

3 Making the railway system  
work better for society.

# NSA Annual Report 2024

*Norway*

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## Definitions and Abbreviations

<b>AsBo</b>	Assessment Body
<b>CSI</b>	Common Safety Indicator
<b>CSM</b>	Common Safety Method
<b>CST</b>	Common Safety Target
<b>EC</b>	European Commission
<b>ECM</b>	Entities in charge of maintenance
<b>EMM</b>	Enforcement Management Model
<b>ERAIL</b>	European Railway Accident Information Links
<b>ERTMS</b>	European Railway Traffic Management System
<b>EU</b>	European Union
<b>FTE</b>	Full Time Equivalent
<b>IM</b>	Infrastructure Manager
<b>IOD</b>	Interoperability Directive
<b>IOP</b>	Interoperability
<b>NIB</b>	National Investigation Body
<b>NoBo</b>	Notified Body
<b>NSA</b>	National Safety Authority
<b>OTM</b>	On Track Machines
<b>PRM TSI</b>	Technical specifications for interoperability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility
<b>RSD</b>	Railway Safety Directive
<b>RU</b>	Railway Undertaking
<b>SMS</b>	Safety Management System
<b>TDD</b>	Train Drivers Directive
<b>TSI</b>	Technical Specification for Interoperability
<b>VA</b>	Vehicle Authorisation

## 1. Introduction

### 1.1. Purpose, scope, and addressees of the report

The purpose of this report is to provide information about safety related results from 2024. It covers the main national railway network. Tramways and underground are excluded from the scope. The intended addressees of this report besides the ERA are the National Investigation Bodies (NIB) and the Ministry of Transport and Communications.

### 1.2. Main conclusions on the reporting year

The risk-based supervision process for 2024 concluded with the following prioritized goals of the supervision programme:

- Ensure better safety on level crossings, by focusing on level crossings without barriers, follow up of temporary safety measures and systematic follow up of incidents and accidents.
- Ensure sufficient attention to critical infrastructure by focusing on climate adaptations, maintenance, supplier management, faults or insufficiencies of infrastructure that may have adverse effects on emergency preparedness and the RU/IMs activities to learn from accidents and incidents
- Ensure that rules and regulations are implemented by follow-up of remaining issues from supervision activities last year.
- Ensure Enhance digital safety, by focusing on systematic risk management, training and competence and supplier management. Specific follow-up of issues related to software in train-radios.
- Ensure that the passenger rights regulation is implemented by all RU's operating passenger traffic.

The overall risk picture is also used as a strategic tool in the regulatory and authorisation processes, contributing to attention to the most significant risks when performing these tasks.

The total number of significant accidents recorded in 2024 is 28. The average number of significant accidents from 2020-2024 is 26. 2024 is above the average of the last five years of significant accidents.

Reporting activity from the Infrastructure Manager (IM) and the Railway Undertakings (RUs) have increased during the period 2021–2024. According to analyses conducted by NSA Norway, the reported incidents reveal a growing proportion of safety-related challenges linked to infrastructure and rolling stock. This development appears to be explained not only by an actual increase in such incidents, but also by improved awareness and clearer practices among the IM and RUs regarding what should be classified as reportable events. In 2024, 66% of all reported major incidents were linked to level-crossing users and trespassers.

In 2024, Norway experienced two serious accidents. The first involved a passenger train that collided with rocks, resulting in the fatality of one employee and extensive material damage to rolling stock and infrastructure, necessitating prolonged closure of affected tracks. The second serious accident was caused by braking issues on a freight train, which subsequently collided with a barrier and derailed. This incident led to substantial material losses and extended infrastructure closure, but no fatalities or serious injuries were reported.

Regulation 2023/1693 amending TSI OPE was incorporated into the EEA Agreement and implemented into Norwegian Law June 2024. (The remaining regulations from the TSI Revision 2023 have been implemented in 2025.)

In 2024, NSA Norway made 118 decisions regarding vehicle authorisations. The authorisations are both type authorisations (first authorisations and new authorisations) after retrofitting of ETCS on-board as part

of the Norwegian ERTMS implementation plan 5 cases, authorisations for extended area of use, 7 cases and authorisations for conformity to type, 106 cases.

The priority topics for supervision in 2024:

- Level crossings
- Critical infrastructure (climate adaptation, maintenance, and supplier management)
- Non-compliance with regulations (reporting of accidents and incidents, risk assessments, and safety management)
- Digital security (risk assessments, barrier management of control mechanisms, reported incidents, and penetration testing). These topics are relevant to both safety and security.

