Charging forward

Annual Report 2023

STEDIN GROEP

Contents

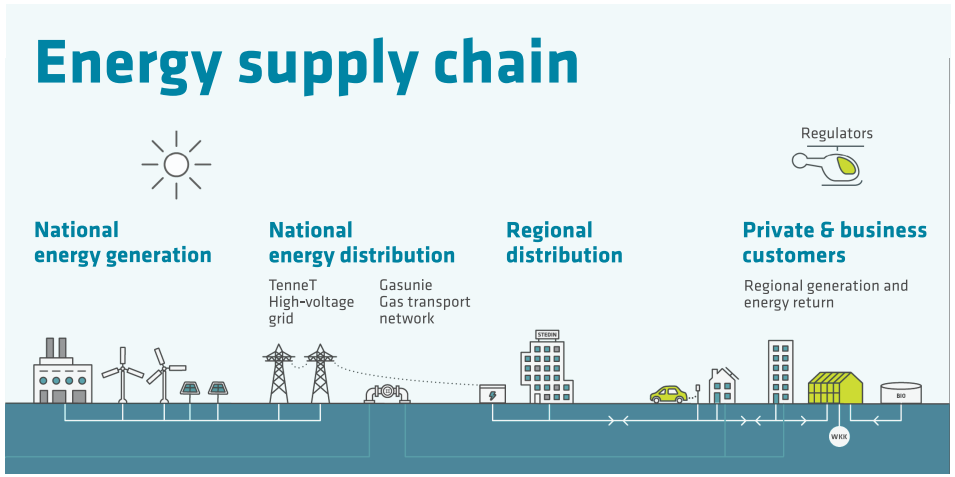
Disclaimer
This is an English translation of the Dutch annual report, which is available on www.stedingroep.nl. In the event of any discrepancy, the Dutch version will prevail.

Introduction

About us

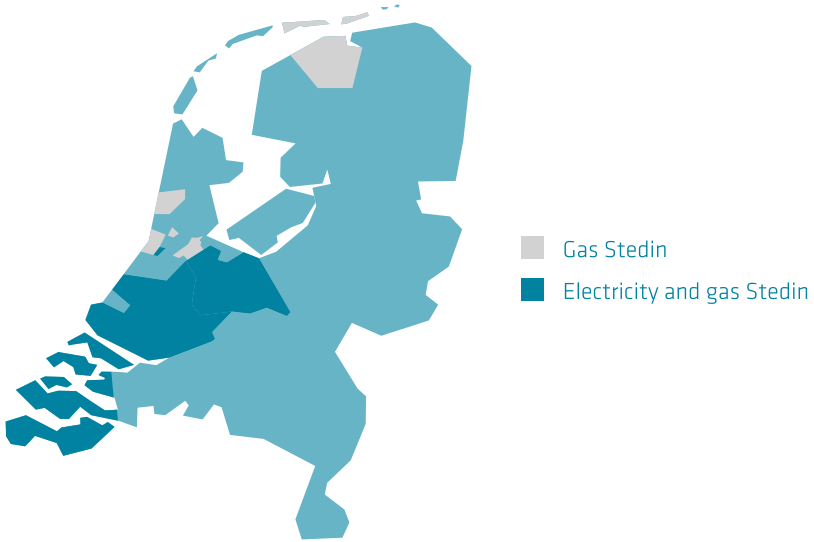
Stedin Group in the energy supply chain

With our gas and electricity grids, we are a vital link for economic activities in our coverage area. We collaborate with other players in the energy supply chain. These include electricity and gas producers, the national distributors of electricity and gas TenneT and Gasunie, our suppliers, the other regional grid managers and the organisations that monitor the reliability, affordability, safety and sustainability of our energy supply. Stedin Group is a semi-public organisation: a public limited company whose shares are owned by government authorities, namely 42 municipalities and the Dutch State.



Our service area

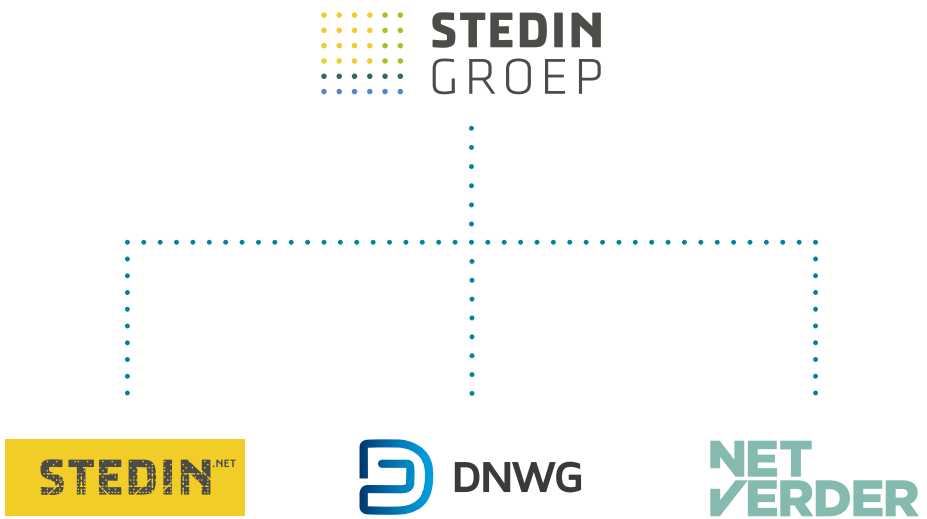
We manage and maintain the energy grids in most of South-Holland, Utrecht and Zeeland. Our service area is home to roughly 5.5 million people and includes three of the four largest cities in the Netherlands, the port and industrial areas of Rotterdam and Zeeland, as well as greenhouse horticulture regions. Parts of the provinces of North-Holland and Friesland also fall within our coverage area. Stedin Group operates and has its registered office in the Netherlands. Our head office is located at Blaak 8, 3011 TA in Rotterdam.



Our activities

Stedin Group focuses on all activities relating to constructing, managing and maintaining energy grids. In addition, Stedin Group facilitates the energy market. Stedin Group consists of several business units: grid manager Stedin operates in the regulated market, while our infra partners NetVerder and DNWG carry out non-regulated activities. Stedin Netbeheer, NetVerder and DNWG are separate subsidiaries of Stedin Holding. In 2023, the non-regulated activities accounted for 1.6% of revenue (2022: 2.6%).

How we are organised



Stedin Netbeheer

As a grid manager, Stedin Netbeheer ensures a safe, reliable and affordable energy supply for its more than 2.3 million customers. Stedin Netbeheer operates alongside five other regional grid managers in the regulated market. At year-end 2023, Stedin Netbeheer had 5,471 employees, including 4,465 internal staff members (male: 3,607; female: 858) and 1,006 external staff members (male: 795; female: 211).

NetVerder

NetVerder helps achieve the energy transition by developing, constructing and maintaining energy infrastructures for heat, steam and biogas. NetVerder also focuses on the independent transmission and distribution of other new energy sources or carriers. NetVerder is an independent part of Stedin Group. NetVerder has 18 staff members, including 12 internal staff members (male: 9; female: 3) and 6 external staff members (male: 6; female: 0).

DNWG Infra

DNWG Infra (operating under the name DNWG) maintains and manages Stedin Netbeheer's electricity and gas grids and the Evides water grid in Zeeland and Goeree. In 2023, it was decided to discontinue the water-related outage and maintenance activities carried out in partnership with Evides. 2024 will be a transition year, so that Evides will be able to perform these activities entirely independently. At year-end 2023, DNWG Infra has 348 staff members, including 307 internal staff members (male: 255; female: 52) and 41 external staff members (male: 36; female: 5).

Joint arrangements

We form joint arrangements with other parties for specific activities.

Utility Connect

Utility Connect B.V. is a joint arrangement with network group Alliander. Utility Connect operates its own wireless telecommunications network, which it uses to read metering data provided by smart meters and to communicate with smart-grid applications. This network allows us to supply metering data to market parties and shorten or prevent energy supply disruptions.

TensZ

TensZ B.V. is the joint organisation of TenneT and Stedin for managing and maintaining high-voltage grids. Each party holds a 50% share.

Stichting Zeeuwse Publieke Belangen (Zeeland Public Interest Foundation)

Stichting Zeeuwse Publieke Belangen is an alliance between the province of Zeeland, the municipalities of Zeeland and Stedin Group. Established in 2017, the purpose of the foundation is to safeguard the agreements concerning the sale of DNWG to Stedin Group in areas including employment, energy supply and the energy transition. The foundation makes a budget available to promote the energy transition in Zeeland. An overview of the initiatives can be found on the foundation's website.

2023 in numbers

By making substantial **investments,** Stedin works towards facilitating the energy transition in cooperation with stakeholders. We do this by safely accelerating **construction,** using the **current grid more flexibly**, and **ensuring effective grid management**. The aim is to ensure a reliable energy supply for our **customers**. In all this, we are mindful of our **staff members:** we want them to enjoy their work, to be able to develop themselves and to feel safe within a **socially engaged** and **financially** healthy Stedin. By working as sustainably as possible on a new energy system based on locally generated renewable energy, we will help achieve national and international targets to reduce **CO_2 emissions**. We will do this both by minimising the emissions from our own operations and by enabling our customers to reduce their CO_2 emissions. For a more detailed explanation of the figures below, and how they relate to our strategy, material topics, strategic risks and opportunities, please refer to the **connectivity table**.

Investments

€ 832m
Investments

Customers

79%
Consumer convenience

Construction

513 MVA
Additional capacity

266
Additional MV stations

892 km
Additionally realised cables

Utilisation

22
Congestion areas

52 MW
Flexible capacity

98%
Availability of smart meter data

Management

99.9961%
Supply reliability E

99.9999%
Supply reliability G

91%
Planned maintenance E carried out

96%
Planned maintenance G carried out

212 km
Brittle pipelines replaced

Employees

7.3 Cultural value ‘Charging Forward’

5,520
FTE

0.24
LTIR

Socially responsible

1.9% Participation Act jobs

Financial

14%
FFO/Net debt

45.4%
Solvency

CO_2 emissions

100%
Greening of grid E losses

419,777 ton*
CO_2 equivalent emissions

* This number reflects the total number of CO_2 emissions in scope 1, 2 and 3, including the 100% greening of our grid E losses. Read more about this in the chapter ‘Measuring impact’

"To increase our grid capacity and maintaining the quality of our grids, we invested over 15% more compared to the previous year."

Koen Bogers, CEO Stedin Groep

CEO's foreword

2023 was the first year in which we pursued our *Construction, Utilisation, Management* strategy. It has become a real buzzword within Stedin. Everybody is talking about it. The strategy is clear, highlights priorities and simplifies process control. However, unforeseen events in practice – such as the acceleration of the energy transition, geopolitical developments and scarcity of materials and technicians – do not make our task any easier. Although we made great progress in scaling up, we were unable to prevent an increase in congestion last year. Consumers and businesses are switching to renewable energy in their droves, which the current electricity grid cannot handle. Further acceleration of the expansion and optimal utilisation of the existing electricity grid are therefore our top priorities. In addition, we need to look at the total energy system. Sustainable gases may ease the pressure on the electricity grid because they can be distributed (or supplied) via the existing gas grid.

We invested € 832 million in expanding our grid capacity and maintaining the quality of our grids, which represents an increase of over 15% compared to the previous year. This was not an easy task, because some processes turned out to be more complex or took longer than anticipated. In order to accelerate construction, we spoke with nearly all municipalities in our service area about their sustainability plans and planning permission procedures. We launched multiple projects simultaneously and intensified our cooperation with other parties. In this context, we concluded new long-term contracts with our contractors, which include agreements for even better cooperation.

"We are proud that our shareholders unanimously approved the admission of the central government as a shareholder of Stedin Group."

Despite all our efforts to accelerate, it will take years before the necessary extra capacity is available. Therefore, in 2023 we also continued working on solutions to better utilise the existing grid. For example, by better predicting customer demand and by offering flex contracts. Flexible use of renewable energy will require greater awareness, *as well as* more focused choices. Of all the capacity we are adding to the grid until 2030, 25% will go to charging points in some areas. If we limit charging during the evening peak hours, more capacity will become available and we will be able to connect more homes. At Stedin, we are facing a challenge which we cannot resolve on our own. This is the joint responsibility of grid managers, politicians, the business sector and the public. We are proud that in December our shareholders unanimously approved the admission of the central government as a shareholder of Stedin Group. This is an excellent result after a long and intensive process in which I did have the odd sleepless night, wondering whether we would manage to pull it off. We badly need the additional capital contributed by the State in order to keep investing in the expansions and reinforcements of the electricity grid.

We recalibrated our ESG strategy in 2023. Although we were already focused on social and governance aspects and performed our work as sustainably as possible - with the lowest possible CO_2emissions - this new strategy should make a further contribution to a comprehensive approach to sustainability. Stedin has a strong drive to do what is right for the customer, preferably as soon as possible. However, this should never come at the expense of safety. In 2023, we managed to find an increasingly better balance in this area. For instance, by challenging each other even more about safe working practices. The fact that we do this makes me feel proud. Proud of all our staff members, both in the field and in the office. Because we can only achieve further acceleration if we work together.

On behalf of the Board of Management,
Koen Bogers

Annual summary for 2023

1st quarter

27 January - At the end of January, it became clear that the capacity of solar panels had grown more than ever before in the previous year. In 2022, new solar panels with a total capacity of 484 megawatt peak were installed at 107,264 households on Stedin's electricity grid. We now also have the figures for 2023, which show that this growth continued in 2023. In 2023, solar panels with a total capacity of 599 megawatt peak were installed at 145,000 households.

6 March - Enexis, Stedin and Liander, together with the supplier Connectens, developed a compact connection module (CAM) for unattended objects such as charging points, advertising panels and street lighting. Fitters can assemble the CAM three times faster, leaving more time for other work needed to accelerate the energy transition.

2nd quarter

30 May – On 26 May, Stedin's shareholders reappointed Mr D.G. (Doede) Vierstra RC as chair of the Supervisory Board.

19 June - Stedin launched the 'Solar Washing' campaign, which encourages people to use electricity in line with nature's rhythm. This ensures a more balanced distribution of electricity. One element of the campaign is the 'Solarette', a pop-up launderette where people can do their laundry free of charge for as long as enough solar energy is available.

26 June - With the Open Innovation Heat Grid in the Green Village field lab at TU Delft Campus, Stedin Group, Alliander and Enexis Group offered companies the opportunity to try out heating innovations and select heat grid studies in a residential and low-regulation environment.

3rd quarter

4 July - The Trade and Industry Appeals Tribunal (CBb) issued a ruling on appeals lodged by grid managers (regional grid managers, TenneT and GTS) against the method decisions of the Netherlands Authority for Consumers and Markets (ACM). According to the CBb, the ACM needs to amend the method decisions on a number of points, including the manner of estimating the productivity of regional grid managers.

19 July - The high-voltage grid in the province of Zeeland almost reached maximum capacity for heavy-use customers. A total of 3.5 gigawatts in additional power was requested. TenneT subsequently notified the ACM, with the result that requests in excess of 3x80 amperes are now placed on a waiting list.

26 September - A pilot was launched in Tholen to make more efficient use of the capacity of the local electricity grid. A 'group capacity agreement' was signed between the energy hub REC Tholen and grid manager Stedin. This was the first e-hub to conclude this kind of contract, i.e. an agreement capable of scaling up, with a grid manager.

4th quarter

18 October - The government announced measures to easy the pressure on the electricity grid and to better utilise it. This was necessary because the Rotterdam port area and the surrounding municipalities on the islands of Voorne-Putten and Goeree-Overflakkee, as well as the provinces of Utrecht, Zeeland and North-Holland, were experiencing electricity grid capacity shortage. This has emerged from research conducted by TenneT. More capacity is expected to available between 2027 and 2029.

31 October - The ACM received broad support for its proposal that the prioritisation of projects that contribute to important societal goals be enshrined in a statutory regulation. This proposal will enable grid managers to deviate from the usual 'first come, first served' principle when providing access to the electricity grid.

1 December - For the first time in 2.5 years, the Middelharnis region on the island of Goeree-Overflakkee again had capacity for new initiatives aimed at large-scale feed-in of sustainably generated electricity to the grid. This was because Stedin had started using additional transformers and switchgears early in November of this year, which meant that capacity of 35 MW became available.

8 December - At the general shareholders' meeting of 8 December, Stedin Group's shareholders unanimously approved the admission of the Dutch State (the State) as a shareholder of the grid operator. As a result of this resolution, the State has reinforced Stedin's equity by € 500 million, in exchange for an 11.9% stake. This will enable us to keep investing in the expansions and reinforcement of the electricity grid.

Strategy: grid access for all

Our aim is to give everyone in our service area access to the grid. To make that possible, we will need to expand our grid capacity and maintain the high quality of our grid. This is our social mandate, as well as the core of our new strategy for the period 2023-2027. We do this through construction, utilisation and management. Our reporting in this annual report is structured on the basis of these three pillars.

The energy transition is one of the greatest challenges the Netherlands has ever faced. Energy production is rapidly becoming more sustainable and electricity consumption is rising steeply. At the same time, we are maintaining the quality of our energy grid and preparing the gas grid for the distribution of renewable gases. This, too, is part of the energy transition.

New energy systems

The Netherlands is moving from a fossil energy system to a sustainable energy system. From energy generated centrally at a power station to energy generated locally by solar panels or offshore wind turbines. This requires giving more thought to how we use energy. Throughout the Netherlands, sustainable energy should as much as possible be used near to where and when it is generated. By using smart technologies, we can keep the energy system balanced even when there is no wind or sunshine. We will be supplying all of this new energy to our customers via our grids. Because this is what we do: working together to create an environment filled with new energy. We help achieve the Dutch sustainability ambitions and are working on the energy system of the future: a challenge of unprecedented magnitude! We do this with an eye for the environment around us.

The energy system of the future requires a well-functioning grid. A high-quality grid with sufficient capacity. That is what we will be focusing on in the coming years. We will speed up **construction**, improve the **utilisation of grids** and continue their reliable **management**. Everything we do will contribute to these goals.

Ensuring grid capacity

- **Construction**: we are laying even more cables and pipes and building additional stations. In this way, we can connect our customers to our energy grid, including new customers and electricity generators.
- **Utilisation**: construction alone will not suffice. We will improve the utilisation of the grid by optimally matching supply and demand, and by using the available grid capacity in the smartest possible way. This will reduce grid congestion.

Ensuring grid quality

- **Management**: we want to maintain the quality of our performance. Among other things, we do so by safeguarding the quality of our energy grid. Our top priority is to continue to ensure a reliable and safe energy supply.

Mission, vision and strategy 2023-2027

Mission

Working together to create an environment filled with new energy

Vision

Enabling the energy transition through the rapid construction, optimisation and effective management of the grids

Strategy

PRIORITIES	**Grid capacity** (construction & optimisation)	**Grid quality** (management)
OTHER OBJECTIVES	Services and efficiency | Market facilitation | Sustainability | Renewable gases & alternative heating	
PRECONDITIONS	Financially healthy | Staff, leadership & culture | ICT & change capacity | Safety & cybersecurity	

We do this together

Prioritising one thing sometimes comes at the expense of something else. That also applies to focusing on our grids. But at the same time, it also offers opportunities. Opportunities for innovation, for example. We are discovering new, faster and more effective methods of construction. We are developing smart, flexible solutions and are embracing digitalisation. Everyone at Stedin contributes to this process, as does our environment. Many customers and energy entrepreneurs want to help us make the most of our grid; these include commercial growers, customers with controllable solar and wind farms, and customers with large-scale storage capacity. Opportunities also abound for companies that are sharing ideas with us for accelerating the expansion of the grid, by means of co-creation with parties such as water and infrastructure companies.

With an eye for our environment

On our way towards an ESG-driven organisation, we recalibrated our ESG strategy at the end of 2023. As part of this new ESG strategy, we formulated ambitious objectives with regard to the Environmental, Social and Governance aspects of our operations. For the period 2024-2030, we reserved € 150 million for this purpose.

Environmental: green & sustainable

We are accelerating the energy transition by speeding up construction and improving the utilisation of the existing grid. By doing so, we are helping to make the Netherlands more sustainable, but it does not fully justify the negative impact made by Stedin's own operations. We are therefore looking for solutions to accelerate the energy transition while simultaneously ensuring that our operations have a less negative – or even a positive – impact on our environment. Where we encounter a dilemma, we make sharp policy choices. Realising the energy transition is our top priority. Doing this as sustainably as possible is important, but is a secondary factor. After all, the added value for society of realising the energy transition outweighs the sustainability gains that can be realised in our operations.

Climate change mitigation

Our old ambition was to move towards climate-neutral operations by 2030, as part of which we planned to make use (where required) of CO_2 compensation. We now no longer support CO_2 compensation, because the principle is debatable and moves the focus away from the causes of the problem. Our new ambition is therefore to reduce CO_2 equivalents emissions.

Circularity and waste management

For us, circularity means in particular that we want to reduce the use of primary raw materials as much as possible. In order to achieve this, we are shifting the emphasis of our recalibrated strategy to the design phase. This is where we have the greatest influence on reducing the use of primary raw materials. The biggest gains can be made in the categories of cables and concrete for buildings. Reuse and waste management will also remain important.

Biodiversity

We endeavour to strengthen biodiversity. In this context, we have a significant impact on biodiversity especially in our supply chain. We will explore this further in 2024, in the expectation that many of our measures aimed at CO_2 reduction and circularity will also have a positive effect on biodiversity in the supply chain. In addition, we will continue to work on biodiversity at and around our own stations.

Social: development, safe & inclusive

We want to reflect the world we work in and we want our workforce to be a reflection of the diversity in society. We therefore provide a workplace where everyone can be themselves, where staff members have room for ongoing development and safe working practices are a top priority, and we do everything in our power to increase the physical and mental wellbeing of our staff.

Good employment practices

In ensuring good employment practices, we are continuing to build on a solid foundation. We focus on the following material themes:

- Training, learning and development
- Health and safety
- Diversity and inclusion

Governance: integrity & transparency

We do our work with integrity and transparency. Together with our stakeholders, we are working on sustainable value creation for the longer term. We take our responsibility for sustainable and fair working practices, both in our own organisation and in our collaboration with supply chain partners. We ensure ongoing compliance with the applicable laws and regulations and norms of behaviour.

A new element of good governance for Stedin is supply chain responsibility. This aspect will be further developed when there is new legislation on this point.

Our website tells you more about our ESG strategy and the steps we are taking in this regard.

CSRD

The Corporate Sustainability Reporting Directive (CSRD), with which Stedin must comply from financial year 2024, makes it compulsory for large companies to report on their sustainability performance. This includes reporting based on binding reporting standards, the European Sustainability Reporting Standards (ESRS), concerning themes where our operations have the greatest impact on the environment and society, and vice versa.

In preparation for these obligations, and because we as a social company find it important to be transparent about our sustainability performance, we have taken steps in respect of the adjustment of our governance and reporting organisation and our (double) materiality analysis, and have asked our external auditor to provide an assurance report for a selection of non-financial figures through which we reflect on 2023. In 2024, we will take the further steps required to ensure full compliance with CSRD.

Value creation model

Input

Funding
We use our group equity and interest-bearing debt

Production resources
We use production resources and resources purchased from our supply chain, including our real estate and vehicle fleet

Knowledge
We use innovative knowledge, data technology and cybersecurity

Employees
The efforts of our employees, their competences, abilities, experience and motivation to innovate

Stakeholder dialogues
We cooperate and define our material topics in dialogue with public and private stakeholders

Raw materials and energy
The raw materials, energy and manufactured resources we use

Business model

Mission
Working together to create an environment filled with new energy

Vision
Enabling the energy transition through the rapid expansion, optimisation and effective management of the grids

Strategy
Our ambition is 'grid access for all'

Construction | *more cables, more pipelines, more stations*

Utilisation | *getting the most out of our grid*

Management | *maintaining the high quality of our grid*

Other objectives
Services and efficiency - Market facilitation - Sustainability - Renewable gases & alternative heating

Prerequisites
Financially healthy - Staff, leadership & culture - ICT & change capacity - Safety & cybersecurity

Output

Construction
513 MVA of additional capacity
266 additional MV substations
892 additional km of cables

Utilisation
22 congestion areas
98% smart meter data provision
52 MW of flexible capacity

Management
91% execution of planned electricity maintenance
96% execution of planned gas maintenance
212 kilometres of brittle pipes replaced

Impact on material topics

Access to energy and supply reliability
Our customers can rely on a reliable, affordable and secure energy supply

Customer and stakeholder perception
Customers and stakeholders are able to develop long-term plans (including in the area of sustainability)

Good employment practices
Our employees are able to perform their work properly and sustainably

Climate mitigation and adaptation
Reduction of CO_2 emissions (our own and in the value chain) in line with the Paris Climate Agreement

Biodiversity in the chain
Increasing the diversity of terrestrial and aquatic organisms

Circular use of materials and waste management
Reduced resource depletion through reduced use of primary materials

Business ethics, integrity and good governance
We make ethically responsible choices and act with integrity

Global impact:

Stakeholders and materiality

The challenges associated with the energy transition are not restricted to Stedin but also affect our stakeholders. Based on the extent to which our stakeholders experience a positive or negative impact, we have analysed which themes are material to them in their relationship with Stedin.

To identify these themes, we performed a double materiality analysis for the first time in 2023, in anticipation of the CSRD taking effect in 2024. A detailed description of the way in which we carried out this analysis, including the principal considerations, can be found in the supplementary information. In 2024, we will supplement the double materiality analysis with elements such as a value chain assessment and a more explicit confirmation with our key external stakeholders.

The double materiality analysis provides insight into themes where Stedin has the greatest positive and negative impact on society ('inside-out' analysis for impact materiality purposes) and which topics (potentially) have the greatest external impact on Stedin's operations ('outside-in' analysis for the purposes of financial materiality), taking into account the associated financial risks and opportunities.

The outcomes of our impact measurements on society and our environment in 2022 were part of the input for the double materiality analysis. This marks the start of our transition from measuring to pursuing a broad, long-term social impact.

Defining these themes helps Stedin focus its strategy on those topics where the impact made on and by Stedin is greatest, in order to strengthen positive impacts, reduce negative impacts and aim at long-term value creation. For example, Stedin has a positive impact on the wellbeing of consumers by providing them with reliable access to energy (material theme 'Access to energy and supply reliability'). This is also one of Stedin's strategic pillars. Another example is reducing our negative climate impact by aiming for a reduction of our CO_2emissions, which is related to the material theme 'Climate mitigation and adaptation' and Stedin's new ESG strategy.

Our value creation model shows the relationship of the material themes to our business model, our results, the long-term impact and the UN Sustainable Development Goals. The connectivity table shows the connection between material themes, strategic spearheads, risks and opportunities and KPIs. We will focus more closely on our stakeholders in the subsection entitled 'Stakeholders and interaction with our environment'.

The table on the next page provides insight into our material themes and their link with long-term value creation.

Material themes: outcomes of double materiality analysis

Themes and subthemes	Long-term value creation
Access to energy and supply reliability a. Investing in a safe and future-proof infrastructure to facilitate the energy transition b. Financial and economic performance c. Cyber, data and information security	Energy is available to all our customers with a high level of reliability and at socially acceptable costs. Customers receive a reliable energy supply, which delivered is in a physically, digitally and socially safe way.
Customer and stakeholder perception	Customers and stakeholders can develop long-term plans for aspects such as sustainability enhancement, expansion or area development. Stedin makes this possible by communicating transparently about its activities and providing grid information.
Good employment practices a. Health and safety b. Training, learning and development c. Diversity and inclusivity	Our employees can make a valuable and sustainable contribution to Stedin's activities. This is enabled by physically and socially safe and inclusive working conditions and the provision of resources and opportunities to learn and develop, supported by a diverse workforce.
Climate mitigation and adaptation	Mitigation of climate change through reduced greenhouse gas emissions (both Stedin's own emissions and those in the value chain) in line with the Paris Climate Agreement (1.5 degree scenario). In addition, Stedin considers climate risks when constructing new assets.
Biodiversity in the value chain	Increasing the diversity of terrestrial and aquatic organisms. The biggest impact in Stedin's value chain is achieved through reduced energy use and reduced extraction and processing of raw materials.
Circular use of materials and waste management	Reduced depletion of raw materials through reduced use of primary (virgin) materials for our assets. We are also increasing asset reuse and are improving the recycling of raw materials.
Business ethics, integrity and good governance	As a public organisation, Stedin makes ethically responsible choices and treats customers and stakeholders with integrity. We comply with laws and regulations and help to combat fraud.

Where are we now

Developments within society and the energy market

Various developments affect Stedin Group. Below we describe the trends, developments and issues in the world around us. After all, these affect our strategy for 2023-2027 and how we implement this strategy.

2023: an eventful year

The energy transition is increasingly taking shape. The large-scale overhaul of the energy system, with fossil fuels making way for renewable sources, is really picking up steam, which became noticeable this year. The developments and events in 2023 are too numerous to list. In this annual report, we will therefore confine ourselves to describing the developments that most influenced our activities and the impact they had on our task.

Geopolitical developments

The loss of gas supplies from Russia caused gas prices to spiral in 2022. Fortunately, gas became more affordable again in 2023 thanks to the introduction of a price cap. Gas prices continued to fall during the year. Our dependence on other countries for our energy supplies has a significant impact on energy supply reliability and how we tackle the climate issue. Countries in Europe have responded in different ways. France, for instance, remains committed to nuclear power, while Germany has temporarily returned to using coal-fired power plants. At the same time, we have seen significant growth in the use of wind and solar energy in the Netherlands. These differences reflect the (political) tension within the energy transition between safeguarding the supply of energy and achieving climate targets. The choices made in this context have a direct impact on the magnitude of our task, as shown in the infographic later in this section.

National Energy System Plan (NPE)

The publication of the National Energy System Plan (NPE) at the end of 2023 plotted a clear developmental course for the energy system until 2050. With the NPE, the government has made indicative choices that lay the foundation for the development of this energy system: maximum supply, energy saving, smart deployment of energy and infrastructure, international cooperation and shared control. In this way, the greatest possible amount of security is provided and the best possible use is made of scarce renewable energy, labour capacity and physical space. Stedin welcomes the NPE, because it contains structuring choices that offer clarity in both the short and the long term. The plan provides insight into how the Netherlands will achieve the agreed energy targets and what investments will be needed in the coming period.

Political developments

July 2023 saw the collapse of the Rutte IV government, which has been a caretaker government since then. In a vote in September, the House of Representatives declared most of the topics relating to the energy transition to be non-controversial. The general elections held in November caused a sea change in the balance of power in the House. The new House of Representatives was seated on 6 December 2023. It has not declared any ongoing legislative procedures controversial where climate policy is concerned. The progress of and possible changes in climate and energy policies will depend on the stance of the new House of Representatives and the new coalition government that is ultimately formed. This should become evident in the coming period.

Netting scheme

In 2023, wind and solar energy played a prominent role. Stedin recorded 1.7 million new domestic solar panels in its service area in 2023. Solar panels are a huge success in the Netherlands. In the space of a few years, the Netherlands has become a global frontrunner in the per capita generation of solar power. This success is partly due to the netting scheme, under which consumers can offset their fed-in solar power directly against their consumption. However, netting increasingly results in hidden costs, which means that it has inadvertently led to inequality between households with those and without solar panels. Therefore, the government wants to phase out the netting scheme in the period 2025-2031. It is now clear that the proposal in its current form lacks political support. Therefore, the scheme will not be abolished for the time being.

Energy Act

The proposed Energy Act is currently being considered by the House of Representatives. This new Energy Act replaces the Electricity Act 1998 and the Gas Act and is essential now that the energy transition is causing revolutionary changes in our energy system. Due to the collapse of the government in 2023, the enactment of this law has been delayed, grid managers cannot yet start adding capacity to saturated electricity grids, and the greening of districts has not really come off the ground yet either.

Environment and Planning Act

The energy transition will require numerous and sometimes major adjustments that require spatial adjustments. We are communicating about this with our stakeholders in order to create public support. Participation, which had been voluntary until now, is mandatory since the new Environment and Planning Act (Omgevingswet) took effect on 1 January 2024. The Environment and Planning Act deals with the areas where people live, work and relax. This new law combines old laws and contains rules on what can be seen, heard and smelled outside. For Stedin, 2023 was all about preparing for the entry into force of this new law.

Nitrogen

On 2 November 2022, the Council of State ruled that the construction exemption contravened European law. The abolition of this construction exemption may cause delays in our projects, for example in building distribution stations or laying cables. Together with Netbeheer Nederland, Stedin is urging the central government and the House of Representatives among other things to prioritise grid managers when allocating nitrogen emission rights.

Following a letter to the House of Representatives dated 18 October 2023 from Mr Jetten, the Minister for Climate and Energy Policy, the Ministries of Agriculture, Nature and Food Quality (LNV) and Economic Affairs (EZK) held consultations with the provincial authorities about the nitrogen emissions permitting procedure. As grid managers, we provided input for this discussion. In addition, the outgoing minister examined the possibility of speeding up the nitrogen permitting procedure for energy infrastructure. This is because newly constructed energy infrastructure entails a structural nitrogen reduction. The Ministries of LNV and EZK are currently exploring the legal feasibility of a programme under the Environment and Planning Act that would put this into practice. In the meantime, we are working with Netbeheer Nederland and the Netherlands Sustainable Energy Association on a nitrogen coalition to draw attention to this issue.

Climate ambitions

At the end of 2022, Minister Jetten presented the enhanced climate targets. In 2023, we calculated the effects on Stedin's workload of the increase from 49% to 55% of the emission reduction target for 2030 compared with 1990. This calculation, which is shown in the infographic 'Progress of the energy transition', resulted in a substantial increase in Stedin's workload. This increase is also reflected in the investment plan that Stedin presented at the end of 2023. In this context, the grid managers have stated that they expect 75% of this workload to be feasible.

Consequences for energy market and Stedin

In order to meet the climate targets, Stedin – together with the other grid managers – is going through the biggest ever overhaul of the energy system. During this overhaul, the safety and reliability of our grid must remain high. Supply reliability, affordability and sustainability are all under pressure. At the same time, the societal integration of the new energy system has significant implications. This is why close cooperation with public authorities and energy companies, and a good relationship with our customers, are more important than ever.

Scarcity of space, materials and technicians

The National Implementation Agenda published in November shows that all regional grid managers have much work to do. Where the energy transition is concerned, we expect that between now and 2050 we will together build around 50,000 medium-voltage stations and lay enough cables to go 2.5 times around the earth.

Space is limited

Grid expansions require space. However, the amount of land and space available is scarce and it is difficult to obtain planning permission in time. Local authorities play an important role in freeing up space for essential infrastructure. The space we need in our service area for Stedin's high-voltage and medium-voltage stations alone is equivalent to more than 50 football pitches. And that does not even include all the space needed underground. Work is required on grids everywhere: off shore, on the coast, along every motorway, in every district and every neighbourhood. This may take the form of electricity grid reinforcement and expansion, the construction of a heat grid or the conversion or removal of gas connections. Stedin endeavours to achieve this, among other things, by strategically acquiring land. We are also in discussions with all municipalities about how to fit stations into districts. You can read more about this topic in the 'Construction ' section.

Scarcity of materials

A global surge in demand for raw materials, with a growing need for materials such as cobalt, copper and aluminium, has led to greater risks of supply problems. A preliminary agreement was recently reached at European level on a regulation aimed at increasing the supply of critical raw materials to the EU. This agreement, aimed at strengthening Europe's strategic autonomy, shows the necessity of a coordinated approach at both national and international level to meet the challenges presented by the energy transition. Until now, Stedin has managed to buy enough materials and build up inventories. These inventories in turn entail logistical challenges. This year, Stedin therefore worked on a more efficient distribution process that makes it easier to get the materials to the fitters in the field in time.

Shortage of staff

A shortage of technical staff is another challenge in the energy transition. The accelerated expansion of the electricity grid requires a greater number of specialised and qualified technical staff members. In order to address this shortage, the focus is on three pillars: stimulating interest in technical occupations, increasing productivity and recruiting talent. An example of a productivity innovation is the development of more compact and efficient connection modules for charging points. As this requires less specialist knowledge, charging points can be connected more quickly. Another focus area is to train more people, not just school leavers but also people coming in from other professions (lateral entrants). In this context, we refer to our COO's interview with Vinnie Veth , a former cook who now works at Stedin as a low-voltage operations manager.

Affordability of energy transition

In order to facilitate the energy transition, build the homes required and support the growing economy, grid managers are expanding the electricity grid on a massive scale. With the power grid filling up, the challenge of maintaining a balanced grid distribution is placing a big burden on the grid managers. All this costs a lot of money. The joint grid managers estimate that from 2024 through to 2030, the cost of future-proofing the gas and electricity grids will rise to

€ 60 billion. The initial effects of this are already reflected in energy bills. In the past year, the grid management costs on energy bills rose by € 7.40 a month for households in Stedin's service area, to a total of € 650 on an annual basis. This will not be the last price increase, as is also apparent from a study by PWC commissioned by the grid managers (Stedin, Enexis, Alliander, TenneT and GTS).

Because the costs of the electricity grid are rising faster than the number of connections, the grid management costs per connection are expected to go up by an average of about 70% (excluding inflation) through to 2030. Where gas connections are concerned, falling gas consumption does lead to falling costs, due to increasing removal costs and a slower decline in peak capacities. As a result, grid management costs will rise in the coming years for both electricity and gas connections, although for the latter to a limited extent. That the new energy system costs money is obvious, but we are doing everything in our power to keep the societal costs as low as possible. First of all, considerable savings can be made if we make better use of the existing grid. We therefore call on both businesses and households to put less strain on the grid during peak hours. We also advocate the abolition of the netting scheme. This scheme causes ever-increasing peaks on our grid. We also urge the government to accelerate the roll-out of large-scale heat grids and the use of hydrogen. By aiming to optimise the entire energy system, we will prevent a situation in which all electricity generation and consumption peaks have to be absorbed by the grid. In addition, we ourselves are operating as efficiently as possible, among other things through effectiveness programmes and intensive sector cooperation.

Construction takes time

We are faced with a huge task, and if we continue at the current pace, we will run into the limits of what is achievable. Demand is rising faster than we can currently build, and we are all feeling the consequences. Stedin devotes all its efforts to building and expanding grid capacity. We focus on structurally speeding up the process of changing zoning plans and obtaining land positions and planning permission for the necessary infrastructure expansions. You can read more about this topic in the section entitled 'The steps we have taken'. We are also working with our colleagues in the sector to jointly accelerate this infrastructure overhaul. Despite all these efforts, construction projects and processes take a long time and we cannot keep up with the increase in demand for transmission capacity.

Overloaded power grid

At certain times, the demand for transmission capacity exceeds what the existing capacity and infrastructure can handle and than we can add through construction. This means that electricity generation and consumption are no longer always in balance, which may lead to capacity and voltage problems.

Capacity problems

When there is an (expected) shortage of transmission capacity, the grid is 'saturated'. We call this congestion. In large parts of the Netherlands, the TenneT high-voltage grid is either close to or has already reached this limit. In addition to congestion on the TenneT high-voltage grid, we are increasingly coming up against the limits of our own regional grid. You can read more about our congestion areas in the 'Queues on the electricity grid: congestion ' section. How we deal with congestion is described in the 'Utilisation' section .

Voltage problems

An overloaded power grid can also cause excessive highs and lows in the voltage on our grid. For example, when it is both windy and sunny, the voltage increase excessively. At such times, solar panel transformers, for example, may off automatically for safety reasons. Conversely, the voltage on our grid may become too low. This happens, for example, when total demand for electricity is high at a particular time, such as when everyone is simultaneously charging their electric cars in the evening. Excessively low voltage becomes noticeable when lamps suddenly start flickering, for instance. How we deal with this is described in the 'Utilisation' section.

Energy transition going faster than expected

For the Netherlands, the main effect of the geopolitical developments mentioned earlier was a sharp increase in the use of solar and wind energy. This increase also entailed challenges, however, such as saturation of the electricity grid (congestion) and a growing need for flexibility. In 2023, we not only saw an increase in renewable generation, but also significant developments on the energy supply side (consumption side). The Netherlands has truly switched gears in its sustainability drive. This is reflected in the rising demand for electrification of industrial business processes and heating. We also see that gas consumers – both households and businesses – are

now consuming less gas and switching to electricity as their main energy source. The projected growth of electricity use in the Rotterdam port area is a good illustration of the acceleration of the energy transition. In this area, the growth originally projected for the period 2020-2030 has already been attained through requests made between 2020 and 2022.

How do we know if the grid is becoming saturated?

In determining whether the grid will become saturated at a particular location, we look at the expected future load on our grid and the transmission capacity available there. We determine the future load by looking at the expected consumption of all customers who already have a contract with us, as well as new requests. In doing so, we look at past grid load, the currently contracted capacity of existing customers and any concrete requests. We also look at expectations about the extent to which users will use the grid simultaneously, known as the peak hours. Where possible, we make agreements with customers about off-peak energy consumption.

Congestion management

At the moment when congestion occurs, we check whether congestion management is possible. This means that we will initially look for flexible capacity in the congestion area. We ask parties to avoid the queues on the grid, as it were, by avoiding the rush hour. In this way, by changing the timing of electricity supply and demand, we can ease the pressure on the grid at busy times. To this end, we make agreements with connected grid users to use more or less power at certain times. For example, by temporarily reducing or even switching off the feed-in from solar farms or wind turbines to the grid. These agreements help us create new space on the grid for connecting additional customer capacity. These parties are paid a fee in return.

Measures to reduce congestion

In order to prevent or optimally manage congestion, we are trying to better predict customer demand and are making more targeted agreements with customers to relieve the grid. We are also pursuing technical solutions to maximise existing capacity and flexible solutions to make better use of the grid. Furthermore, we are facilitating a better understanding and control of the grid and are seeking cooperation with politicians and market parties. You can read more about the results in the ‘Utilisation’ section.

Together we can achieve the energy transition

Whether it is grid expansion, technical solutions or congestion management: a successful energy transition requires cooperation between the business sector, the regional authorities and central government. Accordingly, many partnerships were initiated in 2023, while politicians looked at ways to adjust regulations and take measures to speed up construction and make better use of the grid.

National Grid Capacity Action Team (LAN)

The various measures are largely coordinated by the National Grid Capacity Action Team (Landelijk Actieteam Netcapaciteit, LAN). In the LAN, the Ministry of Economic Affairs, the ACM and grid managers work together with stakeholders on accelerated expansion and better utilisation of the electricity grid. In the past year, we developed proposals for alternative transmission contracts and group contracts (energy hubs). What is more, in the 'LAN low-voltage grids', we not only design technical solutions, but also cooperate in order to improve the grid managers' communication with customers.

Energy storage

In the spring of 2023, the Energy Storage Roadmap was presented. This report states what actions need to be taken to facilitate energy storage, in accordance with its expected role in the future energy system. Energy storage is not an end in itself, but can serve multiple purposes, such as balancing supply and demand on different time scales, mitigating peaks, easing grid congestion and providing strategic stocks. You can read more about our cooperation with battery operators in the 'Utilisation' section.

Prioritisation

Prioritising customer connections

In 2023, the Netherlands Authority for Consumers and Markets (ACM) put forward a proposal that would allow grid managers in the Netherlands to prioritise certain requests for connections to the electricity grid in a congestion area. This priority applies to projects that help resolve grid congestion or have an important social function, such as healthcare or house building projects. This proposal will enable grid managers to deviate from the usual 'first come, first served' principle when providing access to the electricity grid in a congestion area. Although the prioritisation framework has not yet been formally adopted, the ACM has called on grid managers to already put it into practice, in any case by making the necessary preparations. If grid managers can justify in a specific case why priority is already required, the ACM will not take enforcement action based on the 'first-come, first-served' principle currently applied. The consultation period regarding the proposal has ended and the ACM will now process the responses.

Prioritising investments

Another development relating to prioritisation concerns grid investments. As the current energy infrastructure cannot be simultaneously expanded and adjusted everywhere, public authorities and grid managers are making joint decisions in provincial multi-year energy and climate infrastructure programmes (known as 'pMIEKs') on what the energy system should look like and in what order the adjustments will be realised. In 2023, such a pMIEK was drawn up for each province. The regional grid managers have prioritised the projects under the pMIEKs in their investment plans for 2024-2034. Stedin's final 2024 investment plan will be published in April 2024, after its review by the ACM. In addition, public authorities and grid managers will work together on accelerating the implementation of pMIEK projects.

Customer forecasts

To minimise congestion, we need to be able to forecast customer requests as accurately as possible. If we recognise in time that a lot of capacity is being demanded in areas where little capacity is available, we can manage congestion earlier and better. This was a major challenge in 2023 and will remain so in the coming years. The 'Utilisation' section describes what we are doing to forecast customer requests as accurately as possible in terms of technology and processes. However, while discussions with large businesses and municipalities enable us to make a fairly accurate assessment of sustainability plans and their impact on the electricity grid, this is very difficult in respect of consumers and small businesses.

Measures by public authorities and grid managers

Demand for electricity transmission capacity has risen sharply with the arrival of solar panels and electric cars, electric hobs and heat pumps. This was not foreseen when our current infrastructure was designed decades ago, and our construction projects cannot keep up with the pace of these developments. This creates voltage and capacity problems.

The low-voltage grids are not a closed system, but are connected to medium-voltage and high-voltage grids. This means that they also affect each other. A feed-in peak on a sunny afternoon or a high demand peak around dinner time can cause the low-voltage grid to overload, which in turn triggers overloads on the medium-voltage and high-voltage grids.

A unique feature of the problems in low-voltage grids particularly special is the fact that they are not always visible to us as a grid manager. Households make their sustainability plans in private. We call this natural growth: the changing use of an existing connection. As a grid manager, we do not become fully aware that residents in a neighbourhood have collectively bought solar panels until the summer. The same applies, conversely, to new heat pumps, which only appear on our radar when the temperature drops.

On top of that, more than 800,000 homes will need to be built in the Netherlands before 2030, of which more than 200,000 in our service area . These extra connections will also be added to the low-voltage grid. This means that the magnitude of our task is becoming ever greater. Grid managers, public authorities, market parties, customers: each has a role to play in the new energy system. If we want to make one of the largest ever overhauls of the Dutch infrastructure a success, we will need to switch to top gear.

To this end, outgoing Minister Rob Jetten on 18 October submitted a letter to the House of Representatives presenting a robust package of measures to minimise grid congestion on the low-voltage grid. Among other things, these measures will enable grid managers to make agreements with businesses to consume or produce less electricity at peak times in return for a fee. These measures focus on four tracks: faster construction, better utilisation of existing grids, stronger focus on flexible use and smart charging, and smart sustainability enhancement in the built environment. Stedin was actively involved in formulating these measures, which fit in well with our strategy. The energy transition in the Netherlands has thus entered a new phase. A phase in which faster construction and better utilisation of the electricity grid have become even more important for sustainability enhancement and economic growth in the Netherlands. In the words of the outgoing Minister for Climate and Energy Policy, the electricity grid is ‘the cork that keeps the energy transition afloat, as well as its bottleneck’.

Stedin – together with all the grid managers – is making every effort to widen that bottleneck as soon as possible, but we cannot do this on our own. We can only accomplish the energy transition together.

Progress of the energy transition

The Netherlands is in the midst of a transition from a fossil energy system (centralised large-scale energy generation from coal, oil and natural gas) to a decentralised system generating clean, sustainable energy. The climate ambition of a 55% CO_2 reduction by 2030 and the associated transition places new demands on our energy system and requires a different role from us as a grid manager.

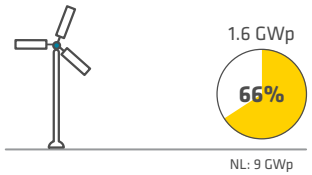
Progress of the energy transition visualised

The infographic 'Progress of energy transition in Stedin area through to 2030' on the next page visualises the energy transition task in our service area and shows where we are in terms of achieving the ambitious targets. It shows how much renewable energy we expect to connect to our electricity grid, what developments relating to more sustainable living, working and transport are having an impact on customer demand and therefore on our investments in the period up to 2030, and how much of this we have realised since 2022. In 2023, we calculated the effect of the adjusted climate ambitions (a 55% CO_2 reduction) on Stedin's investment task. This task has significantly increased compared to previous calculations. We have incorporated the changes to our task in the 'Investments' column in the infographic.

Extent of the challenge and progress of the energy transition
in the Stedin area until the end of 2030

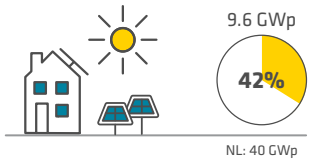
Renewable energy

Onshore wind



Hydrogen

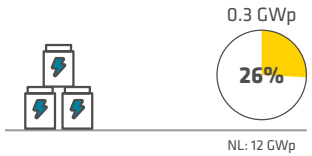
Rooftop and ground solar



Green gas

Heat

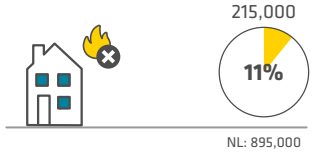
Batteries



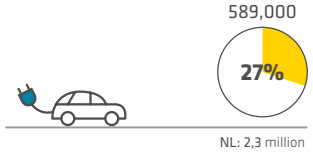
○ expected installed power challenge until the end of 2030
● realisation until the end of 2023

Living, working & transport

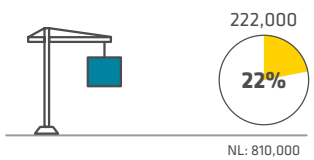
Gas-free homes*



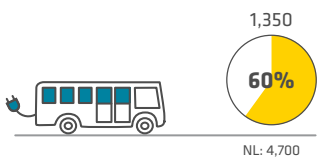
Electric cars



New homes connected*

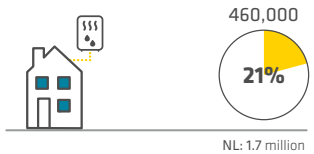


Electric buses

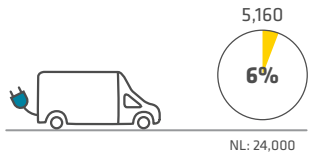


Households with heat pumps

All-electric or hybrid



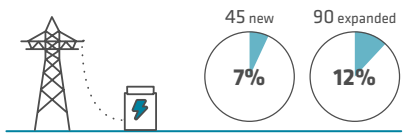
Electric trucks



○ expected challenge in numbers by 2030
● realisation until the end of 2023

Stedin investments

Transmission and transport stations



Medium-voltage units

Cables in km

○ expected additional challenge in numbers from 2022 until the end of 2030
● realisation from 2022 until the end of 2023

The figures for 2030 are based on the most recent future scenarios from Netbeheer Nederland, Elaad and Statistics Netherlands' Climate Monitor, and on our investment portfolio as at the end of 2023. The scenarios of Netbeheer Nederland and Elaad and our investment portfolio are based on a climate ambition of -55% CO_2 emissions. As these scenarios are periodically adjusted on the basis of (external) developments, these figures may change each year.

* The forecast for 2030 and realisation figures for 2022 have been restated relative to the 2022 annual report based on new insights.

Renewable energy

The expected task and the impact of the energy transition on Stedin are constantly evolving. Accordingly, we constantly improve and update the infographic. We see a system emerging in which different energy carriers are together creating a sustainable energy landscape. In addition to wind-powered and solar-powered electrification, heat, hydrogen, green gas and batteries each make their own contribution to the sustainable energy system. The infographic therefore includes the latter four as well. We will supplement the infographic in the future with our expectations about the size and realisation of these and possibly other new energy carriers.

Heat, hydrogen and green gas

We are increasingly moving away from use of natural gas for heating existing homes. In many cases, the installation of (all-electric or hybrid) heat pumps is a good alternative for heating homes. However, to reduce demand for capacity on the electricity grid, we are increasingly also considering other sustainable alternatives, such as green gas and hydrogen. At present, hydrogen is used primarily as a raw material in the industrial sector.

Based on various factors, including the recommendations in the Integrated Infrastructure Survey 2030-2050 (II 3050), it is expected that hydrogen may in also play a role as an energy carrier in the future, for example in the built environment. Several analyses, including the Opening Bid from Stedin and the Initial Analysis by the Netherlands Environmental Assessment Agency (PBL), show that in some neighbourhoods, heating with a sustainable gas is the cheapest alternative to natural gas. Therefore, we will need to ensure that our gas grid remains in a good state. We will do this by making sufficient investments in maintenance and replacement and by working on digitalising the gas grid.

We are also making preparations for the growth and greater sustainability of collective heating systems, in response to the bill for the Collective Heat Supply Act (Wet collectieve warmte, Wcw).

Living, working and transport

The enhanced climate targets and the resulting rise in customer demand expected in the areas of living, working and transport were factored into our investment plans in 2023. The impact of this on our workload is shown in the 'Stedin Investments' column in the infographic on the previous page. You can read more about these investments in the next subsection.

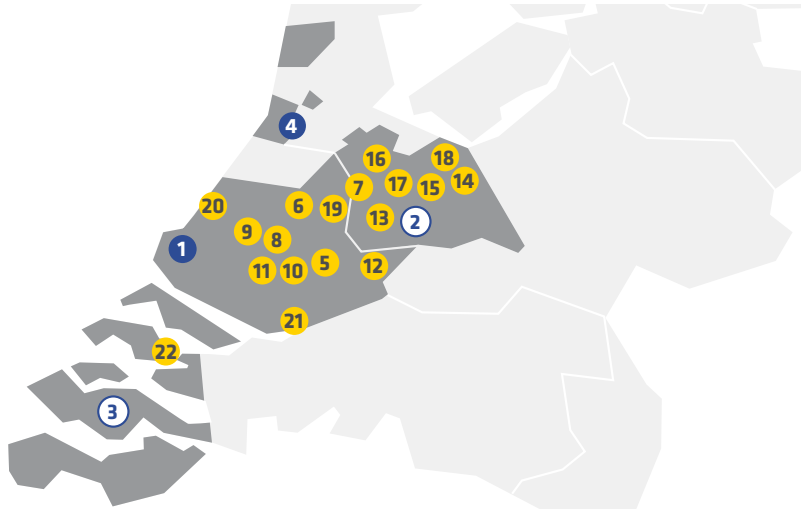
Investments

We need to build much more, and much faster. However, the pace of construction projects is not fast enough at present. Stedin has therefore developed a strategy that focuses entirely on faster construction, better utilisation and proper management of our grids. 2023 was the first year in which we applied this new strategy. The results achieved so far relative to our targets are described in the 'Full focus on further acceleration' section.

Queues on the electricity grid: congestion

Grid congestion is like a rush hour queue on the power grid. Congestion means that the capacity limit of the power grid has been reached, or we expect this limit to be reached before we can realise the required expansion. Congestion may occur on the consumption side (electricity use) as well as on the feed-in side (electricity generation). It means that we are unable to offer new or existing customers any (additional) transmission capacity. Currently, only heavy-use customers are affected by our inability to allocate any new transmission capacity. However, households increasingly experience voltage problems.

In 2023, the number of congestion areas increased in both TenneT's high-voltage grid and Stedin's regional electricity grid. The overview of congestion areas below show the situation on 31 December 2023, when thee were 22 congestion areas (including TenneT's). In the period between 31 December 2023 and the publication of this annual report, new congestion areas have emerged. We therefore refer to Stedin's website for the most recent situation.



- Congestion areas Stedin
- Congestion areas TenneT
- Congestion areas TenneT (entire province)

TenneT

1. Port of Rotterdam & Goerree Overflakkee
2. Province of Utrecht
3. Province of Zeeland
4. Heemstede

Stedin

5. Zuidplas - 2e Tochtweg
6. Waddinxveen
7. Woerden
8. Berkel en Rodenrijs - Noordeinde
9. Pijnacker - de Boezem
10. Bleiswijk – Bergschenhoek
11. Berkel en Rodenrijs – Kleihoogt/Centre North
12. Alblasserwaard-East, Vijfheerenlanden West Betuwe-Northwest
13. Oudenrijn
14. Amersfoort
15. Bilthoven
16. Mijdrecht
17. Maarssenbroek
18. Baarn
19. Waarder en Driebruggen
20. Den Haag Centre-Northwest, Scheveningen en Duindorp
21. Dordtse Kil III en IV
22. Tholen en Schouwen-Duivenland (Noordring)

TenneT congestion areas in Stedin coverage area

The congestion areas on TenneT's national high-voltage grid in Stedin's coverage area are: the Port of Rotterdam and surrounding regions, and the provinces of North-Holland, Zeeland and Utrecht.

Stedin congestion areas

In addition to congestion on the TenneT high-voltage grid, we are increasingly coming up against the limits of our own regional grid. In 2023, Stedin reported 16 new congestion areas on its own regional grid, in addition to the two areas in which we had previously reported congestion.

Whenever a shortage of transmission capacity occurs on the electricity grid, be it on TenneT's high-voltage grid or on our regional grid, we as the grid manager report this congestion to the regulator, the Netherlands Authority for Consumers and Markets (ACM). This may be congestion on the consumption side or congestion on the feed-in side, or a combination of the two. We can usually resolve congestion only by reinforcing the grid. And this, as mentioned earlier, takes time. Therefore, when we report congestion, we always also at the same time examine the options for congestion management, for example in Tholen and Schouwen-Duivenland (see box).

In addition, we are constantly working on technical and flexibility-related solutions. You can read more about this topic in the 'Utilisation' section.

Congestion management in Tholen and Schouwen-Duivenland (Noordring)

In 2023, Stedin carried out further checks, as well as a survey, to find out whether flexible electricity consumption could be deployed – on a voluntary basis – in order to free up capacity on the Tholen and Schouwen-Duivenland grid.

Following this call, we concluded contracts with three customers in the Noordring area on using 'flexible capacity' to feed in energy. All of the limited capacity freed up in this way is needed to facilitate the growth of consumer feed-in. Therefore, we are (as yet) unable to reduce the waiting list for heavy-use customers wanting to feed in renewable electricity.

Because more flexible capacity is needed, Stedin will take follow-up steps in 2024. In addition, Stedin and TenneT are making every effort to reinforce the electricity grid in Schouwen-Duiveland and Tholen. Among other things, additional stations will be built in Zierikzee and Tholen in the coming years, both of which will be connected to a new TenneT high-voltage station in Halsteren. TenneT announced in November 2023 that the additional stations could be put into operation in September 2028.

Waiting list

As a result of congestion, around 1,100 businesses and institutions were on our waiting list at year-end 2023 for connections. More than 800 customers were on the waiting list in Utrecht, about 160 in South-Holland, about 125 in Zeeland and 4 in North-Holland. In the case of 32% of the businesses on the waiting list, the request is for feed-in, with 68% waiting for consumption of electricity with a total capacity of around 650 MW.
In our coverage area, we have 99.9961% supply reliability. For customers on a waiting list, however, supply reliability is 0%. This is because they are not given the connection they need or cannot feed the electricity they (want to) produce into our grid. We very much regret the fact that we are unable to provide any new transmission capacity. We make every effort to prevent congestion, accelerate construction and operate our grids as efficiently as possible. The results we achieved in this respect in 2023 are described in the 'Full focus on further acceleration' section.

“The only way you can accelerate is by just doing it and experimenting”

David Peters, CTO of Stedin Group

IN CONVERSATION WITH

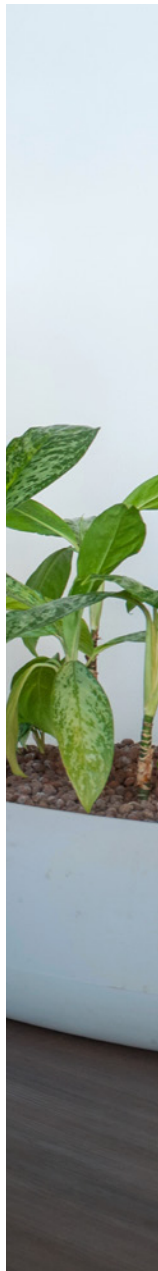
David Peters and Huib van Essen

The challenges on the electricity grid require close cooperation with municipalities, provinces and other regional stakeholders. This is why provincial Energy Boards were set up early in 2023. By discussing plans at an early stage, we can speed up processes and planning procedures. The purpose of all this is to expand and make better use of the grid as soon as possible. CTO David Peters talks to Huib van Essen, a member of the Utrecht Provincial Executive, about how we are together designing solutions for the overloaded power grid.

Huib: “In 2023, we were confronted with the impact of an overloaded power grid. This was also the year in which the province of Utrecht and Stedin extended their cooperation, for example in the Energy Board, to find out what steps we can take in order to cope with the overloaded power grid. In this year, I had more meetings with Stedin (and TenneT) than in all previous years put together.”

Pioneering role for Energy Board

David: “Such cooperation is indeed essential if we want to find solutions, and I am delighted that ours is so successful. The Energy Board in Utrecht was launched early in 2023 and has a pioneering role in the consultative process we envisage for the Netherlands. This is because we are not avoiding or denying the challenges, or pointing the finger at anyone, but really want to tackle this together. In my experience it is also a blessing, Huib, that you have both energy



and spatial planning in your portfolio. After all, finding space for energy infrastructure is a huge challenge.

Huib: "Successful cooperation does not make the problems any smaller, but it does make it easier to find solutions."

David: "Take prioritisation, for instance. The current rules based on 'first-come, first-served' no longer work. We discuss how we can do this differently, by looking at the social impact of connecting or not connecting a particular customer."

Huib: "We need to switch to social prioritisation, but together giving shape to this has proved easier said than done. The possibilities for doing so are still limited."

David: "This is because prioritisation does not create capacity. As a country, we are not good at these sort of things. I also see that happening when we want to run pilot projects, for example. That requires people being willing to allow someone else to carry out their project. Those situations quickly turn in to a 'who wins, who loses' discussion. This is why we need a set of rules for such projects. The possibilities currently offered by the ACM for prioritising customer connections are limited and complicated."

'Public authorities or grid managers?'

Huib: "Yes, we do need more flexible rules in order to do that. Especially now that the available capacity is in the red in Utrecht. And it should be clear who is responsible: the public authorities or the grid managers. That should be determined in the near future."

David: "We tend to over-regulate in the Netherlands. That also holds true for prioritisation. People would prefer having computer model that tells them who will be connected and who will not, but that would leave no room for manoeuvre at all. And it is room for manoeuvre that we need. If we over-regulate everything at this stage, the whole process will take longer. You can only accelerate by just doing it and experimenting. That may involve having to accept some occasional *collateral damage* , but we cannot afford the alternative of getting bogged down in all sorts of debates with nothing happening in the meantime. Let's just get a move on."

"In 2023, we were confronted with the impact of an overloaded power grid"

Huib van Essen, member of the Utrecht Provincial Executive

"Another point on which we are trying to accelerate is capacity distribution," says David. "We have made progress in that area as well."

Huib: "Cooperation in the Energy Board means that grid capacity limitations are flagged up earlier. Until recently, energy infrastructure was not a spatial planning issue. But it should definitely become that and should actually already be that now. So that is what we are trying to organise. For example, we want some kind of energy assessment to be included in the regulation to which we are subject."

David: "These kinds of issues are currently weighed up without the involvement of our spatial planning experts. That is because they tend to operate more in the tactical domain, which is about obtaining land for our infrastructure. Weighing up the broader issues involved in the allocation of space, that is where can accelerate in the long term. The fact that you are wearing two hats is actually a big help in that respect."

David: "Looking ahead to 2024 and beyond, what are your expectations?"

'With trepidation'

Huib: "It's not in my nature, but I am quite pessimistic about developments around the electricity grid in the coming year. The situation we are in is deeply concerning. I look ahead to the coming year with trepidation. Will we actually be able to find enough means for coming up with solutions? At present, it already affects house building in our province, and chances are that things will get worse. That will obviously cause great upheaval, and rightly so."

David: "Of course we feel that bad news is imminent. New locations will be added where the electricity grid is full and customers will end up on the waiting list. I do bear that in mind. I also consider questions such as 'should we prioritise differently?', 'will we find enough flexibility?' and 'will low-use consumers be hit harder?' At the same time, I also expect breakthroughs on the spatial planning side and accelerations we can facilitate together in that respect. For instance, will we manage to expand the Breukelen-Kortrijk high-voltage station and thereby create capacity for the whole province? I expect to encounter setbacks in 2024 and subsequent years, but also to reap the benefits of the seeds we have planted together."

Huib: "Yes, if Breukelen-Kortrijk turns out to be a way to move things along, it may not be acceptable if its realisation takes years. In that case, we should look at options to bring it forward. I think that the urgency will force us into a different dynamic and to make more drastic choices."

Full focus on further accelerating

We ensure grid capacity: construction

In order to give everyone access to the grid, we focus on expanding our electricity grid. In this way, we meet the growing demand for grid capacity. The 'construction' pillar is one of the three priorities in our strategy. This pillar comprises two aspects: ensuring that we can *implement* our projects *faster,* and ensuring that we can *start* implementing our projects even *earlier*.

Construction

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Accelerated construction						
Investments in our grids	The amount of euros annually invested in our grids.	x € 1 million	712	825	832	960
Execution of Grid-Driven Scope - E Scope - G	Extent to which scheduled work (capacity expansions and/or replacement investments) has been achieved.	%	93 96	100 100	99 110	100 100
Additional transmission capacity	Net amount of grid capacity in megavolt-ampere added to total capacity in the reporting year.	MVA	437	425	513	500

In 2023, we again invested heavily to create more grid capacity. We are making every effort to prevent congestion, or to resolve it as quickly as possible. We are doing this by *building* faster, for example. In 2023, we invested a total amount 832 million, which is € 120 million more than in 2022 and an all-time record. We used that money to add substantial transmission capacity to our grid, among other things. In 2023, we added over 500 MVA in new capacity to our grid, which would be enough, for example, to supply every home in Rotterdam with electricity all at once.

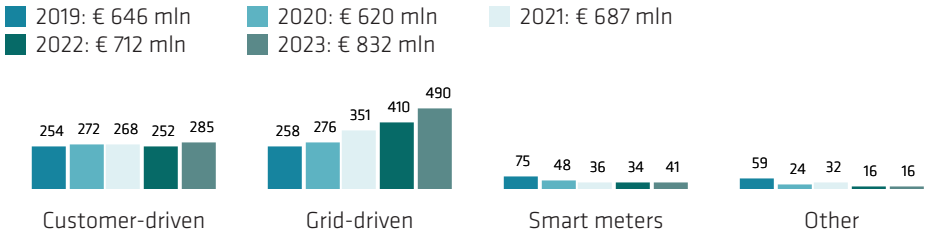
The largest portion (around 75%) was added for large-scale industry, such as large customer connections in the port area. The remaining 25% is needed to build new homes, make existing buildings more sustainable, accommodate mobility growth, and facilitate expansion in the SME sector and natural growth. All in all this is a great result. At the same time we find that many of our projects are long-term and multi-year: on average, they take five to ten years from start to realisation. This means that it will often take several years before the work we are doing now and the steps we are taking to accelerate will start to bear fruit. Fortunately, some results are already visible. For example, we resolved the first bottleneck in 2023 via a structural grid expansion: capacity is now available again around Middelharnis on Goeree-Overflakkee (see box).

Middelharnis region has capacity again

After a congestion period of 2.5 years, the Middelharnis region on Goeree-Overflakkee now has grid capacity again for the large-scale feed-in of generated electricity. This was because Stedin had started using additional transformers and switchgear early in November 2022, which increased capacity by 35 MW. Stedin approached the 35 heavy-use customers (8.4 MW) on the waiting list in order to make agreements in response to their request for transmission capacity. Stedin will continue to put new requests for (more) electricity consumption it receives from Goeree-Overflakkee on a waiting list. This is because the 150kV transmission grid of nationwide grid manager TenneT in the Port of Rotterdam and the surrounding regions, such as Goeree-Overflakkee and Voorne Putten, has been congested since November 2022.

Investments in our grids

We divide our investments into three categories: **customer-driven** investments (investments requested by customers or government authorities), **grid-driven** investments (investments to increase grid capacity or maintain grid quality), and **meter-driven** investments (investments in smart meters). Compared to the previous year, there was a sharp rise in in all categories in 2023, but especially in our grid-driven investments. This is in line with the ever-increasing challenge of adding capacity.



Customer-driven investments

Customer-driven investments are made at the request of customers and public authorities. Customer-driven investments in 2023 amounted to € 285 million, which is € 33 million (13%) higher than in 2022. We were expecting an even larger increase in customer requests for grid expansion, especially in house building, but this increase did not materialise in 2023 due to the faltering housing market. The necessary customer-driven investments will remain high in the coming years, driven by economic developments and (the pace of) the energy transition.

