



Jernbane-  
direktoratet

# Financial Aid Scheme for ERTMS Onboard Implementation

Guideline

# Modification history

Issue Number Date	Section number	Modification
1.0 20.02.2018	All	Document responsibility transferred from Bane NOR to the Norwegian Railway Directorate and adjusted accordingly.
2.0 02.03.2022	Cp. 9.1 Cp. 10	Payout of aid beyond July 2021. Change of indexation.

# Summary

Norway has decided to implement the European Rail Traffic Management System (ERTMS). ERTMS will replace existing trackside and ATC signalling systems.

The Financial Aid Scheme described in this Guideline is intended to facilitate the transition to ERTMS for Rail Vehicle Owners.

The Norwegian Railway Directorate is the public administrative body responsible for the Financial Aid Scheme on behalf of the Ministry of Transportation and Communications. The Railway Directorate has in turn delegated the management and administration to Bane NOR.

The Railway Directorate has issued these Guidelines in order to define the framework of the Financial Aid Scheme and to ensure that it is managed in compliance with applicable laws and regulations.

The Guideline covers:

- Framework and conditions for the Financial Aid Scheme
- Criteria for Rail Vehicle Owners and vehicles to be eligible for aid
- Definition of costs eligible for aid
- How the Financial Aid Scheme will work in practice
- Bane NOR management of the Financial Aid Scheme

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# 1 Terms and Abbreviations

Abbreviation	Term	Meaning
	Bane NOR	The national railway infrastructure manager of Norway. Replaced JBV on 1.1.2017.
	Baseline 3.6	TSI CCS Set of specifications # 3 (ETCS Baseline 3 Release 2 and GSM-R Baseline 1), adopted by Commission Regulation (EU) 2016/919. (1)(2)
	Contract Signing	Signing of the Onboard Contract between Bane NOR and the Supplier.
	ENI Onboard	Onboard subproject of the ENI project.
	Onboard Contract	A contract between Bane NOR and the Supplier, and between the RVOs and the Supplier.
	Railway Undertaking	Any public or private undertaking licensed according to applicable Community legislation, the principal business of which is to provide services for the transport of goods and/or passengers by rail with a requirement that the undertaking must ensure traction; this also includes undertakings which provide traction only.
ATC	Automatic Train Control	A system that supervises the speed and movement of the train and warns the driver of potential danger. Should the driver fail to react the onboard system stops the train within a safe distance.
CA	Cooperation Agreement	The agreements between the RVOs and Bane NOR
EEA	European Economic Area	EU countries plus Iceland, Liechtenstein and Norway
ERTMS NI	ERTMS National Implementation	Bane NOR project for implementing ERTMS in Norway. Consists mainly of three subprojects; trackside signalling, traffic management and onboard system.
ERTMS	European Rail Traffic Management System	A European standardised system that shall replace all the different ATC-systems to enable trains to pass borders without changing locomotives or equipping them with the different ATC-systems.
ESA	EFTA Surveillance Authority	ESA monitors compliance with European Economic Area rules in Iceland, Liechtenstein and Norway, enabling them to participate in the European internal market.
FAS	Financial Aid Scheme	Financial Aid Scheme for ERTMS Onboard Implementation
FoC	First of Class	The first installation on a specific vehicle type. Based on the Generic Application, a solution for each vehicle type has to be designed, installed, tested and approved (Specific Application).
GA	Generic Application	A generic system version that fulfils the Bane NOR requirements and can be adapted to different vehicle types.

Abbreviation	Term	Meaning
JBV	Jernbaneverket	Norwegian National Rail Administration. Replaced by Bane NOR 1.1.2017.
R16		Timetable period 2016 (validity period 13.12.2015 - 10.12.2016)
RVO	Rail Vehicle Owner	
SA	Specific Application	Implementation of the Generic Application to suit a specific vehicle type

## 2 Background

Norway has decided to implement the European Rail Traffic Management System (ERTMS). ERTMS will replace existing trackside and ATC signalling systems. The decision is to implement ERTMS Level 2, where optical signals along the track are replaced by GSM-R data communication between Radio Block Centres and the trains. Furthermore, the decision is to implement system version Baseline 3.6 of ERTMS. This version will introduce packet-switched data over GSM-R, which will be necessary to secure enough capacity in the GSM-R network.