NSA Norway coordinate supervision with the NSA Sweden in order to avoid duplication for operators engaged in cross-border traffic. This coordination also clarifies which authority holds the coordinating responsibility for supervision of enterprises in possession of cross-border safety certificates.

NSA Norway carried out 16 audits, and nine serious non-conformities were identified in the railway sector in 2024. The serious non-conformities were primarily associated with inadequate risk assessments, risks and emergency preparedness related to extreme weather, and supplier management. We will ensure that the enterprises implement appropriate corrective measures in 2025. In general, railway safety is satisfactory, provided necessary corrective actions are taken to close identified non-conformities.

In general, the sector, and in particular the national IM, have applied the regulation as expected. The main challenge is consistent application of the criteria for significance assessment. And the risk assessment of large projects is satisfactory. When it comes to smaller projects the quality of the risk assessments varies, but it is improving. The sector, in general, demonstrates satisfactory performance within the area of risk assessments when it comes to competence. However, there is still room for improvement, especially when it comes to system descriptions and consistent use of risk acceptance criteria. There is no evidence within SMSs of combined use of CSM RA and CSM Monitoring.

NSA Norway has no separate activity regarding evaluation of safety culture within the sector. However, safety culture is a topic we discuss indirectly in most supervision activities.

## **2. English summary**

See chapter 1.2 Main conclusion on the reporting year.

## **3. NSA safety strategy, programs, initiatives and organizational context**

### **3.1. Strategy and planning activities**

NSA Norway's enterprise strategy (2021-2024) focus on the long-term goals given by the Ministry of Transport and Communications which shall ensure a high safety level for the Norwegian railways and also a well-functioning Railway Market.

In addition, the effect of our work related to three areas is focused on the following: relevant, efficient and innovative. This is supported by activities in our annual work programme.

To support the enterprise strategy, we have developed a Supervision Strategy and a Strategy for Societal Security.

The Strategy for Societal Security looks at safety and security from a civil protection point of view but is relevant for railway safety as it gives attention to Cyber-security issues and also the prevention of major accidents with low probability.

In line with our Supervision Strategy, we have established an annual supervision programme. The supervision programme includes defined areas of priority to ensure necessary improvement of important safety related topics in the industry.

The supervision programme and the prioritized areas are established using a risk-based model as support for priority. We use a risk matrix model as a basis for documentation of the NSA's assessment of the safety level of RUs and IM.

The risk-based model process is done in three steps:

The first step is to establish an overall picture of the risk for the railway industry. Based on our experience from all our railway related activities, combined with actual reported accidents and incidents, probabilities and consequences are established. These results are plotted in a consequence/probability diagram, and the dominating risks are chosen based on expert judgement. These risks will then be used as prioritized topics for all our activities including supervision.

The second step is a prioritizing exercise concluding which RU's and IM's that will have attention in the coming year. Based on type of operation and traffic volume, the entities are plotted in a risk matrix. The initial result is adjusted up or down based on experience from our activities, complexity of the organisation and safety statistics.

In step three the prioritized risks from the overall risk picture are combined with the prioritized RUs and IMs to establish our annual supervision programme. The supervision programme and the prioritized topics are published on our website.

The Supervision Programme is dynamic, so if risks appear during the year that require attention, reprioritizing of activities is considered.

The risk-based supervision process for 2024 concluded with the following prioritized goals of the supervision programme:

- Ensure better safety on level crossings, by focusing on level crossings without barriers, follow up of temporary safety measures and systematic follow up of incidents and accidents.
- Ensure sufficient attention to critical infrastructure by focusing on climate adaptations, maintenance, supplier management, faults or insufficiencies of infrastructure that may have adverse effects on emergency preparedness and the RU/IMs activities to learn from accidents and incidents
- Ensure that rules and regulations are implemented by follow-up of remaining issues from supervision activities last year.
- Ensure Enhance digital safety, by focusing on systematic risk management, training and competence and supplier management. Specific follow-up of issues related to software in train-radios.
- Ensure that the passenger rights regulation is implemented by all RU's operating passenger traffic.

The overall risk picture is also used as a strategic tool in the regulatory and authorisation processes, contributing to attention to the most significant risks when performing these tasks.

Regarding international cooperation we have close cooperation with our neighbouring countries Sweden and Denmark to exchange safety-related experiences. We have a cooperation agreement with Sweden and Denmark related to safety certification and supervision according to the requirements in The Fourth Railway Package.

