



Norske  
tog



Appendix to Norske tog's  
annual report 2023

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# Appendix A: Greenhouse gas (GHG) accounts

This appendix describes the most important assumptions, delimitations and system boundaries for the GHG accounts for 2023 for Norske tog, which have been prepared in accordance with the GHG

protocol<sup>1</sup>. The climate accounts have been prepared in collaboration with KPMG, and Table A.1 summarises the assumptions and limitations.

Table A.1 Assumptions and limitations for GHG accounts 2023

Theme	Assumptions and limitations
Reporting year	2023
Base year	2022
Organisational structure	Operational control
Reported for	Norske tog AS
System refinement	Upstream and downstream value chain for Norske tog, selected activities
Scopes	1-3
Input quantities	Mainly primary data
Activities included in scope 1	No activities
Activities included in scope 2	Electricity and district heating
Activities included in scope 3	<ul style="list-style-type: none"> <li>• Trains in the operational phase, including electricity and diesel consumption, and refrigerants used for HVAC (heating and air conditioning)</li> <li>• Replacements, modifications, lubrication and cleaning for 271 trains by operator/maintenance company</li> <li>• Production of purchased energy in Norske tog</li> <li>• Waste management for disposal of two trains phased out in 2023 by Norske tog</li> <li>• Transport of two trains to disposal</li> <li>• Business travel by air and car</li> <li>• Commuting for employees</li> <li>• Waste treatment for waste generated at Norske tog's leased locations</li> </ul>
Activities reported as "Out of scope"	Biogenic emissions from blended biofuels in petrol and diesel
Activities excluded (scope 3)	<ul style="list-style-type: none"> <li>• Purchase of office supplies, furniture, IT equipment and other office materials, due to smaller quantities</li> <li>• Transport of equipment to operator for rented equipment, due to missing data</li> <li>• Purchased services such as insurance, various consultancy services, and services such as occupational health services, canteen operations, cleaning, including physical materials for this, due to lack of data</li> <li>• Hotel accommodation</li> <li>• Waste management of IT waste, due to very low volumes for this</li> </ul>
Emission factors, data type	Mainly secondary data

<sup>1</sup> World Business Council for Sustainable Development & World Resources institute, 2015, "The GHG Protocol Corporate Accounting and Reporting Standard"

Table A.2: Description of scope 3 categories included in Norske tog's GHG accounts

<b>Scope 3 category</b>	<b>Description of scope 3 category</b>	<b>Norske tog activities included in scope 3 category</b>
Category 1: Purchased goods and services	All upstream (i.e. cradle-to-gate) emissions from the production of products purchased by the company in the reporting year. Products here include both goods and services.	Purchase of products for train modifications and maintenance/replacements for trains in operation.
Category 2: Capital goods	All upstream (i.e. cradle-to-gate) emissions from the production of capital goods purchased by the company in the reporting year.	Production and transport of trains purchased by Norske tog in the reporting year.
Category 3: Fuel and energy related activities not included in scope 1 and 2	Emissions related to the production of fuel and energy purchased and consumed by the company in the reporting year.	Production of the energy (electricity and district heating) that Norske tog purchases and uses in the reporting year.
Category 4: Upstream transport	Emissions from transport and distribution of the company's products between suppliers and own operations in vehicles not owned or controlled by the company.	Transport of trains for disposal between Norske tog and Helliik Teigen by train and lorry.
Category 5: Waste	Emissions from the disposal and treatment of waste generated in the company's operations during the reporting year.	Waste generated at Norske tog's leased locations and waste from train modifications.
Category 6: Business travel	Emissions from transporting employees for business-related activities in vehicles owned or operated by third parties such as aeroplanes, trains and buses.	Employee travel by car hire and air, and mileage allowance by car.
Category 7: Commuting	Emissions from the transport of employees between their home and workplace. Emissions from commuting can originate from driving, buses, trains, aeroplanes and other means of transport.	Employees travelling between home and work by fossil-fuelled car, electric car, public transport or walking/cycling.
Category 12: Final treatment	Emissions from the disposal and treatment of the company's products during the reporting year at the end of the product's life cycle.	Waste when disposing of trains.
Category 13: Downstream leased assets	Emissions from the operation of assets owned by the reporting company (lessor) and leased to other companies in the reporting year that are not already included in scope 1 or 2.	Electricity consumption, diesel consumption and replenishment of refrigerants for the operators SJ Norge, VyGruppen, Vy Tog and Go-Ahead who lease trains from Norske tog.

