DECISIVE AND ENERGETIC
Annual report 2022

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.

OUR ADDED VALUE

As a public and social company, we believe it is important for us to report on the basis of the added value we contribute to society. The value creation model is therefore at the heart of our annual report. The key principles are transparency, the dialogue with our stakeholders and the impact and added value of our activities in the short and long term.

Based on our strategic spearheads, we are working together to create an environment filled with new energy. In our value creation model we describe the results produced by our activities and the value we thereby create for our stakeholders.

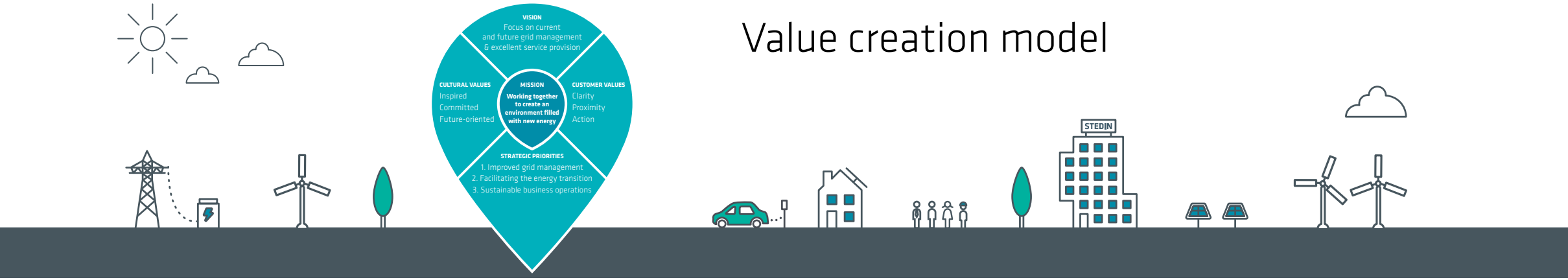
- **Input:** these are the various types of capital that we need for our work. From financing to gas pipes and from insight into our grids to our employees.
- **Our organisation model:** shows how we use our strategic spearheads and material topics to achieve our mission.
- **Output:** the results of our work include, for example, CO_2 reductions achieved, supply reliability and employee satisfaction.
- **Impact:** our impact comprises the value we add (both positive and negative) for our stakeholders and in the form of contributions to the global goals (the United Nations' Sustainable Development Goals).

We are making our value creation increasingly measurable. This aids us both in identifying dilemmas and in gearing our operations management towards better solutions. For more information about impact measurement and our results for the past year, see 'Measuring impact'.

Overview
In the first part of the annual report, we discuss our position in the energy supply chain, our activities, our strategy and developments in society and the energy market. After that, we disclose our results on our material topics by reference to our three strategic spearheads:

1. Improved grid management
2. Facilitating the energy transition
3. Sustainable business operations

Value creation model



Input

Financial capital:

Stedin Group has a public task and has 44 municipalities as shareholders. We treat our social capital prudently and intelligently. In 2022, we invested € 712 million.

Produced capital:

With our 58,250 km of electricity cables and 28,145 km of gas pipelines, we supply energy to more than 2.3 million private and business customers, day and night.

Intellectual capital:

In order to facilitate the energy transition, we require insight into our grids. As a result, we better understand where we need to invest in infrastructure and/or have to pursue innovative solutions.

Human capital:

Our 4,324 employees work day and night to supply energy to customers. We seek to be an attractive employer and a vital inclusive organisation, in which we offer equal opportunities to everyone and stimulate development.

Social capital:

We play a central part in the energy supply chain. Together with our stakeholders, we are part of the energy transition. We do this with 20 account managers and 9 area directors.

Natural capital:

We consumed 317,186 m^3 of gas and 6,770,018 kWh of electricity in our business operations. Our vehicle fleet consumed 2,202,602 litres of fuel. We are making progress towards climate-neutral business operations in 2030. We focus on the areas where we have the greatest impact. We are also in dialogue with suppliers in this respect.

Organisation model

Strategic spearheads and material topics

Improved grid management
- Security of supply
- Affordable and efficient services
- Customer satisfaction

Facilitating the energy transition
- Stakeholder dialogue and environment
- Investments in infrastructure
- Smart grids, data technology and innovation

Sustainable business operations
- Safety, security and cybersecurity
- Good employment practice
- Impact on people and planet
- Financial and economic performance

Output

Results

We are working vigorously on improved grid management by continuously improving our performance on our core tasks.

- Average downtime for electricity 22 minutes
- Average downtime for gas 50 seconds
- Over 2.3 million private and business customers supplied with energy
- Customer convenience score 81%

Through innovation and close collaboration with partners, we are facilitating the energy transition.

- 84.7% of the households in Stedin area have a smart meter
- 478 transformer kiosks built
- 31,556 gas removals for sustainability realised

As ambassadors for the energy transition, we are aiming for sustainable business operations.

- LTIR: 0.52
- Employee satisfaction: engaged 7.9 and inspired 7.7
- Reduction of CO_2 emissions from business operations (excluding gas network losses) -48%
- FFO/Net Debt ratio: 10.1%

Impact

The value we add

Customers

By supplying energy to customers day and night:
- we contribute to customers' well-being and make their life more comfortable;
- we enable business customers to develop economically;
- we enable customers to feed their own sustainably generated energy back into the grid.

Environment

Having access to energy has great societal value. The current energy mix has a negative impact on the environment and climate, for which we, as grid manager, have a shared responsibility. On that basis - and driven by our task - we are vigorously pursuing the energy transition. For our own activities, we minimise impact by:
- implementing a sustainable purchasing procurement policy, enhancing the sustainability of our stations, stimulating circularity and restoring biodiversity;
- pursuing a reduction of CO_2 and particulate matter emissions;
- limiting inconvenience caused by our activities.

Employees

We contribute to employees' well-being through:
- income and opportunities for development;
- good employment practice with a focus on safe working practices.

Shareholders

Shareholders can count on us to:
- invest in assets, including sustainable assets;
- facilitate sustainability objectives;
- be a partner in the energy transition.

Contributions to the global goals

VN Sustainable Development Goals

DECISIVE AND ENERGETIC

The energy transition is gaining momentum. Use of our energy grid is increasing. At the same time, we are facing several other challenges, such as shortages in the labour market and problems with the supply of raw materials and commodities. This has encouraged us to adopt a smart and balanced approach that is both energetic and innovative. We confront the challenges in a concerted effort with other players in our environment. We are proud of what we are able to achieve together.

CEO'S FOREWORD

What comes first: the means or the objective? That was a fundamental question for us while writing our new strategy for the 2023-2027 period. We decided that the objective should have pride of place. First and foremost, we are a company with a social function and our social task takes priority. Next, we attract the financial resources we need to fulfil this social task.

It is a task that is both straightforward and highly complex: ensuring sufficient grid capacity. In other words, making sure that everyone in our service area has access to the grid. Our task is to build, effectively utilise and properly manage our grid. This is what we stand for; this is our mission. By bringing this sharply into focus, we will gain a more visible position in the energy transition.

Over the past five years, we have been increasingly successful in taking the outside world on board - for instance by entering into dialogue with the industrial sector on electrification or with municipalities on the processing times for permit applications. A clear division of roles will help to further clarify the dialogue. And it is essential for us to continue that dialogue. If local authorities and companies allow us to play a role in their plans, this will place us in a better position to help achieve their - and our - ambitions.

We arrived at the new strategy thanks to input from a variety of stakeholders, including customers, municipalities and our own employees. To implement the strategy we need sufficient employees, funding, material resources and we will need to speed up processes. We are working hard to ensure those requirements are in place. Yet our biggest challenge lies elsewhere. Current developments on the grid - over the past year alone demand for an increase in electric power has tripled among heavy-use customers - requires more than just reliable and affordable grid management. We need to become more creative, develop alternatives and join forces with other market parties to explore opportunities to accelerate grid capacity expansion and optimise the use of existing capacity. This is essential to ensure we can serve all our customers (in the generation and consumption segments) within a reasonable term.

> "Despite the considerable demand for energy, we have managed to keep security of supply at 99.9959%."

That is something to be proud of. Unfortunately though, problems did occur. This year we again had several major disruptions and we also had to cope with two serious incidents, in Zoetermeer and Rijswijk. We deeply regret this, and we are making every possible effort to prevent similar incidents in the future.

We move ahead energetically and decisively, by building capacity and further optimising the way we use the grid. In this way we make sure that everybody receives energy, provides energy and remains energised.

On behalf of the Board of Management,
Koen Bogers

ANNUAL SUMMARY FOR 2022

1st quarter

6 January - Due to a major power failure in Spijkenisse, caused by fire, nearly 17,000 customers are left without electricity.

7 February - Of the four people involved in a major gas accident in Zoetermeer, three are seriously injured.

24 February - The first home in Stad aan 't Haringvliet is fitted with hydrogen-powered heating.

31 March - Stedin launches a 'flex challenge' encouraging companies to use their electricity consumption and generation capacity in flexible ways.

2nd quarter

5 April - Stedin publishes its investment plan. In the 2022-2024 period we will continue our large-scale investments in the expansion, maintenance and reinforcement of our electricity and gas grids.

23 May- Stedin Group successfully issues a green bond for the third time. The €500 million raised is allocated to investments in the electricity grid required to enable the energy transition.

25 May - The regulator, the Netherlands Authority for Consumers and Markets (ACM), publishes the new code for congestion management. This enables Stedin to optimise the way it uses the electricity grid in areas with capacity shortages.

3rd quarter

7 July- Stedin announces its intention to only connect battery operators that are willing to help prevent congestion issues on the electricity grid.

21 July - 170 pupils of Stedin's in-house training school obtain their senior secondary vocational education (MBO) diploma.

20 September - The central government sets aside €500 million for strengthening Stedin Group's equity. This is an important step.

4th quarter

20 October - Stedin, Dunea and Oasen intensify their collaboration on joint work underground by signing framework agreements with four building contractors.

17 November - TenneT alerts the ACM about transmission capacity shortage for electricity fed into the high-voltage grid. This also impacts heavy-use customers in Stedin's service area.

25 November - Grid manager Stedin, sustainable energy cooperative Zeeuwind and Gabri Hoek B.V. sign a 'congestion management contact', the first of its kind in the Netherlands, for the Noordpolder wind farm.

27 November- The State and grid companies reach a negotiated agreement on the conditions governing a capital contribution. This will enable the State to acquire shares in the future.

2022 IN **NUMBERS**

Improved grid management

2022	2021
Average downtime	
22	19
Electricity (in minutes)	
50	29
Gas (in seconds)	
Customer effort score	
81%	75%
Supply reliability (in %)	
99.9959	99.9964
Growth in reinforcing connections for low-use consumers for sustainability reasons	
6%	23%

Facilitating the energy transition

2022	2021
Investments (in millions)	
€ 712	€ 687
Electric driving	
2,655	2,791
Growth in number of low-use connections	
Sustainable generation of solar power (in MW)	
630	600
Solar power connected in the year	
Sustainable generation of wind power (in MW)	
131	69
Wind power connected in the year	

Sustainable business operations

2022	2021
Employee satisfaction	
7.7	7.6
Engagement	
7.9	7.8
Commitment	
Safety LTIR	
0.52	0.54
Number of lost-time injuries with absenteeism per million hours worked	
Safety RIF	
0.91	0.76
Number of recordable incidents per 200,000 hours worked	
Reduction CO_2 emissions business operations	
-48%	-45%
Own business operations excluding network losses gas (see page 87)	
Number of Participation Act-Employees	
115	94

Financial Results

2022	2021
Net revenue and other income (in millions)	
€ 1,333	€ 1,279
Solvency (in %)	
44.4	45.6
Balance sheet total (in millions)	
€ 8,250	€ 8,182
FFO/Net debt ratio	
10.1%	11.3%

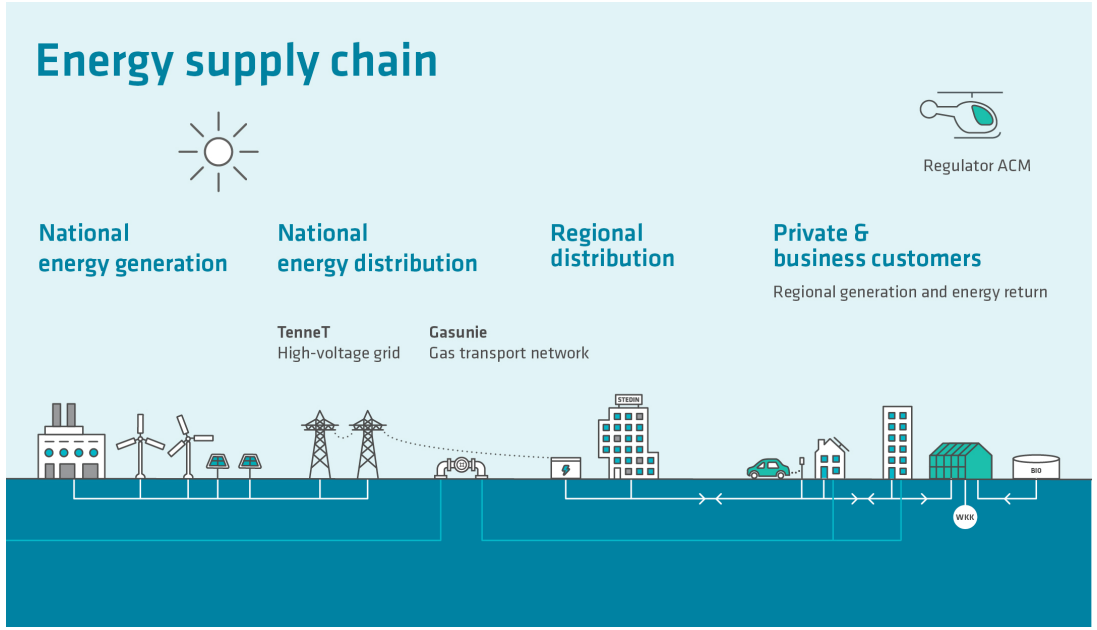
ABOUT US

PROFILE

More than 2.3 million private and business customers rely on Stedin Group for their energy supply, day and night. We are proud of our grids' supply reliability of 99.9959%.

Stedin Group in the energy supply chain

The electricity and gas grids are a key link in the energy system. In its role as grid manager, Stedin is responsible for the regional distribution of electricity and gas. We collaborate with other players in the energy supply chain. These include the producers of electricity and gas, TenneT and Gasunie, which take care of the national distribution of electricity and gas, our suppliers, the other regional grid managers and the organisations that monitor the reliability, affordability, safety and sustainability of our energy supply. In addition, an ever growing share of our customers feed the electricity they generated themselves into our grid.



Stedin Group is a public organisation whose shares are held by 44 municipalities. Together with our shareholders and other stakeholders, we are working to achieve the energy transition. Stedin Group operates and has its registered office in the Netherlands. We carry out regulated activities as a grid manager and, as a group, we also perform a number of non-regulated activities that are closely linked to the energy infrastructure. Our head office is located at Blaak 8, 3011 TA in Rotterdam.

Our service area

We manage and maintain the energy grids in a large part of the Randstad conurbation as well as the provinces of 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 of Rotterdam and the Port of Zeeland, as well as large industrial and greenhouse horticulture regions. It also includes parts of the provinces of North-Holland and Friesland.

Gas Stedin
Electricity and gas Stedin

STEDIN GROUP'S ACTIVITIES

Stedin Group focuses on all activities relating to constructing, managing and maintaining energy grids. We also facilitate the energy market. Stedin Group is comprised of grid manager Stedin, which operates in the regulated market. We also conduct non-regulated activities, under the names of NetVerder and DNWG.

Grid management

Stedin operates alongside five other regional grid managers in a regulated market. Each regional grid manager is a monopolist within its service area. Regulation means that the work performed by grid managers is provided for in Dutch law and that the rates that they may charge for this work are set by the Netherlands Authority for Consumers and Markets (ACM). The regulatory model encourages grid managers to achieve optimum performance in terms of efficiency and quality by using a benchmark comparison.

As a grid manager, Stedin ensures a safe, reliable and affordable energy supply for its more than 2.3 million customers. At year-end 2022, Stedin had 5,275 staff members, Comprising 4,324 internal staff members (male: 3,548; female: 776) and 951 external staff members (male: 741; female: 210). Effective 1 January 2022, Stedin and Enduris (the former grid manager for the province of Zeeland) integrated under the name Stedin.

Facilitating the energy market

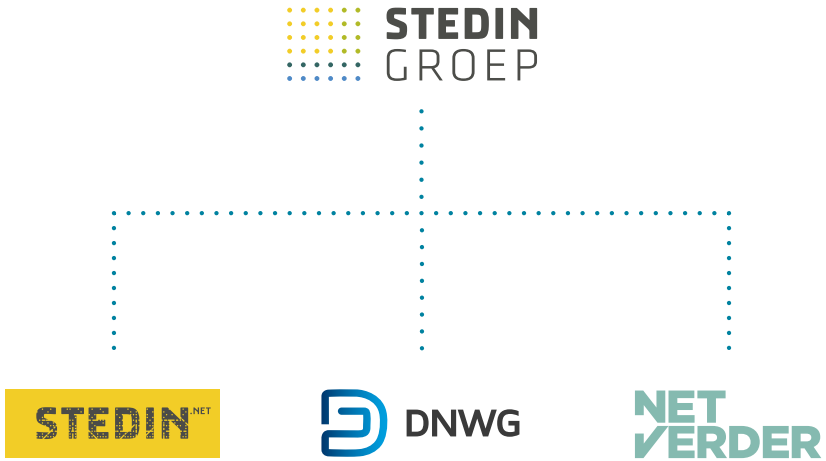
Facilitating the free energy market is part of our societal role as a grid manager and independent partner of energy suppliers. Among other things, this means that our electricity and gas grids should be accessible under identical terms and conditions to all energy suppliers. Consumers are free in their choice of energy supplier. The resulting competition guarantees very competitive energy prices, which benefits consumers.

Grid managers are responsible for administering the energy system. This means that we provide market parties with insight into customers' consumption and export of energy. Customers benefit from the convenience of switching to a different energy supplier, the insight into their energy consumption and from the ease of exporting energy to the grid. Our metering data enable energy suppliers to send correct invoices to their customers.

Non-regulated activities

A non-regulated activity will only be included in our portfolio if it demonstrably contributes towards efficient grid management, if it helps to fill a gap in the market and if Stedin Group is uniquely positioned to perform it. In addition, a minimum financial return requirement applies to investments in non-regulated activities, and any partners in those activities must be sufficiently reliable and ethical and have a good name and creditworthiness.

In 2022, the non-regulated activities accounted for 2.6% of revenue (2021: 3.3%).



NetVerder

By law, regulated activities for gas and electricity may not be carried out under the same banner as other energy infrastructures (such as steam, biogas, CO_2 and heat). This is why we transferred these activities to an independent brand within Stedin Group, NetVerder. NetVerder promotes the energy transition by supporting the development, construction and maintenance of 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 10 staff members, including 8 internal staff members (male: 8; female: 0) and 2 external staff members (male: 2; female: 0).

DNWG Infra

DNWG Infra (operating under the name DNWG) is the service provider that constructs and maintains the electricity and gas grids in the province of Zeeland. In addition, DNWG maintains and manages the grids entrusted to it, such as the grids of Evides Waterbedrijf and industrial customers. The commercial metering service TUMS was sold to Censo on 10 February 2022. Effective 1 January 2022, they are the new owner of TUMS. DNWG Infra has 324 staff members, comprising of 287 internal staff members (male: 240; female: 47) and 37 external staff members (male: 28; female: 9).

