

3. Risk Control

3.1 Corporate goals and values

The Group's management pyramid provides a framework of goals and values, to support decision-making at all levels in the organisation. The pyramid affords a reference for operational management and provides a joint platform for management and employees in their daily work. It also presents a framework for the understanding of Vy's desired image, values and strategic goals.

The Groups main goal is to create values for the owner and society through efficient, available, safe and environment friendly transport of people and goods.

Safety is a main strategy to deliver the best transport service to society.

3.1.1 Vy's Safety Management Principles

Based on Vy's strategic goal, "No injuries to people or damage to the environment" Vy has established annual goals and plans for traffic safety. To fulfil this commitment Vy has set up a proactive safety organisation based on a modern safety management system, working for continual improvement.

Vy has established a proactive, risk-based decision system, where all essential decisions are analysed with respect to their safety impact, prior to the decisions is taken and actions are implemented. In addition, the risk level for train traffic is calculated and safety indicators are established. The system is described in the safety management system integrated in the quality control system, issued and communicated to all employees electronically or on paper.

3.1.2 Organisation

The basic principle of the safety organisation is that line managers are responsible for maintaining and improving safety within their units. In addition, a safety organisation is set up to establish criteria, perform revisions and audits, investigate accidents and provide general supervision, without reducing the line managers' responsibilities. The safety personnel are also responsible for establishing and maintaining the safety reporting system.

3.1.3 Reporting System.

Vy has used an electronic based reporting and analysis safety system since 1996. More than nine thousand incidents are reported and analysed yearly. The system is used as a data collection system for weekly, monthly, interim and yearly safety reporting to managers and the board of directors.

Based on the reporting system Vy undertakes single actions as well as general system changes. Typical single actions can be modification of train components, changes in maintenance programmes, moving signals, improving visibility at level crossings, distribution of safety information to personnel etc.

3.1.4 Safety Audits

Vy plan and execute an annual safety audit programme. The yearly programme typical includes internal audits on traffic safety, audits related to the external and internal environment and audits towards suppliers of maintenance services and

other contract partners such as train manufacturers and other train operators. The programme also includes about inspections towards the electrical high voltage systems ensuring the integrity and safety of the systems and its associated use. The recommendations from the audits are documented and followed up systematically.

3.1.5 Objectives

The table below illustrates the goal structure for rail passenger services (Norway). There are similar goals established for the other train operators in the group. The results are reported monthly to the management and to the Board.

Measurable goals passenger train (Norway)

Titel	Results per Aug 2025	Goal 2025
Serious losses (personal/environment/property).*	0	0
Total incidents with loss/damage*	26	<31
Pass incidents *	31	≤39

* Caused by Vy

Pass incidents = incidents where some part of the train is driving further than allowed.

3.1.6 Authorities

Vy prioritise good and close co-operation with the Norwegian Railway Inspectorate. Vy invites the authority to observe internal audits and support the Inspectorate's audits. Reports from meetings, inspections and audits are published on the web site of the Railway Inspectorate.

3.1.7 Results

In 2024, the Rail passenger activities caused no serious personal injuries or serious damage to the rolling stock. As to the results in 2025, see 3.1.5.

3.1.8 Main Challenges

For Vy, as for other companies, a good safety culture is an essential for obtaining and keeping a good safety record. The changing external conditions with increased profit requirements and significant organisational changes require continual work to make sure that the safety culture remains in place or improves over time.

The dominating factors behind the human errors are:

- Failing of, or ignoring technical safety systems
- Incomplete training, practise, or information

Risk reducing actions are concentrated towards increased cautiousness, improved training and information to personnel involved in critical safety operations. Technical systems are improved to bring the consequences of a human error to a minimum.

3.2 Risk Management Information System

Vy's computer based, Risk Information System Synergi, has been in operation since 01.12.1996. Synergi is based on a system developed by Pride ASA and originally designed to fulfil the requirements for the Norwegian offshore oil industry.

All incidents that resulted in an actual personal injury or property damage are registered in the database. The organisation is continuously focusing on promotion of reporting to the system. To avoid non-reporting, anonymous reporting is accepted including reports made by personnel included in the accident.

Promotion of the RMIS and increased focus on traffic safety has resulted in more frequent reporting. Reporting target for train operations in Vygruppen is that reporting of incidents shall oversize accidents by a factor of 25.

3.3 CargoNet AS

As an approved Norwegian railway operator, CargoNet AS has established a systematic and method-based safety management system similar to the system for Vy's passenger trains

The safety management system focusing on control of identified hazards. Control is demonstrated by the using acknowledged methods for hazard identification, accident reports, risk analyses, as well as use of a scorecard.

