Investing in sustainability: The role of the EIB in establishing a decarbonised transport sector

Response to the public consultation on the EIB lending policy in support of a sustainable transport sector

June 2011
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About Transport & Environment

Transport & Environment’s mission is to promote transport policy that is based on the principles of sustainable development. That means minimising the use of energy and land and reducing harmful impacts on the environment and health while maximising safety and guaranteeing sufficient access for all.

The work of our Brussels-based team is focused on the areas where European Union policy has the potential to achieve the greatest environmental benefits. Such policies include technical standards for vehicle fuel efficiency and pollutant emissions, environmental regulation of international transport including aviation and shipping, European rules on infrastructure pricing and environmental regulation of energy used in transport.

Naturally our members work on similar issues with a national and local focus. But their work also extends to public transport, cycling policy and other areas largely untouched by the EU. Transport & Environment’s role in this context is to bring our members together, adding value through the sharing of knowledge and campaigning strategies.

Established in 1990, we represent around 50 organisations across Europe, mostly environmental groups and sustainable transport campaigners.

We are politically independent, science-based and strictly not-for-profit.
1. Summary: EIB transport priorities

**Actively support transport decarbonisation:** The Bank is key in providing support to implement EU policies. It is important that EIB transport lending reflects the main objective set by the White Paper on Transport (March 2011) to cut transport sector GHG emissions by 60% by 2050 compared to 1990, which equates to a 70% cut of current emissions. The Bank should accelerate the decarbonisation of the energy and transport sectors.

**Assess the climate performance of all investments:** A climate impact assessment should be embedded in the EIB selection process to ensure that all projects contribute to a more sustainable transport system. A CO₂/€-invested indicator should be published for each project to allow a ranking which reflects the climate impact of EIB investments. The EIB should demonstrate improvement over time in line with the EU climate target for 2050.

**Measure action against good intentions:** In 2007, the EIB indicated a commitment to environmental sustainability and the fight against climate change. However, between 2007 and 2008, support for aviation projects increased by some 300%, facilitating growth in the most carbon-intensive transport mode. At the same time, the share of rail and maritime projects declined in the overall EIB portfolio. The overall climate impact of the lending portfolio should be published to ensure that lending is sustainable in both word and deed.

**Prioritise infrastructure upgrades and implement the user pays principle:** The Bank should prioritise upgrading existing infrastructure and addressing congestion and pollution. In addition, the EIB should require application of the “user pays principle”.

**Increase EIB access for smaller projects:** Small projects are often better manageable and environmentally more sustainable. Smaller projects, for example in public and urban transport, could be pooled to access loans.

**Support a clean energy shift for transport:** The Bank should adopt a moratorium on biofuels lending until the question of indirect land-use change (ILUC) is solved in EU policy. Lending should be focussed on establishing smart grids and the electrification of rail lines and ports. Priority must be given to integration of low-carbon renewable energy sources in transport.

**Stop lending for car factories:** In a period of production overcapacity, the Bank should not support automotive production, either inside or outside the EU, which can be self-financed by private investment and often receives national support. EIB lending should focus on R&D for efficient vehicles and ships.
2. Meeting the White Paper targets

Since the launch of the public consultation in March 2010, a number of important developments have been made in EU transport policy, notably the establishment of a CO$_2$ reduction target by the new EU White Paper on Transport of 60% to 2050, compared to 1990, which equates to a 70% cut in current transport sector emissions. As infrastructure investment is a key measure to deliver EU transport policy objectives, it is important for the EIB to require projects to contribute to this decarbonisation goal.

Integrate clear and robust carbon accounting into lending criteria

The EIB’s commitment to sustainability and the fight against climate change was stated in October 2007. However, this is not reflected in its portfolio. On the contrary, between 2007 and 2008, support for aviation, which is the most climate-intensive mode of transport, has increased by some 300%, while the share of lending to rail and maritime projects declined.

Whilst the Bank indicates that it does not want to “discard one or the other type of intervention, one or the other transport mode”, the EIB must ensure that future investments reflect EU policy priorities. We do not suggest an explicit preference for certain modes, but emphasise the need for climate impact assessment within project selection criteria.

