, clean vehicle, energy efficient [The point of reference for project evaluation is the complete travel plan and the trip-chaining sequence from the point of origin to final destination]
- User and polluter pays principles → internalize external costs, determine ‘real’ resource costs using shadow pricing (or similar techniques) to ensure the decision-making process will take full account of externalities and prevent free-riders
- Robust evaluation methodologies → e.g. include carbon footprint, GHG emission & fine particles, side-effects and rebound effects [e.g. encourage and fund research into the efficacy of emission trading schemes, valuing the relative merits of schemes or measures to empower avoidance versus reduction in the generation of pollutants]
- Attention to transparency and accountability; [this axiom applies not only to satisfy members of EIB Board of Directors but also extend to the wider general public; it is in the interest of all stakeholders to have trust and confidence in EIB as a public finance institute to serve the public good]
- Ability to identify drivers, barriers and constraints → [renewed efforts in the RDI programme to gain insights and deepen understandings in a concerted effort to identify the drivers, overcome barriers and remove constraints that hinder the achievement of the goals and objectives as set out in the 2011 White Paper]

Concerning the “appraisal Guidelines” in EIB lending policy, ECTRI believes that:

- EIB lending policy guidelines are basically sound, but need refinements and more focus
- Environmental & energy concerns: not only as constraints, but explicit as ‘selection’ criteria. [Hitherto, EIB lending policy takes implicit account to finance transport projects that are financially sound and achieve the required ‘social rate of return’. As such, environmental amelioration and energy efficiency are passive, rather than proactively pursued as it should under the regime of the new 2011 White Paper]
- Priorities for innovative products/services & innovative process → RDI cost effectiveness. [This should cover efficient industrial production and distribution processes, the application of transport logistics, ICT concepts and ITS technology to overcome traffic congestion and enhance road safety as well as the development of management information systems to inform managers and the traveling public. An example is to finance research into hard- and software equipments that would provide real time multimodal travel information for passenger and freight transport at a pan-European scale.]
- Infrastructure & facilities appropriate to local conditions (avoid ‘over-engineering’) Project financing should take meticulous care to ensure the investment is sound, relevant and appropriate to the local needs rather than *carte blanche* programme financing. Added value has to be ascertained.
- Need to determine and demonstrate the added-value relative to increase in marginal cost [The incremental approach to EIB lending is a more robust and sophisticated form of the CBA methodology. The approval procedures allow firstly a rigorous analysis of the ‘economic and social rates of return’ of the basis components in a package and, if proven sound, then proceed to assess the marginal add-on value of extra trench of investments relative to the extra (marginal) costs that are needed. The prowess of modern computing technique would enable such an exercise to determine the real value of project options]

Concerning the Operational Selection Criteria, ECTRI would like to make the following remarks:

- Evaluate efficiency and effectiveness in avoiding or reducing pollutant, emission and use of energy [smarter, sustainable and inclusive *green* growth] and also feasibility and acceptability at the local and global level
- Projects should complement each other to ensure bio-diversity, social inclusion and Pareto Optimum [A *system* approach in the assessment of investment proposals in infrastructure and/or technology is called for with a wider spectrum of goals and objectives e.g. meet increases in mobility needs, maximize the socio-economic welfare of the community and promote individual’s well-being]

- Framework: integrated transport/land use/environmental planning and vigorous life-cycle impact assessment [It is important in the intensified efforts to pay particular attention to the needs for periodic repairs and maintenance, impacts of dynamic interactions between transport and land use and the time-profile in the flows of incomes and outgoing expenses during the life of the project; the identification of critical path and the use of sensitivity analysis will help]
- Explicit evaluation of distributional effects, equity and fairness (areal, temporal & sectoral) [the aim is to ensure fairness for all; if there are disparity in the distributional effects, they should be reported for political choice]

#### **4. Answers to the questions of the “call for public views”**

##### **1. How might the Bank better contribute to “smarter growth” based on knowledge and innovation? In particular:**

**o Where and how do you see R&D and innovation (new technologies) contributing to modernising and decarbonising the transport sector? How can new technology be used to encourage modal shift where this carries social benefits, and in which ways should the Bank support such trends?**

Some typical examples which demonstrate the capabilities of new technologies for modernising and decarbonising the transport sector are:

1. The promotion of Demand Responsive Transport Systems in the field of Public Transport (further info available at: [http://www.konsult.leeds.ac.uk/private/level2/instruments/instrument048/l2\\_048b.htm](http://www.konsult.leeds.ac.uk/private/level2/instruments/instrument048/l2_048b.htm)). In certain cases, the substitution of a ‘fixed’ public transport system with a ‘demand responsive’ can lead to environmental upgrade (through the increase of Public Transport and reduce of private car use) together with economic efficiency. Moreover certain social benefits (in line with the objectives of EIB) are achieved, e.g. social cohesion, regional development etc.
2. Freight Transport: New research trends that aim at incorporating the external effects (environmental impacts and energy consumption) into the routing optimisation process of logistics operators. This particular research trend concerns the development of new algorithms and software tools that identify the optimal routing and scheduling solutions through the use of multi-objective optimization. Apart from the certain social and environmental benefits, it is likely that there are also great economic benefits since corporations improve the CSR (corporate social responsibility) index. This is mainly achieved through the efficient utilization of alternative transport means, encouraging simultaneously the ‘modal shift’ objective.

**o How might the Bank better contribute to the introduction of new technology(ies) in the sector? For example, how can adoption of cleaner vehicles be encouraged to overcome their higher cost, and what tools should the Bank provide to support such developments?**

The Bank could contribute to the introduction of new technology(ies) in the sector by providing venture capitals for high-tech start-up firms. However all these initiatives should be based on strict justifications that the particular funds lead eventually to the increase of the overall social benefit. Thus, for this case also, thorough application of CBA is a prerequisite for the optimal allocation of resources (ideally through RDI projects).

**o Are there particular initiatives in which the Bank should be proactive e.g. the “green” car initiative?**

We would recommend that the Bank support research activities in relation to the development of Intelligent Transport Systems (ITS) as well as projects dealing with the evaluation of ITS, aiming at pointing out the optima use of technology and identifying the certain ‘thresholds’ which turn a technological investment into sustainable (from an economic as well as social perspective).

General comments: Even though new technologies offer great opportunities for decarbonising the transport sector, these issues have not received to date the proper attention from the industry and state. This can be explained by a number of reasons: First of all, new technologies often have relatively high investment costs to be implemented and thus even though the operational costs (as well as the external) are probably less than the ‘business as usual’ option, there seems to be certain reluctance from the investors’ side (either is the state or private) to proceed with the investments. In this case EIB should examine the possibilities of financing the investment costs of new technologies, either through RDI projects or through start-ups venture capitals.

However the EIB needs to safeguard the optimal allocation of its resources (especially in times of high economic scarcity) and thus before proceeding with financing new technologies for the transport sector, first research projects should be financed which will prove and indicate the actual economic results of the potential technological projects, providing a hierarchy of needs and resources. Thus, EIB should also invest in ‘strategic’ research for assessing the actual benefits of new technologies, before financing these projects.

**2. How might the Bank better contribute to ‘sustainable growth’ and to a more resource efficient, greener and more competitive economy? In particular:**

**o How can the Bank support the improvement of mobility in a sustainable manner while contributing to a reduction of congestion and pollution?**

**o How might the promotion of energy efficiency in the various transport modes best be supported?**

**o How might the Bank encourage best practice in the management and deployment of innovation in energy generation, distribution, storage and use in the sector?**

**o How can the Bank play a role in the development of renewable energy in the transport sector?**

## 1. Guiding Principles

They should include the concept of “resource efficient transport system”. It is of utmost importance to increase resources more efficiently and provide high quality mobility services. This can stimulate innovation and help to create jobs.

The justification can be found from the following policy documents: “Resource Efficient Europe” Europe 2020 Strategy COM (2010) 2020; EC Transport White Paper COM (2011) 144 final.