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. The company operates its own wireless telecommunications network, which is used to read metering readings 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

Effective 1 January 2022, TensZ and TesIaN merged into a single organisation named 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)

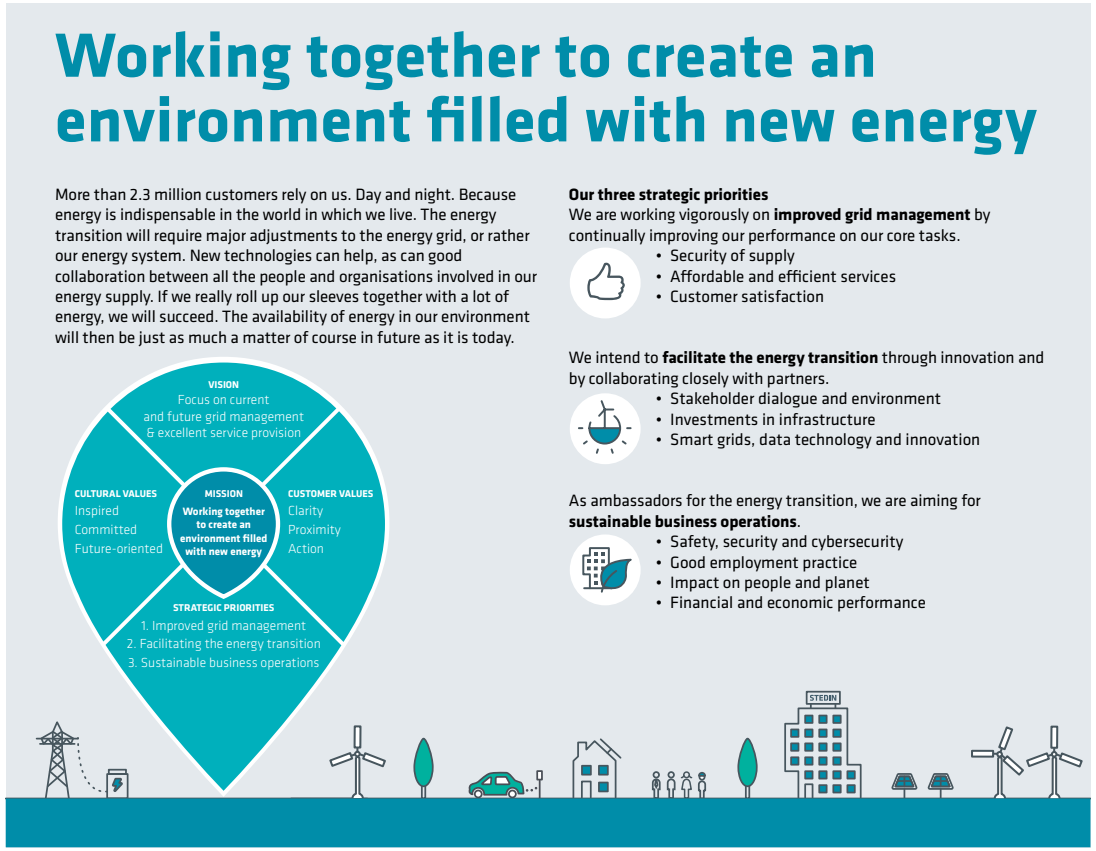
Stichting Zeeuwse Publieke Belangen is an alliance between the province of Zeeland, the municipalities of Zeeland and Stedin Group. Established in 2017, the purpose of the foundation is to safeguard the arrangements concerning the sale of DNWG to Stedin Group in areas including employment, energy supply 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.

STRATEGY

As a grid manager of gas and electricity grids, we are responsible for providing critical infrastructure. With over 5,000 colleagues, we invest in the energy transition and maintain the quality of our grids in the long term. We work to ensure optimum utilisation of our grid and, by doing so, facilitate economic growth. We are able to do so thanks to our decisive and energetic approach, in conjunction with our stakeholders.

MISSION, VISION AND STRATEGY, 2018-2022

Our current strategy has guided us over the past five years. By the time this annual report is published, the new strategy for the 2023-2027 will have been launched. 'Working together to create an environment filled with new energy': this is and will remain our mission. This annual report is structured around the same key drivers of the strategy for 2018-2022: Improved grid management, Facilitating the energy transition, and Sustainable business operations. Where possible, in this annual report we will also incorporate perspectives under our new strategy.



The 2018-2022 strategy in retrospect

Our position and prospects in 2018 were quite different from what they are today. Stedin had only just split off from Eneco to become an independent player. Since those first days as a 'young' organisation, Stedin has developed enormously. The energy transition was - and still is - a major driver of that development. We have had to reinvent ourselves as an organisation. In our strategy we chose to focus on our core tasks surrounding grid management and phasing out our commercial activities. For example, we sold Joulz in 2019. Following the take-over of DNWG, the grid management operations in Zeeland were also integrated into Stedin. In many respects we have been quite successful in achieving our goals.

Improved grid management

With our supply reliability score of 99.9959% we are still among the grid managers with the best grids in the world. We have worked hard to further improve the quality of our services. We connect 95% of our customers within 18 weeks from their application or on the desired date, compared with 58% in 2018. Over the same period, customer convenience improved from 74% to 81%. We also made several important steps in terms of efficiency. Of our savings programme worth €180 million, which runs up to and including 2025, we had already realised €166 million by the end of 2022.

Facilitating the energy transition

In order to facilitate the energy transition, we significantly increased our investment budget. Investments in our grids in 2022 were up 18% compared with 2018. Over the past five years, investments in our energy infrastructure totalled more than €3 billion. In 2022, our service area included three congestion areas. In collaboration with our customers and market parties, we are making every effort to limit congestion levels.

The energy transition is now well under way. In recent years we have seen our workload grow faster and faster due to adjustments to the climate targets. We have been quite successful in confronting this major challenge. For example, the number of charging points for retail consumers within our service area tripled relative to 2018.

We now also have more insight into our grids thanks to the completion of our Stedin Telecom Network with over 1,000 kilometres of new optical fibre connections. Nearly 85% of our customers now have a smart meter. Grid data has become far more easily accessible for our customers, market parties and municipalities. We can see that they use this data to make choices that are subsequently reflected in the Regional Energy Strategies and local plans and vision documents.

Sustainable business operations

As ambassador for the energy transition, we consistently aim for sustainable business operations. Safety has always been, and will always remain, our number one priority, as reflected in average RIF and LTIR scores of 0.86 and 1.3, respectively, over the past five years. With over 5,000 committed and passionate employees, we work day and night to ensure smooth energy supply processes in our service area. Our in-house training school enables us to attract and retain technical talent. Over the past five years, more than 800 employees obtained their senior secondary vocational education diplomas. We also worked hard to stay financially healthy. For example, in 2021 our shareholders contributed €200 million to our equity, and the State set aside a sum of €500 million to strengthen our capital position. Three times in recent years we successfully issued a green bond of €500 million. We allocated the amount raised to investments in the energy transition and in projects to make our vehicle fleet and our offices more sustainable. Our CO_2 emissions fell by 49% compared with 2018. For example, 83% of our fleet of cars is now electric.

In conclusion, we can say that over the past five years we laid the foundations that are necessary to enable economic growth and a successful energy transition, both within our own operations and through our infrastructure. These foundations will help us build the future. More information on this is provided in Recalibration of the 2023-2027 strategy.

RECALIBRATION OF THE 2023-2027 STRATEGY

In 2022, we recalibrated our strategy for the 2023-2027 period. We involved a range of stakeholders in this process, including customers, employees, municipal authorities and of course our shareholders. The focus of our new strategy is on Construction, Optimisation and Management.

Focus on our grids

Giving everyone in our service area access to sustainable energy: that is our social mandate. This is impossible without a properly functioning grid. Our main focus in the years to come, therefore, will be on our grids. Grid capacity is our top priority. We will build grids faster, optimise the way we use them and continue to ensure effective grid management. In this context we have one overriding ambition: 'a congestion-free Stedin area: grid access for all'. Everything we do will contribute to these goals.

The three pillars of our new strategy

Construction: we are laying even more cables and pipes and building additional stations. That is how we can connect all of our clients to our energy grid, including new customers and producers. We do so in two ways: by starting construction earlier and by building faster. We can start earlier for example by purchasing land at an earlier stage. The purchasing of the land we need to build our stations is a time consuming business, and spatial planning processes account for up to 70% of the processing time of investments in our grid. To speed up the process, we are partnering with municipal and provincial authorities, for example, to ensure the infrastructure requirements are incorporated into municipal plans and environmental strategies in a timely manner. We also aim to shorten permitting procedures, for example by improving our applications and submitting them earlier. However, Stedin cannot 'start earlier' without the help of local authorities and the central government. To accelerate the construction process, we need more technical talent. To that end, we will intensify our recruitment efforts and expand our intake in in-house training classes. We will also work more effectively, for example by benefiting from innovations such as modular construction, work process digitalisation and more flexible deployment of fitters. Finally, we will enter into long-term contracts with building contractors and suppliers of commodities and raw materials.

Optimisation: construction alone will not suffice. We will also need to optimise the way we use the grid. How? For example, by continuing our grid digitalisation campaign to obtain full insight into our medium-voltage and transmission grids and identify opportunities to maximise capacity efficiency. By finding smart ways to combine customers' wishes so as to reduce the need for new infrastructure, where possible. By examining possibilities to convert electricity into heat or hydrogen and repurpose our gas grids in this way. And by utilising flexibility as a means to cover the time required for grid reinforcements, and to postpone or prevent such reinforcements.

Management: of course we will also continue 'simply' to manage the quality of our grid, as we want our energy supply to remain safe and reliable. We do this by means of a targeted replacement policy and by reducing the time we need to remedy failures.

In addition, we strive to:

- provide excellent services to our customers;
- provide market parties with the data they need, and when they need them;
- transform our operations so as to become a climate-neutral, circular, (bio)diverse and inclusive organisation;
- utilise our gas infrastructure for the use of sustainable gases and research into the transmission of hydrogen.

To enable all this, we will ensure that a number of key preconditions are met:

- safety for our employees, customers and our environment;
- sufficient funding;
- professional employees, leadership and culture, and ample capacity for change;
- cybersecurity.

The goals and priorities of our new strategy are described in: Focus areas in 2023

Mission: Working together to create an environment filled with new energy.

Vision: enabling the energy transition through the earlier inception, more rapid construction, optimisation and effective management of the grids.

Ambition: A congestion-free Stedin area: grid access for all.

DEVELOPMENTS WITHIN SOCIETY AND THE ENERGY MARKET

Various developments affect Stedin Group. Below, we describe the principal influences that play a part in our strategic choices and business operations.

Geopolitics and the energy transition

The energy transition is currently in full swing. At the same time, the geopolitical situation is placing the affordability and availability of all forms of energy under considerable pressure. The limited availability of natural gas and other raw materials and the high energy prices are eroding the very foundations of our existing energy system. Security of supply, affordability and indeed sustainability are all under pressure. To compensate for the fall in purchasing power, the government established a ceiling for gas and electricity prices.

The limited availability of natural gas also has an accelerating effect on the energy transition. We are currently witnessing an increase in demand for electrification of industrial business processes and heat. For example, in 2022 we saw a factor 4 increase in the number of potentially interested customers for electrification, and a factor 2.5 increase in electrification capacity demand, relative to the same period in 2021. In addition, total capacity of solar panels on the roofs of residential properties in the Stedin area increased by 34% in 2022.

Sufficient grid capacity

The challenge of ensuring sufficient capacity on the electricity grid is growing and becoming more and more visible. Gird capacity influences discussions about financing, heat grids, zoning issues and regional development plans. In 2022, the capacity limits of TenneT's high-voltage grid came into view. The shortage of transmission capacity on that grid also affected heavy-use electricity consumers in Stedin's service area. Pending the outcome of TenneT's congestion management study, new requests from customers in the Port of Rotterdam area, on Goeree-Overflakkee and in the province of Utrecht are placed on a waiting list. Stedin did not announce a new congestion area for its own regional grid in 2022. The new congestion management code creates extra opportunities for grid managers in sections where the grid has reached full capacity to respond flexibly to electricity demand and supply until the grid has been expanded.

In its analysis of the coalition agreement, Netbeheer Nederland emphasised that in order to ensure effective grid capacity management in the years ahead, central government policy on programming and prioritising sustainability improvements will have to be worked out in further detail. It will also remain essential to take account of system and infrastructure costs right at the start of planning for sustainability projects. This applies both to subsidy applications and property development projects.

In order to create more room in the grid, in late December the grid managers, the ACM, public authorities, market parties and the Ministry of Economic Affairs and Climate Policy, led by special coordinator Ben Voorhorst, presented the National Grid Congestion Programme (LAN). The measures proposed to provide the required additional room in the grid include speeding up grid reinforcement, introducing new regulations to stimulate the smart use of the electricity grid and promoting flexibility in energy consumption patterns. These steps, as proposed in the LAN, are not new to Stedin; indeed, we have already incorporated them in our new strategy. While it is great to see that the national approach and our own largely overlap, following up on the actions set out in the LAN remains quite a challenge and we will prepare for that in 2023.

Progress in the energy transition

Large-scale and sustainable generation largely depends on wind and solar farms. On-shore generation of energy remains quite controversial, especially as plans become more concrete. The Regional Energy Strategies (RES), which are important for the planning of large-scale generation by region, strongly favour rooftop solar projects over large solar projects on land. As rooftop solar projects can be carried out without a permit being required, they are rather difficult to predict for Stedin.

The built environment is and will remain a complex playing field, given the diversity of buildings and stakeholders, as well as the often high costs of enhancing sustainability. We are working on a method to calculate the impact of such new plans on our grids. Practically all municipalities now have a Heat Transition Vision (Transitievisie Warmte). Some have now begun to implement them on a local neighbourhood scale, but their number is still quite limited. At the same time the electrification of industry has really taken off, driven in part by high fuel prices. Likewise, various developments in greenhouse horticulture are having an impact on the electricity grid. More and more commercial growers are placing solar panels on the roofs of their greenhouses, are installing electric boilers, have decided to discontinue their cultivation activities or are using their CHPs to feed electricity into the grid. In terms of mobility, the continuing increase in electric transport is very much in evidence. Private car sales are breaking one record after another, but small-scale electric goods transport is also on the rise. While the EU agreed to ban the sale of new petrol and diesel cars effective 2035, the Netherlands actually advanced the deadline to 2030. We are also seeing an increase in the electrification of public and other bus transport. The charging infrastructure is growing rapidly, and in several locations we are successfully utilising smart charging to avoid or postpone grid reinforcements.

Climate ambitions

After the EU had further raised the bar of its climate ambitions in 2021 and the European Commission (EC) had presented its Fit for 55 package of measures, in 2022 several measures were drawn up to reduce dependence on Russian fossil fuels as quickly as possible. For example, through its REPowerEU proposal the EC has raised the energy saving ambitions in the Fit for 55 package from 9% to 13% by 2030, and the sustainable energy generation ambitions from 40% to 45% by 2030.

In 2022, the Dutch government converted part of the EU's Fit for 55 package into a draft national policy for various different sectors. This national policy will be definitively adopted once all discussions about the package have been finalised, also at the European level. In its 2021 coalition agreement, the Dutch government stated its intention to raise the Climate Act CO_2 reduction target for 2030 to at least 55% relative to 1990 and expressed the ambition to focus its policy on an even higher reduction target of 60%. Together with the joint grid managers, we incorporated these ambitions into energy scenarios, which serve as the basis for our investment plan. As the extent of the impact will become clear in the course of 2023, we will also be able to calculate the acceleration required in the expansion of our grid. In its 2022 Climate and Energy Outlook, the Netherlands Environmental Assessment Agency pointed out that the Netherlands is not going to achieve these targets. Based on existing and proposed policies, by 2030 the Netherlands will have achieved a 39% to 50% reduction in CO_2 emissions relative to 1990.

Financing

Grid managers Alliander, Enexis and Stedin, their respective shareholders and the State have held intensive consultations about the financial and other consequences of all the investments required. Together with Alliander and Enexis and in close collaboration with our shareholders, we have drawn up an agreements framework with the State covering further reaching and more detailed agreements with the State. Within the context of this agreements framework, Stedin called for a capital contribution in the amount of €500 million. The Ministry of Economic Affairs and Climate Policy set aside this amount of €500 million in its budget for 2022. 2023 will see further talks on the exact conditions governing financial support between Stedin, the Ministry of Economic Affairs and Climate Policy, the Ministry of Finance and Stedin's shareholders. This financial backing will enable us to finance our investments at socially acceptable costs.

In addition, Stedin and the Shareholders' Committee are in dialogue with the municipal and provincial authorities within Stedin's service area to explore ways for them to contribute as (new) shareholders.

Laws and regulations, and the political context

In 2022 the Rutte IV government launched an ambitious climate and energy agenda and installed a Minister for Climate and Energy Policy. A Climate Fund of €35 billion, the intention to raise the ambitions in the Climate Act

and efforts to double the offshore wind energy generation ambition all help to accelerate the energy transition. The Housing and Construction Agenda is also quite ambitious, with the government intending to build a million homes over the next decade. In addition, the government has designated the municipality of Borssele, situated in Stedin's service area, as the location for two new nuclear power plants to be built. With an accelerated construction project agenda, these two nuclear plants could be completed in 2035.

Crucially, legal support for the ambitious climate and energy agenda is ensured by combining the Electricity Act and the Gas Act into the Energy Act and the Collective Heat Supply Act (Wet Collectieve Warmte, Wcw). The Energy Act is currently scheduled to be presented to the House of Representatives in 2023. The Wcw is likewise expected to be submitted to the House in 2023. The most far-reaching change as regards the Wcw concerns market organisation: the manner in which heating companies are selected and the role of public grid companies in this arrangement. In this context, the Minister for Energy and Climate has ruled that in principle, the heat-related infrastructure in the Netherlands should for the most part be held by public authorities. Many municipalities have included heat grids as a realistic component of their Heat Transition Visions. They are envisaging a future with a highly integrated energy landscape with heat grids being run by public authorities, more or less in line with the management of the electricity and gas grids. Stedin sees these heat grids as an important alternative to heating based on natural gas and also expects increasing convergence of the critical energy infrastructures in the longer term. The central government has asked the regional grid companies to play a major role in the roll-out of these heat grids. In consultation with the Association of Netherlands Municipalities, these companies have pointed out that they can fulfil that role provided that a number of preconditions are met. In the course of 2023, these preconditions will be formulated in further detail in collaboration with the central government. This development has an impact on Stedin Group and may also potentially affect our investment plans.

The decision to adopt standards for new heating plants in 2026 such that only (hybrid) heat pumps are permitted to replace high-efficiency boilers will significantly increase the rate at which existing buildings can be made more sustainable. Combined with additional subsidies for building insulation, the government offers both a collective route towards sustainability via heat grids and an individual route via (hybrid) heat pumps.

The new government is aware that lengthy permitting procedures slow down the realisation of large-scale infrastructure projects. Grid managers - and the energy transition itself - will benefit greatly from efforts to accelerate or shorten existing permitting procedures. This will impact the pace at which we can build the infrastructure required for the energy transition. In its review of the coalition agreement, Netbeheer Nederland has called for seven interventions, one of which is the acceleration of spatial planning processes.

Nitrogen

In November 2022, in its ruling on the 'Porthos' case, the Council of State ruled that the construction exemption may not be applied because it violates European nature conservation law. The construction exemption had removed the requirement to examine how much nitrogen deposition will be caused during demolition or construction work. Now that the exemption may no longer be applied, Stedin will first have to provide data on the expected nitrogen deposition effects of every project that requires a permit under the Environment and Planning Act. This potentially adds another two years to permitting and environmental procedures, causing delays in grid investments and in connections for onshore wind and solar farms. Moreover, electric equipment will have to be used to prevent nitrogen emissions during construction. We expect that this will result in an increase in temporary heavy-use electric charging connections on building sites. The ruling of the Council of State also has consequences for infrastructure projects in the Multi-year Programme for Energy & Climate Infrastructure (MIEK) that are necessary for sustainability improvements in the industrial sector.

In addition to geopolitical developments, society - including Stedin - is having to deal with further challenges, such as shortages of staff and materials. The shortage of staff is felt particularly in operations and IT. At the same time, the number of additional FTEs required will increase considerably in 2023, to nearly 400, compared with 163 in 2022. Global supply chains have been confronted by a series of disruptions, including the closure of ports and factories due to the COVID-19 pandemic, and shortages on the commodity markets due to the war in Ukraine and its ramifications. This has also impacted Stedin and has caused the supply of materials we need to shift from fairly predictable to unpredictable. This prompted us to devote a great deal of time and effort to supply management in 2022. We are doing everything within our power to prevent shortages of professional staff and materials from slowing down the energy transition.

The COVID-19 pandemic has influenced the way we work. Our hybrid approach enables us to respond flexibly to the dynamics of coronavirus and to the tightening and relaxation of nationwide public health measures.

The impact of higher energy prices

The high energy prices have an impact on our customers, employees, processes and finances. Due to the extreme increase in energy prices, low-capacity users in particular may find themselves unable to pay their energy bills. Energy suppliers are legally authorised to terminate a contract with a defaulting customer. If the customer then fails to enter into a new supply contact, the grid manager is legally obliged to disconnect them. However, as disconnection is a drastic step it is subject to a balanced process with special attention for vulnerable consumers. In the course of 2022 we observed that more and more customers with payment issues had difficulty entering into a new contract with an energy supplier. Since late October 2022, a ministerial regulation has been in force under which energy suppliers are required to do more to arrive at a debt settlement agreement with customers so that no request for disconnection needs to be sent to the grid

manager. Since the start of this temporary regulation, the number of supply disconnection notices has halved. Even so, the number of non-contracted connections increased by more than 3,000 (from 51,094 in late 2021 to 54,384 in 2022). As a result, network losses due to non-contracted connections (with Stedin being unable to recover the costs from the consumer) rose slightly compared with 2021 and now account for around 5% of total network losses. In its energy purchasing, Stedin itself was confronted with soaring supply rates. The grid manager has to purchase the network losses; these costs are then factored into the grid rates. In this way, the costs are usually settled with a delay of several years (per regulation period). However, due to the exceptional increase of purchasing prices, the ACM has now given permission for an accelerated rate settlement process. For more details about network losses, see the 'Financial results' section.

Technology

We are seeing that various technologies are maturing and are becoming more viable for consumers and businesses in terms of pricing. Examples include solar panels, electric vehicles, hybrid and other heat pumps and smart devices in the home (domotics). The proper functioning of such technologies increasingly depends on the availability of reliable data. This requires additional investments in our electricity grids and real-time grid management.