Grid-driven investments

The grid-driven investments are the investments that we make to increase grid capacity and guarantee the quality of the existing grid. This includes the replacement and reinforcement of stations and grids. Our grid-driven investmentsin 2023 were € 490 million. This was € 80 million more than in 2022. Some of the planned grid-driven investments were delayed due to issues in the environment (such as lengthier planning procedures or ecological obstacles) and/or lack of materials at suppliers. We used the capacity freed up this year to accelerate several other projects, so as to minimise delays. This means that we virtually achieved our target to realise the grid-driven scope in respect of electricity (99% of 100%). We also achieved our target for grid-driven investments regarding the gas grid, primarily relating to the replacement of brittle pipelines (110% of 100%). Having replaced or removed 212 kilometres of brittle gas pipelines this year, we are on track to remove all brittle pipelines from our gas grid before 2028. By removing brittle pipelines, we are helping to reduce CO_2 emissions.

Meter-driven investments

Our investments in smart meters in 2023 were € 41 million. This is € 7 million more than in 2022. We were expecting to achieve more in this area as well. However, various activities were postponed pending the approval of the bill abolishing the netting scheme and its impact on the further roll-out of smart meters. Currently, 87% (2022: 84.7%) of households in Stedin's service area have a smart meter.

Other investments

Other investments in 2023 amounted to € 16 million (the same as in 2022), with € 10 million invested in IT and the telecommunications network. In the increasingly complex and flexible energy system, it is necessary to have (ongoing) insight into the status of our (electricity) grid. Telecom is therefore an indispensable asset for our business operations, which is strategically expanded and managed.

Investments in numbers

In order to ensure continued gird reliability in the future, and thus prevent or reduce congestion, our activities include adding new capacity, building medium-voltage units and laying kilometres of new cable.

Medium-voltage units are one of the most important links in the supply of energy to our customers. These units convert medium voltage into low voltage. The electricity is then fed into the low-voltage distribution grids, which ultimately ensure that the electricity reaches the low-use consumers connected to the grid. In 2023, we built 266 of these units; almost as many as in 2022. Although we are proud of this result, we also realise that we really need to take further steps in order to meet the estimated challenge by 2030 (around 6,000 units in total).

The same applies to the number of cable kilometres. This year, we installed 892 kilometres of cable, over 20% more than in 2022. However, the total challenge until 2030 is around 12,000 kilometres. In this area, too, we should therefore remain fully *committed to building faster.*

Cooperation with contractors

By working even more closely with contractors and outsourcing a part of our work to these contractors, we can work more effectively and *thus* faster. We call this 'shifting work in the chain'. In 2023, agreements on this way of working were detailed and documented in so-called 'infra contracts', so that these can be started early in 2024. These contracts prepare us for the future. The pricing structure has been simplified in order to reduce the administrative burden. We made detailed working agreements with the relevant contractors beforehand, so that there will be no ambiguity on this point during the project execution phase. Finally, this long-term relationship will enable both Stedin and the contractors to invest in staff, innovation, process improvement and efficiency, so that we can do even more work together. The contracts were awarded partly on the basis of contractor performance in reducing CO_2emissions and fostering biodiversity.

We concluded these long-term contracts with contractors in partnership with drinking water companies (Evides, Oasen, Vitens and Dunea). These infra contracts provide for the performance of both solo work (purely focused on the electricity and/or gas grid) and joint work with the water companies (therefore including work on the drinking water pipelines), which is known as 'multidisciplinary working' (see box).

Multidisciplinary working

We carry out a part of our work in partnership with water companies, which offers many advantages: the ground has to be dug up only once, it causes less inconvenience, it saves money, we can deploy staff in the best possible way and it contributes to the feasibility of our work. In 2023, we set up a contractual structure enabling multidisciplinary working throughout the Stedin area. The actual form of multidisciplinary working differs from one region to another.

Retention of employees

We are convinced that (work) experience and (work) enjoyment are essential for working effectively and safely. We have therefore invested in retaining our employees, among other things by offering transparent and logical opportunities for advancement and career paths for critical positions. We have also ensured that our employees stay fit and healthy, and have increased the capacity of our technical training courses. In addition, we have developed a successful programme for lateral entrants and offer Participation Act jobs within Stedin. You can read more about this in the 'Our employees' section.

Smart and innovative working

In *order* to build faster, we look beyond the (current) standard solutions and technologies. We are keenly embracing digital innovation and new technologies. At Stedin, we use a technology radar to monitor new trends. We distinguish between technologies that can be explored, tested and scaled up.

Artificial Intelligence

Artificial Intelligence (AI) is an important development which already has a lot of impact, but which we are expecting much more of. Various departments within Stedin are specifically focused on exploring opportunities and testing and scaling up AI-related cases. Work in 2023 included using AI to increase employee effectiveness, better serve customers, automate the grid design, speed up the return process with image recognition, and generate predictive models for transmission and timely asset replacement. We have set up a Community of Practice to make employees aware of AI-related opportunities and risks and to increase their knowledge and skills. The final text of the European AI Act is expected to be published in the first quarter of 2024. This will provide us with frameworks for the use of AI. We will test our AI activities against these frameworks and adjust our policies where necessary. Until then, our AI activities must comply with the privacy and security guidelines we have drawn up an organisation.

Hololens

Digital tools for (operational) employees are becoming increasingly important as well. One such tool is the Hololens. The Hololens is a mixed reality headset that combines real-life images with virtual 3D images. This headset enables employees to monitor work remotely in a safe way, which means that the four-eyes principle remains guaranteed. With the right processes, this can save a lot of time. The Hololens can also be used to get an impression of how a station yet to be built will fit into the surrounding area. This may speed up coordination with municipalities and local residents and the planning permission process. Several pilots were conducted with the Hololens in 2023, and successful pilots will be scaled up further in 2024.

Drones and ground radars

With increased activity below ground, insight into subterranean infrastructure is becoming an increasingly important theme. Here, too, new tools and technologies may play a key role. For example, we are using drones and ground radars (in combination with AI models) to detect cables and pipelines below covered surfaces. We are testing whether we can use so-called LIDAR lidar technology for open trench works to take quickly perform detailed measurements for the positioning and visualisation of our cables and pipelines. In 2023, a pilot was conducted in cooperation with the municipality of The Hague to test these various technologies. In 2024, we will examine how we can add such technologies to existing tools and processes.

‘From cable sleave to plug’

Stedin’s workload is not only huge, but is also literally becoming heavier. Cables are getting thicker and therefore more difficult to handle. This means that feeding in and connecting cables is becoming increasingly time-consuming, which places strain on the fitters and creates safety and quality risks. We are therefore looking for innovations. One of the ideas – devised in an ‘innovation hub’ in cooperation with other grid managers – is the ‘plug solution’. Manually connecting electricity cables by fitting so-called cable sleeves in the field, in all weather conditions, is a time-consuming job. Wouldn’t it be great if we could produce and test cable sleeves in a factory, under ideal and controlled conditions, so that all we need in the field is a plug? We are now further elaborating this concept. We expect the first results in 2024.

Starting earlier

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Starting earlier						
Partnership agreements with municipalities	Percentage of municipalities with which the joint challenge has been experienced and formal distribution grid partnership agreements have been discussed	%	-	90	100	-
Irrevocable zoning plans	Number of zoning plans for transmission grid expansions with a spatial component that became irrevocable in 2023.	#	-	8	12	10

A significant part of our projects take an average of five to ten years from start to completion. In this context, project preparations often take longer than the actual construction of the station itself. Zoning plan changes and obtaining land positions and the associated planning permission often take a long time. To accelerate construction, therefore, we also focus on speeding up these procedures. After all, this will enable us *to start earlier.* We do so by improving coordination and cooperation with (local) authorities and professionalising our regional stakeholder management.

Cooperation with public authorities

The plans and spatial integration of our infrastructure need to be included in good time in the plans of (local) authorities. In the past year, therefore, we invested heavily in cooperating with (local) authorities, reading through plans and making partnership agreements about the distribution grid with individual municipalities and and/or per region. We partly structured our organisation by region and invested in strategic and tactical land acquisition. In accordance with our plan, we met with all the municipalities in the Stedin area in 2023 in order to discuss their plans and make agreements on spatial integration. We also managed to obtain irrevocable zoning plans for 12 expansions of our transmission grid with a spatial component.

The Neighbourhood Approach

The Neighbourhood Approach ensures that we and our municipal partners can future-proof the electricity grid in neighbourhoods in one fell swoop, so that municipalities and residents can realise their sustainability plans. Starting earlier is central to this: gaining insight earlier, making agreements earlier, making decisions earlier and earlier installation of new stations and cables.

In 2023, we held talks with all the municipalities in our service area (where our distribution grid requires expansion) on what the Neighbourhood Approach means for their municipality. We make agreements and record these in a cooperation agreement. This agreement forms the basis for a multi-year partnership to jointly accelerate the expansion of the distribution grid per municipality.

What have we learnt about construction?

By not only starting earlier, but also critically reviewing our construction processes, we will increase our speed and effectiveness. We will reduce the number of steps to be taken and focus more on supply chain cooperation. We will continue fostering effective cooperation with contractors and the drinking water companies, and make use of smart and innovative solutions. All this will help us accelerate the implementation of our construction task. This does not alter the fact that projects still take years, and we realise that there may limits to how fast we can scale up. Construction alone will not be enough. We also need to make the best possible use of our existing grids. The steps we took in this respect in 2023 are described in the next section,'Utilisation'.

IN CONVERSATION WITH

Trudy Onland and Vinnie Veth

To meet the rising demand for electricity, the size of our electricity grids will have to get 2.5 times bigger in the coming years. That is a huge challenge, because we will need to build much more and much faster in order to achieve this. There is a real need to attract more people. However, grid managers are facing a shortage of (technical) staff, just like the rest of society. Therefore, through Stedin's in-house training school we are increasingly training new fitters who have been recruited from entirely different occupations. COO Trudy Onland talks about the success of this lateral-entry route with former cook Vinnie Veth, who trained as a low-voltage fitter.

"As a cook I worked long hours, and the salary was not great either. I was also looking for a new challenge, and that is when I came across Stedin", says Vinnie. He was not entirely unfamiliar with Stedin, as his father Mattin was already working at Stedin as a team leader in Maintenance.

Trudy: "That great! And you have since moved to a different post, haven't you?"

Vinnie: "I have indeed. For the first two years I trained as a low-voltage fitter via the lateral-entry route. Now I work as a low-voltage operations manager. That was not exactly a planned move. I loved my job as a fitter. I was already in touch with colleagues at the Business Operations Centre and that seemed interesting too. I had a chat with them and could start more or less straight away."

"If people do not initially choose a career in engineering, it is great if they do so as second, third or fourth option"

Trudy Onland, COO of Stedin Group

"The development opportunities everyone is always talking about are really there at Stedin," says Vinnie. "Many companies say they offer them, but here it actually happens. If you put in a training request to your team leader, it is usually approved straight away."

Lateral entrants know what they want

Vinnie: "Why do you think lateral entry is so important?"

Trudy: "Unfortunately, young people are not choosing a career in engineering in their droves. This is what happened to my nephew, for instance. He wanted to be a fitter, went to an open day and saw a canteen full of interested people. But in the end, he was the only one on the course. It turned out they had all chosen to do the sports programme instead."

"And yet this is a great profession in which you can continue to develop, as you yourself point out. If people do not initially choose a career in engineering, it is great if they do so as second, third or fourth option. Colleagues who join us via the lateral-entry route – and there have been over 350 of them since 2015 – often already know what they do and do not want. I think they are in a better position than school leavers to make a well-informed choice. This is what makes the lateral-entry route so useful and important."

A record number of new colleagues

2023 was an eventful year for Stedin on many fronts, also in terms of recruiting new staff. Stedin welcomed a total of 562 new colleagues. An all-time record. And this was necessary, because we have more work to do than ever before.

Trudy: "With high energy prices and people switching to heat pumps, solar panels and electric cars in large numbers, the electricity grid is suddenly under great pressure. Our processes are not yet adjusted to this huge surge in demand. While until recently this process ran smoothly and was a small part of our overall work, it has become one of our greatest challenges."

"I recognise that," says Vinnie. "There are many developments, which means that we are sometimes forced to play catch-up. For example, we can get much more out of smart meter data than we are doing at present. We are working hard to optimise that."

"Lateral entry changed my life for the better. More than I expected, also in my daily life."

Vinnie Veth, Operations manager at Stedin

"You notice that we have to do more than simply work harder," Trudy observes. "The processes should become more robust. We used 2023 to explore how we can do that. Where low voltage is concerned, for example, this means reinforcing the grid one district at a time, so that we can do more work over a shorter period."

"Although this growth is not always reflected in our results just yet, much work has been done behind the scenes to facilitate acceleration in the coming years," Trudy continues. "This made it quite a tough year. We found out that there were further steps to take, but we took the bull by the horns and plunged right in. With full transparency and with each other. Precisely because we were not afraid to take steps, that sense of unease has now gone."

Vinnie: "Yes, you can see that everywhere: throughout Stedin. That everyone has stepped up a gear."

'We are in a better position than ever before'

Trudy: "It makes 2023 a special year. I am really looking forward to the year ahead. We are not yet where we want to be, but I think we are in a better position than ever before. I look forward to the effects of this in the coming years."

"I totally agree," says Vinnie. "I hope that we will continue to develop and move the energy transition forward. That more things can be predicted, for example on the low-voltage grid. This is because problems on the medium-voltage grid have a knock-on effect on the low-voltage grid. We should try to spot that early and prevent it."

Trudy: "It is great to hear you talk so passionately about your work at Stedin."

Vinnie: "Yes, lateral entry changed my life for the better. More than I expected, also in my daily life. I have become much better at DIY. This meant that I could do a lot of work myself when I moved house: rewiring, putting in a new toilet, tiling … Having learned how to work in a clean, tidy and safe manner makes you more confident and self-assured."

And that is not all. The young father now has more time for his family, earns a better salary and has challenging work. "I can see myself working at Stedin for many years to come. So I would say: when in doubt, don't do it. Don't hesitate to join Stedin and follow the lateral-entry route."

We maximise the use of our grids: utilisation

Everyone has a role to play in the new energy system: national and regional politicians, consumers, business and industry. We all need to use energy in a different way. By making optimal use of current grid capacity, we are creating space on the grid to meet growing customer demand. Together with customers and stakeholders, we try to find solutions to reduce or prevent (temporary) capacity bottlenecks on our grid. For example, by utilising the possibilities of our customers for flexibility in their energy feed-in and consumption. In 2023, we concluded the first flexibility contracts to this end.

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Optimal utilisation						
Capacity covered by flexible contracts (MW)	The total capacity in MW of customers who offer operational flexibility and have concluded a bilateral contract with Stedin.	MW	5	45	52	500
Digitally metered MV substations (# cumulative)[1]	Number of MV substations equipped with a digital metering device that is connected to and communicates with the central environment.	#/%	5,000	5,970	5,365	27%

1 When this KPI was introduced in 2023, it was expressed in numbers. The target for 2024 is expressed in %, with the aim to eventually reach 100% by 2031.

In 2023, activities relating to optimal utilisation of our grid focused on predicting customer demand as accurately as possible and improving insight into, monitoring of and control of our grid, developing and using technical solutions, flexibility solutions and behavioural solutions to maximise the use of the available capacity, and implementing, improving and enabling scalability of our congestion management processes.

Predicting and managing customer demand

In order to prevent more congestion areas in our coverage area, our predictions of customer demand must be as accurate as possible. If we notice that our grid at a specific location is nearing its capacity limits, we can proactively look for alternatives with customers looking for (an expansion of) transmission capacity. In that case, we will look for the most appropriate solutions together with customers, depending on the local situation and the kind of connection. We will also publish capacity maps, so that customers looking for a location to establish their business can see where capacity is still available.

We want to have proper insight into the current load and voltage quality of our grid. Therefore, in 2023 we continued our activities on the medium-voltage grid, including, among other things, the further roll-out, development and testing of third-generation digitalisation in medium-voltage stations: the 'DA3 boxes'. This digital metering device helps us obtain better insight into the load, voltage quality and environmental conditions (including humidity and temperature) of medium-voltage stations. We aim to equip over 22,000 medium-voltage units with this smart technology in the next seven years. Unfortunately, the roll-out of DA3 has so far been slower than expected, because its implementation makes great demands of people, processes and systems. Early in 2024, the first DA3 boxes were installed and we started an incremental scale-up in order to achieve our target by 2031. In the meantime, we are constantly looking into how we can accelerate the process and complete it before 2031.

Technical solutions

We are try to get more capacity out of the existing infrastructure by taking technological measures. This includes, for example, increasing the load on equipment where this can be done safely, dispensing with the failure reserve, or linking up power generated by both solar and wind to a single connection: like a kind of carpooling, but for electricity.

Taking the ‘rush hour lane’

The electricity grid is often equipped with a failure reserve. If a power cable breaks, we have a spare cable that is used in order to fix the fault on the original power cable safely and quickly. This failure reserve is also referred to as the ‘rush-hour lane’ of the energy grid. It helps us prevent or limit the duration of a service interruption in large areas by diverting energy transmission in the case of a failure or maintenance.

The step we are now taking in some areas is to use the rush-hour lane even when there is no failure. In doing so, we create additional transmission capacity, particularly for renewable energy generation by solar and wind farms. The drawback is that we do not have any ‘reserve’ capacity if a failure occurs. We have therefore made arrangements with solar and wind farms that use the rush-hour lane. In the event of a failure, we may temporarily disable their connection or temporarily (partially) reduce the available power. We call this generation management. In order do this remotely, we have developed a control box. A control box enables us to manage generation capacity (from solar and wind farms) and to temporarily slow down the production of these large electricity generators The first field tests were carried out in 2023, and we will continue developing this solution in 2024. You can read more about this solution on our website.

Cable pooling

In cable pooling, we accommodate power generated by both solar and wind on a single connection. This helps us to make better use of the electricity cable, because it is usually not windy when the sun is shining and vice versa. The total capacity of connections to power generation facilities is used only to a limited extent. The connection must nonetheless be able to cope with peak loads. At peak times, for instance if the sun is out on a windy day, cable pooling means that customers themselves reduce the output generated by the solar or wind farm to prevent an overload on the electricity cable. This solution means that we can increase the capacity utilisation of a connection, fewer connections are needed and we can accommodate more generation capacity on the grid.

In fact, cable pooling has nothing but benefits for the customer, who can be connected directly. And it benefits Stedin too. If we apply cable pooling to just 1% of our heavy-use customers (around 200), we will soon save ourselves – according to the most conservative calculations – a year’s worth of excavation work. Cable pooling therefore has great potential.

Additional capacity through cable pooling

In 2023, we realised three cable pooling projects in Zeeland: on the provincial border near Woensdrecht, in Borssele and in Koegorspolder near Terneuzen (see box). In total, this allowed us to accommodate over 80 MWp of additional power on existing connections.

Cable pooling in Koegorspolder

Cable pooling is currently being tested in the Koegorspolder in Zeeland. At this location, a wind farm has available capacity and we connected a second customer's battery to the same cable. When it is very windy, the wind turbines generate a lot of power and it is the perfect time to buy for the battery operator, because power is cheap then. The 'surplus' power on the cable is then purchased locally before it puts strain on our grid. Conversely, when there's no wind, it becomes interesting for customers with batteries to feed power into the grid, as the price is higher then. That's because at that time there is actually capacity on the connection because the wind farm does not burden it. A win-win, therefore.

This pilot is based on the proposed extension of cable pooling compared to the existing Electricity Act. This enables us to combine solar and wind and storage, all in one connection. The Dutch Senate will vote on this on 13 February. Together with Netbeheer Nederland, we urged the House of Representatives to include a further extension of cable pooling in the new Energy Act to also enable combinations of feed-in and consumption.

Use of batteries

Batteries are an important element of the energy transition and make it possible to optimally utilise our grid. In 2023, we received around 65 requests for batteries with a total capacity of 1,300 MW, on top of the 50 requests for a total of 900 MW received in 2022. This challenge is huge, and Stedin is not able to provide this capacity. We will connect batteries only if there is capacity, and if battery operators are prepared to make arrangements on grid-neutral battery use. That is, only if they help us relieve overloaded grids.

Flexible solutions

As well as technical solutions, we are exploring other options to optimise utilisation of the electricity grid. For example, by making agreements with customers to reduce consumption capacity at peak times or to actively use capacity on the grid to keep the grid balanced. We refer to this as flexible (control) capacity and this is part of congestion management. The agreements we make with the customers are laid down in flex contracts. The flex contracts concluded in 2023 helped us to achieve our target of 45 MW of available control capacity. We realise this is not enough, however, and have therefore set an ambitious target of 500 MW for 2024.

A flex contract must be sufficiently attractive to participants and must ensure participants do not get poorer outcomes. At the same time, we have capped the amount we are prepared to pay in fees and we have opted for 'cost-based fees' for the use of flexible control capacity (see box). This means, for example, that Stedin pays a customer a fee for reducing the output capacity of a solar farm that is comparable to the revenue the customer would have realised on the 'day-ahead market' from the sale of the energy they would otherwise have generated.

Flexible control capacity in Middelharnis and Noordring

This year, congestion control capacity was frequently used in the Middelharnis and Noordring congestion areas. In both areas, this involved wind farms feeding in less energy at specific times at Stedin's request. As a result, the grid load remained within the limits of what is acceptable for the grid and no outages occurred due to overloading.

We have an increasing number of solutions at our disposal to serve the market. In general terms, two types of solution can be distinguished: the 'capacity limitation contract' (capaciteitsbeperkend contract, CBC), which is used for the next 24 hours (day ahead), and 'redispatch' through which we try to reduce demand for transmission capacity by purchasing additional capacity at particular times of the day (intraday).

Capacity limitation contracts

These contracts contain agreements on the flexible use of capacity for a period of several years. These contracts come in several forms:

- *Capacity control contracts* – Large battery systems are an important tool in facilitating the energy transition. Battery systems help by feeding in or consuming energy at peak times. However, they can also cause more grid congestion. Capacity control contracts ensure that batteries do not operate in ways that cause such undesirable effects. In 2023, we signed the first six contracts with providers of large-scale battery systems, involving a total capacity of 18 MW. These include batteries at solar and wind farms, as well as stand-alone batteries.
- *Group capacity management* – Businesses in congestion areas can help each other by exchanging energy without putting strain on our grid. For example, a company with a large solar roof can supply electricity to a refrigeration company with expansion plans. Although heavy-use customers in congestion areas cannot request additional capacity, plans can go ahead nonetheless thanks to cooperation and smart control. Stedin launched an initial pilot for businesses in Tholen (see 'Energy hub' box).
- *Static capacity limitation contracts* – The electricity grid is not always fully utilised. By releasing capacity in certain time slots, Stedin is able to provide grid capacity to customers who can anticipate this. In 2023, Stedin applied this contract form on a limited scale in a number of pilot situations (see 'Textbook example' box).

Textbook example

Before the opening of Het Element, a new secondary school in Amersfoort, there was insufficient grid capacity to supply the school with energy. This jeopardised the opening. However, by looking for solutions with Stedin, the school was able to open its doors on the scheduled date. The school checked when it consumed the greatest amount of electricity, which was between 8:00 and 16:00 hours. The school has now agreed with Stedin that it will use less electricity between 16:00 and 20:00 hours, which is when households generally consume a large amount of electricity.

Redispatch

While capacity limitation contracts look a day ahead, redispatch contracts enable Stedin to make adjustments on the day itself. A redispatch contract is usually a temporary contract aimed at preventing grid overload in a congestion area. Stedin offers and manages these contracts via the Grid Operators Platform for Congestion (GOPACS). Stedin places the congestion situation as an order on GOPACS. Participants with a connection in the congestion area can respond by placing an order on an energy trading platform affiliated with GOPACS. The use of GOPACS is still in the development stage at Stedin. We expect that we will use GOPACS increasingly often.

CASE STUDY

Tholen energy hub matches capacity and consumption

In Tholen, there is a business park where a group of companies are working hard on enhancing sustainability and smart energy use so as to optimally utilise the grid. The site is situated in the Noordring congestion area, where there is both feed-in and consumption congestion.
In September 2023, Stedin signed a group capacity agreement with this group of companies, which work together as an 'energy hub'. This was Stedin's first agreement of this kind with an energy hub (e-hub). It was even the first e-hub to enter into this kind of scalable contract with a grid manager.

The contract caps the total transmission capacity for the group. The companies arrange among themselves how they will use the available capacity within the limits set.
Early in 2024, a battery will be added to this e-hub in order to provide even more flexibility in consumption and/or feed-in at peak times. The lessons learnt from this pilot will be used to facilitate energy hubs on a larger scale in 2024. In addition to this pilot, Stedin is also developing a pilot with a business park in Utrecht.

Behavioural solutions

Apart from technical and flexible solutions, the key to flexibility in the energy system largely lies in our own behaviour. We must learn to deal with a sustainable energy system. This means using renewable energy when it is available (see 'Solarette' box), using smart solutions and reducing energy consumption when less of it is available. In this way, we avoid having to make unnecessarily large grid expansions only to accommodate sporadic large peaks.

Grid-aware charging

By the end of 2023, there were nearly half a million charging points in the Netherlands. Around two thirds of the charging points in our service area are on-street charging points. If all electric cars are being charged at peak times – between 16:00 and 21:00 hours – the electricity grid is at risk of being overloaded. On-street charging points charge cars using a capacity of at maximum 11 kilowatts (kW). This is comparable to the capacity of ten single-family houses using electricity at the same time. Together with the municipality of Utrecht, we examined the impact if cars were to be charged using a capacity of at maximum of 4 kW instead of 11. This should significantly reduce the burden on the cable in the street.

Grid-aware charging creates slightly more room on the grid, but even more room can be freed up by switching off most on-street charging points completely between 16:00 and 21:00 hours. For every charging point switched off in the evening peak, Stedin can connect roughly one more home. An earlier study by research institute Elaad showed that almost half of all charging actions start during these peak hours. Charging cars around dinner time is by no means necessary for everyone. It can also be done at other times of the day, such as when solar power is plentiful.

Smart charging

Over the past 2.5 years, local grid managers, companies and knowledge institutions applied 'smart charging' based on flexible grid tariffs at 380 public charging points via the FLEET collaboration project. Electric cars were charged outside peak times on the electricity grid in order to avoid grid problems. The result? Smart design of this system reduces problems on the electricity grid by around 20%. In most cases, charging point users did not notice any difference.

During the trial, it was found that some electric car models unfortunately did not respond well to charging breaks during peak times. This means charging of these cars cannot simply be delayed, but must continue at a particular charging current to avoid charging problems. Charging points can recognise these cars and make adjustments, but it makes 'smart charging' less effective. Therefore, further research is now being conducted into what adjustments are needed to make all cars respond optimally, for example through standardised charging protocols.

Grid managers at national level have already decided to introduce an intermediate version of 'smart charging', known as 'grid-aware charging'. In this process, charging is 'throttled' rather than interrupted. However, 'smart charging' is being developed further on a regional scale.

In the coming years, we want to implement 'grid-aware charging' across our service area. We are asking municipalities to include 'grid-aware charging' in new agreements for public charging points. As regards existing agreements, we are going to discuss the application of 'grid-aware charging'.

Scaling up congestion management

Unfortunately, we are increasingly coming up against the limits of our grid. In 2023, we therefore gave priority to setting up and scaling up solid processes for the implementation of congestion management, including appropriate IT support. The first results are now visible, such as in terms of drawing up flex contracts, supporting the Network Operations Centre in carrying out grid safety analyses and deploying flexible capacity, setting up waiting list management, and centrally recording and sharing information on congestion areas.

What have we learnt about utilisation?

By keeping in touch with heavy-use customers and municipalities, and having a good understanding of the state of our grids, we can anticipate at an earlier stage where congestion might occur. This allows us to proactively engage with customers and try to steer decision-making in order to prevent or congestion or delay its occurrence. However, as particularly customer requests from small businesses and consumers are difficult to predict, we don't always have a clear understanding of potential risk areas and congestion areas. We will continue to work on this in 2024.

We will need to further scale up technical, flexibility and behavioural solutions. By the end of 2023, we had contracted 52 MW in flexible capacity. This means we achieved our target. However, we realise that we need an increasing amount of flexible capacity, which is why we have substantially raised the target for next year, to 500 MW. Further scaling up solutions is a key task for 2024.

Finally, we have learnt to act and communicate more quickly and proactively about risk areas and congestion areas. Clear (external) communications are essential in order to reach solutions with our stakeholders aimed at utilising our grid as best as possible.

CASE STUDY

Doing your laundry when the sun shines: clean and green

Using energy in line with nature's rhythm

To make people aware of the behavioural change needed when using renewable energy, we set up a 'Solarette' in Rotterdam in June. People could use this pop-up launderette – which was fully solar-powered – to wash their laundry free of charge. This provided an ideal opportunity to inform them on the best use of solar energy in their own homes and to explain why it is better to run the washing machine when the sun shines.

Ensuring grid quality: management

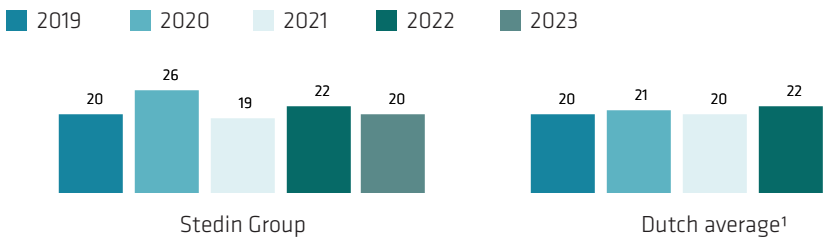
Energy is fundamental to society and the economy. In addition to realising sufficient grid capacity, our focus is therefore also on grid performance. By resolving failures quickly, managing voltage quality and carrying out maintenance and inspections, we can continue to guarantee proper grid management. The aim is to ensure a safe and reliable energy supply.

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Proper management						
SAIDI LV/MV	The System Average Interruption Duration Index (SAIDI) shows the annual average downtime: the average duration of interruptions in minutes per customer per year.	minutes	22	< 25	20	< 22

Electricity supply reliability

We continuously work on the reliability of our electricity grid. Supply reliability and voltage quality are key to this. This year, we again achieved a high supply reliability for our electricity grid; the average duration of an interruption per consumer was 20 minutes. This is in line with last year and within our target. It equates to a supply reliability of 99.9961%. Again, a great result. Obviously our aim is zero failures, but at the same time the pressure on our grid is increasing.

Annual average downtime for electricity (in minutes)



1 Source: https://www.netbeheernederland.nl/_upload/Files/Resultaten_2022_-_Betrouwbaarheid_van_elektriciteitsnetten_in_Nederland__283.pdf

We continue to make every effort to minimise the number of downtime minutes and voltage issues. We do so by performing maintenance work on our assets, for example. In 2023, Stedin carried out 8,950 LV/MV maintenance jobs, which was 91% of the number we had planned. We could not or did not need to carry out 100% of the planned work because the aforementioned inspections showed that less maintenance work was required, and because extreme in the last two quarters of the year hampered maintenance work.

Two failures that stood out this year were a failure in Schiedam Noord (see box), which contributed almost 1 minute to the annual average downtime, and a power failure in Vlaardingen (see box). More than half of failures are caused by excavation work or an internal defect. An internal defect means that something broke down in a cable or connection (cable sleeve) without us being able to identify the cause.

Failure in Schiedam Noord (MV)

Early in June of this year, there was a major failure in Schiedam Noord involving nearly 11,000 homes and businesses. Because of smoke development in the distribution station, it was decided to disconnect the station from the power supply. Further investigation revealed that a connection of the cable to the plant was faulty. This could only be ascertained after the fire brigade had declared the station safe to enter. Due to the fact that all cables were checked as a precaution, the transmission was restored incrementally. Due to the smoke in the station and the fact that transmission was restored incrementally, it took almost 3.5 hours before the failure was resolved for all customers affected.

Power failure in Vlaardingen

On Sunday 11 June, more than 10,000 customers in Vlaardingen experienced a power cut early in the morning. Because of the hot weather forecast for that day (around 30 degrees), there were concerns about the impact of the power failure on places such as nursing homes. This is why a crisis team was formed immediately. The cause of the failure was a broken component in the high-voltage station. As smoke was coming from the high-voltage station, the fire brigade had to inspect the station before the fitters could get to work. At around 10:30, the power failure was resolved and all customers had their power restored. Fortunately, the crisis team did not have to take additional measures.

Voltage quality

Unfortunately, were are seeing increasingly frequently that the voltage on our grid is too high or too low. In 2023, we took steps to monitor voltage quality on the electricity grid on a larger scale using smart meter data. We can now actively monitor more than 90% of the grid area for excessively high or low voltage.

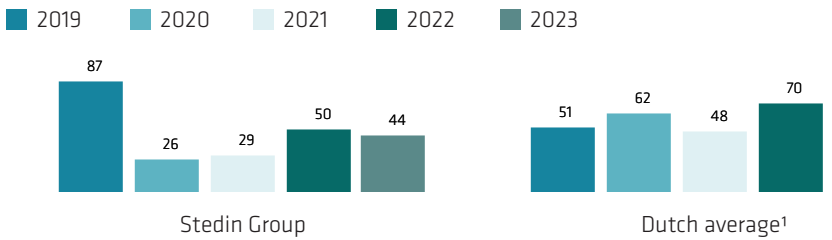
The number of reports from customers experiencing voltage quality problems rose sharply last year, to 3,300 reports. This is an increase of 119% year-on-year. In the peak month (June), there were 885 reports, compared to 170 reports in the same period in 2022. This was mainly due to solar inverters disconnecting due to overvoltage (too much generated electricity being fed into the electricity grid). The number of neighbourhoods affected by voltage quality problems increased significantly in 2023. Reports of voltage quality issues were received from more than 900 neighbourhoods (of the about 3,200 neighbourhoods).

All reports received and recorded (regarding both excessively high and excessively low voltage), are taken into account in the neighbourhood approach. You can read more about this subject in the 'Starting earlier' section.

Gas supply reliability

One of our core tasks is to transmit natural gas safely and reliably. Thankfully, outages of the gas grid are quite rare. In 2023, the average downtime for gas was found to be 44 seconds. This is slightly less (6 seconds) than in 2022. Failures in Moordrecht and Maassluis stood out (see boxes). Almost three quarters of failures are caused by an internal defect; obsolescence/ corrosion and (past) installation errors. An average downtime of 44 seconds still equates to a delivery reliability of 99.9999%.

Annual average downtime for gas (in seconds)



1 Source: https://www.netbeheernederland.nl/_upload/Files/Resultaten_2022_-_Betrouwbaarheid_van_elektriciteitsnetten_in_Nederland__283.pdf

Gas grid safety

We intend to replace all our brittle gas pipelines (grey cast iron and asbestos cement) before 2028 in order to ensure the safety of our gas grid and because of the potentially profound social impact. In addition, the removal of brittle pipelines will help reduce CO_2emissions. In 2023, we removed and/or replaced 212 km (2022: 200 km) of brittle pipelines and primary gas connection pipelines.

Failure in Moordrecht (Gas)

During work early in May, a contractor drove a sheet piling through a gas supply line. To be able to perform emergency repairs, we temporarily disconnected the gas main. This left around 160 homes in Moordrecht without a gas supply. Repair work was hampered by the fact that the location where the pipeline had been hit was under water. This meant that we could not finish the repair work while it was dark and had to wait until the next morning before completing the final part of the repair. As a result, the outage lasted nearly 17 hours in total.

Pipeline rupture in Maassluis

On 1 December, a water mains was hit during works in Maassluis. As a result of this rupture, water got into gas pipelines, leaving about 100 homes without gas. The electricity was still working, however. Furthermore,a part of the street was flooded and a flush hole (sink hole) of about three by four metres appeared. A water tapping point was set up for residents whose water had been disconnected. The first 40 homes were soon reconnected to the gas mains. Within a day, the gas supply was restored to all homes.

Smart, data-driven maintenance

In order to maintain the quality and safety of the gas grid, we constantly perform maintenance on – and inspections of – our gas grid. In 2023, we carried out 43,300 maintenance jobs and inspections, 96% of what we had scheduled. This is mainly due to the maintenance arising from those inspections (in this instance, less maintenance was required than expected) and to weather conditions in the last two quarters of the year.

Data-driven maintenance involves the use of data to pinpoint where maintenance is really needed and which elements need replacement. In addition to quality improvements, this yields annual savings. The following are a few examples of how we use data for maintenance:

- We are continuing the roll-out of sensors for the protection of high-pressure gas pipelines. We use these sensors to measure the cathodic protection of our grids online. With continuous monitoring, we identify damage and therefore the risk of leaks at an early stage.
- In 2023, we started a pilot with underground oil pressure cables. Currently, we use analogue manometers to monitor oil leaks. This involves around 80 connections, of 800 km in total. These meters cannot detect latent leaks in time. With the advent of digital pressure sensors with wireless communication options, we can continually monitor oil pressure and detect these leaks in time. This prevents environmental pollution.

What have we learnt about management?

Despite the growing pressure on our grids, we again managed to maintain a high level of supply reliability (over 99%) in 2023. Unfortunately, we did have a few more unwelcome lengthy failures. Our aim remains to minimise failures and thus minimise inconvenience to our customers.

Due to the growing number of solar panels, electric cars and heat pumps, we are increasingly encountering voltage problems on our electricity grid. We have observed that the grid, which has been laid out over the past one hundred years, is in some cases no longer suited to the new energy system.

By creating insight into the extent and cause of the voltage problems, we provide input to the construction organisation, which can tackle the root cause of the problem through initiatives such as the neighbourhood approach. Finally, we have established that the management organisation needs to scale up in order to absorb the increase in the number of stations and cables.

We will be building more and more in the coming years, and we need to make those new stations and cables last as long as possible. In short, management, in addition to more construction and better grid utilisation, remains as important as ever.

Performance in other areas

As well as focusing on construction, utilisation and management, we pursue a number of other goals and have set the parameters needed to properly implement our strategy and serve our customers. For instance, whether we like it or not, building work on the grid will always cause inconvenience for our customers and interruptions.

We therefore provide excellent service to our customers in order to keep this inconvenience to a minimum. We do this by meeting our commitments, applying chain-based working in our organisation and minimising inconvenience in the field through proper cooperation with other parties.

An optimally working and digital energy grid is essential for market parties. In this context, reliable data on our grids is important, both for the market parties and for us. By increasing data quality, we ensure that market parties will have the right data for our customers and we help them to optimally utilise the grid (such as by offering data-driven flexibility solutions).

When we look at the energy system of the future, we see a second life for our gas pipelines that will enable us to transmit sustainable gases. We are already making the appropriate preparations. Heat grids, too, may contribute to better utilisation of our energy grid. As a company, we ensure that we perform our task of construction, utilisation and management of the grid as sustainably as possible and provide insight into the (social) impact we have as a company. This means that we are mindful of sustainability and of enhancing the sustainability of our operations.

Service provision and effectiveness

The quality of our service provision and the satisfaction of our customers are important. We therefore measure the customer's perception of our services after every personal customer contact. This is because we want customers to experience doing business with us as effortless.

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Customer satisfaction						
Customer convenience – Consumers[1]	Convenience experienced by customers in doing business with Stedin for two types of products, 'connections' and '(smart) meters' (excluding Zeeland).	%	79	79	79	-
Customer convenience – Maintenance[1]	Convenience experienced by customers in doing business with Stedin for the product 'meter cupboard problems'.	%	85	≥ 82	87	-
Lead time for connections for low-use consumers[2]	Completion of connections for low-use consumers within 18 weeks or on date preferred by customer.	%	95	≥ 91	90	≥ 90

1 In 2024, the customer convenience measurement will be replaced by three KPIs: Customer convenience in relation to meters and connections, business customers and meter cupboard problems. The target will be set early in 2024.

2 In 2024, the definition of this metric will be extended to include 'with ground works' and a new metric will be added: 'lead time under 12 weeks for connections for low-use consumers without excavation works (%)'.

Customer satisfaction

To understand the extent to which customers experienced doing business with Stedin as effortless, we ask customers to what extent their experience was one of convenience or inconvenience. The results of this survey are translated into a Customer Effort Score (CES). For consumers and meter cupboard problems (maintenance), we do this all the time. Each month, we report the results as two percentages: the convenience score and the inconvenience score. Among our business customers, we conduct a customer satisfaction survey once a year.

Consumers

We constantly measure the convenience that our customers experience when buying connection and metering products, such as connection installation or removal, capacity reinforcements, smart meter installation and resolving communications failures.

The targets this year were at least 79% convenience and no more than 14% inconvenience. Both targets were achieved, the scores being 79% convenience and 11% inconvenience. The principal developments that contributed to this were:

- Customers can now make an appointment online for work to be carried out at a time when it suits them. This creates clarity for customers and eases the workload for Stedin's schedulers.

- At some customers requesting a smart meter, we first need to remove the old connection. This often took a long time, and it was unclear when the work would be carried out. This process has now been adjusted, so that customers who want a smart meter quickly will always be served within nine weeks.

Meter cupboard problems

We also constantly measure the convenience that our customers experience in our resolution of meter cupboard problems. The targets this year were at least 82% convenience and no more than 8% inconvenience. Both targets were achieved, the scores being 87% convenience and 6% inconvenience. The interactive video 'I have a power outage' contributed to this (see box).

'I have a power outage'

In June, we posted the interactive video 'I have a power outage' on our website. With the help of this video, customers can resolve meter cupboard problems for which an engineer is not needed. This means that the Central Outage Desk (CSR) and the Customer Contact Centre (KCC) can be contacted more easily to report other failures, while engineers have more time to deal with grid management. Initial measurements over the period July-September 2023 and a comparison with all of 2022 show an estimated reduction in calls by 7%. Translated to a full year, this means over 9,000 fewer calls.

Projects

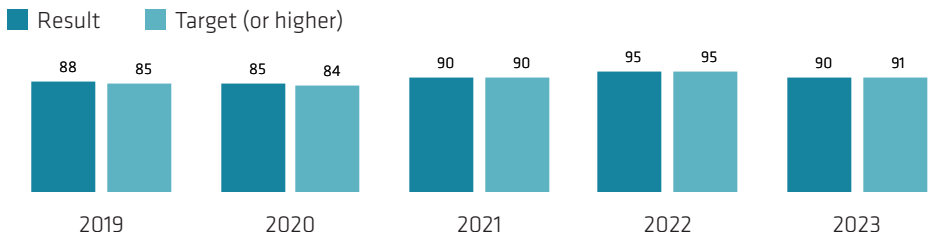
With regard to (larger) projects, we measure customer convenience or inconvenience once a year because of the longer project lead times. These include projects such as the installation of large connections or projects involving more than five connections at once.

In 2023, no quantitative measurement was performed as is done for consumers and meter cupboard problems. We conducted (qualitative) interviews with 25 customers of these larger projects, in which we asked them about the convenience and inconvenience they had experienced. This revealed that we still have work to do when it comes to: managing customer expectations regarding aspects such as planning, lead times and congestion, reducing customer inconvenience due to differences in working methods between departments and regions, and our communication on customer tariffs.

Improving our service provision in relation to projects is a key priority in 2024. In 2024, we will not only perform a qualitative measurement (similar to that of 2023) but also two quantitative measurements per project (i.e. all projects) based on questionnaires: immediately after the assignment and immediately after the completion of a project.

Lead time for connections within 18 weeks

Connections put in place within time limit of 18 weeks (as a percentage)



In 2023, we achieved our target of 'regulated connections put in place within 18 weeks or on date preferred by customer'. We managed to achieve this for 90% of requests. From 2024, this KPI will change in accordance with new requirements from our regulator ACM, and 'with ground works' will be added to this metric. We are also expected to complete connections without

ground works within 12 weeks or on the date preferred by the customer. The new requirements regarding the time limit for connecting business customers are not yet known.

Increasing effectiveness

As a grid manager, we perform an important social task, funded with public money. We consider it our duty to carry out our services efficiently and to keep costs to a minimum in doing so. The old (five-year) efficiency programme was completed at the end of 2022. Through this programme, we achieved € 166 million in structural savings. The efficiency measures in progress and those yet to be launched have been incorporated into a new programme that not only focuses on efficiency but also on increasing our effectiveness.

The growth of our construction task is accelerating. In order to achieve this task, we are rapidly increasing the capacity of our operational organisation. We do this not only by recruiting and training more staff, but also by deploying our staff and resources more effectively. We need to do more with a larger number of people. This requires faster, smarter and simpler ways of working in order to meet rising demand. This will make us more effective and efficient. We do this, for example, is by carefully prioritising and implementing the requisite changes, in line with our strategic goals. We opt even more purposefully for what will produce the best result, and discontinue initiatives that do not contribute enough. In this way, we can use our ICT and change capacity as effectively as possible. We also deploy innovations to enable our colleagues in the field to use of their time as efficiently as possible. In addition, the acceleration of the task we face and the necessity to build more will require a change in attitude and behaviour from all our employees, including our managers. Among other things, this means setting clear, ambitious but achievable team goals, making agreements on expected outcomes, and finishing what we have started.

Market facilitation

The delivery of timely and correct data on our customers' energy use to TenneT and market parties is known as market facilitation. In 2023, the importance of correct and timely metering of energy consumption and feed-in increased significantly in view of congestion management. For instance, in order to prevent grid overload, we check whether the contracted capacity use is not being exceeded.

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Market facilitation						
Smart meter data provision[1]	The timely and full provision of smart meter data for energy services and market processes.	%	97	≥ 97	98	≥ 98.5

1 In 2024, this KPI will be changed to 'First Time Right P4 smart meter data provision'

Grid quantification and data quality

Behind-the-scenes quantification of all the energy flows transmitted through Stedin's grids is an important pillar of our operations and fundamental to the functioning of the energy market as a whole. We use this information among other things to make better analyses of (the state) of our grid. This helps us to optimally utilise the grid.

Good data quality is essential for grid quantification. This year, therefore, we focused on further improving data quality. Using an increasing number of automated data checks, we can detect and remedy data contamination directly at the source.

Central Metering Data Platform

Market facilitation in large part revolve around sharing smart meter data. Sector-wide, the use of remote data reading via smart meters increased by 40% in 2023 compared with 2022. In 2023, Stedin received around 260 million data requests per month. In 2022, this figure was around 185 million.
To facilitate all this data traffic, EDSN in September 2023 developed the Central Metering Data Platform in cooperation with all the grid managers. Through this platform, we share data we read out from the smart meters every 15 minutes. These 15-minute meter readings enable us to offer 'dynamic energy tariffs'. With the customer's consent, we measure the consumption and feed-in on the relevant connections every 15 minutes. In this way, suppliers can fine-tune their energy purchasing and charge their customers based on the energy market prices.

Allocation 2.0

The amount of energy fed into the grid must always equal the amount of energy consumed (allocation). Using special calculation methods, grid managers estimate the amount of energy their customers are likely to use. Due to the increase in renewable generation, electric transport and climate change, these calculation methods have become less and less accurate.

In the nationwide programme Allocation 2.0, we are working together with other regional and national grid managers and market parties to create an energy system that is flexible and can therefore be sustainable and future-proof. In the context of this programme, a new, more accurate method of allocating energy flows to the various energy parties was rolled out in April 2023.

Market facilitation: facts and figures for 2023

- Transmission costs charged to our customers: revenue of 1,584 million in 2023 (2022: € 1,134 million)
- Monthly validation of consumption on more than 51,000 heavy-use and business connections.
- Customer switches (to a different energy supplier) on 432,856 connections processed (2022: 429,296 connections). The substantial drop in 2022 compared to 2021 was largely due to the high energy tariffs. We were not yet back to normal levels in 2023, although we did observe a slight increase.
- Checks on 24,374 GWh of electricity and 3,602 million m^3 of gas transmitted in 2023 (2022: 20,746 GWh and 3,782 million m^3 respectively).
- Number of connections with no energy contract 58,636 (2022: 54,384).

Smart meter data

To facilitate the energy transition, we need smart grids that provide insight into the status of the grid. Together with customer demand, this data provides important information to accurately predict where bottlenecks may arise in our grid in the future. At the same time, we are working with partners on innovative solutions that can accelerate the energy transition. Insight into consumption and better matching of energy consumption and supply are of key importance for the energy transition. If we provide accurate smart meter data to parties such as energy suppliers, they will be able to make better estimates of the development of energy needs. This helps us prevent grid congestion.

Since the Code of Conduct for Smart Grid Management(Gedragscode Slim Netbeheer) came into effect, we use smart meters on the low-voltage grid not only for meter readings. For example, smart meters also enable us to read out the voltage in the event of voltage failures, or to obtain data on the status of a meter in case of a power failure in order to locate the failure. You can read more about this in the 'Management' section.

Connectivity for reading out smart meters

In 2023, we continued to work with Enexis and Alliander on the collective telecommunications strategy entitled 'Samen, Flexibel, Nu' ('Together, Flexible, Now'). The first initiative under this strategy is the joint procurement of a SIM card (sector eSIM) through which we will create a flexible and future-proof solution for reading out smart meters.

Renewable gases & alternative heating

Within NetVerder, we are developing, constructing and maintaining energy infrastructures for heat, steam and biogas. In 2023, NetVerder drew up a new heat strategy in anticipation of the enactment of the bill for the Collective Heat Supply Act (Wet Collectieve Warmtevoorziening, Wcw). Where heat infrastructure is concerned, we expect an increasing role for NetVerder in the coming years. In preparation for this development, work continued on building a professional organisation. NetVerder is already involved in several ambitious and concrete projects that are relatively new within Stedin Group, which means that we are learning by doing.

Borculo biogas grid

Since 2017, NetVerder has handled the distribution of biogas from Groot Zevert Vergisting in Beltrum to Friesland Campina in Borculo. As a result, Friesland Campina saves substantial volumes of natural gas at its production location. As the biogas grid is located outside Stedin's primary service area, we are exploring options to transfer this grid. This will allow us to focus on our other projects.

Delft Open Heat Grid (OWD)

The Delft Open Heat Grid (Open Warmtenet Delft, OWD) is a good example of a heat grid being developed by NetVerder. An 'open grid' is an independently managed grid under non-commercial ownership. It enables multiple suppliers to supply heat to their customers. This is actually very similar to the current system of managing, maintaining and transmitting electricity and natural gas.

The OWD will initially be fed by heat from a new geothermal source on the campus of TU Delft. This is geothermal heat extracted from warm (salt) water in porous sand and rock layers at a depth of two to three kilometres. Geothermie Delft (GTD B.V.) started drilling this new geothermal well this summer.

The OWD will be situated in the Voorhof and Buitenhof districts. These districts contain several (high-rise) blocks of flats with collective heating systems. Other homes and buildings in the Buitenhof and Voorhof districts can also be connected to this grid. In total, this will involve a heating demand equivalent to that of no fewer than 15,000 homes. The municipality wants to ensure that eventually all homes and buildings in Delft can be connected to the heat grid. Therefore, the grid is being prepared for the future through the installation of somewhat larger pipelines. We expect to supply the first heat to residents in 2025.

Rotterdam Botlek Steam Network

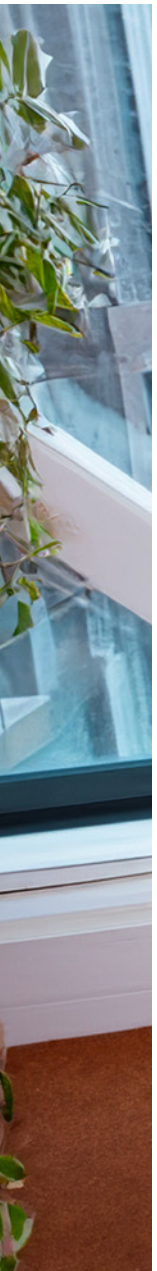
Industry in the Rotterdam port area has a high demand for energy. Steam is one of the principal energy carriers there. Steam producers AVR and Cabot sustainably supply steam to the customer Lanxess. NetVerder safely and reliably transmits steam and condensate via the steam network in Rotterdam Botlek.

In 2023, steam producer AVR experienced a major fire. The repair work at AVR is still in full swing. This has caused a temporary halt in the operation of the steam network. The technical team is obviously taking good care of the steam pipeline, for instance by taking technical measures to keep it in good condition. We are also exploring options to reactivate part of the steam pipeline.

In 2023, 145,099 tonnes of steam were transmitted via the Rotterdam Botlek Steam Network (2022: 203,057 tonnes). This has also helped to reduce CO_2emissions. It is expected that the contracts with LyondellBasell, Huntsman and Air Liquide for expanding the steam network will be signed in the first quarter of 2024. This is facilitated in part by subsidies obtained from the province of South-Holland (€ 2 million) and the municipality of Rotterdam (€ 0.7 million).

Ouverture in Goes

The Ouverture district in Goes has its own renewable energy supply: a thermal energy storage (TES) system. This TES system has been managed by NetVerder since 2022. In 2023, 30 heat pumps were replaced in because they had reached the end of their useful lives. Due to increasing supplier delivery times, some residents had to wait a long time for the replacement of their heat pumps. There were also two larger general infrastructure disruptions in 2023. In both cases, the residents received financial compensation.



IN CONVERSATION WITH

Danny Benima and Michel Scholte

What is your impact on people and the planet? This question is increasingly important for businesses. CFO Danny Benima talks to Michel Scholte, a director of True Price and Impact Institute, about sustainability, leadership and the question of how do you measure and value your impact as a public social enterprise.

Danny: "When I joined Stedin in 2019, I was really struggling with that question. How do you measure your performance as a public social enterprise? Because what matters to Stedin is not just making money. What really matters is the impact you have on society; realising the energy transition, the contribution to sustainability, your social face as an employer, employee satisfaction, and so on. Until now, I find that the most complex aspect of my job. How do you handle that?"

Michel: "We consider factors such as our contribution to the development, distribution and application of new methods for measuring impact. But we also check, for example, whether our salaries are gender-equal. We translate our impact into financial value, because when it's measurable you can action to improve it. In fact, it's the same as what you do at Stedin. And we publish these methods via the Impact Economy Foundation."

'I have chosen to remain CFO'

"Sustainability is an important theme for us," says Danny. "That is why it's one of the preconditions for our Construction, Utilisation and Management strategy. I therefore consider it an honour to have been voted one of the Chief Value Officers of the year in 2023.

"We need to translate broad social value into financial terms, which is the language people and businesses understand"

Danny Benima, CFO of Stedin Group

I hesitated for a moment whether I should also change my job title to that of Chief Value Officer (a director who focuses not only on the financial, but also on the social impact), but have chosen to remain CFO. We need to translate broad social value into financial terms, which is after all the language that people and businesses understand."

Michel: "I totally agree. Financials, bankers, accountants: they sometimes have little connection to society. That is a risk. We are not prioritising in the right way."

Danny: "If I apply that to Stedin: the system decisions we are making at policy level are critical to the success of the energy transition. Take the principle that the polluter pays. I think that this principle should be leading, but that is not always the case now. As things stand, the parties that build solar or wind farms don't always pay for the social costs they cause. On the other hand, you could argue that they facilitate renewable energy generation and are of value that way. It's a complex issue."

"At Stedin, we facilitate the energy transition," Danny continues. "If we expand our grid a year ahead of schedule, that helps to make the Netherlands more sustainable. That is where our greatest added value to society lies. That being the case, how important is it for that acceleration to feature transformer kiosks with a green roof? The greater good is served by putting up kiosks as fast as possible. That is how we try to prioritise. By weighing up how to maximise our social impact."

"The same goes for our electricity cables. Our preferred option is to use recycled copper. It's more expensive, but circular. But the drawback is that those cables have more resistance, so you lose more electricity; a complex dilemma, because which is better in the end?"

'We are capable of restoring the balance'

Michel: "At this stage, people have exploited nearly the entire planet. That we affect the climate by doing so is accidental. We are sort of like parasites. But it doesn't mean we cannot change that: we are also capable of restoring the balance. You can also look at the example of the cables with that in mind."

"How can we give shape to the energy grid in a way that accords with everyone's views?"

Michel Scholte, co-founder and executive director of True Price

"If new copper is the best alternative because it has the least energy loss, you can decide to give something back to the world in another way. For example, by improving the living conditions of miners or contributing to nature conservation to offset your impact. If you do that, you are doing the right thing in my view," says Michel.

Danny: "Do you think we have a good insight into that at Stedin?"

Michel: "Compared to the average company, yes, but compared to what is needed, no. That is the hard truth. You have to look at the maximum you can achieve. Stedin really steps up in helping to create the new economy. That is leadership. I think it's okay not to judge your own shortcomings too harshly, as long as you are aware that you have them."

Danny: "We are doing all we can to keep our CO_2impact low. Our offices have rooftop solar panels, our cars are electric where possible, and we help colleagues make their homes more sustainable through interest-free loans. Yet we know that our impact is mainly in scopes 2 and 3, for example in the procurement of materials and in the network losses that occur when electricity is transmitted. Any company that does not include scopes 2 and 3 in its ESG strategy has got its priorities wrong in my view."

'Broad public support will help the energy transition'

Michel: "Unfortunately, we see a reactionary populist movement emerging worldwide, of which climate issues and the energy transition are the victims. Whereas having broad public support really helps the energy transition. That is why I strongly believe in public participation. How can we give shape to the energy grid in a way that matches with everyone's views? Everyone should have a say in that."

Danny: "I agree. Having said that, those democratic processes are causing delays at a time when we desperately need to accelerate. Take district electricity stations, for example. Stedin would like these to be as standard as possible, so that they can be installed as soon as possible. But residents increasingly want them to be in keeping with the district in terms of design, or don't want a station in their street at all. We are happy to discuss these kinds of issues, but it will slow things down."

Michel: "You just mentioned 'the polluter pays', but why can't it be 'the beneficiary pays'? In that case, people might end up with an 'ugly' station, but they would also receive financial compensation to help green their district, for example."

Danny: "Nice idea. We can do more with that. Stedin's top priorities are security of supply and affordability of the energy transition. If we have to customise everything and our energy demand continues to rise, the transition will become unaffordable. At the moment, Dutch people believe they have an unlimited right to energy, 24/7. If that absolute right is in danger of being curtailed, society will be up in arms. But I don't see why we shouldn't question that right. A round-the-clock right to energy can be guaranteed, but that comes with a price tag. Politicians in The Hague have not put this issue up for debate yet. We are already seeing a sharp rise in costs, and this will continue for the foreseeable future. I have noticed that politicians are unfortunately not telling the real story."

Michel: "That's right. I hope that as a society we will develop a stronger sense of the importance of sharing costs and benefits. That we will start to distribute costs and benefits more fairly. This starts with a strong sense of connection between people. In that respect, Stedin is a gem of a business, because you connect all layers of society. We need to see more in the way of that by public authorities as well."

ESG performance

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Climate change mitigation						
Reduction in CO_2emissions compared with 2018[1]	Percentage of reduction in CO_2emissions from Stedin's business operations in tonnes compared with 2018 (excluding gas network losses)	%	-48	-50	-50	-
Greening of electricity network losses	The percentage of CO_2emissions due to network losses in our electricity distribution grid which we offset.	%	100	100	100	100

1 This KPI, related to the One Planet strategy, will be discontinued from next year and integrated into a target for total GHG-sc emissions. The target is in line with SBTi and will then be calculated relative to 2021.

Stedin is a socially responsible enterprise. Accordingly, our ESG performance is inextricably linked to our strategy. Accelerating the energy transition will help the Netherlands achieve its climate ambitions. We therefore want to start earlier and build faster, optimally utilise the grid and keep managing it properly. However, we want to do this in a sustainable way. And our social ambitions and performance go beyond that: we aim to reflect the world we work in and offer a workplace where all our employees can be themselves, are valued and are treated equally. In addition, we do our work with integrity and transparency. By complying with laws and regulations and putting legislative changes on the agenda where necessary, for example if laws and regulations hamper the energy transition, we ensure that these can move in step with our ESG tasks.

Stedin aims to be a green and sustainable grid manager. An organisation where everyone feels safe and at ease. And a grid manager with integrity, transparency and honesty.

ISS ESG rating: 'B' score

Stedin has a sustainability rating, awarded by the independent rating agency Institutional Shareholder Services (ISS). They issue an ESG Corporate Rating on the basis of relevant, material and forward-looking data and environmental, social and governance performance ratings. The rating ranges from A+ (excellent performance) to D- (poor performance).

Our current score is a 'B' rating with a Prime label. This label is awarded to businesses with an ESG performance above the sector-specific threshold. This places Stedin among the sustainability leaders in the sector.

The rating is based in part on an assessment of Stedin's Green Finance Framework. This framework is important for the issuance of green bonds, which Stedin regards as a key source of funding.

On our way towards an ESG-driven organisation, we recalibrated our ESG strategy at the end of 2023. As part of this new ESG strategy, we formulated new objectives with regard to the Environmental, Social and Governance aspects of our operations.

We are now pursuing a broader sustainability ambition: between now and 2030, we aim to reduce our CO_2 emissions in line with the Paris Climate Agreement, reduce our primary material use in relative terms, lessen our negative impact on biodiversity, remain a good employer and remain compliant with laws and regulations. All in all, we aim to increase our positive impact on society and minimise the negative impact of our business operations. You can read more about this in the published ESG strategy.

This means that this 2023 annual report is the last to present our sustainability results pursuant to the ESG strategy up to and including 2023 (One Planet strategy).

In 2023, we again managed to reduce our CO_2 emissions (excluding gas network losses and relative to 2018 emissions), our purchasing of electricity network losses was 100% green and we gained new insights into how to focus on increasing the circularity of primary asset purchases.

CO_2 emissions

We monitor greenhouse gas emissions in accordance with the Greenhouse Gas Protocol, which is divided into three different categories of greenhouse gas emissions, known as scopes. We will describe these scopes below, including the topics relevant to Stedin. Alongside CO_2, therefore, emissions of other greenhouse gases also occur. To enable a comparison of the potential of these gases to warm up the atmosphere, we express this potential relative to the global warming potential of CO_2 and call this CO_2equivalents. All greenhouse gas emissions generated by Stedin are calculated in CO_2 equivalents. For ease of understanding of this report, we use the term 'CO_2 emissions' for total greenhouse gas emissions.

Table of CO_2 emissions, including greening

				Results in tonnes CO2eq[1]			
Scope according to GHG protocol	**Note**	**Category**	**What this includes for Stedin**	**2020**	**2021**	**2022**	2023
Scope 1: Direct emissions	Greenhouse (GHG) emissions that occur from owned sources or from leased assets and result directly from our core activities.	Network losses	Network losses from our gas grid	108,082	102,774	79,277	76,080
		Mobility	Our vehicle fleet (lease & company cars)	9,172	7,921	7,400	7,665
		Other	SF_6 gas feed-in	137	455	727	866
		Energy consumption	Gas consumption of our buildings	719	597	507	470
		Energy consumption	Generator units	2,533	2,246	123	127
Scope 2: Indirect emissions	All greenhouse gas (GHG) emissions from the generation of electricity consumed by Stedin but generated by third parties.	Network losses	Electricity network losses	453,153	442,709	381,156	304,450
		Greening of network losses	Electricity network losses	-452,587	-442,068	-381,156	-304,450
		Energy consumption	Electricity and heat consumption of our buildings	1,646	1,681	1,431	873
Scope 3: Value chain emissions	Greenhouse gas (GHG) emissions due to energy and fuel consumption from transportation, extraction, energy production (excluding energy generation) and third-party emissions that result from our core activities.	Other	Purchasing	228,040	226,894	236,750	332,582
		Mobility	Commuting	1,818	211	669	696
		Mobility	Business trips	411	387	388	418
			Total	**353,124**	**343,807**	**327,272**	**419,777**

1 The One Planet strategy had a narrower scope than the recalibrated strategy. As of 2023, we adjusted the scope and used it as the only basis for calculating CO2 emissions. We also recalculated the CO2 emissions with retrospective effect in order to show progress. In addition, the result for CO2 emissions was calculated using the most recent emission factors (2023).

Explanatory information per scope

Scope 1: direct emissions

Direct emissions are the emissions produced directly by sources within Stedin's business operations.

Network losses from our gas grid

The largest scope 1 emissions relate to the physical leakage of gas during transmission through our grids. From 2020, we treat these emissions as emissions from one of our sources and report on the network losses from our gas grid. In 2023, we decided to stop using CO_2 offsetting through CO_2 certificates in respect of emissions due to network losses from our gas grid. Instead, we will focus even more on reducing emissions. Network losses from our gas grid showed a 4% decrease compared with 2022. This is due to factors such as residential areas being made natural gas free, brittle gas pipelines being replaced with plastic ones and a further decline in gas transmission. In addition to the existing programme to replace brittle gas pipelines, we will intensify our search for gas leaks in due course.

Natural gas consumption of our buildings and emissions from our vehicle fleet

Natural gas consumption of our buildings has decreased due to factors such as our buildings being made gas-free, lower building occupancy, hybrid working and a reduction in the number of buildings we use. In addition, our ambition is to have a totally emission-free vehicle fleet by 2030. Over 90% of our leased passenger cars are electrified, while the rest will be replaced with an electric variant in 2024. We are gradually replacing the commercial vehicles still running on fossil fuels with an electric version. We investigated whether hydrogen-powered commercial vehicles could be a suitable alternative to fossil-fuelled commercial vehicles. Unfortunately this investigation revealed that the market does not yet meet Stedin's needs in terms of the product range available.

Generator units

Stedin deploys generator units at locations that suddenly have no or insufficient electrical power, for example in the event of a small-scale but long-term outage, or in situations where a planned interruption would result in an unsafe medical situation for one of our customers. Since 2022 we have used blue diesel for this purpose, which generates lower CO_2emissions.

SF_6 gas feed-in

Finally, in scope 1 we report on the impact of SF_6. SF_6 is a very powerful greenhouse gas, which is used as an insulating gas in some types of switchgear. While most switchgear is leak-proof, a number of types on the high-voltage grid emit a limited quantity of SF_6 .

Scope 2: indirect emissions

Indirect emissions are the emissions produced during the generation of the electricity we purchase. This involves the electricity we use for purposes such as heating or cooling our buildings, as well as electricity that was 'lost' during transmission through our grid to our customers.

Electricity and heat consumption of our buildings

In order to reduce our electricity consumption, we have implemented several energy-saving measures in our buildings. Over 90% of our own buildings now have an energy label 'A' or better. For example, we added insulation to buildings, installed solar panels on worksites, installed new charging points, increased the use of LED lighting and conducted a pilot with adaptive climate control at our Utrecht location. The positive effects of this are reflected in a reduction in our consumption of electricity (-4%), gas (-20%) and heat (-16%). Through active energy management, we have gained more insight into our consumption and can take more targeted measures to reduce this consumption.

Electricity network losses and greening

We offset the CO_2 emissions from purchasing our electricity network losses. We purchase 40% of our network loss through a Power Purchase Agreement with our partner Eneco, under which we buy 'Dutch wind power' directly from the Borssele 3 & 4 wind farm. We offset the remaining 60% of this network loss by purchasing Guarantees of Origin (GO) relating to wind power produced in the EU. The table below shows the quantities of electricity transmitted and the associated network losses.

Year	Electricity transmission	Network losses	network loss percentage
2019	21,100 GWh	1,069 GWh	5.1%
2020	20,171 GWh	953 GWh	4.7%
2021	20,529 GWh	931 GWh	4.5%
2022	20,746 GWh	892 GWh	4.3%
2023[1]	24,374 GWh	903 GWh	3.7%

1 Because of a change in the uniform definition applied in the sector, the volume transmitted in 2023 is 17% higher than in 2022.

Scope 3: value chain emissions

Value chain emissions are the emissions produced by mobility regarding commuting and business travel and by the business operations of companies in our (supply) chain.

Purchasing

The CO_2 emissions relating to purchasing are nearly 80% of the total net emissions in scopes 1, 2 and 3. Until now, we have estimated these emissions on the basis of key figures and our purchasing volume. We aim to further develop the underlying calculation methods in 2024, so that results of initiatives to make the value chain more sustainable are also reflected in the scope 3 emissions. The initiatives that are in place to make materials more sustainable are currently reported under 'circularity'.

Commuting and business travel

Emissions from commuting and business travel show a slight increase, which is due to the expansion of our activities and workforce.

Circular use of materials and waste management

For a number of years, we have aimed to maximise circularity with a view to sustainability. Where possible, we purchase products containing recycled raw materials, challenge suppliers to deliver products that facilitate maximum recycling at the end of their useful life, and work with our waste processors to ensure the highest-grade recycling of products.

Circularity

Since 2023, we focus on reducing the use of primary materials. After all, this accounts for a large part of our environmental impact, mainly because of the long average useful life of our assets. We have therefore further developed the KPI 'Circular business operations', on which we reported in previous years. Earlier, this KPI related to the percentage of recycled material at the time of purchase and the percentage of recyclability during processing. This was no longer adequate because:

- no distinction was made between the rungs on the 'R ladder';
- the 'recyclability during processing' percentage could not be properly ascertained because of the long average useful life of our assets;
- not all the materials purchased were included in the KPI calculation.