The safety management system includes control of

- system conditions
- operating conditions
- and
- maintenance conditions
- throughout the life of the systems.

To avoid that one single failure can cause an accident, a two-barrier control is mandatory in Norway for all train operators.

The following hazards dominates the risk picture for freight railway traffic in Scandinavia:

- Derailment
- Fire/Explosion
- Collision
- Release of hazardous materials
- Human failure during shunting operations
- Other hazards

Monthly reports are established for all areas. Based on systematic evaluation of the results, risk-reducing measures are identified. These measures are either, concerned with lowering the probability of an accident, or lowering the consequence of an accident.

Through continuously lowering the risk level, the over-all safety goal “zero loss of life or severe injuries caused by the activity” shall be achieved.

In CargoNet, safety is a line responsibility. A competent staff organisation has been set up to facilitate and support the safety activities in the line organization.

The company sets annual targets in all safety areas as is illustrated in the table below. Reporting to the management in CargoNet and Vy Train are carried out monthly.

		Per Aug 2025	Goal 2025
Personal injury	Death	0	0
	Serious injury	1	0
Train operation	Derailment	1	0
	Fire/smoke	2	≤2
	Collision (ex. animal)	0	≤2
	PASS	5	≤7
Shunting	Derailment	10	≤9
	Collision	5	≤5

Maintenance routines

Previous accidents have contributed to increased focus on maintenance routines. Today CargoNet applies a maintenance system uniquely designed for each type of locomotives and carriages.

Risk Management information system

As a means of controlling and reducing risk, CargoNet applies routines for reporting and registering of incidents with the purpose of avoiding similar scenarios in the future. The software tool Synergi (ref. paragraph 3.2) is utilised for keeping track of and analysing incidents.

Increased knowledge and awareness regarding risk control has brought results. The company has achieved reduction of accidents through increased focus on reporting of minor incidents and follow-up of these reports.

Dangerous goods

CargoNet has a strong focus on the risk of transporting dangerous and CargoNet's general carriage terms and conditions provide restriction on transportation of dangerous goods. According to this and ADR/RID 1.1.4.4, it is prohibited to transport the following by rail.

- Class 1 (explosive) materials, compatibility group A.
- Class 4.1 self-reactive substances requiring temperature control.
- Class 5.2 organic peroxides requiring temperature control.
- Sulphur trioxide with 99,95% degree of purity, which without the addition of an inhibitor is transported in tanks.

In addition, CargoNet does not accept transport of class 7 hazardous goods (radioactive material) above category 1 white cf. ADR/RID 2009 2.2.7

The dangerous goods transported by CargoNet are mainly in the following ADR/RID categories:

- 3. Combustible fluid (mainly aviation fuel)
- 8. Caustic substances

CargoNet transports a limited quantity of high-risk goods.

Dangerous goods report 2024

Total freighted goods on Norwegian territory

Class of hazard	Description	Tonnes
1	Explosives	431
2,1	Flamable gas	10 881
2,2	Non flammable, non toxic gas	21 596
2,3	Toxic gas	145
3	Combustible liquid 1)	505 503
4,1	Flamable solids	29
4,2	Pyrophoric substance	1 525
4,3	Substances that generate combustible gases when inn contact with water	781
5,1	Oxidizing substances	2 377
5,2	Organic peracetic substances	12
6,1	Toxic substances	8396
6,2	Infectious substances	0
7	Radioactiv substances, category white	0
8	Caustic substances 2)	39 069
9	Other	8 162
	SUM	598 907

1) Including 489 521 tonnes of aviation fuel from Sjørsøya harbour (Oslo) to Oslo Airport

2) Including 27 467 tonnes of hydrochloric acid from Oslo to Kristiansand

3.4 Bane NOR SF (not a part of the Vy Group)

Bane NOR is a state-owned company responsible for the Norwegian national railway infrastructure.

Bane NOR has operational coordination responsibility for safety work and operational responsibility for the coordination of emergency preparedness and crisis management.

- Bane NOR will analyse, remove, and improve conditions which may cause an accident.

- Bane NOR is, in close cooperation with the Police, prepared for the possibility of and the consequence of an act of terror.

Bane NOR's operations are conducted according to the principles:

- Railway operations in Norway shall not cause death or serious injuries to people.
- Continues improvement of the safety level
- Risk will be reduced as far as possibly.
- One simple fault shall not cause death or serious injuries to people.

Risk control related to the infrastructure is described can be found on the web site

<https://networkstatement.banenor.no/doku.php?id=ns2025en:infrastructure>