The future lies in a smart management enabled grid and an integrated energy system. In this connection, we are of course also looking ahead to upcoming innovations in the area of system integration. The introduction of conversion and storage technologies in the energy system calls for a new approach to the design and management of our energy infrastructure. Moreover, by connecting various energy carriers, infrastructures and parties in the energy value chain we are creating new opportunities for market parties and grid managers alike. One example is the conversion of sustainable electricity generation peaks into gas or heat. System integration provides opportunities for a more efficient utilisation of existing grid capacity and allows us to ensure that all sustainable energy supplied is always used in the right form and with maximum efficiency, in the right location and at the right time.

Natural environment

The Intergovernmental Panel on Climate Change (IPCC) has concluded that even if further global warming remains limited to 1.5 degree Celsius, losses and damage will occur on many different fronts. The World Wildlife Fund's Living Planet Report 2022 has demonstrated, moreover, that nature is under more pressure than ever before. Stedin is aware not only that climate change must be prevented where possible, but that it is crucial to prepare for its effects on our energy infrastructure. We are specifically incorporating this in policies for enhancing the sustainability and promoting the biodiversity of and around our infrastructure, for instance. Measures to improve biodiversity have been shown to also help solve technical challenges. For example, the construction of green roofs helps us to prevent excessive heat in our stations.

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 section.

Strength

- Central position in energy landscape
- Stedin is regarded as an indispensable discussion partner
- High supply reliability
- Committed and inspired employees
- Attractive employer
- Extensive knowledge of and expertise in the energy system

Weakness

- Available connection and transmission capacity is limited
- Insufficient funding for requested investments
- IT/OT landscape insufficiently prepared for the future
- Data quality and availability
- Obsolete assets
- Planning of gas investments
- Focus on conduct and cultural value

SWOTANALYSIS

Opportunities

- Increase predictability of investments through improved prediction of customer demand
- Perform comprehensive assessment for allocating investments between electricity, gas or future energy sources
- Establish even more strategic supplier relationships
- Rate structure and contract form of the future
- Develop and deploy disruptive technologies and utilisation of new energy carriers
- Enable future-proof grid management by means of data-driven forecasts and decision-making
- Become more effective and efficient by working in a multidisciplinary manner

Threats

- Very uncertain customer demand due to the energy crisis
- Shortage of technical staff in the labour market
- Shortage of materials, uncertainty in the supply chain
- Cyberattack causing damage to company and business operations
- Uncertainty about implications of changes in the Dutch and/or European regulatory environment (E&G) and policy goals
- Congestion in outdoor space and underground
- Failure to obtain building permits on time due to measures to reduce nitrogen emissions

STAKEHOLDERS AND MATERIALITY

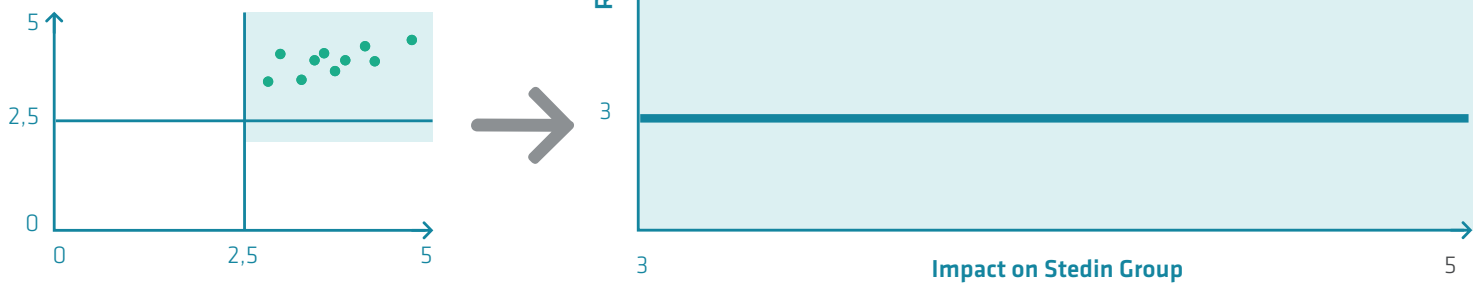
The challenges associated with the energy transition are not restricted to Stedin Group. As our stakeholders face similar issues, it is important to maintain good contact with them, so as to share ideas and reach solutions together.

In this light, we ask our stakeholders each year to provide input on Stedin Group's material topics: the topics that are essential for achieving our mission and strategy and are directly related to our control framework and risk management. Our materiality matrix shows how important these topics are to us and to our stakeholders. The priority levels assigned to those material topics by the Board of Management and the Supervisory Board shows that the greatest shift can be observed in topic 6, Smart grids, data technology and innovation. While security of supply, affordable and efficient services and customer satisfaction are all extremely important topics for Stedin, it is clear that for maximum performance on those topics we need to prioritise Smart grids.

For more details on how we determine the materiality matrix, see the section titled Supplementary information. The Connectivity Table presents the connection between the material topics, our strategy, risks, KPIs and the Sustainable Development Goals to which we contribute. The section Interaction with our environment focuses on our stakeholders.

Materiality matrix

1. Security of supply
2. Affordable and efficient services
3. Customer satisfaction
4. Stakeholder dialogue and environment
5. Investments in infrastructure
6. Smart grids, data technology and innovation
7. Safety, security and cybersecurity
8. Good employment practice
9. Impact on people and planet
10. Financial and economic performance



PROGRESS OF THE ENERGY TRANSITION **IN THE STEDIN AREA**

As a crucial link in the energy transition chain, Stedin works around the clock to maintain the energy infrastructure and prepare it for the energy transition. To that end, our grid requires substantial reinforcement and expansion, among other things. The challenge is huge and our success in tackling it depends in part on factors beyond our immediate control. Our investments have increased by 144% since 2017 and this growth shows no sign of levelling off in the years ahead. We are eager to make our progress and concrete results visible to our stakeholders. The infographic 'Progress of the energy transition in the Stedin area' sheds light on the extent to which we are successful in facilitating the energy transition and are on course towards our ambitious climate targets. In this process we are a learning organisation, dealing with changing circumstances and a multitude of internal and external interdependencies. Hence, we will constantly improve and update this infographic accordingly.

PROGRESS OF ENERGY TRANSITION **IN STEDIN AREA THROUGH TO 2030**

PARIS CLIMATE AGREEMENT GOALS

1.5-2.0°C

CLIMATE AMBITIONS

2030 COMPARED WITH 1990 CO_2

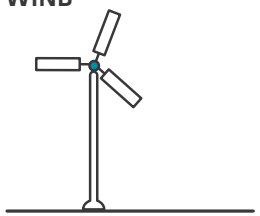
-55% TO -60%

2050 CO_2

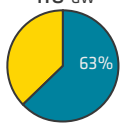
CLIMATE NEUTRAL

GENERATION

WIND



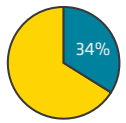
1.6 GW



NL total 9.1 GW

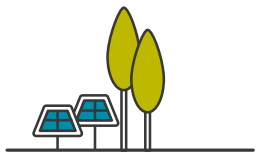
ROOFTOP SOLAR

7 GW

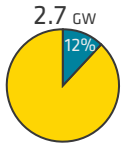


NL total 40 GW

SOLAR PARKS



2.7 GW



NL total 20 GW

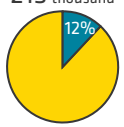
Stedin area, expected challenge through to 2030

Stedin cumulative realisation through to 2022* in %

BUILT ENVIRONMENT

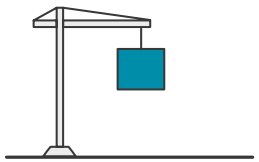
HOUSES DISCONNECTED FROM THE GAS GRID

215 thousand

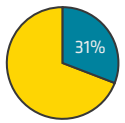


NL total 895 thousand

CONNECTED GAS-FREE NEW-BUILD HOMES

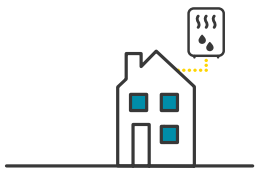


320 thousand

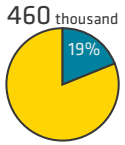


NL total 1.03 million

HOUSEHOLDS WITH ALL ELECTRIC OR HYBRID HEAT PUMP**



460 thousand



NL total 1.7 million

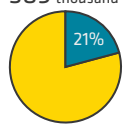
Stedin area, expected challenge through to 2030

Stedin cumulative realisation through to 2022* in %

MOBILITY**

ELECTRIC CARS

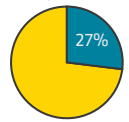
589 thousand



NL total 2.3 million

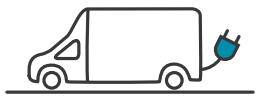
ELECTRIC PUBLIC TRANSPORT BUSES

1,350

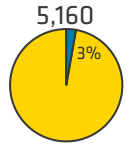


NL total 4,700

ELECTRIC TRUCKS



5,160



NL total 24,000

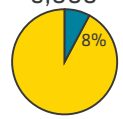
Stedin area, expected challenge through to 2030

% current number of electric vehicles in Stedin area

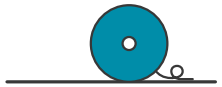
STEDIN INVESTMENTS FROM 2022 TO 2030

TRANSFORMER KIOSKS

6,000

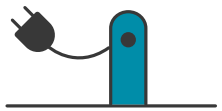


KM OF CABLES

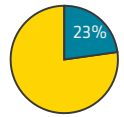


12,000

CHARGING INFRASTRUCTURE

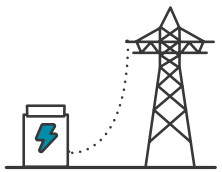


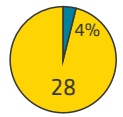
155 thousand



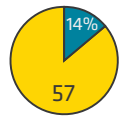
NL total 545 thousand

TRANSMISSION STATIONS > 25KV





New



Extensions

Stedin area

Stedin realisation in 2022 in %

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 year-end of 2022. The financial translation of these figures will be made in 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.

* This % shows the progress in our service area towards the realisation of the climate goals for 2030 (based on -55%). The climate goals for 2050 are more ambitious. Our long-term investment plans focus on our grids from now through to 2050. These show that we still have a lot to do to achieve the 2050 goals.

**Stedin facilitates the energy infrastructure required for this sustainable installation or form of mobility.

IN CONVERSATION WITH BERNARD TER HAAR AND KOEN BOGERS

The Netherlands aims to be 100% climate neutral by 2050. To achieve that goal, the country needs a new energy system that covers the entire process, from generation, transmission and consumption to energy storage. What is our plan? Koen Bogers, CEO of Stedin, discusses this topic with Bernard ter Haar, whose roles include that of chair of the 2050 Energy System Expert Team.

Looking back at 2022, Bernard describes it as the 'year of energy'. 'We worked hard on agreements between the central government and grid managers in view of the financing challenge ahead. We also talked to a lot of people about the energy system for 2050. Our provisional conclusion is that if we want to be climate neutral in that year, electricity will already have to be 100% sustainable by 2035. The entire energy system must be climate neutral by 2040, driven by electricity as the key engine of this transition and by far the most important energy carrier. But the system will still include hydrogen as an energy carrier by that time.'

Key engine

'Electricity as the key engine' - this, says Bernard, is the basis for our future energy system. But how realistic is 2035 as the target for completing the electrification project?

> “ It certainly calls for a significant acceleration of existing efforts. To be honest, I don't expect us to be able to eliminate natural gas altogether within 12 years. ”

Koen: 'It certainly calls for a significant acceleration of existing efforts. To be honest, I don't expect us to be able to eliminate natural gas altogether within 12 years. Within the sector, the general idea is that 2050 is the year in which electrification will be completed. But to achieve the acceleration required, we need more of everything: more

resources, more people, more materials and more space. And more awareness about its necessity.'

Support base

After all, support and awareness in society are crucial to achieve our goals. Bernard: 'In our analyses we have identified three technical challenges compared with no fewer than seven social ones. Apart from concern about whether things will be ready in time, our major concern perhaps is how to maintain the required level of commitment over time.' We are also dealing with a chicken and egg situation, says Koen, because nobody can predict the future: 'Why should I opt for the heat grid as my source of energy if I'm not sure if this is the best choice for the future? Or why a heat pump? As long as there is no certainty, we tend to wait until the other moves and this results in delay.' This, says Bernard, is exactly why we need to keep presenting the ultimate goal in very clear terms: 'We want to achieve a cleaner world with less noise, less particulate matter and, eventually, more affordable energy.'

A fair transition

To really get people on board, a certain amount of pressure may be necessary, says Bernard. 'Think of financial incentives to encourage people to use their washing machines when the sun is shining, rather than at night. We also attach great value to fairness, so that schemes do not only benefit the rich. We don't want the energy transition to widen the gap between rich and poor.' We need smart solutions. 'One focus area, for example, is the housing association sector. This calls for an investment that benefits the residents, not the associations themselves. We should find ways of making that attractive.

Mutual advice

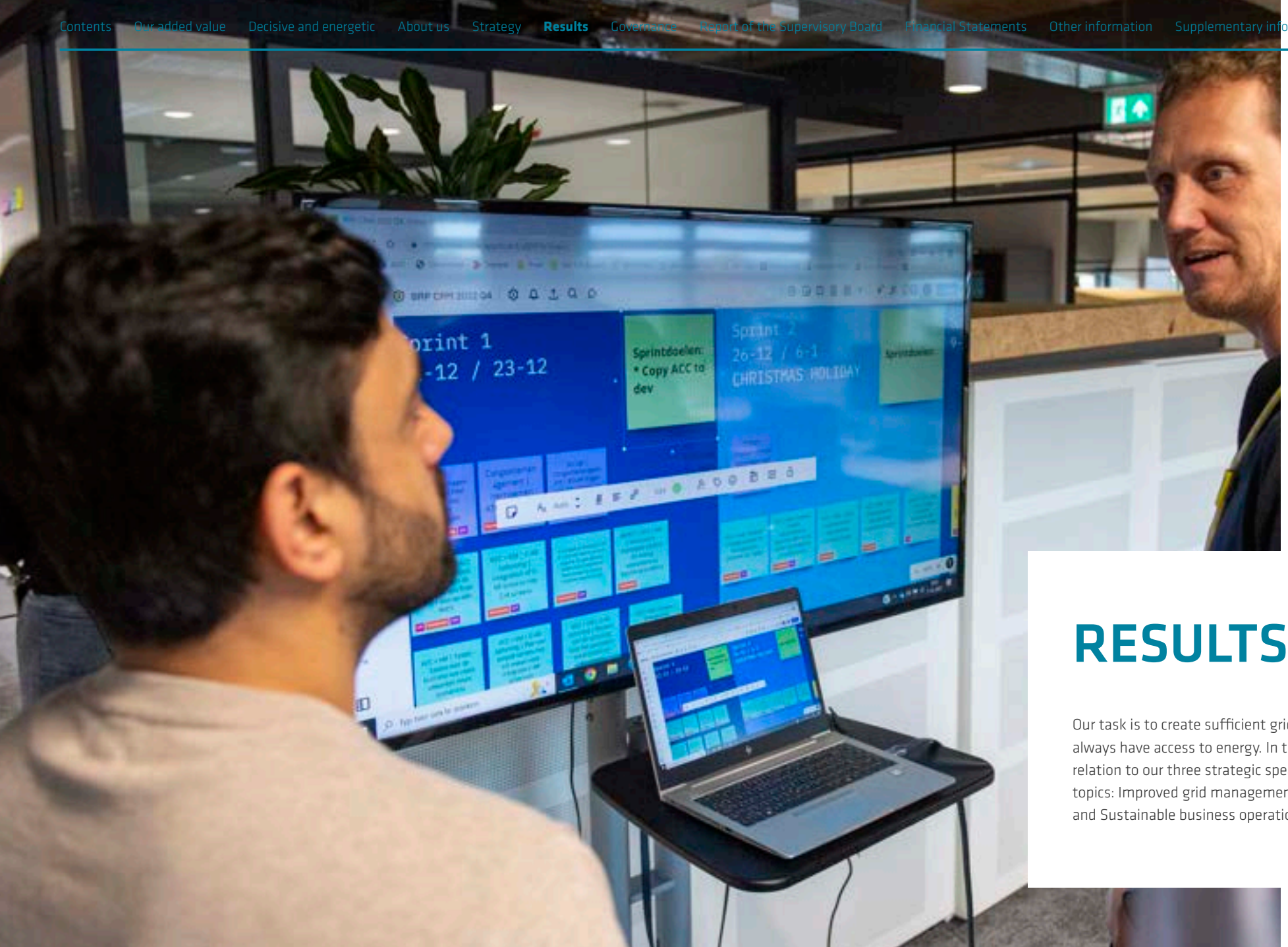
What advice do they give each other for 2023? Bernard's advice to Koen: 'Electrify as soon as possible. And be 100% transparent about what resources you need and how you spend them. The sooner the grid manager is able to move, the more this will help the energy transition.' Koen calls for a comprehensive approach: 'We need an approach that transcends the terms of office of individual governments. The energy transition is so urgent and its scope is so enormous that the entire system will have to be overhauled. An Energy Commissioner might help in this regard, analogous to our Delta Programme Commissioner for the National Delta Programme 2050. Such a long-term perspective will provide peace and focus.' Koen also believes it is important to remember the 'molecules'. In other words: gas. 'It is logical to firmly prioritise electrification and that is exactly what we are doing, but we should bear in mind that natural gas will remain important, with an increasing share for green gas. Phasing out all natural gas by 2030 or even later may prove too much of a challenge, so we may also have to scale up green hydrogen.'

> "You don't want to build an 8-lane motorway and then find out that it wasn't necessary."

Old shoes

According to Koen, it makes no sense to build everything while we aren't even sure yet what exactly we will need in the new situation. 'In our role as grid manager we are sometimes criticised for moving too late or too slowly. But we have a good reason for that: you don't want to build an 8-lane motorway and then find out that it wasn't necessary. We do however want to connect everybody to the grid within a reasonable period and prevent congestion on the grid or at least deal with it flexibly. For that we need to make big steps forward and speed up grid expansion projects. We are already working much faster than previously, but hearing Bernard talk about 2035 I realise we need to go even faster.' Could innovation help in this process? 'I'm inclined to say "yes, but only to a limited extent". It will take time to develop new technologies. We don't have that time at the moment, so for now we'll have to rely on existing technologies and scale them up.' Bernard points out that scaling up will automatically generate innovations. 'For example, consider the development of wind turbines in recent years. We're only at the beginning of the transition. There is a lot more that is going to happen.'

Bernard ter Haar: among others chair of the 2050 Energy System Expert Team 2050
Koen Bogers: CEO of Stedin



RESULTS

Our task is to create sufficient grid capacity, so that our customers always have access to energy. In this section, we describe the results in relation to our three strategic spearheads and the underlying material topics: Improved grid management, Facilitating the energy transition and Sustainable business operations.

IMPROVED GRID MANAGEMENT

Reliable and affordable service provision for our customers, where we resolve interruptions adequately and as quickly as possible: this is the objective of Improved grid management. High customer convenience and a positive customer experience are central to this.

KPIs	Note	Unit	Results for 2021	Target for 2022	Results for 2022	Target for 2023
Supply security						
SAIDI E	Average time in minutes during which the customer was not supplied with electricity.	minutes	19	< 17	22	< 25
Affordable and efficient services						
Efficiency (on controllable opex and capex)	Efficiency achieved on directly controllable operational expenses and investments	x € 1 million	22	14	12	-*
Customer satisfaction						
Customer convenience	The convenience experienced by customers in doing business with Stedin Group.	%	75	≥ 82	81	-**
Lead time for connections for low-use consumers	Completion of connections for low-use consumers within 18 weeks or on date preferred by customer.	%	90	≥ 95	95	≥ 91

* Our 5-year efficiency program was completed at the end of 2022. The savings programme was reviewed, and a new target for 2023 was set on this basis.
** The target for customer convenience will be replaced by three KPIs in 2023: Customer convenience on meters and connections, commercial customers and meter cupboard and grid failures.

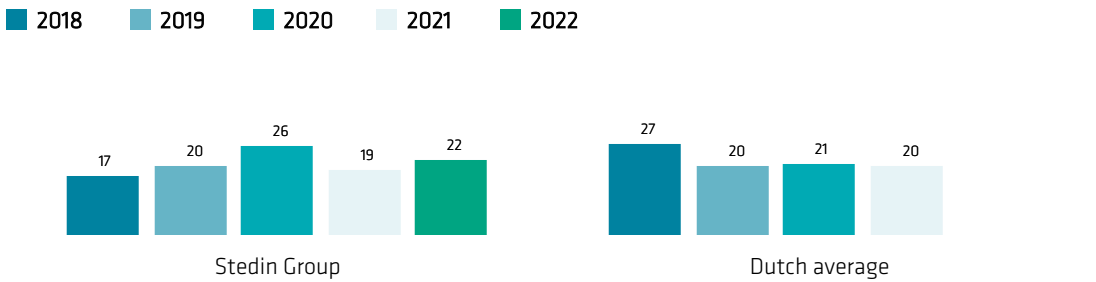
Supply security

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.

