



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MOBILITY AND TRANSPORT

Director-General

DECISION

authorising the use of unit costs for the retrofitting of noisy wagons under the Connecting Europe Facility (CEF) - Transport sector

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing the Connecting Europe Facility, amending Regulation (EU) No 913/2010 and repealing Regulations (EC) No 680/2007 and (EC) No 67/2010 (the CEF Regulation)¹, and in particular Article 7(2)(i) thereof,

Having regard to Regulation (EU, Euratom) No 1046/2018 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union² (the Financial Regulation), and in particular Articles 125 and 181 thereof,

Whereas:

- (1) Article 181(3) of the Financial Regulation provides that the use of unit costs shall be authorised by a decision of the authorising officer responsible, who shall act in accordance with the internal rules of each Union institution.
- (2) In accordance with Article 8(1) of the CEF Regulation, the work programmes referred to in Article 17 of this Regulation shall establish the forms of grants that may be used to fund CEF actions.
- (3) Article 13(c) of Regulation (EU) No 1315/2013 on Union guidelines for the development of the trans-European transport network defines as a priority the measures mitigating the impact of noise and vibration caused by railway transport, including by retrofitting existing rolling stock.

¹ OJ L 348, 20.12.2013, p. 129.

² Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012 (OJ L 193, 30.07.2018)

- (4) In accordance with Article 7(2)(i) of the CEF Regulation, actions to reduce rail freight noise, including retrofitting of existing rolling stock in cooperation with, inter alia, the railway industry are eligible to receive Union financial assistance in the form of grants.
- (5) In accordance with Article 10(2)(b)(iv) of the CEF Regulation, the amount of the Union financial assistance shall not exceed 20% for actions to reduce rail freight noise, including by retrofitting existing rolling stock.

THE FOLLOWING HAS BEEN DECIDED:

Sole Article

The use of the Union contribution in the form of unit contribution is authorised for the retrofitting of noisy wagons under the Connecting Europe Facility (CEF) – Transport sector, for the reasons and under the conditions set out in the Annex.

Done at Brussels,

Henrik HOLOLEI
Director-General
DIRECTORATE GENERAL MOBILITY
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ANNEX

1. FORM OF UNION CONTRIBUTION AND CATEGORIES OF COSTS COVERED

The Union contribution for actions retrofitting noisy wagons under the Connecting Europe Facility (CEF) – Transport sector shall exclusively take the form of unit contribution covering the following categories of eligible costs:

For the S-type wagon:

- Material - brake blocks
- Work - installation of brake blocks
- Wheels reprofiling
- Brake test
- New markings on wagon

For the SS-type wagon:

- Material - brake blocks
- Material - brake cylinder/ventil
- Work - installation of brake blocks
- Work - brake cylinder/ventil
- Wheels reprofiling
- Brake test
- New markings on wagon

Total retrofitting costs are composed one-off installation costs³ listed above and of recurring costs due to increased maintenance requirements on wheels fitted with composite brake blocks (additional life-cycle costs).

The listed categories of eligible costs represent material and labour costs incurred as the one-off installation costs, also called investment costs. Considered as indirect costs, the wagon transport costs (to workshop and back), although part of the one-off installation costs, are not eligible. The additional life-cycle costs are not eligible. A pro-rata factor of 0.5 is applied to some of the costs as it is assumed that 50 % of retrofitting will be done as part of the standard maintenance cycle of 6 years.

Regarding the material - brake blocks, there are two UIC approved composite brake block types identified in the technical specification for interoperability relating to the subsystem rolling stock — freight wagons⁴: the K-type with a higher friction coefficient, LL-type with a lower friction coefficient comparable to cast iron brake block. The K-blocks cannot be fitted in existing wagons without modification of the braking equipment and thus do not represent a cost-efficient retrofitting solution. However, there are cases where no LL-type block is available for a given wheel and braking system. Such wagons are in general excluded from new NOI TSI requirements. Consequently, the calculation of the eligible estimated value per unit will be based on a retrofitting with composite brake block (LL).

The amounts of the unit contribution to be used shall be calculated in accordance with Section 3.

³ One-off installation costs of retrofitting of SS-type wagons which do not require the replacement of the kink valve will be considered in the same way that the one-off installation costs of retrofitting of the S-type wagon.