The Norwegian Railway Directorate has tasked Bane NOR to lead and coordinate the implementation. Bane NOR is managing the implementation through the ERTMS National Implementation project (ERTMS NI), which consists of three subprojects: Traffic Management System, Trackside Signalling and Onboard.

## 3 The ERTMS Onboard Project

Bane NOR will lead the procurement and coordinate the implementation of ERTMS onboard. This creates economy of scale and enables a coordinated and efficient introduction and deployment of ERTMS, both on infrastructure and rolling stock. Bane NOR and participating Rail Vehicle Owners (RVO) will after completion of a competitive tender process enter into an Onboard Contract with a supplier of ERTMS onboard equipment.

Bane NOR has entered into a Cooperation Agreement (CA) with each participating RVO. The CA describes the parties' intentions to execute a joint acquisition led by Bane NOR and in close cooperation with partnering RVOs. The CA further expresses the parties' will to cooperate in good faith, describes roles and responsibilities and regulates procedures for the cooperation.

Bane NOR and the Supplier will enter into a) an overall «Coordination Contract» regulating terms and conditions for the total scope and b) a contract on the Generic Application of the onboard system. Each RVO sign a separate contract with the Supplier covering their specific scope. Together these three contracts are referred to as the Onboard Contract.

Bane NOR will take responsibility for developing, testing and approving a Generic Application of the onboard system. The Generic Application will then form the basis for the Specific Applications for the different vehicles types.

The RVOs are responsible for purchasing the necessary Specific Applications, equipment, installation and services under this agreement and fulfil the time schedule for retrofitting their vehicles.

For more information on the ERTMS Onboard project, please contact [ertmsaid@banenor.no](mailto:ertmsaid@banenor.no).

## 4 The Financial Aid Scheme

The Financial Aid Scheme (FAS) described in this Guideline is intended to facilitate the transition to ERTMS for Rail Vehicle Owners (RVO) that operated on a regular basis on the Norwegian railway network during time table period 2016 (R16). The scheme is also intended to safeguard the competition between different railway undertakings as well as the competition between cargo transport on road and railway.

The FAS is funded by the Parliaments' annual budget decisions, based on a framework budget decision by the Parliament in June 2016 (5).

The Norwegian Railway Directorate is the public administrative body responsible for the FAS on behalf of the Ministry of Transportation and Communications. The Railway Directorate has in turn delegated the management and administration of the Financial Aid Scheme to Bane NOR.

The Railway Directorate has issued this Guideline in order to define the framework of the Financial Aid Scheme, to ensure that the FAS is managed in compliance with applicable laws and regulations, and in order to provide the Rail Vehicle Owners with the requisite degree of predictability. In the following chapters the following topics are outlined in more detail:

- Framework and conditions for the Financial Aid Scheme
- Criteria for Rail Vehicle Owners and vehicles to be eligible for aid
- Definition of costs eligible for aid
- How the FAS will work in practice
- Bane NOR management of the FAS

The FAS is designed in compliance with the EFTA Surveillance Authority's (ESA) 'Guidelines on State Aid to Railway Undertakings' (3).

The notification of the FAS was approved by ESA on 16.3.2016 (4).

The FAS was approved by the Norwegian government on 11.5.2016 and by the Norwegian parliament on 14.6.2016 (5).

For more information on the administration of the Financial Aid Scheme, please contact [ertmsaid@banenor.no](mailto:ertmsaid@banenor.no).