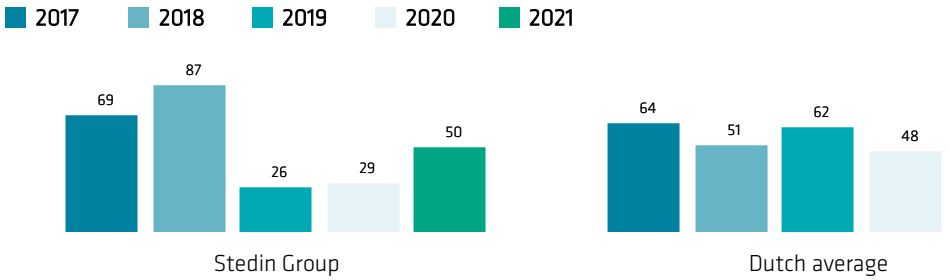
On average, customers were not supplied with electricity for 22 minutes in 2022 (2021: 19 minutes). This was well above the target of not more than 17 minutes. Two large failures in Spijkenisse and Schiedam together accounted for almost 4 minutes. But even without these two failures, the electricity downtime would have been above the target at just over 20 minutes. Although we were able to deal with failures more quickly in 2022, the effect of this was offset by these two large failures. We also had to deal with a small number of complex failures in our electricity grid, meaning that resolving these failures actually took longer. For gas, the downtime in 2022 was 50 seconds (2021: 26 seconds).

The average downtime for electricity and gas in the Netherlands will be made known after the date of publication of this annual report.

Annual downtime for electricity (in minutes)

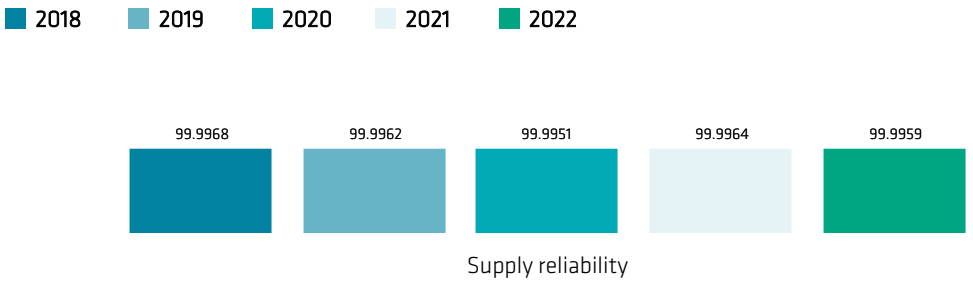


Annual downtime for gas (in seconds)



Supply reliability (in per cent)

Partly as a result of these two large failures, our supply reliability was slightly lower than in 2021.



Outage with significant impact: Spijkenisse

A fire in a distribution station in Spijkenisse in January 2022 affected 16,793 houses and businesses. The fire started under the switchgear, which is a rare occurrence. As there was no safety feature at this location to automatically switch off the electricity if something went wrong, the fire could have caused severe damage. We devoted all our efforts to remedying the situation with two emergency containers and eight emergency power generators. The investigation into this failure led to a tightening of the automatic safety systems at our 150 large distribution stations.

During the repair process, we were able to rely on the help and support of the security region, the municipality and the local residents. The security region coordinated the disaster response process and the municipality opened the town hall to shelter the residents and set up an emergency number. This was a unique disaster that rarely occurs on this scale. We will strive to prevent this happening again in future. We have separately informed the municipal council of Nissewaard regarding this matter.

Causes of downtime for electricity

Due to a different categorisation of the causes of failures, it may look as though there was an increase in the number of latent failures in 2022 (2021: 1.5%). This type of failure was previously included in the 'Other' category. There were only minor changes in the other categories.

Latent failure: smart circuit breaker

Much attention was devoted to reducing repeat failures in 2022. Repeat failures are failures that cause the same cable to be disabled every time, and the same customers are affected. It is sometimes difficult to identify the cause of these failures. One solution we are now applying is what is known as a smart circuit breaker. During a short circuit, this circuit breaker generates a fault location, showing the fitter the distance to the fault and where repairs are needed. A further advantage is that a smart circuit breaker can reactivate automatically after a short circuit without the intervention of a fitter. This means that the customer experiences hardly any disruption.

Causes of downtime for gas

For gas, there were only minor changes in the causes of downtime compared with 2021.

Ageing grids

The average age of the Stedin grid is increasing, and that is and remains a key point of attention. We seek to use the materials in our electricity and gas grids for as long as possible and only replace what is absolutely necessary, in order to keep the societal costs for the energy supply to a minimum. It goes without saying that we closely monitor safety and reliability at all times. Our use of data and predictions of failure curves enable us to make progressively better choices and take timely measures. Targeted interventions are needed to maintain the quality and safety of our grid in the long term. This means we must invest not only in the energy transition, but also in the quality of our existing grids with a view to the long term.

Accelerated replacement of brittle pipelines

We intend to replace all our brittle gas pipelines (grey cast iron and asbestos cement) to ensure the safety of our gas grid by 2028. We replaced 200 km of brittle pipelines in 2022 (2021: 193 km), whereas we had planned to replace 212 km. The planned numbers were not fully achieved because an increasing number of projects are located in complex areas, such as the inner city districts of The Hague and Rotterdam. For these areas, we believe it is important to agree our schedules with stakeholders such as the municipality, hospitality businesses and retailers. According to schedule, the 1,046 km of the remaining brittle pipelines will be replaced by 2028. Approximately 65% of brittle pipelines have already been replaced (2021: 60%). We check all our grey cast iron and asbestos cement gas pipelines for potential leaks every year.

Gas replacement at Zoutmanstraat, The Hague

A large gas project in the neighbourhood of de Zoutmanstraat in The Hague, in which Stedin worked closely with the water supply company Dunea, was carried out in 2022. This involved the replacement of nearly three kilometres of gas pipelines. The planning for this kind of project is complicated, due to the underground congestion in the centre of The Hague. The planning of the works by Stedin and Dunea was coordinated with the municipality of The Hague throughout the project, as there were also substantial civil works ongoing in the same area due to a diversion of tram line 16. Thanks to this coordination of planning and the joint resolution of issues, the streets did not have to be closed off for two separate periods.

Excavation activities

The number of activities below ground also increased again in 2022, by 10% compared with 2021. This increase in the number of excavation activities led to a 5% increase in excavation damage. The direct repair costs for this in our service area are around €4 to €5 million a year. These costs can largely be recovered from the party causing the excavation damage. The figures show that the measures we are taking to reduce the risk of excavation damage are having an effect. These measures include covenants with telecommunications companies and contractors for the safe construction of new networks, collaboration with municipalities and other grid managers, the application of robotics and monitoring damage performance by our contractors.

Smart, risk-based maintenance

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:

- In 2022 and 2023, we are installing 400 sensors at transformers. These sensors make it possible to continuously monitor the mechanical wear and tear of the control switch. This means that we can plan maintenance on the basis of the actual condition. We can also take action quickly if the switch is not functioning normally.
- We are accelerating the roll-out of sensors for the protection of high-pressure gas pipelines. We use these sensors to measure the cathodic protection online. With continuous monitoring, we identify damage and therefore the risk of leakages at an early stage.
- We also worked on underground self-contained fluid filled cables (SCFF) cables in 2022. Currently, we use analogue manometers to monitor oil leakages. This involves around 80 connections, of 800 km in total. These meters cannot detect latent leakages in time. With the advent of digital pressure sensors with wireless communication options, it has become possible to continually monitor oil pressure and detect these leakages in time. This prevents environmental pollution.
- We are running a pilot project in the gas stations to collect the information from valve positions and inlet and outlet pressure. Besides the possibility of determining energy supply, this also indicates where the protective devices may be failing. This means we can undertake timely and more targeted maintenance before a failure occurs. We developed this further this year, in an Advanced Analytics model.

Substantial investment is also necessary to maintain our assets at the appropriate level. Further details on this are given in the 'Financial and economic performance' section.

Affordable and efficient services

In our view, it is important that the energy transition is achieved at the lowest possible public cost. This means that we are also continuously exploring how we can work more efficiently. Multidisciplinary working is a good example of this.

Efficiency

In 2018 we launched a five-year efficiency programme in order to reduce our costs on a permanent basis. The initial target was to achieve a permanent cost reduction of €150 million per year. In 2020, we raised the cost reduction target to €180 million, to be achieved in 2025. From 2018 to year-end 2022, we achieved cumulative costs savings totalling €166 million. We ended the programme in late 2022. The efficiency measures that were ongoing or were yet to take effect as per year-end 2022 have been incorporated into a new programme. In that programme, we will recalibrate existing measures, add further measures and tighten our policy objectives.

Total cost savings	2018	2019	2020	2021	2022
Cumulative cost savings in millions of euros	40	62	109	143	166

We realised a large part of the efficiency improvement through the results on four strategic initiatives. Part of the savings also came from lower costs of funding. The integration of DNWG with Stedin Group also improved our efficiency. While we are working more and more efficiently, the volume of our work is increasing. As a result, our absolute operating costs (excluding transmission costs, costs for network losses, and municipal sufferance taxes, which were abolished with effect from 2022) rose by €38 million compared with 2021 to €508 million. In addition, investments in business assets increased by €25 million to €712 million.

Examples of working efficiently

Modular stations: Constructing standardised, modular stations shortens the design process, makes their realisation more straightforward and results in fewer errors and construction defects. Two modular stations have now been constructed in Vinkeveen and Houten Oost. We are currently designing modular stations for the entire Stedin area, including for the new stations in Zoetermeer, Tholen, Delft, Zuidplaspolder, Heliotroopring, Driebergen and Oudenrijn. This is leading to continuous improvement of the concept. The lead time for the design and realisation of these stations yet to be constructed can thus be reduced by one year, depending of course on our obtaining the necessary permits.

Compact connection module in public areas: We have developed a compact connection module in a national cooperation with all grid managers. This uniform connection module allows us to connect objects in public areas, such as charging points, parking ticket machines and advertising panels, faster and more easily. As many technical features are already set in place in the factory ready for use, connections can be created more safely, cheaply and quickly. The installation work itself is simple thanks to a click system, which means an improvement in working conditions. Installation time has been reduced from 31 minutes to 8. This saves both time and money, and allows us to make better use of our scarce technical personnel. Four test models were taken into operation last year, and we will begin use of the new modules in January 2023.

Multidisciplinary working - efficiency and customer satisfaction go hand in hand

Multidisciplinary working entails cooperation with other parties in our service area, such as the drinking water companies. Multidisciplinary working means that the ground only has to be dug up once, the front door only has to be opened once and customer contact is unambiguous. This enables us to carry out our works more efficiently, make savings and ensure that jobs are feasible. We can also make optimal use of our scarce personnel and improve satisfaction for customers and the environment by reducing disruption for local residents.

We work in a multidisciplinary manner throughout the Stedin area. The form this takes varies depending on the region concerned.

Multidisciplinary working in Zeeland

In Zeeland, we already have 15 years of experience with multidisciplinary working. In this region, DNWG Infra cooperates on an equivalent way with the water company Evides in a Multidisciplinary Organisation Initiative (Regie Organisatie Multidisciplinair, ROM), thus with no duplication of work. This means that in Zeeland, DNWG Infra not only carries out all works below ground for water, electricity and gas, it also is responsible for the project organisation. One project manager, one application, one invoice, one supervisor and usually one of just a few project coordinators representing all the disciplines. Under the Energy Act, fully deduplicated work such as we carry out in Zeeland is only possible by means of a 'Non-Regulated Activities BV' (Niet Gereguleerde Activiteiten BV), as DNWG Infra is within the Stedin Group non-regulated activities.

Multidisciplinary project in Vlissingen

The 'Kop van Dok' high-rise project is a new-build project in Vlissingen consisting of 185 apartments in three towers. DNWG Infra has laid the electricity, water and data connections here. This meant that all disciplines involved were able to do their work in quick succession once the ditches for this project had been dug, so they did not have to be reopened again. Excavation costs in Zeeland are thus lower, the chance of excavation damage is three times less and the costs for traffic measures are also lower. Because the ground only had to be opened once rather than three times, there was less disruption to the neighbourhood as a result of the works.

Multidisciplinary working in Zuid-Holland and Utrecht

Because of the complications involved in applying the non-regulated activity approach in Zeeland to the rest of Stedin's service area, we have chosen another form of cooperation: we carry out work below ground together, while keeping the roles in the project organisation separate. We do this through cooperative agreements with the water companies Dunea, Oasen, Vitens and Evides (in Rijnmond). The combined works below ground are carried out by contractors by means of joint tenders. A number of contracts with contractors were replaced in 2022, involving further work on the forms of cooperation: joint programming of installation and replacement work, designing the joint operational organisation and making preparations for a joint framework agreement with contractors.

This approach has led to savings totalling more than €1.2 million on the projects completed in 2022. We expect our financial savings since 2017 to increase to €11 million a year.

Tenders

Stedin initiated 37 European tenders in 2022, and completed 13. The total contract value of these tenders was €2.8 billion. Around 40% of these tenders involved cooperation with contractors for multidisciplinary work. This concerns, for example, the contracts with our contractors that were jointly tendered again this year together with the water supply companies Oasen, Dunea, Evides and Vitens. The contracts were mainly awarded based on the performance of the contractors on reducing CO_2 emissions and fostering biodiversity.

Stedin initiated 39 multiple negotiated contracts and completed 57 in 2022. The combined contract value of all these joint tenders is €60 million.

Cooperation with municipalities in covenants

Together with the water companies, we approached an increasing number of municipalities regarding the conclusion of covenants in 2022. In these covenants, we coordinate our plannable work below ground so that we carry out as much of the work as possible at the same time and deduplicate tasks as far as possible. We sealed a covenant with the municipality of Delft and Evides in 2022. Covenants are also being prepared with the municipalities of Dordrecht, together with the water company Evides and the district heating company HVC, and in The Hague with water company Dunea. There are also two exploratory consultations ongoing, firstly with the municipality of Zoetermeer and Dunea, and secondly with a consortium municipalities of Barendrecht, Albrandswaard, Ridderkerk and Hoekse Waard, Evides and the Hollandse Delta Water Authority.

In the municipality of Rotterdam, we have carried out 27 projects under the covenant (of the total of 40 projects we had there in 2022). This included the realisation of 18 kilometres (of a total of 31) of a route with Evides and the municipality of Rotterdam. This mainly involved the replacement of brittle pipelines. For these 18 kilometres, this led to cost savings of more than €0.3 million.

We have coordinated our first joint portfolio in the cooperation with the municipality of Dordrecht. This coordination means, for instance, that we will not have to carry out a project twice on the same route within the foreseeable future. This will mean savings of over €1.2 million for Stedin on these 'avoided' projects. We are also consulting with district heating companies such as Eneco Warmte and HVC to better coordinate the works portfolio with them. This is an important cooperation, given the heating transition and the impact of this on both our gas and electricity grids.

Stedin's grid management rates

We are keeping our rates for consumers as low as possible with all these initiatives aimed at efficient operation. The rates for grid management are determined based on the costs incurred by the grid managers. The Netherlands Authority for Consumers & Markets (ACM) established proposals for grid management rates on 28 November 2022. A household with a gas and electricity connection with Stedin will pay a transmission rate of €583.22 in 2023. This is an increase of around €12 per month. Most of this increase is due to higher energy prices. We are aware that this is a significant increase, especially in combination with high energy prices. We strive to keep our rates as low as possible. The rates for grid managers are legally regulated. The supervisory authority the ACM determines how much each grid manager may charge consumers and businesses for its services. These costs are part of the energy bill.

Customer satisfaction

We want our customers to have a positive experience of Stedin. We are thus making it even easier to do business with us.

Customer convenience with Stedin

We ask our customers to give us feedback on our services immediately after completion of our works. We quantify a customer's experience of convenience with a percentage (a Customer Convenience Score). The percentage shows the proportion of customers that experience high or very high convenience. For 2022, we are reporting on customer convenience and inconvenience for Stedin (excluding Zeeland) and for Zeeland separately. All targets were achieved in 2022.

Customer convenience / inconvenience in %

	2021	Target 2022	Result 2022
Stedin excl. Zeeland			
Overall	75 / 14	≥ 75 / ≤ 14	81 / 9
Connections	58 / 28	≥ 64 / ≤ 25	73 / 14
Smart meters	85 / 6	≥ 82 / ≤ 7	86 / 6
Meter cupboard problems	82 / 9	≥ 80 / ≤ 10	85 / 7
Stedin in Zeeland			
Overall	80 / 9	≥ 75 / ≤ 14	81 / 10
Connections	66 / 13	≥ 64 / ≤ 25	71 / 17
Smart meters	91 / 2	≥ 82 / ≤ 7	88 / 4
Meter cupboard problems	84 / 8	≥ 80 / ≤ 10	84 / 9

Stedin customer convenience excl. Zeeland

The Customer Convenience Score rose to 81% in 2022, an increase of 6%. Customer inconvenience declined by 5%. The improved scores are mainly due to improvements in our service relating to connections. For example, the ease with which customers can now request a quotation and also schedule appointments improved in 2022. As in the previous year, our customers were positive about the way in which we install smart meters. And according to the scores, we were better at resolving problems in meter cupboards than in the previous year. Friendliness and expertise are terms that frequently crop up in customer feedback. Customers are very positive in particular about the speed with which our fitters fix problems (90%). The contact with the Central Outage Desk also contributes significantly to a higher convenience (86%).

Stedin customer convenience in Zeeland

In 2022, Zeeland scored well on customer convenience, with scores of 81% for convenience and 10% for inconvenience that were well above the target. The work performed by fitters also had a positive impact on the customer convenience experience in Zeeland as well. With regard to the installation, modification or removal of a connection, 71% of customers reported a convenience experience and 17% reported an inconvenience experience. However, we did witness a declining trend in convenience experience in 2022. This was mainly attributable to the large amount of work as a result of the energy transition, which lengthened lead times. We are working on improved customer expectations through better communication on lead times. As a result, this trend is now stable. The performance of the work by fitters is the decisive factor for smart meters, and this is experienced as positive in practically all cases. The customer convenience scores on problems in meter cupboards were also above target over the year as a whole. Here too, most customers mention the fitter as the main reason for a customer inconvenience experience, with professional expertise and a quick resolution of the outage frequently mentioned in the feedback.

Customer convenience in relation to market facilitation

In the annual measurement of the level of satisfaction of market parties in the cooperation with the grid managers, Stedin - like the other large grid managers - scored slightly lower than last year and thus lost a few tenths of a point on the benchmark figure. The smaller grid managers on the other hand saw a small increase in their scores. The differences are disappearing due to the 'single entrance' and processes becoming more uniform and all the parties are becoming more similar. The market assessed Stedin's service provision with a score of 7.1 (compared with 7.3 in 2021) and customer convenience regarding dealing with requests was 59% (compared with 75% in 2021). Despite the good relationship, the main causes for the lower scores were expectations among market parties regarding the integration of Stedin Zeeland that were not fulfilled and backlogs at the service-providing departments.

Customer convenience in relation to electricity outages

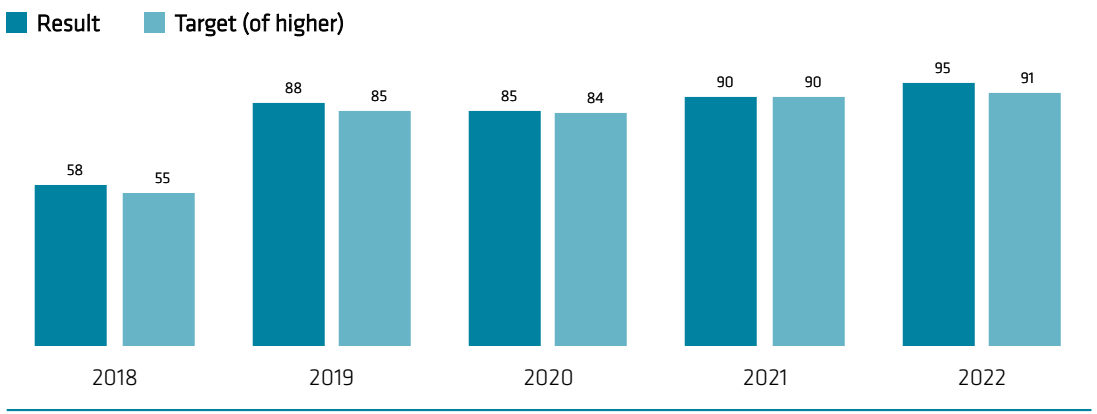
This year, we also focused on optimising our service in relation to outages in the electricity grid. For instance, since April 2022 we have posted the expected end time of an outage in the low voltage grid on our website. We are also working on a text message service. Since mid-2022, customers experiencing an outage in the medium voltage grid have been asked by us to let us know how much inconvenience they experienced. 56% stated that they had experienced little or very little inconvenience, while 27% said the outage had been highly or very

highly inconvenient. The main reasons for inconvenience were damage to equipment, having to reset electrical equipment and having no electricity.