Table A.3 Climate accounts for Norske tog 2023 scope 1 and 2

Category	Activity	Volume	Unit	Emission factor	Unit	Emissions (tCO <sub>2</sub> e)	Emission factor source	Comment
<b>Scope 1</b>								
<b>TOTAL Scope 1</b>						<b>0</b>		
<b>Scope 2 (location based)</b>								
Energy consumption	Electricity rented premises	404,979.23	kWh	19	g CO <sub>2</sub> e/kWh	7.69	NVE (2022)	Emission factor for 2023 not available from NVE at the time of the accounting
	District heating rented premises	460,256.35	kWh	0.043	kg CO <sub>2</sub> e/kWh	19.79	NVE (2022), Fjernkontrollen (2022)	Emission factor for 2023 not available from NVE at the time of the accounting. "Fjernkontrollen" uses numbers from 2022.
<b>Scope 2 (market based)</b>								
Energy consumption	Electricity rented premises without a Guarantee of origin	188,695.65	kWh	502	g CO <sub>2</sub> e/kWh	94.73	NVE (2022)	Emission factor for 2023 not available from NVE at the time of the accounting. "Fjernkontrollen" uses numbers from 2022.
	Electricity rented premises with a Guarantee of origin	216,283.59	kWh	0	kg CO <sub>2</sub> e/kWh	0.00	NVE (2022), Fjernkontrollen (2022)	
	District heating rented premises	460,256.35	kWh	0.043	kg CO <sub>2</sub> e/kWh	19.79	NVE (2022), Fjernkontrollen (2022)	
<b>TOTAL Scope 2 (location based)</b>						<b>27.49</b>		
<b>TOTAL Scope 2 (market based)</b>						<b>114.52</b>		

Table A.4 Climate accounts for Norske tog 2023 scope 3

Category	Activity	Volume	Unit	Emission factor	Unit	Emissions (tCO <sub>2</sub> e)	Emission factor source	Comment
<b>Scope 3</b>								
Category 1: Purchased goods and services	Modifications: Floor covering	30.00	kg	3,102.45	kg CO <sub>2</sub> e/tonnes	0.09	Defra (2023)	Assumed main material plastics
	Modifications: Insulation	5.00	kg	1,861.75	kg CO <sub>2</sub> e/tonnes	0.01	Defra (2023)	
	Modifications: Composite	200.00	kg	0.483	kg CO <sub>2</sub> e/kg	0.10	United States Environmental Protection Agency (2019)	Assumed main material fibreglass <a href="https://www.epa.gov/system/files/documents/2022-06/2019%20Fiberglass%20Plant%20Carbon%20Intensities%20Fact%20Sheet%20.pdf">https://www.epa.gov/system/files/documents/2022-06/2019%20Fiberglass%20Plant%20Carbon%20Intensities%20Fact%20Sheet%20.pdf</a>
	Modifications: Plywood	30.00	kg	312.61	kg CO <sub>2</sub> e/tonnes	0.01	Defra (2023)	
	Modifications: Steel	10,600.00	kg	4,005.14	kg CO <sub>2</sub> e/tonnes	42.45	Defra (2023)	
	Maintenance/replacements for trains in operation.	271.00	No. of trainsets in operation in 2023	9,250.37	kg CO <sub>2</sub> e/trainset	2,506.85	LCA FLIRT (2012)	LCA for FLIRT is used for all trains. It is assumed that there would be higher emissions from old trains, but the same calculations are done for these in lack of data for the maintenance/replacements done for older trains.
Category 2: Capital goods	Train, class 74	1.00	No.	47,419.00	kg CO <sub>2</sub> e/trainset	47.42	LCA FLIRT (2012)	
	Train, class 76	0.00	No.					No new trains in 2023
Category 3: Fuel and energy related activities not included in scope 1 and 2	Electricity rented premises Norske tog (WTT)	404,979.23	kWh	0.0	kg CO <sub>2</sub> e/kWh	0.00	Defra (2023)	The emission factor is set to 0 because the electricity is mainly based on renewable resources.
	District heating rented premises	460,256.35	kWh	0.042	kg CO <sub>2</sub> e/kWh	19.33	See comment	Emission factor for 2023 not available from NVE at the time of the accounting. "Fjernkontrollen" uses numbers from 2022.
Category 4: Upstream transport	Transport of trains for disposal by train	1,805.70	tkm	0.03	kg CO <sub>2</sub> e/tkm	0.05	Defra (2023)	Based on distance between Drammen and Hellik Teigen, and the weight of the trains.
	Transport of trains for disposal by lorry	552.00	km	0.91	kg CO <sub>2</sub> e/km	0.50	Defra (2023)	Assumed lorry >33 tonnes w/average degree of filling