⁴ OJ L 104 12.4.2013, p. 1

2. JUSTIFICATION

Recourse to unit contributions considerably simplifies, streamlines and reduces the time needed for the financial management of projects, both at Commission/ Innovation and Networks Executive Agency (INEA) as well as beneficiary level. Compared to the 'traditional' system of calculating the grant amount on a detailed budget of estimated actual eligible costs per cost category, a unit cost system is not only more cost-effective and economically sound than item-based budgeting: it significantly shortens the time needed to calculate grant amounts and prevents amendments related to budget variations. It also significantly decreases the workload of the management body and consequently speeds up the payment procedure. Furthermore, it implies additional simplifications at beneficiary level both in terms of application and reporting requirements.

In summary, this approach provides simplification through:

- greater predictability for grant beneficiaries making the actions more attractive;
- less administrative burden for checking at the payment stage reducing overheads for the contracting authority and facilitating productivity gains;
- simplified reporting requirements (no certification or financial statement to be provided by beneficiaries);
- easier ex-post analysis (riders related to budget variations will be avoided; payment based on predetermined output or result) and further reductions of the risk of error.

Actions on retrofitting noisy wagons are particularly suited to the utilisation of unit contributions given that it consists in small operations that can be implemented and monitored in series.

2.1. Nature of the supported actions

The root problem of rail noise is identified with the braking technology used (cast iron brake blocks), which affects the wheels' surface and increases the roughness of the rail, resulting in more rolling noise. Rail freight wagons equipped with cast iron brake blocks currently represent about 75 % of all the European freight wagon fleet.

The installation of synthetic (composite) brake blocks reduces the roughness of the wheel, which in turn rapidly improves the noise level. However, the use of synthetic blocks and the resultant damage on the running surface of the wheels increases the amount of reprofiling required, which makes rail freight traffic more expensive. Newer, technically advanced solutions, such as disc brakes, which reduces the life cycle costs problem, have still found limited acceptance among many players in the market, as the initial additional costs of procurement prove to be an obstacle to their application.

Passenger rolling stock including high speed trains, are typically equipped with disc brakes and, unlike the freight wagons, they rarely operate during night time. Consequently, they are considered less of an issue.

To prevent the introduction of national operating restrictions, such as night bans or speed limitations, which would limit line capacity, create new barriers to interoperability and negatively affect rail transport competitiveness, the Commission seeks with the Railway interoperability and safety committee (RISC) to introduce a common approach at EU

level for reducing rolling noise by existing noisy wagons. EU action would accelerate the pace of the retrofitting in order to obtain socio-economic benefits at an earlier stage.

In this context, the European Union Railway Agency (ERA) has prepared a recommendation for the revision of the Commission Regulation (EU) No 1304/2014 of 26 November 2014 on the technical specification for interoperability relating to the subsystem ‘rolling stock — noise’⁵ (hereafter NOI TSI), accompanied by the impact assessment⁶.

The NOI TSI impact assessment focused in particular on the retrofitting of freight wagons brake blocks, which has been determined as the most cost efficient measure to reduce railway noise.

To achieve higher reduction in rolling noise by noisy wagons, the following specific objectives are identified in the NOI TSI impact assessment:

- accelerate renewal of the fleet
- accelerate brake block retrofitting
- prevent national measures with detrimental effects on interoperability, costs and fair market
- maintain competitiveness of rail transport

In this respect, four options, corresponding to different implementation strategies to extend the application of NOI TSI requirements on existing wagons, have been studied by ERA. The option IV, which was recommended by the Commission in its Mandate to ERA for the proposal for revision of the NOI TSI, was found to be the preferred option by the impact assessment. It consists of imposing a ban on “noisy” wagons running on “quieter” routes, namely on part of the network with a minimum length of 20 km on which the annual average daily operated freight trains during night time is higher than 12. Night time is defined for each Member State in its national legislation transposing Directive 2002/49/EC. The Member States⁷ will be invited to provide ERA with a list of quieter routes no later than six months after the date of publication of the revised NOI TSI. The Commission aims to implement effective quieter routes at the latest by end of 2024. ERA estimated that at least 75% of wagons registered in EU Member States will have to meet NOI TSI requirements in order to allow for undisrupted operation on networks consisting of quieter and normal routes.