At the same time, we see that circularity goes beyond purchasing (recyclable) assets. It also relates to the redeployment and scrapping of assets and the degree of circular design. We will report on this from 2024 onwards.

Material passport

The material passport provides insight into the composition of the raw materials used in our assets. The data from the material passport is being used more frequently and intensively. We therefore developed a certification procedure in the past year, so that we may assume that the data entered is correct. We did this in cooperation with Kiwa and other grid managers. Kiwa certification means that the circularity data provided is independently assessed, and is validated and confirmed through the issuance of a Kiwa certificate. The project for cables has currently been completed. In 2024, we will expand the scope to other asset categories.

Redeployment

By redeploying assets, we can reuse high-voltage cables and transformers on a larger scale. In this way, we help reduce the use of raw materials and CO_2 emissions. In 2023, redeployment was extended to include high-voltage and gas components. On an annual basis, this involves around 150 transformers, 2,000 smart meters, 25 grid stations and various high-voltage and gas components. Given the current shortage of materials, redeployment is a welcome addition to our inventory. We also ensure that older components which can no longer be ordered from the

manufacturer remain available. Finally, this also leads to cost savings in the form of avoided purchase costs of around € 4 million.

Reuse of transformer materials

If a component can no longer be used in its entirety, we separate the residual materials where possible into recoverable raw materials. We do this in an environmentally friendly way. Transformers, for example, are separated into the raw materials of copper, steel, aluminium, rubber, stainless steel, plastic and oil. We offer all raw materials for high-quality reuse, so that we can make new transformers from them. Components that can no longer be reused are, like all the materials from our offices, collected by the waste management company Renewi.

Waste management

The table below shows the amount of waste from Stedin. In line with our ever-increasing task, the amount of work we performed in 2023 - and therefore also the quantity of waste in absolute terms - has increased. Replacing non-sustainable infrastructure by sustainable infrastructure and expanding sustainable infrastructure creates more waste. In 2023, we therefore processed an average of 182 tonnes more waste per month than in 2022. On average, we process over 1,100 tonnes of waste per month. Around 13% of the total waste stream consists of asbestos (2022: 19%). In the non-recyclable waste stream, asbestos makes up 37% (2022: 74%). At around 57%, cast iron accounts for a large proportion of the materials that are recycled. This is due to the accelerated replacement of our cast-iron gas pipelines. In 2023, we disposed of 2,837 tonnes of cast iron (2022: 2,967 tonnes). Cast iron is always recycled.

Waste (in kg)	2019[1]	2020[1]	2021[2]	2022[2]	2023[2]
Total volume of waste	9,576,136	8,885,295	11,424,839	11,024,321	13,207,255
Total volume of waste recycled	8,623,144	7,710,474	8,636,798	8,209,666	8,416,474
Total volume of waste not recycled	952,992	1,174,821	2,788,041	2,814,655	4,790,781
% waste not recycled	10%	13%	24%	26%	36%
Total asbestos	718,550	756,645	1,894,085	2,084,395	1,749,220
% of asbestos in waste not recycled	75%	64%	68%	74%	37%

1 Stedin Netbeheer

2 Starting from 2021, the reported figures include the figures of former grid manager Enduris

Biodiversity

In 2023, we conducted a biodiversity impact assessment. This assessment revealed that, as well as a minor impact at and around our own stations, we have a significant impact on biodiversity especially in the supply chain. We will therefore focus on biodiversity loss in the supply chain and will further explore opportunities to positively influence this in 2024.

This does not mean that we are not mindful of biodiversity at and around our own stations. We take this into account because of our social responsibility, and because our stakeholders are setting stricter requirements for the greening of our stations. For instance, ecological integration is increasingly becoming part of planning permission procedures. In 2023, we therefore:

- worked on standardised 'installation criteria' in respect of biodiversity, which we will apply to our larger stations in the future. These criteria describe how we can apply biodiversity measures to our assets, with due regard for their safety. Examples include green roofs, nesting boxes, swales and and the use of hedges.
- conducted studies and pilots with 'ecological green space management'. Around 16% of our 'spatial footprint' is 'green', and therefore offers opportunities for improving the local ecology. The study was conducted so that we would be able to formulate measures, such as an expansion of sinus mowing and abolition of the use of pesticides. In 2024, we will invite ecological tenders for green space maintenance based on these initiatives.

Green Grids and the Nature Inclusive Agenda

Green Grids (Groene Netten) is a collaboration in the field of sustainability between MVO Nederland and the eight largest infrastructure operators in the Netherlands, including Stedin. In the past year, we worked with these infrastructure operators on the 'Nature Inclusive Agenda', which was developed under the guidance of the Ministry of Agriculture, Nature and Food Quality. This agenda states that infrastructure operators should make nature-inclusive the 'standard' in new construction and renovation projects and carry out green space management in an ecological manner. A 'sector agreement' will be signed early in 2024 to ratify these arrangements.

In order to ensure proper implementation of these arrangements, Green Grids cooperates with Naturalis Biodiversity Center and Dutch Butterfly Conservation. For example, we have developed an 'opportunity map' that shows the opportunities for cooperation between the Green Grids partners in the area of biodiversity improvement. We expect that we can develop a first project with our partners in 2024.

EU Taxonomy

Where are we coming from

Further global warming must be counteracted by all means. Under the Paris Climate Agreement, the European Union must be climate neutral by 2050. Partly for this reason, the EU has developed a step-by-step plan to facilitate funding of sustainable growth. As part of this step-by-step plan, the EU has adopted a taxonomy. This taxonomy should clarify which business activities are environmentally sustainable and which are not, and reduce the possibilities for greenwashing. As a public interest enterprise (PIE), Stedin has reported since 2021 on the (environmentally) sustainable part of its turnover, operating expenditure (OpEx) and capital expenditure (CapEx), based on the Taxonomy Regulation of 18 June 2020 (EU Regulation 2020/852). In order to determine the (environmentally) sustainable part of our turnover, OpEx and CapEx, we assess whether, in performing our business activities, we contribute and do no harm to the following six environmental objectives:

- climate change mitigation;
- climate change adaptation;
- sustainable use and protection of water and marine resources;
- the transition to a circular economy;
- the prevention and combating of pollution; and
- the protection and recovery of biodiversity and ecosystems.

Where we are now

This year, too, we conclude that Stedin performs economic activities through which it can make a contribution to sustainable development, in particular a contribution to climate change mitigation through the transmission of sustainably generated electricity (activity 4.9 within the EU Taxonomy). We also make a contribution to climate change mitigation by enhancing the sustainability of our mobility (activity 6.5 within the EU Taxonomy) and our buildings (activity 7.7 within the EU Taxonomy). The expansion of Delegated Regulation (EU) 2021/2139 has not led to a different conclusion for Stedin with regard to its taxonomy-eligible activities.

In order to be allowed to report that the abovementioned activities of Stedin are (partly) environmentally sustainable, we have to demonstrate that these activities make a significant contribution to achieving (one of) the previously mentioned environmental objectives, do no significant harm ('DNSH') to the other environmental objectives and that while performing these activities we comply with minimum safeguards, which can be summarised as taking good care of employees (throughout the value chain), preventing corruption, bribery and unfair competition, and complying with tax laws to the letter of the law.

Based on a thorough assessment of the EU Taxonomy, Stedin concludes that by transmitting renewable electricity through its grids and enhancing the sustainability of its mobility and buildings, it is making a significant contribution to climate change mitigation. However, Stedin cannot yet sufficiently demonstrate that it meets the minimum safeguards set. We still need to take further steps in implementing a comprehensive human rights due diligence policy. We therefore report that we cannot yet demonstrate that we actually contribute to enhancing environmental sustainability in performing our activities.

Stedin is already doing a great deal in the area of minimum safeguards for its own employees. For example, we work with confidential counselors and have a whistleblower procedure, a code of conduct and a clear procurement policy. However, our safeguards are not always supported by risk analyses and/or documented policies, and we still have too little insight into compliance with human rights in our value chain (e.g. with respect to agency workers). In addition, Stedin has not yet stipulated in all of its contracts that suppliers should provide particular information enabling Stedin to determine whether the products and services they supply meet the DNSH (Does Not Significantly Harm) criteria and to ascertain what measures suppliers are taking to ensure that they meet the sustainability requirements set. We have been provided with a signed code of conduct by 56% of our suppliers. This percentage needs to improve.

In 2024, we will keep gathering proof that our economic activities (partly) make an actual contribution to environmental sustainability. For 2023, our reporting in line with the EU Taxonomy looks as follows:

Financial year 2023		Year			Substantial contribution criteria						DNSH criteria ('Do No Significant Harm')									
Economic activities (1)	Code (2)	Turnover (3)	Proportion of turnover 2023 (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water (7)	Pollution (8)	Circular economy (9)	Biodiversity (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water (13)	Pollution (14)	Circular economy (15)	Biodiversity (16)	Minimum safeguards (17)	Proportion of Taxonomy-aligned (A.1.) or Taxonomy-eligible (A.2.) turnover 2022 (18)	Enabling activities category (19)	Transitional activities category (20)
Text		*Currency*	%	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	%	*E*	*T*
A. TAXONOMY-ELIGIBLE ACTIVITIES (EL)																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Transmission and distribution of electricity	4.9	0	0%	Y	N	N/EL	N	N	N	*n/a*	*N*	*n/a*	*Y*	*Y*	*N*	*N*	0%	E	
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		0	0%	100%	0%	0%	0%	0%	0%	*n/a*	*N*	*n/a*	*Y*	*Y*	*N*	*N*	0%		
Of which enabling		0	0%	100%	0%	0%	0%	0%	0%	*n/a*	*N*	*n/a*	*Y*	*Y*	*N*	*N*	0%	E	
Of which transitional		0	0%	0%						*n/a*	*N*	*n/a*	*Y*	*Y*	*N*	*N*	0%		*T*
A.2. Taxonomy-eligible but not environmentally sustainable activities																			
				EL; N/EL	*EL; N/EL*	*EL; N/EL*	*EL; N/EL*	*EL; N/EL*	*EL; N/EL*										
Transmission and distribution of electricity	4.9	1296	73%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								68%		
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		1296	73%	73%	0%	0%	0%	0%	0%								68%		
A. Turnover of Taxonomy-eligible activities (A.1 + A.2)		1296	73%	73%	0%	0%	0%	0%	0%								68%		
B. TAXONOMY NON-ELIGIBLE ACTIVITIES (N/EL)																			
Turnover of Taxonomy non-eligible activities		468	27%																
TOTAL		1764	**100%**																

Financial year 2023		Year			Substantial contribution criteria						DNSH criteria ('Do No Significant Harm')									
Economic activities (1)		Code (2)	CapEx (3)	Proportion of CapEx 2023 (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water (7)	Pollution (8)	Circular economy (9)	Biodiversity (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water (13)	Pollution (14)	Circular economy (15)	Biodiversity (16)	Minimum safeguards (17)	Proportion of Taxonomy-aligned (A.1.) or Taxonomy-eligible (A.2.) CapEx 2022 (18)	Enabling activities category (19)	Transitional activities category (20)
Text			*Currency*	%	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	%	*E*	*T*
A.	**TAXONOMY-ELIGIBLE ACTIVITIES (EL)**																			
A.1.	**Environmentally sustainable activities (Taxonomy-aligned)**																			
	Transmission and distribution of electricity	4.9	0	0%	Y	N	N/EL	N	N	N	*n/a*	N	*n/a*	Y	Y	N	N	0%	E	
	Transport by motorbikes, passenger cars and light commercial vehicles	6.5	0	0%	Y	N	N/EL	N	N	N	*n/a*	N	*n/a*	N	N	*n/a*	N	0%	*E*	
	Acquisition and ownership of buildings	7.7	0	0%	Y	N	N/EL	N	N	N	*n/a*	N	*n/a*	*n/a*	*n/a*	*n/a*	N	0%	*E*	
	CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		0	0%	100%	0%	0%	0%	0%	0%	*n/a*	N	*n/a*	Y	Y	N	N	0%		
	Of which enabling		0	0%	100%	0%	0%	0%	0%	0%	*n/a*	N	*n/a*	Y	Y	N	N	0%	*E*	
	Of which transitional		0	0%	0%						*n/a*	N	*n/a*	Y	Y	N	N	0%		*T*
A.2.	**Taxonomy-eligible but not environmentally sustainable activities**																			
					EL; N/EL	*EL; N/EL*	*EL; N/EL*	*EL; N/EL*	*EL; N/EL*	*EL; N/EL*										
	Transmission and distribution of electricity	4.9	607	72%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								64%		
	Transport by motorbikes, passenger cars and light commercial vehicles	6.5	11	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1%		
	Acquisition and ownership of buildings	7.7	0	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)			618	73%	73%	0%	0%	0%	0%	0%								65%		
A.	CapEx of Taxonomy-eligible activities (A.1 + A.2)		618	73%	73%	0%	0%	0%	0%	0%								65%		
B.	**TAXONOMY NON-ELIGIBLE ACTIVITIES (N/EL)**																			
CapEx of Taxonomy non-eligible activities			227	27%																
TOTAL			844	**100%**																

Financial year 2023		Year			Substantial contribution criteria						DNSH criteria ('Do No Significant Harm')									
Economic activities (1)	Code (2)	OpEx (3)	Proportion of OpEx (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water (7)	Pollution (8)	Circular economy (9)	Biodiversity (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water (13)	Pollution (14)	Circular economy (15)	Biodiversity (16)	Minimum safeguards (17)	Proportion of Taxonomy-aligned (A.1.) or Taxonomy-eligible (A.2.) OpEx 2022 (18)	Enabling activities category (19)	Transitional activities category (20)
Text		*Currency*	%	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y; N; N/EL*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	%	*E*	*T*
A. TAXONOMY-ELIGIBLE ACTIVITIES (EL)																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Transmission and distribution of electricity	4.9	0	0%	Y	N	N/EL	N	N	N	*n/a*	*N*	*n/a*	*Y*	*Y*	*N*	*N*	0%	E	
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		0	0%	100%	0%	0%	0%	0%	0%	*n/a*	*N*	*n/a*	*Y*	*Y*	*N*	*N*	0%		
Of which enabling		0	0%	100%	0%	0%	0%	0%	0%	*n/a*	*N*	*n/a*	*Y*	*Y*	*N*	*N*	0%	*E*	
Of which transitional		0	0%	0%						*n/a*	*N*	*n/a*	*Y*	*Y*	*N*	*N*	0%		*T*
A.2. Taxonomy-eligible but not environmentally sustainable activities																			
				EL; N/EL	*EL; N/EL*	*EL; N/EL*	*EL; N/EL*	*EL; N/EL*	*EL; N/EL*										
Transmission and distribution of electricity	4.9	65	64%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								62%		
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		65	64%	64%	0%	0%	0%	0%	0%								62%		
A. OpEx of Taxonomy-eligible activities (A.1 + A.2)		65	64%	64%	0%	0%	0%	0%	0%								62%		
B. TAXONOMY NON-ELIGIBLE ACTIVITIES (N/EL)																			
OpEx of Taxonomy non-eligible activities		37	36%																
TOTAL		102	**100%**																

Explanation of (financial) terms

The terms below were taken from Annex I of the Explanatory Memorandum to Commission Delegated Regulation (EU) 2021/4987, which further explains the content of the KPIs to be reported.

Turnover

Total turnover under the EU Taxonomy is consistent with IFRS reporting standards and hence is equal to the total turnover as presented in the financial statements under note [4] 'Net revenue'.

Capital expenditure (CapEx)

Total capital expenditure under the EU Taxonomy concerns the investments in property, plant and equipment (note [13] in the financial statements), as well as property, plant and equipment obtained through acquisitions (note [13] in the financial statements, if applicable), investments in intangible assets (note [14] in the financial statements) and leases(IFRS 16) (note [15] in the financial statements).

Operating expenditure (OpEx)

Operating expenditure under the EU Taxonomy is defined as direct non-capitalised costs that relate to the maintenance and repair of assets, short-term leases and all other direct expenditure relating to the day-to-day servicing of items of property, plant and equipment by the company or by third parties to whom activities necessary for the continuous and efficient functioning of such assets have been outsourced. Based on this definition, Stedin has only classified expenditure relating to maintenance and failures as operating expenditure under the EU Taxonomy.

'Double counting'

The sustainable activities have no overlap. This means that there is no risk of double counting in determining turnover, CapEx and OpEx.

Preconditions

We ensured that the right preconditions were in place for achieving our plans for 2023. We are a financially healthy organisation. Employees must have a physically and socially safe environment in which to work. And finally, cybersecurity remains a key concern because of ongoing digitalisation.

Financially healthy

The fact that the Dutch State joined Stedin as a shareholder in 2023 has provided a solid foundation for our financial health. In 2023, we achieved a healthy result with a net profit of €170 million (2022: €81 million[1]). In 2023, we saw an increase in our purchase costs in respect of network losses and transmission capacity at Tennet, but at the same time our transmission revenues also increased.

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Financially healthy						
Credit rating	A rating based on the S&P methodology of assessing a company's creditworthiness in the form of a 'mark'		A- Stable Outlook	Retain A- rating	A- Stable Outlook	Retain A- rating
FFO/Net Debt ratio	The extent to which the net debt can be repaid out of the cash flow from operating activities.	%	9.5	≥ 10*	14.0	≥ 10
Solvency	Ratio of equity to total assets	%	39.7	≥ 40	45.4	≥ 35

* The developments around the capital reinforcement by the Dutch State in 2023 led to an adjustment of the FFO/Net Debt target from 12% to 10% during 2023.

1 The comparative figures for 2022 in this subsection have been restated, following a change in accounting policy for the valuation of property, plant and equipment (see 2.2.10 Property, plant and equipment), a reclassification of personnel expenses and capitalised own production, and a reclassification of deferred income in the cash flow statement.

Financial developments

Dutch State has joined as shareholder

In 2023, the Dutch State and the Shareholders' Committee of Stedin Group reached an agreement on the State joining Stedin as a shareholder. With the consent of the States General and Stedin's shareholders, the participation of the Dutch State became a fact on December 8. The Dutch State reinforced Stedin's equity by contributing € 500 million in exchange for an 11.9% equity stake. The € 500 million in additional capital will enable us to keep making the investments needed to reinforce and expand the electricity grid.

Dialogue with (as yet) non-shareholding municipalities and provinces

After a period of exploratory talks, the province of Zeeland intends to take a decision to reinforce Stedin's equity by contributing € 5 million. The province of Utrecht has indicated its intention to pay an equity contribution of € 15 million. If these intentions should be converted into an actual equity contribution, this will broaden our shareholder base from the second quarter of 2024. With the provinces of Zeeland and Utrecht as shareholders, all the regions in our service area will be represented. This will foster the successful cooperation required to achieve the task we are facing in all these regions. Stedin's current shareholders will take a decision on this at the end of March 2024. Several municipalities in the service area have also expressed an interest in becoming shareholders, and discussions with these municipalities are still ongoing.

More financial headroom as a result of CBb ruling

In July 2023, the Trade and Industry Appeals Tribunal (College van Beroep voor het bedrijfsleven, CBb) ruled that the ACM had to adjust the method decisions for electricity and gas for the current regulation period (2022-2026) on a number of points. These method decisions are used for calculating the tariffs we are allowed to charge our customers. As a result of the CBb ruling, future tariffs are expected to increase. These adjustments will create more financial headroom for grid managers. In order to prevent tariff shocks for households and businesses, the ACM decided to spread out this additional income for the regional grid managers over a period of three years. Stedin factored the first advance into its tariffs for 2024, as did the other regional grid managers.

Capital requirement

Because of the capital injection by the State and the potential capital reinforcements by the province of Zeeland, the province of Utrecht and various municipalities, the fact that Stedin obtained the status of a 'Government Related Entity' (see below under 'Credit rating') and the expected additional financial headroom created by the CBb's ruling, a significant part of our capital requirement for the coming years has been met. Any (remaining) capital requirement existing in the future will be determined in any case before the start of the new regulation period in 2027.

Green bonds

Timely and sufficient availability of funding on the most favourable terms continues to be a key precondition for achieving our strategy.

The European capital market offers us the opportunity to raise funding on favourable terms and to attract sustainable investors. This is in line with our aim to finance our operations by issuing green bonds. Until the end of 2023, Stedin issued € 1.5 billion in green bonds. We invest this capital in the management, expansion and reinforcement of the electricity grid in order to facilitate the energy transition.

Financial performance

Credit rating

The long-term objective of Stedin Group is to retain its A- credit rating with a stable outlook, as issued by Standard & Poor's (S&P). In anticipation of a possible capital contribution, an framework agreement was arranged early in 2023 between the Dutch State and the three grid managers Alliander, Enexis and Stedin. After reviewing this framework agreement, S&P awarded all three grid managers the 'Government Related Entity' status. Obtaining the 'Government Related Entity' status made it possible to downwardly adjust our annual FFO/Net Debt target associated with retaining an A- rating to 10% (previously 12%). On 8 February 2024, S&P reaffirmed Stedin's credit rating of A- with a stable outlook.

FFO/Net Debt ratio

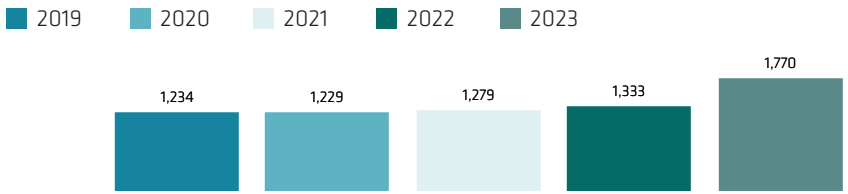
At 14.0 the FFO was significantly higher than in 2022 (2022: 9.5) and higher than our target of 10%. In 2023, this ratio was affected by two major developments in particular. The FFO was higher, driven by an increase in operating revenue which in 2023 included compensation for higher costs of network losses incurred in both 2022 and 2023. In addition, the net debt decreased as a result of the issue of shares worth € 500 million.

Solvency

As at 31 December 2023, our solvency ratio was 45.4% (2022: 39.7%). This development has also led to a change in Stedin Group's financial policy. The long-term aim is to maintain a minimum annual solvency ratio of 35% instead of 40%. The joining of the Dutch State as a shareholder has had a positive impact on our solvency.

Financial results

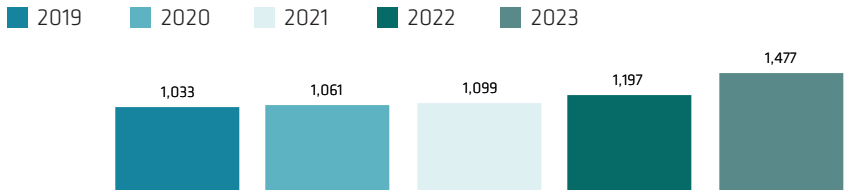
Stedin Group achieved a net profit of € 170 million in 2023 (2022: €81 million). The additional tariff headroom received in 2023 was sufficient to absorb the increase in energy costs and costs charged by TenneT.



Net revenue and other income (x € 1 million)

Net revenue and other income

Net revenue and other income in 2023 was €1,770 million. This was €437 million more than in 2022. The increase was mainly due to higher transmission revenues as a result of an increase in our tariffs. The tariff increase relates primarily to the additional tariff headroom we received in 2023 on account of a rise in energy prices, the knock-on effect of the relatively high inflation rate in 2022 and increased costs of TenneT. These cost increases are passed on to consumers via the grid managers' tariffs. Higher energy prices have a direct impact on the costs of the network losses occurring during the transmission of gas and electricity. To ensure that the higher network losses do not reduce the scope for investments in projects that are important for the energy transition, the Netherlands Authority for Consumers and Markets (ACM) in 2022 decided to allow the regional grid managers to pass on an advance charge in the tariffs for 2023 to cover these losses. Metering revenue fell by €25 million compared with 2022 on account of lower metering tariffs.



Operating expenses (x € 1 million)

Total operating expenses

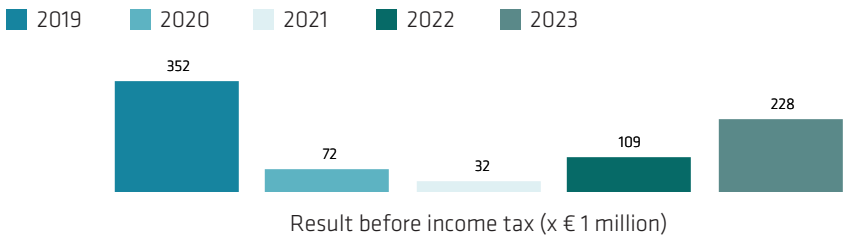
In 2023, total operating expenses increased by €280 million (23%) to €1,477 driven by the increase of €95 million in costs of network losses, the increase of €93million in TenneT's transmission costs, the increase of € 71 million in personnel expenses and the increase of €29 million in other operating expenses. This was partly offset by an increase of the capitalised own production by €33 million. Finally, depreciation charges increased by €11 million compared with 2022.

Due to the soaring energy prices, which had been partly fixed in the previous year, the costs for network losses increased considerably. The grid manager is responsible for the purchasing of energy that is made available on the grid but not registered as sold to customers. This lost energy is known as network loss. The losses have both physical and non-physical causes, such as heating of cables, leakage currents, vacancy and fraud. In its energy purchasing strategy,

Stedin tries to limit the effect of short-term fluctuations in energy prices, which improves the quality of financial forecasts. Unfortunately, we are unable to prevent long-term price increases. Therefore, in addition to its purchasing strategy, Stedin also focuses on other measures to minimise network losses. For example, it is implementing process optimisations with several of its internal departments.

The increased energy prices and high inflation rate also have a knock-on effect on the transmission costs charged by TenneT, the wages and salaries of our own employees and the fees of hired-in workers.

The rise in depreciation charges can be largely attributed to the increase in investments in property, plant and equipment.



Result before income tax (x € 1 million)

Income tax

The profit before income tax for 2023 amounted to €228 million (2022: € 109 million). The tax expense increased by €30 million in 2023 to €58 million, partly due to the higher profit before income tax. In 2023, the effective tax rate, expressed as a percentage of profit from continuing operations before income tax, was 25.6% (2022: 25.5%). Deferred tax assets and liabilities were measured as at 31 December 2023 on the basis of the current tax rate of 25.8%.

Cash flows / financing

This year, the increased investments led to a negative cash flow after operating and investing activities of € 262 million (2022: € 297 million negative). In 2023, the negative cash flow was financed through an issue of shares worth € 500 million to the Dutch State. As a result, the total cash flow from financing activities increased to €397 million (2022: €217 million). The total cash flows for the year resulted in €188 million in cash and cash equivalents as at year-end (2022: €53 million).

Our employees

Further acceleration starts with our colleagues: from those who have been with us for years to those we welcomed this year. In 2023, we again made great efforts to attract sufficient new staff. Stedin has over 5,800 employees.

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Good employment practices						
Employees						
Total workforce (FTE)	Total number of employees (internal and external) at Stedin Group in FTE as at year-end	number	4,992	5,406	5,520	6,238
Participation Act employees	Percentage of Stedin Group employees, expressed as % of FTE (based on 25.5 hours), from the job arrangements target group as defined under the Participation Act	number	n/a	2.20	1.88	t.b.d.
Employee satisfaction						
Employee net promotor score	Percentage of employees who would (highly) recommend Stedin Group as an employer to acquaintances.	number	n/a	20.3	23.0	20.3
MMO: Cultural value 'Forward'	Composite score of all the questions of the Employee Motivation Survey (MMO) at Stedin Group on the cultural value 'Forward' (scale 0 - 10).	number	n/a	7.5	7.3	7.5

Stedin aims to be an attractive employer that treats its employees with due care, stimulates their development and offers everyone equal opportunities. Important aspects are: availability of enough technical and other staff, capacity for change, training and developing employees and a vital, inclusive organisation. The large labour market shortages are causing high staff turnover and pose a major challenge to the realisation of the energy transition.

Stedin's strategy involves the cultural values 'Inspired', 'Committed' and 'Forward'. The Employee Motivation Survey (MMO), which measures aspects such as the culture value 'Forward', provides Stedin with an opportunity to measure its employees' motivation to contribute to Stedin's goals, and to take action in accordance with the outcome. The next subsections describe the actions that were taken and the results of these actions.

Sufficient skilled staff

The energy transition is moving faster than expected, causing an explosion in construction projects we are tasked with. This requires considerably more staff. We therefore increased our recruitment capacity and focused on areas such as targeted campus recruitment and partnerships with institutions of preparatory and senior secondary vocational education (VMBO and MBO). Our training capacity has doubled: we set up appropriate training pathways for lateral entrants and welcomed a larger number of students in the apprenticeship programme (BBL). In 2023, we trained over 60 lateral entrants and increased the BBL intake from 35 to 45 new entrants. In total, we conferred 140 MBO diplomas. In our operations we also worked on implementing 'smarter working', by making processes efficient to make is possible to do more work with our current workforce.

Our Strategic Personnel Plan shows that without taking the above measures, we would be around 600 fitters short by 2027. We estimate that if even with these measures being implemented, we will then still face a shortage of around 60 fitters. We therefore need to take additional measures to reduce the shortage to 0.

Through internal advancement, we offer employees the opportunity to keep developing – something that is highly appreciated – with internal advancement being a key tool in staff retention. Of the 1,355 vacancies filled in total, 34% were filled by internal employees. Internal advancement within Stedin is therefore successful. In some teams, one in every five colleagues is new. It places demands on teams to welcome the new colleagues and get them up to speed. We are therefore looking at ways to make internal advancement more effective. This intake and internal advancement requires additional training capacity. We considered this aspect as well.

Training, learning and development

Lifelong learning and development are a top priority at Stedin. We offer employees a range of learning activities and learning aids to give them the best possible support in their personal development. We do this with our own training programmes, our learning management system and our cooperation with a training intermediary. We are also working towards a single location for all learning and development activities, both technical and non-technical. The in-house training school has always provided all technical training programmes within Stedin. From 2024, we will be extending the curriculum to include all learning activities, i.e. both technical and non-technical.

In-house training school

Our in-house training school plays a crucial role in ensuring we have the right people in the right place. Many of them have been able to acquire a stable position in society in recent years thanks to the in-house training school. Our school provides a steady intake of new employees and enables other colleagues to advance their careers. For our new intake, we invest specifically in various groups, such as MBO students (apprenticeship (BBL) courses) and young people (vocational training (BOL) courses), but also in people with limited access to the labour market, workers under the Participation Act and recent immigrants. In 2023, we specifically focused on training lateral entrants. More than 60 lateral entrants embarked on appropriate training at Stedin in 2023.

In 2023, 1,194 students followed technical training programmes leading to BEI and VIAG certification at the in-house training school. As these certificates have to be renewed every three years , this is an increase of 19% compared with 2020.

In 2023, 140 students were awarded MBO diplomas (2022: 170). This decrease compared with 2022 is because no classes were started in the school year 2020-2021 due to the coronavirus pandemic, which means that there was no outflow of students in 2023. Student intake went up in 2023, because of 45 BBL students who started in September and around 60 lateral entrants.

In 2023, we spent € 12.1 million on Technology & Safety training programmes (2022: € 8.9 million).

Locations

We offer training at four different locations: Rotterdam, Utrecht, Alblasserdam and Goes. This ensures that all colleagues can take courses or training in their local regions. In 2023, the Rotterdam location of the in-house training school moved into temporary accommodation. This marked the start of the construction of the new in-house training school building on Keileweg (see box).

New building for in-house training school

Stedin needs many professionally competent employees to fulfil its social task. In order to keep doing so successfully, we need increasingly more training capacity. The preparations for a new building are therefore in full swing. Early in December, the design of our new building was approved by the municipal Building Aesthetics Committee. The application for a permit under the Environment and Planning Act was subsequently submitted at the end of December. Once this permit has been obtained, the construction of a new building for the in-house training school will start in September 2024. The opening of this building is scheduled for the summer of 2025.

New training programme

In order to maximise training capacity, we developed a new 'Senior high-voltage fitter' MBO programme in 2023. This programme will start in September 2024.

Attractiveness of technical professions

The in-house training school entered into new cooperation agreements to encourage students to take up technical professions in 2023. In Rotterdam and in Utrecht, Stedin has partnered with various schools affiliated with the Strong Technical Education (STO) programme, with a focus on offering work placements, professional training for teachers and introductory days. During a Girls Day, 50 girls visited the in-house training school for an introduction to technical jobs. Stedin will participate as a stakeholder in the LLO-Katalysator ('lifelong learning catalyst') scheme, in which we will focus on engineer training programmes in cooperation with Utrecht University, HU University of Applied Sciences Utrecht and MBO Midden Nederland.

At national level, Stedin is working on innovations in education with TenneT, Alliander and Enexis, among others, via the Training and Education (O&O) fund. In 2023, we explored opportunities for skills-focused training. This nationwide partnership marked the first steps towards harmonised terminology and organisational design options for the education sector.

Successful fast-track programme

In providing targeted and efficient training to new and current employees, determining the right programme length and content is often a challenge. We therefore started with modular training in 2023 for people entering from other professions. We also developed a fast track for the 'Low-voltage grid professional' (VP-LS) programme. This enables a participant to complete the course in one year instead of the original two years.

Leadership

Stedin is facing an unprecedented challenge. The energy transition has gained tremendous momentum. Change, uncertainty and speed will be constant factors in the coming years. Our leaders play a crucial role here, as they steer this acceleration based on individual and collective leadership. We therefore carefully considered what these challenges require from our leadership and identified the following three main themes for the coming years: Story, Ownership and Result-Oriented Cooperation. These themes are the common thread in all the (customised) leadership programmes we developed last year:

1. Strategic Coalition (Board of Management, including managers with ultimate responsibility and directors reporting to the Board)
2. Other managers, heads and team leaders
3. Functional managers

For all groups, the respective programme was launched in December 2023. The first subject-matter modules will start early in 2024.

In addition, we continue to pay a lot of attention to our existing programmes:

- Starting managers: a ten-month programme for this 'new-to-role' target group starts twice a year.
- 'Makers of the future': this is a two-year programme for starting employees, usually recent graduates, who are being trained for permanent positions in the organisation. These makers of the future will be our future leaders (either formally or informally).

An employer for everyone

We consider it important that our all our employees feel welcome and are treated equally, regardless of personal characteristics such as age, sex, religious beliefs, sexual orientation, social background, family status, level of education or disability. Stedin does not tolerate discrimination. To this end, Stedin enforces its code of conduct, which lays down the standards and values that we have agreed with one another.

Diversity

We want to be a diverse company because we believe in equal opportunities. In addition, we need every talented person for the energy transition. The essence of our diversity and inclusion policy is to encourage greater diversity within an inclusive culture. Our aim is for our workforce to be as diverse as the world in which we live. We still have a way to go to achieve this. That is why we have set ourselves the following diversity targets for 2030:

Male/female ratio

Stedin must comply with the Hiring Quota Act (Wet ingroeiquotum), also known as the Women's Quota. This Act requires large companies to appropriate and ambitious targets for the male/female ratio in the Supervisory Board, Board of Management and second-tier management. We were largely compliant with these requirements in 2023. It is only with regard to the Board of Management that we currently do meet the 'at least one-third are women' target. We also strive to achieve a 50-50 ratio in management positions and we are actively looking for female talent.

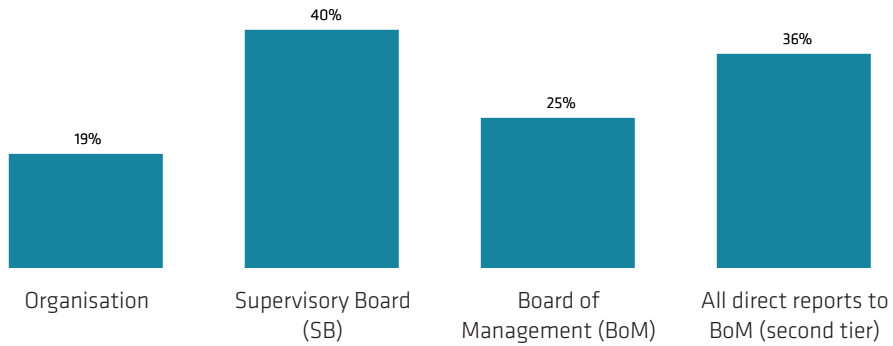
19% of our workforce (organisation) are women. This is because of the technical nature of our work. We are actively seeking to attract more women to technology and engineering, and to technical training programmes in particular. Specifically, we are looking for women who want to work as fitters. We directed our recruitment campaign at this target group in 2023, which resulted in a higher intake of women in both the lateral entry programme and the regular apprenticeship (BBL) programme.

Topic	Target for 2030	Status in 2023
Male/female ratio	Ratio of men to women in operational departments: 80% - 20%	88% - 12%
	Ratio of men to women in other departments: 50% - 50%	69% - 31%
	Ratio of men to women in management positions: 50% - 50%	72% - 28%
	No unjustifiable differences in pay between men and women	Adjusted gender pay gap of 0%
Age	The relative proportions of the age groups should correspond to that of the Dutch working population.	Under-representation of young people under the age of 25 years and over-representation of people aged 55 years or over.
Working capacity	Achieving the job arrangements target under the Participation Act (currently 2.76% in 2023), with each business unit contributing proportionally to achieving this target.	1.88% realised
Cultural diversity	29% of employees have a migration background.	28%
	Proportionate representation of this 29% in all job categories at Stedin.	Under-representation in senior professionals / tactical and strategic managers.
	Proportionate representation of this 29% in management positions	Management positions: 13%

By the end of 2023, the percentage of women was 33% for strategic managers, 23% for tactical managers and senior professionals and 18% for other positions. Overall, the percentage of women increased to 12% in operational departments and 31% in non-operational departments.

Stedin has to submit these and other figures in the diversity portal of the Social and Economic Council (SER). By making the reported data transparent, the SER provides insight into the current state of diversity among Dutch business executives and progress being made in this respect.

Percentage of women in 2023



Gender pay gap

Looking at the total workforce, women at Stedin on average earn 4.3% more than men. This is because women are more frequently represented in more senior positions. If we adjust for job level, service years and age, men and women earn the same on average. This means that Stedin has no gender pay gap and is thus doing well in comparison with the Dutch benchmark, as the adjusted gender pay gap in the Netherlands is 3% in the government sector and 6% in the business sector.

Age structure

In 2023, 27% of our workforce consisted of young people and younger adults under the age of 35, an increase of 8.2% compared with 2022. We encourage the influx of people from this group by offering an apprenticeship programme, a programme for 16-year-olds at our in-house training school and work placement posts, as well as through campus recruitment (sixth class of 'makers of the future'). Work placements also provide an opportunity to foster the influx of young people, for instance when they join Stedin in an entry-level position after graduation.

Since 2022, we are inviting colleagues to continue working beyond their retirement age. 150 employees are over 65. Of these, 13 have reached the state pension age. Experienced employees are highly prized, because they can pass on their knowledge to the younger generation. Due to retirements, we are seeing that our older employees being replaced by young people, particularly in technical positions, even though these are positions that require experience. Employees who are prepared to defer their retirement to help those younger fitters learn the job are very important to us.

Opportunities for people with limited access to the labour market

We consider it important to assist people who need a helping hand with finding and holding on to work. At year-end 2023, Stedin had 93 employees in Participation Act jobs. This number is lower than our target. Finding suitable work and suitable candidates for such jobs takes more time than for regular vacancies. In addition, this group takes longer to train and requires a great deal of extra guidance. Furthermore, turnover was high among this target group, with 36 employees leaving Stedin. This meant that on balance we achieved less growth than desired. We are trying to improve this through measures such as a training programme for managers and colleagues.

Participation Act jobs at Stedin	2019	2020	2021	2022	2023
Target	141	153	162	171	198.4
Actual	43	67	94	115	135.1

Cultural diversity

In 2022, we conducted a cultural diversity survey at Stedin, based on the cultural diversity barometer of Statistics Netherlands. We received the results of this survey in 2023. These shows that although cultural diversity is high at Stedin overall (28%, against a target of 29%), this is not reflected in all job categories: the higher the salary scale, the less diversity. The same goes for employees in management positions: only 13% have a migration background, against a target of 29%.

In order to offer everyone equal opportunities, we aim for an objective recruitment and selection process that is not influenced by unconscious bias. Both our recruiters and our hiring managers follow the 'Unbiased Selection' training of the Netherlands Institute for Human Rights. Up to and including 2023, 98 colleagues followed this programme. A group of colleagues will take part in this programme in 2024 as well.

Inclusion and social safety

Inclusion and social safety are important preconditions for a reliable and safe performance of work in a working environment that is pleasant for all colleagues. Because Stedin attaches great value to social safety, we included additional questions on this in the 2023 employee motivation survey. This resulted in a score of 7.9 on this theme, with the theme of inclusion scoring 8.2. We have set ourselves a number of targets for inclusion and social safety (see table on the right of this page).

To increase social safety and reduce undesirable behaviour, we launched the #Moettochkunnen ('no big deal') intervention in 2023, which encourages teams to discuss what behaviour is acceptable and what is not. We address social safety during the onboarding of new employees, and we have developed a workshop on unconscious bias and microaggression. In 2023, we organised a diversity week that involved around 16 workshops, lectures and training events on inclusive working and unconscious bias.

Topic	Targets for 2030	Status in 2023
Cultural diversity	• No difference in experienced social safety at Stedin between employees with or without a migration background	Significant difference in experienced social safety
LGBTIQ+	• Non-heterosexual employees experience no difference in social safety at Stedin compared with heterosexual employees.	Significant difference in experienced social safety
Experienced inclusion	• A score of 8.8 in the employee motivation survey on the theme of inclusion	8.2
Undesirable behaviour	• The percentage of employees *occasionally* experiencing undesirable behaviour by colleagues or managers is at most 2%.	4.7%
	• The percentage of employees *regularly* experiencing undesirable behaviour by colleagues or managers is 0%.	0.6%
	• 90% of undesirable behaviour is reported.	43%
	• Employees feel that they are treated with respect after reporting undesirable behaviour.	6.4%

Networks within Stedin

Our internal networks contribute to an inclusive working culture. At Stedin, we have the following internal networks: F-EMPOWER (women's network), Jong Stedin (young professionals' network), Stedin Pride (LGBTIQ+ network) and Net Anders (neurodiversity network). The fifth network for cultural diversity is currently being established.

Stedin as an attractive employer

Stedin helps its employees remain fit and employable, both for their current duties and for future work.

Vibrant organisation

The 'My Energy' programme, which was launched for managers in November 2022, was extended to all employees in 2023. The programme offered inspiration from colleagues, employee schemes and a wide range of vitality solutions, all clearly presented in the 'My Energy' magazine.

The year was divided into trimesters, with the first trimester focusing on our colleagues' mental health. A pilot was rolled out to provide psychological support within 48 hours, and webinars were organised for both employees and managers.

In the second trimester, the emphasis was on vitality and health. All colleagues were given the opportunity to take part in 'My Energy' checks. More than 50% of employees took up the offer. The check gave them insight into their own vitality through questionnaires and physical examinations. During advisory meetings, colleagues were told about Stedin's range of vitality services. We will process the results of the 'My Energy' checks early in 2024.

The autumn was all about professional competence and flexibility. A development roadmap had been prepared, showing all the development opportunities offered by Stedin. Stedin-wide meetings were set to end slightly earlier, so as to allow for short breaks.

We are proud that Stedin has been voted this year's frontrunner as 'Most vibrant engineering company' (Vitaalste vakbedrijf) by the employers' association WENB.

Employee motivation

We conduct a survey of employee motivation once a year. With regard to the KPI for the cultural value 'Forward', this survey contained questions on the following five topics: 1) clarity about team goals, 2) clarity about expected results, 3) manager discusses performance, 4) we finish what we start, 5) manager sets a good example. The survey is actively followed up by managers, who discuss the insights obtained with their teams. The results are also followed up at Stedin-wide level. For example, the results provided the basis for the new roadmap, which sets out a clear career path for fitters. In addition, all employees were invited to the 'State of Stedin', a semi-annual online meeting in which the Board of Management updates employees on Stedin's current situation. In 2023, 74% of employees took part in the survey (2022: 74%).

The employee motivation survey measures employee satisfaction using the employee Net Promotor Score (eNPS). This score reflects the extent to which our employees would recommend Stedin as an employer to others. This is generally regarded as an important measure of employee satisfaction. The eNPS is measured on a scale of -100 to 100. The eNPS score for Stedin was 20.3 in 2021, 21.1 in 2022 and 23 in 2023. The eNPS benchmark for other Dutch organisations is 11. The intake and internal advancement of employees will significantly change our workforce in the years ahead. This may have an impact on our employment practices and on the motivation of our employees. We therefore aim to maintain our favourable eNPS score in any case at 20.3 in the coming years.

Sickness absence

The average sickness absence rate was 5.7% in 2023. This is lower than at comparable companies in the Industry and Energy sector. A falling trend is observable that is in line with the benchmark in the Netherlands. The in-depth (sickness absence) analysis of mid-2022 led to a new sickness absence approach in 2023. Among other things, the analysis revealed that managers need more support in reducing and preventing sickness absence. Based on the analysis, we introduced the role of absenteeism coach and explored a number of interventions that will be rolled out in 2024. These include consultations between the absenteeism coach, HR and the manager on employability in cases of sickness absence. These consultations also provide scope for absenteeism prevention. A sickness absence 'guide' has been implemented, based on which targeted solutions can be selected and deployed. In addition, data analyses help us obtain better qualitative insights and solutions. In this context, we are shifting the focus of our approach to 'prevention is better than cure'.

Sickness absence	2019	2020	2021	2022	2023
Average sickness absence in the Industry and Energy sector	5.0%	5.5%	5.5%	6.1%	5.7%
Sickness absence % within Stedin Group	4.8%	4.2%	4.3%	5.8%	5.4%
Reporting frequency	1.1	0.9	0.8	1.0	1.1

Work-life balance

The results of the employee motivation survey show that Stedin employees are very satisfied with the flexibility in their working hours. Under the Flexible Working Act (Wet flexibel werken), employees can increase or reduce their contractual working hours, and make changes to their working times and place of work. Employees working the on-call and emergency repairs shifts can choose between a weekly schedule or a weekend/daily schedule. This choice provides them with more work-life balance opportunities. We also offer employees a range of leave options. Stedin employees can take leave to provide care or to deal with special personal situations on the basis of various arrangements laid down by law, in the Collective Labour Agreement or in company schemes.

Financial support

Due to the rising inflation, our financial support focused more on preventive financial care in 2023. Our preventive offering includes helping people to understand their current financial situation, budget coaching, consultations with the staff welfare officer and an advance of up to one month's gross salary. We also offer preventive counselling to employees who may have money worries. For instance, our new standard procedure s to inform employees applying for an advance about support options.

Commitment to providing work-to-work guidance

We consider it important that our organisation and employees are prepared for the future, thereby ensuring employment. This is why we are taking steps to develop competences that will be needed in the future. If our focus on training and internal advancement does not produce the required results, we deploy the Sectoral Social Plan (SSP) for grid operators to provide the best possible support to colleagues facing social consequences such as loss of work. A new SSP took effect in 2023. The new plan offers employees a 'Budget for the Future' and more individual options to shape their future. By providing additional budget, we encourage employees to make choices that enable them to actively improve their prospects on the labour market. The additional budget is also made available if employees choose to retire early.

There were no restructurings at Stedin Group in 2023 which resulted in employees being made redundant.

Collective Labour Agreement for Grid Operators

When the Collective Labour Agreement (CLA) for Grid Operators effective from 1 January 2023 was negotiated in 2022, the costs of living had already risen sharply. At the time, it was not foreseen that these costs would subsequently soar to even greater heights, putting even more pressure on employees' purchasing power. Consultations between the parties to the CLA in the second quarter of 2023 on compensation for the loss of purchasing power were unsuccessful. Thereupon, Stedin Group's Board of Management decided to take the initiative to grant all employees a structural pay rise of € 175 gross per month. The Stedin company collective labour agreement was amended in the interim for this purpose. The aim of the salary increase by a nominal amount was to provide additional support in particular to lower-paid employees, who had been the hardest hit by the price rises.

After the summer, the parties to the CLA started negotiations on the new CLA effective from 1 January 2024. The pay agreement to be negotiated was the main topic of discussion, with special attention (again) being paid to lower incomes. Under the new CLA. a collective pay rise of least € 275 gross per month will be granted, on the top of the collective pay rise of 7% effective from 1 January 2024. Combined with the 3% rise effective from 1 January 2025, this minimum increase will bring the total pay rise to approximately 12% for middle-income employees and to more than 15% for the lowest incomes. Other themes on which arrangements were made include long-term employability, sustainability enhancement & greening and diversity & inclusion.

Types of contracts	2023
Percentage of employees fully covered by the CLA	95
Percentage of employees not covered by the CLA	5

The terms of employment of employees not covered by the CLA are based only to a small extent on the CLA for Grid Operators, and are in line with the Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act (Wet Normering Topinkomens, WNT). Temporary agency workers receive the same remuneration as staff employed by Stedin.

Remuneration

Stedin bases the remuneration for positions on a salary table with a minimum and maximum salary for each salary scale. This table is part of the Stedin company collective labour agreement. The salary paid to each employee is at least equal to the minimum salary and at most equal to the maximum salary in the scale. The salaries of employees in the lowest salary scale are at least equal to the statutory minimum wage. Stedin conducts regular salary benchmarks. These show that our remuneration is in line with the market.

We take care of our people

In the event of long-term illness or occupational disability, based on the CLA for Grid Operators or Dutch law, employees are for a period of up to two years paid 70% to 100% of the salary they earned before they became incapacitated for work. Employees can opt to take part in a group insurance policy against the loss of income they would incur after two years of work incapacity (long-term illness or occupational disability). Stedin will pay a part of the insurance premium. The insurance provides a supplement to the statutory work incapacity benefit. If the work incapacity is the result of a workplace accident, Stedin supplements the statutory work incapacity benefit on the basis of the CLA.

Employees who become unemployed when their employment with Stedin is terminated are eligible for an supplementary unemployment benefit. Under the CLA, Stedin pays out a supplementary unemployment benefit that extends the period for which benefits are provided beyond the current statutory period to the statutory period that applied 31 December 2015. If the unemployment is the result of a restructuring, the statutory amount of the unemployment benefit is topped up to 80% or 90% of their last earned salary. The Sectoral Social Plan for grid operators aims to prevent unemployment due to reorganisation as much as possible.

All Stedin employees are obliged to take part in the ABP pension scheme. Stedin pays 70% of the pension contribution.

In the event of pregnancy, employees can make use of the statutory right to pregnancy and maternity leave. They will receive their full salary during the leave period. The same applies to pension accrual and accrual of leave entitlements. Every Stedin employee can make use of the statutory rights to family-related leave.

Freedom of association

Stedin actively supports the right of employees to freedom of association. Our CLA stipulates that employees who are members of a union can use their Personal Budget to obtain tax relief on their union dues. Stedin has an elected Works Council. Every employee with a permanent contract may stand for election.

Works Council

In accordance with the Works Councils Act (Wet op de ondernemingsraden, WOR), Stedin Group has a Works Council. Consultation between the executive committee of the Works Council and the CEO of Stedin Group takes place on a fortnightly basis. Consultation with all the members of the Works Council takes place roughly six times a year. The Works Council, the Board of Management and the Supervisory Board additionally conduct tripartite consultations, and the chair of the Works Council takes part in the Strategic Coalition. As the Works Council comprises several different committees, it is well informed of the issues and developments in the organisation. Co-creation is promoted as far as possible, resulting in the Works Council's involvement in various programmes and initiatives from an early stage. Below is an interview with the chair of the Works Council, Adri de Bruijne.

‘Diversity and inclusion deserve attention’

For Adri de Bruijne, 2023 was his first full year as chair of the Works Council. A year that was mostly about challenging themes such as long-term financing and diversity.

‘With twenty members, we are a Works Council that contributes ideas, takes a constructively critical approach, and is committed to achieving results, both for the employees and in terms of the continuity of the company,’ Adri begins. ‘We usually manage to get involved and engage with the Board of Management and the Supervisory Board at a very early stage. Such as in relation to long-term financing.’ In Adri’s view, this was the predominant theme in 2023. ‘It did cause concern at times. At one point, I asked CEO Koen Bogers: what if the coalition government collapses? That was at the end of 2022. In February, we made framework arrangements with other grid managers. And then the government fell during the summer, fortunately with no consequences where financing was concerned. The participation agreement was also submitted to the Works Council for its opinion. Yes, there was a lot of consultation with the Works Council about the financing,’ says the Works Council chair.

With due care for Zeeland

‘DNWG also needed our attention in 2023,’ Adri continues. In operational terms, DNWG is not only responsible for gas and electricity but also for water, which is not the case in the rest of the Stedin area. ‘Because the water component does not fit in with Stedin’s strategy, it was decided to gradually dispose of this component,’ he explains. ‘To ensure this is done with due care, I stay in close contact with DNWG director Andries Schouten and attend his monthly kick-off.’

Attention for diversity

Last year, the Works Council also redetermined its three priorities. Two of these have their origin in Stedin’s diversity policy. Thus, the Works Council found that ‘diversity and inclusion’ had become too much of a catch-all term, and this theme has been renamed 'Stedin for everyone'. In addition, Stedin’s Works Council now talks of ‘professional competence’ rather than ‘craftsmanship’. Several times a year, the Works Council, Supervisory Board and Board of Management discuss issues from different perspectives during the tripartite consultations. The Works Council raised the topic of ‘Stedin for everyone’ in this context too, because ‘diversity and inclusion deserve our attention,’ says the Works Council chair.

Fitters’ Roadmap

‘An example of a specific achievement of the Works Council last year is the implementation of the Fitters’ Roadmap,’ Adri adds. Fitters in different value chains sometimes experience major differences in duties and job satisfaction. ‘This roadmap is meant to create greater uniformity and ensure that each value chain provides the same opportunities for development and job satisfaction.’

Commitment

Looking back, Adri is proud to see how the Works Council grew even more in the past year and was given room to develop further, partly because of the good position it has within Stedin. Perhaps this is why Adri is still so committed after almost a decade: ‘I have always thought that if I sign up for something, I need to be able to make a real contribution. That is how I felt back then and how I still feel now.’

CASE STUDY

Stedin for everyone

010 Inclusive Award

The growth in the number of Participation Act jobs at Stedin is due primarily to our training programme for assistant fitters for young people from the job arrangements target group as defined under the Participation Act. In March 2023, we won the 010 Inclusive Award for this training programme.

This award is presented annually by Diversity at Work (an initiative of the Social and Economic Council (SER)) for innovative actions that lead to greater diversity and inclusion in the workplace. The judges were in particular impressed by our success in also attracting women to this programme.

Safety & Cybersecurity

No matter how much we endeavour to accelerate further, this should never come at the expense of our employees' safety. Working on the energy infrastructure involves risks, which is why safety is and always will be a priority, and we invest in safety measures, knowledge, professionalism and a proactive safety culture, also with regard to digital security. In this way, we guarantee the safety of our customers, employees, contractors and hired-in workers, and ensure a reliable and safe energy supply for our customers.

KPIs	Note	Unit	Result for 2022	Target for 2023	Result for 2023	Target for 2024
Safety						
LTIR	Lost Time Injury Rate: Number of fatal workplace accidents + accidents leading to lost-time injuries per 1,000,000 hours worked over the past 12 months.	ratio	0.52	≤ 1.90	0.24	≤ 1.50
RIF	Recordable Incident Frequency: Number of fatal workplace accidents and accidents leading to lost-time injuries, requiring substitute work or requiring medical treatment per 200,000 hours worked.	ratio	0.91	≤ 0.90	0.57	≤ 0.90

Workplace accidents

We place great importance on a safe and healthy working environment to minimise risks and prevent workplace accidents. We define workplace or occupational accidents as fatal accidents and those leading to lost-time injuries, requiring substitute work or requiring medical treatment. Our ambition is obviously to have 0 workplace accidents, but unfortunately accidents can never be completely avoided. In 2023, we achieved our target of remaining below 35 accidents. We eventually recorded 24 accidents.

In February 2022, there was a major gas accident in Zoetermeer, in which several employees were seriously injured. The investigations carried out by the Dutch Labour Inspectorate, the State Supervision of Mines (SodM) and Stedin led to a number of measures to which we gave follow-up in 2023, partly in cooperation with the sector.

What did we learn from the gas accident in Zoetermeer?

On 20 January 2023, the SodM published its conclusions of its investigation into the serious gas accident in February 2022. The SodM concluded that the direct cause of the incident could be traced back to the manner in which the work was being carried out. The proper procedures and safety rules were not followed during both preparation and execution. This conclusion has left a deep impression on us. Our customers, environment and colleagues should have the confidence that we work competently, carefully and safely.

Although our employees have extensive training, follow additional courses and receive guidance, and regular tests are carried out, things still went wrong in this case. We take this very seriously and have drawn lessons from these conclusions to prevent similar incidents in the future. We immediately acted on the points for improvement and recommendations listed in the report, among other things by including the incident and its cause as an example in our training programme. We are in close contact with the SodM about our progress in addressing the points for improvement. We completed most of the actions on these points in 2023.

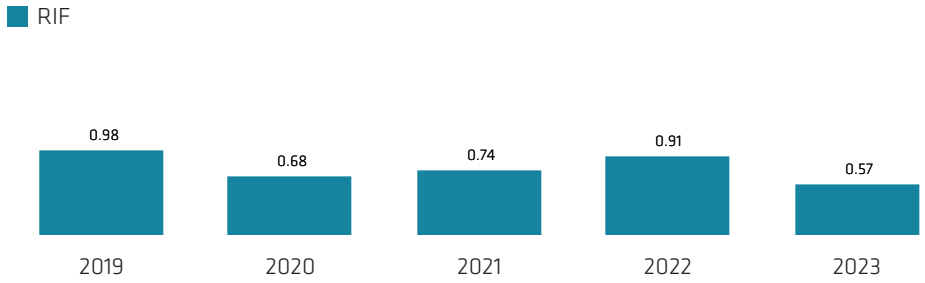
The SodM also indicated that our recording system for operating assets, which among other things includes all our pipelines and cables, required improvement so as to be up to date and complete. The SodM found that the procedures followed by Stedin were inadequate to ensure that changes were implemented correctly, completely and in good time. Stedin was already in the process of improving these procedures, and stepped up this process with greater focus after the SodM report. Additional reports were introduced that provide insight into the progress on this point, which means that progress is structurally monitored.

Safety performance

We monitor our safety performance on the basis of the RIF and LTIR ratios:

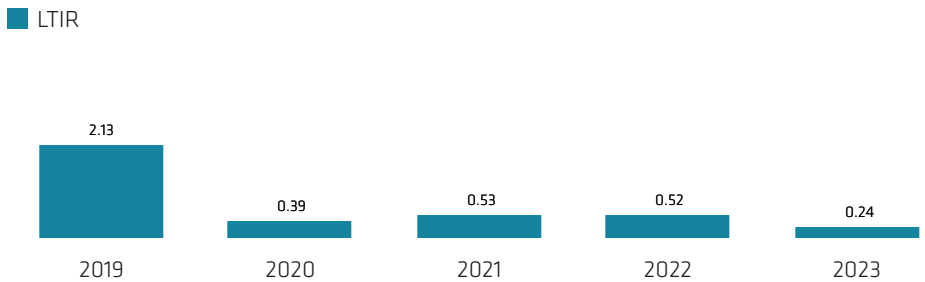
RIF

The recorded RIF was 0.57, while the target was a maximum of 0.90.



LTIR

The recorded LTIR was 0.24, while the target was a maximum of 1.90.



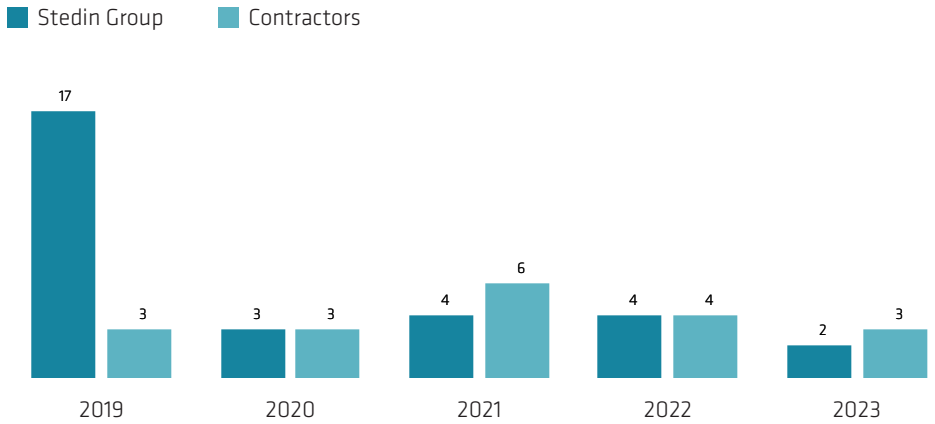
Cause of accidents

A substantial number of workplace accidents turn out to be directly related to work, such as contact with electrical voltage or cuts and burns. Most accidents are attributable to knocks, falls and stumbling. The number of accidents due to participation in traffic has substantially decreased in recent years as a result of training.

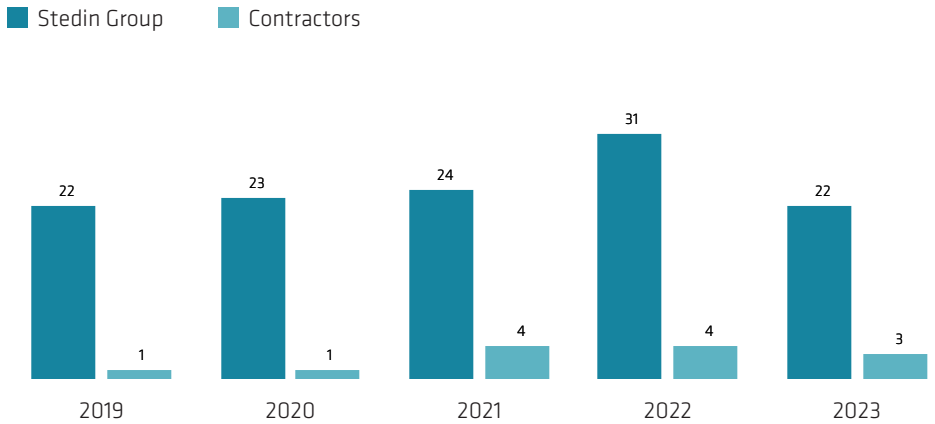
Cause of LTIR	2019	2020	2021	2022	2023
At work	0.75	0.13	0.27	0.39	0.12
Falling, stumbling, slipping	0.50	0.26	0.13	0.13	0.00
Participation in traffic	0.88	0.00	0.13	0.00	0.12
Total LTIR	**2.13**	**0.39**	**0.53**	**0.52**	**0.24**

Number of lost-time workplace accidents (including contractors)

The past five years have shown a downward trend in the number of lost-time workplace accidents. We believe that this trend can be attributed in part to our efforts of raising safety awareness, both in our organisation and among our supply chain partners. We also took steps to provide temporary alternative work wherever possible as a means of keeping employees involved in work and reducing absenteeism as a result of accidents.

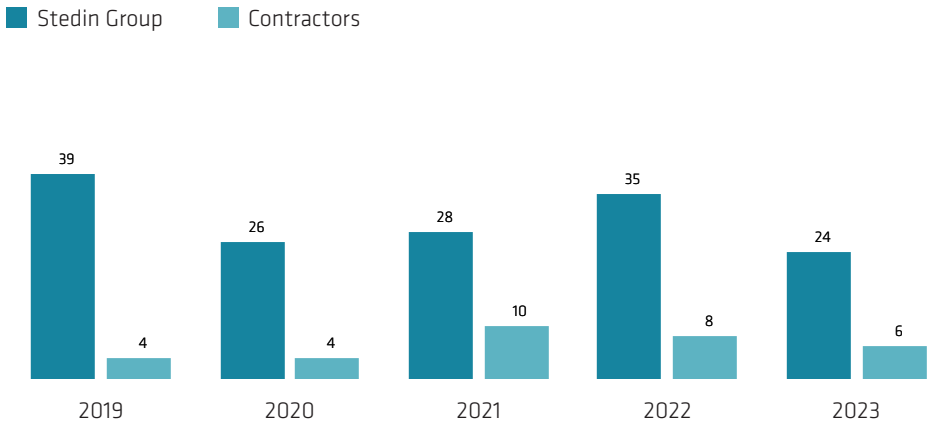


Number of workplace incidents without lost time (including contractors)



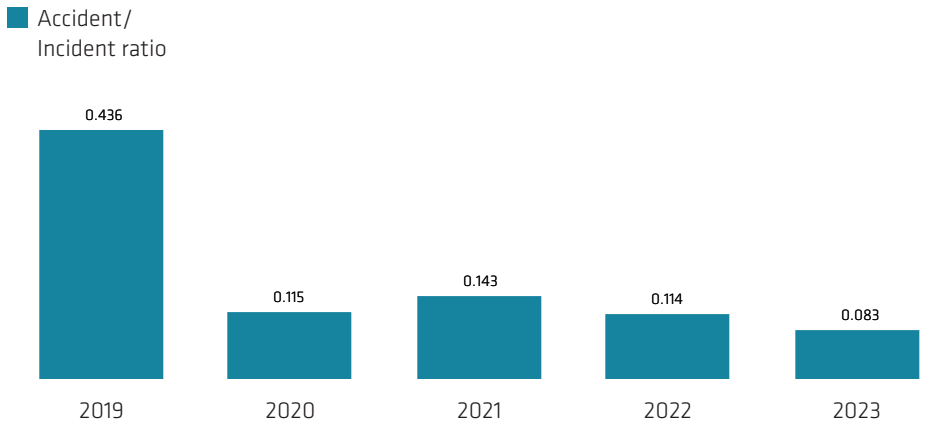
Total number of workplace incidents (including contractors)

This is the total number of workplace incidents with and without lost time for Stedin Group and its contractors.



Accident/incident ratio

This is the ratio between the number of accidents leading to lost-time injuries and the total number of workplace incidents.



Safety awareness

Within Stedin Group, Stedin Holding N.V. and DNWG Infra both obtained certification for level 4 of the Safety Culture Ladder in 2023. Stedin Holding N.V. had already been certified for level 4 last year and therefore obtained certification again in 2023. DNWG Infra advanced from level 3 to level 4 in 2023. We are immensely proud of this achievement. The Safety Culture Ladder is a standard that aims to improve safety awareness (attitude, behaviour and culture) and to make it a constant focus of attention.

High Reliability Organisation (HRO)

Six years ago, in order to raise safety awareness on a lasting basis, we began employing an High Reliability Organisation (HRO) programme. HRO forms the basis for a sustainable safety culture in the short and long term. The programme also contributes to reliability and predictability in the chain processes ('first time right'). The five behavioural principles of HRO are: I think ahead - I am not afraid to ask questions and follow-up questions - I am prepared for the unexpected - I focus on solutions - I am open to the expertise of colleagues. We worked on embedding these features further in 2023.

The power of repetition

Compliance with safety regulations and guidelines requires constant attention. We therefore make sure that our employees receive safety training, which they repeat at regular intervals. They have the correct personal protective equipment and high-quality tools, which we check and approve during the annual equipment audit. In April, we held our biannual 'Gas days', which are intended for gas fitters. The programme addressed everyday events. In 2024, we will organise E-days for electricity fitters.

Safety in the supply chain

We involve our contractors in our health and safety system in various ways and monitor compliance with procedures through spot checks:

1. Registration of contractor's personnel on site: when work actually starts, there is always a 'start-work meeting'. We record whether employees are present on a 'start-work form'. A 'start-work meeting' is standard practice for new personnel.
2. Procedures for presence of contractors' personnel on work sites: only qualified personnel can be assigned work. This is done using our Electricity Business Operations (Bedrijfsvoering Electra, BVE) and Gas Business Operations (Bedrijfsvoering Gas, BVG) tool, which also contains our work and operation plans.
3. Safety Culture Ladder: Stedin is certified for the Safety Culture Ladder, level 4. We require level 3 from our direct chain partners, and we also ask them to advance to level 4. For other parties in the chain, the minimum requirement will be level 2 with effect from 1 January 2024.
4. Workplace audits: We carried out 1,904 workplace audits in 2023. We make our reports available in a secure portal, which ensures our contractors have direct access to our findings. We examine and discuss incidents and workplace accidents.

Stedin Safety Award

This year saw the sixth edition of the Stedin Safety Award, which is presented to the supply chain partner with the best safety and quality performance. The Stedin Safety Award 2023 was presented on 23 May and went to contracting firm Van Vulpen.