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Category	Activity	Volume	Unit	Emission factor	Unit	Emissions (tCO <sub>2</sub> e)	Emission factor source	Comment
<b>Scope 3</b>								
Category 5: Waste	Batteries	3.17	kg	21.28	kg CO <sub>2</sub> e/kg	0.07	Defra (2023)	
	Tires	0.48	kg	21.28	kg CO <sub>2</sub> e/kg	0.01	Defra (2023)	
	Electronics	969.28	kg	21.28	kg CO <sub>2</sub> e/kg	20.63	Defra (2023)	
	Hazardous waste	39.92	kg	21.28	kg CO <sub>2</sub> e/kg	0.85	Defra (2023)	
	Glass	4.75	kg	21.28	kg CO <sub>2</sub> e/kg	0.10	Defra (2023)	
	Ceramics and porcelain	0.09	kg	8.88	kg CO <sub>2</sub> e/kg	0.00	Defra (2023)	
	Paint, glue and coating	3.39	kg	21.28	kg CO <sub>2</sub> e/kg	0.07	Defra (2023)	
	Masses	125.93	kg	19.52	kg CO <sub>2</sub> e/kg	2.46	Defra (2023)	
	Food waste	924.87	kg	21.28	kg CO <sub>2</sub> e/kg	19.68	Defra (2023)	
	Metal	9,379.56	kg	0.99	kg CO <sub>2</sub> e/kg	9.24	Defra (2023)	
	Bricks	2.87	kg	0.99	kg CO <sub>2</sub> e/kg	0.00	Defra (2023)	
	Oil polluted masses	2,708.16	kg	21.28	kg CO <sub>2</sub> e/kg	57.63	Defra (2023)	
	Cardboard and paper	1,489.14	kg	21.28	kg CO <sub>2</sub> e/kg	31.69	Defra (2023)	
	Plastics	172.15	kg	21.28	kg CO <sub>2</sub> e/kg	3.66	Defra (2023)	
	Residual waste	6,912.21	kg	21.28	kg CO <sub>2</sub> e/kg	147.10	Defra (2023)	
	Waste oil	709.49	kg	21.28	kg CO <sub>2</sub> e/kg	15.10	Defra (2023)	
	Textiles	13.20	kg	21.28	kg CO <sub>2</sub> e/kg	0.28	Defra (2023)	
	Wood	903.20	kg	21.28	kg CO <sub>2</sub> e/kg	19.22	Defra (2023)	
	Modifications: Floor covering	30.00	kg	21.28	kg CO <sub>2</sub> e/kg	0.64	Defra (2023)	Assumed main material plastics
	Modifications: Insulation	5.00	kg	0.99	kg CO <sub>2</sub> e/kg	0.00	Defra (2023)	
Modifications: Plywood	30.00	kg	21.28	kg CO <sub>2</sub> e/kg	0.64	Defra (2023)		
Modifications: Metals	40.00	kg	0.99	kg CO <sub>2</sub> e/kg	0.04	Defra (2023)		
Modifications: Steel	10,000.00	kg	0.99	kg CO <sub>2</sub> e/kg	9.85	Defra (2023)		
Modifications: Wood	360.00	kg	21.28	kg CO <sub>2</sub> e/kg	7.66	Defra (2023)		