NSA Norway have prioritised participating in the NSA subgroup supervision where NSAs exchange experience on risk-based supervision. This group will also be able to give valuable input to the next revision on CSM Supervision. We continue to follow the work with CSM ALSP, as Norway already have a well-functioning incident and accident reporting system. This system gives the NSA important input to our risk-based supervision activities. It is of strategic importance to us to be able to have access to this information on a similar level also in the future.

To help the industry to follow the established rules and regulations we have continued our systematic guidance of the requirements as a supplement to supervision activities. When establishing the risk-based supervision plan, we also use guidance as a tool to ensure that RUs and IMs are in line with the regulations.

We regularly arrange mini seminars on chosen subjects as part of the guidance.

### 3.2. Safety Recommendations

All recommendations issued by the National Investigation Bodies (NIB), are forwarded to the relevant RUs and IMs. The Ministry of Transport and Communications has delegated task to the NSA. The NSA may demand that the relevant RUs and IMs give an account of their plans for acting upon the recommendations from the NIB before the recommendation is closed. These plans of actions are also presented to the NIB by NSA Norway before recommending closure of the cases to the Ministry.

Twice a year, the status on all the open recommendations and recommendations closed since last reporting period are sent to the Ministry. The NIB is also informed. General meetings with the NIB to share information and gained experiences are also held at least twice a year.

### 3.3. Safety measures implemented unrelated to the recommendations

Not applicable.

### 3.4. Safety Organisational context

Not applicable.

## 4. Safety performance

Table 1 Number of minor and major incidents in the period 2020-2024

Year	Number of minor incidents	Number of major incidents
2020	19 260	846
2021	18 855	736
2022	20 483	821
2023	21 040	831

2024	21 821	837
Average 2020-2024	20 292	814

Table 1 indicates that the number of minor incidents in 2024 exceeds the average for the period 2020–2024, while the number of major incidents shows a slight increase between 2022 and 2024.

Reporting activity from the Infrastructure Manager (IM) and the Railway Undertakings (RUs) have increased during the period 2021–2024. According to analyses conducted by NSA Norway, the reported incidents reveal a growing proportion of safety-related challenges linked to infrastructure and rolling stock. This development appears to be explained not only by an actual increase in such incidents, but also by improved awareness and clearer practices among the IM and RUs regarding what should be classified as reportable events. In 2024, 66% of all reported major incidents were linked to level-crossing users and trespassers.