- Besides “satisfying transport demand” transport demand management (e.g. intelligent urban mobility management) and land use planning will need to be part of the solution along with promoting changes in behaviour towards sustainable mobility. Providing “better mobility” (i.e. of higher quality) is preferred to “more mobility” *ceteris paribus*.
- The role of soft and hard infrastructures/transport, renewable energy and ICT measures shall be assessed in a combined way to provide integrated information to users and to meet accessibility needs for an inclusive society.
- Development of the TENs will need to serve as “efficient territorial anchors” of sustainable land use strategies both at the regional and local levels. As such, selection criteria will require further refinements to include integrated Transport, Energy and Land Use issues (Integrated Strategies to be presented by Member States). This will be the key to improve social cohesion and Europe’s competitiveness.
- Priority shall be given to R&D+I related to transport modes and innovative mobility services (e.g. electric car-sharing, ICT and electric vehicles including bikes) which fulfil a set of criteria (reducing greenhouse gas emissions shall be one criteria amongst others such as cost-efficiency and energy-efficiency).

## 2. Specific selection criteria

- This will depend on the “critical path” (critical set of measures) for Europe’s competitiveness, low carbon and efficient economy. Integrated transport policy measures will need to relate with these criteria from now and until the long term, aiming at boosting the regional and local economy.
- Concerning the funding of transport infrastructures, key operational issues are the reduction of externalities such as congestion and air pollution, to promote multimodality and intermodality, greener, safer and resource efficient infrastructures. Projects shall be assessed by means of an integrated framework (e.g. Strategic Environmental Assessment linked to Cost-Benefit Analysis frameworks). Therefore, one of the key requirements is to demonstrate expected environmental and social benefits and costs (equity and distributional issues along time and space).

- Social and territorial cohesion along with quality of life and health issues may justify funding for specific R&D+I demonstration projects at specific Member States, e.g. related to innovative public transport services and infomobility, walking and cycling infrastructures and other green modes (e.g. electric bikes) which will need to be **integrated in the transport system priorities and be part of the funding structure.**

### 3. Appraisal Guidelines

- Policy directions will require focus based on the concept “critical policy path”.
- Instead of “infrastructures” the emphasis shall be on multimodal transport and innovative and integrated mobility services. A paradigm shift from the traditional provision of infrastructures (“predict and provide”) to “aims, integration and management” needs to be better reflected in the EIB lending policy.
- Technology and innovation shall be seen as sides of the same “coin”. Therefore, funding shall be addressed to R&D+I projects involving all the community (please, note that the creation of markets for innovative products and mobility services is central for a competitive Europe).
- EIB funding shall assess the opportunity of funding R&D+I that include risk taking project entrepreneurs involving public and private organizations (e.g. Improved Governance Models to Manage Transport Risks and Security). Funding priority criteria need to be established and may include the need to pursue an holistic approach (natural and technological risks, etc.) comprising the whole risk management process (risk assessment which comprises risk identification, analysis and evaluation until risk treatment activities) or just to address common risks to Member States in the short to medium term.
- Besides the expected role of technology innovation, major challenges are related to the development of transport policy methods (e.g. funding of Behavioural research methods and living lab experiments), aiming at promoting the desirable mode shifts. It shall be noted that user behaviour plays is a key determinant for the success of new technologies.
- Overall, the challenge is to deliver effective policy tools that can help decision makers to promote transport investments for a competitive economy without compromising sustainability along with cost-efficient measures to promote sustained patterns of mobility and energy consumption.

### 4. Coordination, Dissemination and Communication Channels

The EIB lending policy review is an opportunity to boost the development of integrated transport, land use and energy plans in Europe aiming at delivering efficiency gains in all Member States/Europe (and share the same strategic vision and policy goals).

Regional-Local Technology Platforms need to adapt to this new policy dimension – a resource efficient Europe. From our perspective, this requires to extend and integrate existing Platforms.

For the EC Strategic Transport Technology Plan, it was suggested that a new Platform can be created and linked to the existing ones for achieving the necessary inter-sector integration, and this can be designated as follows (suggestion): Transport Economics and Efficient Transport Policy Delivery for Sustainable Mobility (TE4SM Technology Platform).

The TE4SM Platform will focus on key policy goals and measures (market and regulation-oriented policies, etc.) that will help on the definition of the critical path and progress evaluation over time towards defined targets related to cost-effectiveness and cost-efficiency in all technology areas. Noting that this Platform will have significant impacts to the functioning of society and the economy, it is proposed that this will be at the centre of all other R&D+I Platforms related to other technology areas.