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Category	Activity	Volume	Unit	Emission factor	Unit	Emissions (tCO <sub>2</sub> e)	Emission factor source	Comment
<b>Scope 3</b>								
Category 6: Business travel	Petrol hire car	574.97	l	2.1	kg CO <sub>2</sub> e/l	1.21	Defra (2023)	
	Diesel hire car	274.07	l	2.51	kg CO <sub>2</sub> e/l	0.69	Defra (2023)	
	Hybrid hire car	1,211.46	l	2.51	kg CO <sub>2</sub> e/l	3.04	Defra (2023)	Assumed petrol
	Mileage allowance petrol	2,044.25	km	0.18	kg CO <sub>2</sub> e/km	0.37	Defra (2023)	
	Mileage allowance diesel	6,912.34	km	0.17	kg CO <sub>2</sub> e/km	1.18	Defra (2023)	
	Mileage allowance hybrid	875.79	km	0.11	kg CO <sub>2</sub> e/km	0.10	Defra (2023)	
	Mileage allowance electric vehicle car	13,405.92	km	0.053	kg CO <sub>2</sub> e/km	0.71	Defra (2023)	
	Air travel – Norway domestic	37,700.49	pkm	0.27	kg CO <sub>2</sub> e/pkm	10.18	Defra (2023)	
	Air travel – Nordics	20,239.11	pkm	0.19	kg CO <sub>2</sub> e/pkm	3.85	Defra (2023)	
	Air travel – Europe	327,667.27	pkm	0.26	kg CO <sub>2</sub> e/pkm	85.19	Defra (2023)	
Category 7: Commuting	Petrol car	8,033.60	km	0.180	kg CO <sub>2</sub> e/km	1.45	Defra (2023)	
	Electric vehicle car	22,115.79	km	0.053	kg CO <sub>2</sub> e/km	1.17	Defra (2023)	
	Public transport	152,007.34	km	0.029	kg CO <sub>2</sub> e/km	4.35	Defra (2023)	Assumed public transport by trolley
	Walking/ bicycling	6,285.18	km	0.0	kg CO <sub>2</sub> e/km	0.00	Defra (2023)	
Category 12: Final treatment	Iron	63.03	tonnes	0.99	kg CO <sub>2</sub> e/tonnes	0.06	Defra (2023)	
	Mixed waste	11.10	tonnes	21.28	kg CO <sub>2</sub> e/tonnes	0.24	Defra (2023)	
	Aluminium	49.90	tonnes	21.28	kg CO <sub>2</sub> e/tonnes	1.06	Defra (2023)	
	Electric motors	5.00	tonnes	21.28	kg CO <sub>2</sub> e/tonnes	0.11	Defra (2023)	
	Fluorescent tubes	0.02	tonnes	21.28	kg CO <sub>2</sub> e/tonnes	0.00	Defra (2023)	
	EE waste	1.94	tonnes	21.28	kg CO <sub>2</sub> e/tonnes	0.04	Defra (2023)	
	Light fraction	20.80	tonnes	21.28	kg CO <sub>2</sub> e/tonnes	0.44	Defra (2023)	Contains plastics, wood and rubber.
	Mineral mass	12.30	tonnes	8.88	kg CO <sub>2</sub> e/tonnes	0.11	Defra (2023)	Contains glass and stone
Oil	0.05	tonnes	21.28	kg CO <sub>2</sub> e/tonnes	0.00	Defra (2023)		

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Category	Activity	Volume	Unit	Emission factor	Unit	Emissions (tCO <sub>2</sub> e)	Emission factor source	Comment
<b>Scope 3</b>								
Category 13: Downstream leased assets	Electricity consumption train operation	440,000,256.06	kWh	19	g CO <sub>2</sub> e/kWh	8 360,00	NVE (2022)	In TP 2 for Vy and SJ there are estimates for december calculated by the operators. The emission factor for 2023 was not available at the time of the accounting.
	Diesel consumption train operation	11,033,216.00	l	2.51	kg CO <sub>2</sub> e/l	27,693.37	Defra (2023)	
	Replenishment of refrigerants for trains, R134a	611.08	kg	1,300	kg CO <sub>2</sub> e/kg	794.40	Defra (2023)	
	Replenishment of refrigerants for trains, R404a	18.30	kg	3,943	kg CO <sub>2</sub> e/kg	15.30	Defra (2023)	
	Replenishment of refrigerants for trains, R452a	1.00	kg	1,431	kg CO <sub>2</sub> e/kg	1.43	Defra (2023)	
	Replenishment of refrigerants for trains, R513a	1.20	kg	573	kg CO <sub>2</sub> e/kg	0.69	Refrigerant Impact GHG Study (2021)	<a href="https://vancouver.ca/files/cov/refrigerant-impact-gh-gi-study.pdf">https://vancouver.ca/files/cov/refrigerant-impact-gh-gi-study.pdf</a>
<b>TOTAL Scope 3</b>						<b>39,944.17</b>		
<b>TOTAL Scope 1, 2 and 3 (location based)</b>						<b>39,971.66</b>		
<b>TOTAL Scope 1, 2 and 3 (market based)</b>						<b>40,058.69</b>		