Golden Safety Shoe presentation

In November, we awarded the Stedin Golden Safety Shoe for the sixth time. We present this award as a token of appreciation for colleagues who have demonstrated a commitment to improving physical or social safety in the workplace over a long period and/or in an exceptional manner. They set an example to the organisation. The award is a token of appreciation for the person or persons in question as well as a means of promoting commitment to physical and social safety and raising safety awareness. The Golden (Social) Safety Shoes were presented to Frans Knies, Aad de Groot, Robert van den Berg, Michael Nieuwland, Ferdi Çelik, Dion Harderwijk, Hemantkoemar Jagessar-Tewari, Juan Pasquel, Dennis van Hattum, Jean Paul van Dorsselaer, Serdar Dogan, Maikel Verdonck, Rensley Maria, Gerrit Lucas, Ingnie Lenselink and Jessy Santos Frances.

Health and environment

Complying with the full range of environmental requirements and applying the correct environmental regulations in day-to-day working practice is not always easy. This is why we

have set up a database for 'non-ordinary environmental incidents'. This database serves as a practical tool for identifying situations and provides advice and insight on how to deal with the situation. In 2023, there were few situations we needed to add to the database, which indicates the database is fairly comprehensive. We monitor developments in legislation and regulations in the area of hazardous substances or pollutants, such as asbestos, benzene, sulphur hexafluoride (SF_6) and chromium (VI), which pose risks to the environment and health. For reasons of health, we encourage preventive measures such as due care, orderliness and hygiene.

Quality: certification and compliance

A good management system plays an essential role in ensuring that Stedin is a reliable and safe grid manager, whatever the circumstances. Stedin Group again demonstrably complied with the standards and guidelines in the field of safety and security, working conditions, environmental care, quality management, asset management, information security, business continuity management and crisis management in 2023.

Stedin Group certification

Stedin Holding N.V.	NetVerder	DNWG Infra
ISO 9001 (Quality)	ISO 9001	ISO 9001
NTA 8120 (Asset Management)	Safety Culture Ladder, level 3	CKB (Underground Infrastructure)
ISO 55001 (Asset Management)		VCA**
VCA** (HSE)		Safety Culture Ladder, level 4
Safety Culture Ladder, level 4		
ISO 22301 (Business Continuity)		
ISO 27001 (Information Security)		

Continuous improvement

Continuous improvement (Plan Do Check Act, PDCA) is vital to improving quality. Findings from certification audits, the management review of the effectiveness of the Stedin management system, as well as inspections by regulators, provided input for the concrete implementation of continuous improvement. In 2023, we reported on improvement actions on a monthly basis to allow us to better monitor the timeliness and effectiveness of improvement actions. This approach actively contributes to our Construction, Utilisation, Management strategy.

Crisis management

In 2023, we updated the Crisis Management Plan (CMP), including with respect to ensuring adequate provision of information about crises through Grid-Centric Working and the use of the National Crisis Management System (Landelijk Crisis Management Systeem, LCMS). The LCMS facilitates rapid information sharing between all relevant parties. At Stedin, we do this using Information Coordinators (ICO).

We are further improving our crisis management organisation by providing ongoing training to the relevant target groups. For example, in 2023 we again trained new crisis managers to ensure our crisis management organisation has enough capacity. We also kept our knowledge and experience up to date by taking part in exercises, including at the national level, with other crisis management organisations such as security regions. The connection between the crisis management organisation and ICT crisis management has been strengthened. The ICT colleagues concerned have followed knowledge sessions and training courses, among other things. We also worked on the connection between crisis management and business continuity management. Exercises addressed the themes of ICT, cybersecurity and business continuity as part of the programme.

Hydrogen safety regulations

Alternative energy sources such as wind and solar energy, biogas and hydrogen are creating new opportunities and safety challenges. For example, there are no proper safety regulations yet for working with hydrogen. We are developing guidelines and regulations for hydrogen in consultation with Netbeheer Nederland.

Security and integrity

In recent years, we have increasingly experienced brazen burglaries and theft from our business vehicles and premises (in many cases involving copper theft). This has prompted us to take extensive preventive measures to secure our critical infrastructure, which also includes working closely with the police and security firms.

Fraud and an increase in aggression, threats and violence towards our employees require a considerable amount of attention. Our staff are trained to de-escalate confrontations with aggressive customers.

Energy theft and safety

Sadly, we experience gas and electricity theft for criminal purposes or personal monetary gain on a daily basis. We work closely with the other grid managers in the sector to adopt a uniform approach to tackling theft and fraud and to recover any losses we sustain. It is important to coordinate our actions in this regard with the police, municipalities and the Public Prosecution Service.

We regularly encounter energy theft by illegal cannabis growers. As the equipment they use consumes large amounts of electricity, the criminals tap energy by bypassing the meter. This almost always creates unsafe situations, and regularly causes house fires. Besides energy theft by cannabis growers, we also regularly encounter theft for domestic use.

It is estimated that 15% of Stedin's total network losses are caused by energy theft. That is approximately 120 GWh of electricity per year. Based on the 2023 kWh price, that amounts to an estimated loss of almost € 39 million in 2023 (2022: € 25 million). Due to high purchase prices, the estimated loss in the past two years is significantly higher than in previous years. Detecting this type of energy theft is therefore even more relevant.

A total of 210 cannabis-growing operations were discovered in Stedin's area in 2023 (2022: 264). In addition to cannabis growers, we also prioritised tackling other forms of energy theft in 2023, such as meter fraud or illegal reinforcements of connections. In 2024, we will be focusing on further grid automation to help us to proactively detect irregularities faster. We are also continuing to focus on effective cooperation with the police, the Public Prosecution Service and municipalities. Finally, we are in discussions with the Dutch anonymous crime reporting centre (M.) to increase the number of high-quality reports.

Cyber security

As the manager of part of the critical infrastructure in the Netherlands and an 'Essential Service Provider' under the Security of Network and Information Systems Act (Wet beveiliging netwerk en informatiesystemen, Wbni), Stedin actively and continuously takes into account a dynamic threat assessment. We proactively integrate evolving European and national legislation. Our approach is not static. We are constantly adapting to the world around us, both internally and externally. It is important to comply with legislation, but ensuring the reliability of our operations is always paramount. To this end, we apply a certified and risk-based approach according to the ISO 27001 standard, deploying our resources where they will have the most impact.

Our approach was recalibrated over the course of 2023. Our new approach involves an even stronger focus on strengthening the information security organisation, by taking steps to increase Stedin's digital security culture. We are doing this through an awareness programme and by continuously investing in employee knowledge. Technological solutions remain essential. We continuously invest in advanced technologies to manage information security risks and protect our services from cyber threats.

Finally, cooperation with partners in both the public and private sectors is another important part of our information security strategy.

“The official signing on 8 December felt like a victory and makes me proud”

Koen Bogers, CEO of Stedin Group

IN CONVERSATION WITH

Koen Bogers and Michel Heijdra

Last year was a special one for Stedin. At the close of 2023, the State officially joined Stedin Group as a shareholder. CEO Koen Bogers and Michel Heijdra, Director-General for Climate and Energy at the Ministry of Economic Affairs Climate Policy, look back on a process that took years. Together, they also look ahead to a partnership that will accelerate the energy transition.

Koen Bogers: “I had perhaps slightly underestimated how long the process would take. There are reasons for that, of course, as it involved a big investment and a new structure, but the State certainly did not become a shareholder overnight.”

Michel Heijdra: “Initial discussions started in 2021, when it became clear that Stedin had a need for capital that could not be met by its existing shareholders. We then immediately discussed the issue. Could the existing shareholders really not step in? Was a subordinated loan an option? Would it be possible to make adjustments to investment frameworks? Those were the questions we considered in that first period.”

State shareholding proved the best option

Koen: “In the end, the acquisition of shares by the State, however unique, proved to be the best option. Also because the stakes are fairly high, of course. The electricity grid is essential for the energy transition and there is no room for delay. In September 2022, the government reserved the funding in the Budget Memorandum; a step in the right direction, but we still had a way to go.”

“We also prefer to see close links between local communities and the grid manager”

Michel Heijdra, Director-General for Climate and Energy at the Ministry of Economic Affairs and Climate Policy

Michel: “We recognised that the other grid managers could also experience this need for capital in the future, so it was essential to also invite Liander and Enexis to the table. That also says a lot about the good relationship between the grid managers. Stedin felt under pressure, but still kept the other grid managers involved to arrive at an agreements framework that applies to all major regional grid managers. That was a very important intermediate step.”

“In 2023, we started to tailor those agreements to Stedin specifically,” adds Koen. “And of course it was also a tense time for our existing shareholders, because what does it mean for them?”

“Yes, because we had to discuss things like: what shareholding percentage will the State get? What will those shares be worth when the State buys them? And what about the dividends?”, says Michel. “Moreover, from a control perspective, it is not so common for the Ministry of Finance – which, incidentally, is formally the shareholder – to have a role as a minority shareholder, as is currently the case with Stedin. That was also a factor. It is a unique structure because the State is also a minority shareholder of Stedin along with a considerable number of other public authorities. It was quite difficult to make agreements between them. It was important to achieve a good balance in doing so.”

Koen: “In the end, we are all public parties and we all support the energy transition. That helped. We can all see the problems of the congested power grid and the urgent need to reinforce it. It is essential for grid managers to have a strong capital position. So the official signing on December 8 felt like a triumph and makes me proud.”

‘There has been a real increase in the sense of urgency and necessity’

Michel: “2023 was a really important year in that respect. At the end of 2022, we launched the National Action Programme for Grid Congestion (Landelijk Actieprogramma Netcongestie, LAN), a plan by the grid managers and the State to accelerate the electricity grid expansion and optimally utilise the existing capacity. That and the many congestion announcements have really increased the sense of urgency and necessity.”

"Among both the public and politicians," says Koen. "When I talked about the energy transition in 2021 and 2022, several politicians thought it could be done at a slower pace: after all, we have until 2050. I think there is now a real awareness that grid congestion is not just hampering the growth of renewable generation, but that it's a much bigger problem. Increasing the number of heat pumps and electric cars, building new homes, greening industry, ensuring the Netherlands remains an attractive place to do business: all of these require a properly functioning electricity grid."

"A lot has happened in the past year," Koen goes on. "For instance, we have updated the scenarios for the new energy system contained in the Integrated Energy System Survey 2030-2050, there is a new report on the Financial Impact of the Energy Transition for Grid Managers (FIEN), and we have a National Energy System Plan (NPE). I was struck by the fact that the NPE states that natural gas and biogas still continue to play an important role, whereas before we used to say we need to become gas-free."

Michel: "The built environment is one of the most difficult transitions, and 'what do we do with gas?' is the hardest question. Renewable gases will be relatively scarce in the future. You don't want to use those as fuel, but as a raw material in industry, heavy mobility and power plants. Eventually, all-electric heat pumps will become the standard in residential areas where there are no heat grids, but not everywhere and all at once. That would put too much load on the electricity grid. Moreover, hybrid heat pumps – and thus the gas grid – will still be needed in places where full electrification is not an option, such as historic city centres."

"That is why we are now focusing on building as many new heat grids as possible," Michel explains. "They do not burden the grid and use renewable sources, not gas. Moreover, they are collective and relatively cheap in the longer term."

The new energy system is more decentralised

Koen: "The energy transition requires the help of municipalities and provinces. Because it's such a massive renovation, it also more often involves a local effort. I requires arranging more at the regional level because the new energy system is more decentralised. Space and permits for works need to be arranged at the municipal level. For that reason, it's great that, thanks to the State having become a shareholder, we are now once again in talks with provinces (Utrecht and Zeeland) and municipalities in our service area that aren't shareholders yet to also buy a stake."

Michel: "We also prefer to see close links, including in terms of finances, between local communities and the grid manager. This makes cooperation easier. We see this as an important precondition for accelerating the energy transition. That's why it's so important for municipalities and provinces that aren't shareholders yet to also join."

Koen: "That commitment, including financially, means you literally sit down at the table together."

Michel: "Exactly. The commitment will hopefully also ensure that permitting procedures are fast-tracked. That's going to help the energy transition."

Organisation and management

Governance

On account of our social role, we voluntarily apply the Dutch Corporate Governance Code, where possible. The Dutch Corporate Governance Code is an important document for Stedin that matters such as the relationship between management and supervision. Sustainable long-term value creation is a key principle of the Code. It is also at the heart of our business operations and mission.

Corporate Governance

As a public organisation fulfilling a crucial and societal role, Stedin Group values effective and responsible management and supervision as well as transparent governance. In this section, we describe the governance roles within Stedin Group.

Stedin Group

Stedin Group comprises Stedin Holding N.V. and the subsidiaries Stedin Netbeheer B.V., NetVerder B.V. and DNWG Infra B.V. Stedin Holding heads the group structure and under its articles of association is directly or indirectly the director of its subsidiaries. Stedin Holding applies the full two-tier board structure. Stedin Group has a two-tier board structure, with a Board of Management and a Supervisory Board. The Board of Management manages Stedin Group; the Supervisory Board exercises supervision and advises the Board of Management.

Governance and Stedin Group

The Dutch Corporate Governance Code (CGC) sets out important guiding principles for Stedin Group, which we apply on a voluntary basis. In addition, Stedin Group complies with the governance requirements under the Electricity Act and the Gas Act. A significant part of the work carried out by Stedin Group is regulated and subject to supervision by the Netherlands Authority for Consumers and Markets (ACM). The remuneration structure of the members of the Board of Management and the Supervisory Board of Stedin is regulated by the Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT).

The updated CGC was published on 20 December 2022 and took effect from the start of the financial year 2023. The most significant changes concern the topics of long-term sustainable value creation, the role of stakeholders, digitalisation, and diversity and inclusion. Where necessary, Stedin has incorporated these changes into its policies and regulations or will do.

Stedin chooses not to apply certain provisions from the CGC. The CGC is based on the 'comply or explain' principle: organisations are required to comply with the Code or otherwise explain the reasons for their non-compliance. Accordingly, below we explain which principles in the CGC we depart from.

Departures from the Corporate Governance Code

- *Provision 2.2.1 Maximum terms of office and reappointment of Board of Management members:* Members of the Board of Management are appointed by the Supervisory Board as director under the articles of association for a maximum term of four years. They can be reappointed for successive maximum terms of four years. To ensure the continuity of Stedin, no maximum applies to the number of successive reappointments within Stedin Group.
- *Provision 2.2.2 Appointment of Supervisory Board members:* Supervisory Board members are appointed for a term of four years and can be reappointed for a maximum of two additional four-year terms; this is to ensure the continuity of Stedin.
- *Provision 2.2.3 Publication of press release upon early retirement of members of the Board of Management:* Stedin makes its own decisions on how it informs its stakeholders about any early retirement of members of the Board of Management. It goes without saying that Stedin Group informs its stakeholders about any early retirements of members of the Board of Management.
- *Provision 2.3.2 Establishment of committees:* For practical reasons, Stedin Group has established a combined Selection, Remuneration and Appointments Committee, which is committee of the Supervisory Board.
- *Provision 4.2.3 Meetings and presentations:* The shares of Stedin Holding are not listed. However, Stedin Holding has issued several (subordinated) bonds, all of which are listed on the Amsterdam Stock Exchange (Euronext). If Stedin Group organises a call for investors, this call is publicly announced, and the presentations given in the call are posted on Stedin Group's website.

We depart from the provisions from the CGC referred to below partly because the two-tier board regime applies. The governance structure of Stedin Group includes a two-tier board. In addition,

the shares of Stedin Holding are held by government authorities and are therefore not listed.

- 2.1.3 Executive committee
- 2.8 Takeover situations
- 3.1.3 Remuneration of executive committee
- 3.3.3 Ownership of shares by Supervisory Board members
- 4.2.3 and 4.2.6 Analysts' meetings and anti-takeover measures
- 4.3.3 Cancelling the binding nature of a nomination or dismissal
- 4.3.4 Voting right on financing preference shares
- 4.3.5 Publication of institutional investors' voting policy
- 4.3.6 Report on the implementation of institutional investors' voting policy
- 4.3.7 Abstaining from voting if short position exceeds long position
- 4.3.8 Loaned shares
- 4.5 Issuing depositary receipts for shares
- 5 One-tier board structure

Governance roles

Board of Management

Duties and responsibilities

Stedin Group's Board of Management is responsible for the performance of Stedin Group and all subsidiaries within the group structure. The Board of Management determines the long-term strategy, sets the operational as well as financial objectives and designates the preconditions for delivering the strategy.

In performing its duties, the Board of Management weighs all interests, including those of customers, shareholders, employees, providers of capital and society in general. The Board of Management has defined customer and cultural values that contribute to a culture directed at sustainable long-term value creation.

An allocation of duties has been agreed within the Board of Management, which does not detract from the collective responsibility of the Board of Management as a whole. The Supervisory Board has approved the allocation of duties. Both the Board of Management as a whole and its individual members may represent the company. The authorities to represent Stedin Group and its subsidiaries internally and externally, including the applicable threshold amounts, are set out in the internal Governance and Authority Structure (GAS).

The Board of Management also monitors the operation of the internal risk management and control systems. Each year, the Board of Management performs a systematic assessment of the design and operation of these systems. This monitoring covers all control measures relating to strategic, operational, compliance and reporting risks. This is described in detail in the 'Risk management' section and is confirmed in the 'In-control statement'.

Terms of Reference

In addition to legal requirements and the articles of association, the Board of Management is also bound by the Terms of Reference of the Board of Management. These Terms of Reference include the division of duties, responsibilities and procedures of the Board of Management. The Terms of Reference adhere to the principles and best practices of the CGC, insofar as they are applied by Stedin Group. The Terms of Reference of the Board of Management are posted on the website of Stedin Group.

Appointment and dismissal

Members of the Board of Management are appointed by the Supervisory Board as director under the articles of association for a maximum term of four years. They can be reappointed for successive maximum terms of four years. The Supervisory Board may suspend or dismiss members of the Board of Management.

Composition

In 2023, the Board of Management consisted of four members: a Chief Executive Officer (CEO), a Chief Operating Officer (COO), a Chief Financial Officer (CFO) and a Chief Transition Officer (CTO). The Board of Management consists of three male members and one female member. This means that women make up 25% of the Board of Management. The target percentage for the composition of the Board of Management is a minimum of 30% women and a minimum of 30%

men. Diversity is a key consideration when undertaking a new search. Each vacancy gives rise to discussion of the desirable outcome also in terms of our diversity aims.

Strategy Management Team

In 2023, apart from the members of the Board of Management, the members of the Strategy Management Team (MT) also included the directors of Asset Management, HR, Communication, Strategy & Regulation and Corporate Affairs. The Strategy MT discusses and provides strategic advice on the key strategic topics, including ESG and the implementation of the CSRD. The Strategy MT is not a decision-making body, but has an advisory role in support of formal decision-making by the Board of Management. The Strategy MT consisted of four women and five men in 2023.

Strategic Coalition

In addition to the members of the Strategy MT, the Strategic Coalition consists of 21 directors, managers and members of a Works Council delegation. They give shape to the strategy and its implementation. For this purpose, they meet several times a year. The Strategic Coalition consists of 11 women and 19 men.

Supervisory Board

Duties and responsibilities

Stedin Holding N.V.'s Supervisory Board advises the Board of Management and exercises supervision on the policy of the Board of Management as well as the general course of affairs within Stedin Group. The Supervisory Board also acts as employer of the Board of Management. Accordingly, the Supervisory Board appoints members of the Board of Management and can suspend or dismiss members of the Board of Management (in consultation with the General Meeting of Shareholders). The Supervisory Board of Stedin Holding N.V. also supervises policy implementation by the grid manager (Stedin Netbeheer B.V.).

Terms of Reference

In addition to legal requirements and the articles of association, the Supervisory Board is bound by Terms of Reference. The Terms of Reference of the Supervisory Board include provisions on the Supervisory Board's composition, committees, duties and powers, meetings and decision-making and are posted on the website of Stedin Group. In 2023, the Supervisory Board updated these Terms of Reference and, among other things, integrated the roles and responsibilities of the Supervisory Board in relation to ESG and the CSRD.

Committees

The Supervisory Board has two permanent committees:

- a combined Selection, Remuneration and Appointments Committee (SRA Committee), consisting of Hanne Buis (chair), Doede Vierstra and Arco Groothedde;
- an Audit Committee, consisting of Theo Eysink (chair), Annie Krist and Arco Groothedde.

The committees prepare decision-making in the Supervisory Board meetings. The committees report verbally in the Supervisory Board meetings. The SRA Committee and the Audit Committee each have separate terms of reference, setting out provisions on their functioning. These terms of reference can also be found on the website of Stedin Group. The Audit Committee's terms of reference were amended in 2023 in order to integrate the roles and responsibilities of the Audit Committee in relation to ESG and the CSRD, among other things.

Appointment and dismissal

The General Meeting of Shareholders appoints the members of the Supervisory Board. There is a profile for the size and composition of the Supervisory Board. In connection with nominations and appointments, account is taken of the nature of the company, its activities and the desired expertise and background of the Supervisory Board members.

Supervisory Board members are appointed for a term of four years and can be reappointed for a maximum of two additional four-year terms. The Supervisory Board can suspend members of the Supervisory Board. The Netherlands Enterprise Court at the Amsterdam Court of Appeal can dismiss Supervisory Board members. The General Meeting of Shareholders can withdraw its trust in the full Supervisory Board or in individual Supervisory Board members. The members of the Supervisory Board retire periodically in accordance with the retirement schedule that it has drawn up. The retirement schedule is shown in the Report of the Supervisory Board.

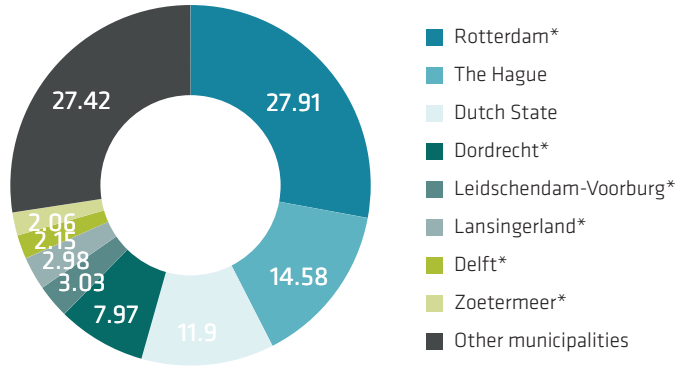
Composition

The Supervisory Board currently consists of five members: three men and two women, representing different age categories and backgrounds. With this composition, the Supervisory Board complies with the diversity standard. The Supervisory Board strives for sufficient complementarity, pluralism and diversity in terms of age, gender and background in its composition. Diversity in terms of composition is also discussed in the annual self-assessment undertaken by the Board of Management and the Supervisory Board.

As a result of the State joining as a shareholder, it was agreed that an additional (in this case sixth) Supervisory Board member would be nominated by the Supervisory Board and appointed by the General Meeting of Shareholders. This agreement will be fulfilled in 2024, for which the initiative lies with the Supervisory Board.

Shareholders

Stedin Holding N.V. has 42 Dutch municipalities and the Dutch State as its shareholders. The 43 shareholders are represented by the Shareholders' Committee, whose members are Rotterdam, The Hague, the Dutch State, Dordrecht, Delft, Lansingerland, Molenlanden, Achtkarspelen, Nissewaard and Uithoorn. The Dutch State joined as a shareholder of Stedin Holding N.V. on 8 December 2023. Consequently, the State contributed € 500 million in capital in mid-December 2023.



Municipalities holding less than 2% of the shares

Aalsmeer	Haarlemmermeer	Ridderkerk*
Achtkarspelen*	Hardinxveld-Giessendam	Rijswijk*
Alblasserdam*	Heemstede*	Schiedam*
Albrandswaard	Hoeksche Waard*	Schiemonnikoog*
Ameland*	Hendrik Ido Ambacht*	Sliedrecht*
Amstelveen*	Krimpen aan den IJssel*	Uithoorn*
Barendrecht*	Krimpenerwaard*	Westbetuwe*
Bloemendaal	Molenlanden*	Vijfheerenlanden*
Capelle aan den IJssel	Noardeast-Fryslân*	Voorne aan Zee*
Castricum*	Nissewaard*	Zandvoort*
Goeree-Overflakkee*	Papendrecht*	Zwijndrecht
Gorinchem*	Pijnacker-Nootdorp*	

* These shareholders also have cumulative preference shares

In connection with the Dutch State joining Stedin as a shareholder, a number of governance changes were made. To sum up:

1 For the financial years 2023 to 2032, a revised *dividend policy* has been drawn up based on the tiers shown in the table below.
2 Under the pre-existing governance arrangements, Stedin shareholders have the right to approve Stedin's *Multi-Year Strategic Plan* (MSP) and its mid-term review. In addition, the Board of Management must annually adopt a *Long-Term Investment Plan* that includes a forecast of expected investments with a 10-year horizon and the strategic considerations underlying those investments. The Board of Management consults the Shareholders' Committee on the Long-Term Investment Plan.
3 The Board of Management annually draws up a *Financing Plan* outlining how Stedin plans to meet its financing needs over the next five years. The Financing Plan must comply with a number of Financial Principles set out in the shareholders' covenant. The Board of Management consults the Shareholders' Committee when preparing the Financing Plan. If in the substantiated opinion of the Dutch State, the proposed Financing Plan deviates from the Financial Principles, a Special Decision-Making Procedure may be invoked.
4 At least *one member of the Supervisory Board has a financial profile*. This Supervisory Board member is a member of the Supervisory Board's Audit Committee. The Shareholders' Committee has an enhanced right of recommendation regarding the appointment of the relevant Supervisory Board member, while the State also has a right to object. The relevant Supervisory Board member cannot chair the Supervisory Board, and the Works Council has no right of recommendation regarding the appointment of this Supervisory Board member.

Tier	Profit in millions	Mandatory reserve amount in %	Profit at the disposal of the General Meeting of Shareholders in %
1st tier	0-20	10	90
2nd tier	20-100	70	30
3rd tier	over 100	82	18

General Meeting of Shareholders (AGM)

Stedin Holding N.V. holds a General Meeting of Shareholders (AGM) within five months of the end of a financial year. If deemed necessary by the Supervisory Board or the Board of Management, additional meetings may also be held. The Board of Management and the Supervisory Board set the agenda of the AGM. During the annual General Meeting of Shareholders, the annual report is discussed and the financial statements are adopted. The AGM is also responsible for the appointment of the members of the Supervisory Board.

Agreements have been made between the Board of Management, the Supervisory Board, the Shareholders' Committee and the AGM regarding their mutual relationships and the performance of duties and powers. These agreements are laid down in the Articles of Association of Stedin Holding N.V. and the Stedin Group shareholders' covenant. The Shareholders' Committee also has its own terms of reference: the Terms of Reference of the Shareholders' Committee. These terms of reference only apply to the shareholders in their mutual relationship.

Stedin Holding N.V.'s authorised share capital is divided into ordinary shares and cumulative preference shares.

The Energy Transition Committee was established in 2021. The Committee consists of a delegation of shareholders and Stedin Group. Its objective is to further reinforce cooperation between the shareholders and Stedin Group with regard to the energy transition and to share as well as develop knowledge through this platform.

Internal audit function

The internal audit function helps us realise our objectives, based on a systematic and disciplined approach to evaluating the effectiveness of our governance, risk management and control processes. The Internal Audit (IA) department provides independent and objective insights, guidance and (additional) assurance to assist management in further optimising those processes.

IA is part of the CEO's responsibilities and has direct access to the Audit Committee of the Supervisory Board as well as to the external auditor. The Internal Audit manager attends the meetings of the Audit Committee. The Supervisory Board supervises the IA function and advises the Supervisory Board on its performance. The Board of Management carries out an annual review of the way the Internal Audit function performs the task after consultation with the Audit Committee. IA reports to the Board of Management and the Audit Committee on audit-related topics, such as the effectiveness of internal controls, follow-up of recommendations and realisation of the annual audit plan. IA also informs the external auditor accordingly.

The internal audit function prepares an annual audit plan after consultation with the Board of Management, the Audit Committee and the external auditor. The annual audit plan is submitted to the Board of Management for approval and then to the Supervisory Board. This working plan focuses on interaction with the external auditor.

The external auditor

The General Meeting of Shareholders appoints the external auditor, who is nominated by the Supervisory Board. The external auditor for Stedin Group is Deloitte Accountants B.V. The external auditor attends all meetings of the Audit Committee. Additionally, the external auditor in any case attends the part of the meetings of the Supervisory Board in which the auditor's report on the audit of the financial statements is discussed and in which the Supervisory Board decides about approval of the annual report. The external auditor also attends the General Meeting of Shareholders in which the financial statements are adopted. The General Meeting of Shareholders can then take the opportunity to question the auditor about the report on the true and fair view provided by the financial statements.

Integrity

A safe working environment and ethical behaviour among employers and employees are important to Stedin Group: a business culture in which our employees and stakeholders can build and rely on our core standards and values.

Code of conduct

Those standards and values and statutory rules are laid down in Stedin Group's Code of Conduct. This code, which lays down the norms and rules regarding our conduct and interaction,

describes the behaviour that we demand from our employees: amongst one another and towards external parties such as customers, shareholders, suppliers and other relations of Stedin Group. Topics in the code of conduct include health and safety, conflicts of interest, how to treat confidential and other information and company property, harassment and sexual harassment and unacceptable behaviour. Unacceptable behaviour includes fraud and theft, bribery and other forms of corruption, abuse of power, intimidation and harassment, aggression, violence and discrimination in any form whatsoever. We do not tolerate unacceptable conduct. Any such conduct will be investigated and the perpetrators will be punished. The code of conduct and guidelines for conduct (including non-discrimination) are also the starting point for HR processes such as recruitment, selection, promotion, remuneration and training. See the 'Good employment practices' section.

Our code of conduct is not a document without obligations. All our permanent employees, hired staff and interns are expected to endorse, know and comply with the contents of our code of conduct and to accept their responsibility to protect Stedin Group's reputation. All employees sign the employee regulations and a non-disclosure agreement. In this context, our supervisors play a vital role in promoting an ethical business culture. After all, integrity starts with setting a good example.

Any failure by an employee to comply with the code of conduct, or guidelines covered by the code of conduct, can have serious consequences for Stedin Group. In the event of a reported suspected violation of the code of conduct, a detailed investigation will always take place in accordance with an established protocol. This investigation may lead to us taking measures. The nature and severity of the violation determine the sanction to be imposed, with due regard for the given circumstances. Sometimes we impose a disciplinary measure while on other occasions we may decide to offer the person concerned a second chance, and serious cases may result in instant dismissal.

Within Stedin Group, we work with guidelines for specific topics such as competition and tendering. These guidelines are part of the code of conduct. The detailed guidelines are available for employees on the intranet and are regularly brought to their attention by us. In 2023, two workshops and awareness sessions were held on risks and lessons learned. On several occasions in 2023, we also requested attention for integrity and compliance via the general means of communication.

The Board of Management supervises compliance with the code of conduct of Stedin Group. The Compliance Officer creates awareness, monitors the effectiveness of the code of conduct and reports the numbers and nature of any incidents at regular intervals to the Board of Management and the Supervisory Board (via the Audit Committee and the SRA Committee).

Supply chain responsibility

Our purchasing processes take into account various aspects. including CO_2 footprint, use and reuse of materials, and social working conditions. They form the basis for selecting suppliers. We are committed to ensuring that our suppliers and supply chain partners comply with our Code of Conduct. This Code of Conduct, which is based on the OECD guidelines, the Universal Declaration of Human Rights and the ILO Convention, sets requirements for fair and ethical business practices by Stedin and by our suppliers, their suppliers and third parties they engage. The Code of Conduct has been signed by parties accounting for 69% of the total work we have put out to tender. Signing the Code of Conduct is mandatory in all new tendering procedures.

Fraud prevention

Stedin Group has a fraud risk prevention policy that has been approved by the Board of Management is annually updated, and was therefore updated again in 2023. Based on discussions with the management teams of departments, fraud risk consultations produce a fraud risk analysis from which control measures may ensue. Fraud risk consultations are held at regular intervals and are attended by the Internal Audit, Control and Risk managers, as well as the Compliance Officer. In these consultations, the topic of fraud is discussed in a structured manner, and the reporting by the Compliance Officer is addressed. Based on this reporting, control measures may be implemented.

Reporting facilities

Stedin Group has an 'Integrity & security' reporting facility. The Compliance Officer investigates every report, including reports of fraud. Integrity incidents are handled on the basis of the Guideline for Integrity Incidents and Abuses. There is also an information security reporting facility and a privacy issues reporting facility. In 2023, 207 reports (2022: 186 reports) on possible breaches of the Code of Conduct were received within Stedin Group at the Integrity & Security reporting facility. For 70 reports (2022: 51) it was established that they included an integrity element. A number of reports concerned social safety within the group. Based on these reports, the Board of Management and HR decided, in consultation with the director of the relevant unit, to deploy a department-wide culture and behaviour programme in several departments in 2023.

Confidential advisers

Employees can also contact one of the organisation's confidential advisers. Stedin Group has a total of seven confidential advisers: six internal advisers and one external adviser. Confidential advisers work in strict confidence, have a duty of secrecy and never act on their own initiative or without the approval of the person reporting. A confidential adviser receives a fee for this work.

Whistleblower procedure

In 2023, the provisions of Stedin Group's whistleblower procedure were amended in line with the Whistleblowers Protection Act (Wet Bescherming Klokkenluiders). Employees can opt to make a report to the external House for Whistleblowers. In 2023, no reports were made to the House for Whistleblowers. We refer to this legislation and the national whistleblower procedure in the Guideline for Integrity Incidents and Abuses.

Prevention of market abuse

As Stedin has issued publicly traded bonds, we have laid down a guideline on inside information and the possession of and transactions in securities in our 'Stedin Group Disclosure Policy' and in the 'Guideline on private investments'. This guideline builds on our Code of Conduct.

Within Stedin Group, we use an insiders list of persons who have access to price-sensitive information. Sharing inside information and insider trading in bonds of Stedin Group are prohibited for Stedin's employees. The 'Guideline on private investments' also applies to the members of the Board of Management and the Supervisory Board. They are required to comply with all legal rules concerning disclosure and insider trading. All employees require the prior approval of the Compliance Officer to engage in private investments in financial instruments of Stedin Group. Any suspicion of abuse of price-sensitive information must be immediately reported to the Compliance Officer. The Compliance Officer reports at regular intervals to the Board of Management and the Audit Committee of the Supervisory Board; any cases of abuse of price-sensitive information are also included in those reports. With its approach, Stedin Group complies with the European Market Abuse Regulation.

There were no cases of abuse of price-sensitive information in 2023. In the event of abuse of inside information, the Disclosure Committee will decide whether a press release is required to be published on the incident. This will depend on the seriousness of the breach and on applicable laws and regulations.

Compliance with laws and regulations

Stedin Group complies with laws and regulations. This is a shared responsibility of the Board of Management, the management team and employees. They are supported in this by Compliance & Integrity. Stedin Group has an adequate compliance process in place to ensure that we implement all new and existing laws and regulations into our business processes correctly and in a timely manner. Twice a year, the Legal Compliance Officer reports to the Board of Management on legal compliance developments within and outside of Stedin Group.

One sanction was imposed on Stedin by regulators in 2023. The State Supervision of Mines (SodM), the safety watchdog for the gas grids of the regional grid managers, investigated a gas explosion in shopping mall Stadshart in Zoetermeer. SodM concluded that Stedin's operating assets register did not adequately meet the preconditions laid down in the Gas Act. SodM imposed on order for incremental penalty payments on Stedin, thereby instructing Stedin to draw up and implement an action plan to prevent a recurrence. Stedin will diligently and expediently implement the action plan drawn up in consultation with SodM.

Stedin also applies appropriate processes to ensure compliance with all relevant tax laws and guidelines. These processes cover bribes and corruption, fair competition and taxation.

Stedin is subject to Dutch taxation. Most of its tax liability concerns corporate income tax, value-added tax, dividend withholding tax, and payroll tax and social security contributions. In its dealings with the Dutch Tax and Customs Administration, Stedin is committed to a type of collaboration based on mutual trust, mutual understanding and transparency, and always strives to pay its fair share in taxes. This is implemented in further detail in Stedin's tax policy.

Privacy

Stedin attaches great importance to the privacy of customers, employees, job applicants and other stakeholders. Stedin therefore handles personal data with care, taking into account applicable laws and regulations, including the General Data Protection Regulation (GDPR) and the Dutch General Data Protection Regulation (Implementation) Act (UAVG). The exercise of due care when handling personal data is part of our Code of Conduct.

When it comes to privacy, we strive for ever higher levels of maturity. We made significant progress in this area in 2023. Examples include the launch of a new privacy intranet page and the roll-out of a new Privacy by Design and Privacy by Default Guideline. Stedin's privacy policy has also been updated and a new privacy e-Learning programme has been developed. This training programme will be mandatory for all new Stedin employees from 2024.

In 2023, Stedin recorded reports of 56 data breaches in its data breach register (2022: 39). Of these internal reports, 5 were notified to the Dutch Data Protection Authority in 2023 (2022: 5).

Stedin has signed up to Netbeheer Nederland's Smart Grid Management Code of Conduct. In July 2023, the Data Protection Authority accredited the supervisory body for this Code of Conduct. This means the Code of Conduct is now in force as the official GDPR Code of Conduct.

Risk management

Managing risks and opportunities is essential to achieving our strategic objectives. The risks and opportunities are therefore an integral part of the annual planning cycle. This approach helps Stedin Group purposefully deal with uncertainties (risks and opportunities) in attaining its objectives.

Risk governance

Risk management is a joint responsibility of the Board of Management and the management team, supported by corporate services departments such as Corporate Risk Management, Safety, Health, Environment & Quality, Business Continuity Management, Security, Corporate Affairs, Compliance & Integrity and Treasury. The Asset Management department is in charge of drawing up proposals for investments, including replacement investments, based on a risk analysis according to the NTA 8120 (ISO 55000) standard. Operational asset risks are included in the investment plan. The topic of risk is discussed four times a year during the meetings of the Supervisory Board's Audit Committee. Major deficiencies, significant changes or major improvements in the internal management and control system are addressed with the Board of Management and the Supervisory Board's Audit Committee. Our website features a detailed description of our risk management governance.

Risk management process

Stedin Group's Enterprise Risk Management (ERM) framework covers both long-term and short-term uncertainties. A large part of this framework has been translated into an In- Control Framework (ICF) consisting of the risk categories Tactical/Operational, Financial, Fraud, Business Continuity, Compliance/Privacy, Information Security and Financial Reporting. We based the design of this framework on the COSO framework and the ISO 31000 standard. The risk management process is an integral part of the standard business planning and control cycle. We also apply the Corporate Governance Code to our risk management.

Long-term uncertainties

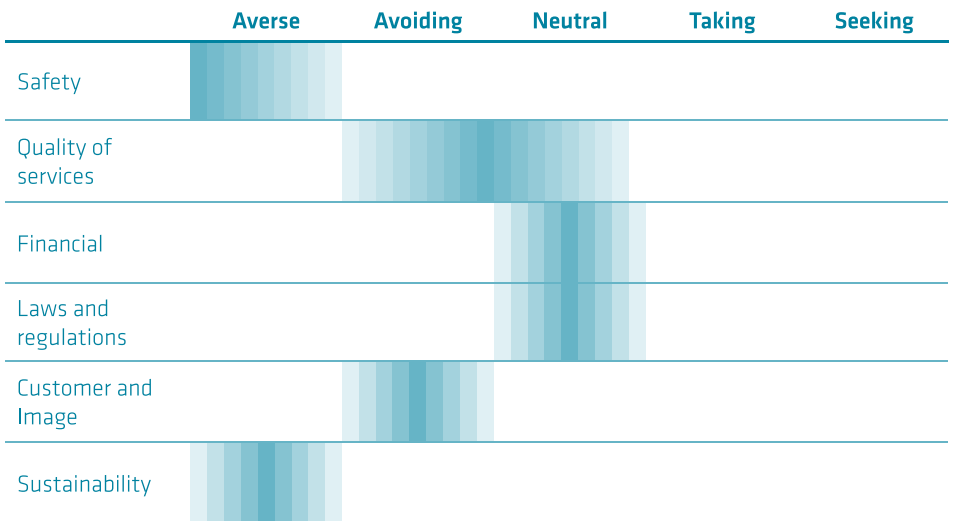
We update both risks and opportunities that constitute uncertainties in relation to the long-term strategy and report on these uncertainties to the Strategy MT every quarter. We compare these uncertainties against our risk tolerance and use them as input for the selection of change programmes within Stedin. These long-term uncertainties are also part of the financial-strategic forecasts and are incorporated in the process for the annual plan. An explanation of our key risks and opportunities can be found below in the subsection 'Key strategic opportunities and risks for Stedin Group in 2023'.

Short-term uncertainties

Short-term uncertainties, with a horizon of around one year, include operational risks such as power failures, fraud and reporting risks. Management maps and updates risks and control measures at least once a year through risk and control sessions. The departmental management teams periodically review whether the controls are effective and define potential improvements and actions. Twice a year, the management of each business unit reports to the Board of Management on integrity, strategy and goals, risks and control, external reporting and laws and regulations by means of an 'In-control statement'. These statements serve as an important basis for the In-control statement of the Board of Management.

Risk tolerance

We have to accept a certain degree of risk in order to achieve our organisational objectives. In response to the new strategy, we have recalibrated our risk tolerance and adjusted the categories for which the risk tolerance is stated. As a result of this adjustment, the categories are now aligned with the internal control model. In recalibrating our risk tolerance, we have taken into account the changing environment in which we operate. The extent to which we are prepared to incur risks (the risk tolerance) differs for each risk category:



With regard to both risks and opportunities, Stedin Group is continually seeking a balance between its role in society, the available financial and other resources and the environment.

Safety: Averse
At a company like Stedin, safety always comes first. In relation to safety, we do not want any negligence by Stedin employees resulting in minor injuries (and lost time) or more serious consequences. For a description of accidents in 2023, see Safety & Cybersecurity.

Quality of services: Avoiding / Neutral
In relation to the quality of services, we do not want any risks resulting in a moderate degree of grid congestion or serious deterioration of the quality and efficiency of services.

Financial: Neutral
In relation to finances, we do not want any unexpected financial losses with a potential impact in excess of € 20 million.

Laws and regulations: Neutral
In relation to laws and regulations, we do not want any risks resulting in an order for incremental penalty payments, a category 5-6 fine, or criminal prosecution of a member of the Board of Management.

Customer and Image: Avoiding
In relation to Customer and Image, we do not want any risks risks resulting to a moderate extent in a negative image among customers, shareholders and other stakeholders.

Sustainability: Averse
In relation to sustainability, we do not want any risks resulting in a limited or higher increase of the environmental impact of our own operations.

Developments in 2023

The developments in society and the energy market have implications for the risks and developments in this respect that Stedin manages. As in 2022, geopolitical developments have led to increased risks that had an impact this year. In addition, the acceleration in the energy transition is a reality. The uncertainties associated with its impact lead to focus and adjustments. The continuous changes in external developments are to some extent outside Stedin's sphere of influence, but can have a major impact on the organisation. This sometimes makes it more difficult to determine whether the organisation as a whole is 'in control'. Mitigating measures therefore relate to matters within our sphere of influence and to monitoring as well as predicting external developments.

Key external developments in 2023:

- *Government contribution* : The State has reinforced Stedin's equity by joining as a shareholder, paying in € 500 million in exchange for an 11.9% stake. The risk of 'Increasing pressure to maintain the 'A' category credit rating (at S&P) in the long term' has thus diminished to the extent that it is no longer monitored as a long-term uncertainty.
- *Congestion* : two key strategic risks that play a role here are 'Insufficient grip on future customer demand' and 'Insufficient connection and transmission capacity'. We expect that in the coming years, there will continue to be risks associated with the alignment of customer demand to the available transmission capacity. These risks are described in detail in the explanations of the six main risks later in this section.
- *Voltage bottlenecks* : Another important development in 2023 is the rapid increase in rooftop solar generation, as well as the rise in the number of heat pumps and use of electric cars, all of which increases the load on our low-voltage grids. The result is an increasing incidence of voltage bottlenecks. 'Sharp rise in voltage bottlenecks in low-voltage grids' has therefore been added as a new strategic risk.
- *Feasibility* : Factors constraining the feasibility of our construction task include limited availability of materials, labour and space. Stedin, like other grid managers, has published its new investment plan . The plan sets out Stedin's strategy and large-scale investments in expanding, maintaining and reinforcing the electricity and gas grid. These investments are essential to prepare for the energy system of the future. For further clarification of the risk relating to the realisation of sufficient connection and transmission capacity and how we have addressed this risk, see the description of the main risks later in this section. Geopolitical tensions are continuing to have an impact on our supply and materials markets. As a result, Stedin is experiencing an overall lack of certainty as regards the availability of components and materials. We have taken additional measures to secure the supply of strategic materials in particular. As we increased our strategic stocks in 2023, this risk dropped from 'Top' to 'High'. Two other aspects posing risks that affect the feasibility of our construction task are labour shortages and limited availability of space underground and above-ground.

Other developments

- *ESG:* We recalibrated our ESG strategy in 2023. The strategic risks have been linked to the resulting themes. As soon as ESG targets have been incorporated into the annual plans of the various business units, these targets will be in scope of the process described above for short-term uncertainties.
- *Infra contracts:* Stedin has strengthened cooperation with contractors by entering into new infra contracts . Entering into new forms of contracts involves uncertainties (both opportunities and risks). To manage these uncertainties, the organisation has organised several risk workshops and regularly discusses them. The benefits and risks of this form of contract will become apparent in the coming year.

Other topics

Besides the aforementioned developments, there are developments in other risk-related topics that do not ultimately affect our key strategic opportunities or risks. For example, the climate changes that may affect the Stedin area in the long term. Climate is not currently considered to be one of the biggest strategic risks. This does not mean that these developments do not pose a risk to Stedin. For a description of climate-related risks and Stedin's approach to these risks, see 'Risks due to climate change'. For insights into our financial risks, see 'Financial risk management'. Our financial reporting risks are discussed in more detail in 'Judgements, estimates and assumptions'.

Key strategic opportunities and risks for Stedin Group in 2023

This section contains an overview of our key opportunities and risks, and a description of our top 5 strategic risks. We explain the strategic risk process in greater detail in the 'Risk governance' subsection at the start of this section.

Connection of risks to strategic spearheads and material topics

No.	Description	Category	Construction	Utilisation	Management	Preconditions	Double Materiality	Development compared with 2022
1	Cyberattack causing damage to society and business operations	Quality of services				x	Access to energy and supply reliability	=
2	Insufficient connection and transmission capacity	Quality of services	x	x			Access to energy and supply reliability	=
3	Insufficient grip on future customer demand	Quality of services	x	x			Access to energy and supply reliability	+
4	Availability and quality of data insufficiently compliant	Laws and regulations				x	Access to energy and supply reliability Customer and stakeholder perception	=
5	Gas investments difficult to plan	Financial	x	x			Access to energy and supply reliability Climate mitigation and adaptation	=
6	IT/OT landscape insufficiently prepared for the future	Quality of services	x	x	x	x	Access to energy and supply reliability Customer and stakeholder perception	↑
7	High activity in outdoor space and underground	Quality of services	x		x		Access to energy and supply reliability Customer and stakeholder perception	↑
8	Sharp rise in voltage bottlenecks in low-voltage grids	Customer & Image	x	x	x		Access to energy and supply reliability	+
9	Increased likelihood of surge in replacement of obsolete assets	Financial			x		Access to energy and supply reliability	=
10	Lack of sufficient number of people with the required competences	Quality of services				x	Good employment practices	=
11	Availability of materials	Quality of services	x	x	x		Access to energy and supply reliability Circular use of materials and waste management	↓
12	Services on core tasks insufficiently compliant	Customer & Image	x	x	x		Customer and stakeholder perception Access to energy and supply reliability	↑
13	Network losses	Financial				x	Access to energy and supply security	↓
14	Impact of accidents related to Stedin Group	Safety				x	Good employment practices Customer and stakeholder perception	=
15	Focus on cultural values and conduct insufficiently effective	Quality of services				x	Business ethics, integrity and good governance Good employment practices	=

Connection of opportunities to strategic spearheads and material topics

No.	Description	Construction	Utilisation	Management	Preconditions	Double Materiality	Change compared to 2022
1	Application of new energy carriers				x	Access to energy and supply reliability Climate mitigation and adaptation	=
2	Perform comprehensive assessment for allocating investments between electricity, gas or future energy sources	x	x			Access to energy and supply reliability	=
3	Develop and deploy disruptive technologies and methods		x	x		Access to energy and supply reliability Climate mitigation and adaptation	↓
4	Position Stedin as a highly relevant partner in the energy transition	x	x		x	Customer and stakeholder perception Good employment practices	=

Developments in strategic risks and opportunities

In evaluating risks and opportunities, we compare the likelihood of their occurrence with their potential impact on the achievement of our three strategic spearheads. This comparison led to the risk matrix below for 2023.

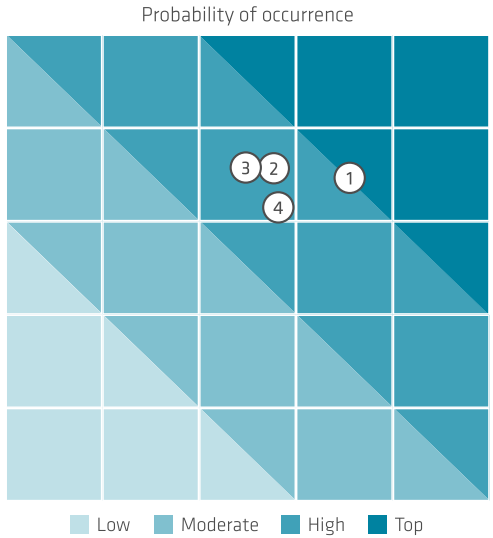
Risks are always changing, due to the multitude of uncertainties involved. A number of strategic risks have been mentioned above in the section 'Key external developments in 2023'. Compared with 2022, we see that thanks to the focus on construction, utilisation and management under our new strategy, we no longer need to consider some risks and opportunities as long-term uncertainties. This does not mean that they are no longer risks or opportunities for Stedin, but that they are monitored in a different way. This concerns the following risks: 'Large-scale product recall', 'Environmental pollution of local environment', 'Uncertainty about implications of changing E&G laws and regulations (NL and/or EU)' and 'Excessive (own) environmental impact (footprint)'. The opportunities that are no longer considered to be long-term uncertainties are: 'Entering into strategic supplier relationships' and 'Rates structure of the future'.

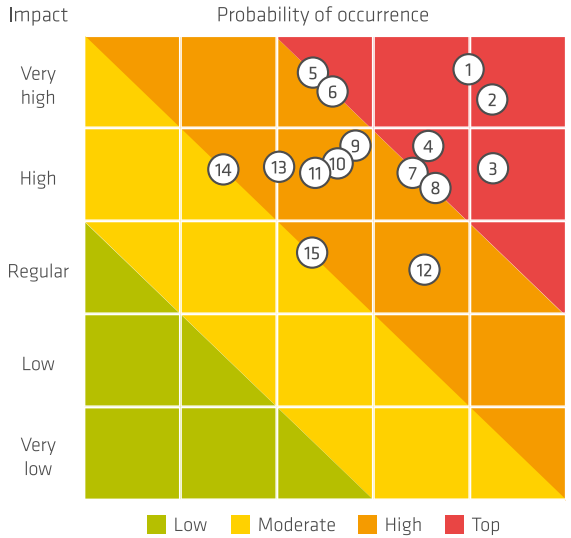
The fast-changing environment means that some opportunities have merged into risks. The opportunity to 'Increase predictability of investments through improved prediction of customer demand' is now the new risk 'Insufficient grip on future customer demand'. The opportunity 'Enable future-proof grid management by means of data-driven forecasts and decision-making' is now the risk 'Availability and quality of data insufficiently compliant'.

The matrix below shows the likelihood of the main opportunities and risks materialising and the potential impact of this on Stedin.

Strategic opportunities

1. Application of new energy carriers
2. Make comprehensive assessment in relation to investments between electricity, gas or future energy sources
3. Develop and deploy disruptive technologies and methods
4. Position Stedin as a highly relevant partner in the energy transition





Strategic risks

1. **Cyberattack causing damage to company and business operations**
2. **Insufficient connection and transmission capacity**
3. **Insufficient grip on future customer demand**
4. **Availability and quality of data insufficiently compliant**
5. **Gas investments difficult to plan**
6. IT/OT landscape insufficiently prepared for the future
7. High activity in outdoor space and underground
8. Sharp rise in voltage bottlenecks in low-voltage grids
9. Increased likelihood of surge in replacement of obsolete assets
10. Lack of sufficient number of people with the required competences
11. Availability of materials
12. Services on core tasks insufficiently compliant
13. Grid losses
14. Impact of accidents related to Stedin Group
15. Management focus on cultural values and conduct insufficiently effective

Risks

Below are descriptions of the top 5 strategic risks.

Cyberattack causing damage to society and business operations	
Risk tolerance	Neutral
Risk assessment	Top
Description: As a result of its strategic position as well as its social and economic importance, the Stedin Group infrastructure is an attractive target for cyberattacks. This is why cybersecurity is of fundamental importance to the continuity of Stedin's activities. The chance of a cyberattack is progressively increasing as a result of technological developments and the increasing dependency on digitalisation. A cyberattack can have major consequences for the services of Stedin Group and its stakeholders. This can endanger vital infrastructure and hence the stability of the energy grid.	
Causes: State-sponsored actors: well funded and organised, whether or not directly related to foreign powers, whose actions are inspired by political motives. Hacktivists (including terrorist organisations): actions are inspired by political, social or other activist motives. Driven by their ideological motives, they carry out targeted attacks on Stedin due to its social relevance. Organised crime: their actions are driven by economic motives. They use various means, including ransomware. Target personal data or attempt to set up fraudulent financial transactions. Employees and suppliers: often able to access the internal network by virtue of their work. From this position, they can cause damage, intentionally or unintentionally. Inexperienced hackers: use a code published online to carry out unsophisticated attacks. Competition between hackers and their great personal interest in the topic of security play a key role.	
Consequences: Discontinuity due to failures throughout or in parts of the infrastructure and loss of control over the supply of energy. Reduction in quality and efficiency of service provision and loss of control over own data and information systems. A cyberattack slows down the role Stedin fulfils in the energy transition. Loss of control over switchgear can lead to serious personal injury. Very high repair costs: consequential loss for Stedin Group and society.	
How we have responded to this: As the manager of part of the critical infrastructure in the Netherlands and a designated Essential Service Provider under the Security of Network and Information Systems Act, we actively and continuously take into account a dynamic threat assessment. We proactively adjust our operations to evolving European and national legislation. It is important to comply with legislation, but ensuring the reliability of our services is paramount. To this end, we apply a certified risk-based approach according to the ISO27001 standard, deploying our resources where they will have the most impact. The strategy underlying this approach was recalibrated over the course of 2023. Based on this recalibration, we will be focusing on strengthening the information security organisation. This involves actively strengthening our digital security culture through an awareness programme and continuously investing in knowledge. Our technological solutions remain a core feature, with continued investment in advanced technologies to manage information security risks and protect our services from cyber threats. Cooperation with partners in both the public and private sectors is an important part of our information security strategy. This cooperation is not limited to the supply chain. Our strategy is not static and we are constantly adjusting to the changes in the world around us, both internally and externally. These adjustments are based on the principle of continuous improvement in order to remain proactive and resilient.	
For more on this topic, see the section entitled 'Preconditions - Safety & Cybersecurity'.	

Insufficient connection and transmission capacity

Risk tolerance	Avoiding
Risk assessment	Top

Description: We plan the expansion of our electricity grids on the basis of customer demand forecasts. Timely reinforcement of our grids may not be possible if customer demand evolves much faster than expected or if execution takes much longer than planned. In that situation, we can offer our customers a connection, but not the necessary transmission capacity, and will be unable to meet the customers' requirements. The customer will then have to modify, postpone or cancel the planned project. The achievement of climate targets is also delayed if congestion management is not possible to a sufficient degree. Once congestion management is possible, a number of customers can still be connected. However, congestion management also entails certain costs.

Causes: The unpredictability of customer demand and the magnitude of external developments are key drivers of this risk. The realisation of new infrastructure is a very time-consuming process. Planning permission procedures for spatial integration of the infrastructure take (much) more time than the project completion timelines of our customers. The feasibility of the energy transition is also a crucial factor for us. Space, people and materials are not always immediately available to a sufficient extent.

Consequences: Due to various reasons, including the steep rise in the number of requests for connections and the fact that space, materials and people are not always immediately available to a sufficient extent, large parts of the Netherlands have become congestion areas. The ultimate consequence is that we will not be able to meet customer demand, or at least not in time. This means that customers will have to modify, postpone or cancel their projects. In the end this may also block progress towards the climate targets, leading to reputational damage and potential claims by property developers and other parties.

How we have responded to this: In 2023, the decentralised and national grid managers translated the latest energy and climate policy insights and sectoral plans into scenarios for the purpose of investment plans (IPs). The scenarios have been coordinated with stakeholders, and the IPs along with the submitted opinions and responses thereto have been submitted to the Netherlands Authority for Consumers and Markets (ACM). The investment plans are important for expanding grid capacity and scaling up the organisation (personnel, materials, land, process innovation, etc.) to enable us to realise our construction task. However, space will remain scarce in the coming years and we will need in some cases need to apply congestion management.
We work closely with governments and our stakeholders to identify developments and offer advice to local communities on what actions they can take. The sector is developing a platform that will provide stakeholders with transparency on waiting lists, congestion areas, investments, flexible propositions and grid availability.
Based on the scenarios and current customer and grid insights, the need for flexible control power capacity has been identified. Stedin's target for cumulative flexible capacity contracting (45 MW) was met in 2023. However, for the coming years, the need for flexible capacity is many times higher (the target for 2024 is 500 MW of flexible capacity) and Stedin is working on several flexible tenders in order to contract flexible capacity. As part of the National Action Programme for Grid Congestion, the sector is developing joint contract forms to offer flexible propositions to the market. In addition, Stedin has launched a programme that will enable us to scale up our congestion management processes.

For more on this topic, see the 'Utilisation' section.

Insufficient grip on future customer demand	
Risk tolerance	Avoiding
Risk assessment	Top
Description: There is a risk that we do not have sufficient grip on the future development of customer demand, as a result of which we don't have enough room to change the course of or influence decisions affecting grid capacity made by parties in our environment.	
Causes: We have identified two main root causes of this risk: • Some external developments in the market and other areas are unpredictable and have a high impact • It is not us, but our environment that sets the pace at which customer demand evolves	
Consequences: If this risk materialises, the possible consequences are: • Potentially sub-optimal choices in the Investment Plan • Suboptimal basis for smart resource planning • Suboptimal basis for long-term strategic material procurement • Suboptimal basis for proactively influencing customer plans • Suboptimal anticipation of potential congestion areas	
How we have responded to this: Stedin is investing to maintain and improve its grip on future customer demand. Risk mitigation efforts include the further development of funnels and targeted surveying of customer intentions among heavy-use consumers. Stedin is also investing raising awareness among customers (such as through campaigns) that it's advantageous to them to share their plans in relation to the future energy supply at an early stage. This includes the development of digital tools that allow customers to easily and personally provide their plans to Stedin.	
For more on this topic, see the section entitled 'Utilisation - Predicting and managing customer demand'.	

Availability and quality of data insufficiently compliant

Risk tolerance	Neutral
Risk assessment	Top

Description: Although good data quality and timely data provision is obviously relevant for all types of data, this risk specifically centres on three categories: data about the load and quality of our grid, smart meter data and asset data. We are seeing an ever-increasing demand for data about the load and quality of our grid and smart meter data, both internally and externally. To optimally utilise our grid and support our investment forecasts, there is a growing need for data that allows us to gain an understanding of the current and future load and quality of our low-voltage and medium-voltage grids. We are also seeing a growing demand for data externally and for data from smart meters in particular. Energy suppliers, for instance, use this data to make more accurate estimates of the development of energy needs, allowing for better matching of supply and demand (see also 'Performance in other areas - market facilitation'. Finally, accurate and timely data about our assets (e.g. about their location) is instrumental to our daily operations. If this data is not available in time or its quality is insufficient, the quality of our internal and external processes suffers.

Causes: The growing demand for data is putting more and more pressure on new and existing processes. If these processes are not sufficiently robust or adapted to the growing demand for data, we run the risk of data not being delivered in time or being of insufficient quality.

Consequences: Failure to provide timely or inaccurate data can hinder the acceleration of work on our construction task, can impede capacity management aimed at preventing and managing grid congestion and has a potentially negative impact on the adequate management of our grids. It can also slow down internal and external processes relating to aspects such as matching supply and demand and developing products that can eliminate or prevent congestion.

How we have responded to this:
Digitalisation of work processes: as our construction activities intensify, the amount of asset data going through our processes also increases. To cope with this volume, we are investing in new systems and tools that allow us to process the data in a timely, complete and accurate manner without giving rise to an excessive administrative burden. These systems all need to be as easy to use as possible, to allow operational staff to focus on their primary activities.
Asset data: maintaining and further improving our asset data is a continuous process that consists of both major improvement actions and small initiatives. The biggest initiatives are:

- We visit all our medium-voltage units and low-voltage cabinets in the Zeeland region to confirm asset data. This is necessary in order to assess the low-voltage grids in the Zeeland region in the same way as in the rest of the Stedin area. We use the grid calculation results to identify our bottlenecks, which is important for our investment forecasts, among other things.
- We plan to further raise the standard of the data from our public lighting grids. Low-voltage grids and the public lighting grids connected to them must be safe to touch. To be able to demonstrate that this is the case, we need to be able to calculate the touch voltage in the low-voltage grid. These calculations are based on correct asset data. The outcomes of the calculations provide us with input on where we need to adjust our grids to comply with the touch voltage safety rules.
- Accurate data on the location of gas connection pipelines plays an important role in enabling us to adequately manage our grid and prevent excavation damage, among other things. Based on our current estimates, we are lacking location data for a small proportion (<1%) of our gas connection pipelines. Every year, we reduce this proportion by ascertaining the location data. This also allows us to explore areas such as the possibilities for the deployment of ground radar (for more information, see the Construction subsection 'Smart innovations').

Intensified sector cooperation: through Netbeheer Nederland, chief data officers (CDOs) from the various grid managers are increasingly working together on initiatives to meet the rising demand for data from local communities. A number of open data products were made available in 2023, including the National Electricity Grid Capacity Map, and cross-grid manager open and closed data requests are coordinated by the Data Sharing Management Team. A great deal of investment is also being made in increasing technical and semantic data interoperability and jointly improving data quality, integrity and security.

For more on this topic, see the Construction

Gas investments needed are underestimated

Risk tolerance	Neutral
Risk assessment	Top

Description: There is still a great deal of uncertainty regarding the actual design of the future energy system; more specifically, there is still a lot of uncertainty about the role that heat grids and/or renewable gases, in addition to electrification, will play in the new energy system. It is clear that the Netherlands is moving away from natural gas. At the same time, our current gas grid can play a major role in the transmission of renewable gases. Our current investment forecasts take into account a possible future role for our gas grid in renewable gas transmission, for example by continuing to invest in maintaining our gas grid. At the same time, given the uncertainty, our forecasts do not yet make allowance for significant investment to make our grid ready for a specific renewable gas, such as hydrogen. Consequently, it is possible that investments in the gas grid are underestimated in our current forecasts.

Causes: Continuing uncertainty about the exact design of the new energy system and the role of heat grids and/or renewable gases in this new system.

Consequences: Higher investments than estimated in our current investment forecasts.

How we have responded to this: In our current investment forecasts, we remain committed to maintaining the high quality of our gas grids. We only apply a minimal deduction for the decline we are seeing in (natural) gas transmission and use. In our latest forecasts, we also take into account the latest available insights, for example regarding the growth of available green gas. In this way, we limit the risk of underestimating investments.
We also actively facilitate the dialogue regarding the future design of the energy system. One of the ways we do this is by providing insight into the dilemmas and uncertainties through the publication of the comprehensive exploratory study of the energy system: 'The energy system of the future: the II3050 scenarios'. This study, drawn up in the context of Netbeheer Nederland, supports policymakers in decision-making and provides a basis for a joint conversation on how we can work towards a climate-neutral 2050. This in turn helps us incorporate the latest insights into our investment forecasts.

For more on this topic, see the 'Construction' section.

In-control statement

As the Board of Management, we are responsible for the adequate design and operating effectiveness of our risk management and control system. This system is aimed at achieving strategic and tactical-operational objectives and at monitoring the reliability of our (financial) reporting and our regulatory compliance. The inherent limitations that apply to any internal risk management and control system must, however, be taken into account. This means we will never be able to absolutely guarantee that we will achieve our company objectives or that our processes and financial reporting will be free from errors, losses, fraud or violations of laws and regulations.

We monitored and evaluated the design and operating effectiveness of the system during 2023 and discussed this with the senior leadership team, the Board of Management and the Supervisory Board (including the Audit Committee). Monitoring and evaluation took place based on the regular business control reports containing an overview of tactical-operational risks and controls, business self-assessments resulting in In-Control Statements and quarterly updates on strategic risks and opportunities. Account was also taken of the information from reports from the internal audit function and the external auditor. Interim assessments have given rise to improvement plans, which have in part already been implemented in 2023, with the remainder being implemented in 2024. Full implementation of the recovery plans will lead to more demonstrable and efficient control of business operations.

We declare that:

- the in-control process provides sufficient insight into any failings in the effectiveness of the internal risk management and control systems;
- the aforementioned systems provide reasonable assurance that the financial reporting does not contain any material inaccuracies;
- based on the current state of affairs, it is justified that the financial reporting is prepared on a going concern basis;
- the report states those material risks and uncertainties that are relevant to the expectation of the company's continuity for the period of twelve months after the preparation of the report.

Rotterdam, 16 February 2024

Board of Management,

Koen Bogers, CEO (chair)
Danny Benima, CFO
Trudy Onland, COO
David Peters, CTO

Report of the Supervisory Board

In this report, the Supervisory Board explains how it performed its role in exercising supervision, providing advice and acting as employer in relation to the Board of Management in 2023.

In performing its duties, the Supervisory Board focuses on long-term sustainable value creation and how Stedin achieves its goals, taking into account the interests of all its stakeholders. This year, the main focus was on addressing the challenges inherent in the energy transition. Considerable time and attention were devoted to the projects launched by Stedin to strengthen its capital position by attracting new shareholders (municipalities, provinces and the State).

Strategy

More focus has been created on the three strategic spearheads In Stedin's Multi-Year Strategic Plan 2027 (Construction, Utilisation and Management), with the ambition being to achieve grid access for all. Progress on the realisation of this strategy was a key priority for the Supervisory Board in 2023.

Financing of the energy transition

The energy transition poses huge challenges, resulting in a significant financing requirement. This financing requirement is met in various ways. In 2023, the financing requirement was once again a frequent topic of discussion within the Supervisory Board and between the Supervisory Board and the Board of Management. The Supervisory Board is therefore very pleased that the earlier decision by the central government to reserve funds in the national budget for an investment in Stedin of € 500 million in 2023 has resulted in a share issue to the Dutch State for the same amount. This is an important step. Given its substantial future financing requirement, it is essential that Stedin continues to seek a broader basis of contributions towards its financing. The Supervisory Board furthermore notes that regulations and the new method decision are lagging behind the current reality. That reality is that Stedin wants to and indeed needs to undertake investments far more proactively and that the current regulatory regime fails to adequately take this into account. Fortunately, in preparation for the new regulation period, the Netherlands Authority for Consumers and Markets (ACM) launched a consultation on this with parties involved, including the grid managers. Cooperation on all fronts is of great national importance in this regard, as this issue concerns the sustainable future of the Netherlands and the costs of the energy transition come before the benefits.

Site visit

During the annual two-day session, we also took the opportunity to visit a large, newly built transformer station in Houten-Oost. What is special about this station is that it was built entirely for sustainable generation (solar and wind power). Prior to the station visit, the draft investment plan was explained and the main external developments and their impact on Stedin's construction task were discussed. The entire process was explored in depth: from the political level to the creation of energy infrastructure. The enormous drive of Stedin's employees to achieve the social task was particularly evident.

Stakeholder management and the role of the Supervisory Board as a 'social antenna'

The Supervisory Board fulfils an important role in acting as Stedin's 'social antenna' and ensuring that decision-making takes careful account of the interests of society in general and those of our stakeholders in particular. Stedin is a grid company, or network company, also in a figurative sense. This means that effective collaboration with all stakeholders is crucial. Stedin cannot do it alone; it needs a wide range of parties to achieve its goals. According to the Supervisory Board, this collaboration is quite successful. Stedin maintains intensive contacts with companies and all the municipalities in its coverage area. They know where to find Stedin, and vice versa. In the dialogue with the regulator ACM, Stedin's position was likewise clearly highlighted, and possibilities for improvement were addressed, including in relation to the compensation of network losses. Stedin interacts with stakeholders effectively and on all fronts, while ensuring visibility of its interests.