## 5 Eligibility and Conditions for Aid

### 5.1 Basic Conditions

#### 5.1.1 Eligible Rail Vehicle Owners

To be eligible for aid, the RVO must fulfil all of the three requirements below:

- Own vehicles that operate in the Norwegian national network
- Have signed the Cooperation Agreement with Bane NOR
- Have signed the Onboard Contract with the Supplier

#### 5.1.2 Eligible Vehicles

The RVO may apply for aid to vehicles that fulfil all of the three requirements below:

- Operate in the Norwegian national railway network during timetable period R16
- Operate in passenger or freight traffic
- Are placed as firm orders ("committed vehicles") for retrofitting in the Onboard Contract between the RVO and the Supplier, at the time of Contract Signing

Grants will be given for retrofitting of individual and by EVN (European Vehicle Number) identifiable vehicles.



## 5.2 Special Conditions

### 5.2.1 Cross-border operations

For vehicles that are also used outside Norway, the RVO shall make an application based on a documented evaluation on how many vehicles were necessary to execute the scheduled operation in Norway during timetable period R16, see 5.1.2.

The application shall be based on the following:

1. The capacity for timetable period R16 allocated to the Railway Undertaking operating the vehicles in the Bane NOR infrastructure capacity allocation process. Allocated train paths are documented as unique train numbers allocated for one Railway Undertaking.
2. The allocated capacity, in form of train paths, shall be analysed to establish the schedule the vehicles must follow to perform the transport in Norway. Turnaround time, time for train formation/shunting, brake tests, driver changes, fuelling and other necessary operations can be taken into account in the scheduled vehicle rotation.
3. Based on step 1 and 2, the number of scheduled hours/kilometres per vehicle per operating day shall be established. The number of operating days per week shall be further investigated to establish how many days and hours per week the vehicle is in operation/service in Norway.
4. If the RVO claims aid for a number of vehicles exceeding the number established by investigating step 1-3, the RVO must document that the Norwegian operation is part of a corresponding operation to/from a final destination/starting point within the EEA. The corresponding service must be a direct continuation of the service in Norway.
5. If the RVO claims aid for vehicles used for short term contracts or chartered operations, it must be documented that the Railway Undertaking has been allocated infrastructure capacity for such operations in R16.

The application shall include vehicle schedules for all concerned vehicles, documented in the template "Specification of Cross-border Operations" available on the Bane NOR website.

Bane NOR will assess the application and evaluate number of vehicles eligible for aid.

### 5.2.2 Replacement of Old Vehicles

As stated in section 5.1.2, a basic pre-condition for aid is that the vehicle was in operation in the Norwegian national railway network during timetable period R16. This precondition may produce the unintended effect of creating an incentive that prevents an intended renewal of the vehicle fleet. Therefore, a new vehicle may be eligible for aid if it will replace an existing eligible vehicle.

In the event an RVO wish to replace an existing eligible vehicle with a leased vehicle, the aid can be transferred to the leasing company if agreed between the parties. The leasing company shall then, as RVO, make an application for aid to Bane NOR.

The new vehicle needs to be under a firm order for fitment in the Onboard Contract at the time of Contract Signing or meet the criteria described in section 5.2.4.

Under no circumstances will both the existing and the new vehicle be eligible for aid.

### 5.2.3 Aid to Railway Undertakings Operating RVO's Vehicles

The Aid Scheme is directed to RVOs only. However, costs that fall on another operator of the vehicle can be eligible for aid. In an application for aid, the RVO can include documented eligible costs incurred to the operator of the particular vehicle.

Compensation to the Railway Undertaking is a matter to be regulated between the RVO and the Railway Undertaking.

#### 5.2.4 Own Procurement of ERTMS Onboard Equipment

There may be RVOs that already have, or are about to initiate a retrofitting program of their own that is more beneficial to follow than participating in the Bane NOR project. The benefits could be:

- Upgrading existing ERTMS equipment
- System similarity in own fleet
- Time and cost gains

In these cases, the Railway Directorate and the Norwegian government do not want to discourage such a program by making participation in the Bane NOR project an absolute pre-condition for aid, but are open for making vehicles participating in such a program entitled to aid. The key is that the RVO can show that their own retrofit program can meet the milestones in the Bane NOR project.