Table A.5 Climate accounts for Norske tog 2023 biogenic emissions

Category	Activity	Amount	Amount bio energy	Unit	Emission factor	Unit	Emissions (tCO <sub>2</sub> e)	Emission factor source	Comment
Category 6: Business travel	Petrol rental car	575.0	57.5	l	0.12	kg CO <sub>2</sub> /liter	0.01	Defra (2023)	Outside of scope
	Diesel rental car	274.1	19.2	l	0.14	kg CO <sub>2</sub> /liter	0.00	Defra (2023)	Outside of scope
	Hybrid rental car	1,211.5	121.1	l	0.12	kg CO <sub>2</sub> /liter	0.01	Defra (2023)	Outside of scope Assumed petrol
Category 7: Commuting	Petrol car	625.8	62.6	l	0.12	kg CO <sub>2</sub> /liter	0.01	Defra (2023)	Outside of scope
Category 13: Downstream leased assets	Diesel consumption trains	11,033,216.00	772,325.1	l	0,14	kg CO <sub>2</sub> /liter	108.13	Defra (2023)	Outside of scope
<b>Sum biogenic emissions</b>							<b>108.2</b>		

## Appendix B: Materials and Waste

Table B.1 Materials (tonnes) used in new trains phased in during the period 2022-2023\*

	T74 – 2023 1 train	T74 – 2022 12 trains	T76 – 2022 4 trains	Total materials 2022	Total materials 2023
Aluminium	66	789	263	1,052	66
Steel	83	998	333	1,330	83
Copper	12	138	46	184	12
Glass	7	79	26	105	7
Wood	7	82	27	109	7
Plastic	4	42	14	56	4
GRP	2	26	9	35	2
Rubber	4	43		57	4
Electronics	8	97	32	129	8
Chemicals	3	34	11	45	3
Textile	0	2	1	3	0
Other	8	101	34	135	8
<b>Total</b>	<b>203</b>	<b>2,431</b>	<b>810</b>	<b>3,241</b>	<b>203</b>

\* The calculations are based on data taken from the material list in a preliminary Life Cycle Analysis for FLIRT class 74 and 75 from 2010. This is the one train class that was phased in in 2022. For class 76, the calculations are based on the same data, in the absence of specific data on class 76 when the calculations were made. The weight of each type of material is multiplied by the number of trains. The data set for 2022 is also used for 2023, as one class 74 train set was phased in. There are some minor adjustments to the figures from 2022 in this year's report.

Table B.2 Total amount of materials/waste in trainsets phased out in 2022 and 2023\*

Categories	2022, tonnes	2023, tonnes
Iron	687	63
Mixed waste	104	11
Metal	0	0
Aluminium	500	50
Electric motors	30	5
Batteries	13	0
Fluorescent tubes	0	0
EE waste	44	2
Copper	0	0
Light fraction	107	21
Mineral mass	168	12
Oil	13	0
<b>Total</b>	<b>1,666</b>	<b>164</b>

\* Source: Credit notes from Hellik Teigen to Norske tog

Norske tog phased out nine wagon sets in 2022 and two wagon sets in 2023, all of which were delivered to recycler Hellik Teigen. This table shows the type and quantity of waste in tonnes from the handling of the train sets. The data is based on credit notes from Hellik Teigen to Norske tog. For some wagon sets, average quantities

were used, based on some unavailable data. An adjustment has also been made to the material quantities for 2022 as more data has been made available. The total number of tonnes of materials has been adjusted down from 1828 to 1666 tonnes.