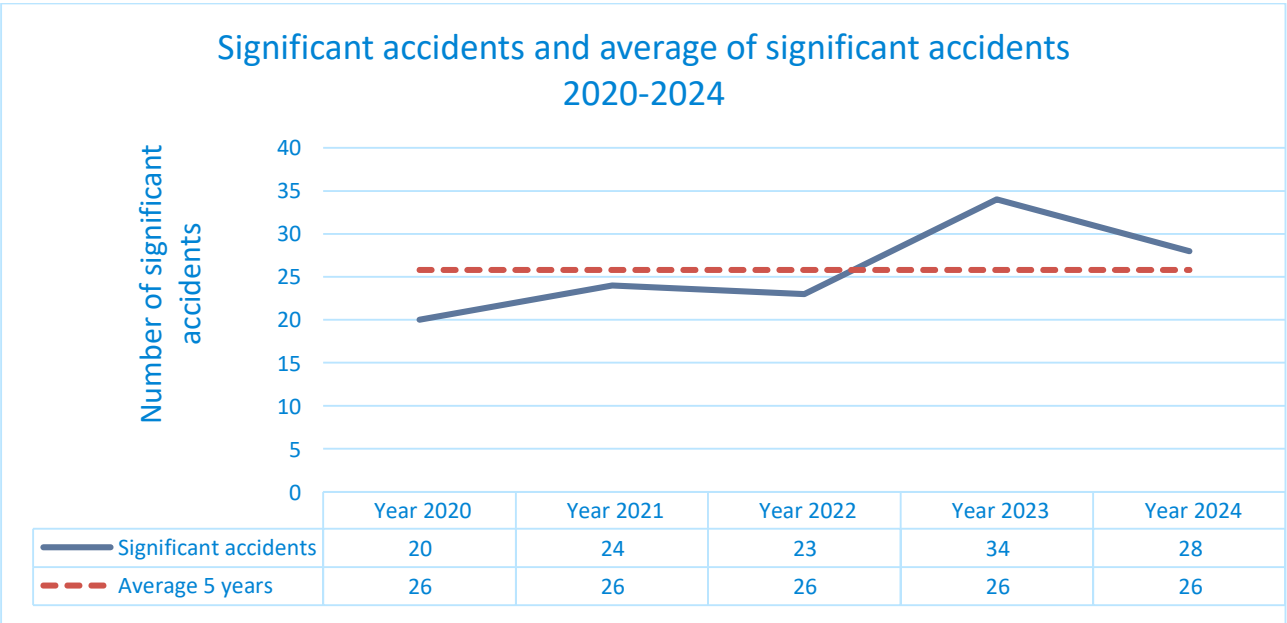
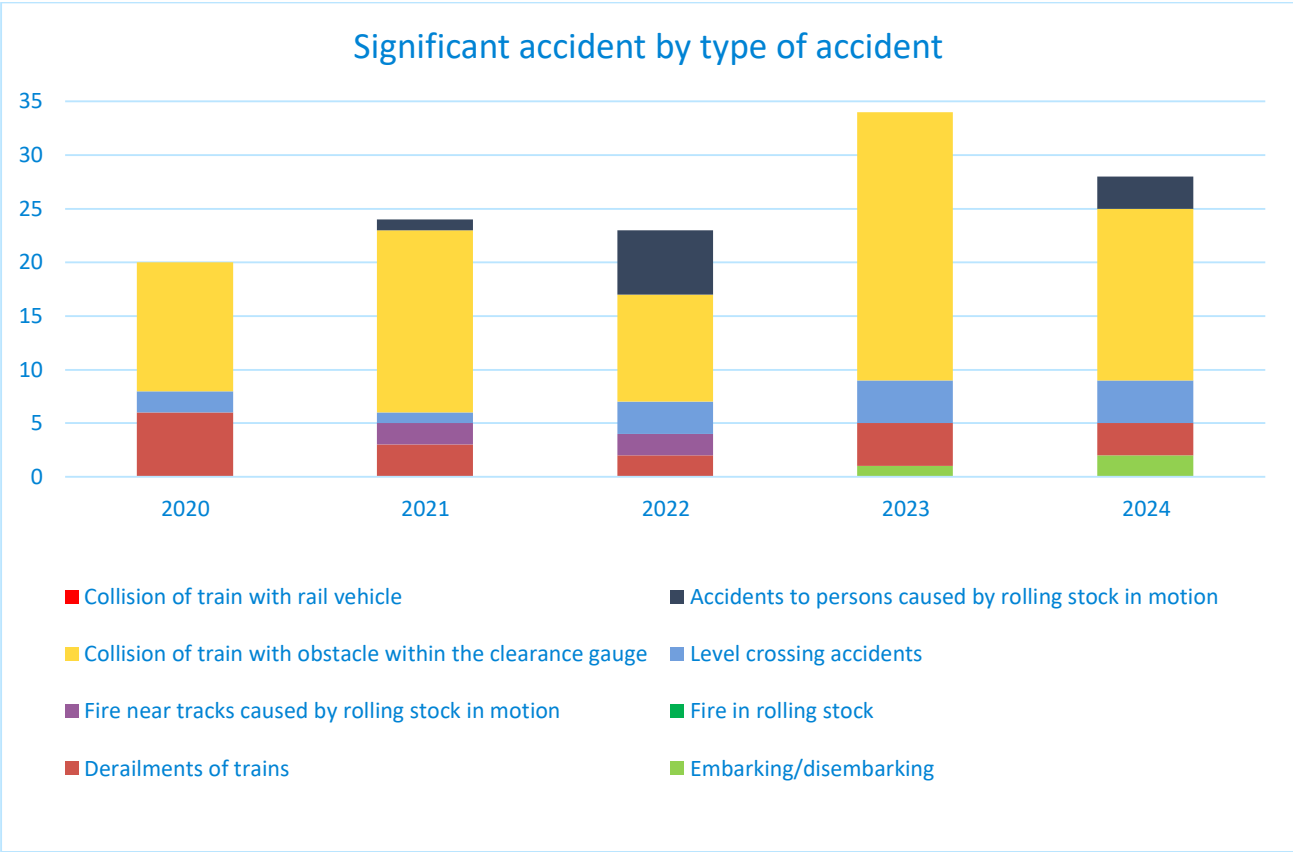


Figure 2 Significant accidents and average of significant accidents in the period 2020-2024

Figure 2 indicates that the total number of significant accidents recorded in 2024 is 28. This figure represents a slight increase compared to the five-year average for the period 2020–2024, which is 26. Accordingly, the occurrence of significant accidents in 2024 is marginally higher than the prevailing trend observed over the preceding five-year period.