Climate, Energy Transition & Sustainability

In 2023, factors such as geopolitical unrest and the resulting increase in energy prices continued to accelerate the energy transition. The pace of decision-making and implementing measures is therefore being raised at the global, European and national level. In that connection, the Supervisory Board observes that the grid managers, and hence Stedin also, have a pivotal role

in facilitating the acceleration in the energy transition. That requires Stedin to be in a position to make the right investments on time, to finance those investments in a responsible manner and to operate in a regulatory environment that permits it to fulfil its new role. Crucially, capacity expansion of Stedin's grids is required in the short term to enable it to facilitate the energy transition and prevent grid capacity turning into a limiting factor. Unfortunately, Stedin had to declare a state of congestion in several parts of its coverage area. Overall, however, the situation in the Stedin area is relatively stable and we are keen to keep it that way, in the interest of society as a whole. With a future-proof grid and grid management approach, Stedin has a huge impact on sustainability efforts in its coverage area. It goes without saying that Stedin also assumes responsibility for reducing its own impact on the climate through sustainable business operations. This is shown, for example, by its actions to electrify its vehicle fleet and reduce its own environmental footprint.

Safety

The Supervisory Board notes that all the efforts that have been made in the past few years in the field of safety have clearly produced results for all those involved, including customers and the environment. The safety ratios were good in 2023. The Supervisory Board monitors safety within the company via a periodic dashboard. Safety awareness in a broad sense is given considerable attention within the company, through the execution of the multi-year safety programme HRO (High Reliability Organisation). The Supervisory Board endorses the importance of this programme for a company such as Stedin.

Despite all these efforts, a gas explosion took place in a shopping centre in Zoetermeer, in February 2022, in which three people were injured. The incident was investigated by the State Supervision of Mines (SodM) and Stedin took appropriate action based on the findings.

Feasibility of the energy transition

The Supervisory Board is concerned about the current lack of materials and technical staff. Due to tensions on the commodities markets, parts have become more difficult to obtain. Some projects are incurring delays due to the shortages, although fortunately we see that many other projects are still perfectly on schedule. Stedin has also made good progress with strategic personnel planning, clearly identifying the areas where the organisation should anticipate shortages of technical staff in the years ahead. Training capacity for those areas has been doubled. Stedin also actively invests in people. The In-house training school is amongst the many resources available to Stedin for providing its own training programmes. We are therefore proud that 140 employees were trained as fitters in 2023.

Supervisory Board's role as employer

In 2023, the Supervisory Board conducted performance reviews with the members of the Board of Management. Amongst the topics addressed were the progress of the annual plan, achievement of the strategy and personal development.

Other important topics

In addition to the topics highlighted above, the Supervisory Board devoted attention to the following topics:

- Preparations for the shareholders' meetings
- Double materiality analysis
- Sustainability (ESG and CSRD)
- Grid congestion
- Cyber security
- Approval of investment plan and annual plan

Composition, working method and meetings

The Supervisory Board held six regular meetings in 2023 and one specifically dedicated to the half-year report. The regular meetings were always preceded by a consultative meeting of the Supervisory Board behind closed doors. The full Board of Management attended the Supervisory Board meetings. The agendas for the meetings were prepared by the secretary, in consultation with the Board of Management and the chair of the Supervisory Board.

Chair Doede Vierstra's term ran until 20 September 2023; he was reappointed at the shareholders' meeting on 26 May 2023 by the Annual General Meeting for a second four-year term.

Composition of the Supervisory Board and schedule of appointment and retirement

Name	Appointment or reappointment	Due to retire in
Mr D.G. (Doede) Vierstra RC	20 September 2023	20 September 2027
Ms H.L. (Hanne) Buis, LLM	21 September 2022	21 September 2026
T.W. (Theo) Eysink, RA	12 February 2021	12 February 2025
Mr A.P.G. (Arco) Groothedde	30 September 2020	30 September 2024
Ms A.J. (Annie) Krist, LLM	13 April 2022	13 April 2026

Attendance rate of Supervisory Board members at meetings

Name	Supervisory Board meeting	Audit Committee	Selection, Remuneration and Appointments Committee
Doede Vierstra	100%		100%
Hanne Buis	100%		100%
Theo Eysink	100%	100%	
Annie Krist	86%	71%	
Arco Groothedde	100%	43%[1]	100%

1 Arco Groothedde is closely involved in Stedin Group's equity reinforcement project. To free up the time he needed for that, Arco temporarily resigned from his duties in the AC in 2023.

Committees

The Supervisory Board has two committees, the Audit Committee (AC) and the combined Selection, Remuneration and Appointments Committee (SRA Committee). The committees prepare decision-making for the Supervisory Board in the area of responsibility concerned and advise the Supervisory Board. All members of the Supervisory Board have access to the documents as well as the draft and finalised minutes of the committees. In the next Supervisory Board meeting to be held, feedback from the committees is provided by the chairs of the AC and SRA committees and decision-making takes place.

Audit Committee

Theo Eysink chairs the Audit Committee. The regular topics discussed in the Audit Committee are the internal risk management and control systems, cybersecurity, treasury, internal audit, financial developments, ESG and compliance. In this year's meetings, extensive attention was also given to long-term financing and the further development of control information. It is standard practice that the meetings, of which seven were held in 2023, are attended by the CFO, the Internal Audit manager and the external auditor Deloitte. The Compliance Officer and the Corporate Risk Manager attend as guests at least twice a year. The Terms of Reference of the Audit Committee are posted on the Stedin website.

Selection, Remuneration and Appointments Committee

Hanne Buis is the chair of the Selection, Remuneration and Appointments Committee. This committee met five times in 2023. Attention was paid to the reappointment of the chair of the Supervisory Board for four years, effective 20 September 2023, continuing education of Supervisory Board members, self-assessment, compliance and integrity. The Selection, Enumeration and Appointments Committee also discussed Stedin's diversity policy. The remuneration policy for 2023 for the members of the Board of Management and Supervisory Board, which complies with limits under the Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act. (Wet normering topinkomens, WNT), is presented in Remuneration report for 2023. The terms of reference of the Selection, Remuneration and Appointments Committee have been posted on the Stedin website.

Self-assessment and education

In 2023, the self-assessment was carried out under the guidance of Stedin's HR Director. The outcomes were presented to the Supervisory Board during the offsite retreat in July and discussed a second time in September. The main outcomes of this process were shared with the members of the Board of Management. Among other things, this resulted in an in-depth session together with the members of the Board of Management on the topic of consensus-based collective management responsibility. The Supervisory Board is fully aware of the importance of its own continued development. The world around us is changing rapidly, and the Supervisory Board will have to change with it if it is to serve effectively in its role. In 2023, the Supervisory Board chose to further explore substantive topics such as the development in Grid Congestion, IT security and CSRD through various sessions.

Independence of members of the Supervisory Board

The articles of association and the terms of reference of the Supervisory Board include provisions on the independence of Supervisory Board members. The composition of the Supervisory Board is such that its members are able to operate independently and critically in respect of one another, the Board of Management and any particular interests involved. The Supervisory Board fully complies with the independence requirement for Supervisory Board members pursuant to the Corporate Governance Code. One permitted exception applies to one Supervisory Board member with regard to independence within the meaning of the Electricity Act and the Gas Act, as Annie Krist also serves as CEO of GasTerra. Supervisory Board members report their ancillary positions, if any, to the chair and the secretary of the Supervisory Board. None of the Supervisory Board members exceeds the maximum number of supervisory positions at large Dutch companies or major foundations. The topic of 'ancillary positions' was discussed last year in the Supervisory Board meeting on 29 September 2023. No material transactions occurred in 2023 that involved potential conflicts of interests between the company and Supervisory Board members.

Contacts with shareholders

In 2023, the contacts between Stedin and the shareholders were further intensified, mainly in connection with the process concerning the long-term financing. Within the Supervisory Board, the chair in particular was closely involved in this process, and consultation regularly took place with the other Supervisory Board members. A delegation of the shareholders' committee was also regularly consulted on and involved in the process of the reappointment of Doede Vierstra as chair of the Supervisory Board. There were three shareholders' meetings, including an extraordinary shareholders' meeting on 8 December at which ordinary shares were issued to the Dutch State. All shareholders' meetings were chaired by the chair of the Supervisory Board.

Contacts with the Works Council

In the context of broadly weighing up stakeholder interests, the Supervisory Board sets great store by good contacts with the Works Council. Two 'tripartite consultations' were also held in the past year. Besides the members of the Supervisory Board, these consultations included the members of the Board of Management and a delegation from the Works Council. The themes were diversity, inclusion and social safety, and the vision for the future of the energy system. This year too, there was pleasant collaboration between the Works Council, the Board of Management and the Supervisory Board. We are proud of the mature manner in which we enjoy a close relationship with the employees through employee participation. For more details about the Works Council, see the subsection 'Stedin as an attractive employer'.

Recommendation to the shareholders concerning the financial statements

The financial statements were prepared by the Board of Management and audited by Deloitte Accountants B.V., which issued an unqualified opinion on them. The members of the Board of Management and the Supervisory Board have signed the financial statements. The Supervisory Board submits the financial statements 2023 to the General Meeting of Shareholders for adoption in 2024, together with the dividend proposal for the financial year 2023.

The Supervisory Board furthermore proposes to the General Meeting of Shareholders to discharge the Board of Management in respect of its management in the financial year 2023 and the Supervisory Board in respect of the supervision exercised over the Board of Management in the same financial year.

Word of thanks

The Supervisory Board wishes to thank the employees, management, the Works Council and the Board of Management for their considerable involvement, professionalism and commitment. We wish to thank the shareholders for their support and the trust they place in Stedin.

Rotterdam, 16 February 2024

The Supervisory Board

Doede Vierstra (chair)
Hanne Buis
Theo Eysink
Arco Groothedde
Annie Krist

‘I see 2023 as a transition year’

The issue of financing has been one of the main themes for Vierstra in recent years. ‘Since the commitment was made by the State, we have spent another year making it final. But the time has now come and we can build on a much financially stronger Stedin.’

For the chair of the Supervisory Board, these four years have also been marked by a new Board of Management and a new strategy: construction, utilisation and management. ‘I see 2023 as a transition year for the period we are now facing.’ A good enough reason for Doede to extend his chairmanship for another four years last May.

‘Spade in the ground’

‘We are up to speed and can really pick up the pace now,’ Doede continues. He can therefore identify with the theme of this annual report: ‘Further accelerating’. ‘With the new strategy, the Board of Management has brought clear focus to Stedin’s course going forward: faster construction, better utilisation and continuing to ensure proper management. I notice that this focus also involves the adoption of a more businesslike approach. You can have wonderful visions of the future and ideals about how you would like to shape the energy transition, but in the end it’s all about putting that spade in the ground and building.’

Challenge is more apparent than ever before

A clear strategy and the financial resources to implement it. With these elements in place, accelerating would seem to be the next logical step. ‘Unfortunately, the reality is different,’ the chair of the Supervisory Board explains. ‘The challenge in terms of staffing and materials is now more apparent than ever before. Not to mention the search for suitable locations for new transformer stations, or the time it takes to obtain permits.’

“You can have wonderful visions of the future and ideals about how you would like to shape the energy transition, but in the end it’s all about putting that spade in the ground and building”

Huge development

Grid congestion was one of the topics the Supervisory Board wanted to delve into more deeply. 'You can see the red areas on the map advancing towards the south-west. Stedin is still managing to hold up pretty well, but it's a huge development. We need to ensure this issue does not become something that simply happens to us: the question is how we take action on it, how we communicate about it, and how we address it in our relations with stakeholders. A key part of that is that the Supervisory Board is well informed.'

Giant plug

The site visit was a visit to a transformer station Stedin is developing in a field on the outskirts of Houten for renewable energy generation, sort of a giant plug. 'The station is bigger than I thought, almost the size of an entire block of houses. A good experience to see with your own eyes, but it also made me realise that we are going to need many more of these and other transformer stations in the coming years and how much planning and work that will entail.'

Looking ahead

That brings us back to the challenge facing Stedin in the coming years. Doede looks ahead: 'We are now fully focused on implementation. But some matters will nonetheless have to wait a while longer. We will need to keep doing a good job of explaining that. In addition, we want to properly manage the process of the State joining as a new shareholder.' When asked whether he thinks the new political dynamics will bring major changes, Doede's response is emphatic: the majority of Dutch people consider the energy transition to be of great importance. What we are doing is necessary and I foresee no change of course.'

Biographical details of members of the Supervisory Board

Mr D.G. (Doede) Vierstra RC

Chair from 1/2/2020

Doede Vierstra (b. 1958) is a director on behalf of the Netherlands Enterprise Court at the Amsterdam Court of Appeal, member of the Supervisory Board of PGGM, member of the board of Stichting Nyenrode, chair of the Supervisory Board of KNGF Geleidehonden, member of the Supervisory Board of Leiden University Medical Centre (LUMC) and member of the Supervisory Board of the Netherlands Bach Society. He acquired his ample experience with stakeholders in his work as CFO at Nuon as well as in other positions. Through his previous role as chair of the WENB (Energy and Utility Companies Employers' Association), he is familiar with the challenges Stedin Group faces in connection with the energy transition.

Ms H.L. (Hanne) Buis, LLM

Member

Hanne Buis (b. 1976) served as COO of Schiphol Group until 1 February 2023. Prior to that she was Chief Projects & Assets Officer and member of the Management Board of Schiphol Group and CEO of Lelystad Airport, part of Royal Schiphol Group. Before joining Lelystad Airport, she held various positions at Amsterdam Airport Schiphol where she managed complex operational processes. She has been a member of the Supervisory Board of the Netherlands Bach Society since 1 July 2022. Her other positions include that of member of the Board of the University Council of Erasmus University, and Secretary of STAK W. Th. Zandstra Beheer B.V.

Mr T.W. (Theo) Eysink, RA

Member

Theo Eysink (b. 1966) started his career at Arthur Andersen, after which he served in financial roles at KLM Catering, Spui Group and Electrabel between 1996 and 2006. From 2006 to 2010, he was VP Finance at Bombardier Transportation Holding, before being appointed CFO at Stork Technical Services in 2010. At present, Theo is CFO of the Business Market division of KPN. He is a sound financial leader with experience of a range of sectors. In addition, particularly in his more recent years at KPN, he acquired extensive experience with new business models. Theo is also a member of the Supervisory Board of Vesteda Investment Management B.V.

Mr A.P.G. (Arco) Groothedde

Member

Arco Groothedde (b. 1964) is a director at housing cooperative Eigen Haard. Prior to that, he was CEO at Translink Systems, member of the Executive Board of the Land Registry Office (Kadaster) and divisional manager at the National Vehicle and Driving Licence Registration Authority (RDW). Arco's extensive experience in managing the digital transformation at the Land Registry Office and Translink are very useful to Stedin Group. He is highly committed to customer-oriented services with a social relevance, as reflected in his experience as Supervisory Board member at DSW Zorgverzekeringen and ROC Aventus (until 30 April 2023), among other things.

Ms A.J. (Annie) Krist

Member

Annie Krist (b. 1960) commenced her career at N.V. Nederlandse Gasunie in 1987, in the marketing department. After holding various management positions, she joined the management team of Gasunie Transport Services (GTS) in 2005. From 2008 to 2011, she was Director of Strategy and Participations. She was also Managing Director and member of the Executive Board and CEO of GTS. Krist was appointed as GasTerra's new CEO with effect from 1 April 2017. She is also a member of the board of Vereniging Energie Nederland, board member of the Platform Groen Gas, Associate Member of the International Gas Union, board member of Stichting Fondsbeheer Culturele Relatie-Evenementen Gasunie/GasTerra of the Groninger Museum, member of the Advisory Board of the Clingendael International Energy Programme, board member of Stichting ter Bevordering van de Ruimtelijke Wetenschappen, member of the Governing Board and Executive Committee at Eurogas and Chair of the Supervisory Board of Stichting Kinderopvang Stad Groningen.

Biographical details of members of the Board of Management

Mr K.W. (Koen) Bogers

Chair / CEO (from 1 June 2021)

Koen Bogers (b. 1969) joined the Board of Management on 1 May 2021 and was appointed as chair of the Board of Management of Stedin Group with effect from 1 June of that year. Previously Koen served as Managing Director at Babcock & Wilcox in Denmark, a position he had held since 2018. Prior to that he worked for Siemens for more than twenty years, where he performed various management roles related to energy, the energy transition, industry and infrastructure.

Areas of responsibility: Strategy and Regulation, Corporate Affairs, HRM, Corporate Communications, Internal Audit, VGMK (Safety, Health, Environment and Quality).

Other positions: Global Partner at Bloxhub, Adviser at Techleap.nl, Chair of the Supervisory Board of Kersten Technische Bedrijven.

Mr D.G. (Danny) Benima RC

Member / CFO

Danny Benima (b. 1978) has been CFO and a member of the Board of Management of Stedin Group since January 2019. He was reappointed for a period of four years on 1 January 2023. Prior to that, he worked at Arcadis as CFO for Southern Europe and also held various financial positions at Arcadis and Stork. Danny studied International Management (HES Amsterdam) and Business Administration, with a specialisation in Financial Management (Nyenrode). Danny is a registered controller (Tilburg University).

Areas of responsibility: Corporate Risk Management, Finance & Accounting, Supply Chain, Treasury and Business Support Services.

Other positions: Board member of Utility Connect, member of the Supervisory Board of EDSN, member of the Advisory Board of Stichting Hartekind (until 1 July 2023), member of Economic Board Utrecht.

Ms G.M. (Trudy) Onland MSc.

Member / COO

Trudy Onland (b. 1974) was appointed to the Board of Management with effect from 1 June 2021. Prior to that, Trudy worked at Dutch National Railways (Nederlandse Spoorwegen, NS) in various management positions, for twelve years. At NS, she was responsible for the customer service operations and, in recent years, as Maintenance director, for the rolling stock of NS. She has extensive experience in managing complex processes and an innovative and solutions-oriented mentality, which provides an ideal fit with Stedin.

Areas of responsibility: Business Project, Maintenance, Consumer and Business Complex, DNWG Infra, Client and Operations Support.

Other positions: Member of the Supervisory Board of Gelderse Vallei hospital (as of 1 September 2023).

Mr D. (David) Peters

Member / CTO

David Peters (b. 1980) has been a member of the Board of Management since January 2018. He was appointed director of Strategy at Stedin in May 2015. Until May 2015, he worked at Boston Consulting Group on strategy and organisation issues, especially in the energy sector. David studied Applied Physics at Eindhoven University of Technology and Applied Ethics at KU Leuven.

Areas of responsibility: CDO Office, Change Office, Asset Management, Innovation and NetVerder, IT, Market.

Other positions: Board member of the Stichting Zeeuwse Publieke Belangen, member of the Board of E-Laad, member of the Board of EDSO, member of the Supervisory Board of GOPACS, member of the Supervisory Board of BAS B.V. (Beheerder Afsprakenstelsel) and member of the Supervisory Board of the Utrechts Landschap foundation.

Remuneration report for 2023

This remuneration report describes the remuneration policy applied for the Board of Management and the Supervisory Board of Stedin Group. We also provide explanatory information on Stedin's application of the Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act (Wet normering topinkomens, WNT).

Remuneration policy

The current remuneration policy for the members of the Board of Management was adopted by the General Meeting of Shareholders of Stedin Group in 2020 and is aligned with the general maximum remuneration laid down in the Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT). The remuneration comprises a fixed annual salary (12 monthly salaries plus 8% holiday pay) and a package of other elements of remuneration composed in part in accordance with the wishes of individual Board of Management members. Those other elements include participation in the ABP pension scheme, 30 days of leave annually, the option of participating in the group health insurance and invalidity insurance, an untaxed monthly expense allowance and a 100% electric lease car. The fixed annual salary is determined with effect from 1 January of each year by the Supervisory Board, taking into account the current maximum remuneration under the WNT.

The general maximum remuneration under the WNT also provides the basis for the remuneration of the members of the Supervisory Board. In the remuneration policy for the Supervisory Board, it is laid down in accordance with the WNT that the remuneration for the chair and for the members of the Supervisory Board is 15% and 10% of the general maximum remuneration under the WNT, respectively.

WNT

The Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT) is applicable to the grid manager Stedin Netbeheer B.V. The members of the Board of Management, as the highest executive body of Stedin Netbeheer, qualify as senior executives of Stedin Netbeheer B.V. pursuant to the WNT. Because they are all employees of Stedin Groep Personeels B.V., for the purpose of the WNT they qualify as senior executives without an employment relationship with Stedin Netbeheer B.V.

Under the WNT, the members of the Supervisory Board of Stedin Group qualify as senior supervisory officials of Stedin Netbeheer N.V.

Accountability regarding Netbeheer B.V.'s compliance with the WNT will be provided at a later time, subsequent to the outcome of the consultations between the Ministry of the Interior and Kingdom Relations and the Audit Protocol (COPRO) working group about the WNT Audit Protocol 2023.

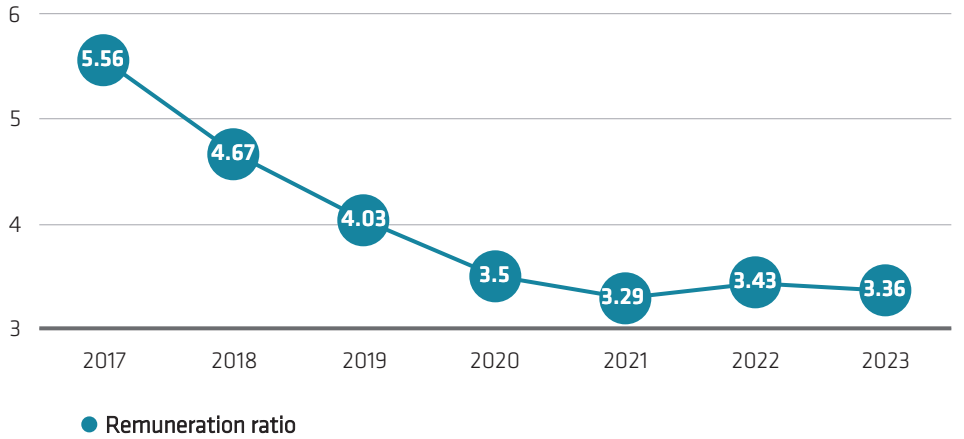
The WNT does not apply to other employees of Stedin Group. Like the Board of Management members, all employees are in the service of Stedin Groep Personeels B.V. The requirement to report on other executives who receive remuneration exceeding the individually applicable threshold amount (the WNT standard of € 223,000, calculated in proportion to the scope of the employment) only applies to employees of Stedin Netbeheer N.V. The maximum salary, including 8% holiday allowance, for positions reporting to the Board of Management was € 177,300 in 2023. Stedin Group also applies the maximum hourly rate under the WNT as the maximum rate for staff hired to temporarily fill senior management positions. The maximum hourly rate in 2023 was € 212 per hour.

No rights to subscribe to or acquire shares in the capital of the company or a subsidiary have been granted to members of the Board of Management or Supervisory Board of Stedin Group. Nor have any loans, advances or guarantees been provided to the members of the Board of Management or Supervisory Board of Stedin by the company, its subsidiaries or the companies whose financial information is consolidated by Stedin.

Remuneration ratio

The ratio between the highest remuneration and the median remuneration decreased in 2023. This ratio was 3.36 in 2023, which is 2.2% lower than the ratio in 2022. The decrease in the ratio was due to the one-off CLA payment of € 1,250 in October 2022. This payment is part of the annual pay for pension purposes in 2023, and this annual pay is the basis on which the remuneration ratio is determined. The one-off payment was made to all employees employed by Stedin Group on 1 October 2022, with the exception of members of the Board of Management.

The remuneration ratio was determined by reference to the annual pay for pension purposes of employees working at the business units that were part of Stedin Holding N.V. as at 31 December 2023. The annual pay for pension purposes is a uniform and objective remuneration concept that includes 12 months' full-time salary, 8% holiday allowance and variable payments, such as payments for on-call shifts and emergency repair shifts, one-off payments for service anniversary bonuses and payments at the end of the employment, among other things.



Remuneration ratio			
2017	5.56	-	base year
2018	4.67	16.0%	lower compared to 2017
2019	4.03	13.7%	lower compared to 2018
2020	3.50	13.0%	lower compared to 2019
2021	3.29	5.9%	lower compared to 2020
2022	3.43	4.2%	higher compared to 2021
2023	3.36	2.2%	lower compared to 2022

Financial Statements 2023

Consolidated income statement

x € 1 million	Note	2023	2022[1]
Net revenue	4	1,752	1,316
Other income	5	18	17
Total net revenue and other income		**1,770**	**1,333**
Personnel expenses	6	537	466
Purchasing costs and contracted work	7	701	499
Other operating expenses	8	194	165
Capitalised own production	9	-262	-229
		1,170	**901**
Depreciation, amortisation and impairment of non-current assets	10	307	296
Total operating expenses		**1,477**	**1,197**
Operating profit		**293**	**136**
Financial income and expenses	11	-65	-30
Result from associates and joint ventures after income tax		-	3
Profit before income tax		**228**	**109**
Income tax	12	-58	-28
Result after income tax		**170**	**81**
Profit distribution:			
Attributable to holders of Stedin Holding N.V. perpetual subordinated bonds (after income tax)	46	6	6
Attributable to the shareholders of Stedin Holding N.V.	46	164	75
Result after income tax		**170**	**81**

1 The comparative figures have been adjusted as a result of a change in the accounting policies for the valuation of property, plant and equipment and a reclassification of hours of hired personnel directly allocated to own investment projects. See 2.2.10 Property, plant and equipment and 6 Personnel expenses for more information.

Consolidated statement of comprehensive income

x € 1 million	Note	2023	2022[1]
Result after income tax		**170**	**81**
Unrealised gains and losses that may be reclassified to the income statement			
Unrealised gains and losses on cash flow hedges	32	-12	57
Recycling cash flow hedge reserve to income statement		1	-6
Deferred tax liabilities on cash flow hedges / cost of hedging	17	3	-13
Total other comprehensive income		**-8**	**38**
Total comprehensive income		**162**	**119**
Profit distribution:			
Attributable to holders of Stedin Holding N.V. perpetual subordinated bonds (after income tax)		6	6
Attributable to the shareholders of Stedin Holding N.V.		156	113
Total comprehensive income		**162**	**119**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment. See 2.2.10 Property, plant and equipment for more information.

Consolidated balance sheet

x € 1 million	Note	31 December 2023	31 December 2022[1]	1 January 2022[1]
ASSETS				
Non-current assets				
Property , plant and equipment	13	7,522	6,993	6,570
Intangible assets	14	107	100	92
Right-of-use assets	15	68	70	73
Financial assets				
- Other non-current financial assets		7	13	14
Total non-current assets		**7,704**	**7,176**	**6,749**
Current assets				
Assets held for sale		-	-	4
Inventories	19	99	54	51
Current tax assets	28	10	-	-
Trade and other receivables	20	283	222	165
Derivative financial instruments	18	-	-	15
Cash and cash equivalents	21	188	53	133
Total current assets		**580**	**329**	**368**
TOTAL ASSETS		**8,284**	**7,505**	**7,117**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment. See 2.2.10 Property, plant and equipment for more information.

x € 1 million	Note	31 December 2023	31 December 2022[1]	1 January 2022[1]
LIABILITIES				
Group equity				
Equity attributable to Stedin Holding N.V. shareholders	22	2,715	2,083	1,974
Perpetual subordinated bond loan	22	506	506	506
Total group equity		**3,221**	**2,589**	**2,480**
Non-current liabilities				
Provisions for employee benefits	22	11	10	9
Other provisions	24	13	11	15
Deferred tax liabilities	17	149	87	65
Derivative financial instruments	18	-	34	64
Interest-bearing debt	25	3,069	3,116	2,675
Lease liability	15	57	59	61
Deferred revenue	26	1,065	960	876
Total non-current liabilities		**4,364**	**4,277**	**3,765**
Current liabilities				
Provisions for employee benefits	22	4	5	4
Other provisions	24	3	1	3
Derivative financial instruments	18	50	19	-
Interest-bearing debt	25	265	280	531
Lease liability	15	12	12	14
Current tax liabilities	28	-	14	12
Trade and other liabilities	27	365	308	308
Total current liabilities		**699**	**639**	**872**
TOTAL LIABILITIES		**8,284**	**7,505**	**7,117**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment. See 2.2.10 Property, plant and equipment for more information.

Consolidated cash flow statement

x € 1 million	Note	2023	2022[1]
Profit after income tax		**170**	**81**
Adjusted for:			
· Financial income and expenses	11	65	30
· Income tax	12	58	28
· Share in result of associates and joint ventures		-	-3
· Depreciation, amortisation and impairments of fixed assets	10	307	296
· Result on sale of property, plant and equipment and intangible assets		-8	-7
· Movements in working capital	36	-49	-60
· Movements in customer construction contributions	26	107	85
· Movements in derivative financial instruments	32	-	7
· Movements in provisions and other		-26	-13
Cash flow from business operations		**624**	**444**
Interest paid		-66	-39
Interest received		2	4
Corporate income tax paid		-14	-17
Cash flow from operating activities		**546**	**392**
Investments in property, plant and equipment		-816	-703
Disposal of property, plant and equipment		12	8
Investments in intangible assets		-9	-3
Disposal of subsidiaries		-	9
New loans issued		-3	-7
Repayments of loans granted		8	7
Cash flow from investing activities		**-808**	**-689**

x € 1 million	Note	2023	2022[1]
Dividend payments ordinary shares		-16	-1
Dividend payments preference shares		-6	-3
Capital reinforcment		500	-
Cost on capital reinforcment		-4	-
Payment of lease liabilities		-14	-14
Coupon and cost on perpetual subordinated bonds	22	-8	-7
Non-current interest-bearing debt newly issued	25	-	495
Current interest-bearing debt newly issued	25	5,723	1,050
Repayment of non-current interest-bearing debt	25	-	-533
Repayment of current interest-bearing debt	25	-5,778	-770
Cash flow from financing activities		**397**	**217**
Movements in cash and cash equivalents		**135**	**-80**
Balance of cash and cash equivalents as at 1 January		53	133
Balance of cash and cash equivalents as at 31 December		**188**	**53**

1 The comparative figures have been adjusted as a result of a change in the accounting policies regarding the valuation of property, plant and equipment (on balance no impact on the interim and total counts) and a reclassification of the cash flows from customer construction contribution. See 2.2.10 Property, plant and equipment and 35 Notes to the consolidated cash flow statement for more information.

Consolidated statement of changes in group equity

	Equity attributable to Stedin Holding N.V. shareholders											
x € 1 million	Paid up and called-up share capital	Share premium	Cash flow hedge reserve	Cost of hedging reserve	Legal reserve capitalized development costs	Legal reserve associates	Retained earnings	Undistributed profit	Total	Perpetual subordinated bond loan	Non-controlling interests	Total group equity
As at 1 January 2022[1]	**539**	**158**	**-53**	**-**	**3**	**-**	**1,323**	**4**	**1,974**	**506**	**-**	**2,480**
Profit after income tax 2022	-	-	-	-	-	-	-	75	**75**	6	-	**81**
Total other comprehensive income after income tax	-	-	39	-1	-	-	-	-	**38**	-	-	**38**
Total comprehensive income	**-**	**-**	**39**	**-1**	**-**	**-**	**-**	**75**	**113**	**6**	**-**	**119**
Transactions with shareholders												
Dividend payments relating to 2021	-	-	-	-	-	-	-	-1	**-1**	-	-	**-1**
Capital reinforcement	-	-	-	-	-	-	-	-3	**-3**	-	-	**-3**
Coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	-8	-	**-8**
Tax on coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	2	-	**2**
Total transactions with shareholders	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-4**	**-4**	**-6**	**-**	**-10**
Other												
Profit appropriation 2021	-	-	-	-	-	-	1	-1	**-**	-	-	**-**
Reclassification	-	-	-	-	6	-	-7	1	**-**	-	-	**-**
Total other	**-**	**-**	**-**	**-**	**6**	**-**	**-6**	**-**	**-**	**-**	**-**	**-**
As at 31 December 2022[1]	**539**	**158**	**-14**	**-1**	**9**	**-**	**1,317**	**75**	**2,083**	**506**	-	**2,589**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment. See 2.2.10 Property, plant and equipment for more information.

	Equity attributable to Stedin Holding N.V. shareholders											
x € 1 million	Paid up and called-up share capital	Share premium	Cash flow hedge reserve	Cost of hedging reserve	Legal reserve capitalized development costs	Legal reserve associates	Retained earnings	Undistributed profit	Total	Perpetual subordinated bond loan	Non-controlling interests	Total group equity
As at 1 January 2023	**539**	**158**	**-14**	**-1**	**9**	**-**	**1,317**	**75**	**2,083**	**506**	**-**	**2,589**
Profit after income tax 2023	-	-	-	-	-	-	-	164	**164**	6	-	**170**
Total other comprehensive income	-	-	-5	-3	-	-	-	-	**-8**	-	-	**-8**
Total comprehensive income	**-**	**-**	**-5**	**-3**	**-**	**-**	**-**	**164**	**156**	**6**	**-**	**162**
Transactions with shareholders												
Dividend payments relating to 2022	-	-	-	-	-	-	-	-16	**-16**	-	-	**-16**
Cumulative preference dividend	-	-	-	-	-	-	-	-6	**-6**	-	-	**-6**
Capital reinforcment	67	433	-	-	-	-	-	-	**500**			**500**
Cost on capital reinforcment	-	-	-	-	-	-	-4	-	**-4**	-	-	**-4**
Tax on cost on capital reinforcment	-	-	-	-	-	-	1	-	**1**			**1**
Coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	-8	-	**-8**
Tax on coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	2	-	**2**
Total transactions with shareholders	**67**	**433**	**-**	**-**	**-**	**-**	**-3**	**-22**	**475**	**-6**	**-**	**469**
Other												
Profit appropriation 2022	-	-	-	-	-	-	53	-53	**-**	-	-	**-**
Reclassification	-	-	-	-	4	4	-7	-	**1**	-	-	**1**
Total other	**-**	**-**	**-**	**-**	**4**	**4**	**46**	**-53**	**1**	**-**	**-**	**1**
As at 31 December 2023	**606**	**591**	**-19**	**-4**	**13**	**4**	**1,360**	**164**	**2,715**	**506**	-	**3,221**

Notes to the consolidated financial statements

1 Accounting principles for financial reporting

1.1 General information

Stedin Holding N.V. is a public limited liability company under Dutch law, with its registered office at Blaak 8, 3011 TA Rotterdam, the Netherlands, and is registered with the Chamber of Commerce under number 24306393.

The main activity of Stedin Holding and its subsidiaries (hereinafter referred to as Stedin Group) is to ensure a safe, reliable and affordable energy supply. Stedin Group's grid manager, Stedin Netbeheer, achieves this on the one hand by building and managing the electricity and gas grids and preparing them for the future and on the other hand by facilitating the energy market. Stedin operates in the provinces of South Holland, Utrecht and Zeeland, as well as in parts of the Noordoost-Friesland and Kennemerland regions. Subsidiary DNWG Infra provides construction and maintenance of technical infrastructure in Zeeland (gas, electricity, water and communication). In addition, it maintains and manages the grids of Evides Waterbedrijf and industrial customers entrusted to it. Subsidiary NetVerder helps achieve the energy transition by developing, constructing and maintaining energy infrastructures for heat, steam and biogas. It also focuses on the independent transmission and distribution of other new energy sources or carriers. Utility Connect is a joint arrangement with Alliander with its own communication network to read smart meters and communicate with smart-grid applications.

Stedin Netbeheer operates alongside five other Dutch regional grid managers in a regulated market. Each regional grid manager is a monopolist within its own service area. Regulation means that the work performed by the grid manager is set out in law and that the rates are set by the Netherlands Authority for Consumers and Markets (ACM). The regulatory model encourages grid managers to perform as well as possible (in terms of efficiency and quality) by using a benchmark model.

For more information on the composition of Stedin Group, see 3 Operating segments and 36 Overview of capital interests.

Unless otherwise stated, all amounts in these financial statements are in millions of euros.

These financial statements were prepared by the Board of Management on 16 February 2024 and approved by the Supervisory Board of Stedin Group. The financial statements will be submitted to the General Meeting of Shareholders for adoption.

Adoption of financial statements for preceding financial year

The financial statements 2022 were adopted by the General Meeting of Shareholders on 26 May 2023.

1.2 International Financial Reporting Standards (IFRS)

The consolidated financial statements of Stedin Group have been prepared in conformity with IFRS as adopted by the European Union (EU) and the provisions of Part 9, Book 2 of the Dutch Civil Code.

New or amended IFRS standards and interpretations relating to the current financial year

The following new or amended IFRS standards have been adopted by the EU and are effective from the financial year 2023:

- IFRS 17 - 'Insurance Contracts'
- Amendments to IAS 1 and IFRS Practice Statement 2 - 'Disclosure of Accounting Policies'
- Amendments to IAS 8 - 'Definition of Accounting Estimates'
- Amendments to IAS 12 - 'Deferred Tax related to Assets and Liabilities arising from a Single Transaction'
- Amendments to IAS 12 - 'International Tax Reform - Pillar Two Model Rules'

These new or amended IFRS standards have no material impact on Stedin Group's financial statements.

New or amended IFRS standards and interpretations relating to subsequent financial years

The following new or amended IFRS standards have been published but are not yet effective for the financial year 2023:

- Amendments to IAS 1 - 'Classification of Liabilities as Current or Non-current'
- Amendments to IAS 1 - 'Non-current Liabilities with Covenants'
- Amendments to IAS 7 and IFRS 7 - 'Supplier Finance Arrangements'
- Amendments to IFRS 16 - 'Lease Liability in a Sale and Leaseback'
- Amendments to IAS 21 - 'Lack of exchangeability'

These new or amended IFRS standards can only be applied if approved by the EU. They are not expected to have a material impact on Stedin Group's financial statements.

1.3 Key events in 2023

Capital reinforcement by the Dutch State and review of dividend policy

On 8 December 2023, the Dutch State joined Stedin Group as a shareholder. The State acquired 11.9% of the ordinary shares for an amount of € 500 million. At the same time, Stedin Group's dividend policy was reviewed and a number of changes were made in relation to governance. For more information, see 22 Group equity and 46 Profit appropriation.

Adjustment of method decisions

On 4 July 2023, the Trade and Industry Appeals Tribunal (CBb) ruled that the ACM had to adjust the method decisions for electricity and gas for the current regulation period (2022-2026) on a number of points. These method decisions are used for calculating the rates we are allowed to charge.

The ACM published the amended method decisions on 14 December 2023, in line with the CBb ruling. As a result, Stedin Group's permitted revenue for the current regulation period is expected to increase by a significant amount. The ACM decided to allocate the additional revenue across the tariffs for future transmission services in the period 2024-2026. The amended method decisions have no impact on the financial data as at 31 December 2023.

Change in accounting policy for property, plant and equipment

In 2023, a change in accounting policy was made in respect of the valuation of regulated networks within property, plant and equipment. This change in accounting policy is explained in 2.2.10 Property, plant and equipment.

2 Accounting policies

These notes describe the main accounting policies.

The accounting policies used in these financial statements are consistent with the accounting policies applied in the financial statements 2022, unless otherwise stated. One exception is the valuation of regulated networks within property, plant and equipment. This change in accounting policy is explained in 2.2.10 Property, plant and equipment. In addition, a number of reclassifications have been made in order to provide further insight. These are explained in 6 Personnel expenses, 9 Capitalised own production and 35 Notes to the consolidated cash flow statement.

The financial statements have been prepared on a going-concern basis.

2.1 Basis of consolidation

The consolidated financial statements incorporate the financial statements of Stedin Holding N.V. and consolidated subsidiaries, as well as proportionally recognised joint operations and equity accounted joint ventures and associates. Where necessary, the accounting policies of joint operations, joint ventures and associates have been aligned with those of Stedin Holding N.V.

An overview of the entities and other capital interests included in the consolidation is provided in 36 Overview of capital interests in the notes to these financial statements.

Subsidiaries

A subsidiary is an entity over which Stedin Group has control. This means that the company controls, directly or indirectly, this entity's financial and business operations so as to obtain economic benefits from its activities. Control is based on the existing and potential voting rights that can be exercised or converted and additionally on the existence of other agreements that enable Stedin Group to determine operational and financial policy.

Pursuant to the full consolidation method, 100% of the assets, liabilities, income and expenses of subsidiaries are recognised in the consolidated financial statements. If Stedin Holding's direct or indirect interest is less than 100%, the share of third-parties in group equity and their share of the result are presented separately. The results of subsidiaries acquired during the financial year are included from the date on which control was obtained. Subsidiaries are derecognised from the date on which control ceases to exist. Intercompany balances, transactions and results on such transactions with and between subsidiaries are eliminated in full.

Joint arrangements

Joint operations and joint ventures are entities for alliances in respect of which there are contractual undertakings with one or more parties under which they have joint decisive control over that entity. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and are accountable for the liabilities relating to the arrangement. A joint venture is a joint arrangement whereby the parties that have joint control over the arrangement have rights to the net assets of the arrangement.

Only Stedin Group's share of assets, liabilities, income and expenses of joint operations is recognised in the financial statements (proportional recognition). Joint ventures are recognised using the equity method. Interests in joint operations and joint ventures are recognised from the date on which joint control is obtained until that joint control no longer exists.

Associates

An associate is an entity over whose financial and operational policies Stedin Group exercises significant influence, but no decisive or joint control.

The share of the results of associates is recognised in the financial statements using the equity accounting method, in which initial recognition is at historical cost, with the book value being adjusted for the share of the result. Dividends received are deducted from the book value. Associates are recognised from the date on which significant influence is obtained until the date on which that influence no longer exists. Results on transactions with associates are eliminated in proportion to the equity interest in the associate.

The share of losses of associates is recognised up to the amount of the net investment in the associate.

2.2 Accounting policies

2.2.1 General

The historical cost principle is applied. In derogation from this, certain assets and liabilities, including derivatives and money market funds, are measured at fair value.

2.2.2 Impairments of assets

Impairment is present when the book value of an asset is higher than the recoverable amount. The recoverable amount of an asset is the higher of the sale price less costs to sell and the value in use. An asset's value in use is based on the present value of the estimated future cash flows, calculated using a pre-tax discount rate that reflects the time value of money and the specific risks of the asset. The recoverable amount of an asset that does not independently generate a cash flow and that is dependent on the cash flows of other assets or groups of assets is determined for the cash-generating unit of which the asset is part.

A cash-generating unit is the smallest identifiable group of assets separately generating cash flows that are significantly independent of the cash flows from other assets or groups of assets. Cash-generating units are distinguished on the basis of the economic interrelationship between assets and the generation of cash inflows rather than on the basis of separate legal entities.

Goodwill is allocated on initial recognition to one or more cash-generating units in line with the way in which the goodwill is assessed internally by the management. Impairment tests are performed each year to assess the value of goodwill based on expected future cash flows.

An assessment is carried out annually for assets other than goodwill to assess whether there have been any events or changes that may indicate impairment. If there is evidence of impairment, the recoverable amount of the relevant asset or cash-generating unit is determined.

When the book value of assets allocated to a cash-generating unit is higher than the recoverable amount, the book value is reduced to the recoverable amount. This impairment is recognised in profit or loss. Impairment of a cash-generating unit is first deducted from the goodwill attributed to that unit (or group of units) and then deducted proportionately from the carrying amount of the other assets of that unit (or group of units).

Impairment previously recognised may be reversed through the income statement if the reasons for it no longer exist or have changed. Impairment is only reversed up to the original book value less regular depreciation. Impairment losses on goodwill are not reversed.

2.2.3 Foreign currencies

The financial statement items of Stedin are administrated in the currency of the economic environment in which Stedin Group operates. The euro (€) is Stedin Group's functional currency and the currency in which the financial statements are presented.

Transactions in foreign currencies are translated into the functional currency (€) at the exchange rate prevailing on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies on the reporting date are translated into euros at the exchange rate prevailing on the reporting date. Foreign currency exchange differences that arise on foreign currency transactions or translation of balance sheet items are recognised in the income statement.

2.2.4 Netting

Receivables and payables with a counterparty are netted if there is a contractual right and the intention to settle these on a net basis. In the absence of an intention or actual netted settlement, the existence of an asset or liability is determined for each contract.

2.2.5 Segmentation

Business segments are based on Stedin Group's internal organisation and management reporting structure. The results of business segments are reviewed regularly by the Board of Management to make decisions about resources to be allocated to a segment and assess its financial performance.

Transfer prices for internal revenues and costs are at arm's length. The accounting policies of Stedin Group are also applied in segment reporting. The results of individual segments do not include financial income and expenses, the share of the results of associates and joint ventures or the tax expense.

2.2.6 Revenue

Revenue comprises income generated in the ordinary course of business and includes revenue from Stedin Group's regulated and non-regulated activities. In this context, Stedin Netbeheer's activities in the electricity and gas domain are classified as regulated and are supervised by the Netherlands Authority for Consumers and Markets (ACM).

Net revenue

Net revenue concerns revenue from the supply of goods or services to customers. Revenue is recognised when, or as, the performance obligation is met by transferring goods or services to the customer. This transfer may take place:

- over a period of time; or
- at a moment in time.

It is inherent in the key services of Stedin Group that these are transferred to the customer during the period in which they are provided.

The selling prices for transmission services are based on the rates as determined by the ACM. The rates for customer construction contributions have also been determined by the ACM. Selling prices that are not subject to price regulation are in line with the market as laid down in the relevant agreement between Stedin Group and the customer.

Adjustments in the selling prices can arise mainly as a consequence of failures in the grid for which customers are required to be compensated by law. These adjustments are deducted from net revenue. Variable revenue is recognised only to the extent that it is highly probable that this revenue will not be reversed in later years.

Electricity and gas transmission services

Electricity and gas transmission services concern transmission, connection and metering services. Stedin Group transmits electricity and gas via its grids to the customer's connection. The distribution services are recognised during the supply period. The revenue from distribution services consists of a fixed periodic payment for the use and the availability of the grids as well as a payment per distributed volume. These services relate to performance obligations that are satisfied during a period. The revenues for the use and the availability of the grids are allocated to the supply period on a straight-line basis. Straight-line allocation represents the availability of the grid during the entire year under review. Volume-based payments are recognised in the income statement in the period in which the distribution service was provided. Amounts settled via subsequent costing in rates of subsequent years are accounted for as revenue in the year when the rate is actually realised on the basis of the services provided in that year.

Customer construction contributions received and reconstructions

In order to make distribution services for electricity and gas possible, Stedin Group will construct grid connections for new supply points. The customer pays a one-off fee as a contribution towards the construction costs for such a new connection. The connection is inseparably linked to the distribution services and forms an integral part of the fee for distribution services. Revenue from customer construction contributions is therefore recognised in equal amounts over the expected useful life of the connection point concerned according to the depreciation method (see 2.2.10 Property, plant and equipment for more information on depreciation method). Stedin Group also receives contributions for reconstruction work carried out on the grid. Like the customer construction contributions, these are recognised in equal amounts over the expected useful life of the grid. Customer construction contributions received in advance and reconstructions are contract liabilities. Within net revenue, contributions recognised over time are presented as part of 'Infrastructure services and other net revenue'.

Infrastructure services and other net revenue
Infrastructure services and other net revenue includes revenue from construction, management and maintenance of technical infrastructure, customer-related contributions (including customer construction contributions recognised over time and reconstructions), rental income for transformers and revenue related to heat, steam, biogas and energy meter data processing.

Other income
Other income relates mainly to revenue from loss recovered from third parties and positive book results on disposals of property, plant and equipment.

Stedin Group sells transformers to third parties on an incidental basis. A book result on disposals, being the sale price less any book value of the asset sold, is recognised at the time the third party has obtained control over the asset concerned. Operating grants credited to the result are also recognised under other income.

Contract assets and liabilities
Contract assets relate to rights to consideration under contracts with customers that are not yet unconditional. These are presented as amounts to be invoiced under 'Trade and other receivables'. Expected credit losses are recognised for the balance sheet item 'amounts to be invoiced' in the same way as for the trade receivables. Contract liabilities are obligations to transfer goods or services to a customer for which consideration has already been received or is due. These are presented as 'Deferred revenue' (non-current portion) and as part of 'Trade payables and other liabilities' (current portion).

2.2.7 Purchasing costs and contracted work
The purchase costs for the compensation of technical and administrative network losses are recognised in the period in which they occur. The costs of materials and services from third parties are also included in this line item.

2.2.8 Financial income and expenses
Financial income comprises interest income from the financial assets, including loans issued and cash and cash equivalents. This interest income is calculated on the basis of the effective interest method.

Financial expenses consist mainly of interest expense on interest-bearing liabilities, calculated on the basis of the effective interest method. The interest-bearing liabilities consist of borrowings and debt, except for the perpetual subordinated bond loan. The interest expense on the perpetual subordinated bond is recognised directly in group equity, in line with the classification of this instrument as equity. In addition, financial expenses also include other financing costs.

Where gains and losses on financial hedging instruments are recognised in the income statement, these are also accounted for under financial income and expenses.

2.2.9 Income tax
Income tax comprises current taxes and deferred taxes and is determined on the basis of the tax laws and rates that are in force or have been substantially enacted at the balance sheet date. These amounts are recognised in profit and loss unless they concern items that are recognised either in other comprehensive income or taken directly to group equity.

Current tax is the amount of income taxes payable or recoverable in respect of the taxable result. Deferred taxes are recognised, subject to conditions, for temporary differences, tax loss carryforwards and tax credits. See 2.2.14 Current and deferred taxes for more information.

2.2.10 Property, plant and equipment
Property, plant and equipment is subclassified into the following categories:

- Land and buildings
- Networks
- Other operating assets
- Assets under construction

Land and buildings, networks, other operating assets and assets under construction

Property, plant and equipment is recognised at cost less accumulated depreciation and impairment. Cost comprises the initial acquisition price plus all directly attributable costs. Cost of assets constructed by the company comprises the cost of materials and services, direct labour and an appropriate proportion of directly attributable overhead costs.

Financing costs

Financing costs directly attributable to the purchase, construction or production of an eligible asset are recognised in cost in accordance with IAS 23. If an asset comprises multiple components with differing useful lives, these components are recognised separately.

Subsequent expenditure

Expenses incurred at a later date are only added to the book value of an asset if and to the extent that the condition of the asset is improved compared to the originally formulated performance standards. Repair and maintenance costs are recognised as an expense in the period in which the costs are incurred. If an asset comprises multiple components with differing useful lives, these components are recognised separately. Costs incurred to replace components of property, plant and equipment that are replaced for the asset to be capable of operating in the intended manner are capitalised while simultaneously removing the book value of the replaced components.

Depreciation/amortisation

Depreciation is recognised in the income statement using the straight-line method based on estimated useful life, taking into account the estimated residual value. Specifically for gas-related assets (other than customer meters), the company applies a declining-balance method due to the expected decrease in the number of gas grid users, taking into account an estimated acceleration factor of 1.2 based on expected future usage (2022: 1.2), useful life and residual value. Usage, useful life and residual value are reassessed annually and any changes are recognised prospectively. Land, sites and assets under construction are not depreciated.

Category	Useful life in years
Buildings	25 - 50
Networks	10 - 55
Other operating assets	3 - 25

Change in accounting policy for the valuation of property, plant and equipment

Up to and including the 2022 financial statements, Stedin valued its networks and network-related assets in the regulated electricity and gas domain (regulated networks) on the basis of the revaluation model (fair value at the date of the revaluation less accumulated depreciation and impairment losses). With effect from the financial statements 2023, these regulated networks are valued based on the cost model in IAS 16 and are part of the asset category 'Networks' in order to improve Stedin's comparability with the other regional grid managers.

The change in accounting policy has been recognised with retrospective effect from 1 January 2022 and has the following impact on the consolidated balance sheet as at 1 January and 31 December 2022:

	1-1-2022			31-12-2022		
x € 1 million	After change in accounting policy	Before change in accounting policy	Change	After change in accounting policy	Before change in accounting policy	Change
Property, plant and equipment	6,570	7,635	-1,065	6,993	8,008	-1,015
Revaluation reserve (equity)	-	790	-790	-	753	-753
Deferred tax liabilities	65	340	-275	87	349	-262

Depreciation in 2022 decreased by € 50 million and the result after income tax and total comprehensive income for 2022 increased by € 37 million compared with the 2022 financial statements.

2.2.11 Leases

Stedin Group as lessee

Upon commencement of a contract, Stedin Group determines whether it is a lease or includes a lease component. A contract is a lease if the contract grants the right to exercise control over the use of an identified asset during a certain period, in exchange for consideration. With respect to each lease in which Stedin Group is the lessee, Stedin Group calculates a right-of-use asset and a corresponding lease liability, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases with a value of € 5,000 or less. Stedin Group recognises the lease payments for these leases on a straight-line basis as operational expenses in the income statement.

The lease liability is initially measured at the present value of the future lease payments, discounted by using the interest rate implicit in the lease. If this rate cannot be readily determined, the lessee uses the incremental borrowing rate. The incremental borrowing rate is based on the risk-free market interest rate, increased by a risk premium applying specifically to Stedin Group for a similar term and with a similar security as that which Stedin Group would have to pay in order to borrow the funds necessary to obtain a similar asset.

Lease payments that are included in the measurement of the lease liability comprise:
- fixed lease payments, less any rent reductions and/or investment contributions;
- variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- the exercise price of purchase options, if the lessee is reasonably certain to exercise the options;
- payments of penalties for terminating the lease, if it is reasonably certain that the lessee will exercise the option to terminate the lease.

The lease liability is subsequently increased each month to reflect the interest on the lease liability and decreased to reflect the lease payments.

Stedin Group remeasures the lease liability and the right-of-use assets whenever:
- the lease term has changed or the expectation of the exercise of an extension option, termination option or purchase option has changed;
- the lease payments change due to indexation, for instance; and/or
- a lease contract is modified.

On the commencement date, the right-of-use asset is measured at cost. This cost price consists of the amount of the initial statement of the lease liability, the initial direct costs incurred and the lease payments made on or before the commencement date, minus all the lease incentives received.

Stedin Group determines the lease period as the non-cancellable period of a lease, together with:
- periods covered by an option to extend the lease if Stedin Group is reasonably certain to exercise that option; and
- periods covered by an option to terminate the lease if Stedin Group is reasonably certain not to exercise that option.

In this assessment, Stedin Group considers all relevant facts and circumstances that create an economic incentive to exercise the option to extend the lease or not to exercise the option to terminate the lease.

Variable leases that do not depend on an index or rate are not included in the measurement of the lease liability and the right- of-use asset. The related payments are recognised as an expense in the income statement.

As a practical expedient, IFRS 16 permits a lessee not to separate non-lease components and instead account for any lease and associated non-lease components as a single arrangement. Stedin Group does not apply this simplification.

The right-of-use asset is periodically assessed, in accordance with IAS 36, to determine whether events or changes apply that may indicate impairment.

Leases are recognised in the balance sheet under right-of-use assets and lease liabilities. Depreciation on right-of-use assets is recognised in depreciation, and the interest expense is recognised in financial expenses in the income statement. Cash flows relating to the leases are shown separately in the cash flow statement.

Stedin as lessor

Stedin Group leases a number of business premises and transformers to third parties. The assets are recognised by Stedin Group in property, plant and equipment. Lease revenues are recognised in equal amounts through the income statement of Stedin Group as net revenue and other income over the term of the lease.

Depreciation/amortisation

Amortisation is recognised in the consolidated income statement using the straight-line method based on the estimated lease term of the right-of-use asset. The lease term is assessed when the lease contracts are changed and the lease term can be terminated or renewed, based on the lease contract.

The following useful lives are applied:

Category	Useful life in years
Leasehold and buildings	1-100
Leased cars	1-6

2.2.12 Goodwill

The acquisition price of a subsidiary is equal to the amount paid to acquire it. When this acquisition price exceeds the share in the fair value of the identifiable assets and liabilities on the acquisition date, the excess is recognised as goodwill. Any shortfall is recognised as a gain in profit or loss.

Goodwill is measured at cost less impairment. Goodwill is not amortised. Goodwill is allocated to one or more cash-generating units. Goodwill is tested for impairment annually.

Goodwill purchased on acquisition of subsidiaries is recognised in the balance sheet under intangible assets.

2.2.13 Other intangible assets

Other intangible assets comprise software, concessions, licences, rights and development costs. The related costs are capitalised if it is probable that these assets will generate economic benefits and their costs can be reliably measured. Other intangible assets have a finite useful life and are recognised at cost less accumulated amortisation and impairment.

Software

Software is capitalised at cost. Cost of customised software comprises the one-time cost of acquiring it. Costs of software maintenance are recognised as an expense in the period in which they are incurred.

Depreciation/amortisation

Amortisation is recognised as an expense on the basis of the estimated useful life from the time that the relevant asset is available for use. Other intangible assets are amortised using the straight-line method. The residual value of these assets is nil. Amortisation is presented in the income statement as a component of 'Depreciation, amortisation and impairments of non-current assets'.

The following useful lives are applied:

Category	Useful life in years
Software	3 - 5
Concessions, permits and rights	3 - 30
Development costs	5 - 15

2.2.14 Current and deferred taxes

Current tax assets concern amounts recoverable and current tax liabilities concern amounts payable to the Tax and Customs Administration. Current taxes are stated at nominal value.

Deferred taxes are calculated for temporary differences between the tax bases and book values of assets and liabilities, unless they fall within the scope of the initial recognition exception, as well as for unused tax losses and tax credits. Deferred taxes are measured using the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on applicable tax rates and tax laws. Deferred taxes are stated at nominal value.

Deferred tax assets for deductible temporary differences, tax losses carried forward and unused tax credits available for set-off are only recognised if, and to the extent that, it is probable that future taxable profit will be available against which unused tax losses and unused tax credits can be utilised.

Deferred tax assets for deductible temporary differences relating to investments in subsidiaries, joint operations, and interests in associates as well as joint ventures are only recognised if it is probable that the temporary difference will reverse in the near future and that future taxable profit will be available against which the deductible temporary difference can be utilised.

Deferred tax liabilities are recognised for all taxable temporary differences arising from investments in subsidiaries, joint operations and interests in associates and joint ventures, unless Stedin Group can determine the time at which the temporary difference will reverse and it is probable that the temporary difference will not reverse in the near future.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to set off tax assets against tax liabilities and if the deferred tax assets and liabilities relate to taxes levied by the same tax authority on the same fiscal unity.

2.2.15 Derivatives

Hedge accounting

Derivatives are classified as hedging instruments if they are used to hedge the risk of fluctuations in current or future cash flows or fluctuations in the fair value of assets or liabilities. If the hedge can be attributed to a specific risk or to the full movement in the transaction associated with an asset, liability or highly probable forecast transaction or balance sheet item, the attributed derivatives are recognised as hedging instruments.

The positive book values of derivatives have been recognised as such under non-current and current assets. The negative book values of derivatives have been recognised under non-current and current liabilities.

Cash flow hedge accounting

Cash flow hedge accounting aims to mitigate volatility in future cash flows due to currency risk and interest rate risk. If the conditions for cash flow hedge accounting are met, the effective portion of movements in the fair value of derivatives is recognised in the Consolidated statement of comprehensive income as 'Unrealised gains and losses on cash flow hedges'. The ineffective portion is recognised directly in the income statement. These changes (net of income tax) are then recognised in the cash flow hedge reserve in group equity or in the cost of hedging reserve. Components that could cause the hedge to be ineffective are excluded from the hedging relationship and amortised in the cost of hedging reserve over the term of the hedged instrument.

Amounts recognised in group equity are transferred to the consolidated income statement when the hedged asset or liability is settled or otherwise affects the result. When a hedging instrument expires or is sold, terminated or exercised, or when the conditions for hedge accounting are no longer met although the underlying future transaction has yet to take place, the accumulated result remains in group equity (in the cash flow hedge reserve) until the

forecast transaction has taken place. If the forecast transaction is no longer likely to take place, the accumulated result is transferred directly from group equity to the consolidated income statement.

Pre-hedges

Pre-hedges comprise interest-rate derivatives that are entered into prior to entering into the loan to which the pre-hedge concerned relates. When entering into this type of derivative, Stedin Group enters into an obligation where the fixed interest is locked in in advance ('interest rate swap') with an effective date in the future ('forward starting') for a selected term. The reason for entering into such an obligation is to effect a financing arrangement at an interest rate close to the average market rate in a financial year, in line with the method used in regulation.

Cash flow hedge accounting is applied for these derivatives. Therefore, any net changes in market value of the derivatives are recognised in Stedin Group's equity.

Fair value hedge accounting

Fair value hedge accounting is applied to mitigate the risk of changes in the fair value of the hedged positions. If the conditions for fair value hedge accounting are met, the change in the fair value of the relevant positions is recognised in the income statement in addition to the change in fair value of the derivative (including any ineffective portion). The ineffective portion is therefore recognised directly through the income statement.

When the hedge is terminated (due to early settlement of the derivative), the cumulative change in value in the balance sheet is amortised over the remaining term of the hedged instrument.

2.2.16 Other non-current financial assets

Other non-current financial assets are mainly long-term items with a term of more than one year, such as loans, receivables and prepayments to associates, joint ventures or third parties. Long-term receivables, loans and prepayments are measured at amortised cost using the effective interest method.

2.2.17 Assets / liabilities held for sale

Assets/liabilities held for sale and operations to be disposed are classified as held for sale as soon it is expected that the book value will be realised by means of a sale rather than through continued use. This classification is only made if it is highly probable that the assets/liabilities or operations are available for immediate sale in their present condition and the sale is expected to be completed within one year.

Assets/liabilities held for sale are measured at the lower of the book value preceding classification as held for sale and fair value less costs to sell.

2.2.18 Inventories

Inventories are recognised at the lower of weighted average cost and direct net realisable value. Cost of inventories is the purchase price including directly attributable costs incurred to bring the inventories to their present location in their present condition. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to sell. Impairment of inventories is recognised through the consolidated income statement if the book value exceeds the book value.

2.2.19 Trade and other receivables

Trade and other receivables have a term of less than one year. This item also includes amounts at the reporting date that have yet to be invoiced for services supplied. On initial recognition, receivables are accounted for at amortised cost less impairment losses due to expected losses for bad debts in connection with credit risk.

The expected credit losses are estimated on the basis of the credit quality of the counterparty on the basis of individual estimates or estimates for a portfolio of similar receivables. For the assessment of risks in portfolios, Stedin Group uses a simplified model that is based on Stedin's experience of receivables with the same risk profile, supplemented by expected developments of the debtors and the economic environment.

Receivables are written off when it is clear that the debtor will no longer be able to pay.

2.2.20 Cash and cash equivalents

Cash and cash equivalents includes bank balances and money market funds. The money market funds held classify as cash equivalents and are measured at fair value (level 1).

2.2.21 Perpetual subordinated bond loan

The perpetual subordinated bond loan is classified as equity in the consolidated financial statements in accordance with the contractual conditions for the instrument.

The principal of the perpetual subordinated bond loan is presented at nominal value. The transaction costs paid are charged to retained profit when the loan is issued. As a result of the coupon interest payable annually (the payment of which is at the company's discretion) and the associated tax effects, a portion of the result after income tax within equity is allocated to the perpetual bond.

2.2.22 Provisions for employee benefits

Pensions

The pension liabilities of almost all business units have been placed with the industry-wide pension funds: Stichting Pensioenfonds ABP (ABP) and Stichting Pensioenfonds Metaal en Techniek (PMT). A limited number of employees have individual plans insured with various insurance companies.

The amount of the pension depends on age, salary and years of service. Employees may opt to retire earlier or later than the state retirement age, in which case their pension is adjusted accordingly. Retiring later than the state retirement age is only possible with Stedin's consent. At ABP, employees can retire between 60 and the state retirement age plus 5 years. At PMT, this is between five years before and five years after the state retirement age.

The most important pension plans, which have been placed with ABP, are group plans in which several employers participate. Stedin's share in these group plans is unknown. These plans are essentially defined benefit plans. However, as Stedin has no access to the required information and because participation in the group plans exposes Stedin to actuarial risks connected with present and former employees of other entities, these plans are treated as defined contribution plans, and the pension contributions payable for the financial year are accounted for as pension expenses in the financial statements. Pension contributions are indexed annually. There are no catch-up payments or discounts.

Other provisions for employee benefits

A provision is recognised for the obligation of Stedin Group to pay out amounts related to long-service benefits and on the retirement of employees. A provision is also recognised for the obligation of Stedin Group to contribute towards the health insurance premiums of retired employees, salary payments in the event of illness and the employer's risk under the Unemployment Insurance Act (Werkloosheidswet). Where appropriate, these liabilities are calculated at the reporting date using the projected unit credit method, using a pre-tax discount rate that reflects the current market assessment of the time value of money.

2.2.23 Other provisions

A provision is recognised when there is a present legal or constructive obligation that is of an uncertain amount or timing due to a past event, the settlement of which will probably lead to an outflow of resources.

Provisions that will be settled within one year of the reporting date, or that are of limited material significance, are recognised at face value. Other provisions are recognised at the present value of the expected expenditure. The specific risks inherent to the relevant obligation are taken into account when determining this expenditure. The present value is calculated using a pretax discount rate that reflects the current market assessment of the time value of money. The expected expenditure is determined based on detailed plans in order to limit the uncertainty regarding the amount.

2.2.24 Interest-bearing debt

On initial recognition, interest-bearing debt is carried at fair value less directly attributable transaction costs. Subsequent to initial recognition, interest-bearing debt is recognised at amortised cost using the effective interest method.

2.2.25 Trade and other liabilities

Trade and other liabilities are recognised at fair value when first shown on the balance sheet. They are subsequently carried at amortised cost. Liabilities with a term of less than one year are not discounted on initial recognition. In view of their short-term nature, trade and other liabilities are recognised at face value.

2.2.26 Government grants

Government grants are not recognised until there is reasonable assurance that the grant will be received and that the grant conditions will be met. Investment grants are deducted from the cost of the asset. Operating grants are presented as part of other income.

If it cannot yet be stated with reasonable certainty that all conditions will be met, grants received are recognised as other liabilities.

2.2.27 Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value can be measured in various ways, and depending on the use of observable inputs, the value is classified into the following categories:

Level 1

Level 1 recognises financial instruments whose fair value is measured using unadjusted quoted prices in active markets for identical instruments.

Level 2

Level 2 recognises financial instruments whose fair value is measured using market prices or pricing statements and other available information. Where possible, the measurement method uses observable market prices. Contracts for derivatives are measured by agreement with the counterparty, using observable interest rate and foreign currency forward curves.

Level 3

Level 3 recognises financial instruments whose fair value is measured using calculations involving one or more significant inputs that are not based on observable market data.

2.3 Judgements, estimates and assumptions

In preparing these financial statements, the management of Stedin Group used judgements, estimates and assumptions that affect the reported amounts and rights and obligations not disclosed in the balance sheet. In particular, this concerns the valuation of property, plant and equipment and intangible assets, as well as estimated network losses. The judgements, estimates and assumptions that have been made are based on market information, knowledge, historical experience as well as other factors that can be deemed reasonable in the circumstances. Actual results could, however, differ from the estimates. Judgements, estimates and assumptions are reviewed on an ongoing basis. Changes in accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period.

If the revision also affects future periods, the change is made prospectively in the relevant periods. Any points of particular importance with regard to judgements, estimates and assumptions are set out in the notes to the income statement and balance sheet items concerned.

Usage, useful life and residual value of property, plant and equipment

The depreciation periods and residual values of property, plant and equipment are based on the asset's expected useful technical and economic life. For gas assets (other than customer meters), due to the declining-balance method of depreciation, usage is also taken into account, based on the expected future decrease in usage of the grids and connections. The usage, useful life and residual value are reviewed annually. An asset's usage, useful life or residual value may change as a result of changes in external or internal factors, including technological developments and market developments. These factors can also lead to impairment of an asset. In 2023, this review did not result in any adjustments.

Goodwill

The recognised goodwill relates to the acquisition of DNWG in 2017 and was fully allocated to the Stedin Netbeheer CGU after the merger of Stedin Netbeheer and Enduris as at 1 January 2022. This goodwill is tested for impairment annually as at 30 June. At 31 December, it is determined whether there are indications of impairment and a new test is only carried out if this is the case. There is no goodwill impairment in 2023.

See 14 Intangible assets for further details.

Network losses

Allocation is a process by which the quantities of distributed electricity and gas are determined on a daily basis and allocated to users. This is partly based on actual consumption (roughly for heavy-use consumers) and partly on estimates based on standard annual consumption (roughly for low-use consumers). The allocation process estimates consumption and network losses as accurately as possible. The consumption levels initially allocated to low-use consumers are adjusted for the actual quantities obtained through meter readings ('reconciliation'), along with a recalibration of the estimates. Pursuant to statutory arrangements on allocation and reconciliation, this process must be settled within 21 months after the end of the month of delivery. The expected results from the reconciliation are estimated as accurately as possible and incorporated in the financial statements. The ultimate settlement based on actual consumption figures may potentially have an effect on future results. The obligation in connection with network losses not yet settled is part of 'Other liabilities and deferred income' as stated in 27 Trade and other liabilities.