Assessment of possibility for aid despite not participating in the Bane NOR project will be based on a combination of described gains and the presentation of a reliable roll out plan.

A requirement for eligibility for aid is that the installed system version is Baseline 3.6 (or higher).

Applications for aid for vehicles not following the Bane NOR project shall be submitted before Contract Award in the ENI Onboard tender process. Please contact [ertmsaid@banenor.no](mailto:ertmsaid@banenor.no) as soon as possible.

## 6 Eligible Costs

In accordance with the ESA's 'Guidelines on State Aid to Railway Undertakings' (3), the following costs are eligible for aid under the Scheme:

Direct costs for:

- First of Class and serial installations (design, equipment, installation, removal of ATC, testing, approvals)
- Necessary alterations of vehicles to enable the installation
- Moving vehicles to and from depot/workshops/tests
- Replacement vehicles when vehicles are taken out of operation for installation of ERTMS.
- Internal costs of project management, engineering, training, installation, testing, documentation, follow-up and approval processes (external contractual costs will have priority)

Indirect costs (such as loss of revenue) are not eligible.

Only costs that are incurred subsequent to the RVO signing the Onboard Contract are eligible for aid. In the case of own procurement (see 5.2.4), signing of a corresponding contract will count as the starting point.

Only costs incurred after the date the Definitive Application was sent to Bane NOR will be regarded as eligible cost.

## 7 Aid Intensity and Aid Amount

The Aid Scheme will support 50 % of eligible costs up to a maximum amount.

The maximum aid amount is NOK 5 million per First of Class installation and NOK 2 million per serial installation.

Eligible costs will be divided into external contractual costs and RVO internal costs. In the Definitive Application, the RVO shall specify the estimated contractual costs based on the signed Onboard Contract. The corresponding aid amount will be reserved for contractual costs. The remaining aid amount will be available to support RVO internal costs.

Aid under the scheme shall not be combined with other forms of Public/Government aid or other forms of Community financing if such combination produces a level of aid higher than the maximum aid intensity set out above.

As manager of the scheme, Bane NOR will establish rigorous control routines to ensure that the aid allotted under the scheme only cover eligible costs, and that it is spent in accordance with the conditions of the grant, see also point 9 below.

## 8 Applications for Aid

The RVO can send a Preliminary Application for aid to Bane NOR. The Preliminary Application shall specify all vehicles the RVO intends to commit to retrofitting in the Onboard Contract between the RVO and the Supplier. Only vehicles that are committed at the time of signing the contract will be eligible for aid. Bane NOR will process the Preliminary Application and make a decision based on the fulfilment of the eligibility criteria. The decision will be communicated through a Preliminary Grant of Aid Letter.

After signing the Onboard Contract with the Supplier, the RVO can submit a Definitive Application for aid. The application shall contain a list of committed vehicles and a committed time schedule that conforms to the milestones in the Onboard Rollout Plan. The application shall also confirm that the RVO does not receive aid for the same vehicles from aid schemes established elsewhere.

Bane NOR will process the Definitive Application and make a decision based on the fulfilment of the eligibility criteria. A Maximum Aid Amount will then be calculated based on the number of eligible FOC's and series vehicles. The decision and the Maximum Aid Amount will be communicated through a Definitive Grant of Aid Letter.

Bane NOR may reject applications that do not adhere to these guidelines.

Application forms can be found on the Bane NOR Financial Aid Scheme website, <http://www.banenor.no/Prosjekter/prosjekter/ertms/RVO/>.

## 9 Routines for Administration and Control

### 9.1 Financial Management

Grants will be paid based on documented eligible costs. Payments will be made quarterly on the basis of an approved Payment Request with supporting documentation in accordance with this Guideline. Requirements on verification documents will be specified in the Grant of Aid Letter.