Year	Embarking/ Disem- barking	Derailments of trains	Fire in rolling stock	Fire near tracks caused by rolling stock in motion	Level- crossing accidents	Collision of train with obstacle within the clearance gauge	Accidents to persons caused by rolling stock in motion	Collision of train with rail vehicle
2020	0	6	0	0	2	12	0	0
2021	0	3	0	2	1	17	1	0
2022	0	2	0	2	3	10	6	0
2023	1	4	0	0	4	25	0	0
2024	2	3	0	0	4	16	3	0

Figure 3 Significant accidents by type of accident in the period of 2020-2024.

Figure 3 provides an overview of significant accidents categorized by accident type. In 2024, 20 of these incidents involved passenger trains, five involved freight trains, and three pertained to other types of railway vehicles. Of the total, 16 accidents were classified as collisions with obstacles, with overhead contact lines being torn down in 12 cases. Notably, this accident type decreased from 17 occurrences in 2023 to 12 in 2024; the underlying cause of this reduction remains unidentified by NSA Norway. In response to these risks, NSA Norway has emphasized emergency preparedness, aiming to improve evacuation protocols during such events.

Regarding other classifications, three accidents in 2024 involved train derailments, while four were level-crossing accidents. All four level-crossing incidents involved vehicles, and one occurred at a passive level crossing.

In 2024, Norway experienced two serious accidents. The first involved a passenger train that collided with rocks, resulting in the fatality of one employee and extensive material damage to rolling stock and infrastructure, necessitating prolonged closure of affected tracks. The second serious accident was caused by braking issues on a freight train, which subsequently collided with a barrier and derailed. This incident led

to substantial material losses and extended infrastructure closure, but no fatalities or serious injuries were reported.

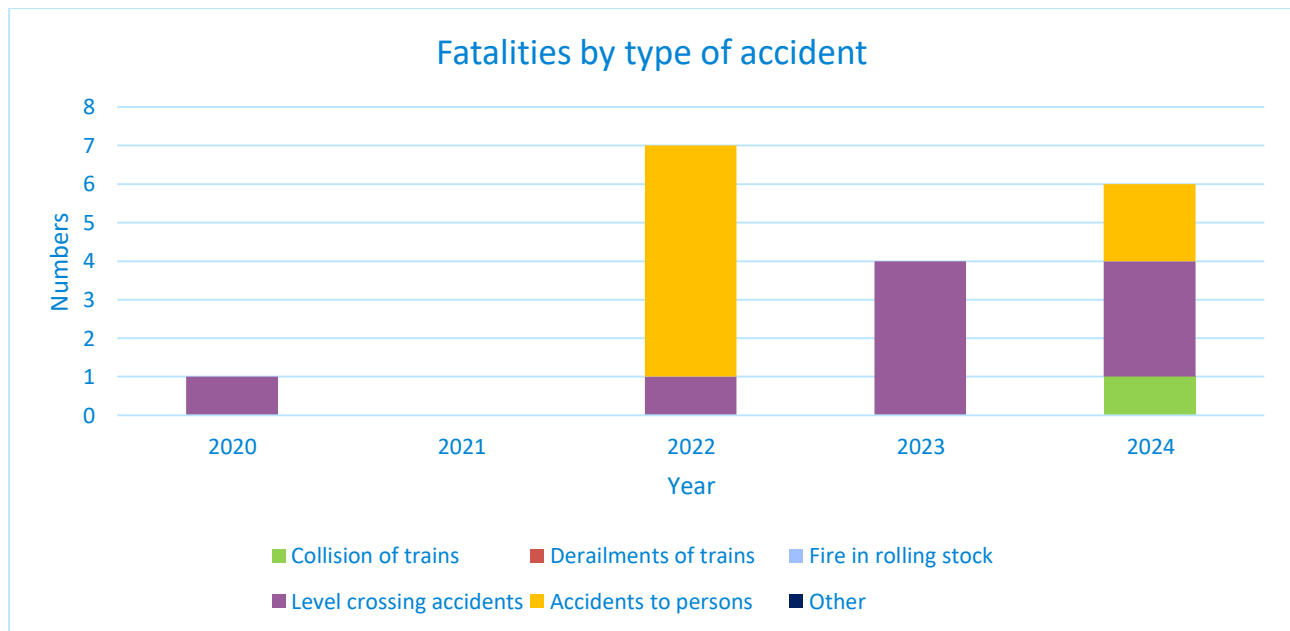


Figure 4 Fatalities by type of accident in the period of 2020-2024.

As illustrated in Figure 4, there were three fatalities linked to level-crossing accidents in 2024. Three level-crossing users were killed at passive level crossings due to collisions between rail vehicles and road vehicles. Notably, one employee lost their life in 2024, in an incident involving a passenger train that collided with obstacles (rocks). Additionally, there were two fatalities in incidents involving rolling stock in motion.

