Seventh Impact Evaluation of the Green OATs Evaluation Council: Aid for Combined Transport program

The Green OATs Evaluation Council oversees the evaluation of the environmental impact of eligible green expenditure financed by the Green OATs, the French sovereign green bond.

This document summarizes the opinion of the Green OATs Evaluation Council[1] on the assessment report on the Aid for Combined Transport program to mitigate climate change, with the additional objective of reducing air pollution.

Main observations:

➔ The Green OATs Evaluation Council welcomes the evaluation, and notably the quantitative analysis of the effect of combined transport in France on climate change mitigation. Combined transport contributes to climate change mitigation and addresses also other environmental impacts (climate change adaptation and air pollution).

➔ This evaluation is part of the general effort to improve reporting practices in the green bond market.

➔ The quality of the evaluation meets current academic standards. The Green OATs Evaluation Council is satisfied with the methodology of the report. This sound study is based upon a transparent and robust research program and methodology and was supervised by independent assessors. It provides valuable insights.

➔ The Green OATs Evaluation Council endorses the results of the report and notes in particular that the associated expenditure contributes to the achievement of France's objectives in terms of climate change mitigation.

1. Introductory remarks

The Evaluation Council notes that France aims to reduce emissions by at least 40% by 2030 as compared with 1990 levels, and achieve carbon neutrality by 2050 in line with the objectives of the Paris Agreement. This is a demanding target that requires ambitious policies to reduce greenhouse gas emissions, particularly in the transport sector which accounts for 32% of French greenhouse gas emissions in 2022. Within this context, combined transport plays a key role in promoting sustainable mobility while reducing the environmental impact of freight and passenger movements.

Since 2016, the "Aid for Combined Transport" program, financed through France's Green OAT, has supported a range of schemes aimed at reducing greenhouse gas (GHG) emissions and mitigating air pollution, particularly through the promotion of rail and waterway transport. In practice, this budget line, managed by the Minister for Transport, provides funding for three separate aid schemes, only one of which concerns combined transport in the strict sense of the term. These include aid for electric transport rebates, operating subsidies for combined

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transport operators, and incentives for single wagonload services. Collectively, these initiatives exhibit high alignment (68–99%) with the European taxonomy for sustainable transport. In financial terms, the largest scheme, providing approximately €200 million annually, supports electric rail transport, achieving an estimated annual reduction of 200 ktCO2e. Similarly, the "gripper aid" program, which subsidizes transhipment costs from €15 million in 2016 to €47 million in 2022, generates annual savings of 10–30 ktCO2e depending on the transport mode and service type. Meanwhile, the newer single wagonload aid, launched in 2021 with €53 million and renewed in 2022 with €77 million, demonstrates potential despite design challenges, with an estimated annual reduction of 30 ktCO2e.

The study provides a comprehensive evaluation of these schemes over the period 2016-2022. After a reminder of the general framework and common methodological provisions, each of these schemes is examined qualitatively, in particular with regard to the requirements of the European taxonomy, and then quantitatively with regard to the expected environmental objectives.

2. Main results of the evaluation provided to the Council

The objective of this study is to provide qualitative and quantitative indicators on the key environmental impacts of expenditures allocated to encourage the use of less emissive and less polluting means of transportation. The primary environmental impact of improving clean means of transport is the reduction of GHG emissions, which forms the main result of this study. Other environmental impacts include reducing air pollutant emissions and associated costs, as well as promoting multimodal transport solutions.

The study follows a quantitative approach, but is completed by qualitative elements to evaluate compliance with the European taxonomy and measure activities' contributions to key environmental objectives. The main objective of the study is to assess the relevance and environmental effectiveness of the subsidies granted. What needs to be assessed is not the environmental impact of the assisted services, but rather the environmental impact of the "additional" services that the granting of aid has enabled to maintain or create.

The study evaluates three different types of aid schemes under the "Aid for Combined Transport" program, focusing on their eligibility, alignment with the European taxonomy, environmental contributions, and cost-effectiveness:

- Subsidies for electric transport

This scheme, the largest of the three, incurs annual expenditures of approximately €200 million. Established in 2004, it reduces the electricity tax rate for passenger and freight transport *via* trains, metros, trams, cable cars, electric or hybrid buses, and trolleybuses from €22.5 to €0.5 per MWh. The scheme is 99% aligned with the European taxonomy, with an eligibility rate of 98% (100% excluding sports and leisure activities) and a final alignment rate of 96% (excluding fuel transport). It saves approximately 200 $ktCO_2$ annually, at an average cost of €1,140/tCO_2 for passenger transport and €450/tCO_2 for freight.

The study also highlights a "sprinkle effect", since additionality cannot be clearly demonstrated due to a low subsidy on fares ratio.

- Combined transport aid

Introduced in 1994, this subsidy is provided per intermodal transport unit (ITU) transhipment within a combined transport chain ("clamp aid"). While 100% of subsidized activities are eligible, 68% align with the taxonomy due to river freight transport's reliance on fuel. Approximately 98% of rail combined transport (CT) traffic uses electricity, contributing to climate change mitigation.

The GHG reduction is modest, estimated at 30 $ktCO_2$ for the aid, with high costs averaging €1,600/tCO_2. The impact of the subsidy mechanism is limited for river transport, which is costly (€6,500/tCO_2) compared to rail highway (€400/tCO_2), and it is particularly true for river freight.

- Aid to single wagonload services

Established in 2021, this fixed subsidy (€1,700 per train) supports freight trains serving specific sidings from marshalling yards. All supported activities are eligible, but only 70% align with the taxonomy due to 23% of rotations involving non-electrified local lines and 10% of traffic comprising fossil fuels.

Evaluating the aid to single wagonload services is particularly challenging due to several factors. First, it requires consideration of all segments of the transportation scheme to accurately compare costs and environmental benefits with road transportation. Second, the lack of end-to-end data complicates the analysis, making it difficult to track the complete logistics chain. Lastly, there is limited information available on the power mode (diesel or electric) used at the origin and destination points, further hindering a comprehensive assessment.

GHG reduction is highly costly, at €2,280/tCO_2. The study suggests a potential redesign of the subsidy calculation, incorporating factors like the number of wagons, rail route length, and average train frequency, as is done in other countries.

3. Quality of the evaluation

It is the Evaluation Council's opinion that the study meets the objectives defined by the terms of reference. The authors have assessed the policies implemented against a counterfactual scenario according to several criteria: relevance; economic efficiency; cost allocation and additionality of the instrument. In particular, the Council welcomes the quantitative assessment of the decarbonization levers provided by the three schemes under consideration. The assumptions and method used are conservative and clearly refrain from overestimating the environmental benefits of the measure under consideration, which guarantees the reliability and credibility of the conclusions.

4. Conclusion and next steps

The Evaluation Council welcomes the results of the evaluation of the Aid for Combined Transport program, as this measure is a key element of the French government's climate change mitigation strategy.

The Evaluation Council wishes to underscore the excellent quality of the assessment process. The supervision exercised by the assessors guarantees its independence and quality. Having carried out this initial environmental impact assessment, the Evaluation Council reiterates the importance of anchoring this process in the long term and giving it the time it needs to conduct proper assessments.

The Evaluation Council is confident that this new assessment will be useful to other issuers of green bonds and will contribute to the development of good assessment practices in the market. This study could be of particular use to issuers in countries with similar transport policies. Indeed, impact studies of this kind and transparency are essential factors in encouraging the development of green finance.