Energy transition

As grid manager, Stedin stands at the heart of the energy transition. In addition to managing our energy infrastructure, we have been making our infrastructure more and more suitable for the energy transition in recent years.

This specifically means that we take a critical look at the future of our gas grid and that we invest heavily in expanding the capacity of our electricity grid. We are also working within NetVerder to develop heat grids.

In the previous year, this led to an adjustment of the depreciation method for gas-related assets (other than customer meters), from linear to degressive, due to an expected decrease in gas consumption due to the use of alternative energy sources. At the same time, the insights gained led to a prolongation of useful life. The annual review in 2023 did not lead to any new changes in the estimates.

The investments Stedin makes to expand and reinforce the electricity network fall under the regulation of the ACM, with the basic principle being that efficient investments are reimbursed, including a reasonable return. As part of the benchmark comparison, it is determined to what extent our investments are efficient. However, the increasing level of investment, in combination with a delayed reimbursement based on the tariffs, leads to increasing financing requirements in the short to medium term. In 2023, the State joined Stedin as a shareholder for an amount of € 500 million (see also 1.3 Key events in 2023. Further information can also be found in 34 Subsequent events). Raising new equity creates additional scope to attract loan capital in future years.

Another important financial factor in the context of the energy transition is increased energy prices. For Stedin, these persistently high prices have had a particular impact on the cost of network losses, which have risen significantly, as in the previous year. These costs fall under the regulation of the ACM. To ensure that increased network loss costs do not erode the scope for investment in projects that are important for the energy transition, the ACM has decided to adjust the compensation method for network loss costs. Network loss costs are now partly subject to retrospective costing on an individual basis and are therefore no longer reimbursed entirely on the basis of market share. In addition, the ACM included an advance in the 2023 and also 2024 rates to compensate for a portion of the expected network loss costs. In the previous year, Stedin adjusted its purchasing strategy: purchasing more at longer-term fixed prices reduces sensitivity to short-term price shocks.

The higher energy prices do not immediately lead to a material increase in the debtor risk, because the credit risk for Stedin's low-use customers lies at the level of the energy supplier. This is explained in more detail in 32.2 Credit risk.

Alongside costs for network losses, TenneT's transmission purchase costs are also increasing. The effect of the regulation means that increases in TenneT's rates can be passed on directly to customers, limiting the financial risk for Stedin. However, it does lead to a further increase in Stedin's rates. In contrast, congestion management costs are low for the time being, partly due to the still limited supply of flexible capacity. Amendments to laws and regulations may change this in the coming years and congestion management costs may become significant.

3 Operating segments

Business segments are based on Stedin Group's internal organisation and management reporting structure. The segments are:

'Grid manager Stedin' segment
The 'Grid manager Stedin' business segment comprises the regulated domain: the grid manager Stedin. Stedin manages the gas and electricity grids in its service area.

'Other and eliminations' segment
The most important units of the 'Other and eliminations' segment are the non-regulated activities as described in 1.1 General information, the activities of the holding company and the cost entities being Stedin Groep Personeels B.V. and Stedin Groep Services B.V., as well as the elimination of intragroup transactions. The units are non-reportable segments, since they are not material, and are therefore included within the 'Other and eliminations' segment.

The balance sheet by operating segment is not reported periodically in the internal management information. Consequently, this is not presented. The accounting policies for these financial statements applied by Stedin Group are also applied in segment reporting.

The operating results are not cyclical in nature and are not materially affected by seasonal patterns.

3.1 Net revenue and other income, operating profit and investments by segment

Stedin Group operates solely in the Netherlands, and all its revenues are generated there. The non-current assets of all segments are located in the Netherlands.

For the breakdown of net revenue, Stedin Group sought alignment wherever possible with the periodic reports required by the Netherlands Authority for Consumers and Markets (ACM) for the regulated domain. The table also provides a reconciliation of the broken down net revenue with the segment information on the basis of the internal organisation and management reporting structure:

2023 x € 1 million	Segment Stedin	Other and eliminations	Total
Net revenue			
- Electricity transmission and connection services	1,229	-	1,229
- Gas distribution and connection services	355	-	355
- Metering services	67	-	67
- Infrastructure services and other	65	36	101
Other income	16	2	18
Total revenue	**1,732**	**38**	**1,770**
Operating expenses	1,156	14	1,170
Depreciation, amortisation and impairments of property, plant and equipment and intangible assets	282	25	307
Total operating expenses	**1,438**	**39**	**1,477**
Operating profit	**294**	**-1**	**293**
Financial income and expenses	-36	-29	-65
Profit after income tax subsidiaries	-	-	-
Profit before income tax	**258**	**-30**	**228**
Income tax	-66	8	-58
Profit after income tax	**192**	**-22**	**170**

2022 x € 1 million[1]	Segment Stedin	Other and eliminations	Total
Net revenue			
- Regulated electricity transmission and connection services	819	-	819
- Regulated gas distribution and connection services	315	-	315
- Metering services	92	-	92
- Infrastructure services and other	53	37	90
Other income	12	5	17
Total revenue	**1,291**	**42**	**1,333**
Operating expenses	883	18	901
Depreciation, amortisation and impairments of property, plant and equipment and intangible assets	272	24	296
Total operating expenses	**1,155**	**42**	**1,197**
Operating profit	**136**	**-**	**136**
Financial income and expenses	6	-36	-30
Profit after income tax subsidiaries[2]	-	3	3
Profit before income tax	**142**	**-33**	**109**
Income tax	-38	10	-28
Result after income tax	**104**	**-23**	**81**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment.

See 2.2.10 Property, plant and equipment for more information.

2 Profit after income tax subsidiaries mainly concerns the sale of TUMS to Censo as of February 10, 2022.

Investments in 2023 based on the internal organisation and management reporting structure were as follows:

2023 x € 1 million	Segment Stedin	Other and eliminations	Total
Investments in property, plant and equipment, intangible assets and right-of-use assets	820	23	843

2022 x € 1 million	Segment Stedin	Other and eliminations	Total
Investments in property, plant and equipment, intangible assets and right-of-use assets	701	21	722

Revenue and results for and investments in 2022 based on the internal organisation and management reporting structure were as follows:

Major customers

Stedin Group has no customers for which the net revenue per customer amounts to 10% or more of total net revenue.

4 Net revenue

x € 1 million	2023	2022
Electricity transmission and connection services	1,229	819
Gas distribution and connection services	355	315
Metering services	67	92
Infrastructure services and other	101	90
Total	**1,752**	**1,316**

Net revenue for 2023 increased by € 436 million compared to the previous year. The increase is mainly due to higher revenue for the transmission of electricity and distribution of gas driven by higher rates. This is offset by a fall in metering revenue on account of lower metering tariffs. Infrastructure services and other net revenue increased slightly. This category includes customer contributions, including amortisation of deferred revenue, and revenue from infrastructure maintenance and management.

5 Other income

Other income amounted to € 18 million and is in line with the previous year (2022: € 17 million). A gain of € 8 million (2022: € 7 million) was recognised in 2023 in relation to sales of non-regulated transformers and related assets. These sales mainly follow from agreements made at the time of the sale of Joulz. Non-regulated transformers identified after 2019 will be offered to Joulz first. Joulz can and may decline any individual offer.

6 Personnel expenses

x € 1 million	2023	2022
Salaries	312	279
Social security contributions	39	34
Pension contributions	42	41
External staff	125	95
Other personnel costs	19	17
Total	**537**	**466**

Personnel expenses increased by € 71 million compared to the previous year.

The main reason for this increase is higher salaries due to collective labour agreement increases and a higher number of employees. In addition, the costs of external staff have increased as a result of higher rates and a higher number of external employees.

With effect from the financial statements 2023, the costs of hiring in external workers are presented gross. Hours worked by externally hired staff which are allocated directly to own investment projects are deducted from the total operating expenses as part of capitalised own production. This amounts to € 23 million (2022: € 13 million). The comparative figures have been adjusted accordingly. See also 9 Capitalised own production.

Own staff personal budget costs were previously partly recognised as part of other personnel expenses. With effect from the 2023 financial statements, these costs are fully accounted for as part of salary costs. The comparative figures have been adjusted by € 22 million.

6.1 Number of staff members

Average own workforce (in FTEs)	2023	2022
Stedin	4,073	3,781
DNWG Infra	290	271
NetVerder	9	7
Total average no. of own fte	**4,372**	**4,059**
Employed outside the Netherlands	-	-
Male	81%	82%
Female	19%	18%

6.2 Remuneration of Board of Management and Supervisory Board members

These notes contain the information prescribed by Part 9 of Book 2 of the Dutch Civil Code and IAS 24 on the remuneration of Board of Management and Supervisory Board members. Information on WNT compliance by Stedin Netbeheer B.V. will be published at a later date, pending clarity on the Audit Protocol WNT 2023. The members of the Board of Management and Supervisory Board qualify as 'key management' within the meaning of IAS 24.

6.2.1 Remuneration of the Board of Management

The members of the Stedin Group Board of Management are all employed by Stedin Groep Personeels B.V. The Board of Management members are employed on a full-time basis (1.0 FTE) and perform work for the various group entities, in particular Stedin Netbeheer B.V.

Data for 2023 x € 1	Koen Bogers	Danny Benima	Trudy Onland	David Peters
Position details	CEO	CFO	COO	CTO
Remuneration				
Remuneration plus taxed expense allowances	217,377	214,823	211,084	215,542
Remuneration payable in future	22,920	22,909	22,892	22,912
Total remuneration	**240,297**	**237,732**	**233,976**	**238,454**
Data for 2022				
Remuneration				
Remuneration plus taxed expense allowances	225,409	225,395	225,398	224,944
Remuneration payable in future	28,916	28,290	27,813	27,172
Total remuneration	**254,325**	**253,685**	**253,211**	**252,116**

6.2.2 Remuneration of the Supervisory Board

The composition of the Supervisory Board was unchanged in 2023. The chair and four other members of the Supervisory Board serve in this role on a basis other than an employment contract.

x € 1	Doede Vierstra	Hanne Buis	Theo Eysink	Arco Groothedde	Annie Krist
Position details	Chairman	Member	Member	Member	Member
Total remuneration	**33,450**	**22,300**	**22,300**	**22,300**	**22,300**
Data for 2022					
Position details	Chairman	Member	Member	Member	Member
Total remuneration	**32,400**	**21,600**	**21,600**	**21,600**	**21,600**

An explanation of the remuneration of other executives employed by Stedin Group can be found in the Remuneration report for 2023.

7 Purchasing costs and contracted work

x € 1 million	2023	2022
Cost of sale for network losses	289	194
Cost of sale for transport services	291	198
Contracted work	121	107
Total	**701**	**499**

Costs of sales and contracted work increased by € 202 million compared to the previous year.

This increase is mainly due to higher network loss costs driven by higher energy prices, which were partly fixed in previous year, and higher transmission costs charged by TenneT. The cost of contracted work also increased, partly due to an increase in contracted maintenance work and inflation.

8 Other operating expenses

x € 1 million	2023	2022
Other taxes and levies	10	8
IT costs	64	55
Lease expenses	13	10
Accommodation costs	23	22
Grid management platform contributions	31	28
Other expenses	53	42
Total	**194**	**165**

Other operating expenses increased by € 29 million compared to the previous year.

One of the reasons for this increase is higher consultancy and research costs related to the acceleration of the energy transition and higher IT and other costs, partly due to the growth of the organisation.

9 Capitalised own production

Hours worked that are directly attributed to own investment projects are deducted from total operating expenses as capitalised own production. With effect from the 2023 financial statements, this applies not only to internal staff but also to hired-in workers. As a result, the external staff costs are presented gross in 6 Personnel expenses . The comparative figures have been adjusted accordingly.

Capitalised own production increased compared to the previous year by € 33 million to € 262 million. The increase is in line with the rising level of investment.

10 Depreciation, amortisation and impairment of non-current assets

2023 x € 1 million	Property, plant and equipment	Intangible fixed assets	Leases	Total
Depreciation and amortisation	274	1	14	289
Disposals	17	1	-	18
	-	-	-	-
Total 2023	**291**	**2**	**14**	**307**

2022 x € 1 million[1]	Property, plant and equipment	Intangible fixed assets	Leases	Total
Depreciation and amortisation	263	2	15	280
Disposals	16	-	-	16
	-	-	-	-
Total 2022	**279**	**2**	**15**	**296**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment.

See 2.2.10 Property, plant and equipment for more information.

Depreciation, amortisation and losses on disposals increased by € 9 million compared to the previous year. This is mainly explained by a rising investment level and relatively high investments in 2022, which have been depreciated a full year this year.

11 Financial income and expenses

x € 1 million	2023	2022
Interest income	-2	-4
Interest expense	66	41
Interest expense lease liabilities	1	1
Other interest income and expenses	-	-8
Total	**65**	**30**

Net financial expenses increased by € 35 million compared to the previous year. The financial expenses relate mainly to the interest expense for external financing. These expenses increased due to higher debt during the year and higher market interest rates. During 2023, Stedin attracted additional short-term financing in anticipation of the € 500 million capital contribution by the State.

In addition, there was one-off financial income of € 8 million in 2022 arising from the repayment of a loan.

12 Income tax

Income tax on the result in the income statement is as follows:

x € 1 million	2023	2022[1]
Current tax expense for current year	3	19
Current tax income prior years	-1	-
Current tax income loss carryback	-9	-
Current tax expense and tax income	**-7**	**19**
Deferred taxes temporary differences	75	9
Deferred taxes loss carry forward	-10	-
Deferred taxes	**65**	**9**
Income taxes	**58**	**28**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment.

See 2.2.10 Property, plant and equipment for more information.

Current tax expense and income for the current year is as follows:

x € 1 million	2023	2022[1]
Profit before income tax	**228**	**109**
Participation exemption	-	-2
Non tax-deductible expenses	1	1
Different depreciation methods for tax purposes	-288	-34
Tax-deductible costs via group equity	-11	-8
Taxable profit	**-70**	**66**
Carry back of losses	33	-
Carry forward of losses	37	-
Taxable amount	**-**	**66**
Nominal tax rate	25.8%	25.8%
Current tax expense	**-**	**17**
Of which current tax via group equity	-3	-2
Of which current tax via profit and loss	3	19

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment.

See 2.2.10 Property, plant and equipment for more information.

In 2023, Stedin Group made use of the tax arrangement for arbitrary depreciation of business assets. Under this arrangement, new business assets that meet the conditions may be arbitrarily depreciated up to 50%. The result is a tax loss for 2023. This is partly set off retroactively against the taxable profit for 2022. The remainder remains available for loss carried forward.

The effective tax rate, expressed as a percentage of the profit before income tax, is as follows:

	2023	2022
Nominal tax rate	**25.8%**	**25.8%**
Effect of:		
- Participation exemption	0.0%	-0.8%
- Non tax-deductible expenses	0.1%	0.2%
- Corporate income tax for prior years	-0.3%	0.4%
- Other	0.0%	-0.1%
Effective tax rate	**25.6%**	**25.5%**

The effective tax rate is in line with the nominal tax rate.

Corporate income tax is settled between Stedin Holding N.V. and its subsidiaries, to the extent they are part of the fiscal unity, as if the subsidiaries were independently liable to pay tax.

13 Property, plant and equipment

x € 1 million	Land and buildings	Networks	Other operating assets	Assets under construction	Total
Position as at 1 January 2022					
Historical cost	468	10,318	58	561	**11,405**
Accumulated depreciation and impairment	198	4,594	43	-	**4,835**
Net book value	**270**	**5,724**	**15**	**561**	**6,570**
Movements					
Investments	13	348	2	339	**702**
Disposals	-1	-15	-	-	**-16**
Depreciation	-11	-248	-4	-	**-263**
Reclassification	12	278	9	-299	**-**
Net movements	**13**	**363**	**7**	**40**	**423**
Position as per 31 December 2022					
Historical cost	488	10,912	69	601	**12,070**
Accumulated depreciation and impairment	205	4,825	47	-	**5,077**
Net book value	**283**	**6,087**	**22**	**601**	**6,993**
Movements					
Investments	34	384	4	401	**823**
Disposals	-1	-18	-	-	**-19**
Depreciation	-10	-260	-4	-	**-274**
Reclassification	10	350	-	-360	**-**
Net movements	**33**	**456**	**-**	**41**	**530**
Position as per 31 December 2023					
Historical cost	531	11,566	73	642	**12,812**
Accumulated depreciation and impairment	215	5,024	51	-	**5,290**
Net book value	**316**	**6,542**	**22**	**642**	**7,522**

Change in accounting policy

In 2023, Stedin implemented a change in accounting policy for the valuation of regulated networks with retroactive effect from 1 January 2022. As a result, all property, plant and equipment are now valued based on the cost model. See 2.2.10 Property, plant and equipment for more information. In line with this change in accounting policy, the classification into categories and the statement of movements in property, plant and equipment have been adjusted in line with the sector in order to improve Stedin's comparability with the other regional grid managers.

Investments

Investments in property, plant and equipment during the financial year totalled € 823 million (2022: € 702 million) and mainly related to grids. An amount of € 7 million concerned capitalised interest expenses in respect of qualifying assets (2022: € 6 million). The interest rate applied was 1.75% (2022: 1.75%).

Disposals

The disposals in 2023 and 2022 relate to the decommissioning of buildings, network assets and other fixed assets, as well as the sale of non-regulated transformers and related assets. See 5 Other income for more information.

Impairments

There were no impairments in 2023 and 2022.

14 Intangible assets

x € 1 million	Goodwill	Development costs	Software	Other	Total
Position as at 1 January 2022					
Historical cost	77	-	19	17	**113**
Accumulated depreciation and impairment	-	-	16	5	**21**
Net book value	**77**	**-**	**3**	**12**	**92**
Movements					
Investments	-	8	-	2	**10**
Depreciation	-	-	-2	-	**-2**
Net movements	**-**	**8**	**-2**	**2**	**8**
Position as per 31 December 2022					
Historical cost	77	8	18	18	**121**
Accumulated depreciation and impairment	-	-	17	4	**21**
Net book value	**77**	**8**	**1**	**14**	**100**
Movements					
Investments	-	5	-	4	**9**
Disposals	-	-	-	-1	**-1**
Depreciation	-	-	-1	-	**-1**
Net movements	**-**	**5**	**-1**	**3**	**7**
Position as per 31 December 2023					
Historical cost	77	13	18	21	**129**
Accumulated depreciation and impairment	-	-	18	4	**22**
Net book value	**77**	**13**	**-**	**17**	**107**

Goodwill impairment test

The goodwill relates to the acquisition of DNWG in 2017 (€ 77 million); since the merger of Stedin Netbeheer and Enduris on 1 January 2022, this is being fully allocated to the group of cash-generating units (CGUs) of Stedin Netbeheer.

As at 30 June 2023, Stedin Group carried out the annual goodwill impairment test for the CGU Stedin Netbeheer. The test compares the recoverable amount of the CGU with its book value. The recoverable amount is determined based on the net realisable value. Due to the lack of an active market with observable prices, a present value calculation is made. This is a 'level 3' valuation within the fair value hierarchy. In principle, the net realisable value is determined on the basis of post-tax cash flow projections and discounted applying a post-tax weighted average cost of capital (3.7%-4.3%; 2022: 3.0%-3.6%).

The cash flow projections are partly derived from the most recent business plan (Stedin Group's Financial Strategic Plan (FSP) for the period 2023-2046.

The main factors and assumptions used for the goodwill impairment test are the estimated current value of the regulated assets (normalised standardised asset value, or NSAV); Stedin Netbeheer's market share for electricity transmission (2023: 25%, 2022: 25%) and for gas distribution (2023: 28%, 2022: 28%); the relative profitability of Stedin Netbeheer; and the real return on investment (regulated pre-tax WACC) for the regulated assets. These factors are primarily based on the latest tariff regulation data, as published and/or adopted by the Netherlands Authority for Consumers and Markets (ACM). With regard to the regulated WACC, a subsequent calculation applies from 2022: the ACM determines the difference between the actual and previously estimated risk-free interest rate and the grid manager is allowed to reflect this difference in its rates. In its projections, Stedin follows the intended pre-tax WACCs communicated by ACM for the current regulatory period (2022-2026). For the regulation periods from 2027 onwards, management has made its own estimate for the regulated WACCs. Recent developments have also been taken into account, including the revised method decisions as a result of the CBb ruling in mid-2023 (see 1.3 Key events in 2023 for more information). The long-term growth rate used to determine the residual value of the CGU has been prudently estimated at 0% (2022: 0%). For the projection period up to and including 2046, a growth rate has been used that is equal to the short-term and long-term expected inflation, namely 2.0% (2022: 2.0%).

Based on the impairment test as at 30 June 2023, the recoverable amount of the CGU Stedin Netbeheer exceeds the book value by a wide margin. In addition, as at 31 December 2023, no indications of impairment have been identified.

15 Leases

Changes in the right-of-use assets can be specified as follows:

x € 1 million	Land and buildings	Lease vehicles	Total
Position as per 1 January 2022			
Historical cost	65	54	**119**
Accumulated depreciation and impairment	19	27	**46**
Net book value as per 1 January 2022	**46**	**27**	**73**
Movements			
Investments	1	9	**10**
Contract modifications	2	-	**2**
Depreciation	-5	-10	**-15**
Net movements 2022	**-2**	**-1**	**-3**
Position as per 31 December 2022			
Historical cost	66	61	**127**
Accumulated depreciation and impairment	22	35	**57**
Net book value as per 31 December 2022	**44**	**26**	**70**
Movements			
Investments	-	11	**11**
Contract modifications	1	-	**1**
Depreciation	-5	-9	**-14**
Net movements 2023	**-4**	**2**	**-2**
Position as per 31 December 2023			
Historical cost	67	69	**136**
Accumulated depreciation and impairment	27	41	**68**
Net book value as per 31 December 2023	**40**	**28**	**68**

Stedin Group has entered into leases for a number of business premises and sites. In addition, Stedin Group leases a vehicle fleet. In 2023, Stedin Group concluded new leases for the vehicle fleet in particular.

The table below shows the development of the lease liabilities:

x € 1 million	2023	2022
Lease liability as at 1 January	**71**	**75**
New lease contracts	11	10
Lease payments	-15	-16
Accrued interest	1	1
Release lease liability	-	-1
Contract modifications	1	2
Lease liability as at 31 December	**69**	**71**

Classification (x € 1 million)	2023	2022
Within 1 year	12	12
1 to 2 years	11	11
2 to 3 years	9	9
3 to 4 years	4	7
4 to 5 years	3	2
After 5 years	30	30
Total	**69**	**71**

The table below presents the total lease expenses for 2023:

x € 1 million	2023	2022
Depreciation charges for right-of-use assets	-14	-15
Interest expense on lease liabilities	-1	-1
Lease cost in profit & loss	-13	-10
Total	**-28**	**-26**

16 Associates and joint ventures

The associates and joint ventures of Stedin Group are not material, neither individually nor collectively.

17 Deferred tax assets and liabilities

Deferred tax assets and liabilities are as follows:

x € 1 million	Assets as at 31 December 2023	Assets as at 31 December 2022	Liabilities as at 31 December 2023	Liabilities as at 31 December 2022[1]
Property, plant and equipment	-	-	168	93
Loss compensation	10	-	-	-
Cash flow hedges	8	5	-	-
Provisions	1	1	-	-
Total	**19**	**6**	**168**	**93**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment. See 2.2.10 Property, plant and equipment for more information.

Deferred tax assets and liabilities relate mainly to property, plant and equipment and carry forward of losses due to accelerated tax depreciation in 2023. Stedin considers it likely that there will be sufficient future taxable profits to utilise the available loss carried forward.

Changes in deferred taxes during 2023 were as follows:

x € 1 million	Net balance as at 1 January 2023	Recognised in profit or loss	Recognised in other comprehensive income	Net balance as at 31 December 2023	Assets	Liabilities
Property, plant and equipment	93	75	-	168	-	168
Cash flow hedges	-5	-	-3	-8	8	-
Compensating losses	-	-10	-	-10	10	-
Provisions	-1	-	-	-1	1	-
Deferred income tax liabilities (assets) for netting	**87**	**65**	**-3**	**149**	**19**	**168**
Netting off					-19	-19
Total					**-**	**149**

The major portion of the deferred tax on property, plant and equipment relates to the regulated networks. The deferred tax liability of property, plant and equipment is mainly due to:

- the difference between the commercial valuation and valuation for tax purposes of the regulated networks at the time of the introduction of corporate income tax for Stedin Group;
- accelerated tax depreciation in 2023 and applied in the past; and
- the valuation of the acquired regulated networks as part of the recognition of the acquisition of DNWG.

Changes in deferred taxes during 2022 were as follows:

x € 1 million	Net balance as at 1 January 2022[1]	Recognised in profit or loss	Recognised in other comprehensive income	Net balance as at 31 December 2022[1]	Assets	Liabilities
Property, plant and equipment	84	9	-	93	-	93
Cash flow hedges	-18	-	13	-5	5	-
Provisions	-1	-	-	-1	1	-
Deferred tax liabilities (assets) before netting	**65**	**9**	**13**	**87**	**6**	**93**
Netting off					-6	-6
Total					**-**	**87**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment. See 2.2.10 Property, plant and equipment for more information.

Expiration periods for deductible temporary differences as at 31 December 2023 are as follows:

Category	Period
Property, plant and equipment	1 - 55 years
Cash flow hedges	1 - 30 years
Provisions	1 - 10 years

On 31 December 2023, the Minimum Tax Act 2024 ('Pillar 2') came into force. This Act will apply for the first time from the 2024 financial year. Stedin operates only in the Netherlands and its effective tax rate is well above 15%. The Act is therefore not expected to have any impact on Stedin Group's financial statements.

18 Derivatives

Fair value of derivatives:

x € 1 million	Assets as at 31 December 2023	Liabilities as at 31 December 2023	Assets as at 31 December 2022	Liabilities as at 31 December 2022
Currency swap and interest swap contracts	-	50	-	53
Total	**-**	**50**	**-**	**53**

The classification by maturity is set out below:

x € 1 million	Assets as at 31 December 2023	Liabilities as at 31 December 2023	Assets as at 31 December 2022	Liabilities as at 31 December 2022
Classification				
Current / short term	-	50	-	19
Non-current / long term	-	-	-	34
Total	**-**	**50**	**-**	**53**

All derivatives are allocated to a hedging relationship and the changes in value of these instruments are recognised in other comprehensive income and included in the cash flow hedge reserve, where applicable. More information on changes in that reserve and the expected cash flows is provided in 32.4 Derivatives and cash flow hedge reserve.

19 Inventories

Inventories increased by € 45 million compared to the previous financial year. More inventories are being held to ensure the timely availability of materials. In addition, purchase prices are higher due to inflation. An obsolescence allowance of € 3 million has been deducted from the value of inventories (2022: € 3 million).

20 Trade and other receivables

Trade and other receivables includes mainly amounts receivable from customers and amounts to be invoiced (contract assets) for the provision of transmission services.

This item can be broken down as follows:

x € 1 million	As at 31 December 2023	As at 31 December 2022
Trade receivables	167	131
To be invoiced	55	44
Prepayments	49	35
Other receivables and accruals	12	12
Total	**283**	**222**

The age and expected credit losses on trade receivables, amounts yet to be invoiced and other receivables are specified in 32.2 Credit risk .

Trade and other receivables increased by € 61 million compared with the previous year. This increase is mainly attributable to an increase in revenue driven by higher rates. There was also an increase in prepayments due to relatively high advance payments for energy purchases.

21 Cash and cash equivalents

Cash and cash equivalents at 31 December 2023 comprised bank balances of € 88 million and money market funds of € 100 million (2022: bank balances of € 53 million, money market funds of € - million). Money market funds are recognised at fair value. This value was measured in accordance with fair value level 1.

Cash and cash equivalents are held almost entirely in euros. Cash and cash equivalents that are not freely available to Stedin Group amounted to € 0 million (2022: € 0 million) at year-end.

22 Group equity

Share capital

Stedin Holding N.V.'s authorised share capital is € 2 billion, divided into 15 million ordinary shares and 5 million cumulative preference shares with a nominal value of € 100 each, as well as one N1 share and one N2 share with a nominal value of € 100 each. As at 31 December 2023, 5,642,732 ordinary shares, 416,068 cumulative preference shares, one N1 share and one N2 share were issued and fully paid up (2022: 4,970,978 ordinary shares, 416,068 cumulative preference shares, nil N1 and N2 shares).

As at 8 December 2023, 671,754 ordinary shares and one N1 share were issued to the State. In addition, one N2 share was issued to the municipality of Rotterdam. The N1 and N2 shares are non-participating and were introduced to allow the Dutch State (N1 shareholder), on the one hand, and the municipality of Rotterdam (N2 shareholder), on the other, to exercise special control over specific decisions as representatives of the Shareholders' Committee (see Governance for more information). The € 4 million transaction costs associated with share issue were charged directly to retained earnings in equity.

Share premium reserve

Stedin Holding N.V. raised € 500 million in additional equity in December 2023 to strengthen its equity position through the issue of 671,754 ordinary shares. In addition to the nominal value of € 100 per share, this entails a share premium of € 644.32 per share, with a total share premium

amount of € 433 million. Stedin Holding N.V. subsequently contributed the full € 500 million as share premium to subsidiary Stedin Netbeheer B.V.

The share premium reserve at the end of 2023 was € 591 million, of which € 433 million (2022: € - million) related to the ordinary shares and € 158 million to the cumulative preference shares (2022: € 158 million).

Cash flow hedge reserve

The cash flow hedge reserve is not freely at the disposal of the shareholders. More information on the changes and the underlying hedging relationships is provided in 32.4 Derivatives and cash flow hedge reserve.

Other statutory reserves

A statutory reserve is included in group equity for the amount of the capitalised development costs within the intangible assets. In addition, a statutory reserve for associates has been recognised if and to the extent that Stedin Holding is unable to make distributions from the equity of associates without restrictions.

Preference dividend reserve

In 2021, Stedin issued cumulative preference shares on which a fixed percentage dividend is required to be distributed or reserved each year. The rate for the current regulation period is 3%. The distribution of this preference dividend is at the discretion of the Board of Management, subject to the approval of the Supervisory Board. If it is not distributed, the preference dividend is taken to a separate reserve. An amount of € 6 million was distributed in 2023 (2022: € 6 million). As at 31 December 2023, the preference dividend reserve was € - million (2022: € - million).

Perpetual subordinated bond loan

On 23 March 2021, Stedin Holding N.V. issued a perpetual subordinated bond loan ('Perpetual Fixed Rate Reset Securities') with a total nominal amount of € 500 million at an annual coupon interest of 1.5% and an issue price of 100%. This resulted in net proceeds of € 500 million. The bonds are listed on Euronext Amsterdam. On 31 December 2023, the fair value was € 447 million. The book value as at year-end 2023 was € 506 million, which is the nominal principal amount including € 6 million in accrued compensation.

The perpetual subordinated bond loan qualifies as an equity instrument and is subordinated to all of Stedin Group's creditors but has certain preferences over the shareholders in the event of the company being liquidated. Stedin Holding N.V. has no contractual obligation to redeem the loan. Any payment of current or deferred coupon interest is conditional and dependent on distributions to shareholders. Consequently, the bondholders cannot force Stedin Holding N.V. to pay the coupon interest or to redeem all or part of the loan.

23 Provisions for employee benefits

x € 1 million	Long-service benefits	Other	Total
As at 1 January 2022	**8**	**5**	**13**
Additions	1	4	5
Withdrawals	-	-2	-2
Release	-1	-	-1
As at 31 December 2022	**8**	**7**	**15**
Additions	1	4	5
Withdrawals	-1	-3	-4
Release	-1	-	-1
As at 31 December 2023	**7**	**8**	**15**

Classification (x € 1 million)	As at 31 December 2023	As at 31 December 2022
Current	4	5
Non-current	11	10
Total	**15**	**15**

Long-service benefits

This provision covers the obligation to pay amounts to employees on achieving a certain number of years of service and on the retirement of employees.

The following actuarial assumptions were used for the provisions:

	31 December 2023	31 December 2022
Discount rate	2.75%	2.71%
Future salary increments	1.5% - 4.0%	1.5% - 2.5%
Mortality table	GBM & GBV 2017-2022	GBM & GBV 2016-2021

Long-service payments are made over the long term. The provision is remeasured annually using current employee information.

24 Other provisions

x € 1 million	Other	Total
As at 1 January 2022	**18**	**18**
Release	-6	-6
As at 31 December 2022	**12**	**12**
Additions	5	5
Withdrawals	-1	-1
As at 31 December 2023	**16**	**16**

Classification (x € 1 million)	As at 31 December 2023	As at 31 December 2022
Current	3	1
Non-current	13	11
Total	**16**	**12**

The other provisions amount to € 16 million (2022: € 12 million) and comprise several, mainly long-terms provisions of various kinds. They include a provision for decommissioning of € 4 million (2022: € 4 million), provision for claims of € 4 million (2022: € 0 million) and financial obligations entered into of € 7 million on behalf of Stichting Zeeuwse Publieke Belangen (2022: € 7 million).

25 Interest-bearing debt

Classification (x € 1 million)	As at 31 December 2023	As at 31 December 2022
Current	265	280
Non-current	3,069	3,116
Total	**3,334**	**3,396**

Changes in interest-bearing debt:

x € 1 million	2023		2022	
	short term	long term	short term	long term
As at 1 January	**280**	**3,116**	**531**	**2,675**
New non-current interest-bearing debt	-	-	-	495
New current interest-bearing debt	5,723	-	1,050	-
Repayments of non-current interest-bearing debt	-	-	-533	-
Repayments of current interest-bearing debt	-5,778	-	-770	-
Foreign currency exchange differences	-	-13	-	-11
Interest rate swaps	-	3	-	-45
Discontinued operations	40	-40	-	-
Other movements	-	3	2	2
As at 31 December	**265**	**3,069**	**280**	**3,116**

The significant drawdowns and repayments of short-term interest-bearing debt in 2023 relate to cash loans. In anticipation of the € 500 million capital contribution by the Dutch State, these loans were raised with very short maturities in each case to finance the negative cash flow during the year.

The maturities of the interest-bearing debts are presented below:

x € 1 million	As at 31 December 2023	As at 31 December 2022
Within 1 year	265	280
1 to 2 years	529	40
2 to 3 years	498	529
3 to 4 years	300	498
4 to 5 years	504	300
After 5 years	1,238	1,749
Total	**3,334**	**3,396**

The interest-bearing debts as at 31 December 2023 were contracted by Stedin Holding N.V. and no collateral has been provided. More information on interest-bearing debt is included in 32 Financial risk management.

The € 500 million capital contribution received from the State met a large part of the financing requirement for 2023. In addition, Stedin arranged a renewed revolving credit facility of € 800 million with six banks in 2023 (see 32.3 Liquidity risk for more information). The revolving credit facility was not used in 2023 and 2022.

Some of the loans are subject to financial covenants, which are set out below:

- a gearing ratio (net debt / total capitalisation) lower than 70%;
- an interest coverage ratio (EBITDA / net interest expense) higher than 3.

The above ranges for ratios are assessed at the end of each measurement period.

The following definitions apply:

- Measurement period: 12-month moving average per 31 December and 30 June of each financial year.
- Total net borrowings: sum of current and non-current interest-bearing debt, including lease liabilities, minus cash and cash equivalents.
- Total capitalisation: sum of current and non-current interest-bearing debt, including lease liabilities, plus total group equity adjusted for capital components related to goodwill, intangible assets and minority interests.
- EBITDA: Result before income tax, adjusted for depreciation, amortisation, net interest payable, gains on disposals, results of group entities sold and result from associates and joint ventures.
- Net interest expense: sum of interest income and expenses relating to loans adjusted for capitalised interest.

The tables below show that Stedin Holding N.V. complied with the conditions stated above during 2023.

Gearing ratio	2023	2022[1]
Principal amounts payable of interest-bearing debt	3,334	3,396
Lease liabilities	69	71
Cash and cash equivalents	-188	-53
Net debt	**3,215**	**3,414**
Principal amounts payable of interest-bearing debt	3,334	3,396
Lease liabilities	69	71
Equity	3,221	2,589
Equity adjustments	-107	-100
Total equity	**6,517**	**5,956**
Gearing ratio	**49.3%**	**57.3%**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of property, plant and equipment.

See 2.2.10 Property, plant and equipment for more information.

Interest coverage ratio	2023	2022[1]
Profit before income tax	228	109
Depreciation and amortisation	299	289
Net interest payable	-72	-43
Profit after income tax of group entities sold	-	-3
EBITDA	**455**	**352**
Net interest payable	**72**	**43**
Interest coverage ratio	**6.3**	**8.2**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of tangible fixed assets. See 2.2.10 Property, plant and equipment for more information.

26 Deferred revenue

x € 1 million	2023	2022
Book value at 1 January	983	898
Customer construction contributions received	131	107
Customer construction contributions paid	-1	-
Revenue recognised	-23	-22
Book value at 31 December	**1,090**	**983**

Classification	2023	2022
Current	25	23
Non-current	1,065	960
Total	**1,090**	**983**

Short-term deferred revenue has been recognised under 'contract liabilities' in 27 Trade and other liabilities.

27 Trade and other liabilities

x € 1 million	As at 31 December 2023	As at 31 December 2022
Trade liabilities	120	59
Accrued and other liabilities	192	221
Contract liabilities	25	23
VAT	23	-
Pension contributions	5	5
Total	**365**	**308**

Trade and other liabilities increased by € 57 million compared with the previous year. The increase is mainly attributable to inflation and rising activity levels.

28 Current tax assets and liabilities

Current tax assets and liabilities are as follows:

x € 1 million	As at 31 December 2023	As at 31 December 2022
Corporate income tax	10	-
Total current tax assets	**10**	**-**

x € 1 million	As at 31 December 2023	As at 31 December 2022
Corporate income tax	-	14
Total current tax liabilities	**-**	**14**

There is an current tax asset as at 31 December 2023. This is mainly attributable to tax losses carried back due to accelerated tax depreciation in 2023.

29 Commitments and contingencies

Contingent assets and liabilities are presented at nominal value.

Energy purchase commitments

Stedin Group has energy purchase commitments to offset administrative and technical network losses. As the 'own use exception' applies to these purchase contracts, they are not recognised in the financial statements. Based on the rates applicable in 2023, the estimated obligation amounts to € 646 million (2022: € 923 million) and relates to the period from 2024 through to 2030. The rates applicable to the purchase commitment for 2024 have largely been fixed already, in line with our purchasing strategy. Where rates have not been fixed yet, Stedin Group uses the expected rates in the energy market for the relevant delivery year as these applied at 31 December 2023. As these rates may be subject to change due to future fluctuations in rates in the energy market, the future amount of the obligation is volatile.

Investment obligations

Stedin Group has entered into investment obligations for the supply of transformers, prefab stations and smart meters. As of 31 December 2023, a total of € 112 million remains for transformers (2022: € - million), € 50 million for prefab stations (2022: € - million) and € 19 million for smart meters (2022: € 32 million). The investment obligations have been entered until 2027.

Guarantees

Stedin Group has issued group and bank guarantees to third parties of € 1 million (2022: € 1 million). Of that total, Stedin Holding N.V. issued € 0 million (2022: € 0 million) in guarantees. This guarantee was provided by a subsidiary.

Stedin Group has taken out directors' and officers' liability insurance for the members of the Supervisory Board, the members of the Board of Management, directors and other executives within Stedin Group. To the extent possible, the directors are indemnified by Stedin Group, subject to specific conditions, against costs in connection with civil-law, criminal-law or administrative-law proceedings in which they could be involved because of their position.

Metering services results

The rates that Stedin charges as a grid manager for low-use meters are regulated and based on the Ministerial Metering Tariff Regulation (Ministeriële Regeling Meettarieven, MR), which lays down how the ACM sets such rates. The maximum rates that grid managers may charge are currently based on the 2005 rate levels, plus an annual inflation adjustment in accordance with the consumer price index. Since 2011, the ACM has monitored the costs incurred in executing the metering task. It should be possible in this regard to fund the 'Large-Scale Smart Meters Roll-out Period' (GSA) project from the returns that are achieved. The Ministerial Metering Tariff Regulation ensures that consumers ultimately do not pay more than the break-even rates. To this end, the ACM may include the returns achieved in future decisions on rates. The GSA ended in 2021, after Stedin had offered smart meters to 100% of its customers and had actually installed them at more than 80%. In addition, Stedin is also already taking into account the additional mandate from the Ministry of Economic Affairs and Climate Policy (EZK) to seek to achieve an even higher completion rate in the years ahead. In recent years, surplus profits have been returned to consumers by means of tariff reductions. At year-end 2023, the estimated surplus profits decreased to € 74 million negative. The actual status of surplus profits at the end of 2023 can be determined once the 2023 regulation data has been finalised. At year-end 2022, these were € 21 million negative, a lower amount than previously estimated. Stedin's goal is to reach approximately zero by the end of 2026, so as to enter the new regulation period from 2027 without large subsequent calculations, in connection with which the metering services will become part of the benchmark competition.

Legal proceedings

Stedin Group is involved either as plaintiff or defendant in various legal and regulatory claims and proceedings related to its operations. The amounts claimed in some of these proceedings may be significant to the consolidated financial statements. Liabilities and contingencies in connection with these claims and proceedings are assessed periodically based on the latest information available. A liability is only recognised if an adverse outcome is considered to be probable and the amount of the loss can be reasonably estimated, see 24 Other provisions.

Stedin is involved with several municipalities in claims for municipal sufferance taxes. The potential impact for Stedin is a receivable ranging up to approximately € 37 million (2022: € 37 million). Due to uncertainties, this potential receivable is not recognised in the balance sheet as at 31 December 2023.

Rendant

Stedin has been designated by the Minister of Economic Affairs and Climate Policy as grid manager for a third-party electricity grid and gas grid. Following completed court proceedings, Stedin acquired full - both legal and economic - ownership of this electricity and gas grid in 2022 for a payment of € 1.6 million. This amount has already been recognised in the financial statements. However, the final valuation of these acquired assets is still unknown and will be determined by means of a binding advisory procedure. The outcome of this procedure is expected during 2024. Given the current uncertainties regarding the final valuation, no receivable or additional liability has been recognised in the financial statements as at 31 December 2023.

Fiscal unity

Stedin Holding N.V. forms a fiscal unity for corporate income tax purposes with all its subsidiaries as included in 36 Overview of capital interests, with the exception of Infradock B.V. The companies, including Stedin Holding N.V., that are part of a fiscal unity are jointly and severally liable for the tax obligations of that fiscal unity.

Stedin Holding N.V. forms a fiscal unity for value-added tax purposes with all its subsidiaries as included in 36 Overview of capital interests, with the exception of Infradock B.V. The companies, including Stedin Holding N.V., that are part of a fiscal unity, are jointly and severally liable for the tax obligations of that fiscal unity.

Cash pool

Stedin Holding N.V., Stedin Groep Services B.V., Stedin Groep Personeels B.V. and NetVerder B.V. are part of a cash pool based on a zero balancing agreement and are jointly and severally liable for deficits within this cash pool.

30 Related party transactions

Related parties of Stedin Group (within the meaning of IAS 24) include, among others, entities in which key management personnel of Stedin Group (or close members of their family) have control or significant influence or in which they are also key management personnel, as well as associates and joint arrangements and some shareholders of Stedin Group. Related party transactions take place on terms of business normally prevailing with independent third parties.

Receivables outstanding from associates concern loans granted for an amount of € 12 million (2022: € 17 million) and are mainly of a long-term nature. In 2023, € 2 million was issued in loans and € 8 million was received in repayments. The loans have a term of five years, at interest rates varying from 0.3% to 2.6%. Receivables and liabilities in respect of related parties are not covered by collateral and are paid by bank.

Related parties in which members of the Supervisory Board or members of the Board of Management are or were involved are as follows:

- Stichting Zeeuwse Publieke Belangen is coordinated from within Stedin Group. Its governing board is composed of the following individuals: David Peters (Stedin Group), Rikus van den Kieboom (Stedin Group), Dick van der Velde (province of Zeeland) and Loes Meeuwisse (Association of Municipalities in Zeeland). The fund is financed by Stedin up to a maximum of € 10 million. In 2023, the governing board of the foundation committed € 2.1 million and paid out € 0.6 million.
- The object of Stichting OUNZ (OUNZ foundation) is to preserve the rights of principal superficies with regard to the grids in the province of Zeeland and to provide rights of subsuperficies to DKCN, Evides and Stedin in order to carry out grid manager tasks. Stedin has the right to appoint one of the three directors of Stichting OUNZ. The value of the rights is not material, and there are no other material financial transactions between Stedin and OUNZ.
- The chair of the Supervisory Board, Doede Vierstra, is a member of the board of Stichting Nyenrode, a Dutch business university. Nyenrode Business University is a supplier of Stedin Group.
- Supervisory Board member Annie Krist is CEO of GasTerra, which engages in trading and supplying natural gas, and is an associate member of the International Gas Union. Stedin Group has no direct relationship with GasTerra. Stedin Group has a cooperative alliance with International Gas Union.
- Supervisory Board member Arco Groothedde is a member of the Supervisory Board of DSW, a health care insurance company. Stedin Group has no direct relationship with DSW.
- Supervisory Board member Hanne Buis was COO of Royal Schiphol Group until 1 February 2023. Stedin Group has no direct relationship with Royal Schiphol Group.
- Supervisory Board member Theo Eysink is CFO of the Business Market Division of KPN N.V. KPN is a supplier of Stedin Group.
- The chair of the Board of Management, Koen Bogers, is Global Partner at Bloxhub and adviser at Techleap. Stedin Group has no direct relationship with either Bloxhub or Techleap.
- Board of Management member David Peters is a governing board member of E-Laad, board member of EDSO and member of the Supervisory Board of GOPACS. EDSO and GOPACS have a cooperative alliance with Stedin Group. E-Laad is a supplier of Stedin Group.
- Board of Management member Danny Benima is a member of the Supervisory Board of EDSN. EDSN has a cooperative alliance with Stedin Group.
- Board of Management member Trudy Onland is a member of the Supervisory Board of Gelderse Vallei Hospital. Stedin Group has no direct relationship with Gelderse Vallei Hospital.

The aforementioned persons were not involved in commercial transactions between the named suppliers and Stedin Group. Contract reviews, negotiations or awards between Stedin Group and the companies named were effected at arm's length terms and conditions.

For details of the remuneration of the Board of Management and Supervisory Board members, see 6 Personnel expenses. There is no other relationship between the Board of Management and Supervisory Board members on the one hand and Stedin Group on the other hand except that of customer on normal arm's length terms and conditions.

Other relationships with parties:

- The municipality of Rotterdam is the largest shareholder of Stedin Group (approximately 27.9%), owns the N2 share (see 22 Group equity for more information) and has significant influence. There is no relationship other than the shareholder relationship, except that of customer and supplier at normal arm's length terms and conditions. Stedin Group applies the

exemption from detailed disclosures on related party transactions with government-related entities (IAS 24.25).

- The Dutch State also has significant influence, due to the N1 share, among other things (see 22 Group equity for more information). There is no relationship other than the shareholder relationship, except that of customer and supplier at normal arm's length terms and conditions. Stedin Group applies the exemption from detailed disclosures on related party transactions with government-related entities (IAS 24.25).
- Stedin takes initiatives in the areas of innovation and improving sustainability and actively maintains alliances and associations with various stakeholders. Collaboration can take various shapes, such as through Netbeheer Nederland or on a project basis, as a sponsor or more systematically through foundations, such as Stichting ElaadNL, Stichting EVnetNL, Stichting Flexipower Alliance Network or USEF, in which Stedin can participate as a director. These parties are not related parties.

2023 x € 1 million	Purchased goods & services	Recharging of employee benefits, facilities and other expenses
Joint arrangements		
Utility Connect B.V.	7	1
TensZ B.V.	3	11
Total	**10**	**12**
Geassocieerde deelnemingen		
Energie Data Services Nederland B.V.	30	-
Total	**30**	**-**

2022 x € 1 million	Purchased goods & services	Recharging of employee benefits, facilities and other expenses
Joint arrangements		
Utility Connect B.V.	7	1
TensZ B.V.	2	11
Total	**9**	**12**
Geassocieerde deelnemingen		
Energie Data Services Nederland B.V.	25	-
Total	**25**	**-**

31 Auditors' fees

The fees of the external auditor and the audit firm, within the meaning of Article 1(1) of the Audit Firms (Supervision) Act (Wet toezicht accountantsorganisaties, Wta), can be broken down as follows:

x € 1.000	2023	2022
Audit of the financial statements	1,165	995
Other audit and assurance engagements	559	584
Other non-assurance services	38	-
Total	**1,762**	**1,579**

The category 'audit of the financial statements' concerns the financial statements of Stedin Holding N.V.

The 'other audit and assurance engagements' category includes audits of the regulation data on behalf of the ACM, as well as audits of separate financial statements of associates. In addition, this category includes review of green bond reports and assurance engagements in relation to sustainability reporting.

The category 'other non-assurance services' concerns non-assurance services authorised for a public interest entity (PIE), including specifically agreed work.

32 Financial risk management

Capital management

The primary goal of Stedin Group's capital management is to safeguard access to the capital and money markets in order to optimise its financing structure and costs in accordance with the long-term financial plan and economic parameters determined by the regulator in each regulation period. Given the capital-intensive nature of the company, it is important to be able to contract financing in various different financing markets and thereby create a balanced financing mix. Stedin Group can influence its capital structure by altering its leverage ratio. Stedin Group regards both group equity (including the perpetual subordinated bond loan) and interest-bearing debt as relevant components of its financing structure and therefore of its capital management. The current interest-bearing debt has been issued mainly in the European bond market. In addition, a number of bilateral loans have been taken out. Besides maintaining relationships with these existing investors in the above-mentioned financing markets, Stedin Group also maintains relationships with six Dutch and international banks that have jointly made financing capacity available to Stedin. These banks can also offer a wide range of financial products and services if required.

Since 2017, Stedin Group has a financing strategy that targets the ratios relevant for the rating agency Standard & Poor's (S&P), in particular the core ratio: Funds from Operations (FFO)/Net Debt. In this context, for the purpose of calculating the ratios, the perpetual subordinated bond loan issued in 2021 is classified by S&P as an instrument with a 50% equity component and a 50% debt component. This differs from the classification under IFRS, whereby the entire perpetual subordinated bond loan classifies as equity.

Financial risk management

The following financial risks can be identified in connection with ordinary business operations: market risk, credit risk and liquidity risk. **Market risk** is the exposure to changes in value of current or future cash flows and financial instruments due to changes in market prices. Within this category, Stedin is mainly exposed to currency and interest rate risks.

Credit risk can be defined as the potential loss if a counterparty or its guarantor cannot or will not meet its contractual obligations.

Liquidity risk is the risk that Stedin Group will be unable to meet its payment obligations.

The policy is designed to minimise volatility and negative consequences of unforeseen circumstances on financial results. Procedures and guidelines have been drawn up in accordance with the objectives formulated for this, which are derived from the strategic objectives and are evaluated and (if required) adjusted at least once a year.

The Board of Management is responsible for risk management. In this context, it sets out procedures and guidelines and ensures compliance. The authorisations to commit Stedin Group are specified in the Governance & Authority Structure document. Mandates have also been drawn up for all business units to manage the above risks – for instance, for purchasing. The Board of Management and operational and staff management regularly review the results, the ratios, the principal risks (or the concentration of certain risks) and the measures to manage them.

Scenarios are applied in the long-term financial plan. Operational and staff management reports to the Board of Management by means of an in-control statement twice a year.

The internal Investment Risk Committee is in charge of the formulation and application of the risk policy and advises the Board of Management accordingly. The Supervisory Board exercises supervision over the course of business and risk management by conducting reviews and discussions of strategic plans, budgets, key performance indicators, forecasts, results and risk policy.

The Treasury department is responsible for the active monitoring and management of capital, market risks, credit risks of treasury counterparties and liquidity risks of Stedin Group and handling the internal financing of wholly-owned subsidiaries. The control principles for these risks are laid down in the Treasury Charter, as adopted by the Board of Management. The Treasury Charter describes, amongst other things, the risk appetite and the instruments available for managing risks.

The table below shows the correlation between the financial risks to which Stedin Group is exposed with regard to financial assets and liabilities, the instruments used to manage them and the applicable accounting:

Balance sheet item	Classification and measurement	Risks, the instruments used to manage them and classification and measurement applied			
		Foreign currency risk	Interest rate risk	Commodity price risk	Credit risk
Cash and cash equivalents (cash)	Amortised cost	No material risk	No material risk	Not applicable	No material risk
Cash and cash equivalents (money market funds)	Fair value	No material risk	No material risk	Not applicable	No material risk
Loans, trade receivables, contract assets and other receivables	Amortised cost	No material risk	No material risk	No material risk	Provision for expected credit losses
Interest-bearing and other liabilities	Amortised cost	Cross Currency SWAP	Interest rate swap	Not applicable	Not applicable
		Hedge accounting	Hedge accounting		
Trade and other liabilities	Amortised cost	No material risk	No material risk	The purchasing strategy for expected grid losses limits price fluctuations.	Not applicable

Subsections 32.1 to 32.4 discuss individual aspects from the table for each risk.

32.1 Market risk

Stedin Group has identified the following relevant market risks:

- foreign currency risk: the exposure to changes in value in financial instruments arising from changes in exchange rates;
- interest rate risk: the exposure to changes in value in financial instruments arising from changes in market interest rates;
- commodity price risk: the exposure to changes in value in financial instruments arising from changes in commodity prices. Stedin Group is faced with this type of risk mainly when purchasing for network losses and is sensitive to the effect of market fluctuations in the prices of various energy commodities, such as electricity and green certificates. The commodity price risk is part of the financial long-term planning and is to date not hedged by means of derivatives. However, Stedin has entered into long-term purchase contracts where prices for certain purchase volumes are fixed for the long term.

The table below shows the fair value and the book value of the loans portfolio that is subject to market risks. The loans include € 3.1 billion in fixed-rate loans (fair value risk). The other loans in the loan portfolio bear interest at variable rates that follow the development of market rates (cash flow interest rate risk).

x € 1 million	Bookvalue as at 31 December 2023	Market value as at 31 December 2023	Bookvalue as at 31 December 2022	Market value as at 31 December 2022
Bond loans	2,461	2,306	2,456	2,190
Other loans	873	889	940	954
Total	**3,334**	**3,195**	**3,396**	**3,144**

The fair value of the bond loans was determined on the basis of the year-end closing rate. This value was measured in accordance with fair value level 1. The fair value of the other loans was determined using the present value method ('income approach'). This was based on the relevant market interest rates for comparable debt. Consequently, the data for this measurement are covered by fair value level 2. The table does not include the perpetual subordinated bond loan, as this item is classified as equity under IFRS; see 22 Group equity for more details.

Currency risk

Foreign currency risk within Stedin Group relates mainly to borrowings denominated in currencies other than the euro. The foreign currency risks are risks in respect of future cash flows in foreign currencies and in respect of balance sheet positions in foreign currencies. To meet Stedin Group's financing requirements, loans were taken out in 2009 in Japanese yen (JPY).

Companies included in the consolidation are not permitted to maintain substantial positions in foreign currencies without the Treasury department's approval. Based on the aggregate foreign currency position and the associated limit set for open positions, the Treasury department determines whether hedging is desirable and determines the strategy to be followed.

Cash flow hedges for foreign currency risks

Stedin Group hedged the foreign currency risks arising from these loans for the entire term using cross-currency interest rate swaps. The main nominal values and rates of the derivative financial instruments as at 31 December 2023 are as follows:

	Nominal cash flows less than one year x 1 million	Nominal cash flows more than one year x 1 million	Total nominal cash flows x 1 million	Average rate	Nominal value x € 1 million	Book value x € 1 million
	JPY 510	JPY 27,650	JPY 28,160	132.188	213	128
Total	**JPY 510**	**JPY 27,650**	**JPY 28,160**	**132.188**	**213**	**128**

As Stedin applies cash flow hedging to these borrowings and derivative instruments, the foreign currency exchange differences relating to the borrowings and changes in fair value of the derivatives are recognised in conjunction in the cash flow hedge reserve and any hedging ineffectiveness is recognised in conjunction in the income statement. Further details of the hedging relationship are provided below:

	Changes in the cash flow hedge and the cost of hedging reserve comprise:				
x € 1 million	Derivative financial instrument	The hedged currency risk	Derivative financial instrument recognised in other comprehensive income	Balance of the cash flow hegde reserve	Reclassification recognised in the income statement
Expected cash flows	-50	-23	-50	19	-
Total	**-50**	**-23**	**-50**	**19**	**-**

The hedging relationships did not lead to hedge ineffectiveness in the reporting period. In 32.4 Derivatives and cash flow hedge reserve a breakdown is provided of movements in the cash flow hedge reserve.

Interest rate risk

The interest rate risk policy is aimed at keeping the net financing expenses as much as possible in line with the development of the benchmarks used by the regulator ACM to determine the permitted income for Stedin Group.

	2023	2022
Average interest rate	1.9%	1.3%

The average interest rate is calculated as the weighted average of the monthly interest expense in 2023. If all other variables remain constant, it is estimated that a general increase of 1 percentage point in Euribor (for a period of 12 months) would lead to a decrease in profit before income tax of € 2.3 million (at 31 December 2022: € 2.0 million).

Cash flow hedge for interest rate risk

In the past, in anticipation of the issue of loans, Stedin Group entered into derivatives to hedge the interest rate risk during the term of the loan. The derivatives entered into for this purpose were settled at the balance sheet date.

x € 1 million	Balance of the cash flow hegde reserve	Reclassification recognised in the income statement
Cash flow hedge reserve for interest expense	4	1
Total	**4**	**1**

Fair value hedge

Stedin Group applies fair value hedges to convert part of its fixed-interest loans into variable-interest loans to achieve effective alignment with the strategic allocation between variable-interest and fixed-interest loans. As at 31 December 2023, Stedin Group had no active hedging relationships for interest rate risk (2022: € - 29 million).

Commodity price risk

Stedin Group is faced with Commodity price risk mainly in connection with purchasing for network losses. Stedin Group is exposed to the effect of market fluctuations in prices of various energy commodities, such as electricity, gas and green certificates. To reduce sensitivity to short-term price fluctuations and increase cost predictability, a significant proportion of electricity and gas purchases have their price fixed one to three years in advance. In addition, frequent consultation takes place with a member of the Board of Management to facilitate timely intervention if required by the situation. The remaining commodity price risk is not hedged by derivatives.

32.2 Credit risk

The maximum credit risk is equal to the balance sheet value of the financial assets including derivatives. Stedin Group's credit risk towards financial institutions mainly concerns cash and cash equivalents and derivatives for interest and currency hedging transactions. The Treasury policy takes account of limits for each counterparty and term in order to limit any concentration of credit risks and requires a minimum credit rating of A- equivalent Standard & Poor's (S&P) and/or Moody's and/or Fitch (for which purpose the lowest rating is decisive).

Credit risk for receivables and contract assets

The credit risk policy is designed not to provide customers with any credit going beyond normal supplier credit as set out in the applicable conditions of supply. Measures in place to limit debtor risk are:

- credit limits or bank guarantees for business customers;
- in principle, receivables must be paid within 30 days in accordance with standard conditions of supply;
- receivables for which payment is overdue are monitored and active dunning is applied;
- recourse to debt collection agencies and different collection methods for current and former customers.

The credit risk on trade receivables can be subclassified into mainly low-use (regulated) and heavy-use customers.

Since the introduction of the suppliers model, the credit risk relating to retail consumers is borne by the energy suppliers, where the concentration risk has consequently grown. A range of risk-mitigating measures have been implemented for this, including periodic monitoring and reporting of the risk profile of the energy suppliers. Individual signals for potential bad debts and credit ratings are used to value credit risk on energy suppliers.

The credit risk for high-use customers, other receivables and contract assets is limited, as most receivables are limited in size and the concentration risk is also limited. For the assessment of risks in the various heavy-use portfolios, Stedin Group uses a simplified model that is based on Stedin's experience of receivables with the same risk profile, supplemented by expected developments of the debtors and the economic environment.

Trade receivables, amounts to be invoiced, prepayments and other receivables are as follows:

x € 1 million	As at 31 December 2023	As at 31 December 2022
Trade receivables	167	131
To be invoiced	55	44
Prepayments	49	35
Other receivables and accruals	12	12
Total	**283**	**222**

The breakdown of the outstanding trade receivables (including those to be invoiced, excluding prepayments and other receivables and accruals) and bad debts provision by age is as follows:

		2023		2022	
x € 1 million	Expected loss %	Receivables	Provision / impairments	Receivables	Provision / impairments
Receivables from low-use customers	0.1% - 100%	100	-	88	4
Receivables from high-use customers, other receivables and to be invoiced					
Before maturity date	0.1% - 1%	92	-	75	-
After maturity date					
- under 3 months	1% - 25%	23	1	11	1
- 3 to 6 months	1% - 100%	4	1	2	1
- 6 to 12 months	5% - 100%	4	1	4	1
- over 12 months	65% - 100%	6	4	5	3
Face value		**229**	**7**	**185**	**10**
Less: provision / impairments		**-7**	**-**	-10	
Total		**222**	**-**	**175**	

In the provision for expected credit losses, an amount of € - million (2022: € 3 million) concerns trade receivables that have been provided in full. The table below presents the movements in the bad debts provision in detail:

x € 1 million	2023	2022
As at 1 January	**10**	**8**
Additions through income statement	4	4
Withdrawals	-7	-2
As at 31 December	**7**	**10**

In 2023, an amount of € 4 million was written off for some receivables from energy suppliers that went into liquidation in 2021, for which provisions had already been recognised.

The cost of expected credit losses is recognised as part of other operating expenses.

32.3 Liquidity risk

Liquidity risk is the risk that Stedin Group is unable to obtain the required financial resources to meet its obligations in a timely manner. In that connection, Stedin Group regularly assesses expected cash flows over a period of several years. These cash flows include operating cash flows, dividends, interest payable and debt redemption, replacement investments and the consequences of changes in Stedin Group's credit rating. The aim is to have sufficient funds at all times to meet liquidity requirements. Great importance is attached to managing all the above risks to prevent Stedin Group from finding itself in a position in which it cannot meet its financial obligations. In addition, liquidity needs are planned on the basis of short, medium and long-term cash flow forecasts. The Treasury department compares this capital requirement against available funds.

Financing policy and available credit

The financing policy aims to develop and maintain an optimal financing structure, taking into account the current asset base, agreements and principles regarding regulation and the investment programme. The criteria for the financing policy are access to the capital market as well as flexibility at acceptable financing terms and costs. Financing is contracted centrally and apportioned internally. Subsidiaries are financed by a combination of equity and intercompany loans.

In June 2023, Stedin Group arranged a renewed revolving credit facility (RCF) of € 800 million with six banks for a term of 5 years. The term can be extended twice for a period of 1 year by mutual consent. The renewed RCF replaces the earlier RCF of € 600 million, which was due to expire in July 2024 and serves as a backstop facility. There were no drawdowns of the RCF during 2023.

Stedin Group also has a € 750 million Euro Commercial Paper programme, under which € 125 million had been withdrawn at 31 December 2023 (2022: € 150 million) and a € 3 billion Euro Medium Term Note programme, under which € 2.5 billion had been issued at 31 December 2023 (2022: € 2.5 billion).

Cash outflows

The table below shows forecasted nominal cash outflows and any interest arising from financial liabilities over the coming years. The cash flows from derivatives are based on the forecasted net cash outflows (see also 25 Interest-bearing debt for the terms).

As at 31 December 2023 x € 1 million	Within 1 year	1 to 5 years	After 5 years	Total
Interest-bearing debt	312	1,987	1,407	3,706
Lease liabilities	14	34	67	115
Derivative financial instruments	50	-	-	50
Trade and other liabilities	365	-	-	365
Total	**741**	**2,021**	**1,474**	**4,236**

As at 31 December 2022 x € 1 million	Within 1 year	1 to 5 years	After 5 years	Total
Interest-bearing debt	327	1,426	1,905	3,658
Lease liabilities	13	31	66	110
Derivative financial instruments	19	-	34	53
Trade and other liabilities	308	-	-	308
Total	**667**	**1,457**	**2,005**	**4,129**

'Trade and other liabilities include, in 'contract liabilities', deferred income of € 25 million (2022: € 23 million).

32.4 Derivatives and cash flow hedge reserve

Derivatives

The derivatives were short term at the end of 2023. As in 2022, the derivatives fall under fair value level two. The cash flow hedging instruments applied are derivatives that are subject to net settlement between parties.

Cash flow hedge reserve

The movements in the cash flow hedge reserve are as follows:

x € 1 million	Interest rate risk	Foreign currency risk	Total
As at 1 January 2022	**-10**	**-43**	**-53**
Movement in fair value of cash flow hedges	5	52	57
Deferred tax liabilities	-2	-11	-13
Reclassification cash flow hedge reserve to income statement	1	-7	-6
As at 31 December 2022	**-6**	**-9**	**-15**
Movement of cash flow hedges	-	-12	-12
Deferred tax liabilities	-	3	3
Reclassification cash flow hedge reserve to income statement	2	-	2
As at 31 December 2023	**-4**	**-18**	**-22**

The cash flow hedge reserve can be subclassified as follows by active hedging relationships and reserves for which the hedge has been discontinued, and the reserve will be reclassified to the income statement with the future cash flows.

x € 1 million	Active hedging relationships	Discontinued hedging relationships	Total
As at 1 January 2023	**-10**	**-5**	**-15**
Movement of cash flow hedges	-8	-1	-9
Deferred tax liabilities	2	-	2
As at 31 December 2023	**-16**	**-6**	**-22**

Periods in which the cash flows from the cash flow hedges are expected to be realised:

x € 1 million	As at 31 December 2023	As at 31 December 2022
Expected cash flows		
Within 1 year	-50	-19
1 to 5 years	-	-
After 5 years	-	-34
Total	**-50**	**-53**

The total cash flow hedges to be recognised in profit or loss in the future are recognised in the cash flow hedge reserve after deduction of taxes. Periods in which the income from the cash flow hedges is expected to be realised:

x € 1 million	As at 31 December 2023	As at 31 December 2022
Expected recognition through the income statement after income tax		
Within 1 year	-2	-1
1 to 5 years	-9	-6
After 5 years	-17	-9
Total	**-28**	**-16**

33 Credit rating

A key pillar in Stedin Group's financial policy is to maintain good access to the available sources of financing, including the money and capital markets. It is therefore important that we pursue a credit rating which makes this possible under all circumstances, and that existing and potential capital providers have proper insight into the development of Stedin Group's creditworthiness.

Stedin Holding N.V. and Stedin Netbeheer B.V. each have a credit rating with the rating agency Standard & Poor's (S&P). This rating consists of a long-term rating with an outlook and a short-term rating. The outlook indicates the expected development of the long-term rating over the coming years.

As at the balance sheet date, Stedin's credit rating awarded by S&P was A- with a stable outlook for the long term and A-2 for the short term. As a result of the framework agreement between the Dutch State and the regional grid managers Alliander, Enexis and Stedin to enable the State to become a shareholder, S&P classified these regional grid managers as 'Government Related Entities' in February 2023. In line with this, S&P upgraded its credit rating by one notch. At the same time, Stedin's credit rating was downgraded by one notch because of the pressure on the main financial ratios and a challenging investment agenda in the coming years. On balance, Stedin's long-term credit rating remained the same: A- with a stable outlook.

The most important ratio for Stedin Group is the ratio of Funds from Operations (FFO) to Net Debt, which is a customary ratio in the market for the repayment of debt. S&P applies a multi-year average of this ratio as part of its assessment of the credit rating. Stedin Group presents this ratio only at year-end 2023 and 2022.

The calculation of the ratio follows the figures in these financial statements, supplemented with the adjustments applied by S&P. These analytical adjustments are made in order to enhance the comparability of the figures and financial position between Stedin Group and other businesses. Following Stedin's classification as a 'Government Related Entity', S&P revised the lower limit for the FFO/Net Debt ratio to retain the current credit rating; this ratio should remain 'comfortably above 9%'. This has resulted in an internal policy adjustment aimed to maintain an annual ratio of at least 10%.

The main adjustment made by S&P was to classify 50% of the perpetual subordinated bond loan as debt (in contrast to the classification under IFRS, whereby this entire bond loan classifies as equity). In addition, pension liabilities are included in the S&P definition of debt.