In 2024, two employees were seriously injured due to winter conditions at platforms, while one trespasser was seriously injured following contact with rolling stock in motion.

NSA Norway has maintained level-crossing issues as a topic in supervision and intends to continue prioritizing this focus throughout 2025. Ongoing monitoring of trends related to minor incidents also remains a strategic priority. As a result of such monitoring during 2024, attention has been directed towards the maintenance activities of the infrastructure manager, with specific supervision of measures addressing climate change adaptation. This aspect will continue to be subject to oversight in the forthcoming year. In general, the number of fatalities associated with railway operations in Norway remains low, with most fatalities occurring as a consequence of level-crossing incidents and unauthorized persons trespassing on railway.

Table 2 –Indicators relating to precursors to accidents in period 2020-2024

Indicators	2020	2021	2022	2023	2024	Average 2020-2024
Total number of precursors	149	177	135	140	153	151
Broken rails	53	103	43	53	50	60
Track buckles and other track misalignments	30	26	29	21	36	28

Wrong-side signalling failures	2	3	0	0	0	1
Signals passed at danger when passing a danger point	14	14	19	13	12	14
Signals passed at danger without passing a danger point	49	31	44	53	55	46
Broken wheels on rolling stock in service	0	1	0	0	0	0
Broken axles on rolling stock in service	0	0	0	0	0	0

Table 2 presents a set of indicators related to accident precursors for the period 2020–2024. In 2024, the frequencies of track buckles, other types of track misalignments, and incidents of signals passed at danger when passing a danger point, were observed to exceed the average values for the reference period. In addition, the remaining indicators provided in Table 2 shown values below the five-year average.

## 5. EU legislation and regulation

### 5.1. Changes in legislation and regulations

Regulation 2023/1693 amending TSI OPE was incorporated into the EEA Agreement and implemented into Norwegian Law June 2024. (The remaining regulations from the TSI Revision 2023 have been implemented in 2025.)

### 5.2. Derogation in accordance with Art. 15 RSD

No derogations in accordance with Art. 15 of the Railway Safety Directive were given.

## 6. Safety Certifications, Safety Authorisations and other certificates issued by the NSA

### 6.1 Safety Single Certificates and Safety Authorisations

Table 1 Valid safety certificates and safety authorizations in Norway 31.12.2024

Company name	History	Issuing date	Type of certificate
BLS Rail AB	Amended	11/03/2024	SSC
CargoNet AS	Renewed	11/03/2021	Type A
CargoNet AS	Renewed	11/03/2021	Type B
Flytoget AS	New	10/10/2022	SSC
Go Ahead Norge AS	New	28/11/2024	SSC
Green Cargo AB	New	26/10/2023	SSC
Grenland Rail AS	Amended	20/03/2023	SSC
Hector Rail AB	Amended	15/11/2024	SSC
LKAB Malmtrafik	New	08/12/2023	SSC
Mantena AS	New	11/10/2019	Type A
Mantena AS	New	11/10/2019	Type B
Norsk Jernbanemuseum	New	23/06/2022	SSC
OnRail AS	New	20/09/2024	SSC
Protrain Trafik AB	Renewed	29/06/2020	Type B
Railcare T AB	Amended	28/10/2024	SSC
SJ AB	New	04/05/2023	SSC
SJ Norge AS	New	01/04/2020	Type B
SJ Norge AS	New	31/03/2020	Type A
Tågåkeriet i Bergslagen AB	Amended	13/06/2022	SSC
TM Togdrift AS	New	09/10/2023	SSC
Vy Tog AS	New	18/09/2020	Type B
Vy Tog AS	New	18/09/2020	Type A
Vygruppen AS	Renewed	04/03/2021	Type A
Vygruppen AS	Renewed	04/03/2021	Type B
Bane NOR SF	Amended	28/09/2020	Safety authorisation

Internal procedures, checklists and internal documentation regarding assessment reports are continuously improved.

### 6.2. Vehicle Authorisations

In 2024, NSA Norway made 118 decisions regarding vehicle authorisations. The authorisations are both type authorisations (first authorisations and new authorisations) after retrofitting of ETCS on-board as part

of the Norwegian ERTMS implementation plan 5 cases, authorisations for extended area of use, 7 cases and authorisations for conformity to type, 106 cases.

### 6.3. Entities in Charge of Maintenance (ECM)

Not applicable.

### 6.4. Train drivers

In 2024, 98 train driver licenses were issued, and the total number of valid licenses was 2232 at the end of 2024. 77 driver licenses were renewed. NSA Norway suspended several licenses on a temporary basis due to medical issues, meaning that the medical requirements were not satisfied. There have been no changes in the strategy or procedure for issuing train driver licenses.