The EIB’s sustainability commitments must be reflected in both word and deed: Prioritisation of clean energy, energy efficiency and low carbon transport projects is crucial to meet the GHG reduction target for 2050. The EIB should integrate a robust and systematic carbon assessment into the selection criteria for investments, to ensure that loans contribute to a more efficient, low carbon transport system.

The Bank indicates that it “seeks to strengthen the assessment of the consequences of its projects in terms of energy consumption”. This assessment is vital at the pre-selection stage, based on projected energy consumption and emissions, to evaluate the climate impact of proposed investments. Energy and carbon assessment should be included in the decision-making process: EIB transport lending must make a net positive contribution to the decarbonisation of transport.

Figure 1: Required CO$_2$ reduction from transport (1990=100), including interim 2030 target
A portfolio that reflects the EU priorities

In its consultation document, the Bank mentions its intention to establish a “more systematic multi-dimensional assessment and subsequent ranking of projects to ensure limited investment resources are applied optimally to best meet objectives”.

In order to measure the climate impact of investments, the Bank should publish an indicator of CO$_2$/€-invested for each project. Such an indicator allows a ranking of projects, in terms of decarbonisation, which should be used in investment decisions.

Such a ranking would ensure priority is given to the most energy-efficient projects. For example, to traffic management systems and alternative infrastructure, such as electric charging points for electric vehicles.

In contrast, aviation is by far the most carbon intensive mode of transport, and will remain so even after inclusion in the EU-ETS. The latest scientific evaluations put the climate forcing impact of global aviation at 4.9% of total climate forcing$^1$ while its contribution to global GDP is 0.7%$^2$. This means that aviation is seven times more climate intensive than average economic activities. Moreover, the climate impact of aviation is not limited to CO$_2$. NOx emitted by aircraft at altitude induces ozone in the upper troposphere and lower stratosphere. Overall, the climate impacts of flying are an order of magnitude greater than any other mode (see chart below).

On the basis of a climate impact assessment, it follows that aviation projects will not be eligible for EIB support. As an analogy, coal-fired power plants are also included in the ETS, but this is not a reason for extending loans to their construction. Why should it be different for aviation as the highest emitting transport mode?

![Figure 2: Average climate intensities by transport mode (g/pkm)](image)

1. Aviation and Global Climate Change in the 21st Century, Lee et al, 2009
2. The importance of the aviation industry for the global economy, Stephen Perkins, International Transport Forum, September 2010
Road and motorway expansion projects should also be closely scrutinised according to climate impact, and noting the White Paper objective to shift international traffic (over 300km) to rail and waterborne transport. We also question whether EU public money should be invested as opposed to national public authorities, private sources or PPPs. With regard to the White Paper objective for long distance transport, EIB lending will be crucial for enhancing interoperability of rail networks, removing bottlenecks and to establish operational EU rail freight corridors.

The Bank should regularly and systematically check that its investments really deliver emissions reduction as projected.

3. Guiding principles for EIB transport activities

*Infrastructure*

EIB lending should focus on creating benefits for the largest number of citizens, where this would not otherwise arise via investment from national or private sources. Project assessment should examine whether accessibility and mobility could be better served via alternatives to new infrastructure construction, for example traffic management measures and/or upgrading existing infrastructure.

Investment selection should follow a hierarchy of measures, to ensure that only truly necessary investments are made, if the goal cannot be achieved in a more cost-effective way. One example could be ETRMS, which merits continued support. By enabling the creation of interoperable railway network and expanding the capacity of existing infrastructure, ERTMS offers potential to shift transport volumes to rail and thus reduce emissions.

Investment should also support the development of technical solutions, such as ITS, including infrastructure charging equipment, information, ticketing and signalling systems, collective transport, regional and urban projects. Urban projects are crucial if the EIB decides to seriously address pollution and congestion problems that are concentrated in urban areas. In order to unlock funding for smaller scale projects, the EIB should consider pooling similar projects in order to access to EIB lending programmes.

*Energy*

Access to a decarbonised energy supply is a decisive precondition to cut transport emissions. The shift to low-carbon energy sources and the development of lower/zero emissions vehicles are priorities of EU transport policy. The EIB must meet the call for electric vehicles with measures to address the impact of this shift on the energy infrastructure and the additional demand it will create.