The calculation is set out in the table below:

x € 1 million	2023	2022
EBITDA	600	432
-/- Net Interest paid	-65	-35
-/- Tax paid	-14	-17
-/- S&P adjustments	-34	-32
S&P - Funds from Operations[1]	**487**	**348**
Non-current interest-bearing debt	3,069	3,116
Current interest-bearing debt	265	280
Lease liabilities	69	71
-/- Cash and cash equivalents	-188	-53
IFRS - NET DEBT	**3,215**	**3,415**
+ S&P adjustments	263	263
S&P - NET DEBT	**3,478**	**3,678**
FFO / Net Debt – S&P adjusted	**14.0%**	**9.5%**

1 In consultation with S&P, Stedin corrects the amortization of the advance income (presented under 'S&P - FFO: S&P adjustments') when determining the S&P adjusted FFO. This correction is better aligned with the S&P methodology and improves mutual comparability. The comparative figure at year-end 2022 has been adjusted accordingly (previously 10.1%).

Current and non-current interest-bearing debt, lease liabilities, net interest paid and tax paid are in accordance with these financial statements.

The FFO/Net Debt ratio increased to 14.0% in 2023. The FFO increase of € 139 million was mainly driven by high costs for network losses, partly incurred in 2022, which have been reimbursed by regulation this year through higher rates. The net debt position at year-end 2023 was € 200 million lower than at year-end 2022, which is mainly due to the share issue and the resulting proceeds of € 500 million.

The FFO/Net Debt ratio of 14.0% is above Stedin's target of at least 10%, mainly due to one-off events. S&P uses a multi-year (forward-looking) average for its assessment of the FFO/Net Debt ratio.

The S&P rating reports can be found on Stedin Group's Investor Relations website: http://www.stedingroep.nl/investor-relations. For the latest developments in the credit rating, see 34 Subsequent events

34 Subsequent events

S&P credit rating

S&P published a new rating report on 8 February 2024. Stedin Group's long-term credit rating is maintained at A- with a stable outflow. For the relevant publication, see Stedin Group's Investor Relations website: https://www.stedingroep.nl/investor-relations.

Possible entry of new shareholders

In early 2024, the provinces of Zeeland and Utrecht announced their intention to join as shareholders of Stedin Group, based on the same price conditions as the State, for an amount of € 5 million and € 15 million respectively. This would further strengthen Stedin's equity and ensure that all regions in our service area are represented as shareholders. Stedin Group's current shareholders will resolve on this at the end of March 2024. For more information, see Financially healthy.

35 Notes to the consolidated cash flow statement

The consolidated cash flow statement has been prepared using the indirect method. To derive cash flow from operating activities, the result after income tax is adjusted for income statement items that either do not result in cash flow in the same period or classify as investing or financing activities, as well as for movements in the balance sheet relating to working capital, deferred revenue and provisions.

The cash flow statement distinguishes between cash flows from operating, investing and financing activities. Cash flow from operating activities includes interest and income tax payments as well as interest and dividend receipts. Development costs and investments in and disposals of non-current assets (including financial interests) are included in cash flow from investing activities. Dividends paid out are recognised as outgoing cash flow from financing activities.

Changes in working capital

Working capital consists of inventories and current receivables less trade and other liabilities. The table below shows the movement in working capital recognised in the cash flow from operating activities:

x € 1 million	2023	2022
Movements in inventories	-45	-3
Movements in trade and other receivables	-61	-57
Movement in trade and other liabilities	57	-
Total	**-49**	**-60**

Change in deferred revenue

With effect from the 2023 financial statements, cash flows from deferred revenue (contributions received from customers for connection costs and reconstructions) have been reclassified from investing activities to operating activities, in line with the recognition of these contributions in the income statement over time as net revenue. To this end, the result after income tax is adjusted for the movement in contract liabilities. In 2023, revenue totalled € 131 million (2022: € 107 million). The comparative figures have been adjusted accordingly.

36 Overview of capital interests

	2023 %	2022 %	City
Consolidated participating interest			
Stedin Netbeheer B.V.*/**	100.00	100.00	Rotterdam
N.V. Stedin Netten Noord-Holland*	100.00	100.00	Rotterdam
N.V. Stedin Noord-Oost Friesland*	100.00	100.00	Rotterdam
DNWG Infra B.V.*/**	100.00	100.00	Goes
DNWG Warmte B.V.*	100.00	100.00	Goes
NetVerder B.V.*/**	100.00	100.00	Rotterdam
Stedin Groep Personeels B.V.*/**	100.00	100.00	Rotterdam
Stedin Groep Services B.V.*/**	100.00	100.00	Rotterdam
Infradock B.V.***	100.00	100.00	Rotterdam
Joint arrangements			
Joint operations			
Utility Connect B.V.**	40.72	40.72	Vianen
Joint Ventures			
TensZ B.V.	50.00	50.00	Rotterdam
Associates			
Energie Data Services Nederland B.V.	21.16	21.16	Amersfoort
Beheerder Afsprakenstelsel (BAS) B.V.	14.11	14.11	Amersfoort
Zebra Gasnetwerk B.V.	0.00	33.33	Bergen op Zoom

* Stedin Holding N.V. has issued a declaration of joint and several liability (403 declaration) for the subsidiaries marked with an *.

** These capital interests are held directly by Stedin Holding N.V.

*** This subsidiary is not part of Holding N.V.'s fiscal unities for corporate income tax and value-added tax.

Company income statement

x € 1 million	Note	2023	2022
Total net revenue and other income		**-**	**-**
Purchasing costs, contracted work and operational expenses		-	-2
Depreciation of non-current assets		-1	-
Total operating expenses		**-1**	**-2**
Operating profit		**-1**	**-2**
Financial income and expenses	43	-30	-35
Profit before income tax		**-31**	**-37**
Profit of participating interests	39	192	109
		161	**72**
Income tax		9	9
Profit after income tax		**170**	**81**
Profit distribution:			
Profit after income tax attributable to holders of Stedin Holding N.V. perpetual subordinated bonds (after income tax)		6	6
Profit after income tax attributable to shareholders of Stedin Holding N.V.		164	75
Profit after income tax		**170**	**81**

Company balance sheet

x € 1 million	Note	As at 31 December 2023	As at 31 December 2022
Before profit appropriation			
ASSETS			
Non-current assets			
Intangible assets	38	77	77
Financial assets	39	5,483	4,791
Deferred tax assets		20	28
Total non-current assets		**5,580**	**4,896**
Current assets			
Receivables from group companies	40	1,915	1,369
Current tax assets	28	10	-
Accruals and other receivables		2	20
Money market funds		100	-
Cash		22	19
Total current assets		**2,049**	**1,408**
TOTAL ASSETS		**7,629**	**6,304**

x € 1 million	Note	As at 31 December 2023	As at 31 December 2022
LIABILITIES			
Equity			
Share capital	22	606	539
Share premium	22	591	158
Cash flow hedge reserve	22	-19	-14
Cost of hedging reserve	22	-4	-1
Legal reserve development costs	22	13	9
Legal reserve associates	22	4	-
Retained earnings	22	1,360	1,317
Undistributed profit for the year	22	164	75
Equity attributable to Stedin Holding N.V. shareholders		**2,715**	**2,083**
Perpetual subordinated bond loan	22	506	506
Total equity		**3,221**	**2,589**
Provisions		11	10
Total non-current liabilities		**11**	**10**
Non-current liabilities			
Interest-bearing debt	25	3,069	3,116
Interest-bearing debt to group companies	41	500	-
Derivative financial instruments	18	-	34
Total non-current liabilities		**3,569**	**3,150**
Current tax liabilities			
Interest-bearing debt	25	265	280
Liabilities to group companies	40	484	218
Current tax liabilities		-	13
Derivative financial instruments	18	50	19
Other liabilities	42	29	25
Total current liabilities		**828**	**555**
TOTAL LIABILITIES		**7,629**	**6,304**

Notes to the company financial statements

37 Accounting principles for financial reporting

The company financial statements have been prepared in accordance with the provisions of Part 9, Book 2 of the Dutch Civil Code, and the same accounting policies have been applied as in the consolidated financial statements (Section 2:362[8]). For these policies, see 2 Accounting policies . It follows that the perpetual subordinated bond loan is classified in the same way.

In the company financial statements, the comparative figures have been adjusted due to a change in accounting policy at subsidiary Stedin Netbeheer B.V. in respect of the valuation of property, plant and equipment. See 2.2.10 Property, plant and equipment for more information. This concerns the non-current financial assets, equity, deferred taxes and the share of the results of associates.

The descriptions of the activities and structure of the company as stated in the 'Notes to the consolidated financial statements', including disclosures of directors' remuneration and a list of participating interests in subsidiaries, also apply to the company financial statements.

The company financial statements of Stedin Holding N.V. consist of the company income statement and the company balance sheet. The euro is the functional currency. All amounts are in millions of euros, unless stated otherwise.

Participating interests in subsidiaries

Participating interests in subsidiaries over whose commercial and financial policies significant influence is exercised are stated at net asset value, but not for an amount lower than nil. If the net asset value is negative, the participating interest is stated at nil. In this context, other long-term interests which in effect must be qualified as part of the net investment in the subsidiary are also taken into account. Where the company provides security for all or part of the debts of the relevant subsidiary, or is in effect under an obligation (in proportion to its share) to enable this subsidiary to pay its debts, a provision is recognised. The amount of this provision is determined with due regard for any bad debt provisions already deducted from amounts receivable from the subsidiary. A statutory reserve is formed for reserves of subsidiaries that are subject to restrictions on distributions.

Expected credit losses

Expected credit losses on loans issued to and receivables from subsidiaries are eliminated. Stedin chooses to incorporate this elimination in the book value of the issued loan or receivable.

38 Intangible assets

Intangible assets relate to the goodwill arising on the acquisition of DNWG. For more details, see the note to the consolidated financial statements under 14 Intangible assets.

39 Financial assets

x € 1 million	Subsidiaries	Associates	Receivables from subsidiaries	Total
Bookvalue as at 1 January 2022	**3,374**	**4**	**1,305**	**4,683**
Result of subsidiaries	109	-	-	**109**
Movements in loans to subsidiaries	-	-	-1	**-1**
Bookvalue as at 31 December 2022	**3,483**	**4**	**1,304**	**4,791**
Result of subsidiaries	192	-	-	**192**
Effect in corporate income tax changes	500	-	-	**500**
Bookvalue as at 31 December 2023	**4,175**	**4**	**1,304**	**5,483**

After the State joined as a shareholder of Stedin Holding N.V. for € 500 million, the legal entity paid the same amount as share premium into subsidiary Stedin Netbeheer B.V.

In both 2023 and 2022, no depreciation and impairments were applied to the financial assets.

The capital interests are disclosed in 36 Overview of capital interests of the consolidated financial statements.

40 Receivables from and liabilities to subsidiaries

Receivables from and liabilities to subsidiaries are all short term.

41 Interest-bearing debt to subsidiaries

Stedin Holding N.V. took out a long-term interest-bearing loan with subsidiary Stedin Netbeheer B.V. The interest rate applied is in line with the market and the term is 10 years, with no interim repayments.

42 Other liabilities

Other liabilities can be specified as follows:

x € 1 million	As at 31 December 2023	As at 31 December 2022
VAT	12	7
Other	17	18
Total other liabilities	**29**	**25**

43 Financial income and expenses

The financial expenses relate mainly to the interest expense for external financing of Stedin Group. The financial expenses amount to € 73 million (2022: € 38 million) and the financial income to € 43 million (2022: € 3 million). The income concerns interest amounts recharged within the Group.

44 Commitments and contingencies

Fiscal unity

Stedin Holding N.V. forms a fiscal unity for corporate income tax purposes with all its subsidiaries as included in 36 Overview of capital interests, with the exception of Infradock B.V. The companies, including Stedin Holding N.V., that are part of a fiscal unity are jointly and severally liable for the tax obligations of that fiscal unity.

Stedin Holding N.V. forms a fiscal unity for value-added tax purposes with all its subsidiaries as included in 36 Overview of capital interests, with the exception of Infradock B.V. The companies, including Stedin Holding N.V., that are part of a fiscal unity, are jointly and severally liable for the tax obligations of that fiscal unity.

Cash pool

Stedin Holding N.V., Stedin Groep Services B.V., Stedin Groep Personeels B.V. and NetVerder B.V. are part of a cash pool based on a zero balancing agreement and are jointly and severally liable for deficits within this cash pool.

Guarantees

Stedin Holding N.V. has taken out directors' and officers' liability insurance for the members of the Supervisory Board, the members of the Board of Management, directors and other executives within Stedin Group. To the extent possible, the directors are indemnified by Stedin Holding N.V., subject to specific conditions, against costs in connection with civil-law, criminal-law or administrative-law proceedings in which they could be involved because of their position.

See 29 Commitments and contingencies for an overview of the off-balance sheet assets and liabilities for Stedin Group.

Liabilities statements of subsidiaries

For most of the subsidiaries, liability statements as referred to in Section 2:403 of the Dutch Civil Code have been issued by the legal entity. This is specified in 36 Overview of capital interests. Pursuant to these liability statements, Stedin Holding N.V. is jointly and severally liable for all debts arising from legal acts performed by those subsidiaries.

45 Subsequent events

For subsequent events, see 34 Subsequent events.

46 Profit appropriation

Proposal for appropriation of profit for 2023

The articles of association of Stedin Holding N.V. contain provisions concerning profit appropriation. The company's articles of association state that holders of the cumulative preference shares are entitled annually to a yield of 3%. The distribution of this yield is at the discretion of the Board of Management, subject to the approval of the Supervisory Board. If the preference dividend is not distributed, it must be added to the preference profit reserve.

In connection with the State joining Stedin as a shareholder, a new dividend policy is in force from the financial year 2023. In this respect, the shareholder covenant states that the distributable profit for each of the financial years 2023 to 2032 will be determined on the basis of tiers, which depend on the amount of profit, excluding incidental income. The tiers are explained in the accompanying table, as well as in Profit appropriation pursuant to the articles of association. The distributable profits are at the disposal of the General Meeting of Shareholders (AGM). Following approval by the Supervisory Board, the Board of Management will put forward a proposal to the General Meeting of Shareholders concerning the amount to be distributed. The General Meeting of Shareholders may decide to distribute all or part of this amount.

The Board of Management intends, with the approval of the Supervisory Board, to distribute the preference dividend of € 6 million to the holders of preference shares. This would represent a dividend of € 14.42 per preference share for 2023.

In addition, the Board of Management intends to add an amount of € 105.8 million to the other reserves.

The proposed profit appropriation of Stedin Holding N.V. is as follows:

x € 1 million	2023	2022[1]
Profit after income tax	**169.8**	**43.6**
Result attributable to holders of Stedin Holding N.V. perpetual subordinated bonds	-5.6	-5.6
Result attributable to shareholders of Stedin Holding N.V.	**164.2**	**38.0**
Cumulative preference dividend to be distributed	-6.0	-6.0
Incidental income:		
Profit on disposal of TUMS 50%	-	-0.9
Profit after income tax available for distribution to the shareholders	**158.2**	**31.1**
Addition to other reserves based on scales		
10% of profit up to 20,000,000	2.0	
70% of profit between 20,000,000 and 100,000,000	56.0	
82% of profit above 100,000,000	47.8	
Total	105.8	
Distributable profit available to the AGM	52.4	15.6
Increase of general reserve after proposed dividend distribution	**105.8**	**15.6**

1 The AGM decision to pay dividends for 2022 is based on the adopted 2022 annual accounts. The new dividend policy and changes in accounting policy regarding the valuation of property, plant and equipment have no influence on this. Therefore, the comparative figures herein are not adjusted.

A recommendation will be made to the General Meeting of Shareholders to resolve to pay a dividend of € 52.4 million. This would represent a distribution of € 9.30 per share (2022: € 3.13 per share), based on the number of ordinary shares outstanding as at 31 December 2023 (5,642,732 shares). The actual number of shares on which dividends will be paid and therefore the actual amount per share is subject to change, depending on the possible entry of new shareholders and the final decision-making thereon, as included on the agenda for the General Meeting of Shareholders at the end of March 2024.

The proposed profit appropriation has not been recognised in the balance sheet as at 31 December 2023.

Rotterdam, 16 February 2024

Stedin Holding N.V.

The Board of Management	Supervisory Board
Koen Bogers, CEO (chair)	Doede Vierstra (chair)
Danny Benima, CFO	Hanne Buis
Trudy Onland, COO	Theo Eysink
David Peters, CTO	Annie Krist
	Arco Groothedde

Other information

Profit appropriation pursuant to the articles of association

Under the company's articles of association, holders of the cumulative preference shares are entitled annually to a 3% preference dividend. This percentage is revised every new regulation period. The distribution of this preference dividend is at the discretion of the Board of Management, subject to the approval of the Supervisory Board. If the Board of Management resolves not to distribute the preference dividend, it must be added to the preference profit reserve.

Article 29.11 of the articles of association stipulates that until 31 December 2033, a different dividend policy applies for each of the financial years 2023 to 2032. For this period, the shareholders' covenant sets out the following rules regarding profit appropriation in relation to the profit available for distribution after application of articles 29.3 to 29.9 of the articles of association:

1. Of the profit up to and including an amount of EUR 20,000,000, 10% will be added to the ordinary profit reserve.
2. In addition to the reservation pursuant to point 1, the following applies:
   a. If the profit exceeds EUR 20,000,000 but does not exceed EUR 100,000,000, 70% of the excess above EUR 20,000,000 will be added to the ordinary profit reserve.
   b. If the profit exceeds EUR 100,000,000, the following will be added to the ordinary profit reserve:
      i. 70% of EUR 80,000,000 (being the excess above EUR 20,000,000 up to EUR 100,000,000); and
      ii. 82% of the excess above EUR 100,000,000.
3. Any profit that is not to be reserved as stipulated under points 1 and 2 is at the disposal of the General Meeting of Shareholders.
4. The reservation referred to under points 1 and 2 will be carried out by the Board of Management (without requiring the approval of the Supervisory Board) by exercising the authority to reserve set out in article 29.11 of the articles of association as it applies up to and including 31 December 2033.

After 31 December 2033, the dividend policy will revive under which the Board of Management, with the approval of the Supervisory Board, may add a portion equal to no more than half of the profit available for distribution after application of articles 29.3 to 29.9 of the articles of association to the reserves. The remaining portion is at the disposal of the General Meeting of Shareholders. Following approval by the Supervisory Board, the Board of Management will put forward a proposal to the General Meeting of Shareholders for the remaining amount. The General Meeting of Shareholders can decide to distribute all or part of the remaining portion. Undistributed profit is added to the reserves.

Special shares

Shares with specific voting rights

The N1 and N2 shares were also issued at the time the Dutch State joined as shareholder. These shares were issued to the Dutch State (N1) and the municipality of Rotterdam, as chair of the Shareholders' Committee (N2). The N1 share can only be held by the Dutch State. No requirements are imposed on the holder of the N2 share, except the exclusion of the Dutch State as shareholder. The N2 share is in principle reserved for the chair of the Shareholders' Committee, which role is currently filled by the municipality of Rotterdam.

The N1 share entitles the holder to a casting vote on certain decisions, approval of an amendment to the articles of association or dissolution of the company. In addition, the holder of the N1 share is the only party allowed to apply for a review of the Financing Plan.

The N2 share entitles the holder to apply for a review of board resolutions.

The voting rights attached to the N2 share, right to participate in the General Meeting of Shareholders, right to distributions and other rights attached to the N2 share are suspended if and for as long as the N1 rights are suspended.

Shares with limited profit-sharing rights

The N1 and N2 shares have limited profit-sharing rights. Annual distributions of 1% of the nominal value (€ 100) of the share are allocated to the N1 and N2 shares first. No further distributions will be made on the N1 and N2 shares.

Independent auditor's report

This independent auditor's report is an English translation of the signed Dutch independent auditor's report as issued at 16 February 2024

To the shareholders and the Supervisory Board of Stedin Holding N.V.

Report on the audit of the financial statements 2023 included in the annual report

Our opinion

We have audited the financial statements 2023 of Stedin Holding N.V. (hereafter: Stedin Group) based in Rotterdam. The financial statements comprise the consolidated financial statements and the company financial statements, as included on page 144 until 216 of the annual report.

In our opinion:

- The accompanying consolidated financial statements give a true and fair view of the financial position of Stedin Groupas at 31 December 2023, and of its result and its cash flows for 2023 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.
- The accompanying company financial statements give a true and fair view of the financial position of Stedin Group as at 31 December 2023, and of its result for 2023 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

1 The consolidated balance sheet as at 31 December 2023.
2 The following statements for 2023: the consolidated income statement, the consolidated statements of comprehensive income, consolidated statement of changes in group equity and consolidated cash flow statement.
3 The notes comprising material accounting policy information and other explanatory information.

The company financial statements comprise:

1 The company balance sheet as at 31 December 2023.
2 The company income statement for 2023.
3 The notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of Stedin Groupin accordance with the EU Regulation on specific requirements regarding the statutory audits of public interest entities, the 'Wet toezicht accountantsorganisaties' (Wta, Audit firms supervision act), the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Information in support of our opinion

We designed our audit procedures in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The following information in support of our opinion was addressed in this context, and we do not provide a separate opinion or conclusion on these matters.

Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at EUR20 million. The materiality is based on 3,3% of EBITDA (i.e. the result before financial income and expenses, taxes, depreciation and amortization) as defined by Stedin Group in note 33 of the annual report. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

The audits of significant components within the group have been performed with a materiality that has been determined by the group audit team, varying from EUR 10 million to EUR 18 million.

We agreed with the Supervisory Board that misstatements in excess of EUR1 million, which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Scope of the group audit

Stedin Group is at the head of a group of entities. The financial information of this group is included in the consolidated financial statements of Stedin Group.

Our group audit mainly focused on significant group entities. We ourselves have performed audit procedures for entities Stedin Holding N.V. and Stedin Netbeheer B.V. We have performed specific audit procedures for other entities. By performing the procedures mentioned above at (group) entities, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion on the consolidated financial statements.

Our focus on the energy transition

Climate change increasingly impacts our environment and society, in which the energy system will change drastically. As regional grid operator, Stedin Groupplays a crucial role in this changing energy system.

The Board of Directors has summarized the effect of the energy transition on Stedin Groupand its plans under the energy transition, including related impacts, challenges, uncertainties, and opportunities in the chapters "Where we are now" and "Full focus on further accelerating" of the annual report.

The impact of the energy transition on the financial statements is explained in note 2.3. It is mainly reflected in the increase in the level of investment in the electricity network and its financing as explained in note 13, note 22, and note 25. Additionally, the energy transition affects the assumptions regarding the estimation of the useful life and depreciation method of Stedin Group's assets, including its gas network, as explained in note 2.3.

As part of our audit of the financial statements, we evaluated how Stedin Grouptakes into account the effects of the energy transition in estimates and significant assumptions. We also refer to our Key Audit Matters of the audit.

Additionally, we have read the annual report and considered whether there is a material inconsistency with the financial statements. Finally, we have performed assurance work on specific non-financial information for which we refer to our separate assurance report.

Audit approach fraud risks
We identified and assessed the risks of material misstatements of the financial statements due to fraud.

During our audit we obtained an understanding of the entity and its environment and the components of the system of internal control, including the risk assessment process and management's process for responding to the risks of fraud and monitoring the system of internal control and how the Supervisory Board exercises oversight, as well as the outcomes. We refer to section "Fraud prevention" in the "Organization and Management" chapter of the annual report for the approach that management follows concerning the fraud risks.

We evaluated the design and relevant aspects of the system of internal control and in particular the fraud risk assessment, as well as among others the code of conduct, whistle blower procedures and incident registration. We evaluated the design and the implementation and, where considered appropriate, tested the operating effectiveness, of internal controls designed to mitigate fraud risks.

As part of our process of identifying fraud risks, we evaluated fraud risk factors with respect to financial reporting fraud, misappropriation of assets and bribery and corruption in close co-operation with our forensic specialists. We evaluated whether these factors indicate that a risk of material misstatement due fraud is present.

We have identified the fraud risk assumed in the audit standards related to breaches of internal control measures by the Board of Directors and management, including whether there are indications of tendencies that may potentially pose a risk of a material misstatement resulting from fraud.

We have performed substantive procedures, including journal entry testing, evaluating estimates and assumptions for tendencies (including retrospective review of significant estimates from the previous fiscal year), and testing the substantiation of adjustments made during the preparation of the annual accounts. The significant estimates and assumptions that may have a significant impact on the financial statements are explained in note 2.3 of the financial statements.

We incorporated elements of unpredictability in our audit. We also considered the outcome of our other audit procedures and evaluated whether any findings were indicative of fraud or non-compliance.

We considered available information and made enquiries with the Board of Directors, management (including including the Corporate Affairs, Compliance & Integrity, Corporate Risk Management, and Internal Audit departments.), management (including the Corporate Affairs, Compliance & Integrity, Corporate Risk Management, and Internal Audit departments), those charged with governance and others within the group.

We evaluated whether the selection and application of accounting policies by the group, particularly those related to subjective measurements and complex transactions, may be indicative of fraudulent financial reporting. From this, no indications of fraud were identified that could lead to a material misstatement.

Audit approach compliance with laws and regulations
We assessed the laws and regulations relevant to the Company through discussion with management, those charged with governance and others and through reading minutes and reports of internal audit.

We involved our forensic specialists in this evaluation.

As a result of our risk assessment procedures, and while realizing that the effects from non-compliance could considerably vary, we considered the following laws and regulations: adherence to (corporate) tax law, the requirements under the International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and Part 9 of Book 2 of the Dutch Civil Code with a direct effect on the financial statements as an integrated part of our audit procedures, to the extent material for the related financial statements.

We obtained sufficient appropriate audit evidence regarding provisions of those laws and regulations generally recognized to have a direct effect on the financial statements.

Apart from these, the Stedin Groupis subject to other laws and regulations where the consequences of non-compliance could have a material effect on amounts and/or disclosures in the financial statements, for instance, through imposing fines or litigation. We have identified the Electricity Act 1998, Gas Act, General Data Protection Regulation, and the Public Procurement Act 2012 that are most likely to have such an influence.

Given the nature of Stedin Group'sbusiness and the complexity of this other legislation and regulations, there is a risk of non-compliance with the requirements of such laws and regulations. In addition, we considered major laws and regulations applicable to listed companies.

Our procedures are more limited with respect to these laws and regulations that do not have a direct effect on the determination of the amounts and disclosures in the financial statements. Compliance with these laws and regulations may be fundamental to the operating aspects of the business, to Stedin Group'sability to continue its business, or to avoid material penalties (e.g., compliance with the terms of operating licenses and permits or compliance with environmental regulations) and therefore non-compliance with such laws and regulations may have a material effect on the financial statements. Our responsibility is limited to undertaking specified audit procedures to help identify non-compliance with those laws and regulations that may have a material effect on the financial statements. Our procedures are limited to (i) inquiry of management, the Supervisory Board, the Executive Board and others within Stedin Group's as to whether the Stedin Groupis in compliance with such laws and regulations and (ii) inspecting correspondence, if any, with the relevant licensing or regulatory authorities to help identify non-compliance with those laws and regulations that may have a material effect on the financial statements.

Naturally, we remained alert to indications of (suspected) non-compliance throughout the audit.

Finally, we obtained written representations that all known instances of (suspected) fraud or non-compliance with laws and regulations have been disclosed to us.

Audit approach going concern

As described in note 2 of the financial statements, management has composed the financial statements of Stedin Group with the assumption that the continuity of the entity is maintained and that it will continue its activities for the foreseeable future.

We have evaluated this judgement from management, in which we have considered whether this decision has been made including all relevant information of which we have become aware of as a result of our audit. This includes evaluating the liquidity and financing elements in Stedin's financial strategic plan (FSP), and the underlying developments and assumptions for both long- and short-term.

Our work performed has not led to results that are not consistent with management's assumptions and judgments when applying the going concern assumption.

Our key audit matter

As key audit matter, we describe those matters that, in our professional judgement, were of most significance in our audit of the financial statements. We have communicated the key audit matter to the Supervisory Board, but is not a comprehensive reflection of all matters discussed.

We designed our audit procedures in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The following information in support of our opinion was addressed in this context, and we do not provide a separate opinion or conclusion on this matter.

Key Audit Matter	
Developments, assumptions and presumptions in Property, plant and equipment	
Description	*The manner in which we audited this key audit matter*
In determining the carrying amount of property, plant and equipment of EUR 7,522 million, assumptions and presumptions are made, both in terms of determining the amounts that may be capitalized aw with regard to the useful life and depreciation method of the assets. Also, given its size, it is a account that forms an important part of our time spent. The property, plant and equipment are valued in the 2023 financial statements at cost less accumulated depreciation and impairment. The explanations regarding the chosen valuation basis are included in note 2.2.10 of the financial statements. Specific explanations about property, plant and equipment are included in note 13 of the financial statements. Up to and including the 2022 financial statements, Stedin Group valued its networks and network-related assets in the regulated electricity and gas domain (regulated networks) based on the income model (fair value at revaluation date minus accumulated depreciation and cumulative exceptional impairment losses). As of the 2023 financial statements, these regulated networks are valued based on the cost price model in IAS 16 and are part of the 'Networks' asset category, in order to increase the comparability of Stedin Group with other regional network operators. The change in policies has been implemented retrospectively as of 1 January 2022. The financial effects of this are explained in note 2.2.10 of the financial statements.	As part of our work, we have assessed internal and external developments that are relevant to Stedin Group specifically or to the sector as a whole. Based on our risk assessment, we have determined the audit approach. Our audit procedures, among others, include: audit of investments, divestments, review of depreciation, and evaluation of the lifespan and use of Stedin Group's assets. We have evaluated the retrospective change in accounting policy implemented by management and the related disclosure. *Observation* Based on the materiality described above and the procedures we have performed and described above, we agree with the assumptions, presumptions, and explanations provided by management.

Key Audit Matter 2022

In the previous year, the developments in Stedin Group's In Control Framework were identified as a key audit matter. Given the developments in the In Control Framework, as also mentioned in the In Control statement of the Board of Directors, this topic is no longer identified as a key audit matter.

Report on the other information included in the annual report

The annual report contains other information, in addition to the financial statements and our auditor's report thereon.

The other information consists of:

- The Report of the Board of Management, divided into the chapters "Introduction", "Where We Are Now", "Full focus on further accelerating", and "Organization and management".
- The Report of the Supervisory Board, included as part of the chapter "Organization and management".
- Other information.
- Supplementary information.

Based on the following procedures performed, we conclude that the other information:

- Is consistent with the financial statements and does not contain material misstatements.
- Contains all the information regarding the management report and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of the other information, including the Management Board's Report in accordance with Part 9 of Book 2 of the Dutch Civil Code, and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirement

Engagement

We were engaged by the Supervisory Board as auditor of Stedin Group,as of the audit for the year 1997 and have operated as statutory auditor ever since that financial year.

No prohibited non-audit services

We have not provided prohibited non-audit service as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audits of public interest entities.

Description of responsibilities regarding the financial statements

Responsibilities of the Board of Management and the Supervisory Board for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, management is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the financial statements using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

Management should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit assignment in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgement and have maintained professional scepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included among others:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures.
- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identified during our audit. In this respect we also submit an additional report to the audit committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Supervisory Board, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Rotterdam, 16 February 2024

Deloitte Accountants B.V.

Digitally signed on the original: drs. A. van der Spek RA

Assurance report on non-financial information

This independent limited assurance report is an English translation of the signed Dutch independent limited assurance report as issued at 16 February 2024

LIMITED ASSURANCE REPORT FROM THE INDEPENDENT ASSURANCE ENGAGEMENT ON SPECIFIC NON-FINANCIAL INFORMATION 2023 OF STEDIN HOLDING N.V.

To: the shareholders and the supervisory board of Stedin Holding N.V.

Our conclusion

We have performed a limited assurance engagement on the specific non-financial information 2023 of Stedin Holding N.V. (hereafter also: Stedin Group) based in Rotterdam, as described below.

Based on the procedures performed and the assurance information obtained, nothing has come to our attention that causes us to believe that this specific non-financial information is not prepared in all material aspects, in accordance with the applicable criteria.

The scope of our limited assurance engagement concerns the following non-financial information 2023 as included on page 7 of the annual report of Stedin Group:

- % Consumer convenience Costumers (excluding Zeeland)
- Additional capacity MVA
- Additional MV stations
- Additional realised cables KM
- Congestion areas
- Flexible capacity MW
- % Availability of smart meter data
- % Supply reliability Electricity and Gas
- % Planned maintenance Electricity and Gas carried out
- Brittle pipelines replaced KM
- Cultural value 'Charging Forward'
- Total workforce (FTE)
- LTIR
- % Participation Act jobs
- % Greening of grid electricity losses
- CO2 equivalent emissions

Basis for our conclusion

We have performed our assurance engagement in accordance with Dutch law, including Dutch Standard 3000A 'Assurance-opdrachten anders dan opdrachten tot controle of beoordeling van historische financiële informatie (attest-opdrachten)' (assurance engagements other than audits or reviews of historical financial information (attestation engagements)). This engagement is aimed to obtain limited assurance. Our responsibilities in this regard are further described in 'Our responsibilities for the assurance engagement of specific non-financial information'.

We are independent of Stedin Group, in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence). Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).

We believe that the assurance information we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Applicable criteria

The reporting criteria applied, including definitions and calculation methodology, for preparation of the specific non-financial information are stated in the connectivity table as included on pages 258 to 268 of the annual report in the section "Connectivity table".

The comparability of non-financial information between entities and over time can be influenced by the lack of a uniform system on which this information can be based, evaluated and measured. This allows for the application of different, but acceptable, measurement techniques.

Therefore, the specific non-financial information must be read and understood together with the applied criteria.

Responsibilities of the Board of Management and the Supervisory Board for specific non-financial information.

Management is responsible for the preparation of specific non-financial information in accordance with the applicable criteria, including the identification of the intended users and the criteria being applicable for their purposes. Management is also responsible for selecting and applying these criteria and for determining that these criteria are adequate for the legitimate information needs of stakeholders.

Management is also responsible for such internal control as it deems necessary to enable the preparation of specific non-financial information without material misstatements resulting from fraud or errors.

The supervisory board is responsible for overseeing the company's reporting process. Het bestuur is ook verantwoordelijk voor een zodanige interne beheersing als het noodzakelijk acht om het opstellen, meten of evalueren van specifieke niet-financiële informatie mogelijk te maken zonder afwijkingen van materieel belang als gevolg van fouten of fraude.

Our responsibilities for the assurance engagement on specific non-financial information.

Our objective is to plan and perform our assurance engagement in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

The procedures performed in this context differ in nature and timing and are less extent as compared to reasonable assurance engagements. The level of assurance obtained in a limited assurance engagement is therefore substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

We apply the 'Nadere voorschriften kwaliteitssystemen' (NVKS, Regulations for quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our limited assurance engagement included, among others:

- Determining the plausibility of the specific non-financial information.
- Evaluating the appropriateness of the reporting criteria, their consistent application, and related disclosures, that are included in the connectivity table as included on pages 258 to 268 of the annual report in the section "Connectivity table".
- Obtaining through inquiries a general understanding of control environment, reporting processes, information systems and risk-assessment process relevant to the preparation of the specific non-financial information, but not to obtain assurance evidence about their implementation or their operating effectiveness.
- Inquiries with the Board of Management, the internal audit department, and other employees of the company.
- Identifying areas of the specific non-financial information with a higher risk of misleading or unbalanced information or material misstatements, whether due to errors or fraud. Designing and performing further assurance procedures aimed at determining the plausibility of the sustainability information responsive to this risk assessment. These procedures consisted amongst others of:
  - interviewing management responsible for the specific non-financial information;

- interviewing relevant staff responsible for providing the information for, carrying out internal control procedures on, and consolidating the data for the specific non-financial information;
- obtaining assurance information that the sustainability information reconciles with underlying records of the company;
- assessing relevant internal and external documentation based on limited sample observations;
- performing an analytical review of the data and trends;

• Evaluating the consistency of the spcific non-financial information with the information in the annual report which is not included in the scope of our review.

We communicate with the Supervisory Board, among other things, about the planned scope and timing of the assurance engagement and about the significant findings that have emerged from our assurance engagement.

Rotterdam, 16 February 2024

Deloitte Accountants B.V.

Digitally signed on the original: drs. A. van der Spek RA

Supplementary information

Reporting Policy

In this integrated annual report 2023, Stedin renders account for its financial and non-financial performance and the value that it creates for stakeholders in the short and long term. Stedin issues half-year and annual reports for each calendar year. This annual report of Stedin relates to the period of 1 January 2023 to 31 December 2023.

The financial information of Stedin Holding N.V. for the full year 2023 and comparative figures for 2022 are presented and accounted for in the financial statements. The accounting policies are set out in the financial statements.

In the Report of the Board of Management, figures for 2023 and comparative figures - where available - are presented and Stedin renders itself accountable in this respect to its broad group of stakeholders. The reporting principles and process relating to the Report of the Board of Management as well as information on external assurance in the case of non-financial information are set out below.

Reporting principles for the Report of the Board of Management

The Report of Stedin's Board of Management has been prepared in accordance with the provisions of Part 9 of Book 2 of the Dutch Civil Code.

The Global Reporting Initiative (GRI) Standards are applicable to our non-financial performance, at comprehensive level. The GRI standards used are set out in the GRI index. Stedin also complies with the Non-Financial Reporting Directive (NFRD) and thus reports in accordance with the Disclosure of Non-Financial Information Decree and the requirements under the EU Taxonomy.

The Corporate Sustainability Reporting Directive (CSRD) requires companies to report on the impact of business activities on the environment and society, and vice versa, on the basis of the binding European Sustainability Reporting Standards (ESRS). Stedin, as a public interest company, must comply with the CSRD as of the annual report for the 2024 financial year. Stedin took steps in 2023 to prepare for this obligation, including adapting our governance and reporting organisation, carrying out a double materiality assessment and seeking assurance for our non-financial figures from our external auditor. We learnt a lot from this, including that the data collection, processing and management process still needs a lot of attention and awareness to take it to a high maturity level. The definitions and calculation methods used in 2023 are set out in the connectivity table. These definitions and units may change in 2024 as a result of the further steps we still need to take.

In its value creation model, Stedin presents both its long-term impact on its material topics and its impact on the Sustainable Development Goals (SGDs) of the United Nations.

Stedin uses an Impact Model to show its positive and negative impact on society and the living environment. The Impact Model is based on the International Integrated Reporting Council's (IIRC) 'six capitals model'. Impact is quantified by estimating, in monetary terms (euros), the sum of individual effects on welfare and well-being. Stedin uses 'welfare' as a broad term that includes the most relevant identified effects on welfare. The methods for calculating impact are based on techniques commonly used in scientific or social practice. These methods are set out in the Guide to Measuring Impact for Infrastructure Companies (Handboek Impactmeting Infrabedrijven).

The Stedin subsidiaries are consolidated in the non-financial information, unless indicated otherwise. Discontinued operations are included for the period in which they were part of the group.

Finally, Stedin applies the Corporate Governance Code on a voluntary basis with any deviations explained in this annual report.

Reporting process

The Board of Management is ultimately responsible for the integrated annual report. The strategy, including strategic material topics arising from the double materiality assessment, the strategic risks and opportunities and the key performance indicators (KPIs) form the starting point in determining the content of the annual report. The Board of Management has delegated its preparation to a steering group. A project leader is responsible for the composition of the report. Responsibility for the content lies with various business units. The financial and

non-financial strategic KPIs are an integral part of the planning and control cycle. The results are discussed in the regular business reviews.

Specifically for the non-financial figures that fall within the scope of the assurance report, non-financial control (part of Finance) in close cooperation with the organisational units and business control is carried out to verify the supporting information and compile the files for verification by the external auditor. The external auditor reviews these files and provides assurance as described in its report.

External assurance of non-financial information

Stedin wants its non-financial information to be relevant, clear, complete, objective, measurable and explainable. This year, we sought assurance for the non-financial figures that we use to shed light on 2023 from our external auditor.

Five-year summary

	Unit	2023	2022[1]	2021[1]	2020[1]	2019[1]
Income statement						
Revenue	€ mln	1,752	1,316	1,265	1,216	1,220
Total operating income	€ mln	1,770	1,333	1,279	1,229	1,234
Total operating expenses	€ mln	1,477	1,197	1,099	1,061	1,033
EBITDA	€ mln	600	432	484	463	489
Operating profit	€ mln	293	136	180	168	201
Profit after income tax	€ mln	170	81	62	71	347
Balance sheet						
Property, plant and equipment	€ mln	7,522	6,993	6,570	6,165	5,783
Total assets	€ mln	8,284	7,505	7,117	6,680	6,319
Equity	€ mln	3,221	2,589	2,480	2,229	2,229
Total interest-bearing debt	€ mln	3,334	3,396	3,281	3,183	3,004
Investments in non-current assets	€ mln	832	711	687	620	646
Cash flows						
Cash flow from operating activities	€ mln	546	392	488	513	470
Cash flow from investing activities	€ mln	-808	-689	-679	-617	-332
Cash flow from financing activities	€ mln	397	217	241	115	-235

	Unit	2023	2022[1]	2021[1]	2020[1]	2019[1]
Credit rating						
Long-term rating (S&P)	rating	A-	A-	A-	A-	A-
Solvency	%	45.4	39.7	40.6	38.2	39.7
FFO/Net debt	ratio	14.0	9.5	10.6	11.4	11.7
Shares at 31 December						
Number of ordinary shares outstanding (x 1,000)	number	5,643	4,971	4,971	4,971	4,971
Number of preference shares outstanding (x 1,000)	number	416	416	416	-	-

1 The comparative figures have been adjusted as a result of a change in accounting policies regarding the valuation of tangible fixed assets, a reclassification of the cash flows from deferred revenue and the adjustment of the FFO/Net Debt calculation. See 2.2.10 Property, plant and equipment, 35 Notes to the consolidated cash flow statement and 33 Credit rating, for more information.

	Unit	2023	2022	2021	2020	2019
Operational key figures						
Heavy-use electricity connections	number	21,006	20,970	20,544	19,782	18,912
Low-use electricity connections	number	2,381,906	2,359,396	2,337,460	2,315,788	2,283,563
Quantity of electricity transported	GWh	24,374	20,746	20,529	20,171	21,100
Length of electricity cables[1]	km	58,921	58,250	57,616	56,854	56,140
Length of electricity cables laid[1]	km	892	715	998	1,059	1,034
Heavy-use gas connections	number	8,933	9,084	9,248	9,394	9,633
Low-use gas connections	number	2,092,646	2,108,500	2,121,210	2,129,182	2,111,038
Quantity of gas distributed	million m^3	3,602	3,782	4,907	4,365	4,651
Length of gas pipelines[1]	km	28,121	28,145	28,160	28,206	28,216
Length of gas pipelines laid	km	237	231	256	227	221
Medium-voltage failures resulting in disruption	number	497	507	465	523	519
Facilitated supplier switches (x 1.000)	number	433	429[2]	685	883	824
Safety						
Lost Time Injury Rate (LTIR)	ratio	0.24	0.52	0.53	0.39	2.13
Recordable Incident Frequency (RIF)	ratio	0.57	0.91	0.74	0.68	0.98
Outages and interruptions in electricity supply						
Average duration of interruption MV/LV (CAIDI)	minutes	89	96	87	112	82
Interruption frequency MV/LV (SAIFI)	number	0.230	0.225	0.216	0.231	0.245
Annual average downtime MV/LV (SAIDI)	minutes	20	22	19	26	20
Annual average downtime HV/MV/LV (SAIDI)	minutes	21	25	20	27	21
Outages and interruptions in gas supply						
Average duration of interruption (CAIDI)	minutes	123	141	88	75	270
Interruption frequency (SAIFI)	number	0.0059	0.0060	0.0060	0.0060	0.0050
Annual average downtime (SAIDI)	seconds	44	50	29	26	87

1 Figures regarding the number of connections have been adjusted retrospectively - from 2020 - to be in line with the numbers in the Central Connection Register (Centraal AansluitRegister = C-AR).

2 This figure was restated in 2023: due to a miscalculation, some of the 'switchers' in 2022 were not included.

Property, plant and equipment by activity

The table below provides a breakdown of property, plant and equipment by activity within Stedin, as stated in the statement of movements in 13 Property, plant and equipment.

x € 1 milion	2023	2022[1]
Book value		
Electricity	5,094	4,706
Gas	2,041	1,915
Smart meters	297	311
Green buildings	32	34
Other	58	27
	7,522	**6,993**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of tangible fixed assets. See 2.2.10 Property, plant and equipment for more information.

The table below provides a breakdown of property, plant and equipment by activity within Stedin, adjusted for deferred revenue, as stated in the statement of changes in 13 Property, plant and equipment and 26 Deferred revenue.

x € 1 million	2023	2022[1]
Book value		
Tangible fixed assets (gross)	**7,522**	**6,993**
Electricity	4,195	3,910
Gas	1,857	1,728
Smart meters	290	311
Green buildings (Utrecht property)	32	34
Other	58	27
Tangible fixed assets (net)	**6,432**	**6,010**
Customer construction contribution	1,065	960
Income recognized	25	23
	1,090	**983**

1 The comparative figures have been adjusted as a result of a change in accounting policy for the valuation of tangible fixed assets. See 2.2.10 Property, plant and equipment for more information.

Material non-financial information

Detailed information on CO_2 emissions

Transport	Unit	2023	2022	2021	2020	2019
Electricity transmission	GWh	24,374	20,746	20,529	20,171	21,100
Gas distribution	million m3	3,602	3,782	4,907	4,365	4,651

Energy intensity ratio	Unit	2023	2022	2021	2020	2019
Energy consumption	GJ	136,028	129,076	139,572	157,936	182,168
Net revenue	mln	€ 1,752	€ 1,316	€ 1,265	€ 1,216	€ 1,220
Energy intensity ratio	GJ/€ million	77.6	98.1	110.3	129.9	149.3

GHG emission intensity ratio

Scope 1	Unit	2023	2022	2021	2020	2019
Gas consumption of buildings	tonnes CO2eq	470	507	597	719	707
Network losses from our gas network	tonnes CO2eq	76,080	79,277	102,774	108,082	105,008
Lease & company cars	tonnes CO2eq	7,665	7,400	7,921	9,172	11,085
Generator units	tonnes CO2eq	127	123	2,246	2,533	2,729
SF_6 gas feed-in	tonnes CO2eq	866	727	455	137	178
Total	**tonnes CO2eq**	**85,208**	**88,034**	**113,993**	**120,643**	**119,707**

Scope 2	Unit	2023	2022	2021	2020	2019
Electricity/heat consumption of buildings	tonnes CO2eq	873	1,431	1,681	1,646	774
Electricity network losses	tonnes CO2eq	304,450	381,156	442,709	453,153	508,215
Total	**tonnes CO2eq**	**305,323**	**382,587**	**444,390**	**454,799**	**508,989**

Scope 3	Unit	2023	2022	2021	2020	2019
Commuting, business trips, flights	tonnes CO2eq	1,114	1,057	598	2,229	3,419
Purchasing	tonnes CO2eq	332,582	236,750	226,894	228,040	228,313
Total	**tonnes CO2eq**	**333,696**	**237,807**	**227,492**	**230,269**	**231,732**

Total	Unit	2023	2022	2021	2020	2019
Total footprint	tonnes CO2eq	724,227	708,428	785,875	805,711	860,428
Greening of electricity network losses	tonnes CO2eq	-304,450	-381,156	-442,068	-452,587	-508,036
Total including greening	**tonnes CO2eq**	**419,777**	**327,272**	**343,807**	**353,124**	**352,392**

Net revenue	€ million	€ 1,752	€ 1,316	€ 1,265	€ 1,216	€ 1,220
GHG emission intensity ratio	tonnes CO2eq/ million €	239.6	248.7	271.8	290.4	288.8

Detailed information on staff

	2023	2022	2021	2020	2019
Information about the total workforce (at year-end)					
Number of employees of Stedin Group	4,784	4,324	4,194	4,276	4,346
Number of employees at Stedin	4,465	4,029	3,651	3,652	3,672
Number of employees at NetVerder	12	8	6	5	5
Number of employees at DNWG Infra	307	287	537	619	669
Number of employees on a full-time contract					
Male employees	3,545	3,296	3,250	3,319	3,403
Female employees	465	386	364	363	357
Number of employees on a part-time contract					
Male employees	326	252	210	217	200
Female employees	448	390	370	377	386
Number of employees on a permanent contract					
Male employees	3,283	3,168	3,207	3,323	3,402
Female employees	744	670	650	667	679
Number of employees on a temporary contract					
Male employees	588	380	253	213	201
Female employees	169	106	84	73	64
CLA / non-CLA					
Covered by Collective Labour Agreement (CLA)	4,547	4,110	4,007	4,092	4,158
Not covered by CLA	237	214	187	184	188

	2023	2022	2021	2020	2019
Diversity of boards and employees					
Younger than 25	199 (4%)	121 (3%)	70 (2%)	76 (2%)	66 (2%)
Between 25 and 34	1,110 (23%)	942 (22%)	814 (19%)	908 (21%)	843 (19%)
Between 35 and 44	1,260 (26%)	1,110 (26%)	1,089 (26%)	1,060 (25%)	1,056 (24%)
Between 45 and 54	958 (20%	898 (21%)	863 (21%)	908 (21%)	923 (21%)
55 and older	1,257 (27%)	1,253 (29%)	1,358 (32%)	1,324 (31%)	1,458 (34%)
Number of women in management positions	92	80	79	64	60
Number of men in management positions	225	213	223	224	224

	2023	2022	2021	2020	2019
Information about internal versus external staff					
Employees (internal) at year-end	4,784	4,324	4,194	4,276	4,346
Employees (external) at year-end	1,053	951	779	709	804
FTEs (internal) at year-end	4,583	4,148	4,041	4,127	4,213
FTEs (external) at year-end	937	844	689	607	700
Sickness absence (internal) (%)	5.4	5.8	4.3	4.2	4.8
Male employees (internal) (%)	81	82	82	83	83
Female employees (internal) (%)	19	18	18	17	17

Sustainable Development Goals

SDG	Description	Application to Stedin and subtargets of the SDGs	Material topics
	Energy is essential for almost all major challenges and opportunities in today's world.	Via our grids, we offer our customers energy, including renewable energy, to live, work and do business with high supply reliability. We are working with our stakeholders on facilitating the energy transition and on innovations that are necessary for a future-proof grid that will remain affordable and reliable. To that end, we are, for example, examining the possibilities for heating homes with sustainable gases and hydrogen to reduce the volume of natural gas distributed. (SDG 7.1; 7.2 and 7.b)	Access to energy and supply reliability
  	Our employees are the heart of our organisation. They ensure a reliable energy supply each and every day. We provide a safe working environment with plenty of opportunities for development.	We are committed to promoting equal opportunities, long-term employability and a workforce that reflects society at large. In our procurement policy, we assume responsibility with regard to human rights, ethics and labour laws. Our supplier code of conduct is based on OECD guidelines, for example. The safety of our employees and the local community is our top priority. In addition, Stedin offers learning opportunities in keeping with the future skills that will ensure that our employees and organisation remain flexible. (SDGs 3.6, 3.9, 4.3, 4.4, 8.5 and 8.8)	Good employment practices Good governance
	Affordable investment in infrastructure is crucial to enable sustainable development and thereby facilitate economic development	Stedin is working to make the energy transition and sustainable development of its coverage area possible by constructing our electricity and gas grids, optimally utilising them and managing them properly. (SDG 9.1).	Access to energy and supply reliability

SDG	Description	Application to Stedin and subtargets of the SDGs	Material topics
	The cities and communities of the future must offer opportunities to everyone, including safe access to basic energy services.	Stedin is committed to the goals in the Climate Agreement and to this end is working with its stakeholders in a number of areas, including a safe and affordable electricity and gas grid and sustainable waste management (SDG 11.1, 11.6). In addition, Stedin supports ecological improvements in cities and communities (SDG 11a) by taking part in the 'second ecological main infrastructure' and the nature-inclusive agenda.	Access to energy and supply reliability Customer and stakeholder perception
	Sustainable consumption and production means the efficient use of raw materials and effective use of solar and wind energy, thus reducing pressure on the environment and dependence on primary resources.	Stedin Group itself is conscious of its energy consumption; for example, we endeavour to minimise our network losses (SDG 12.2). Stedin is also material conscious: we focus on reducing the use of raw materials, virgin or otherwise, (SDG 12.2 and 12.5) and do so transparently together with our suppliers (SDG 12.6). Finally, we are working to raise awareness among our customers in order to reduce our need to construct infrastructure. For example, we provide information on preventing peak loads ('wash when the sun shines') (SDG 12.8).	Climate mitigation and adaptation
	Climate change affects all countries on all continents. Without intervention, the temperature on earth is likely to rise by more than 3 degrees Celsius this century.	Stedin conforms to international climate objectives. Through sustainable innovations, Stedin Group contributes to technologies and systems that combat climate change and to facilitating the energy transition (SDG 13.1).	Climate mitigation and adaptation
	Biodiversity is about the protection, restoration and sustainable management of land in all its forms.	Stedin plans to commit itself to a sector agreement on nature-inclusive construction and management. This includes further research into Stedin's impact on biodiversity in the chain. (SDG 15.1 and 15.5)	Biodiversity

Impact Model

As a grid manager, we have an impact on our society and living environment. This impact can be positive or negative. We have been analysing this impact since 2019 according to the International Integrated Reporting Council's (IIRC) 'six capitals model', using the 'Impact Model' below. In this model, we quantify our qualitative impact where we make a social contribution, in our direct activities and in the chain (chain impact). Chain impact is impact for which parties in the chain are responsible together with Stedin. The Impact Model also provides insight into the relationship between our impacts and how we contribute to the United Nations' international goals: the Sustainable Development Goals (SDGs).

Impact model 2023

CAPITAL	NEGATIVE IMPACT	IN € MILLION	POSITIVE IMPACT	SDGs
Financial capital Financial capital comprises the value of financial flows between Stedin and its external stakeholders	Capital raised, received repayments and interest Payments by customers (low-use) Payments by customers (heavy-use) Movements in cash and cash equivalents Contributions received Other revenue	5,837 / 5,913 1,171 / 1,446 481 / 537 135 / 24 131 18	Dividends, repayments and interest Payments to suppliers Payments to employees Taxes	7 AFFORDABLE AND CLEAN ENERGY 8 DECENT WORK AND ECONOMIC GROWTH
Produced capital Produced capital comprises the value of services and products that Stedin and its suppliers create for society	Value of goods purchased for electricity transmission Value of goods purchased for gas transport	2,200–2,700 / 2,700–3,300 1,350–1,650 / 2,000–2,400 823 440–520	Contribution of gas transport to consumers' well-being Contribution of electricity transmission to consumers' well-being** Economic change in the value of assets Value of energy transmission for business customers Digital security*	7 AFFORDABLE AND CLEAN ENERGY 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 11 SUSTAINABLE CITIES AND COMMUNITIES 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Intellectual capital Intellectual capital comprises the value that Stedin creates by investing in the development of knowledge and technology	-	9	Change in value of intangible assets Value of data collection and market facilitation* Development of new market models and open platforms* Technological development*	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Human capital Human capital comprises the value of the well-being and competences of our employees and other individuals affected by the business operations	Economic value of work Work-related absenteeism and employee accidents Safety incidents in the area*	50–60 / 42–50 0.25–0.3 / 12–15	Effects on well-being from having work Employee development	3 GOOD HEALTH AND WELL-BEING 4 QUALITY EDUCATION 8 DECENT WORK AND ECONOMIC GROWTH
Social capital Social capital comprises the value our activities have for the well-being and social relationships in society	Value of change in reputation of Stedin Group Digital security: breaches of privacy*	0.7–0.9	Contribution to improved institutions and regulations* Contribution to social cohesion in the Netherlands* Social impact of diversity and inclusion* Reduction of inequality in society*	11 SUSTAINABLE CITIES AND COMMUNITIES
Natural capital Natural capital comprises the pressure on natural resources from Stedin's activities and the entire energy chain	Other environmental impacts due to energy distribution Contribution to climate change through CO_2 emissions Contribution to biodiversity loss*** Ecological costs of purchasing materials Ecological damage caused by waste	140–170 85–105 45–55 9–12 0.8–1	-	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 13 CLIMATE ACTION 15 LIFE ON LAND

* These values are qualitative and therefore cannot be expressed in figures ** Including energy fed back into the grid *** Based on survey for 2022, data excludes downstream impact

Risks due to climate change

Climate changes may affect the Stedin area in the long term. The Intergovernmental Panel on Climate Change (IPCC) concludes that even with limited global warming of up to 1.5 degrees, significant losses and damage are inevitable. This damage will be caused by weather extremes with potential water damage, heat or drought. There is also an increased risk of flooding. Stedin is therefore committed to preventing climate change (climate mitigation), as well as preparing for the risks of a changed climate (climate adaptation).

Potential effects of climate change	Physical risks
Heavy precipitation, drought, heat and fires	Damage to energy infrastructures
	Damage to assets
	Increase of energy outage duration
	Damage to the transmission and distribution infrastructure
	Damage in the upstream and downstream energy chains
Rise in sea levels, flooding, water damage	Damage to energy infrastructures
	Damage to assets
	Damage in the upstream and downstream energy chains
Temperature rise	Damage to assets
	Higher electricity consumption by air-conditioning systems
Potential effects of climate change	**Risks associated with the energy transition**
Through sustainable innovations, Stedin contributes to technologies and systems that combat the negative effects of climate change	Electrification of society
	Vulnerability of components
	Opportunities for hydrogen
	Storage of energy
Regulation policy	Financing the energy transition
Increasing scarcity of raw materials	Major price increases
Accelerating the energy transition	Feasibility of sustainability objectives, including those related to circularity, CO_2 emission reduction, biodiversity

The main risks posed to Stedin by climate change stem from more extreme weather conditions, such as extremely heavy precipitation, resulting in water damage and/or flooding, extreme gusts of wind, and heat waves, resulting in drought. The Royal Netherlands Meteorological Institute (KNMI) predicts that in the future, flooding will also become more likely due to rising sea levels. For Stedin, heat stress is a particular risk in urban areas due to 'heat islands'. High temperatures can cause equipment to become less efficient. We currently monitor heat through approximately 145 larger stations. The monitoring data shows that high temperatures occur around three times a year.

Our employees who work outdoors are personally affected by climate change. So far, clothing provides adequate protection and ice and/or water are regularly distributed during periods of extreme heat. Stedin follows KNMI weather alerts and shares advice to wear a cap, use sunscreen and drink plenty of water. If a Code Red warning is issued, we do not operate. In the event of a Code Orange or Yellow warning, we will make our own assessment depending on the location and type of work. Final responsibility always lies with the employee. The rule 'We work safely or we don't work at all' always applies. Any employee may therefore stop work, including in unexpected weather conditions.

Sustainable developments in the energy transition are causing a shift in the sources of electricity generation, with an increasing share being generated by solar, wind and hydropower (Statistics Netherlands figures for 2021: 33.1% share; 2022: 39.7% share). Consequently, electricity generation in Stedin's network area will be more vulnerable to extreme weather events.

The main concern is a period of cloudy, windless days in winter, when demand for electricity is high and limited additional gas for electricity may be available due to the high demand for gas for heating.

Situations abroad can also lead to risks for Stedin, for instance because grids are becoming more interconnected at an international level. This increases vulnerability to extreme weather events, such as heavy rain and heat waves, abroad. The most likely climate change risk for Stedin will then lie in price increases, if weather extremes in Europe or elsewhere in the world lead to temporary shortages and disruptions in the supply of raw materials, products and services. Stedin employees travelling on business may also fall victim to weather extremes in a disaster area.

It is beneficial for Stedin when international climate risks and opportunities are explicitly taken into account in policy choices and strategic investment decisions. Such an approach means that risks can be mitigated, opportunities can be seized, multiple goals can be combined and the effectiveness of our climate policy can be increased.

Water damage and flooding

The likelihood of the Netherlands experiencing electricity grid outages due to weather extremes such as water damage and/or flooding is low for now. However, if such events occur, they could have a major impact on the operation of the grids in the affected part of our service area.

Water damage and flooding are the subject of numerous case studies within our service area. Using advanced calculation models, we identify the infrastructure that could be affected and what the impact would be on the electricity supply.

Since 2015, the Delta Decision on Spatial Adaptation (Deltabesluit ruimtelijke adaptatie) has made it mandatory for managers of vital infrastructure to conduct ongoing research into the impact of water damage and flooding on the functioning of that infrastructure. Where necessary, Stedin must take appropriate control measures to ensure that our infrastructure is more water-robust and climate-proof by 2050. Care must also be taken to ensure that new spatial developments do not further increase risks caused by extreme weather and flooding.

In recent years, Stedin has worked with Netbeheer Nederland to perform research into the vulnerability of our grids. We have carried out tests in cooperation with the TU Eindhoven where components in our low and medium voltage grids were submerged. Among other things, these tests showed that a low voltage installation can continue to function for a long time if it is submerged in fresh water. But with salt water, the power supply is interrupted almost immediately. These insights help us to assess the impact of flooding risks on our business operations.

Together with municipalities, security regions and large businesses such as the Port of Rotterdam Authority, Stedin has also carried out area studies to share and identify the impact of flooding on a region-by-region basis. This type of regional approach is useful and necessary, because the location, differences in land use and the flooding probabilities are determining factors for the effectiveness for adaptation measures. The studies show that the electricity grid is more robust than is commonly believed. Back-up systems (redundancy) in the grid allow for alternative routes and limit the impact, demonstrating that electricity transmission does not come to an immediate halt. Electricity outages are then mostly confined to the area actually under water.

Our conclusion is therefore that, due to the relatively low probability of flooding, it is not cost-effective to make changes to our asset stations in this respect. Therefore, the challenge is to look for logical times when further climate-proofing of these stations can be carried out, such as when new stations are built or existing stations are expanded.

Extreme temperatures

It is getting warmer, with more frequent peaks of extremely higher temperatures. These temperatures can have a negative effect on the useful life of our infrastructure. The temperature in our asset stations can rise considerably to the point where our installations cannot easily disperse the heat. We have had sensors developed to monitor this effectively. These give us better insight into temperature and humidity in our electricity stations. This information is used to implement measures aimed at improving set-up conditions, which ensures the optimal performance of stations and the preservation of their maximum useful life.

Extra attention will be devoted to the heat issue in new build. This will involve the insulation of roofs and façades, better ventilation and the use of green roofs. For a pilot project in 2021, we installed a green roof on the transmission station at Benjamin Franklinstraat in Rotterdam. We are now seeing the results of this: there have been no critical heat reports since the installation of the green roof and the improvement to the ventilation. In 2024, we will continue to pursue innovations in building and construction, and we will develop policy aimed at modifying existing infrastructure where necessary and developing new construction or expansion of stations in such a way that climate risks are minimised.

SWOT ANALYSIS

Our SWOT analysis identifies the risks and opportunities for Stedin. These are associated with the 'Developments within society and the energy market' that lie at the heart of our strategy. The way in which we deal with the risks is described in the Risk management.

Strengths

- Central position in energy landscape
- Stedin is regarded as an indispensable discussion partner
- High supply reliability
- Financial position strengthened by State shareholding
- Committed and inspired employees
- Attractive employer
- Extensive knowledge of and expertise in the energy system

Opportunities

- Increase predictability of investments through improved prediction of customer demand
- Perform comprehensive assessment for allocating investments between electricity, gas or future energy sources
- Develop and deploy disruptive technologies and utilise new energy carriers
- Enable future-proof grid management by means of data-driven forecasts and decision-making
- The major expansion & replacement challenge presents an opportunity for more risk-based replacement
- Long-term (European) energy policy is becoming more specific, which makes Stedin's challenge more specific

SWOTANALYSIS

Threats

- Uncertain customer demand due to the energy transition
- Shortage of technical staff on the labour market
- Uncertainty about availability of materials, uncertainty in the supply chain
- Cyberattack causing damage to society and business operations
- Congestion in outdoor space and underground
- Failure to obtain building permits in time due to measures to reduce nitrogen emissions
- Political uncertainty at the national level and impact on short-term and medium-term climate policies already in place

Weaknesses

- Increasing congestion: available transmission and transport capacity is insufficient at several locations. Limited availability of flexible capacity
- IT/OT landscape insufficiently prepared for the future
- Data quality and availability
- Obsolete assets
- Focus on conduct and cultural values
- Limited availability of contractor capacity
- We are approaching the limit of the speed at which our organisation can grow

Stakeholders and interaction with our environment

In our day-to-day work, it is increasingly important to be 'in touch with our environment'. At all levels. Listening and engaging in dialogue with our stakeholders is an indispensable step towards 'doing the right things right', having a shared understanding of the challenges we face in the energy transition and being and remaining in touch with what the environment asks and demands of us. Our mission is 'Working together to create an environment filled with new energy'. We do this proactively on our three strategic spearheads and on the material topics.

The importance of these material topics is also reflected in the ancillary positions held by members of our Board of Management. See also 'Biographical details of members of the Board of Management of Stedin Group'.

Our stakeholders

Our stakeholders are the people, groups or authorities that have an influence on Stedin and vice versa. Contacts with our stakeholders partly take place in a structured form, but they can also take place on an ad hoc basis, depending on the topic. The public and regulated nature of Stedin to a large extent determines the categorisation below into stakeholder groups.

- Internal: employees
- External: shareholders, industry associations, national government, NGOs, grid management sector, regulators, local and regional authorities, low-use customers, heavy-use customers, financial stakeholders, groundwork contractors, suppliers, sector market players, interest groups, knowledge partners, communication/media.

Policymakers and policy frameworks

Stedin aims to play a linking role in the transition to a new energy system to ensure that this remains safe, sustainable, reliable and affordable. Our core tasks as grid manager are impacted by the transition, and existing policy frameworks must be adapted to make the necessary changes possible. Owing to our public function, Stedin's interests are social interests. We engage in constructive dialogue with the stakeholders in the societal arena, and we contribute our experience and expertise. We mostly do this in cooperation with Netbeheer Nederland. These talks are always conducted by employees of Stedin. We do not engage a Public Affairs consultancy firm on a permanent basis. Nor does Stedin donate funds to politicians, political parties or government institutions.

Environment management

The energy transition will require numerous and sometimes major adjustments that also necessitate spatial adjustments. Strategic environment management is necessary to ensure this is supported by society. In order to create a shared position and support, we involve other organisations and stakeholders as early as possible to ensure effective coordination of plans. We do so in several ways – for example, by making data on our grids publicly accessible and by concluding covenants as well as agreements for long-term cooperation with municipalities and other parties. In 2023, Stedin made further preparations for the entry into force of the Environmental and Planning Act (Omgevingswet) where participation is a requirement.

Corporate social responsibility

Given our societal role, we are reticent in engaging in sponsorship activities, also in 2023. Our choice for sponsoring or a financial contribution is determined by the initiatives concerned, in which we foreground our primary core tasks in the energy transition and get energy users on board in the changing energy world. In addition, in 2023 we also elected to sponsor initiatives that allow us to give greater visibility to our brand as an employer, especially within our service area. One key aim of this is to attract new colleagues. Our most important initiative in 2023 concerned supporting the 'Energy Bank' in Rotterdam and The Hague.

The Energy Bank

The purpose of the Energy Bank is to ensure energy remains available as a primary necessity of life for households that do not have enough money to pay their energy bill. Stedin's assistance is provided through people as well as funds. In addition, we donate € 8,000 annually. In 2023, the Energy Bank was again one of the two charities included in the annual end-of-year gift. Stedin employees were able to opt for a personal gift or a financial contribution to a charity. As a result, we were able to hand over an additional amount of € 600 to the Energy Bank Rotterdam and The Hague. In 2023 we deployed 111 coaches and reached 1268 households. Energy Bank Rotterdam reaches households with six information points, the energy shack in conjunction with

Opzoomer Mee, group coaching and individual coaching. The energy shack will be active until April 2024. The Energy Bank will continue to focus on group coaching, individual coaching and the information points in 2024.

We also undertake active and broad-based efforts to promote an inclusive society.

In the table below, we provide insight into the numerous contacts we have with our principal stakeholders.