### 6.5. Other type of authorisation/certifications

Not applicable.

### 6.6. Contacts with other National Safety Authorities

NSA Norway has a cooperation agreement on supervision and safety certification with the NSAs in Sweden and Denmark. The cooperation includes meetings and exchange of experiences with respect to safety certification and supervision processes. One meeting was held in 2024.

The Memorandum of Understanding was updated in 2024 to be in line with The Fourth Railway Package. The updated MoU includes leading NSA.

Meetings have been held to appoint leading NSA for several RUs, and joint supervisions have been performed.

NSA Norway has also a meeting series with NSA Sweden and NSA Denmark twice a year called Nordic ERTMS forum, discussing interpretations of the legal framework related to ERTMS upcoming TSI change requests and other topics of mutual interest between the Nordic countries.

### 6.7. Exchange of information between NSA and railway operators

In several SSC applications and pre-engagement processes, we have identified insufficient descriptions of roles, responsibilities, and organizational structure—particularly regarding the distribution of responsibilities between different units or subsidiaries within the same corporate group. These issues are addressed directly with the individual RUs during the SSC process. Additionally, we have published an updated guideline on Supplier Management, now available on our website.

## 7. Supervision

### 7.1. Strategy, plan, and decision-making

The supervision program is risk-based. This means that topics and entities are selected on the basis of where their anticipated impact is assessed to be most significant. The priority topics for 2024 were:

- Level crossings

- Critical infrastructure (climate adaptation, maintenance, and supplier management)
- Non-compliance with regulations (reporting of accidents and incidents, risk assessments, and safety management)
- Digital security (risk assessments, barrier management of control mechanisms, reported incidents, and penetration testing). These topics are relevant to both safety and security.

One observed effect of the supervision activities is an increased use of risk assessments in connection with changes, as well as improved control of suppliers.

In its allocation letter, the Ministry of Transport instructed the NSA Norway to monitor whether IM's technical regulations are consistent with legislation within our area of responsibility. In a supervision activity concerning critical infrastructure, particular attention was given to how changes in technical regulations and associated work routines were handled. NSA Norway identified non-conformities within our priority topics.

The incident involving the Randklev Bridge, which led to a prolonged closure of the Dovre Line, also had implications for societal security, highlighting significant vulnerabilities within the railway system. The supervision confirmed that there are challenges with coordination of emergency preparedness among the operators in the industry. Follow-up on this issue will be included in the supervision program for 2025.

Regarding level crossings, in 2024, NSA Norway primarily addressed the temporary exemptions. IM's follow-up on level crossings will continue to be monitored in 2025.

NSA Norway coordinate supervision with the NSA Sweden in order to avoid duplication for operators engaged in cross-border traffic. This coordination also clarifies which authority holds the coordinating responsibility for supervision of enterprises in possession of cross-border safety certificates. In 2024, we participated in the NSA Sweden's supervision of three operators.

## 7.2. Supervision results

NSA Norway carried out 16 audits, and nine serious non-conformities were identified in the railway sector in 2024. This represents a decrease compared to 2023, when fourteen such serious non-conformities were recorded. The serious non-conformities were primarily associated with inadequate risk assessments, risks and emergency preparedness related to extreme weather, and supplier management. We will ensure that the enterprises implement appropriate corrective measures in 2025. In general, railway safety is satisfactory, provided necessary corrective actions are taken to close identified non-conformities.

Our supervision activities are prioritized in areas where the anticipated impact is assessed to be most significant, that is, where the potential for improvement is deemed greatest. Accordingly, the number of serious non-conformities identified is contingent upon the specific themes selected for inspection and, in isolation, does not constitute a comprehensive representation of the overall development.

NSA Norway conducted an unannounced inspection concerning a potential case of train operation without authorization for the transport of dangerous goods. The outcome of the inspection demonstrated that the operator provided documentation confirming that no dangerous goods had been transported.

## 7.3. Coordination and cooperation

NSA Norway have a cooperation agreement on supervision and safety certification with the NSAs in Sweden and Denmark. The cooperation includes meetings and exchange of experience with respect to safety certification and supervision processes.

## **8. Application of relevant CSMs by RUs and IMs**

As for CSM RA we see some challenges for our IM in consistently applying the criteria for significance assessment of planned changes across different projects.

### **8.1. Application of the CSM on Safety Management System**

No further information.