The cost benefit analysis (CBA) of the impact assessment examined the impacts of the four options on the wagons fleet (needs and composition), the retrofitting costs, the additional retrofitting and logistics costs, the noise impacts and the modal-shift effects. It demonstrates that, for all options, individual Benefit/Costs was largely above 1 and the overall net present value taking into account impacts for railways and society was positive. One must nevertheless note that the costs for the railway undertakings and wagons keepers are important and the benefits non-existent. Retrofitting of existing wagons with silent brake blocks would immediately and directly provide benefits to citizens (improved health through noise reduction), but at the same time it brings along

⁵ ERA 006REC1072 Revision of the NOI TSI Recommendations: <http://www.era.europa.eu/Document-Register/Documents/006REC1072%20Recommendation.pdf>

⁶ ERA 006REC1072 Revision of the NOI TSI Impact Assessment: <http://www.era.europa.eu/Document-Register/Documents/006REC1072%20Full%20impact%20assessment.pdf>

⁷ Baltic countries are exempted.

considerable costs to the railway industry, affecting the level playing field when it comes to competition with road transport and potentially leading to a reduction of rail freight traffic in the EU. This would undermine EU policy goals, notably in carbon emission area.

In order to accelerate the retrofitting of noisy wagons, financial assistance from the Union is expected to facilitate the mobilisation of resources in a short period of time, in line with the Commission's policy. The recourse to unit contributions is justified by an expected very high number of applications and the need of an appropriate form of financing which would simplify the administrative burden. While a budget-based approach involves complex rules related to budget transfers and variations with project implementation subsequently entailing a lot of accounting compliance, a unit-cost approach provides the opportunity to put added value on the quality of the results as well as on the impact of the support. Moreover, the sole use of unit contributions represents a further simplification for applicants ensuring certainty and transparency of funding levels in case of selection and proper implementation of the project.

2.2. Risks of irregularities and fraud and costs of control

The extended use of simplified forms of grants for retrofitting of noisy wagons actions may imply certain risks of irregularities and fraud. Therefore, the importance of having effective internal control procedures for fraud prevention and reporting of irregularities is increased.

Reporting and control on Rail Noise Reduction actions will focus on the implementation of the supported activity and the achieved results rather than on the eligibility of costs incurred, reducing the workload and scope for error of both participants and managing body. The essential condition triggering the payment shall be based on the outputs, namely the number of wagons retrofitted per type of wagon. The whole monitoring system is set up in a manner so as to ensure efficiency and cost-effectiveness of the controls. Monitoring on sampling evidence will be organised upon request by the Commission services and based on a copy of the official attestation from the contracted workshops where the retrofitting took place. Such attestation shall include:

- the type and batch number of the composite brake block installed on the freight wagon,
- the freight wagon, type and its number as registered in the National Vehicle Register.

The lack of supporting documentation justifying the output will lead to absence of payment.

In terms of costs of control, application of the unit contributions shall result in simplification of the administrative burden at all stages of the action cycle. The final payment procedure will be lighter and solely based on the technical deliverables. No actual expenditures will be declared and therefore no further analysis will take place.

3. METHOD TO DETERMINE THE AMOUNT OF THE UNION CONTRIBUTION IN THE FORM OF UNIT CONTRIBUTIONS

In accordance with Article 181(4)(c)(i) of the Financial Regulation, the method for determining the unit contributions is based on an expert judgement provided by internal

experts from the European Union Railway Agency (ERA) and documented in the NOI TSI impact assessment.

The amount of the unit contributions is calculated on the basis of the identified one-off installation costs of the retrofitting costs estimated by ERA in their NOI TSI impact assessment.

The one-off installation costs differ according to three types of wagons. The third category of wagons, called tyred-wheels type, is not eligible under CEF. Due to relatively high retrofitting costs and their advanced age, it is expected they would receive a temporary exemption on the national networks.

Two types of wagons eligible under CEF are:

- S-type wagon (100 km/h), not-automatic load-proportional braking system and brake linkage and slack adjuster in the middle)
- SS-type wagon (120 km/h), automatic load-proportional braking system and brake linkage and slack adjuster in the middle) requiring the replacement of the kink valve⁸

The estimated value per unit include all the one-off installation costs of the retrofitting estimated by ERA, except the costs relating to the transport to the workshop considered as indirect costs. The estimations detailed in the impact assessment represent the best to date ERA knowledge based on figures provided by the railway sector.