Table B.3 Waste treatment of materials from trainsets phased out in 2022 and 2023

Categories	2022 – class 70		2023 – class 69 and 92	
	Tonnes of waste	%	Tonnes of waste	%
All fractions	1,666	100	164	100
Material recycling	1,454	87	136	83
Energy recovery	211	13	29	17
Landfill site	0	0	0	0

Table B.4 Materials disposed of from modification projects 2023

Waste – modification of trains, kg	
Floor covering	30
Insulation	5
Plywood	30
Metal	40
Steel	10,000
Wood	360
<b>Total waste in modification projects</b>	<b>10,465</b>

Table B.5 Materials purchased in modification projects 2023

Purchased goods and services – modification of trains, kg	
Floor covering	30
Insulation	5
Composite (assumed fibreglass)	200
Plywood	30
Steel	10,600
<b>Total materials in modification projects</b>	<b>10,865</b>

## Appendix C: External Audit Information

Norske tog is audited by an independent third party annually, in line with the requirements of the Auditors Act. At present, the auditing company PwC is responsible for auditing Norske tog, and thus assessing whether the company's annual accounts are true and fair. The company's auditor is elected by the general meeting, and the agreement on auditor services applies for four years (annual accounts 2022-2025) with options of 2 + 2 years. The auditor attends the board meeting that considers the annual accounts. The auditor's provision of additional services is presented annually to the Board of Directors.

The audit report from PwC is located at the back of Norsk tog's annual report 2023.

### **Audit and Sustainability Committee**

Norske tog's board of directors shall elect an audit and sustainability committee to strengthen the board's preparation for its meetings. The board as a whole is responsible for the decisions made. The audit committee shall have at least two members, and the members shall be elected by and from among the members of the board. At least one of the members of the audit committee must have qualifications in accounting or auditing.

### **Internal audit**

Norske tog is wholly owned by the state, and is therefore required to comply with the state's requirements for internal auditing, in accordance with chapter 2 of the The Ministry of Finance's Chapter 2 of the "Provisions on Financial Management in the State".

Norske tog has engaged an external auditing company to conduct internal audits. The purpose of the internal audit is to evaluate the appropriateness and effectiveness of the company's management and control system for governance, risk management and internal control in a structured and systematic manner.

The auditing firm EY performs internal auditing for Norske tog. The internal auditor works and reports formally to Norske tog's Board of Directors, and prepares an annual risk-based audit plan (June to June) to determine its priorities. The audit plan is presented to the Board of Directors, which either amends or adopts the proposal.

### **Green Bond Framework**

Norske tog has designed a framework for issuing green loans in the bond market – a Green Bond Framework. The framework was last updated in December 2022. According to the Green Bond Principles (ICMA, 2021), it is recommended to perform a third-party verification of the Green Bond Framework. In 2022, Norske tog's Green Bond Framework was assessed by an external, independent third party, Cicero, resulting in a "Second Opinion" report.

### **Environmental impact reporting**

Norske tog prepares an annual environmental impact report. In line with recommendations from the Position Paper on Green Bonds Impact Reporting (Nordic Public Sector Issuers, 2020) and the Green Bond Principles, this report is verified annually by an independent third party. In November 2022, the auditing company PwC conducted this verification. The work was limited to verification of processes and systems for financing of eligible assets and allocation of financing from the green bond to such assets, as described in Norske tog's Environmental Impact Report for 2023, section "Governance of the Green Bond Framework".

## Appendix D: Key suppliers to Norske tog in 2023

The lists in Table D.1 show Norske tog's largest suppliers, based on an extract from Norske tog's invoice management system and derived from the invoice date 01.01.23-31.12.23. There will be some deviation in actual consumption of services from what the annual accounts show. Consumption for 2023 is only derived from the invoice date. The figure stated does not take into account accrual effects. Nor have adjustments been made for the actual recognised exchange rate in cases where consumption is not in NOK. To remedy the latter, the annual average mid-rate from Norges Bank has been used to convert invoices received in foreign currency to NOK.

Norwegian suppliers used to calculate the Norwegian share are Norwegian registered legal entities. The figure

may include cases where the goods and services are nevertheless delivered from abroad, but where Norske tog receives an invoice from a Norwegian-registered subsidiary or similar.