Customer convenience in relation to a planned interruption to electricity supply
We carry out scheduled maintenance works in order to keep our grid in good order. Customers notice this because they sometimes have no electricity during these works. Therefore, in addition to our letters, we have developed an online campaign, which is featured on Facebook, to announce upcoming interruptions to the electricity supply. We also tell our customers why we are carrying out maintenance works and how this will affect them. As a result of this campaign, the number of calls we received about scheduled maintenance works declined by 30%.

Reporting of electricity outages via the website
We already had a functionality on our website that customers can use to report an electricity outage. This has now been expanded so that employees at the Central Outage Desk see these reported outages directly in their own application and can convert a reported outage into an 'actual' outage with one mouse click. This means we can send a fitter to the affected location earlier and also fix the outage sooner. This reduces the downtime. As customers also receive immediate confirmation that the outage has been reported, they are less inclined to contact the Central Outage Desk.

Lead time for low-use connections within 18 weeks (incl. Zeeland)



For 2022, it was our ambition to complete 90% of our connection works within 18 weeks or on the date preferred by the customer. We achieved this ambition, as we managed to do this in 95% of cases in 2022. The improvements made in relocating, installing and removing connections were effective. A few examples of this are given below.

Simplified quotation process
We focused on simplifying our quotation process. Approximately half of all quotations for simple works are now generated automatically. This shortens the processing time for all requests. Steps have also been taken towards automating more complex requests, for example by using photo recognition. More automation enables us to use our human capacity for really complex activities. We are also working towards a situation in which customers pay the costs stated in the quotation while the request for the works is still pending. They can then make an appointment immediately online on a date that suits them. This shortens the lead time for the request by more than 10 days.

Planning appointments online
Customers appreciate the flexibility they have when scheduling their appointment online. The process by which customers can schedule an appointment themselves is regularly evaluated and provided us with a great deal of input as to how we can improve our online scheduling service. This year, we could conclude that our customers were very satisfied with the online scheduling of their appointments, and therefore very few changes were required in 2022. We are very pleased to be able to conclude that this process is working adequately.

IN CONVERSATION WITH STANLEY MAAS AND TRUDY ONLAND

We are facing a huge challenge in the form of the energy transition. We have to build more than in previous years to achieve this. We cannot do it alone. Cooperation with our contractors is essential. Our COO Trudy Onland discusses this with Stanley Maas, CEO of Visser & Smit Hanab (a division of VolkerWessels).

Looking back at 2022, Stanley sees many issues affecting his business operations. 'The transition to sustainable energy sources as a result of the sustainability targets that the Netherlands has set itself. This leads to congestion issues on the existing electricity grid. Whereas utility connections used to be a given, this is now the first thing developers ask about. Are there adequate energy facilities in the region where I plan to build? Visser & Smit Hanab is increasingly involved in the preparatory phase for these developments. We are now really becoming a business partner, instead of a "pipeline supplier". This is affecting our processes.' According to Trudy, the war in Ukraine is causing a huge acceleration in the energy transition. 'I think that in retrospect, the war will be seen as a turning point in the energy transition. Because of the current energy prices, electrification is proceeding much faster than we had expected.'

> " I think that in retrospect, the war will be seen as a turning point in the energy transition. Because of the current energy prices, electrification is proceeding much faster than we had expected. "

Care and retention of employees

Many extra people are needed for the energy transition. How does Visser & Smit Hanab see this challenge? With regard to personnel,

Stanley believes the initial focus has to be on caring for and retaining existing employees.

'We are seeing some of our people getting into financial difficulties as a result of inflation and higher energy prices. We are very aware of this, because it impacts people's performance. We provide assistance where necessary, for example with confidential advisers and budget coaching.' Trudy is pleased to hear that caring for and retaining employees is a top priority at Visser & Smit Hanab. She nods in agreement. 'This is the starting point. It is useful in that respect to know what is attractive to employees and what is not. We hear, for example, that our internal online training is seen as very important. And recently I heard someone considering working at Stedin saying that he thought he would never be able to collect his children from school. We don't want to be that sort of company. Flexibility and a good work-life balance is important to us. Moving with the times and what people need today, that matters.'

The less distance between the shop floor and the management, the better, according to Trudy.

> "If I discuss things with my colleagues, I usually hear the best solutions. Our task in management is to facilitate this."

Trudy: 'I often hear the best solutions when I discuss things with my colleagues. Our task in management is to facilitate this.' In Stanley's experience, it's important not to impose a single culture on your people. 'We used to want to have a single culture, but we have let go of this now. There are differences between Limburg and Zwolle, for instance. We see this individuality as important: the point is that you feel part of your team.' It is notable that Visser & Smit Hanab and Stedin both have successful business schools - essential, apparently, to attract new fitters and broaden training. Stanley: 'We have many young people, the average age is 32 years. Intake is not a problem at the moment.' The same applies to Stedin, agrees Trudy.

Multidisciplinary working

On 19 October 2022, we and Oasen and Dunea signed framework agreements with the contractors Baas, Van Vulpen, Quint & Van Ginkel and Visser Smit & Hanab. Stedin, Dunea and Oasen will cooperate more closely in the installation and replacement of electricity cables and gas and drinking water pipelines. This means less disruption for the environment, as the works will be carried out collectively. How does this cooperation work in practice? According to Trudy and Stanley, people who understand each other usually get on well. 'When things go wrong, it's usually internally. When margins are under pressure, for example, people can be very adamant that they're in the right,' says Stanley. Trudy adds: 'I believe we can work much better if we see each other as partners. But it will take time to grow into this. Undoubtedly we will revert to our old roles occasionally, but we will then re-emerge from that and that will strengthen the new way of working. After all, our relationship has been one of client and contractor for years. The old relationship will not immediately disappear because we have a new contract.' According to Stanley, this is why it is important that the mandate is placed as low as possible in the organisation. 'They will find a way together; everyone will then have a common objective.' The relationship here is very important. 'This is why it is so good that Stedin brings all the parties together for a few days before the project starts. Ultimately we are going to be working together for a long time.'

Shifts in the chain

Activities are shifting in the chain towards the parties carrying out the work. Stanley welcomes this. 'There is tension, but in these times with so much work the most important thing is that we work efficiently. And sometimes we as the contractor can simply work faster. Why not shift the work?' Trudy completely agrees. 'I often say that we have an impossible job, but we're going to do it anyway. This means that we have to preoccupy each other unnecessarily as little as possible.

Stanley Maas: CEO of Visser & Smit Hanab
Trudy Onland: Stedin COO

The energy transition demands that we do not make problems. There are enough challenges already.'

FACILITATING THE ENERGY TRANSITION

The energy transition is one of the biggest challenges that the Netherlands faces. The generation of energy is rapidly becoming more sustainable and electricity use is increasing. This demands significant steps on our part to address the issue energetically. In 2030, there will be three times the amount of sustainable generation capacity in our grid than in 2021. The number of connections for charging infrastructure will increase by a factor of four by 2030, and we also expect there to be at least seven times the number of electric heat pumps. For further details on this, see the infographic 'Progress of energy transition in Stedin area'.

KPIs	Note	Unit	Results for 2021	Target for 2022	Results for 2022	Target for 2023
Stakeholder dialogue and environment						
Stability of customer demand predictions	The extent to which the predicted development of customer demand matches earlier predictions.	%	-	70	72	N/A*
Investments in infrastructure						
Investments in our grids	The amount of euros invested in our grids annually.	x € 1 million	687	719	712	825
Execution of grid-driven scope for electricity and gas	The extent to which the planned work on our electricity and gas grids is carried out.	%	-	E: 100 G: 100	E: 93 G: 96	E: 100 G: 100
New capacity added	The amount of new capacity in megavolt ampere that was added in the grid.	MVA	496	-	437	425
Smart grids, data technology and innovation						
P4 smart meter data provision	The timely and full provision of smart meter data for energy services and market processes.	%	97	≥ 97	97	≥ 97

* This KPI will no longer apply in 2023 due to the new strategy for 2023-2027.

Stakeholder dialogue and environment

As a grid manager, we play a key role in the energy supply chain and hence in the energy transition. That is why dialogue and collaboration with our stakeholders are essential. By talking with customers, we know what customer demands to expect. Those submitting requests are more likely to obtain access to transmission capacity if they share their plans with us in good time.

Stability of customer demand predictions

On average, 72% of the predicted development of customer demand was equal to previous predictions. We therefore achieved our target of 70%. There was a decline in the stability score in the course of 2022, due to much higher forecasts for sustainable generation, electrification at heavy gas users and the heat transition. This was caused by the war in Ukraine and increased government ambitions. The turbulent developments in relation to the energy transition will strongly affect the stability of the customer demand prediction in 2023. In 2023, we will add new themes to our calculations, such as batteries/storage and electrification of smaller commercial gas users. These are also themes that we expect to be highly volatile.

	Target for 2022	Results in 2022
Stability of predictions of customer demand	70%	72%

Good and stable forecasts of demand for connections and grid capacity (for both energy consumption and energy feed-in) are essential in order to calculate the impact on our grid and identify bottlenecks at an early stage so that we can plan the investments that are needed. This allows us to develop timely solutions and engage with customers on timing, location, capacity and flexibility. We observe that customer demand is complex and erratic, and depends very much on developments that are outside Stedin's control.

We discuss our results grouped by the following three topics: built environment, mobility and industry.

Built environment

Improving the sustainability of the built environment is complicated. It not only presents technical challenges, but also requires significant social change. We are actively involved in the Regional Energy Strategies and the Heat Transition Visions. We are also working hard to develop and implement innovations, including heating homes with sustainable gases, such as hydrogen.

Regional Energy Strategies (RES)

The RES define where and how electricity can best be generated sustainably on land (wind and solar power). Stedin is an active participant in the consultations in the 14 RES regions in our service area, contributing knowledge of the structure of the grid and using opportunity maps to show where the present grid can further facilitate additional energy generation. The objective is to make optimum use of the existing grid and to enable planning and preparation for grid expansions. We carried out grid impact assessments for all the RES regions. Through these assessments, we establish for the proposed scenario how much room, time and investment is needed to achieve the grid expansions. We are also developing a strong (administrative) relationship that will help accelerate the implementation of grid expansion now and in the future.

Growth in energy generation continued to be strong in 2022

The amount of sustainably generated electricity continued to grow in 2022. Most growth (34%) was in solar panels on the roofs of houses and small businesses in the Stedin area (up to 15 kWp). Businesses and producers of sustainable energy also made substantial investments. The sharp increase in energy prices has made self-generation financially attractive. In the Stedin area, the target has been increased by 6% compared with 2021 to 12 TWh in sustainably generated electricity from solar energy (from 15 kWp per installation). Over 37% of this has now been achieved. There is over 14% work in progress, and around half (just over 48%) is still a target and still has to be developed. That is an enormous challenge.

Total capacity generated in kWp	2022	Growth vs. 2021 in kWp	Growth vs. 2021 in %
Wind	980,020	131,840	15.5
Solar	2,366,160	630,300	26.6
> 15 KWp	1,482,377	246,464	19.9
< 15 KWp	1,514,086	383,841	34.0

Demand for space and public support are key considerations that often lead regions to opt for a large share of solar generation, particularly from rooftop solar panels, and relatively little wind generation. As a consequence, there is no good balance. Solar and wind are in a way complementary. With a good balance, use of the energy infrastructure is more or less constant throughout the day. Broadly speaking, solar during the day (and more in summer than in winter), and wind in the mornings, evenings and nights. If there is a focus on solar, this means that grid use will be heavy during the sunny hours of the day and much less at other times. Sizeable investments in the grid will be needed to cope with this burden, which could possibly have been avoided had a better balance been chosen. Read more about this in the 'Investments in our grids' section.

RES Zeeland
The amount of solar energy generated in Zeeland has also increased substantially in recent years, quadrupling in just four years. Most of the increase is due to large rooftop solar installations in the ports of Vlissingen and Terneuzen and in industrial estates, but also various large solar parks. This accelerated development was needed to keep up with the 3 TWh target agreed by Zeeland in the RES as its contribution to the national target of 35 TWh.

Growth of the energy transition in the built environment

The growth of the energy transition is continuing in the built environment as well. This is shown by the following figures:

- The number of gas removals for improving the sustainability of existing buildings rose by 51.3% in 2022 to 24,960 compared with 2021 (2021: 16,496). This is the total number of households that were made gas-free up to the end of 2022. 8,464 households were made gas-free in 2022.
- The number of connections for reinforcing the electricity connection as a result of sustainability improvements at households was 31,556 in 2022 (2021: 19,268).
- Stedin connected 22,804 new-build homes in 2022 (2021: 21.454). This is an increase of 6%. 89% of these new-build homes are gas-free.

The pace of the heating transition is not meeting the targets

Municipalities produced a first version of their Heat Transition Vision at the end of 2021. In this vision, they set out how they intend to make the switch to sustainable and gas-free heating and cooking in their municipality. Together with the other grid managers, Stedin has analysed 312 Heat Transition Visions. This analysis shows that around 70% of the municipalities have not yet adequately shown how they will make their housing stock gas-free. For instance, some of them have not yet stated in which districts they intend to begin. Consequently, the Heat Transition Visions do not give sufficient guidance for Stedin to be able to anticipate.

Stedin and the other grid managers have urged the municipalities to prioritise their development of specific district planning. We are also calling on the government to give direction on the heating transition. We hope this will avoid a situation where the work builds up to the point that it becomes infeasible. The Heat Transition Visions are based on the climate target to achieve a 49% reduction in CO_2 emissions by 2030 and to make 1.5 million homes in the Netherlands sustainable. In theory, this means that going forward,187,500 homes will have to be made gas-free each year.

Support to municipalities and housing associations

Our area directors and account managers actively support municipalities and housing associations in planning the energy transition. 'Standards and Rules of Thumb' is an information package that explains the necessary works, space requirements and lead times for the various transition options. The development of rooftop solar generation and electric transport obviously also have an impact on the electricity grid. The information package includes these developments, enabling municipalities and housing associations to plan for the future with as comprehensive a picture as possible. With the Quick Grid Impact Scan, we give a general assessment of whether plans can go ahead straight away, or whether we first need to carry out other works. We give an indication of the expected lead time and the space required for distribution stations. At the same time, the plans give us increasingly better insight into how the heat transition is developing.

Hydrogen

We are studying possibilities for converting electricity into hydrogen or heat to structurally reduce the need for grid capacity and make it possible to reuse our gas grids. The activities Stedin undertakes with hydrogen are in line with the recommendations from Netbeheer Nederland's Integrated Infrastructure Survey 2030-2050 (Integrale Infrastructuurverkenning 2030-2050). This infrastructure survey comprehensively examines the energy system and covers every single energy carrier.

The gas grid is also important for the heating of existing homes, as well as our electricity grid. 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. Use of sustainable gases such as green gas and hydrogen will enable optimal use of the natural gas grid and make a significant contribution to the energy transition. Before we can apply hydrogen as a fully viable alternative, we will accumulate experience and knowledge by means of projects.

Stad aan 't Haringvliet

The residents of Stad aan 't Haringvliet will possibly switch to hydrogen in 2025. To show how this works, we have temporarily converted an empty home of the Oost West Wonen housing association in Stad aan 't Haringvliet into an 'Inspirational Gas-Free City Home'. In the spring of 2022, we successfully heated this home for two months using green hydrogen. This also gave Stedin an opportunity to build on the knowledge and experience gained in its previous hydrogen conversion in Uithoorn.

Together with its partners, Stedin has made progress on its study of the potential for heating homes in Stad aan 't Haringvliet using hydrogen. For example, frameworks for consumer protection have been formulated in consultation with the Netherlands Authority for Consumers & Markets. In addition, a safety guideline has been prepared in consultation with the Ministry of Economic Affairs and Climate Policy. This will be supervised by the State Supervision of Mines.

Alliances and associations: The Green Village and HyDelta

Alliander, Enexis and Stedin are collaborating in the 'Hydrogen Street' project in The Green Village in Delft. We have laid a regular (natural) gas grid that carries 100% hydrogen. The aim here is to research how grid managers and market parties can cooperate in the operation and management of a hydrogen system. For instance, the H2@Home consortium supplied an occupied home with heating and tap water based fully on hydrogen in 2022. As grid managers, this enables us to gain knowledge and experience on how we can connect parties to a hydrogen grid and how we can safely and reliably manage a hydrogen grid.

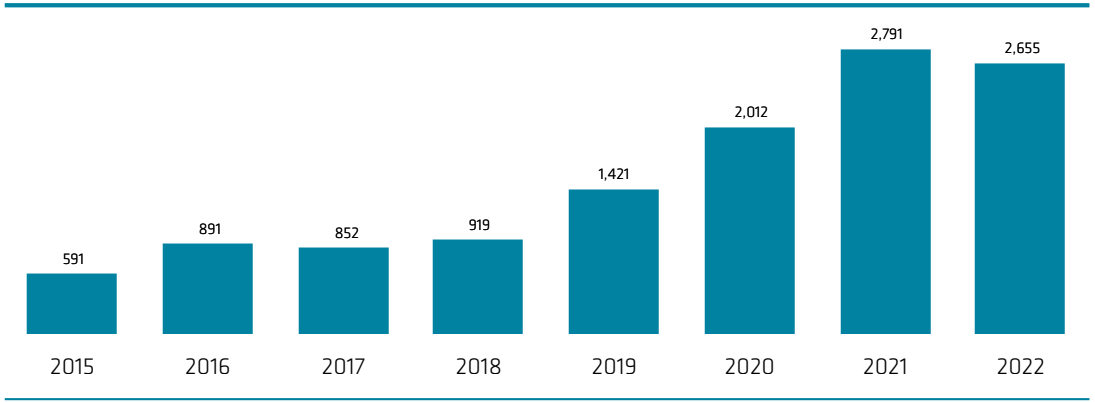
We are also involved with HyDelta, a national research programme aimed at the safe integration of hydrogen into the existing gas transmission and distribution infrastructure. The other participants are DNV, Gasunie, Kiwa, Hanzehogeschool, New Energy Coalition, Netbeheer Nederland, TKI Nieuw Gas and the Netherlands Organisation for Applied Scientific Research (TNO). We are currently conducting further broad research into issues such as system integration, digitalisation and social acceptance.

Mobility

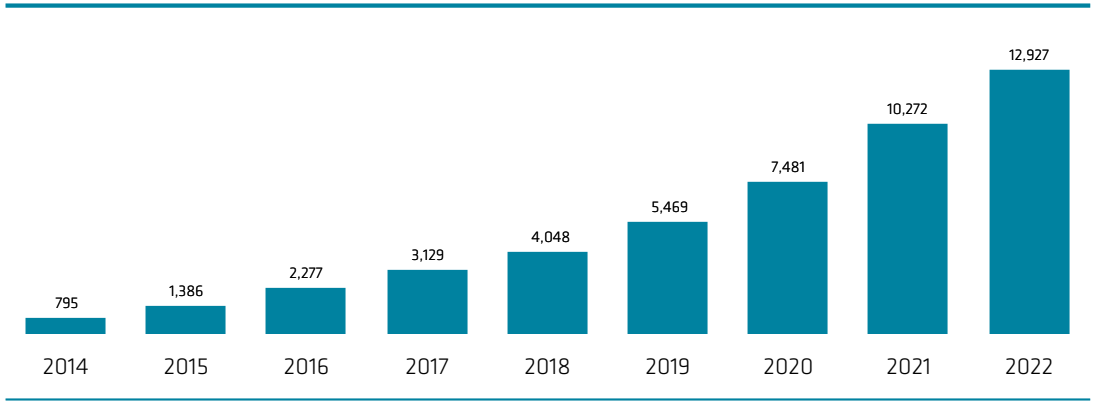
The number of electric vehicles in the Netherlands grew by 34.8% in 2022, to 515,242 (2021: 39.7%). The Climate Agreement includes a commitment to install 1.7 million charging points in the Netherlands by 2030. The speed with which the transition to electric mobility is happening appears to be even faster than originally foreseen in the Climate Agreement. This illustrates the challenge that we face.

Connections for low-use charging infrastructure

Connections for low-use charging infrastructure increased by 2,655 in 2022 (2021: 2,791). This marks the first time we have seen a flattening of this growth. The decline was partly due to the ending of the subsidy and tax allowances for buyers of electric cars and also the coronavirus pandemic. The total number of low-use connections laid in Stedin's service area at year-end 2022 was 12,927, a 26% increase on 2021 (2021: 37%). We report on both the increase in the number of low-use connections and the total number of these connections laid because Stedin, as a grid manager, provides the infrastructure for connections. We do not have precise information on the number of charging points realised on a connection.



Increase in number of low-use connections for charging infrastructure (note: from 2019 incl. Zeeland).



Total number of low-use connections for charging infrastructure laid (note: from 2019 incl. Zeeland).

Determining the impact on our grids

To continue to facilitate the huge growth in the number of electric vehicles, we need to have insight into our customers' needs (what do they need to charge, where and when) and social developments around sustainable mobility. We need to understand this to assess its future impact on the electricity grid and establish how much grid capacity and investment is needed. The five regions in the National Agenda on the Charging Infrastructure Network (NAL) are responsible for providing these forecasts to the grid managers. In addition, the municipalities are establishing an integrated vision with respect to charging infrastructure and updating the collective grid managers as to the future charging requirements (until the end of 2050). Based on this input, we prepare an integrated impact report for each NAL region. The first impact report was shared with the NAL regions at the beginning of 2022. There will be an annual update. Elaad - a cooperation between Dutch grid managers in the area of electric transport - provides the data on the basis of which we can formulate investment plans and put out tenders for the works together with the municipalities and provinces.