A pro-rata factor of 0.5 is applied to the costs relating to the work installation of the brake blocks, the brake test and wheels reprofiling, as it is assumed that 50 % of retrofitting will be done as part of the standard mandatory maintenance cycle of 6 years.

The costs of each item composing the total one-off installation costs are quantified. The new markings on wagon are multiplied by two to cover each side of the wagon. The calculation of retrofitting costs is based on the most typical wagon axles configuration, namely four axles. The configuration 2xBgu is considered, meaning four brake blocks per wheel on eight wheels wagon (32 brake blocks per wagon in total).

The breakdown of the eligible one-off installation costs of retrofitting estimated by ERA is the following:

Table 1 - One-off installation costs⁹

Wagon/cost type	Item	Item cost (€)	Quantity	Pro-rata factor	Total
<i>S-type wagon - additional costs</i>	Material -brake blocks (LL)	27	4x8	1	864
	New markings on wagon	30	2	1	60
<i>S-type wagon - replacement costs</i>	Work - installation of brake blocks	6.4	4x8	0.5	102
	Brake test	220	1	0.5	110
	Wheels reprofiling	160	4	0.5	320

⁸ See footnote 1.

⁹ Not including the costs of transport to the workshop.

<i>S-type wagon – estimated value per unit (€)</i>					1,456
<i>SS-type wagon - additional costs</i>	Material -brake blocks (LL)	27	4x8	1	864
	New markings on wagon	30	2	1	60
<i>SS-type wagon - replacement costs</i>	Work - installation of brake blocks	6.4	4x8	0.5	102
	Brake test	220	1	0.5	110
	Wheels reprofiling	160	4	0.5	320
<i>SS-type wagon - additional extra costs</i>	Material -brake cylinder/ventil	675	2	1	1,350
	Work -brake cylinder/ventil	350	2	1	700
<i>SS-type wagon – estimated value per unit (€)</i>					3,506

4. SOUND FINANCIAL MANAGEMENT AND CO-FINANCING PRINCIPLES AND ABSENCE OF DOUBLE FINANCING

The methodology described in Section 3 complies with the principles of no-profit, co-financing and absence of double funding as required by Articles 190, 191 and 192 of the Financial Regulation.

As described in the cost benefit analysis of the NOI TSI impact assessment, actions retrofitting noisy wagons will not generate revenue.

In application of Article 10(b)(iv) of the CEF Regulation, the maximum funding rate is 20% of the eligible costs. However, given that the unit contributions are based on the data corresponding to the best to date ERA knowledge with figures provided by the railway sector, it was considered necessary to apply a co-financing rate of 17% and roundup the figures. Therefore in order to ensure sound financial management (e.g. to ensure the appropriateness of the amount to the output financed) the unit contribution per retrofitted wagon is established by multiplying the estimated unit value per wagon to a co-financing rate of 17% with subsequent rounding up of figures.

Table 2. Unit contribution

	Value per Unit (€)	Amount after application of the CEF Funding rate of 17% (€)	Rounding-off of the final CEF unit contribution (€)
S-type wagon	1456	247,5	250
SS-type wagon	3506	596	600

The emphasis in managing grant agreements/decisions in the application of unit contribution is placed on the quality and level of achievement of measurable objectives, and therefore focused on results rather than inputs.

Financing on the basis of unit contribution where an analysis has been made ex-ante introduces an incentive for the beneficiary to use resources as economically as possible, as the final grant is based on the pre-established unit contributions in function of the type of wagons, without further adjustments of the grant amount based on actual expenditure. Moreover applying pre-established unit contributions offers advantages in terms of transparency, predictability and equal treatment of beneficiaries.

Double funding is effectively prevented by controls at the evaluation stage by Commission services (namely INEA) on:

- Identification of the freight wagon(s) type(s) to be retrofitted (S or SS type) and their number as registered in the corresponding National Vehicle Register;
- Identification of a workshop where the retrofitting will take place.

Finally, monitoring on sampling evidence will be organised upon request by the Commission services (namely INEA) and based on a copy of the official attestation from the contracted workshops where the retrofitting took place. Such attestation shall include:

- the type and batch number of the composite brake block installed on the freight wagon;
- the freight wagon, type and its number as registered in the National Vehicle Register.