### **8.2. Application of Regulation 402/2013 on the CSM for risk evaluation and assessment**

In general, the sector, and in particular the national IM, have applied the regulation as expected. The main challenge is consistent application of the criteria for significance assessment. And the risk assessment of large projects is satisfactory. When it comes to smaller projects the quality of the risk assessments varies, but it is improving. The sector, in general, demonstrates satisfactory performance within the area of risk assessments when it comes to competence. However, there is still room for improvement, especially when it comes to system descriptions and consistent use of risk acceptance criteria. There is no evidence within SMSs of combined use of CSM RA and CSM Monitoring.

### **8.3. Application of Regulation 1078/2012 on the CSM for monitoring**

There were no separate activities regarding the follow up of CSM Monitoring. The RUs and the IM needs to improve their understanding and importance in the use of CSM Monitoring. The sector still struggles with working sufficiently proactive regarding safety management. The sector tends to work reactive, and without any proper cooperation or coordination. There are no differences in application between smaller or bigger companies.

### **8.4. Participation and Implementation of EU projects.**

Norway takes part in the European Freight DAC Delivery Programme testing digital automatic couplers on 100 freight trains. NSA Norway (Statens jernbanetilsyn) is involved in the project as authorising entity in Norway and participates in ERAs Working group for the retrofitting of 100 freight trains with DAC.

## **9. Safety culture**

### **9.1 Safety culture evaluation and monitoring**

NSA Norway has no separate activity regarding evaluation of safety culture within the sector. However, safety culture is a topic we discuss indirectly in most supervision activities.

NSA Norway continues to use its own adaptation of the management maturity model and is expecting to gain indications on safety culture in the railway sector. There is still need for more experience before getting sufficient data to make any conclusions.

### **9.2. Safety culture initiatives/projects**

No ongoing separate work on this topic.

### **9.3. Safety culture communication**

Some of the biggest companies focus on this topic, but NSA Norway has not had any communication activity to the stakeholders on this topic.

**Annex A: Progress with Interoperability****ANNEX: Progress with Interoperability**

Please provide the following information as it is at the 31<sup>st</sup> December of the reporting year (2022).

Please refer to the Appendix for definitions.

**1. Lines excluded from the scope of IOP/SAF Directive (end of year)**

1a	Length of lines excluded from the scope of application of the IOP Directive [km]	0
1b	Length of lines excluded from the scope of application of the SAF Directive [km]	0

Please provide the list of lines excluded:

**2. Length of new lines authorized by NSA (during the reporting year)**

2a	Total length of lines [km]	33
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**3. PRM adapted stations (end of year)**

3a	PRM TSI compliant railway stations	7
3b	PRM TSI compliant railway stations - partial TSI compliance	29
3c	Accessible railway stations	127
3d	Other stations	205

**4. Train driver licenses (end of year)**

4a	Total number of valid European licenses issued in accordance with the Directive 2007/59/EC (as amended)	2313
4b	Number of newly issued European licenses (first issuance)	157

**5. Number of vehicles authorized under the interoperability Directive (EU) 2016/797 (during the reporting year)**

5a	<b>First authorization – total</b>	NA
5aa	Wagon	NA
5ab	Locomotives	NA
5ac	Hauled passenger vehicles	NA
5ad	Fixed or pre-defined formation	NA
5ae	Special vehicles	NA
5b	<b>Additional authorization – total</b>	56
5ba	Wagon	NA
5bb	Locomotives	56
5bc	Hauled passenger vehicles	NA
5bd	Fixed or pre-defined formation	NA
5be	Special vehicles	NA
5c	<b>Type authorization – total</b>	NA
5ca	Wagon	NA
5cb	Locomotives	NA



5cc	Hauled passenger vehicles	NA
5cd	Fixed or pre-defined formation	NA
5ce	Special vehicles	NA
5d	<b>Authorizations granted after upgrade or renewal - total</b>	NA
5da	Wagon	NA
5db	Locomotives	NA
5dc	Hauled passenger vehicles	NA
5de	Fixed or pre-defined formation	NA
5df	Special vehicles	NA

#### 6. ERTMS equipped vehicles (total fleet, end of year)

6a	Tractive vehicles including trainsets equipped with ERTMS Level 1	NA
6b	Tractive vehicles including trainsets equipped with ERTMS Level 2	NA
6c	Tractive vehicles including trainsets – no ERTMS installed	NA

#### 7. Number of NSA staff (full time equivalent employees) by the end of year

7a	FTE staff involved in safety certification	2,5
7b	FTE staff involved in vehicle authorization	5,5
7c	FTE staff involved in supervision	5,4
7d	FTE staff involved in other railway-related tasks	3