Smart charging is the norm

Due to the exponential growth of the number of electric cars and the number of charging points, we need to focus on better use of our existing grids with innovative techniques such as smart charging and bidirectional charging. Smart charging can help reduce the peak load in the Netherlands by 20%. This would avoid the need for approximately €1.4 billion in investment in grid reinforcement. Bidirectional charging enables an electric car to be a 'battery on wheels' that can return energy to the electricity grid.

The system was tested and further developed in five different test beds in the Utrecht region. This led to the creation of a sustainable energy system at district level. Locally generated energy is stored in electric cars and shared cars. The energy can then be returned to the district at a later moment through a smart charging point. More than 800 of these smart charging points have already been installed. The next step will be scaling up nationally based on a uniform market model. Smart charging has to be the norm for every parking charging session in 2025.

Collective grid connection for fast charging

A fast-charging infrastructure with national coverage is important to achieve certainty that charging will be available for electric drivers. Because of the high cost of a grid connection, fast-charge station operators (such as Fastned, Shell Recharge) generally opt for a connection in the medium voltage grid. This means that the operator has a limited time ahead, since the maximum capacity of the medium voltage grid rapidly becomes too limited and a heavier connection is then required. Rijkswaterstaat and the joint grid managers have started a pilot project with the aim to achieve a single collective grid connection with sufficient capacity. Fast-charge operators, and possibly also producers of green electricity, could be connected to this over a longer period, making them future-proof.

Innovation for EV charging point connections

The collective grid managers have issued a tender in the form of an innovation partnership. The aim is to create a connection box that is as small as possible that will be easier and quicker to connect.

The result is that connection boxes at charging points will have a power socket fitted as standard to which the prefabricated connection cable can be connected easily and quickly with a plug. The time to complete this work will be reduced by 50%, and the fitter can also work more safely with less effort. The connection box is more compact and is better able to withstand higher temperatures. This will ensure we are well prepared for climate change and the possibilities for smaller charging points.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Industry

The sustainability of industry was further improved in 2022, for instance through the electrification of heat production. The pace and scale of this are affected by high prices for gas. Some of our industrial customers were forced to cut back production as a result of the high gas prices. Some have also postponed their plans for electrification due to their reduced ability to invest. For the industrial customers that were able to maintain their investment potential due to long-term gas contracts, the high gas prices were an additional incentive to invest in electrification.

Due to the availability of technology such as e-boilers and electrolysis and the incentive from SDE++ subsidies, businesses are able to formulate and implement plans for electrification of their heating needs relatively quickly. In 2022, we thus saw the number of requests for connections at large industrial customers increases more rapidly than in previous years, for example at battery operators.

Rotterdam Port Industry Complex (HIC)

TenneT issued an advance warning of congestion at HIC at the end of 2022. Since we get our supply from TenneT's high voltage grid, this was noticed by our customers. In most cases, this meant an indefinite delay for the connection of customers wishing to increase their current connection or new customers wishing to obtain a connection. We regret this, as besides efficiency and disconnection, electrification is now the only measure available to businesses to improve sustainability. At the same time, there was also a positive development, as sustainability plans that we expected in 2025 were brought forward. This situation therefore shows that sustainability at the HIC is really gaining momentum.

Cluster Energy Strategies

Stedin is engaged in an active dialogue on sustainability plans for heavy industry in the CES clusters of Rotterdam-Moerdijk and the Schelde-Delta region. The major impact of making these parties sustainable is felt by the national grid managers, especially when industrial customers electrify their processes in one go (TenneT) or switch to hydrogen (Gasunie). We also see that businesses are becoming more sustainable in phases. This may initially be facilitated by Stedin.

There is also a CES cluster for the industry located outside the other five CES clusters, which is referred to as the 'decentralised industry' cluster. Initial studies and estimates show that electrification towards 2050 could lead to a significant additional demand for capacity spread across Stedin's service area. The analysis also shows where the most growth in capacity demand is expected and at which stations they may lead to bottlenecks. We are actively approaching the regional heavy industrial gas users in these areas and asking them about their sustainability plans. This proactive approach has led to an active dialogue between Stedin, its customers, public authorities and our fellow grid managers with the aim to make plans for readily understandable and feasible.

Stedin provides the electricity connection for one of Europe's largest biofuel producers in Rotterdam

An additional electricity connection is needed to provide electricity for the new biofuel production plant to be constructed. The plant will be constructed on the Shell Pernis site. The closest transmission station that can supply this power is at a distance of 1.5 km. The distance is not the issue; the problem is the cabling route, which has to cross one of the busiest areas in the Netherlands, both above and below ground. The Shell storage tanks, the main railway line of ProRail and the A15 motorway with the Beneluxplein junction (among other things) are located here.

It's a technically challenging cable route with a length of 1,900 metres, requiring 1,600 metres of horizontal directional drilling (HDD) at a depth of more than 35 metres. Due to the length of the drilling route, the cable has been specially manufactured for this route. The works started in 2022.

Data (Safe House)

In order to extend our horizon and to look (and act) beyond individual customer requests on the basis of evidence, Stedin closely collaborates with partners, including in the area of data. In 2022, Stedin was partly responsible for enabling the Energy Mix Study. In this study, based on data supplied by the industry, for the first time we looked at cost-effective transition pathways in the Port of Rotterdam. This information helps us to further refine our scenarios and make the dialogue with the industry more concrete.

In 2022, we also worked hard on the realisation of the Data Safe House, a platform where the industry and grid managers can exchange data on future energy use in a secure and confidential environment. The platform went live in the third quarter with an initial data exchange. Next year, the focus will be on increasing the number of participants, improving data quality and the central government putting in place a supporting policy framework. This method of data exchange is our most important tool for matching the supply of and demand for infrastructure as best as possible, both today and in the future. The more businesses participate, the more complete the picture will be. We therefore urge businesses to participate.

Project Gridmaster: adaptive investment strategies

The purpose of Project Gridmaster is to combine models and methods to enable us to explore the many uncertainties within the transition of the industrial sector when it comes to the gas, heating and electricity infrastructure. The project provides insight into possible transition pathways, the necessary infrastructure and the accompanying investment strategies.

Together with TenneT, Gasunie, the Port of Rotterdam Authority, the province of Zuid-Holland, the municipality of Rotterdam, SmartPort, Delft University of Technology, Siemens, Quintel and TNO, we have explored numerous scenarios and potential investment strategies.

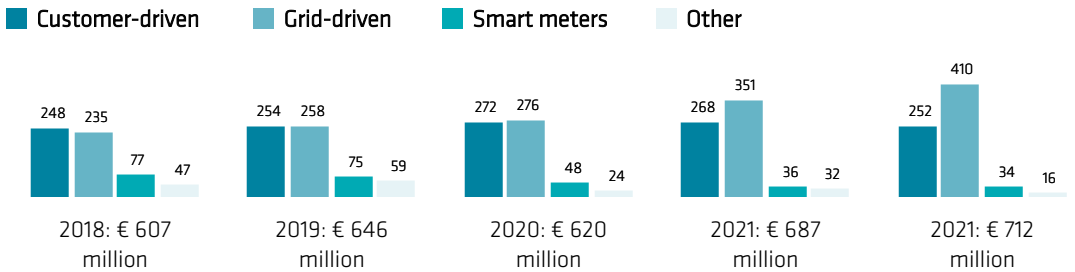
In the Rotterdam Port Industry Cluster, Gridmaster has led to insight into the investment needed in the various scenarios. The possible consequences of the transition to electricity have thus been identified.

Investment in infrastructure

In 2022, we again invested heavily to create more grid capacity. We made every effort to prevent congestion. The key is to find a balance between investing in new energy infrastructure and ensuring optimal use of our grids, such as by utilising the possibilities of our customers for flexibility in their energy use and consumption. We are closely consulting with our customers on this.

Investments in our grids

The investments we made in our grids in 2022 are part of our 2022-2024 investment plan. This plan sets out our expansion and replacement investments to expand the electricity and gas grids. In 2022, we invested a total of €712 million, of which €700 million was invested in our regulated grids. Consequently, total investments were €25 million higher than in 2021.



Investments in our grids (x € 1 million)

Customer-driven investments

Customer-driven investments are made on the request of customers and public authorities (reconstructions). In 2022, these amounted to €252 million, €11 million less than expected (and €16 million less than in 2021), This was due to lower investment in reconstructions. We expect that customer-driven investments will remain high in the coming years, driven in part by the pace of the energy transition and higher energy prices. Both supply and demand are volatile. This makes planning and adjusting these investments more challenging and more important than in the past.

Grid-driven investments

Grid-driven investments are the investments we make to guarantee and improve the capacity and quality of the existing grid. This includes the replacement and reinforcement of stations and grids. Our grid-driven investments in 2022 were €410 million. Financially, this is in line with budget and €59 million more than in 2021. Some of the planned grid-driven investments were delayed due to changes in planning by customers, issues in the environment (for instance, lengthier permitting procedures) and/or lack of materials at contractors. As a result, we were not able to complete the entire planned scope. At the same time, prices rose due to scarcity, so the investments were in line with the budget. Ultimately, we were not able to achieve our target for the realisation of the grid-driven scope for electricity and gas, with scores of 93% and 96% respectively.

Grid-driven investments

Realisation of gas grid	**Target**	**2022**	**2021**	**2020**
Number of primary gas connections replaced	26,384	22,403	29,040	23,126
Number of gas stations replaced	137	163	127	-
Km of gas pipelines (expansion & replacement)*	Unknown	231	256	227
Km of brittle pipelines replaced	215	200	193	140
Km of brittle pipelines remaining*	1,014	1,046	1,229	1,422
Realisation of electricity grid work	**Target**	**2022**	**2021**	**2020**
Number of MV installations replaced**	30	19	27	-
Number of complete replacements of connections**	13,428	14,104	12,195	6,065
Realisation of HV / Transmission projects (in numbers)	100%	107%	95%	100%
Realisation of MV / LV projects (in euros)**	100%	89%	76%	Unknown
Number of MV stations (expansion & replacement)*	Unknown	285	432	436
Km of cables (expansion & replacement)*	Unknown	715	998	1,059

* Based on GIS data from early February 2023; information for 2022 is not yet complete due to changes yet to be included.
** Excluding realisation in Zeeland region

Smart meters

In 2022, our investments in smart meters amounted to €34 million, Which was €2 million less than in 2021 and less than budgeted. This was due to the postponement of a major contract from the Ministry of Economic Affairs and Climate Policy relating to the phase-out of the netting scheme for the feed-in of rooftop solar energy. Currently, 84.7% (2021: 82.4%) of households in Stedin's service area have a smart meter. Under the bill for the phase-out of the netting scheme, a suitable meter will be mandatory. These meters can measure both the supply and the feed-in of electricity separately. At year-end 2022, nearly 87% of all meters in Stedin's area met the criteria for a suitable meter. This is because there are actually also non-smart meters that display the feed-in as required. However, with these meters, the customer has to manually report the meter readings.

Other assets

Other investments in 2022 amounted to €16 million (€16 million less than in 2021), with €4 million invested in the telecommunications network. Due to the deferral of the investments in steam and heating at NetVerder, investments were €15 million lower than budgeted.

In 2022, Stedin constructed nearly two transformer kiosks per day.

Stedin installed 478 new transformer kiosks in its service area this year. This is at least one new transformer kiosk per day. The reason: more and more people are improving the sustainability of their homes or businesses. Stedin already manages around 26,500 transformer kiosks in Utrecht, Zeeland and Zuid-Holland. In a transformer kiosk, medium voltage is converted to low voltage, suitable for use in the home. They also enable the charging of vehicles in the local area, and they transmit sustainable electricity from the solar panels on people's roofs. A transformer kiosk is thus an essential hub.

The placement of these kiosks requires careful attention, as not all sites are equally suitable. For example, they have to be placed next to a public road at a central location in the neighbourhood. In addition, they need to be accessible for Stedin fitters to carry out work or fix an outage. Stedin places its transformer kiosks in consultation with the relevant municipality. The neighbourhood is informed when a new transformer kiosk will be placed, and is involved where possible.

Four investments realised in 2022 highlighted:

1. Replacement of main distribution station in Vlissingen-Oost
This station serves large industrial customers in the port. We replaced the obsolete main distribution station and increased the capacity. We installed a 21kV installation in addition to the existing 30kV installation. To connect solar and wind power initiatives to the grid, we realised a complex drilling route of 1.5 km in length and 50 metres deep under the Sloehaven terminal. These initiatives will eventually generate enough renewable electricity for 36,000 households in a year. As such, these projects will achieve 16% and 7% respectively of the remaining target for renewable generation by wind and solar power under the Zeeland Energy Agreement.

2. Expansion of capacity in Broekvelden - Bodegraven
We substantially increased capacity in the area surrounding Bodegraven, laying 10 km of 50kV electricity connections along the A12 between Gouda and Bodegraven. We also expanded the 10kV installation at the Broekvelden station.

3. Kop van de Beer area development - Rotterdam
At Kop van de Beer, the Port of Rotterdam is developing a Food Hub with an area of approximately 60 hectares. The Kop van de Beer is the north-westerly point of the Europoort Port Area. Larger food companies such as Innocent Drinks are setting up production facilities here. We realised a 25/21kV transformer station for the energy supply here that is now in operation.

4. New transformer station - Amersfoort
In Amersfoort, we are working on substantial improvements to four of our stations. We are replacing or removing obsolete components, updating the 50/10kV transformer station and constructing new switching fields. This will both ensure quality and increase capacity for this area. The works for three of the four stations were completed in 2022.

From long-term to medium and short-term investment plans

Changes to the transmission grid take many years to complete. To set these changes in motion in good time, a master plan is needed for the long-term development of Stedin's electricity grid. We have divided our service area into 18 areas, for which we have formulated a master plan for the period until 2050. The biggest uncertainty is the future development of demand for energy. We try to address this uncertainty by applying available national and Stedin scenarios. To identify the right investments, we compare alternatives using the 'least regret' principle. This helps us avoid disposals in situations involving great uncertainty, and also enables us to initiate permitting procedures in good time.

Planned investments

The master plans set the direction for our Strategic Investment Plan (SIP) 2022-2037. We prepare an Investment Plan (IP) based on the SIP once every two years. The IP for 2022-2024 was adopted in April 2022. The available insights on electricity generation from the RES, among other sources, are included in the scenarios. In addition, up-to-date customer information and available recognised regional and national sources, such as effects calculations by the Netherlands Environmental Assessment Agency (PBL), applications under the Sustainable Energy Generation Incentive (SDE++) scheme, as well as public and private property developments, were used in preparing the investment plan. More information on our planned investments in Utrecht, Zeeland and Zuid-Holland is available at www.stedin.net/investeringsplan. An interactive map of our service area, showing the projects we are working on, is available via this link.

RePowerEU
In 2022, while 'Fit for 55', the EU's ambitious climate package, was still going through the policy cycle in Brussels, the European Commission already presented the next climate plan in response to the war in Ukraine and the energy crisis: RePowerEU. REPowerEU aims to reduce dependence on Russian fossil fuels as quickly as possible and includes substantial increases in the European climate targets. The European targets for 2030 include: 45% of total energy use should be renewable, including at least 600GW of solar energy, 35 billion m3 of green gas and 10 million tonnes of renewable hydrogen. These targets will have to be adopted into national policy in the coming years.

Congestion

We work hard to avoid congestion as much as possible. However, we are close to the capacity limit of the TenneT high voltage grid in several parts of the Netherlands. Heavy-use customers in our service area are also affected, in the Port of Rotterdam, Goeree-Overflakkee and the province of Utrecht. Once there is congestion in the high voltage grid, this causes congestion in the relevant area of the regional grid manager. The cooperation with TenneT is thus a crucial issue for us.

TenneT congestion areas

1. Port of Rotterdam and Goeree-Overflakkee

- Congestion in consumption, study is ongoing

In a large part of the Port of Rotterdam (Europoort, Botlek and Pernis) and the regions of Voorne-Putten, Goeree-Overflakkee, Hoek van Holland and Hoogvliet, Stedin and TenneT are studying whether use of the electricity grid could be improved with congestion management for the consumption of electricity. In these regions, the high voltage grid is virtually at maximum capacity as a result of a growing number of requests for grid reinforcement to enable the electrification of industrial processes and the connection of devices such as electrolysers, e-boilers, shore-side electricity and e-logistics. Collectively, these requests amount to 650 megawatts (MW). Under the various scenarios, this increase was projected to take place only around 2030. This increase of 650 MW is similar to four times the peak capacity of the grid of the city of Delft. TenneT expects to have the results of the congestion management study available in the summer of 2023. The permanent solution is an expansion of capacity for this region, and would involve the addition of three transformer stations. This is expected to be completed between 2027 and 2029. For more information, visit www.stedin.net.

2. Province of Utrecht

- Congestion for generation, congestion management possible to a certain extent, with the majority placed on a waiting list for transmission rights
- Congestion in consumption, study is ongoing

Congestion in the province of Utrecht was announced in 2021 due to transmission restrictions by TenneT. The congestion management study showed that capacity could be made available for a large part of our waiting list to offer feed-in capacity (>3x80 amperes) in response to new customer requests. In consultation with our customers - in waiting list order - we discuss how much capacity has been freed up for feed-in. TenneT also issued a pre-announcement for structural congestion for consumption of electricity in November 2022. TenneT is studying the possibilities for congestion management and expects to have the results available in the summer of 2023. TenneT also expects to resolve the current bottlenecks with works to expand the high voltage grid in 2029. There have been requests for 265 MW in transmission capacity in the province of Utrecht in the past two years. This is comparable to the peak demand of the city of Utrecht. For more information, visit www.stedin.net/utrecht.

New code for congestion management
The regulator, the Authority for Consumers and Markets (ACM), published new regulations for the application of congestion management on 25 May 2022. These new regulations give Stedin more possibilities to deal flexibly with supply and demand for energy at locations where the grid is at maximum capacity until the expansion of the grid is realised. This means we can use the limited available room in the electricity grid more efficiently and make room available for new customers, such as producers of green electricity.

The new rules also mean that producers that generate sustainable energy on a large scale for a financial reward participate in congestion management. If the supply of or demand for electricity in an area is greater than the grid can provide, the grid manager can appeal to market parties on the GOPACS platform to reduce or increase their electricity use or generation. These parties then indicate the price at which they are prepared to do this. If the grid manager then accepts their offer, the producer or user fulfils their commitment and receives a financial payment for this.

Status in the three Stedin congestion areas
Stedin did not announce any new congestion area in its own regional grid in 2022.

1. Dordtse Kil
- Congestion for generation, re-examination in progress

Since September 2021, new sustainable projects at the Dordtse Kil III and IV industrial estates have not been able to feed the energy they have generated into the electricity grid. This will again be possible once the grid expansion is completed (in mid-2025). The new congestion management code offers us more possibilities for congestion management. Accordingly, Stedin initiated a request to the market on 10 November. This will free up room in the electricity grid and possibly enable us to connect more customers. We expect the review in response to the new congestion management code to be completed in the first quarter of 2023. For more information, visit www.stedin.net/dordtsekil.

2. Middelharnis
- Congestion for generation, re-examination in progress

At peak times in Middelharnis, almost three times as much electricity is generated as is used. As a result, we need to transmit a large volume of generated electricity off the island. More than €100 million has been invested in this over the past ten years, and we will invest just under €7 million more on installing additional transformers in the coming years. The review in response to the new congestion management code will be completed in the first quarter of 2023. Additional room for new feed-in is expected to be available from the beginning of 2024, as the additional transformers will be in operation by then. For more information, visit www.stedin.net/middelharnis.

Preventing congestion in Middelharnis
There was a peak in the feed-in from Middelharnis and the surrounding area on Saturday 19 March, due to the large amount of solar and wind energy generated and very low use of electricity. With such peaks, there is a high risk of a grid overload resulting in an outage. We immediately contacted a producer of solar and wind power, which immediately reduced its production. We were thus able to prevent an outage with the help of this producer.

3. Zeeland: Schouwen-Duiveland and Tholen
- Congestion for generation, re-examination in progress

A notification of structural congestion was issued for Schouwen-Duiveland and Tholen in the autumn of 2020. We are working on solutions to strengthen the electricity grid here in collaboration with TenneT. To this end, we are installing new transformers in both Schouwen-Duiveland and Tholen, linked to a new 150kV connection to Bergen op Zoom to replace the existing 50kV Noordring. This is expected to be in operation by mid-2027. We are also calling on parties in this area to exercise flexibility, in return for a fee. This has now led to a first contract with Zeeuwind for the Noordpolder wind park. For more information, visit www.stedin.net.

In Schouwen-Duiveland and Tholen, we are running a pilot project with a 'Non-Firm Connection and Transmission Agreement'. Under this agreement, we can connect customers in areas subject to congestion, but they have no guarantee that they can always feed electricity into our grid and/or purchase energy from our grid. We agree with the customer that their production installation will feed less electricity into the grid or none at all if the grid is at risk of overloading.

