

Context

Europe has clear and necessary objectives to decarbonise the economy by 2050, in order to minimise the impacts of climate change and increase energy security. Transport, which is the only sector where emissions are still increasing, is expected to start making a positive contribution, and should cut emissions by 70% by 2050, compared to today's emissions.ⁱ This is a serious challenge. Without decisive new action, transport GHG emissions are expected to grow by 74% by 2050 compared to 1990.ⁱⁱ

With very long lifetimes for transport infrastructure, the projects supported by EU funds will set the path for transport beyond 2050 and into the next century. Decisions taken now will either lock Europe into further emissions and carbon-intensive development, or set us on a more sustainable course.

It has been pledged that at least 20% of the proposed €1trillion EU budget for 2014-2020 should contribute to climate mitigation and adaptation goals.ⁱⁱⁱ This briefing outlines how these commitments can be put into practice across the relevant EU funds for transport projects.

How much money is at stake?

For 2014-2020, major transport infrastructure projects will be supported by the Connecting Europe Facility (CEF, of which the transport part was formally known as TEN-T) with just over €30bn proposed for transport, plus a further €10bn allocated to CEF transport projects from the Cohesion Funds.

In addition, the Cohesion Fund and the European Regional Development Fund (ERDF) usually allocate substantially higher amounts for transport. In the current funding period, transport takes up 22% of the cohesion funds. If that share would be maintained, this would equate to around €74bn for the period 2014-2020.

But the real financial impact is far bigger: EU spending on major transport projects is estimated to leverage five times more in national funding sources, and twenty times more in private investments.^{iv} The EU cash gets projects off the ground that may not otherwise find investment.

Does the EU currently favour 'green' transport projects?

No. Priorities for strategically important projects are to be set by the Trans-European Transport Network (TEN-T) guidelines, which will also be updated for the new budgetary

period. The argument is often made that because the lion's share of TEN-T (now CEF) funding goes to the rail sector, this is enough to ensure the sustainability of transport investments. This assumption is wrong. Transport spending from cohesion funds (representing over ten times more funding) heavily favours roads. As a result, almost 50% of the current total EU investment in transport projects is allocated to road and aviation, making it all the more difficult to achieve our emissions goals for 2020 and 2050.

Are environmental concerns taken into account at all?

Hardly. Projects are assessed on socio-economic criteria in order to check whether their realisation needs public support and whether the results will have a sufficient enough economic impact to justify the use of public funds. Projects are also assessed by testing whether public money is really needed; in other words, whether private sector financing could be raised. Finally they are tested on EU 'value added' – i.e. that the EU should step-in because there are wider-than-national benefits.

All of these tests are necessary, but none of them structurally integrate sustainability. The Environmental Impact Assessment (EIA) is presently the only environmental safeguard for EU transport expenditure. But EIA results are sometimes overruled in practice, so have little impact on financial decisions.

How should the EU promote greener projects?

To help ensure that transport infrastructure spending contributes to overall transport emissions reduction targets, the EU should adopt a 'climate rating' methodology that ensures EU funds are used to stimulate clean and efficient infrastructure. T&E commissioned the consultants CE Delft to develop the basis for a methodology for a climate rating of all transport projects. The full report can be read at <http://www.transportenvironment.org/publications/climate-rating-transport-infrastructure-projects>.^v

Higher co-funding rates should be available to incentivise project promoters to build in 'added value' in terms of emissions reductions. Project promoters should be obliged to consider which is the most climate-friendly way to achieve the objective, which might include traffic management, a shift to other kinds of energy, or improving connections to public transport, walking and cycling or freight hubs.

The proposal for the Connecting Europe Facility does foresee a possibility to increase co-financing by up to 10% for projects contributing to climate mitigation objectives or cutting emissions, but there is no indication of how this would be assessed. Climate objectives cannot be considered to be 'mainstreamed' throughout the proposal – which would even ban the variation for the €10bn to support transport projects coming from the cohesion funds.^{vi}

What is climate rating?