Stakeholder group	Examples of stakeholders	Examples of interaction	Material topic
Shareholders	AHC-A (municipality of Rotterdam)	42 Dutch municipalities and the State - General Meeting of Shareholders and Extraordinary General Meeting of Shareholders. Formal and informal consultation, meetings on specific topics, individual contact	All material topics
	AHC-B	Shareholders' Committee - 10 members who represent the 43 shareholders of Stedin Group	
	Municipality as customer representative		
	Municipality as shareholder		
Industry associations	Energy Netherlands	Inform, dialogue, knowledge exchange and/or active role as a member	Access to energy and supply reliability; Climate mitigation and adaptation; Good employment practices
	VEMW (Association for Energy, Environment and Water)		
	Bouwend Nederland (Dutch Construction and Infrastructure Federation)		
National government	Ministries and Rijkswaterstaat (Directorate-General for Public Works and Water Management)	Influencing policy on relevant themes, frameworks for, for instance, Regional Energy Strategies, contributing expertise and experience.	Access to energy and supply reliability; Good employment practices; Climate mitigation and adaptation
	IPO (Association of Provincial Authorities)		
	ILT (Human Environment and Transport Inspectorate) and RIi (Council for the Environment and Infrastructure)		
NGOs	Foundation (Energy Bank)	Knowledge exchange, dialogue, volunteering, cooperation	Good employment practices; Climate mitigation and adaptation; Circular use of materials and waste management; Biodiversity in the chain
	Associations (Jinc)		
	Climate organisations (Friends of the Earth Netherlands, Greenpeace)		

Stakeholder group	Examples of stakeholders	Examples of interaction	Material topic
Grid management sector	Associations (Netbeheer Nederland) Regional Grid Managers National Grid Managers	Lobbying, partnerships, knowledge exchange, cooperation	Access to energy and supply reliability; Climate mitigation and adaptation; Good employment practices
Regulators	Netherlands Authority for Consumers and Markets (ACM) State Supervision of Mines (SodM) Dutch Data Protection Authority Radiocommunications Agency Netherlands	Information (standard and ad hoc), knowledge exchange, agreements on the performance of our core tasks	Access to energy and supply reliability; Climate mitigation and adaptation; Good employment practices; Business ethics, integrity and good governance
Local and regional authorities	Regional Implementing Agency (DCMR) Water boards and provinces Regional directors	Provincial and municipal consultations on utilities, interprovincial consultation, consultation and coordination of work below ground and permit applications, regional and local energy policy, coordinate energy transition plans and realisation of (test) projects - Regional Energy Strategies, Regional Agenda for Charging Infrastructure Network, Transition Vision for Heat, Test Beds for Natural Gas-free Districts, coordinate realisation of investments in the grids, covenants for multidisciplinary operations, cooperation of security regions.	All material topics
Low-use customers	Consumers Disputes Committee Consumer organisations (Consumers' Association, Association of [Prospective] Homeowners)	Customer panel - efforts to improve process, system, customer journey and/or communication Customer survey - quantitative survey Customer service - questions about connections, the smart meter and failures Disputes Committee – independent body that considers complaints or damage claims that the customer and Stedin are unable to resolve. Consumer organisations – dialogue with, for instance, the Association of (Prospective) Homeowners (VEH) and the Dutch Consumers' Association	Access to energy and supply reliability; Customer and stakeholder perception Climate mitigation and adaptation

Stakeholder group	Examples of stakeholders	Examples of interaction	Material topic
Heavy-use customers	Small/Big Business (Shell) Government (municipality of Rotterdam) CPOs (Fastned)	Account support and customer service - products and services make the energy transition plans possible - efforts to improve processes, systems, the customer journey and/or communication. Customer survey - quantitative survey Collectives Desk - point of contact for questions on connections and arranging feed-in connections for returning energy to the grid for energy collectives Representation of business customers within the Regional Energy Strategies Industry / Port of Rotterdam - coordinate challenges of the energy transition for energy infrastructure	Access to energy and supply reliability; Good employment practices Climate mitigation and adaptation
Financial stakeholders	Bondholders Loan providers Auditor (Deloitte) Rating agencies (S&P)	Periodic consultation and report on financial performance, accountability and disclosures	Access to energy and supply reliability; Customer and stakeholder perception; Good employment practices Circular use of materials and waste management; Climate mitigation and adaptation;
Groundwork contractors	Contractors (Van Vulpen) Water companies (Evides) Cable operators (KPN)	Consultation and coordination of activities below ground, cooperation and standardisation	Access to energy and supply security; Circular use of materials and waste management; Good employment practices; Customer and stakeholder perception;
Suppliers	Consultants (McKinsey) IT service providers (Capgemini) Educators (de Baek)	Collaboration, relationship management and dialogue	Circular use of materials and waste management; Good employment practices
Employees	All Stedin employees Jong Stedin Works Council (OR) trade unions Makers of the Future	Formal and informal contact, quantitative employee survey, periodical negotiations on terms and conditions of service	Good employment practices; Business ethics, integrity and good governance

Stakeholder group	Examples of stakeholders	Examples of interaction	Material topic
Sector market operators	Market operators EDSN Independent Service Providers Collaborative umbrella organisations	Knowledge exchange, partnerships, cooperation, dialogue	Access to energy and supply reliability; Customer and stakeholder perception; Good employment practices; Business ethics, integrity and good governance
Interest groups	Consumers' Association Disputes Committee Association of (Prospective) Homeowners	Information, dialogue, knowledge exchange	Access to energy and supply reliability; Customer and stakeholder perception; Climate mitigation and adaptation; Business ethics, integrity and good governance
Knowledge partners	Universities (including TU Delft) Research organisations (Netherlands Organisation for Applied Scientific Research, TNO) NGinfra Impact Economy foundation	Knowledge exchange, research, cooperation	Customer and stakeholder perception; Climate mitigation and adaptation Good employment practices
Communications/media	National media Online media Regional media	Information	Access to energy and supply reliability; Customer and stakeholder perception; Climate mitigation and adaptation; Business ethics, integrity and good governance

Double materiality assessment process

Stedin, as a public interest company, must comply with the CSRD as of the annual report for the 2024 financial year. One of the requirements is a double materiality assessment. This assessment provides Stedin with insight into the ESG topics for which Stedin has the most positive and negative impact on society ('inside-out' analysis) and which topics potentially have the most impact on Stedin's operations from the outside ('outside-in' analysis). The insight generated helps Stedin focus its strategy on those ESG and other topics where the impact made on and by Stedin is greatest, in order to strengthen positive impact and reduce negative impact. Thus allowing Stedin to steer towards long-term value creation. Find out more about this in our value creation model and our impact model or read more about this in 'Stakeholders and materiality' where the link to long-term value creation is explained.

Method and assumptions

In 2023, Stedin changed its process and carried out a double materiality assessment to prepare for its CSRD obligation as of the 2024 financial year (see under Process change later in this section). This assessment was carried out in accordance with ESRS 1, chapter 3 'Double materiality as the basis for sustainability disclosures'. For its stakeholder consultation in respect of the 2023 double materiality assessment, Stedin made the assumption that internal senior staff, external stakeholders and the interest organisation can represent the stakeholders. This assumption was made because Stedin regularly has contact with its stakeholders during the year, including in the run-up to its new strategy for 2023-2027. The employees in question underline this. From 2024, the double materiality assessment will become an integral part of the stakeholder dialogues that take place throughout the year.

Process overview

The material topics for 2023 were determined through the following phases:

1. Identification of relevant subjects

The first phase consisted of: desk research; longlisting and consolidation of the subject list. The subjects relevant to Stedin were identified through desk research and internal validation. In addition to analysis of Stedin's internal documentation (including the 2022 impact measurement outcomes, strategic documents, value creation and business model, stakeholder surveys, risk and opportunity analyses), various international sector-specific and other sustainability standards were consulted. These standards were used as a basis to identify what is expected of Stedin. A picture was also formed of the ESG topics at play, material or otherwise, among peers, in the sector, value chain and in society, with the aid of media analysis and analysis of sector trends. This resulted in a longlist of potentially relevant subjects for Stedin. The subjects were then bundled where possible, to create a structure of main and subthemes that fit well within Stedin's context.

2. In-depth examination and scoring of subjects

The second phase consisted of the following steps: establishing definitions, impacts, risks and opportunities for each topic and where in the chain they occur, and scoring and assessing subjects based on the defined impacts, risks and opportunities.

In this phase, each topic was defined in the context of Stedin including associated sustainability impacts, risks and opportunities. The opportunities and risks associated with these topics were identified with the aid of the strategic risks and opportunities and supplemented by ESG-specific risks and opportunities defined during the desk research and validation interviews with internal experts and stakeholder representatives. Impact ('impact materiality') was then scored for each topic using the criteria 'likelihood', 'magnitude', 'intensity' and 'irreversibility' (for negative impact only). Relevant opportunities and risks ('financial materiality') were also scored for each topic using the 'likelihood' and 'magnitude' criteria. In addition to the scores on the factors described above, Stedin's degree of influence on the impact and financial materiality of the relevant topic was also documented, and the time horizon within which the risks and opportunities in relation to financial materiality occur was considered.

3. Validation and prioritisation

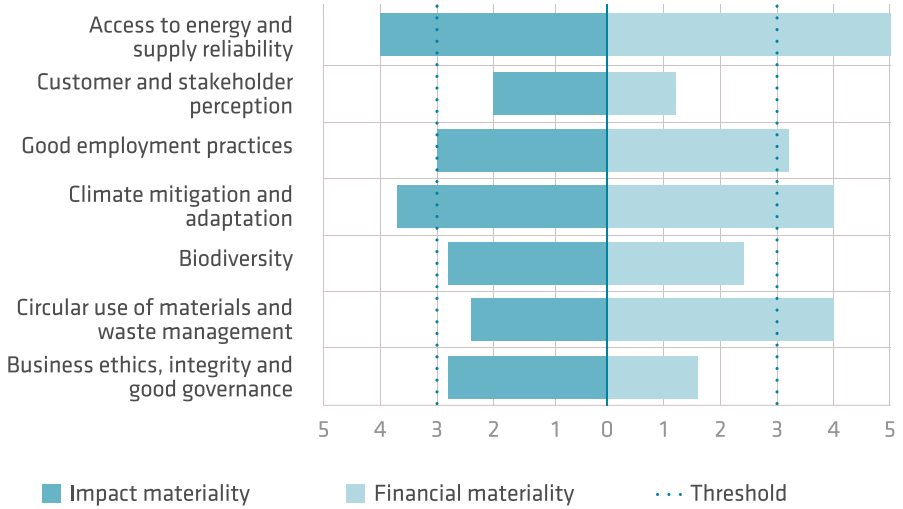
During this phase, the material topics and scoring were validated and stakeholder consultation, peer review and validation by the Board of Management took place. An internal sounding board group at senior management level and the Board of Management validated the themes and their associated scores, and the prioritisation of topics based on these scores, in several sessions. They also assessed the completeness of the subjects on the list.

Validation sessions were then held with each stakeholder representative. The following stakeholder groups were represented: shareholders; industry associations; national government and local and regional authorities; NGOs; grid management sector; regulators; low-use and heavy-use customers; financial stakeholders; groundwork contractors; suppliers; employees and sector market players. For the Biodiversity topic, we collaborated with five infrastructure parties, namely Alliander, Gasunie, Port of Rotterdam Authority, Stedin and Vitens, and engaged the Impact Institute as external experts. The Impact Institute examined indirect, upstream impact through suppliers, and direct impact through land use. The impact of downstream activities is still outside the scope of the current study but is expected to be substantial.

4. Finalising a shortlist and evaluation

In this phase, the proposed list of topics was evaluated and prioritised based on an established threshold value. The Board of Management reached a decision on the list, resulting in seven main topics that are of material importance to Stedin. Finally, the Audit Committee and the Supervisory Board were briefed on the process undertaken and the outcomes.

Because Stedin sees it as its social duty to take responsibility for increasing its positive impact and reducing its negative impact, the threshold has been set such that all topics with a quantified score on impact, risks and opportunities greater than 'moderate' are considered material. This threshold results in a wide range of material topics that reflect Stedin's ambitions. In addition, based on the qualitative validation, which took into account aspects such as strategic relevance and expected future impact, some topics that fell below the threshold according to the quantitative score were added to the final shortlist of material topics.



One reason for this is that Stedin is very active in these particular areas partly with the aim of mitigating risks, which makes the probability of an event with a negative impact low. Examples of such topics include Customer and stakeholder perception and Business ethics, integrity and good governance. These subjects have been added to the final shortlist of material topics, since continuing action in these areas is important for Stedin and its stakeholders. Another example is Biodiversity. The importance of this topic was discussed with the Board of Management despite not yet having all the information to properly assess what and how big the related impacts are. The subject has been added and further research will be carried out in this area following the research mentioned under 'Validation and prioritisation'.

Process change

The main differences from the materiality assessment carried out in 2022 are:

1 In 2023, both outside-in and inside-out analyses were performed versus only outside-in in 2022;
2 In 2023, a detailed inventory was made of potentially relevant subjects, while in 2022, the focus was on reviewing the prioritisation in previously identified topics. The 2023 inventory

was performed based on sector-specific international MSCI, GRI, SASB and ESRS standards, sector trends and media analysis, peer review and information from the 2023-2027 strategy-making process that took place in 2022 (including interviews with external stakeholders).

3 In 2023, both quantitative analysis and qualitative analysis were carried out, while in 2022, the focus was on quantitative analysis. A comprehensive qualitative study was started in 2023, followed by a quantitative analysis based on impact (probability, magnitude, intensity and reversibility), risks and opportunities (probability x impact) and stakeholder consultation based on interviews with internal stakeholder representatives. Finally, a qualitative analysis was carried out based on strategic importance and Stedin's influence. In 2022, the quantitative analysis was carried out with the aid of a written survey in which representatives of our stakeholder groups were asked to identify, from the existing list of material subjects, what impact these subjects have on their business operations (not about human and environmental impact ['inside-out' analysis]).

Next steps

In preparation for the CSRD laws and regulations, Stedin carried out the double materiality assessment in 2023 as described above. The following next steps will be taken to ensure that this assessment becomes an integral part of Stedin's strategy and communication:

- Strategy: assessment of whether sufficient attention and direction is given to the material topics in the strategy. Where necessary, additional strategy and ambitions may/will be adopted.
- Policy, action plans, indicators and targets: these will (where necessary) be drawn up and tightened in response to the resulting material topics from the 2023 double materiality assessment.
- Reporting and communication: establish the scope of reporting for 2024 in line with the ESRS and preparatory steps in this process.
- Governance: review and, where necessary, adjust existing governance structures including decision-making and in-control / management process.
- Double materiality assessment process: integration of the process into dynamic stakeholder management during the year alongside process evaluation and review based on expected EFRAG guidelines and integration with existing risk management process.

The results of the 2023 double materiality assessment can be found in the section Stakeholders and materiality. The Connectivity Table shows how the material topics (including their descriptions) correlate to our strategy, risks, KPIs and objectives and the Social Development Goals of the United Nations. The section entitled 'Stakeholders and interaction with our environment' focuses on our stakeholders.

Connectivity table

In this section, we describe the relevance of our KPIs and metrics to us and our stakeholders and how they relate to our strategy, material topics, strategic risks and opportunities and the Sustainability Development Goals.

KPIs Construction

Strategy
Construction, Optimisation and Management

Connection to strategic risks (R) and opportunities (O)
R: Cyber attack causing damage to society and business operations - Insufficient connection and transmission capacity - Impact of accidents related to Stedin Group - Lack of sufficient number of
people with the required competences - Availability of materials

Relevance to us and our stakeholders
In order to give everyone access to the grid, we focus on expanding our electricity grid. In this way, we meet the growing demand for grid capacity. Another of our core tasks is to distribute natural gas safely and reliably.
Preparing for projects often takes a long time, including obtaining zoning plan changes and the processes to acquire land holdings and associated permits. To accelerate construction, therefore, we also focus on speeding up these procedures and reach agreements on this with municipalities.

Definition and calculation method
Investment is the number of euros we invest annually.
Insight into progress in partnership agreements with municipalities is provided by the percentage of municipalities with which the joint challenge has been experienced and formal distribution grid partnership agreements have been discussed. The KPI Irrevocable zoning plans shows the increase in the number of zoning plans for transmission grid expansions with a spatial component that became irrevocable in the year.
The percentage execution of grid-driven scope E and G concerns the extent to which scheduled work (capacity expansions and/or replacement investments) has been achieved.

Material topic
Access to energy and supply reliability

SDG
9 - Industry, innovation and infrastructure

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Investments	€ 825	€ 832	€ €0960	
Partnership agreements with municipalities	90	100	-	
Irrevocable zoning plans	8	12	10	Ensuring grid capacity: construction
Execution of grid-driven scope E	100%	99%	100%	
Execution of grid-driven scope G	100%	110%	100%	

Additional capacity in MVA

Strategy
Construction

Connection to strategic risks (R) and opportunities (O)
R: Insufficient connection and transmission capacity - Availability of materials - Increased likelihood of surge in replacement of obsolete assets - High activity in outdoor space and below ground - Lack of sufficient number of people with the required competences / O: Application of new energy carriers - Make comprehensive assessment in relation to investments between electricity, gas or future energy sources.

Relevance to us and our stakeholders
Electricity consumption at peak times is rising very steeply as a result of the energy transition and adherence to the agreements in the Dutch Climate Agreement. Not all parts of the electricity grid are ready yet to absorb that temporary increase. To ensure grid reliability in the future and thus anticipate or mitigate congestion, we are adding additional capacity to enable expansions and reinforcements in our grid.

Definition and calculation method
The KPI Additional capacity in MVA refers to the net amount of grid capacity in megavolt-ampere added on top of the total capacity in the reporting year, live and accounted for in the project administration.

Material topic
Access to energy and supply reliability

SDG
9 - Industry, innovation and infrastructure

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Additional capacity in MVA	425	513	500	Ensuring grid capacity: Construction

Additional MV stations

Strategy
Construction

Connection to strategic risks (R) and opportunities (O)
R: Insufficient connection and transmission capacity - Availability of materials - Increased likelihood of surge in replacement of obsolete assets - High activity in outdoor space and below ground - Lack of sufficient number of people with the required competences / O: Application of new energy carriers - Make comprehensive assessment in relation to investments between electricity, gas or future energy sources.

Relevance to us and our stakeholders
Electricity consumption at peak times is rising very steeply as a result of the energy transition and adherence to the agreements in the Dutch Climate Agreement. Not all parts of the electricity grid are ready yet to absorb that temporary increase. To safeguard the reliability of the grids into the future, it is essential that we invest in expanding and reinforcing our grids. An MV substation, or distribution station, is one of the most important links in the public power supply. It distributes the required electrical power and thus feeds low-voltage distribution networks, which distribute power to customers.

Definition and calculation method
The metric Additional MV substations refers to the additional number of medium-voltage substations constructed, commissioned and managed in GIS and is calculated by the sum of newly constructed and commissioned medium-voltage substations per year.

GIS is the Stedin Geographic Information System. This system captures all technical information geographically tied to a specific location.

Material topic
Access to energy and supply reliability

SDG
9 - Industry, innovation and infrastructure

Metric	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Additional MV stations	n/a	266	n/a	Ensuring grid capacity: Construction

Additionally realised cables in KM

Strategy
Construction

Connection to strategic risks (R) and opportunities (O)
R: Insufficient connection and transmission capacity - Availability of materials - Increased likelihood of surge in replacement of obsolete assets - High activity in outdoor space and below ground - Lack of sufficient number of people with the required competences / O: Application of new energy carriers - Make comprehensive assessment in relation to investments between electricity, gas or future energy sources.

Relevance to us and our stakeholders
Electricity consumption at peak times is rising very steeply as a result of the energy transition and adherence to the agreements in the Dutch Climate Agreement. Not all parts of the electricity grid are ready yet to absorb that temporary increase. To safeguard the reliability of the grids into the future, it is essential that we invest in expanding and reinforcing our grids, which we are doing through activities such as installing and replacing cables.

Definition and calculation method
The number of additional kilometres of cable laid refers to the additional number of kilometres of cable in the electricity distribution network realised this year and processed in GIS. This concerns both new construction and replacement, for low-voltage, medium-voltage and high-voltage, and can include both live and non-live cables. If several phases or wires are present side by side, they are counted here as one length, this being the route.

GIS is the Stedin Geographic Information System. This system captures all technical information geographically tied to a specific location.

Material topic
Access to energy and supply reliability

SDG
9 - Industry, innovation and infrastructure

Metric	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Additionally realised cables in KM	n/a	892	n/a	Ensuring grid capacity: Construction

Planned maintenance carried out electricity and gas

Strategy
Management

Connection to strategic risks (R) and opportunities (O)
R: Cyberattack causing damage to society and business operations - Impact of accidents related to Stedin Group

Relevance to us and our stakeholders
We continuously work on the reliability and safety of our grids. Supply security and preventing and reducing the number of failures and downtime are central to this. To contribute to supply reliability, Stedin has a professional and legal duty to maintain its assets. Stedin's policy on grid design, construction and operation is based on the Gas Act, applicable standards and past corrective and preventive maintenance results.

Definition and calculation method
The 'Execution of planned maintenance' percentages for Electricity and Gas are calculated by dividing the sum of jobs carried out (based on work orders) by the number of planned jobs. For Electricity, this concerns planned maintenance and inspection work on the LV and MV boxes. For Gas, we carry out maintenance and inspection activities such as pressure checks, visual and functional inspections and cathodic protection for various types of stations.

Material topic
Access to energy and supply reliability

SDG
7 - Affordable and clean energy / 11 - Sustainable cities and communities

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Planned maintenance carried out electricity and gas	100%	E: 91%/G: 96%	100%	Ensuring grid quality: management

Flexible capacity MW

Strategy
Optimisation

Connection to strategic risks (R) and opportunities (O)
R: Insufficient connection and transmission capacity

Relevance to us and our stakeholders
It is now well established that there is a considerable shortage on the electricity grid. Congestion management means that grid managers resolve this shortage to some extent by compensating producers and consumers of electricity, if necessary, if they help to reduce the load on the grid. For example, by temporarily reducing feed-in to the grid. The Netherlands Authority for Consumers and Markets (ACM) points out that congestion management is a temporary measure that can be deployed during the period when a grid manager is working to reinforce the electricity grid. According to the ACM, congestion management also contributes to the energy transition by creating more space on the electricity grid, allowing more wind and solar farms to be connected to the grid. Companies and Stedin set out how and at what times they can contribute to temporarily easing the pressure on the grid in flexible contracts. This allows us to manage congestion.

Definition and calculation method
The KPI Capacity covered by flexible contracts shows the total capacity in MW for which Stedin has an operational flexible contract with customers for consumption and/or feed-in at year-end.
This KPI is calculated by adding up the total flexible capacity covered by flexible contracts, cumulatively in MW. Contracts relate to consumption and/or feed-in and can have the following forms:
- Static CBC (Capacity Limiting Contract), in which fixed agreements are reached on time windows in which a limit applies;
- Dynamic CBC, in which notice is given a day in advance whether a limit applies;
- Capacity Management Contract (CSC), in which notice is given a day in advance whether a limit and/or active use applies;
- Redispatch, in which feed-in or consumption change on the day itself, with balance maintenance (up regulation/down regulation elsewhere)
- Non Firm Agreement (NFA), in which the party in question only receives capacity if we advise there is sufficient capacity.

Material topic
Access to energy and supply reliability

SDG
7 - Affordable and clean energy / 11 Sustainable cities and communities

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Flexible capacity MW	45 MW	52 MW	500 MW	We maximise the use of our grids: utilisation

Digitally metered MV substations

Strategy
Construction, Optimisation and Management

Connection to strategic risks (R) and opportunities (O)
R: Insufficient connection and transmission capacity; Sharp rise in voltage bottlenecks in low-voltage grids; Services on core tasks insufficiently compliant

Relevance to us and our stakeholders
We want to have proper insight into the current load and voltage quality of our grid.
We are therefore committed to the roll-out, development and testing of third-generation digitalisation in medium-voltage stations: the 'DA3 boxes'. This digital metering device helps us obtain better insight into the load, voltage quality and environmental conditions (including humidity and temperature) of medium-voltage stations.

Definition and calculation method
Digitally metered MV substations refers to the number of medium voltage substations equipped with a digital metering device that is connected to and communicates with the central environment. From 2024, progress will be expressed as a percentage.

Material topic
Access to energy and supply reliability

SDG
9 - Industry, innovation and infrastructure

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Digitally metered MV substations	5,970	5,365	27%	We maximise the use of our grids: utilisation

Congestion areas

Strategy
Optimisation

Relevance to us and our stakeholders
To facilitate the energy transition, we need smart grids that provide insight into the status of the grid, we are expanding our grid capacity, we are constructing stations and we are installing cables. Consumption and feed-in take place and we are entering into flexible contracts to be able to absorb peaks. Due to the major social impact of congestion (huge pressure on the grid), preventing and eliminating congestion is one of the main topics of discussion within Stedin and its stakeholders.

Material topic
Access to energy and supply reliability

Connection to strategic risks (R) and opportunities (O)
R: Insufficient connection and transmission capacity; High activity in outdoor space and underground; Sharp rise in voltage bottlenecks in low-voltage grids
O: Application of new energy carriers

Definition and calculation method
The number of congestion areas refers to the total number of areas where Stedin has issued an advance warning of consumption or feed-in congestion, including the areas where TenneT has given notification of congestion.
Congestion areas shows the number of congestion areas and is the sum of congestion areas where Stedin has issued an advance warning of congestion and grid reinforcements have not yet been completed (and a solution has therefore not yet been reported for the congestion area). The process is in line with Article 9.9(1) of the Electricity Grid Code. If TenneT has given notification of congestion in areas where Stedin also supplies electricity, Article 9.9(2) of the Electricity Grid Code applies.
Up-to-date information on congestion areas is provided on Stedin's website in accordance with Article 9.8 of the Electricity Grid Code.

SDG
11 - Sustainable cities and communities

Metric	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Congestion areas	n/a	22	n/a	Where are we now - Queues on the electricity grid: congestion

Supply reliability Electricity and Gas and SAIDI LV/MV

Strategy
Management

Relevance to us and our stakeholders
Customer demand is constantly changing and electricity consumption is rising very steeply as a result of the energy transition and adherence to the agreements in the Dutch Climate Agreement. Not all parts of the electricity grid are ready yet to absorb that increase. We work continuously on the reliability of our grids. Supply security and preventing and reducing the number of failures and downtime are central to this. We refer to this as 'supply reliability'. Stedin has a statutory transmission duty to provide transmission at the most efficient cost. This obligation is set out in the Electricity Act 1998 (Elektriciteitswet 1998), with a quality factor in the regulated compensation method for Electricity ensuring a focus on minimising downtime.

Material topic
Access to energy and supply reliability

Connection to strategic risks (R) and opportunities (O)
R: Cyberattack causing damage to society and business operations - Increased likelihood of surge to replace obsolete assets - Services on core tasks insufficiently compliant / O: Enable future-proof grid management by means of data-driven forecasts and decision-making.

Definition and calculation method
The metric E and G supply reliability shows the availability of the electricity (LV and MV) and gas transmission network as a percentage, where:
E supply reliability = 100% - (([SAIDI Electricity (mv/lv)] / total minutes in 1 year) * 100%)
G supply reliability = 100% - (([SAIDI Gas] / total seconds in 1 year) * 100%), where we include our plannable - class 2 - outages (in contrast to the sector-wide scope set by Netbeheer Nederland).

SAIDI Electricity, the system average interruption duration index, is the average time in minutes the customer is without power for medium-voltage and low-voltage electricity. SAIDI Gas is the average time in seconds that the customer has no gas.

SDG
7 - Affordable and clean energy / 11. Sustainable cities and communities

Metric/KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Supply reliability electricity and gas	100%	E: 99.9961% / G: 99.999%	100%	Ensuring grid quality: management
SAIDI LV/MV	≤25	20	≤22	

Brittle pipelines replaced

Strategy
Management

Connection to strategic risks (R) and opportunities (O)
R: Impact of accidents related to Stedin Group

Relevance to us and our stakeholders
We continuously work on the reliability and safety of our grids. Due to the potentially major social impact and increased attention from the State Supervision of Mines, phasing out the number of asbestos cement and grey cast iron pipes (Brittle Gas Pipes) in our grid is highly relevant. In addition, the removal of brittle pipelines will help reduce CO_2 emissions.

Definition and calculation method
Replacement of brittle gas pipes shows the number of kilometres of grey cast iron and asbestos cement gas pipes removed or replaced this year.
Replacement of brittle gas pipes refers to removed brittle pipes in kilometres and is calculated by the number of kilometres of brittle pipes (material: grey cast iron and asbestos cement) removed between 1 January and 31 December and accounted for in the project administration.

Material topic
Access to energy and supply reliability

SDG
11 - Sustainable cities and communities / 13 - Climate action

Metric	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Brittle pipelines replaced	n/a	212 km	n/a	Ensuring grid capacity: Construction Ensuring grid quality: management

Customer convenience – Consumers (excluding Zeeland)

Strategy
Other objectives

Connection to strategic risks (R) and opportunities (O)
n/a

Relevance to us and our stakeholders
As Stedin is a regional grid manager and customers cannot choose another party (monopolist), we want to be a reliable partner for our customers. The quality of our service and customer satisfaction is therefore important and after every personal customer contact, we ask the customer about their experience of this service.

Definition and calculation method
The key indicator 'Customer convenience - Consumers' is a satisfaction score (in %) that measures the extent to which low-use customers rate their contact with Stedin as being easy (excluding Zeeland). This score is based on the Customer Effort Score (CES), which measures the ease/difficulty of a customer experience.
The KPI 'Customer convenience - Consumers' is customer convenience measured for two types of customer contact, namely customer contact regarding (1) smart meters and (2) connections. The total score is calculated by dividing the number of 'easy' and 'very easy' scores by the total number of responses.
Zeeland customers will be included in this measurement from 2024.

Material topic
Customer and stakeholder perception

SDG
n/a

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Customer convenience – Consumers (excluding Zeeland)	79%	79%	t.b.d.[1]	Performance in other areas - Service provision and effectiveness

1 The target will be set early in 2024.

KPIs Services

Strategy
Other objectives - Services

Connection to strategic risks (R) and opportunities (O)
n/a

Relevance to us and our stakeholders
As Stedin is a regional grid manager and customers cannot choose another party (monopolist), we want to be a reliable partner for our customers. The quality of our service and customer satisfaction is therefore important and after every personal customer contact, we ask the customer about their experience of this service.

Definition and calculation method
'Customer convenience - Maintenance' is the convenience experienced by customers in doing business with Stedin for the product 'meter cupboard problems'. See above for a more detailed explanation and information on the calculation of 'Customer convenience - Consumers'.
The lead time for connections for low-use consumers refers to the percentage of low-use connections completed within 18 weeks or on the customer's preferred date.

Material topic
Customer and stakeholder perception

SDG
n/a

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Customer satisfaction - Maintenance	≥82%	87%	t.b.d.[1]	Performance in other areas - Service provision and effectiveness
Lead time for connections for low-use consumers	≥91%	90%	≥90%	

1 The target will be set early in 2024.

Availability of smart meter data

Strategy
Other objectives

Connection to strategic risks (R) and opportunities (O)
R: Cyberattack causing damage to society and business operations - Availability and quality of data insufficient - IT/OT landscape insufficiently prepared for the future / O: Utilise new energy carriers - Perform comprehensive assessment for allocating investments between electricity, gas or future energy sources - Position Stedin as a highly relevant partner in the energy transition.

Relevance to us and our stakeholders
To facilitate the energy transition, we need smart grids that provide insight into the status of the grid. Together with customer demand, these data provide important information to arrive at good predictions of where bottlenecks might arise in our grid in the future. At the same time, we are working with partners on innovative solutions that can accelerate the energy transition. Insight into consumption and improved ability to match energy consumption and supply are of key importance for the energy transition. This data can be obtained thanks to smart meters. If we provide accurate meter data to parties such as energy suppliers, they will be able to make better estimates of the development of energy needs. This helps us prevent grid congestion.

Definition and calculation method
The KPI Smart Meter Data reflects the timely and complete provision of smart meter data and is calculated as follows:

For 1-month average: requests answered with metering data in the month/total valid requests in this month *100%

For 12 months: the monthly average of the 12 monthly averages added together and then divided by 12

This data excludes meters where remote read-out has been switched off at the request of the customer.

Material topic
Access to energy and supply reliability

SDG
7 Affordable and clean energy

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Availability of smart meter data	≥97%	98%	≥98.5%	We maximise the use of our grids: utilisation Performance in other areas - Market facilitation

CO_2 equivalent emissions

Strategy
Other goals - Sustainability

Relevance to us and our stakeholders
We are making progress towards climate-neutral business operations in 2030. We concentrate our efforts on those areas in which our impact is greatest: CO_2 and particulate matter emissions, use of raw materials and the restoration of biodiversity. At the same time, we also have a social responsibility in the supply chain, to which end we are in continuous dialogue with our suppliers on those same topics. This results in sustainable and responsible products and services.

Connection to strategic risks (R) and opportunities (O)
n/a

Definition and calculation method
The reduction in CO_2 emissions compared to 2018 excluding gas network losses refers to the percentage reduction in CO_2 emissions from Stedin operations in tonnes compared to 2018 excluding gas network losses.

CO_2 equivalent emissions refers to total CO_2 emissions from scope 1, 2 and 3 CO_2 emissions (in tonnes). See the chapter on ESG performance for a description of scopes 1, 2 and 3 and what they include at Stedin.

To calculate these CO_2 emissions, values that fall within the scope are multiplied by their respective CO_2 emission factor. Actual values are used wherever possible (e.g. litres of fuel, gas consumption, electricity consumption, business and commuting kilometres and kilos of SF_6 injected). These values are supplemented by the following estimates, among others:

Vehicle fleet - fuel consumption (litres and kWh) has been estimated for around 45% of our vehicle fleet. The latest available monthly data was used for this purpose.

Electricity network losses - estimate is based on the average actual network losses over 2020 up to and including 2022.

Gas network losses - estimate is based on the average actual network losses over 2018 up to and including 2020 in accordance with the calculation method imposed by the ACM.

Purchasing - the estimate of CO_2 equivalent of purchased materials and services is based on payments to related suppliers in euros, which are converted to CO_2 equivalent using a CO_2 emission factor.

Material topic
Climate mitigation & adaptation

SDG
13 - Climate action

KPI/Metric	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Reduction of CO_2 emissions compared to 2018 excluding gas network losses	-50%	-50%	n/a	Performance in other areas - ESG performance
CO_2 equivalent emissions	n/a	419,777 tonnes	n/a	

Greening of grid E losses

Strategy
Other goals - Sustainability

Connection to strategic risks (R) and opportunities (O)
n/a

Relevance to us and our stakeholders
We are making progress towards climate-neutral business operations in 2030. We concentrate our efforts on those areas in which our impact is greatest: CO_2 and particulate matter emissions, use of raw materials and the restoration of biodiversity. At the same time, we also have a social responsibility in the supply chain, to which end we are in continuous dialogue with our suppliers on those same topics. Electricity network losses are one of the major contributors to CO_2 emissions from our operations. We cannot influence these directly, which is why we green these emissions through (Guarantees of Origin (GOs) and/or Power Purchase Agreements (PPAs).

Definition and calculation method
The % greening of electricity looks at the % relative to budgeted amount of electricity network losses. The percentage is calculated by dividing the total amount of purchased Dutch and European Guarantees for the relevant year. The calculation uses the budgeted amount of network losses as it takes an average of two years to know the actual amount of network losses.
The budgeted amount of network losses to be greened is estimated based on historical data from allocation and reconciliation results. If after two years it emerges that the actual volumes deviate from the budgeted volume to the extent that they have a significant impact on the KPI, the figure is adjusted and the deviation explained. Because a buffer is maintained when purchasing GOs / PPAs, this has historically not been the case.

Material topic
Climate mitigation & adaptation

SDG
11 - Sustainable cities and communities

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Greening of grid E lossess	100%	100%	100%	Performance in other areas - ESG performance

KPIs Financial

Strategy
Financially healthy

Connection to strategic risks (R) and opportunities (O)
n/a

Relevance to us and our stakeholders
Stedin has a public task. We treat our social capital prudently and intelligently. A financially healthy Stedin Group has the necessary strength to facilitate the energy transition. Maintaining a credit rating (S&P 'Issuer Credit Rating') of A- remains an essential starting point of our financial policy. FFO/Net debt is a key ratio that is factored into this assessment.

Definition and calculation method
The FFO/Net ratio is calculated in accordance with the Standard & Poor's (S&P) method. Funds From Operations (FFO) divided by net debt. The FFO is comprised of the EBITDA (see above), adjusted for interest and taxes paid, costs related to the perpetual subordinated bond loan (50%) and capitalised interest. The net debt is the sum of current and non-current interest-bearing debt (including lease liabilities) plus the perpetual subordinated bond loan (50%) and pension liabilities, minus unrestricted cash and cash equivalents.
Solvency is calculated by dividing equity (plus profit or loss for the period minus the
expected dividend distributions for the current financial year) by the balance sheet total, adjusted for the expected dividend distribution, long-term portion of connection contributions received in advance and free cash and cash equivalents.

Material topic
Access to energy and supply reliability

SDG
9 - Industry, innovation and infrastructure

KPI/Metric	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Credit rating	Retain A- rating	S&P A- Stable Outlook	Retain A- rating	
FFO/Net debt ratio	≥10%	14%	≥10%	Preconditions - Financially healthy
Solvency	≥40%	45%	≥35%	

Total workforce (FTE)

Strategy
Construction

Connection to strategic risks (R) and opportunities (O)
R: Lack of sufficient number of people with the competences

Relevance to us and our stakeholders
To facilitate the energy transition, we need smart grids that provide insight into the status of the grid, we are expanding our grid capacity, we are constructing stations and we are installing cables. Consumption and feed-in take place and we are entering into flexible contracts to be able to absorb peaks. This is where we need a massive expansion of our workforce. Alongside grid capacity, workforce is one of the biggest risks we face in achieving our goals.

Definition and calculation method
Total workforce is the number of internal and external employees at year-end and is measured in FTEs at year-end.

Material topic
Access to energy and supply reliability

SDG
8 - Decent work and economic growth

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
Total workforce (FTE)	4,992	5,520	6,238	Preconditions | Our employees

% Participation Act jobs

Strategy
Other objectives

Connection to strategic risks (R) and opportunities (O)
n/a

Relevance to us and our stakeholders
Contributing to an inclusive society is part of our sustainability strategy. Stedin is committed to working for equal opportunities and long-term employability for all. We want our workforce to reflect today's society, to feel welcome and be treated equally, regardless of personal characteristics such as age, sex, religious beliefs, sexual orientation, social background, family status, level of education or disability.

Definition and calculation method
The % Participation Act jobs refers to the percentage of employees expressed in % FTE (based on 25.5 hours) employed by Stedin Group who belong to the target group for the job arrangement under the Participation Act. The Participation Act was introduced in 2015, with the aim of getting more people with an occupational disability into work with regular employers.
The target group for the jobs arrangement under the Participation Act includes those in receipt of benefit under the Disablement Assistance Act for Handicapped Young Persons (Wajong), beneficiaries under the Sheltered Employment Act (WSW), those leaving special secondary education and practical training, and others who are able to earn the statutory minimum wage thanks to the jobs arrangement.
The percentage is calculated by dividing the total number of filled Participation Act jobs by the number of internal FTEs at year-end and the result x 100%.

Material topic
Good employment practices - Diversity & inclusion

SDG
8 - Decent work and economic growth

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
% Participation Act jobs	2.20%	1.88%	t.b.d.	Preconditions - Our employees

eNPS and EMS: Cultural value 'Charging forward'

Strategy
Preconditions

Relevance to us and our stakeholders
Stedin aims to be an attractive employer that treats its employees with due care, stimulates their development and offers everyone equal opportunities. Important aspects are: availability of enough technical and other staff, capacity for change, educating, training and developing employees and a vital, inclusive organisation. The large labour market shortages are causing high staff turnover and pose a major challenge to the realisation of the grid expansions needed for the energy transition. Stedin's strategy involves the cultural values 'Inspired', 'Committed' and 'Forward'. The Employee Motivation Survey including the measurement of the cultural value 'Forward', provides Stedin with an opportunity to measure its employees' motivation to contribute to Stedin's goals, and take action accordingly. Questions related to the 'Cultural Value Forward' asked in this survey concern 1. clarity about team goals, 2. clarity about expected results, 3. manager discusses performance, 4. we finish what we start, 5. manager sets a good example.

Material topic
Good employment practices - Health and safety

Connection to strategic risks (R) and opportunities (O)
R: Unavailability of enough people with the required technical competences; Focus on cultural values and conduct is insufficiently effective

Definition and calculation method
The KPI Employee Promoter Score (eNPS) refers to the percentage of employees who would recommend Stedin as an employer minus the percentage of employees who would not recommend Stedin as an employer. The eNPS is a score on a range of -100 and +100. For example, if 34% answer positive, 55% neutral and 11% negative, this results in a score of 23.

The KPI 'Cultural Value Forward' rates Stedin's cultural value 'Forward' based on an annual employee survey. Employees are asked once a year to complete a survey with closed questions on various topics scored on a scale of 1-10. A question score is calculated for each question. 'Cultural Value Forward' is calculated by dividing the sum of all question scores for the topic 'Forward' by the number of questions within this topic.

SDG
8 - Decent work and economic growth

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
eNPS	20.3	23	20.3	Preconditions - Our employees
EMS: Cultural value 'Charging forward'	≥7.5	7.3	≥7.5	

KPIs Safety

Strategy
Preconditions

Relevance to us and our stakeholders
Working on the energy infrastructure involves risks, which is why safety remains a priority and why Stedin Group invests in knowledge, professional competence, safety measures and a good safety culture. We are taking effective steps to address these safety and security aspects, and with them the continuity of the energy supply. This way, we ensure the safety of our customers, employees, contractors and hired staff. We measure this technical safety according to the LTIR (Lost Time Injury Rate) and the RIF (Recordable Incident Frequency).

Material topic
Good employment practices - Health and safety

Connection to strategic risks (R) and opportunities (O)
R: cyberattack causing damage to society and business operations/impact of accidents related to Stedin Group

Definition and calculation method
The KPI LTIR (Lost Time Injury Rate) concerns the number of fatal workplace accidents and lost-time incidents per 1,000,000 hours worked over the past 12 months. The LTIR is calculated by dividing the total number of fatal accidents and lost-time incidents by the product of the average number of internal and external FTE and standard productive hours per year (1600). Lost time occurs when an employee has to completely stop work on a calendar day following the incident.

The KPI RIF (Recordable Incident Frequency) concerns the number of fatal accidents and workplace incidents leading to lost-time injuries, and with substitute work or medical treatment being required, per 200,000 hours worked.

Work carried out by and accidents of third parties are not included.

SDG
7 Affordable and clean energy / 8 Decent work and economic growth

KPI	Target for 2023	Implementation in 2023	Target for 2024	Where can you read more about this topic?
LTIR	≤1.9	0.24	≤1.5	Preconditions - Safety & Cybersecurity
RIF	≤0.9	0.57	≤0.9	

GRI Index

GRI Std.	GRI Indicators	Reference
	GENERAL INFORMATION - GENERAL DISCLOSURES	
102-1	Name of the organisation	Introduction: About us / Stedin Group in the energy supply chain
102-2	Primary brands, products and/or services	Introduction: About us / Our activities
102-3	Location of headquarters	Introduction: About us / Our service area
102-4	Number of countries where the organisation operates (that are relevant to sustainable development)	Introduction: About us / Our service area
102-5	Nature of ownership and legal form	Organisation and management: Governance / Corporate Governance / Stedin Group
102-6	Major markets served (geographical distribution, sectors and types of customers)	Introduction: About us / Our service area Organisation and management: Governance / Shareholders
102-7	Scale of the reporting organisations	Introduction: About us / 2023 in figures Supplementary information: Five-year summary Supplementary information: Material non-financial information
102-8	Information on total number of employees	Introduction: About us / Our activities Supplementary information: Five-year review / Detailed information on staff
401-1	Employee turnover	Supplementary information: Five-year review / Detailed information on staff
405-1	Diversity of boards and employees	Supplementary information: Five-year review / Detailed information on staff

GRI Std.	GRI Indicators	Reference
102-9	The organisation's value and supply chain	Introduction: About us / Our service area Introduction: About us / Our activities Introduction: Strategy: grid access for all Supplementary information: Stakeholders and interaction with our environment Supplementary information: Impact model
102-10	Significant changes during the reporting period	N.a.
102-11	Information on application of the precautionary principle	Organisation and management: Governance / Risk management
102-12	Externally developed economic, environmental and social charters or principles to which the organisation subscribes	Full focus on further accelerating: Preconditions / Safety & Cybersecurity Organisation and management: Governance / Corporate Governance / Governance and Stedin Group Organisation and management: Governance / Integrity
102-13	Memberships of associations or advocacy organisations	Supplementary information: Stakeholders and interaction with our environment
102-14	A statement from the Executive Board about the relevance of sustainability to Stedin and its strategy for addressing sustainability.	Introduction: About us / CEO's foreword Introduction: Strategy: grid access for all Full focus on further accelerating: Performance in other areas / ESG performance
102-15	Key impacts, risks and opportunities	Introduction: Strategy: grid access for all Supplementary information: Sustainable development goals Supplementary information: Stakeholders and interaction with our environment Supplementary information: Connectivity table
EU3	Number of household, industrial and institutional customers	Supplementary information: Five-year summary
EU4	Length of transmission and distribution networks per regulatory regime	Supplementary information: Five-year summary
	Ethics and Integrity	
102-16	The organisation's values, principles, standards, and norms of behaviour	Organisation and management: Governance / Integrity / Code of conduct
102-17	Procedure for advice about unethical or illegal practices	Organisation and management: Governance / Integrity / Reporting Facility Organisation and management: Governance / Integrity / Confidential advisers
	Procedure for raising concerns about confirmed or suspected unethical or illegal practices | whistleblower procedure	Organisation and management: Governance / Integrity / Whistleblower procedure

GRI Std.	GRI Indicators	Reference
	Governance	
102-18	Governance structure of those responsible for decision-making on economic, social and ecological (ESG) impact	Organisation and management: Governance / report of the Supervisory Board
102-19	Process for delegating authority for ESG topics	Organisation and management: Governance Full focus on further accelerating: Performance in other areas / ESG performance
102-20	Responsibility for ESG topics at executive level and/or post holders reporting to highest governance body	Organisation and management: Governance Full focus on further accelerating: Performance in other areas / ESG performance
102-21	Processes for consultation between stakeholders and the highest governance body on ESG topics	Organisation and management: Governance Full focus on further accelerating: Performance in other areas / ESG performance Supplementary information: Stakeholders and interaction with our environment
102-22	Composition of the highest governance body	Organisation and management: Governance / Biographical details of members of the Supervisory Board
102-23	Chair of the highest governance body	Organisation and management: Governance / Biographical details of members of the Board of Management Organisation and management: Governance / Biographical details of members of the Supervisory Board
102-24	Nomination and selection processes for the highest governance body	Governance: Corporate Governance Governance: Corporate Governance / Report of the Supervisory Board
102-25	Process for the highest governance body for employees with integrity issues / whistleblower procedure	Organisation and management: Governance / Integrity / Whistleblower procedure
102-26	Role in the development of mission, vision, strategy, policy and goals related to ESG impact	Organisation and management: Governance Full focus on further accelerating: Performance in other areas / ESG performance
102-27	Actions taken to enhance knowledge of ESG topics	Introduction: Value creation model Introduction: Strategy: grid access for all Full focus on further accelerating: Performance in other areas / ESG performance Supplementary information: Stakeholders and interaction with our environment Supplementary information: Sustainable Development Goals Supplementary information: Connectivity table Supplementary information: Impact model

GRI Std.	GRI Indicators	Reference
102-28	Evaluating the highest governance body's ESG performance	Introduction: Value creation model Introduction: Strategy: grid access for all Full focus on further accelerating: Performance in other areas / ESG performance Governance: Corporate Governance / Report of the Supervisory Board Supplementary information: Stakeholders and interaction with our environment Supplementary information: Sustainable Development Goals Supplementary information: Connectivity table Supplementary information: Impact model
102-29	Role of the highest governance body in identifying and managing ESG impacts, risks and opportunities	Organisation and management: Governance / Risk management
102-30	Role of the highest governance body in reviewing the effectiveness of risk management processes for ESG topics	Organisation and management: Governance / Risk management
102-31	Frequency of review of ESG impacts, risks and opportunities	Organisation and management: Governance / Risk management
102-32	The highest body that reviews and approves the sustainability report	The Audit Committee of the Supervisory Board
102-33	Process for communicating critical concerns to the highest governance body	Organisation and management: Governance / Integrity
102-34	Number of critical concerns communicated and procedure for response of highest governance body	Organisation and management: Governance / Integrity
102-35	Remuneration policies for the highest governance body	Organisation and management: Governance / Remuneration report for 2023
102-36	Process for determining remuneration	Organisation and management: Governance / Remuneration report for 2023
102-37	Stakeholders' involvement in remuneration policies	Organisation and management: Governance / Remuneration report for 2023
102-38	Ratio of top salary - median salary	Organisation and management: Governance / Remuneration report for 2023
102-39	Ratio of the increase in top salary - average increase	Organisation and management: Governance / Remuneration report for 2023
205-1	Operations assessed for risks related to corruption	Organisation and management: Governance / Integrity

GRI Std.	GRI Indicators	Reference
205-2	Percentage of employees that receive training on anti-corruption policies	Organisation and management: Governance / Integrity
205-3	Action in response to incidents of corruption	Organisation and management: Governance / Integrity
206-1	Legal actions against unfair competition, cartels and monopolies	Organisation and management: Governance / Integrity
102-40	A list of stakeholder groups engaged by the organisation	Supplementary information: Stakeholders and interaction with our environment
102-41	Percentage of employees covered by collective labour agreements	Supplementary information: Five-year summary
102-42	The basis for identifying and selecting stakeholders	Introduction: CEO's foreword Introduction: Strategy: grid access for all Full focus on further accelerating: Performance in other areas / ESG performance
102-43	Approach to and frequency of stakeholder engagement	Introduction: CEO's foreword Introduction: Strategy: grid access for all Full focus on further accelerating: Performance in other areas / ESG performance
102-44	Results of stakeholder management	Supplementary information: Stakeholders and interaction with our environment
102-45	Operational structure of associates	Financial statements: Notes to the consolidated financial statements
102-46	Process for determining report content and implementation of GRI principles	Introduction: Value creation model Introduction: Strategy: grid access for all Supplementary information: Reporting Policy
102-47	A list of all the material topics identified in the process for defining report content	Strategy: Stakeholders and materiality
102-48	The effect of any restatements of information given in previous reports	Financial statements: Notes to the consolidated financial statements: 2. Judgements, estimates and assumptions

GRI Std.	GRI Indicators	Reference
102-49	Significant changes from previous reporting periods	The table on 'CO_2 emissions, including greening' shows all scope 1, 2 and 3 for all years The table 'GHG emission intensity ratio' shows all scope 1, 2 and 3 for all years
102-50	Reporting period	Supplementary information: Reporting Policy
102-51	Date of most recent report	Supplementary information: Reporting Policy
102-52	Reporting cycle	Supplementary information: Reporting Policy
102-53	Contact point for questions regarding the report or its contents	Supplementary information: Publication details
102-54	In accordance option	Supplementary information: Reporting Policy
102-55	GRI content index	Supplementary information: GRI index
102-56	Policy with regard to external assurance	Organisation and management: Governance / In-control statement Other information: Independent auditor's report Supplementary information: Reporting Policy
	SPECIFIC INFORMATION - SPECIFIC DISCLOSURES	
	Ensuring grid capacity: construction	
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Introduction: Value creation model Supplementary information: Reporting Policy Supplementary information: Stakeholders and interaction with our environment Supplementary information: Double materiality assessment process Supplementary information: Connectivity table

GRI Std.	GRI Indicators	Reference
	We adopt a flexible approach to our grids: utilisation	
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Introduction: Value creation model Supplementary information: Reporting Policy Supplementary information: Stakeholders and interaction with our environment Supplementary information: Double materiality assessment process Supplementary information: Connectivity table
	Ensuring grid quality: management	
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Introduction: Value creation model Supplementary information: Reporting Policy Supplementary information: Stakeholders and interaction with our environment Supplementary information: Double materiality assessment process Supplementary information: Connectivity table
EU3	Number of household, industrial and institutional customers	Supplementary information / Five-year summary
EU 28	Interruption frequency electricity	Supplementary information / Five-year summary
EU 29	Average duration of interruption Annual average downtime	Supplementary information / Five-year summary
	Stakeholders and interaction with our environment	
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Introduction: Value creation model Supplementary information: Reporting Policy Supplementary information: Stakeholders and interaction with our environment Supplementary information: Double materiality assessment process Supplementary information: Connectivity table
413-1	Degree of local community engagement in operations	Where are we now: Developments within society and the energy market
415-1	Financial or in-kind contributions to political parties, persons or institutions	Organisation and management: Governance / Integrity

GRI Std.	GRI Indicators	Reference
	Safety & Cybersecurity'.	
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Introduction: Value creation model Supplementary information: Reporting Policy Supplementary information: Stakeholders and interaction with our environment Supplementary information: Double materiality assessment process Supplementary information: Connectivity table
403-1	Workers' representation with regard to health and safety policies	Full focus on further accelerating: Preconditions / Safety & Cybersecurity
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Full focus on further accelerating: Preconditions / Safety & Cybersecurity
403-3	Job Positions with high risk in relation with occupational sickness and accident	Full focus on further accelerating: Preconditions / Safety & Cybersecurity
403-4	Health and safety topics covered in formal agreements with trade unions	Full focus on further accelerating: Preconditions / Safety & Cybersecurity
418-1	Total number of substantiated complaints concerning breaches of customer privacy and losses of customer data	Supplementary information: Connectivity table
	Our employees	
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Introduction: Value creation model Supplementary information: Reporting Policy Supplementary information: Stakeholders and interaction with our environment Supplementary information: Double materiality assessment process Supplementary information: Connectivity table
404-1	Investments in training per employee per category	Full focus on further accelerating: Preconditions / Our employees
404-2	Programmes for skills management and lifelong learning that support continued employability and facilitate career endings	Full focus on further accelerating: Preconditions / Our employees
404-3	Percentage of employees receiving regular performance and career development reviews	Full focus on further accelerating: Preconditions / Our employees
406-1	Number of incidents of discrimination and corrective actions taken	Organisation and management: Governance / Integrity / Reporting Facility Organisation and management: Governance / Integrity / Confidential advisers

GRI Std.	GRI Indicators	Reference
	ESG performance	
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Introduction: Value creation model Supplementary information: Reporting Policy Supplementary information: Stakeholders and interaction with our environment Supplementary information: Double materiality assessment process Supplementary information: Connectivity table
301-1	Total weight or volume of materials used	Full focus on further accelerating: Performance in other areas / ESG performance
301-2	Percentage of input materials consisting of waste sourced externally	Full focus on further accelerating: Performance in other areas / ESG performance
302-1	Energy consumption inside the organisation	Full focus on further accelerating: Performance in other areas / ESG performance
302-2	Energy consumption outside of the organisation	Full focus on further accelerating: Performance in other areas / ESG performance
302-3	Energy intensity	Supplementary information: Material non-financial information
302-4	Reduction of energy consumption	Full focus on further accelerating: Performance in other areas / ESG performance
302-5	Reductions in energy requirements of products and services	Full focus on further accelerating: Performance in other areas / ESG performance
305-1	Direct (Scope 1) GHG emissions by weight	Full focus on further accelerating: Performance in other areas / ESG performance
305-2	Indirect (Scope 2) GHG emissions by weight	Full focus on further accelerating: Performance in other areas / ESG performance
305-3	Other indirect (Scope 3) GHG emissions by weight	Full focus on further accelerating: Performance in other areas / ESG performance
305-4	GHG emission intensity	Supplementary information: Material non-financial information
305-5	Reduction of GHG emissions	Full focus on further accelerating: Performance in other areas / ESG performance
305-6	Emissions of ozone-depleting substances	Not applicable
305-7	NOx, SOx and other significant air emissions	Full focus on further accelerating: Performance in other areas / ESG performance

GRI Std.	GRI Indicators	Reference
306-2	Total waste by type and disposal method	Full focus on further accelerating: Performance in other areas / ESG performance
306-4	Hazardous waste	Full focus on further accelerating: Performance in other areas / ESG performance
308-1	Percentage of new suppliers assessed using environmental criteria	Full focus on further accelerating: Performance in other areas / ESG performance
414-1	Percentage of new suppliers that were screened using 'labour practices' criteria.	Full focus on further accelerating: Performance in other areas / ESG performance
407-1	Identified significant risks of non-freedom and actions taken	Full focus on further accelerating: Performance in other areas / ESG performance
408-1	Identified significant risks of child labour and actions taken	Full focus on further accelerating: Performance in other areas / ESG performance
409-1	Identified significant risks of forced or compulsory labour and actions taken	Full focus on further accelerating: Performance in other areas / ESG performance
412-1	Issue and risk management in the supply chain with regard to human rights	Full focus on further accelerating: Performance in other areas / ESG performance
414-1	Degree of screening of suppliers on human rights issues	Full focus on further accelerating: Performance in other areas / ESG performance
414-2	Negative impacts on human rights resulting from the supply chain and actions taken	Full focus on further accelerating: Performance in other areas / ESG performance
	Financial, economic performance	
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Introduction: Value creation model Supplementary information: Reporting Policy Supplementary information: Stakeholders and interaction with our environment Supplementary information: Double materiality assessment process Supplementary information: Connectivity table
201-1	Economic ratios (incl. accruals) 'for the community' in euros	2023 Financial Statements
201-2	Financial implications and other risks and opportunities for Stedin's activities due to climate change	Supplementary information: Other risks
201-3	Coverage of the organisation's defined benefit plan obligations	2023 Financial Statements

Glossary

This section presents explanations of terms and abbreviations.

ACM
The Netherlands Authority for Consumers and Markets (ACM) is an independent public regulator whose tasks include oversight of compliance with the Gas Act and the Electricity Act 1998.

Waste hierarchy
Dealing with waste: four approaches. Prevention has the highest priority. Reuse in high-quality products comes second. Third, waste incineration to generate energy. The least desirable approach is dumping or discharging waste.

Allocation
Energy volumes are allocated to market parties per 15 minutes for electricity and per hour for natural gas, so that the balance can be maintained and imbalances can be settled. This is done on the basis of measurements of values per 15 minutes or per hour (if these are recorded), or based on standard consumption and the profiles of the grid users (if energy volumes are not recorded per 15 minutes or per hour).

Blue diesel
Blue diesel or actually HVO (Hydrotreated Vegetable Oil) is a type of diesel fuel. It is made from processed vegetable oils and residual waste. No more fossil oil is involved, so it produces much lower CO_2emissions.

Cable pooling
Feeding back wind and solar energy through a single cable.

CAIDI
The Customer Average Interruption Duration Index is the average duration of an unforeseen interruption of electricity supply per customer affected.

CAPEX and OPEX
Capex are the Capital Expenditures, the costs related to developing and supplying our products and services. Opex are the Operating Expenditures, the operational costs to enable our business operations.

CO_2 equivalents
To sum up the impact of different greenhouse gases, emission figures are converted into CO_2equivalents. The conversion is based on the Global Warming Potential (GWP), in other words the extent to which a gas contributes to the greenhouse effect. One CO_2 equivalent equates to the effect of 1 kilogram of CO_2 emissions.

Congestion
Congestion occurs when a grid has insufficient capacity to transmit all electricity generated and purchased. Congestion management uses price mechanisms and market forces to manage energy supply and demand. This is called flexibility.

Corporate governance
Corporate governance is about good management. It governs the relationships between Board of Management members, Supervisory Board members and shareholders. Good entrepreneurship (ethical and transparent conduct by the board of management) and effective supervision (including reporting on it) are key principles of corporate governance.

CGC
The Dutch corporate governance code is a code of conduct for listed companies which aims to bring above improved transparency in financial statements, better accountability to the Supervisory Board and stronger control and protection of shareholders.

Credit rating
The credit rating score of a company, or 'rating', is an assessment of its credit rating in the form of a 'mark'. Ratings are awarded by specialised agencies.

Data maturity
Data maturity refers to an organisation's ability to manage and use data efficiently and effectively. It means that the organisation has a data-driven decision-making process, with clear processes for Data management and analysis.

EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortisation)
Result before income tax adjusted for depreciation, amortisation, net interest payable, results of group entities sold, revaluations and share of minority interests.

Energy transition
The transition from fossil-fuel energy generation to renewable energy generation (e.g. from solar, wind or water).

ESG
ESG stands for environmental, social and governance.

Flexibility
If a grid has insufficient capacity to transmit all electricity generated and purchased, we deploy congestion management. In congestion management, price mechanisms and market forces are used to manage supply and demand.

FFO/Net Debt ratio
This ratio is calculated in accordance with the Standard & Poor's (S&P) method. Funds From Operations (FFO) divided by net debt. The FFO is comprised of the EBITDA (see above), adjusted for interest and taxes paid, costs related to the perpetual subordinated bond loan (50%) and capitalised interest. The net debt is the sum of current and non-current interest-bearing debt (including lease liabilities) and including the perpetual subordinated bond loan (50%), pension liabilities minus unrestricted cash and cash equivalents.

Code of Conduct for Smart Grid Management
The Code of Conduct for Smart Grid Management (Gedragscode Slim Netbeheer) was approved by the Dutch Data Protection Authority in 2022. This makes it possible to use certain smart meter data for grid management, subject to strict conditions. This mostly concerns the monitoring of voltage quality.

Regulated market
The activities of the grid manager that arise from the tasks that are exclusively reserved for the grid manager and for which maximum rates are set by the ACM. They include:
- installing, maintaining, modernising and managing connections to the electricity grid with a rated capacity up to 10 MVA;
- building, maintaining, modernising and managing electricity as well as gas grids;
- transmitting gas and electricity;
- the low-use metering service;
- safeguarding the safety and reliability of the grids in an effective manner;
- promoting safety in using equipment and installations that consume electricity as well as gas;
- facilitating the free market to enable customers to switch to a different energy supplier.

SAV
Standardised asset value.

NSAV
Normalised standardised asset value.

GPRS
General Packet Radio Service. This technology is an addition to the GSM network. and can be used to send and receive mobile data quickly and reliably.

GRI
Global Reporting Initiative. The internationally applied standards for sustainability reporting, in which an organisation reports publicly on its economic, environmental and social performance.

IFRS
International Financial Reporting Standards. Set of reporting rules issued by the IASB. Stedin Group complies with these reporting rules, which were drawn up to harmonise financial reporting at an international level.

<IR> Framework
Integrated reporting is an extensive framework for business and investment decisions that are long-term, inclusive and purpose-oriented.

kV
Kilovolt (kV) is a unit of voltage equal to 1,000 volts.

Low-voltage grid (LV)
Grid intended for the transmission of electricity at a voltage level less than or equal to 1 kV in the case of an AC grid and less than or equal to 1.5 kV in the case of a DC grid and operated as such.

LTE-M meter
An LTE-M meter communicates via the LTE technology instead of the GPRS or CDMA technology. LTE is short for Long Term Evolution and is the generic term for the 4G network.

LTI
Lost Time Injury. An LTI event is an event that results in absence from work for more than one working day or shift - for instance, an accident in a workshop. Work carried out by and accidents of third parties are not included.

LTIR
Lost Time Injury Rate: number of lost-time workplace incidents per million hours worked over the last twelve months.

National Agenda on the Charging Infrastructure Network (NAL)
The National Agenda on the Charging Infrastructure Network is a multi-year implementation programme resulting from the Climate Agreement, stating ambitions and actions aimed to ensure easy-to-use, smart and widely available charging facilities. This concerns charging stations on private driveways and at business premises as well as public and semi-public charging stations and fast chargers. The programme also includes the installation of charging infrastructure for the logistics sector.

MVA
MVA is the abbreviation for megavolt-ampere.

Medium-voltage grid (MV)
Grid intended for the transmission of electricity at a voltage level greater than 1 kV but less than or equal to 35 kV and operated as such.

Grid capacity and transmission capacity
Both terms are synonymous and refer to capacity in the grid.

Net investments
Gross investments less customer construction contributions received from third parties.

Network losses
Network losses arise during the transmission of electricity and gas. The greater the distance, the greater the loss. Network losses can also be caused by fraud and administrative losses (in the allocation and reconciliation process as well as the administrative process).

NOC
Network Operations Center. Stedin's modernised control centre that monitors Stedin's service area 24/7.

Installed capacity
The maximum capacity (of a generating unit) that can be utilised to provide electrical energy under ideal conditions.

PIE
A PIE is a Public Interest Entity. These are organisations that, due to their size or function in social and economic life, affect the interests of comparatively large groups.

OR
Works Council. This is a body that consists of members of the works councils of the various business units of Stedin Group.

Participation Act job
A Participation Act job is a position specifically created for someone who cannot fully participate in the labour market due to a disability.

Petajoule (PJ)
That is 1 thousand trillion (1,000,000,000,000,000) joules. 1 petajoule is sufficient to supply energy to around 15,000 households for a full year.

Regional Energy Strategy (RES)
Each region develops its own energy strategy in order to realise the measures for electricity and the built environment in the Climate Agreement. Examples are the regional generation of sustainable energy as well as plans to match supply and demand.

BoM
Board of Management. The Board of Management is the highest executive body and is in charge of the strategic management of the company.

Supervisory Board (SB)
Supervisory Board. In the Netherlands, the Supervisory Board is the supervisory body of public limited liability companies (NVs) and private limited liability companies (BVs).

RIF
Recordable Incident Frequency: number of fatal accidents and lost-time workplace incidents, incidents entailing alternative work or incidents requiring medical treatment per 200,000 hours worked.

Remuneration report
The remuneration report is a report on the remuneration of the Board of Management and the Supervisory Board. The remuneration policy of Stedin Group is prepared by the Selection, Appointments and Remuneration Committee of the Supervisory Board.

R-ladder
The R-ladder indicates the degree of circularity. The R ladder has six steps (R1 to R6) representing different circularity strategies. Strategies higher up the ladder save more raw materials. The higher a strategy is on the R-ladder, the more circular it is, with R1 being the highest step.

SAIDI
System Average Interruption Duration Index. The annual average downtime: the average duration for which a customer is not supplied with electricity due to unforeseen interruptions (in minutes).

SAIFI
System Average Interruption Frequency Index. The interruption frequency: the average number of unforeseen interruptions with which customers are faced on an annual basis.

SDG (Sustainable Development Goals)
Goals published by the United Nations for sustainable development of the world up to 2030.

Smart meters
A smart meter enables the grid manager to read the meter for both electricity and gas from a distance, as well as the meter status information. The smart meter can also carry out instructions sent remotely, such as connecting or disconnecting a customer. Communication with the meter takes place via the cable network (Power Line Communication), via GPRS, via the CDMA network or via the LTE-M network.

Solvency
Equity plus profit or loss for the period less expected dividend distributions for the current financial year divided by the balance sheet total, adjusted for the expected dividend distribution, long-term portion of connection contributions received in advance and free cash and cash equivalents.

Voltage quality
The voltage at a connection to the electricity grid is required to be of a specific quality. Good voltage quality is important, for instance to ensure the continued proper operation of equipment.

Stakeholders
Stakeholders are individuals and groups that have an interest in a variety of ways in Stedin Group, such as employees, shareholders, customers, capital providers, suppliers and government.

Failure reserve
This is the reserve capacity for the electricity grid. This gives us sufficient additional room in the grid to shorten the duration of an interruption caused by a failure and enables us to carry out maintenance on our grids without an interruption being necessary to do so.

Tier 1, 2 and 3 suppliers
Within the supply chain we distinguish between Tier 1, 2 and 3 suppliers. Tier 1 suppliers are our direct suppliers, Tier 2 suppliers are our suppliers' suppliers (they supply semi-manufactured products, for instance). Tier 3 are the suppliers to our Tier 2 suppliers and provide the raw materials of which the semi-manufactures are made.

Shortage of transmission capacity
Shortage of transmission capacity is shortage in the national and regional electricity grids due to the growth in large-scale solar farms and the growing demand for electricity in the Netherlands.

VIAG
The Natural Gas Safety Instructions (VIAG) for energy companies, in conjunction with the annexes and operational safety instructions, provide a set of uniform rules for the safe operation of gas production systems of grid managers.

Disclaimer

This report may contain forward-looking statements and projections. These can be identified by words such as 'anticipate', 'intend', 'estimate', 'assume', 'expect' or the negative equivalents of these terms and similar terms. These forward-looking statements and projections are based on current expectations and assumptions concerning expected developments and other factors that can affect Stedin Group.

These are not historical facts or guarantees of future results. Actual results and events can differ from the current expectations due to factors such as economic trends, technological developments, changes in laws and regulations, the behaviour of suppliers and customers, currency risks, tax developments, financial risks or political, economic and social conditions.

Further information on potential risks and uncertainties that can affect Stedin Group is stated in the documents filed by Stedin Group with Euronext Amsterdam.

Except as required on the basis of laws and regulations, Stedin Group rejects any obligation or liability to revise or adjust projections and forecasts in this document on the basis of new information, future events or otherwise, or to publicly disclose such adjustments or revisions.

Certain parts of the Annual Report and the Financial Statements have been audited by our auditor. The section entitled 'Independent auditor's report' describes which parts have been audited, and how, by the independent auditor.

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