The EIB is a potential member of the TE4SM Platform along with the ECTRI Transport Economics and Policy Working Group which integrates experts from 28 universities/transport research centres in Europe. The TE4SM can be a key instrument to foster effective partnerships including private and public organizations and the relevant stakeholders and thus an important instrument to foster innovation and employment. Its working agenda can include a dynamic definition of investment priorities related to Transport in Europe along with the necessary research in the medium-long term for the sector.

It shall be noted that the EC Transport White Paper, 2011, outlines a long-term vision for Transport in Europe. Until 2050, it is envisioned that only electric vehicles will circulate in cities - the future home of around 85% of the population in Europe. Therefore, the electric mobility scenario will involve an effective transport policy path until the vision "no more conventionally-fuelled cars in cities by 2050" can be reached. Concerning intercity passenger and freight transport, the Transport White Paper anticipates, until 2050, a 50% shift of road traffic to rail and waterborne transport. Therefore, maritime transport will need to play an active role in the funding strategy as shipping emissions would need to be cut by 40% (if feasible 50%) through low carbon fuels and operation improvements (compared to 2005 levels). This shall involve interdisciplinary research on the topic "Maritime transport activities, trade and Greenhouse Gas Emissions" which will include the study of international regulatory policy measures, environmental externalities such as noise and air emissions from shipping activities and to explore setting integrated carbon markets by shifting freight from road.

Inclusive transport growth in Europe will involve working towards a more democratic transport system (free information, fair use, efficient modal choices and pricing). This will require planning and funding activities related to most vulnerable transport users (pedestrians, cyclists, physically-handicapped and visually impaired users, etc) along with the provision of information systems to users of all transport modes (energy consumption, private and social costs imposed to others including environmental externalities). Real-time information systems can be used to optimize the use existing transport infrastructures and to promote modal shifts. It is recommended that the funding policy can address the full cycle of research, innovation and deployment.

### **3. How might the Bank better contribute to “inclusive growth” fostering employment and delivering social and territorial cohesion? In particular:**

#### **o What role might the Bank’s operations in the transport sector have in fostering employment?**

Investments in new technological schemes with application to the transport sector can entail the fostering of employment by a number of means: First of all, the financing of transport projects can lead to regional development in cases where additional criteria (such as area type, population size etc) are used for the allocation of resources. Second, in many cases financing new technologies leads to the creation of new structures with personnel needs (a typical example is the creation of DRT schemes).

#### **o How might the Bank’s activities in transport better contribute to territorial cohesion, particularly in convergence areas, peripheral regions and remote islands?**

#### **o How transport investment (in means and/or infrastructure) may contribute towards urban and regional development?**

The mechanism that the EIB can use for contributing to territorial cohesion (as well as urban and regional development) is the financing of actions that promote passenger interconnectivity and foster mobility as well as investing in new constructions. The first option supports the concept of better utilization of the current infrastructure while the second (construction of new infrastructure) supports the view that mobility needs should be satisfied with the creation of new infrastructure. Even though the two options constitute a rather difficult and complex dilemma (also from a scientific viewpoint) which depends on the specific conditions, herein we analyze only the first option which is considered easier to implement and is in line with the environmental policy guidelines of the Bank.

A critical parameter for achieving the better utilization of current infrastructure is the promotion of passenger interconnectivity and freight intermodality (in terms of continuous information flow, paperless transactions between businesses or integrated ticketing for travellers). This can be achieved by enhancing transport connections that concern:

- interfaces and interconnections between different modes
- interfaces and interconnections between different types of services of the same mode, such as long-distance rail services/ regional rail services or urban bus / express coach (for passenger transport)

Despite the fact that these services represent a small portion of the mobility or the supply chain (for passengers and freight respectively) offer an upgraded fluidity in the whole door to door trip. Thus EIB Bank should finance projects relating to the promotion and upgrade of such infrastructures underlining the intermodal objective of the projects, aiming at the promotion of new business models (also using PPP) which are able to resolve the legal and organisational barriers for achieving intermodality.



## **5. Final remarks**

This contribution of ECTRI has been produced within a limited time frame after consultation of experts of our network. More detailed comments, e.g. on different transport modes, would need more time and effort in order to provide a coherent and consensual opinion.

Parallely ECTRI is preparing a position paper on the new White Paper for Transport “Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system” adopted on March 28, 2011 by the European Commission, that should be released early July 2011, and that might provide further relevant inputs to the future EIB policy.