The core idea of climate rating is that the proposed projects would have to pass an additional and independent test to evaluate its climate performance (in terms of greenhouse gas emissions). The rating would have to be included in the project proposal, and could be included in EU project appraisal and selection criteria. Such a rating is feasible, without undue administrative burden. The European Investment Bank is for example developing a similar tool to assess the carbon footprint of investments in major projects, including transport.^{vii}

How could a climate rating be made?

According to the CE Delft study, the GHG impacts of new, extended or upgraded transport infrastructure consist of four main elements:

1. Changes in greenhouse gas emissions from traffic, based on traffic forecasts, incl. modal shift and induced demand, emissions factors of different vehicles and energy sources;
2. Changes in greenhouse gas emissions from infrastructure operation, maintenance and management (OMM);
3. Greenhouse gas emissions from infrastructure construction, development and end-of-life processes;
4. Other impacts, such as indirect effects on other sectors.

Many of the data inputs required should already be available and used for the economic assessment (including traffic forecasts) and environmental impact assessment.

The net climate impacts can then be assessed for each project, or for a group of projects, eg in one region or one member state, or for the whole EU transport funding portfolio, to see how transport spending will contribute to achieving emissions targets. The impacts can also be judged relative to economic indicators, including initial investment costs, added value and the cost-benefit analysis.

Are there examples of how such a rating would work?

Yes, CE Delft looked at three different hypothetical transport projects and examined how the four criteria for carbon rating described above would apply. The three projects were: electrification of a rail line, construction of a new road, and introduction of a road pricing system. For all three, it was possible to calculate the expected GHG savings (or increases) based on a number of assumptions. This provides the building blocks for such a methodology, which could be further developed and integrated into EU transport project appraisal procedures.

Recommendations

A climate rating should be required in project proposals and integrated into the selection and appraisal process for EU (and national)-funded transport projects. In order to further develop a suitable methodology, the following key issues deserve further attention:

- Traffic modeling;
- Standardisation of a set of emission factors;
- Precise definitions and default parameters for emissions from infrastructure development, operation, management and maintenance;
- The climate impacts of soot emissions (black carbon).

In addition, EU project appraisal procedure would benefit from the following initiatives to improve the selection criteria, ensure transparency and avoid conflicts of interest:

- Require a social cost-benefit analysis for all major transport infrastructure projects;
- Introduce a mechanism to quality check all traffic modeling used for infrastructure project appraisal;
- Ensure full transparency of the relevant data and assumptions behind the EIA and social cost-benefit analysis;

- Introduce safeguards, such as independent external audits and ex-post evaluations, to ensure impartial project assessment.

Could greener projects be awarded a higher rate of EU funding?

T&E recommends using the results of the climate-rating process as a basis to reward projects: those offering the highest climate mitigation (or least damage), whilst achieving other policy objectives such as connectivity and accessibility, should enjoy preferential co-financing rates.

Such a system provides a clear incentive for applicants to choose the most sustainable solutions in order to benefit from a higher co-funding rate. Moreover, it encourages the project managers to propose and implement concrete measures to increase the efficiency of their projects in order to benefit from more attractive EU financial support.

Put simply, the cleaner a project is, the higher the percentage of EU funding it should receive.

www.transportenvironment.org/infrastructure

ⁱ European Commission, COM(2011) 144 final – White Paper: Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system

ⁱⁱ Skinner, I., et al. (2010). EU Transport GHG: routes to 2050? – Towards the decarbonisation of the EU's transport sector by 2050.

ⁱⁱⁱ European Commission (2011) A budget for Europe 2020, Communication COM(2011)500, 29 June 2011.

^{iv} Speech by VP Kallas, EPC, 2 Feb 2012:

<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/12/53&format=HTML&aged=0&language=EN>

^v CE (2011) Climate rating of transport infrastructure projects, Delft, commissioned by T&E.

^{vi} EC(2011) Proposal for a Regulation establishing the Connecting Europe Facility, COM(2011)665, Article 10(5).

^{vii} EIB (2011) Pilot carbon footprinting exercise:

http://www.eib.org/attachments/strategies/footprint_summary_of_the_methodologies_en.pdf