A Payment Request template is available on the Bane NOR website <http://www.banenor.no/Prosjekter/prosjekter/ertms/RVO/>.

Payments will be made in NOK. Costs in foreign currencies shall be converted to NOK by the RVO, using the latest exchange rate published by Norges Bank.

In November 2021 ESA confirmed that aid can be paid out under the FAS scheme beyond July 2021 for the beneficiaries in the ERTMS-program, but that indexation of the nominal amounts per FoC and

serial vehicle cannot exceed 20% in total for the whole scheme period. No further indexation will be made after the yearly index has reached 20%, counting from 2016.

As the manager of the Aid Scheme, Bane NOR will ensure that the implementation and administration is executed in accordance with the requirements for financial management in the central administration ('Bestemmelser om økonomistyring i staten') (6), including in particular Chapter 6, "Management of Aid Schemes" ('Forvaltning av tilskuddsordninger').

### 9.2 Recovery

In the event an application contains incomplete or incorrect information that results in unsubstantiated or excessive aid, the excess aid shall be recovered. If a grant has not yet been paid out, the grant may be held back in full or in part. If there is no basis for the grant, no payment will be made. A beneficiary that has failed to recover excessive aid is not eligible for aid for other costs until the outstanding amount has been recovered. In any event, Bane NOR may claim recovery of all grants that do not comply with the ESA approval of the FAS, regardless of the cause of the erroneous payment.

If the RVO is responsible for delays compared to the timeframe that is a condition for a grant of aid, all or parts of the grant may be held back or the grant decision may be overturned. In the event of a failure to obtain the final authorisation to place into service (APIS) of an individual vehicle, Bane NOR can order the beneficiary to recover the grant in full or in part.

Interest will be applied to outstanding recovery claims. The rate will be based on the ESA's reference rate. See <http://www.eftasurv.int/state-aid/rates/>.

### 9.3 Appeal Procedure

Decisions of Bane NOR under this aid scheme may be appealed to the Norwegian Railway Directorate.

An appeal must be lodged with Bane NOR. The time limit for lodging an appeal shall be three weeks from the date on which notification of the decision reached the party concerned.

## 10 Entry into Force and Period of Validity

According to the decision by ESA (4), the FAS entered into force on July 1st 2016. The validity of the FAS is limited to a period of five (5) years from the entry into force according to paragraph 97 in the ESA 'Guidelines on State Aid for Railway Undertakings' (3). If needed, the Railway Directorate will apply to ESA for an extension of the FAS.

The Railway Directorate reserves the right to abolish the FAS in the event that the intentions behind the Scheme are not fulfilled.

In November 2021 ESA confirmed that aid can be paid out under the FAS scheme beyond July 2021 for the beneficiaries in the ERTMS-program.

In February 2022 Jernbanedirektoratet, Samferdelsdepartementet and Nærings & Fiskeridepartementet confirmed ESAs decision for the extended payments with one important clarification. The indexation of the nominal amounts (5 mill NOK per FoC and 2 mill NOK per serial vehicle) which has been done each year up to now cannot exceed 20% for the whole scheme and payment period.

# 11 References

- (1) European Union Agency for Railways, TSI CCS Set of specifications # 3 (ETCS Baseline 3 Release 2 and GSM-R Baseline 1)
- (2) European Commission, Commission Regulation (EU) 2016/919 of 27 May 2016 on the technical specification for interoperability relating to the 'control-command and signalling' subsystems of the rail system in the European Union
- (3) EFTA Surveillance Authority, State Aid Guidelines, Part IV: Sector Specific Rules, Guidelines on state aid for railway undertakings, published 17 December 2008
- (4) EFTA Surveillance Authority Decision of 16 March 2016 raising no objections to an aid scheme for investment in a European Rail Traffic Management System ("ERTMS")
- (5) Prop. 126 S (2015–2016). Proposisjon til Stortinget (forslag til stortingsvedtak)
- (6) Finansdepartementet, Bestemmelser om økonomistyring i staten.