First contract for flexible electricity capacity under the new grid code is signed
On 25 November, Stedin, sustainable energy cooperative Zeeuwind and Gabri Hoek B.V. signed the first congestion management contract in the Netherlands for the Noordpolder wind park based on the new electricity grid code. This will mean that structural congestion in the electricity grid can be avoided and potentially 10 megawatts of additional capacity can be created in the local electricity grid for Tholen and Schouwen-Duiveland. This will benefit everyone in the area until the permanent grid expansion is realised in 2027, as it contributes to security of supply. The Noordpolder wind park receives a payment for the flexibility services it provides. This cooperation should be the first in a series of many subsequent flexibility contracts.

Waiting list
As a result of congestion, 228 businesses and institutions were on our waiting list at year-end 2022 for connections amounting to 194 MW (In Utrecht, 141 customers are on the list, in Zuid-Holland 47 and in Zeeland 40). In the case of 188 of the 228 businesses on the waiting list, the request is for feed-in, with 40 waiting for consumption of electricity with a capacity of 40 MW. In our service area, we have 99.9959% supply security. The customers on the waiting list, however, have supply security of 0% of their request. We very much regret the fact that we are not able to provide any new transmission capacity. We make every effort to avoid congestion and operate our grids as efficiently as possible.

Impact of congestion
Where congestion management is not an option, congestion in all areas applies only to heavy-use customers with a connection with a capacity exceeding 3x80 amperes. Consumers can continue to install solar panels and feed electricity into the grid. If congestion management is possible, we make agreements with customers that they will use the grid to a lesser extent at specific times. This creates room for other customers, so that they will in principle not experience problems due to congestion. The scale of congestion management is subject to a maximum. Customers with whom agreements are made receive compensation for this.

Preventing shortage of transmission capacity

Flexibility

If we foresee a problem in our grid due to a specific request, we discuss with the customer what they wish to take up and/or generate. We show the customer what is possible, put things into perspective and discuss about whether or not to apply flexibility in order to reduce peaks in electricity consumption. For customers who agree to flexibility, we work with 'capacity limiting' contracts. Customers receive financial compensation for this flexibility.

Expenditure on flexible control power capacity

To be able to apply flexible control power capacity in practice, various agreements have to be made between Stedin and the party offering this flexible control power capacity, including agreements on the fee for this. This is a difficult area. Firstly, the fee has to be sufficient to be attractive to participants - they should not lose out. On the other hand, in the context of a fixed budget, the cost of flexibility directly affects the number of customers that can be connected by means of congestion management. The higher the cost of flexible control power capacity, the fewer customers on the waiting list can be helped and obtain capacity again. Stedin has opted for cost-based fees to compensate customers for the use of flexible control power capacity. This means that when the output of a solar park is reduced, customers receive a fee from Stedin equal to the revenue they would have received for the sale of energy on the day-ahead market.

GOPACS

GOPACS is a collective platform of the regional and national grid managers on which they can collectively and efficiently purchase, align and coordinate flexibility. The platform aligns with existing trading platforms on which participating parties in a specific grid area indicate the price at which they are willing to consume more or less electricity or feed more or less into the electricity grid. As soon as there is a risk of congestion in the grid, the grid manager calls for flexible capacity to be made available. The past year saw a marked increase in the number of participants in the platform.

GOPACS accounted for 721 connections divided between 27 trading companies in 2022. In our service area, those were 219 (2021: 150) connections and 7 trading companies. This year, for all grid managers including TenneT, GOPACS delivered nearly 182 GWh in flexibility with a 'value' of more than €59.5 million (2021: 140 GWh / €35 million). The 'value' in this case is the difference between buy and sell orders (so what the grid manager pays). As a result of the new congestion management code, we expect to use GOPACS more frequently in future.

Flexchallenge

In April this year, we initiated a market consultation entitled the 'Stedin Flexchallenge'. This entails an invitation by us to businesses to work with us to use the electricity grid more efficiently. They can do this by purchasing or feeding in more or less electricity at peak times.

The Flexchallenge currently focuses on two areas in which we want to learn various things:

1. The Spijkenisse grid area. Here, we are exploring the possibilities for avoiding or delaying grid reinforcement by facilitating the gradual increase in demand for electricity.
2. Congestion area in Schouwen-Duiveland and Tholen In this area, we are studying whether the use of flexible power could create room for new large-scale solar or wind initiatives for the generation of electricity during periods of congestion.

Our appeal has led to 30 solutions from a wide range of parties, falling roughly into three categories: flexibility in sustainable generation by solar and wind, flexible business processes, and storage. In both these areas, Stedin sees opportunities for genuinely creating greater capacity in the electricity grid.

In the second half of 2022, Stedin undertook subsequent steps to make agreements with those organisations offering solutions that can be deployed immediately. In 2022, this led to the first signed contract for the supply of flexibility. Stedin continues to work on contracting more flexibility, so that sufficient flexible capacity is made available to connect customers on the waiting list.

Energy Collective of Businesses in Utrecht

On the initiative of the Energy Collective of Businesses in Utrecht (Energie Collectief Utrechtse Bedrijven, ECUB), an active collaboration was set up between Stedin, the municipality of Utrecht and the province of Utrecht in early 2022. The aim is to achieve optimal use of the grid. This collaboration with local affiliated businesses has led to a collective solution at the Lage Weide industrial estate that prevents the local grid getting overloaded and developments being slowed down or coming to a halt. Together with the ECUB, these businesses have set up a local energy cooperative to offer flexibility in consumption and/or feed-in at peak times and thus collectively make use of this free capacity. The parties are linked up in a virtual grid and share capacity with each other. Peak demand is avoided as much as possible by flexible power demand (through solutions such as smart management of e-charging installations and thermal energy storage). If there is a peak in demand anyway, the available grid capacity is supplemented with energy from batteries and, if necessary, with local fossil-fuel generating capacity, such as a gas generator. With a combination of real-time measurements, smart management and peak generation facilities, we make the best possible use of the available grid capacity.

Use of our grids

Besides flexibility, we have several other tools designed to achieve maximum use of the existing energy grid. Stedin is developing various initiatives for this that will not endanger reliability of supply. Examples include dispensing with the failure reserve, and cable pooling.

Dispensing with the failure reserve and generation management

If a power cable fails and the failure reserve is no longer available to divert electricity, we work with generation management. This concerns the decentralised and remote use of a control box to manage generation capacity (of solar and wind) in case of failures or maintenance works. This service enables us to temporarily reduce production at large-scale generators such as solar and wind parks. In case of a failure, this means we can still use the failure reserve and limit the duration of the failure. This ensures that the high level of reliability of our electricity grid is maintained. Stedin developed its generation management service together with commercial partners and customers Sunrock, Kieszon and Eneco. Sunrock and Eneco are working this year for the first time with a control box in the areas of the Europoort and Dordtse Kil. In Dordtse Kil, this control box is especially useful in helping to prevent an outage in case of a failure. We installed control boxes at three customers in 2022. Now that we have connected two large wind parks (Kroningswind and Harde Zeewering), we can manage

more than 200 MW. Our aim is to install control boxes at 500 customers in 2023. From next year, this service will also be made suitable for batteries.

Cable pooling

Cable pooling enables us to use a single cable to accommodate power generated from both and wind and solar on a single connection. This is important, in view of the limited utilisation of the total capacity of a connection in the case of generation plants for solar (12%) and wind (28%). After all, the wind does not always blow and the sun is not always out. The connection must nevertheless be able to cope with periods of peak load. Cable pooling enables us to curtail the output of the solar or wind farm at peak times, when the capacity of the connection is not sufficient. This limits the amount of energy that is lost. As a result, we can increase the capacity utilisation of a connection to 39%, fewer connections are needed and we can absorb more generating capacity on the grid. In 2022, we can see that the market is not yet at the point where cable pooling between different parties is applied in Stedin's area. However, we expect that this option will become increasingly attractive due to scarceness of capacity.

The interdependence of parties in new initiatives is still cited as an obstacle, as well as caution on the part of financiers. After all, unknown is unloved. An example of the realisation of the technical and economic benefits of cable pooling is the cable pooling 'light' project by Vattenfall, which opened this year at Goeree-Overflakkee, combining wind, solar and batteries.

Easing of cable pooling regulations

Several customers have indicated that they wish to make use of cable pooling in situations where a generator and a user are involved. This is however not permitted under current regulations, which state that cable pooling may only occur in combinations of solar and wind. Solar and wind are indeed often complementary. An easing of the cable pooling regulations for generators and users (including battery operators) would be attractive to Stedin and its customers for better use of our grid capacity. For better division of the 'one-way traffic (generation only)', we would then be able to use a larger part of the grid for 'two-way traffic (generation and use)' with the same infrastructure. Since generation and use are complementary, parties would not have to reduce their generation in periods of strong wind or sunshine, contrary to the situation for cable pooling between generators only. This would make mutual agreements easier to achieve.

Via the National Action Programme for Grid Congestion (Landelijk Actieprogramma Netcongestie) and in other ways, Stedin strives to reduce the barriers for its customers and make this easing of regulation legally permissible.

Use of batteries to prevent congestion

Since TenneT's announcement of congestion in Limburg and Noord-Brabant, we have seen a quadrupling of the number of requests in our service area and ten times the connection capacity for connecting batteries to the regional electricity grid. In 2022, this concerned more than 1350 MW. This equates to more than three times the peak capacity of the grid of the city of The Hague. The challenge is huge, and Stedin is not able to provide this capacity.

Batteries are an important element in the energy system of the future. Smart batteries can be applied within a few minutes to charge or discharge and can thus help to solve and prevent congestion, provided the right conditions are applied. The new requests relating to batteries, on the other hand, require a lot of reserve capacity of the grid instead of easing pressure on the grid at peak times. These parties usually charge a battery when it's empty, and not automatically when there is a lot of renewable generation, such as from solar. This creates a risk of congestion.

Stedin sees it as its public duty to prevent unnecessary congestion, and therefore prefers to connect only parties who are prepared to enter into agreements. By law, Stedin is not permitted to be selective about connecting customers. However, we take the view that there is a basis for managing this, as we believe that allowing a few parties to block the capacity of the electricity grid is not in the public interest.

We are consulting with battery operators to formulate this approach and establish whether this would be feasible for all parties involved.

Smart investment in our grids

Station HVS-Centrale is the most notable station in The Hague region, as it is housed in a historic building with a grand façade. This station is also located in a densely populated area. In 2023, we will replace the primary installation at the HVS-Centrale and increase capacity by 50%. Because of the limited space at HVS-Centrale, we have developed two large e-houses together with Siemens, which will be placed next to the HVS-Centrale and will temporarily take over the function of the station during the construction works. This will enable us to renovate the existing station safely and to reconnect all the connections in the HVS-Centrale once the works are completed. The e-houses are compact but have all the functionalities of the existing premises. The construction period is relatively short (approximately 1 year). After the renovation of the HVS-Centrale, we will place the e-houses next to other stations.

Smart grids, data technology and innovation

To facilitate the energy transition, we need smart grids that provide information on the quality and capacity of the grid. Together with customer demand, this data provides essential information for accurately predicting where bottlenecks may potentially 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. To enable smart management of our grids, we install smart sensors in our low-voltage, medium-voltage and transmission grids.

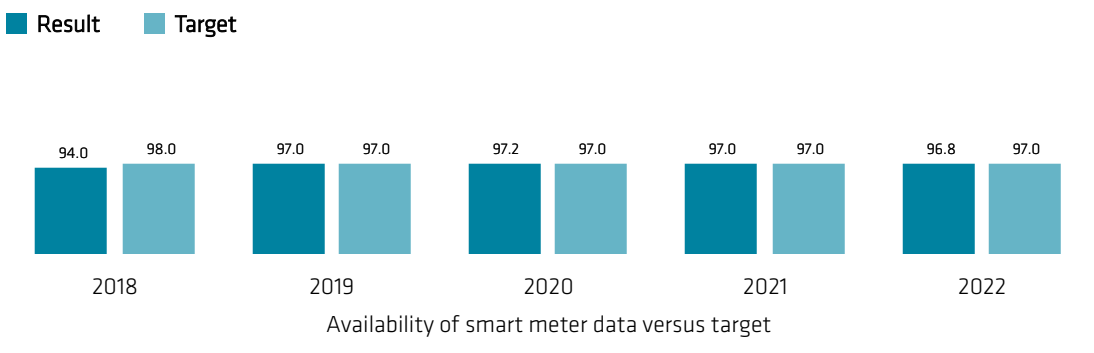
Low voltage grid - the smart meter

Availability of smart meter data

Grid managers are required to ensure that they answer 97% of all valid requests relating to smart meters with a meter reading. Stedin achieved a score of 96.8%. Performance declined during part of the year, because of a number of large failures in our telecommunications network and the CTS portal. Multiple requests can be made in relation to a single faulty meter. This can create the impression that multiple meters are faulty. After adjusting for these repeat requests, Stedin's score is 98.5% instead of 96.8%. In 2018, Stedin's score was only 94%.

Huge increase in demand for energy data

There was huge increase in energy prices in 2022. This caused a big increase in customers' need for energy data. Sector-wide, the use of remote data read-outs via smart meters increased by 40% compared with 2021. Compared with 2020, the increase was 160%. Stedin receives around 185 million data requests per month. This increase has not affected our continued ability to provide market parties with smart meter data in a secure, reliable and efficient manner. The parties requesting meter readings are energy suppliers who do so at the request of customers, but also independent service providers, such as energy apps (also at the request of customers). This shows that customers want to have more control over their energy bills. Market parties need this data to accumulate information so that they can make this available to the customer (for example, via the energy supplier's app) but also for processes.



Availability of smart meter data versus target

Since October 2020, grid managers are legally obliged to compile a register for a period of 24 months with the daily readings of all smart meters (meters where remote read-out has been switched off at the request of the customer as excluded). This data is available to the customer's supplier. At Stedin, the average monthly fill rate for this register is 99.5%. That means that for all meters for which Stedin has to have a daily reading available, this is successful in 99.5% of cases.

High requirements are set for the privacy and security of the smart meter infrastructure. An in-depth external audit is performed at all grid managers once every two years. This assesses whether the quality criteria for privacy and security are met.

In 2022, we installed 47,870 smart meters. 84.7% of households in Stedin's area have a smart meter.

Connectivity for reading out smart meters

There were a considerable number of developments in relation to connectivity in 2022. For example, a collective telecommunications strategy was developed in cooperation with Enexis and Alliander entitled 'Samen, Flexibel, Nu' ('Together, Flexible, Now'). The first initiative under this strategy is a collective tender for a SIM card (sector eSIM) with an associated management platform (RSP platform). This solution will give us a better negotiating position towards operators for mobile data communication. It will put an end to operator lock-in, enabling us to change the SIM without having to physically go to the meter. This has the advantage that we will be able to easily use another operator's network. In addition, this enables us to extend the useful life of the meter.

In 2022, Stedin used three different wireless network technologies for smart meters: GPRS, CDMA and LTE-M. We no longer use GPRS, and we use CDMA only to a limited extent for new meters due to the phase-out of these technologies. LTE-M is thus the leading network technology for the years to come. In addition to the

LTE-M meter, which functions on the frequencies of the commercial operators, we are working on an LTE-M meter that also works on the 450 MHz frequency. This is known as the multiband meter.

We will be installing this meter from mid-2023. Stedin is thus prepared for a possible transition to a private LTE-M network on the 450 MHz frequency. Besides this development, Stedin is participating with other grid managers in the Netherlands in a collective initiative for the next generation meter, known as the Next Gen meter.

Utility Connect currently holds the licence for the 450 MHz spectrum. Stedin, Alliander and Westland Infra purchase services from Utility Connect for the connection of smart meters with CDMA technology. The Ministry of Economic Affairs and Climate Policy is planning to split the 450 MHz frequency band into two parts (lots A and B). The final extension decision for lot A was published by the Ministry of Economic Affairs and Climate Policy in the Official Gazette on 22 November 2022. This means that the licence will continue to be held by Utility Connect until mid-2035. This ensures the continuity of smart meters with CDMA technology. Consultation on the draft decision on the reissue of lot B began this summer, with input from Stedin, Alliander and Westland.

Voltage quality

The Code of Conduct for Smart Grid Management (Gedragscode Slim Netbeheer) was approved by the Dutch Data Protection Authority in early 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. The regional grid managers want to monitor this, as there is little impact on privacy and there are significant social benefits. This gives us insight into which customers have issues with solar panel inverters that disconnect or devices that switch off for safety reasons due to low voltage.

Following a successful pilot project where smart meter data was used to establish whether the voltage was too high or too low, we now carry out this test in over 90% of the Stedin service area. We have learnt that the actual number of voltage issues is much higher than the number of complaints received by Stedin. We have identified 30 clusters with low-voltage grids, mostly in the countryside and villages, where the voltage is not always adequate. We are dealing proactively with these clusters. This means that we are remedying local voltage issues without previously receiving a customer notification or complaint. When we plan other works in the low-voltage grid, we increasingly use information from smart meters to check whether additional improvements to the grid are needed.

We received 1,510 reports from consumers relating to voltage issues in 2022. This is an increase of 18% on the previous year (2021: 1,279). Consumers with disconnecting inverters can notify Stedin if a fitter has established that there are no problems in the domestic installation. We then analyse the situation to see how we can be of assistance. We can make and adjustment in the local transformer kiosk. This is a relatively simple job. If this does not work, we will have to replace electricity cables or install an entirely new substation.

Medium-voltage grid

In 2022, we worked on the development and testing of third generation digitalisation in medium-voltage stations: DA3. This technology provides insight into the 'power quality load' and environmental conditions at the station enables public lighting to be more switched on an off more flexibly. DA3 is the successor of the Smart Grid Terminals (SGT), Intelligent Failure Detector (Intelligente storingsverklikker, ISV) and DA2. These predecessors communicate using GPRS and this communication technology will end in 2029. The development of DA3 has been slower than expected because alignment with the suppliers and the testing of the new product required more time than was foreseen. The scarcity of components (chips) was also a factor. A second point of attention was implementation, in the form of installation, registration and proper management of the DA3. We will install approximately 600 DA3 in 2023, and this will be scaled up from 2024 onwards. This roll-out will gradually increase our insight into the grid, initially mainly with respect to locations where we expect problems.

Transmission grid

The key elements of transmission and distribution stations have been further equipped with smart equipment. Despite the difficulties because of the scarcity of materials and chips in the first two quarters of 2022, 25 transmission stations were equipped with a new grid automation system in 2022. This includes 1,332 Intelligent Electronic Devices that secure the essential components, remotely monitor the condition of the transmission station and remotely serve the substations. In Delft, for instance, we have made a start on replacing the old automation system at a large 150/25/10kV transmission station. We are carrying out these works while the transmission station is still in operation and delivering energy to the city of Delft. We expect to complete the replacement of this station in Delft in 2023. We have found an effective solution to the issue of materials and chip scarcity by contracting a second supplier.

Smart grids for new market roles

Market facilitation means the delivery of timely and correct data on our customers' energy use to market parties and TenneT. TenneT uses this data for offsetting the imbalance market. Market parties use this data for invoicing for their services. The service was expanded in 2022 by the delivery of data to parties with new market roles, such as the Congestion Service Providers (CSPs). These service providers can help Stedin avoid congestion in the grid, as long as the grid is not yet reinforced. For example, by temporarily not feeding in all the energy produced by a solar park on a very sunny day, in exchange for a fee. The Market Facilitation Forum (MFF) has been set up to improve alignment with (new) market parties. This new platform mostly deals with making agreements on data exchange between market parties. The Agreements System Manager (Beheerder Afsprakenstelsel, BAS) is the new entity that implements these agreements in the central systems and supervises correct use of energy data.

The Energy Act and market roles

The formation of the MFF and the BAS prepares the sector for provisions in the new Energy Act, which is expected to take effect in mid-2024. Through Netbeheer Nederland, the grid managers are involved in the creation of an appropriate regulatory framework for all new market developments. In addition, the new Energy Act ensures uniformity (as it replaces both the Electricity Act and the Gas Act and thus puts an end to this split) and the implementation of various European regulations.

Market facilitation: facts and figures 2022

- Data from 4.5 million connections processed.
- Transmission costs charged to our customers: revenue of €1,134 million in 2022 (2021: €1,104 million).
- Monthly validation of consumption on more than 50,000 heavy-use and business connections.
- Customer switches (to a different energy supplier) on 394,501 connections processed (2021: 685,196 connections).
- Checks on 20,746 GWh of electricity and 3,782 million m^3 of gas transmitted in 2022 (2021: 20,529 GWh and 4,907 million m^3 respectively).
- Number of connections with no energy contract 54,384 (2021: 51,094).

More insight into developments in the grid with grid quantification

We have transferred all our grid quantification data to a state-of-the-art data platform, making the new calculation methodology for planned grids available to the whole of Stedin. This also means we are better positioned to meet the increasing demand for grid analyses. We are currently developing new calculation schedules for all voltage levels in the Stedin grid, which will enable us to produce more and better analysis. As a result of automation, grid areas are becoming faster, are updated earlier and grid schedules are more complete. The basis for this was laid in 2022. Many business units can use this in 2023, and we will continue to expand this further. We will also prepare for the integration of grid quantification in the Zeeland region and for gas.