In order to pave the way for an efficient transport system, the EIB should accompany these developments with the deployment of a proper energy infrastructure based as much as possible on the integration of renewable electricity. Moreover, it should support the development of smart grids and other initiatives that will be able to balance the new supply and demand for electricity and
enable easier integration of renewable energy sources. If EIB is funding the projects to stimulate uptake of electric vehicles, it must consider the quantity and carbon intensity of electricity supplied, and make this information publicly available.

Energy supply is also an important element in upgrading transport infrastructure. As an example, in 2008, only 52% of the EU-27 rail network was electrified. The deployment of onshore electricity supply in ports is also a very important aspect to reduce emissions from maritime transport and improve air quality in harbours.

Concerning the development of biofuels, as mentioned in the EIB consultation document, the Bank should adopt a moratorium until the question of indirect land-use change (ILUC) is solved in EU policy. There is overwhelming scientific evidence showing the urgency of including ILUC emissions in impact assessments. In future, taking ILUC properly into account, some biofuels such as those produced from real waste and residues could be merit EIB support.

**Vehicles**

While EU public funds are generally concentrated on the development of infrastructure, EIB lending is also targeting vehicles and ships. In addition, the EIB has supported car and aircraft manufacturing and R&D, which is inappropriate in a period of production overcapacity. We also believe that these industries can attract sufficient private investment, and/or public investment at national level, so there are no grounds for EIB involvement. This also goes for investment in production capacity outside the EU – overcapacity and climate change are global problems, not European ones.

For trains, inland vessels and ships, EIB lending policy on should be focused on energy-efficient rolling stock and ships and the retrofitting of the existing fleet with after-treatment technologies to cut pollutant emissions (mainly NOx and PM). Retrofitting activities and the purchase of low-carbon fleet for public transportation could also be prioritised by the Bank, after climate impact assessment.

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**4. Answers to consultation questions**

**Smarter growth**

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?

How might the Bank better contribute to the introduction of new technologies 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?

Are there particular initiatives in which the Bank should be proactive eg the “green” car initiative?
The Bank should limit its involvement to:

- More fundamental and high-risk projects focusing on the first stages of R&D;
- Projects that aim at hitting environmental targets beyond EU legislation;
- Projects that offer very significant environmental or safety improvements as their key objective, not as a co-benefit.

It is important to make the latter distinction because almost any new technology in car development directly or indirectly affects (hopefully improves) the environmental performance of the vehicle or the production process.

New engine development is a good example. All carmakers are improving their engines to hit the EU CO2 targets of 130 g/km by 2015 and 95 g/km by 2020, and Euro 6 air pollution standards at the same time. The EIB should only fund high-risk developments that aim at hitting targets beyond those required by legislation. Fuel economy typically increases with each replacement, so there is no reason to support new engine development as a whole.

**Sustainable growth**

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

One of the most cost-effective ways of improving mobility in a sustainable manner while reducing congestion is to manage the mobility demand and improve the existing network. Therefore, the Bank should systematically consider alternatives to building new infrastructure prior to its lending decisions.

In practice, such methodologies are already applied in Europe and could serve as an example for the definition of an internal EIB methodology:

<table>
<thead>
<tr>
<th>The Netherlands: ‘Seven stages of Verdaas’</th>
<th>Sweden : ‘four-stage principle’ hierarchy</th>
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</thead>
<tbody>
<tr>
<td>1. Optimise spatial planning – prevent transport</td>
<td>1. Influence demand for transport and the choice of</td>
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<tr>
<td>from happening</td>
<td>transport mode</td>
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<tr>
<td>2. Optimise pricing - Internalise external costs</td>
<td>2. Improve use of existing network</td>
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<tr>
<td>3. Exploit options for mobility management</td>
<td>3. Improving existing Infrastructure</td>
</tr>
<tr>
<td>4. Optimise public transport</td>
<td>4. New investment and major rebuilding measures</td>
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<td>5. Optimise use of existing capacity</td>
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<td>6. Adapt existing infrastructure</td>
<td></td>
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<tr>
<td>7. Underpin need for new capacity</td>
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EIB transport lending should be accessible for projects in the order of priority outlined above – starting with demand management and traffic avoidance projects. EU citizens would be best served by such an approach which ensures better value for money.