All the largest suppliers to Norske tog are either Norwegian or European. The list of local (Norwegian) companies is based on suppliers registered as a Norwegian legal entity where Norske tog receives invoices from a Norwegian company. The annual average mid-rate from Norges Bank is used to convert invoices received in other currencies to NOK.

The lists are not exhaustive; suppliers that have delivered goods or services for less than 9 million are not included.

Table D.1 Largest suppliers in 2023

Supplier	Description	Contract	Total TNOK
Stadler Bussnang AG	Train supplier	New long-distance trains	1,051,735
ALSTOM Transport Deuchland GmbH	Train supplier	New local trains	354,474
ALSTOM TRANSPORT NORWAY AS	Train supplier	New local trains	257,970
Tryg Forsikring	Insurance	Insurance agreement	129,799
Mantena AS	Maintenance & Service	Framework agreement technical services	96,743
ALSTOM Transport AB	Train supplier	Midlife upgrade class 72	63,808
O.J. DAHL AS	Spare parts & consultants	Framework agreement technical services	27,324
ALSTOM ENIO ANS	Installation of on-board equipment ERTMS	ERTMS	25,362
Nomad Digital Ltd	Digital services	Framework agreement for online trains	16,516
WSP NORGE AS	Consultant	Framework agreement technical services	16,447
Jotne Rail Solutions AS	Consultant	Framework agreement technical services	15,558
VY TOG AS	Train operator	Framework agreement technical services	14,824
HYDEX SYSTEMHYDRAULIKK AS	Spare parts & consultants	Framework agreement for technical services	14,290
SJ Norge AS	Train operator	Framework agreement for technical services	13,755
KPMG AS	Consultants	Framework agreement for consultancy services	11,204
Borcad cz. s. r. o.	Material supplier	Deckchairs	9,843
Bane NOR Eiendom AS	Office, track space in workshop and warehouse	Property	9,251
<b>Total – we procure goods and services for</b>			<b>2,243,862</b>

## Appendix E: Indicators

Table E.1 Competitive service offering and satisfied customers

Indicator	Goal	2019	2020	2021	2022	2023
Do we deliver enough trains according to the agreement, number of motor vehicle sets	Delivered according to agreement	259	262	270	278	271
High customer satisfaction		77	78	82	85	84
Delays due to vehicle faults, delay hours code 81	600	939	769	959	1,159	1,214
Settings due to vehicle faults, number of delays code 81	700	1,218	978	1,301	1,329	1,768

Table E.2 Efficient and sustainable operations

Indicator	Goal	2019	2020	2021	2022	2023
Recycling rate*	90%	N/A	N/A	N/A	87%	83%
Administrative cases**						
Low standardisation, number of train classes	9	17	17	17	18	18
High average age, average age of rolling stock	15	18.8	19.1	18.7	18.4	18.7
Safety-critical incidents	0	N/A	N/A	N/A	0	1

\* Requirements are set for the recycling rate of the vehicle in new acquisitions. At scrapping, the proportion of vehicles that are recycled is reported. Few trains are currently reported, but all trains sent for recycling will be subject to reporting requirements.

\*\* Data is not ready yet, coming in 2024.

Table E.3: Competent and satisfied employees

Indicator	Goal	2019	2020	2021	2022	2023
Employee satisfaction	75%	69%	72%	79%	78%	79%
Turnover	8%	3%	3%	2%	7%	5%
Gender balance, share of women	40%	15%	21%	35%	35%	35%
Sickness absence	4.0%	2.0%	3.3%	2.3%	2.2%	1.6%
Hire, share of consultants in per cent	25%	N/A	43%	39%	31%	30%

Table E.4 Financial freedom of action

Indicator	Goals/ requirements	2019	2020	2021	2022	2023
Return on investment	5%	7.8%	3.2%	5.08%	3.2%	4.8%
Green financing	100%	16%	20%	40%	40%	59%
Financial strength, interest coverage ratio*	1.3	1.7	1.3	1.6	1.3	1.3
Maintained A rating	A	A+	A+	A+	A+	A+
Equity ratio	20%	23%	27%	25%	26%	26%

\* The interest expenses in the calculation consist of interest expenses and recognise interest income for interest rate swaps – Note 5 to the financial statements.