Moreover, it is clear that if the EIB is serious about reducing congestion and pollution, it will have to develop a comprehensive approach on urban transport, as these externalities are most significant in cities.
How might the promotion of energy efficiency in the various transport modes best be supported?

This question is central for the EU effort to decarbonise the transport sector. In order to ensure that the most efficient projects are supported, a robust carbon proofing of every project should be carried out and the projects ranked on the basis of their carbon performance. This carbon assessment should include the emissions for the construction, use and maintenance of the infrastructure. The details of the carbon proofing methodology should be developed, approved and published by the Bank after a transparent process involving the EU institutions, experts and stakeholders. Quantification of rebound effects should take a central role in the process. A solid basis already exists for such a methodology, including well-to-wheel calculations or the HEATCO study (2006).

This carbon test should be made mandatory in the assessment of projects applying for EIB support. The Bank should publish this analysis prior to any funding decision in order to ensure due process and transparency.

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

Numerous incentives and demonstration projects for electric vehicles have been announced all over Europe. Electric vehicles are currently a developing technology, which could potentially be beneficial for reducing GHG emissions and diversifying energy supply in transport. However, certain conditions have to be met in order to ensure that environmental benefits will be realised and that potential risks (i.e. increased demand for unsustainable and carbon intensive energy sources) will be avoided.

The EIB should ensure that the projects on electric vehicles that it supports require the integration of renewable electricity and that they result in the overall reduction of the energy use in transport. It should follow these guidelines:

- Do electric vehicles actually substitute conventional cars?
- Is the power sector being decarbonised by generation of renewable electricity?
- Is the real life EV efficiency and power uptake being generated?
- Does a project promote innovative business models that encourage the use of advanced technologies and green electricity?

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

The development of renewable energy sources for the transport sector should be supported as long as renewables also reduce GHG emissions. In the case of conventional biofuels, this seems not to be the case due to the impacts of indirect land use change (ILUC). ILUC occurs when biofuels are grown on existing agricultural land and food and feed has to move into new areas, prompting land conversion and leading to increased GHG emissions. The Bank should adopt a moratorium as long as the ILUC question of is not properly solved (EC has committed to address it by July 2011). Without a proper accounting of the additional emissions that may occur as a result of ILUC, it is still unclear whether biofuel production will effectively contribute to decarbonising transport.

As for the support of other energy sources in transport (hydrogen and electricity from renewable sources), the main guidance should be whether they are reducing GHG emissions compared to the
EU baseline fuel used. In case of development of infrastructure for electric vehicles, priority should be given to the integration of renewable energy sources in smart grids and support for innovative business models that encourage consumers to use green electricity.

**Inclusive growth**

Which strategic projects with high European value added addressing critical bottlenecks, cross border sections, inter modal nodes (cities, ports, logistic platforms) should be accelerated through Bank interventions?

The EIB should continue to support the development of the TEN-T network, where long-term benefits are provided and these projects would not otherwise attract private or national support. Support for TEN-T projects should be conditional to a robust evaluation of the climate impacts.

While TEN-T projects generally concentrate on the infrastructure linking European cities and freight hubs, EIB funding could complement these investments by supporting projects aiming at improving traffic management and inter-modality for last-mile transport (intermodal logistic platforms, public transport, park and ride, etc.).

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

Enhancing the territorial cohesion and the links to peripheral regions are important objectives of the EU. However, all too often cohesion is used as a justification for carbon-intensive investment decisions, such as regional airport construction which locks in energy-intensive development. Future transport investments should not be restricted to meeting (creating) new mobility demand, but they should contribute to the long term objectives of the EU transport policy in terms of smart traffic management.

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

Because the vast majority of EU citizens lives in urban areas, investing in sustainable urban transport systems plays a particularly important role. Support for public transport is vital, but other initiatives can also be promoted in cities, such as the introduction of congestion charging, the retrofitting of vehicle fleet, etc. Moreover, it is very important to develop efficient transport solutions, allowing EU citizens to commute with the most environmentally friendly modes of transport: for example the development of an efficient regional rail transport, bike renting systems in cities, etc.

For further information, please contact:

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