Stedin Telecom Network

Stedin has been phasing in the use of a new fibre-optic network (Stedin Telecom Network) across Stedin's entire area since October 2018. This modern telecommunications network establishes a data link to all the automation systems in transmission stations and the larger medium-voltage distribution stations in our area. This improves our insight into the functioning of the energy grid and allows us to lay the foundation for even smarter management and control. The final connections were delivered in 2022, with over 1,000 km of new fibre-optic connections and new equipment taken into operation at 215 locations. Telecom has thus become Stedin's third network.

Data governance

To comply with the requirements for ISO 27001 certification, we introduced a new data and document classification policy. Employees followed an e-learning programme and took a test. Classification is also enforced in the Microsoft 365 products by default. This enables enhanced protection of confidential information.

To ensure that data can be found more easily, a precondition for extracting more value from them, we are investing in recording metadata. This year, the most important strategic and legally required reports were incorporated in the metadata system, with the route travelled by data from source system to report being recorded. Definitions and responsibilities were also described. This supports the owners of the reports in safeguarding the quality of their reports.

IN CONVERSATION WITH RUUD NIJS AND DAVID PETERS

2022 saw huge growth in the number of requests relating to batteries. Batteries are an important element of the energy transition and make it possible to optimise the use of our grid, but they also pose challenges. Our CTO David Peters discussed this with Ruud Nijs, CEO of GIGA Storage.

'2022 is the first year of a huge acceleration in the batteries market,' says Ruud Nijs. 'The year before there was still widespread hesitation. Now we see many different parties taking up the challenge and starting to collaborate. Geopolitical developments have certainly played a role, because we no longer want to depend on energy, financially nor in terms of availability. And of course congestion is becoming an ever more important factor as well.' David also points out that the energy transition has now 'left the paper stage' for the first time. 'On all fronts, things are beginning to move. Our models have shown for a long time that storage was going to be crucial for the future energy system. But now we can see it happening, it's like a tsunami.'

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The pain of change

The growth of GIGA Storage gives us an idea of just how fast that market is developing. In five years' time, the company has grown into an enterprise with 25 employees managing the two largest batteries in the Netherlands. What Ruud experiences is not so much growing pains as the pain of change. 'Storage can really help to solve the congestion problem. At present, everybody is looking at everybody

else, based on rules from the old economy.' As a battery operator (and developer), Ruud sees two main challenges ahead: the waiting list and transmission costs. 'A grid manager is required to process requests in the order in which they come in. New requests are simply put at the bottom of the waiting list. But how logical is that? And then there are the transmission costs. According to the law we are both a producer and a consumer, but of course we are neither. And as a consumer you pay the full transmission costs. While we can actually help prevent congestion.'

Skirting close to the lines

In the current situation it can sometimes be necessary to colour outside the lines, or at least to skirt close to those lines. And that creates dilemmas. David: 'I have no problem with reconsidering how we deal with the waiting list or transmission costs if that enables me to connect more customers, which serves the public interest. But in return, I want the batteries to be of optimal service to the grid. And that's where it gets complicated, because not all operators are willing to make agreements. But if we don't make agreements, batteries can actually cause congestion.'

As a battery operator, Ruud sees it as his raison d'être to help solve the congestion issue with batteries rather than with gas-fired power stations. He has little sympathy for operators who do not share that goal. The regulatory context plays an important part in this regard. The operators should of course be able to work in a realistic business environment. 'The transmission costs make it difficult to maintain a realistic business case. What we need is a local earnings model - less transmission - and practical IT solutions: the Internet of Technology. We are slowly but surely evolving into an IT company, with algorithms indicating the best times to buy and sell energy.'

Piece of the puzzle

One crucial piece of the puzzle in the energy transition is the flexibility provided by storage. David and Ruud agree about that. At the same time, reinforcement of cables remains important, says David. 'Without reinforcement, so more cables and more stations, we won't make it. We will also need look at how we can scale up and down in a smart way to make optimal use of the flexibility we have.'

> "'Without reinforcement, so more cables and more stations, we won't make it. We will also need look at how we can scale up and down in a smart way to make optimal use of the flexibility we have."

What would Ruud do if he were in David's shoes? 'First of all I'd continue seeking partnerships with all bodies involved, from the ACM to commercial parties. I would also ask the operators to fund part of the investment up front. That way you can separate the wheat from the chaff.' And vice versa? David laughs: 'Mainly connect everything, everywhere!

What is certain is that we are in a pioneering phase right now, which involves a great deal of innovation. Ruud: 'I expect it will ultimately become a tendering market, where we will install the batteries at the locations indicated to us by regional grid managers.' Ruud expects the pace of technological development to be very high. 'I think that's fantastic. We're in the vanguard of developments here in the Netherlands. Technical universities are eager to visit us, all sorts of things are happening there.' David agrees, and thinks we are going to see many unexpected developments over the next two or three years, and not only in the field of storage. 'The effects of that are difficult to estimate with absolute certainty, so we are in for a fascinating period.'

Ruud Nijs: CEO of GIGA Storage
David Peters: CTO of Stedin

SUSTAINABLE BUSINESS OPERATIONS

We work to ensure safe conditions for our customers, employees and other stakeholders. Professionally competent and vital employees are crucial to creating a strong company into the future. And with our sustainability strategy, we work to have a positive impact for people and planet. At all times, we are mindful of the importance of ensuring that the energy transition remains affordable.

KPIs	Note	Unit	Results for 2021	Target for 2022	Results for 2022	Target for 2023
Safety and security						
RIF	Recordable Incident Frequency: the number of lost-time workplace incidents, incidents entailing alternative work or incidents requiring medical treatment per 200.000 hours worked.	ratio	0.76	≤ 0,90	0.91	≤ 0,90
LTIR	Lost Time Injury Rate: the number of lost-time workplace incidents per million hours worked.	ratio	0.54	≤ 1,90	0.52	≤ 1,90
Good employment practice						
Engagement	The extent to which employees feel a sense of attachment towards their organisation.	Rating	7.8	≥ 7,9	7.9	-*
Commitment	Commitment is the degree of passion and inspiration experienced by employees in their work.	Rating	7.6	≥ 7,6	7.7	-*
Impact on people and planet						
Reduction of CO2 emissions	Percentage reduction CO_2 emissions from Stedin's business operations in tonnes compared with 2018 (excluding gas network losses).	%	-45	-36	-48	-50
Financial, economic performance'						
Solvency	Ratio equity to total assets	%	45.6	≥ 40	44.4	≥ 40
FFO/Net Debt ratio	The extent to which the net debt can be repaid out of the cash flow from operating activities.	%	11.3	12.0	10.1	12.0

* In 2023, these KPIs will be replaced by the results from the motivation survey on the cultural value 'Forward'.

Stedin's ESG performance at a glance

The examples below show the results achieved on ESG-related themes in 2022: Environmental, Social and Governance aspects. At the same time, we are aware that we are not there yet. Further details are given in the 'Sustainable business operations' and 'Corporate Governance' sections.

Environmental

- Reduction of CO_2 emissions in own business operations (excluding gas network losses): -**48%**
- Greening of electricity grid losses: **100%**
- Circularity of primary assets: **36%**
- Reduction of gas use in own premises: **- 43%**
- Electric passenger cars: **83%**
- Socially responsible **purchasing policy**
- Code of conduct signed for **54%** of expenditure

Social

- Number of training programmes followed: **2,069 / €5.5** million in training costs
- Employee commitment: **7.9**
- Ratio of men to women among strategic executives: **68%/32%**
- Score on inclusion: **8.2**
- Safety for employees and environment: LTIR = **0.52**, RIF = **0.91**
- Number of Participation Act jobs: **115**

Governance

- Voluntary compliance with the **Corporate Governance Code**
- Has an independent **supervisory board**
- Has **7 confidential advisers**
- Applies a code of conduct and underlying guidelines, such as the Guideline for Integrity Incidents and Abuses.
- Compulsory e-learning programmes on **desirable behaviour** followed more than **3,000** times.

ISS ESG rating: B

Safety and (cyber)security

In a continually changing energy world that is undergoing a highly accelerated transition, working on the energy infrastructure is not without risk. Safety remains a priority, and we accordingly invest continually in safety measures, knowledge, professionalism and a proactive safety culture. We make no concessions in this respect. At the same time, we work on securing our data, privacy and information provision. This ensures the continuity of energy supply and the safety of our customers, employees and chain partners.

Safety awareness

A key element in carrying out our work safely is consideration for everyone involved: our own employees and externally hired staff, employees of supply chain partners and subcontractors as well as customers and the environment in which we live. Close cooperation with all the parties involved is essential to achieving a safe result. 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. Our employees have the correct personal protective equipment and high-quality tools, which we check and approve during the annual equipment audit.

Stedin Holding N.V. as a whole again obtained certification for level 4 of the Safety Culture Ladder. The operating company in Zeeland obtained certification for level 3 of the Safety Culture Ladder in 2022. The aim is for this organisation to progress to level 4 in 2023. 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. Five years ago, in order to raise this safety awareness on a lasting basis, we began employing an HRO (High Reliability Organisation) programme. HRO forms the basis for a sustainable safety culture. The programme also contributes to reliability and predictability in the chain processes ('first time right'). We worked on embedding these features further in 2022. The associated activities are aimed at maintaining awareness by focusing on knowledge, competences and behaviour through continuous and individual learning. There was once again extensive attention paid to regular training on safety awareness among our employees in 2022. In April, we held our biannual E-days, which are intended for all electricity fitters.

Safety in the supply chain

Our supply chain partners also play an important role with regard to safety. Attitude and conduct linked to quality and safety are key priorities. How we involve our contractors in our health and safety system is explained below:

1. **Registration of contractors' personnel on site:** When the works actually start, there is always a 'start-work meeting' Where we discuss the works, the particularities and the risks with the entire team. We record whether employees are present on a 'start-work form'. If new personnel appear on site, they are also given a 'start-work meeting' and are registered. Stedin monitors this on a random basis on site and through workplace audits.
2. **Procedures for contractors' personnel in attendance on site:** Contractors have a contract with Stedin to carry out certain works. Qualified personnel is required these works. This list of 'authorised' personnel is linked to our Electricity Business Operations (Bedrijfsvoering Electra, BVE) and our Gas Business Operations (Bedrijfsvoering Gas BVG). Our work and operational plans are recorded here, and qualified personnel is assigned to perform the work. Both our own employees and the contractor's personnel. If an employee of Stedin or of a contractor is not qualified, this person cannot be assigned to perform the work. This assignment is made before the work starts.
3. **Safety ladder:** Stedin is certified for the Safety Culture Ladder, level 4. We require level 3 for our direct chain partners, and we ask them to work towards achieving 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 2,175 workplace audits in 2022. We make our reports and findings available in a secure portal which our contractors can access directly. We visit them once a quarter to discuss the results. We then look at their management system and their designations policy. We also assess these in the context of the BEI and VIAG requirements. We examine and discuss incidents and workplace accidents. Lastly, safety policy and its realisation are discussed as part of an annual executive review.

This year, we awarded the Stedin Safety Award for the 5th time. In 2022, this award went to our chain partner contractor Van den Heuvel, as this firm achieved the best performance on safety and quality in relation to the environment, demonstrating at all times and in all situations how safety and the environment go hand in hand. We also mentioned the chain partner with the best performance across the board in the past five years: Siers, which received a token of appreciation for consistent performance.

Golden Safety Shoes presentation

This year saw the five-year anniversary of the Stedin Golden Safety Shoes award. 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 13 employees in 2022.

Preventing workplace accidents

We aim to prevent workplace accidents. We place great importance on a safe and healthy working environment and minimising risks. We define workplace or occupational accidents as fatal accidents, lost-time injuries or accidents that require alternative work or medical treatment.

On 7 February, we were faced with a serious gas accident in Zoetermeer involving four people, three of whom were seriously injured. The fourth fortunately only suffered from the shock. This had a significant impact on our employees and colleagues. We aim to learn from this incident, with support from both the Dutch labour Inspectorate and the State Supervision of Mines (SodM). Our colleagues are now recovering well and actively involved in re-integration activities. There was another gas incident in Rijswijk on 16 November, prompting an investigation by the Dutch labour Inspectorate and the State Supervision of Mines. The contractor Van Gelder and Stedin are also investigating the circumstances of this incident and what we can learn from it.

We did not achieve our target of remaining below 34 accidents in 2022. We eventually recorded 35 accidents.

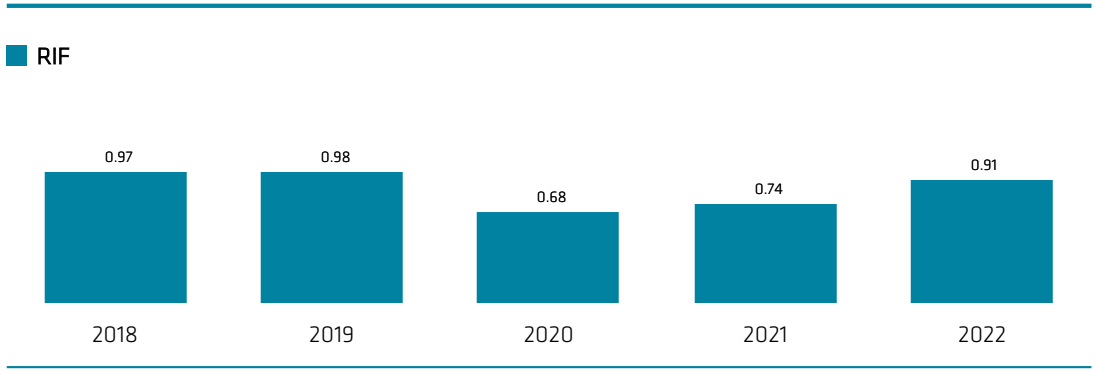
Type of accidents for Stedin Group	2018	2019	2020	2021	2022
Number of fatal accidents	0	0	0	0	0
Number of lost-time injuries (lost-time > 1 day, LTI)	24	17	3	4	4
Number of accidents entailing alternative work (RWC)	8	11	15	17	24
Number of accidents without lost time requiring medical treatment (MTC)	8	11	8	7	7
Total	40	39	26	28	35

RIF and LTIR

We monitor our safety performance on the basis of two ratios: RIF stands for Recordable Incident Frequency and measures the number of fatal accidents and lost-time workplace incidents, incidents entailing alternative work or incidents requiring medical treatment per 200,000 hours worked. LTIR stands for Lost Time Injury Rate and shows the number of lost time workplace incidents per million hours worked.

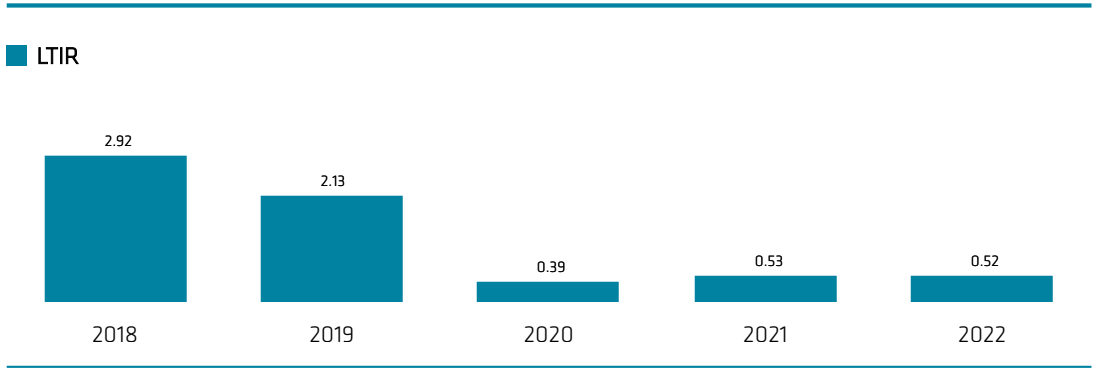
RIF

The recorded RIF was 0.91, while the target was a maximum of 0.90.



LTIR

The recorded LTIR was 0.52, while the target was a maximum of 1.90.



Cause of accidents

Looking at the causes of workplace accidents, we see that most are directly related to work, such as contact with electrical voltage or cuts and burns. A substantial proportion of accidents are caused by bumping into things, falling or stumbling. The number of accidents due to participation in traffic has also substantially decreased in recent years as a result of training (even when considering the reduction in traffic due to the coronavirus pandemic).

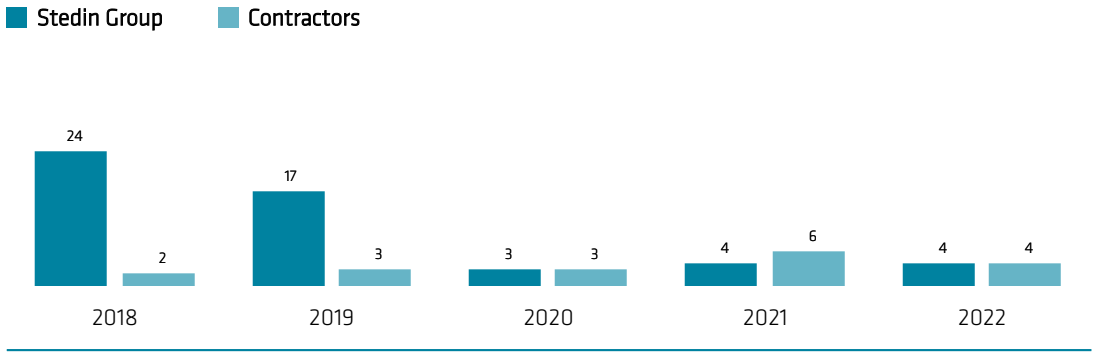
Cause of accidents	2018	2019	2020	2021	2022
At work	20	17	14	15	21
Falling, stumbling, slipping	9	11	11	10	12
Participation in traffic	11	11	1	3	2
Total number of accidents	40	39	26	28	35

Causes of lost-time workplace incidents

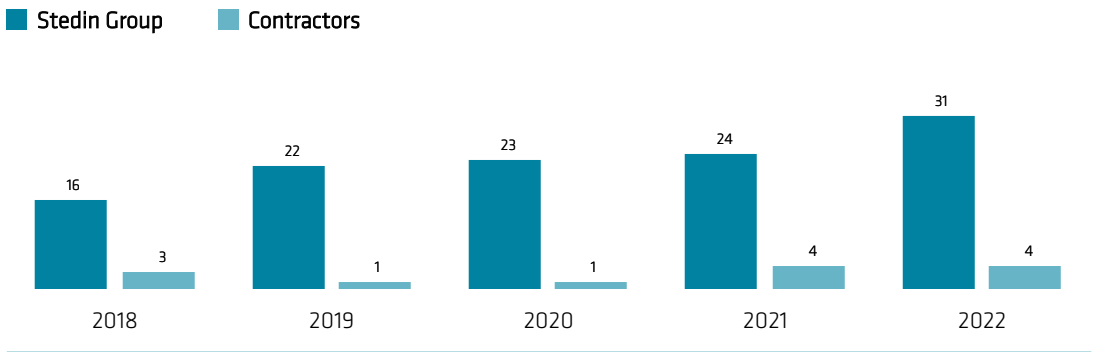
Cause of LTIR	2018	2019	2020	2021	2022
At work	1.22	0.75	0.13	0.27	0.39
Falling, stumbling, slipping	0.97	0.50	0.26	0.133	0.13
Participation in traffic	0.73	0.88	0.00	0.133	0.00
Total LTIR	2.92	2.13	0.39	0.53	0.52

Number of lost-time workplace incidents (including contractors)

The last five years show a downward trend. We believe that this trend is partly due to our efforts of raising safety awareness, in our organisation as well as among our supply chain partners. We have also worked on arranging temporary replacement work to keep our employees engaged and reduce absenteeism as a result of accidents.

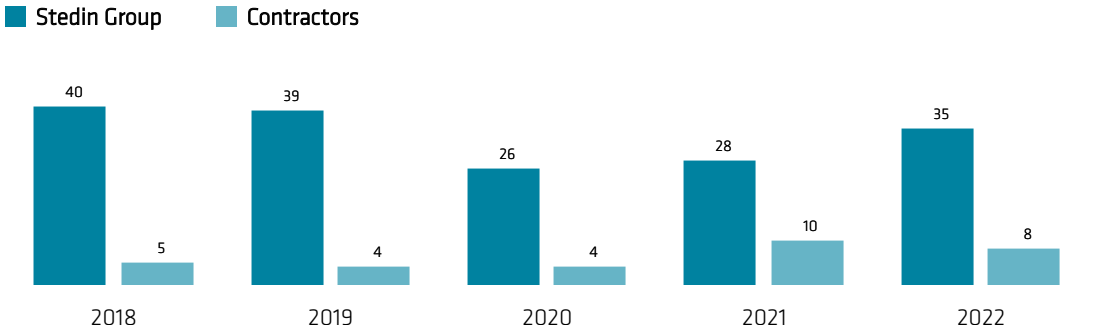


Number of workplace incidents without lost time (including contractors)



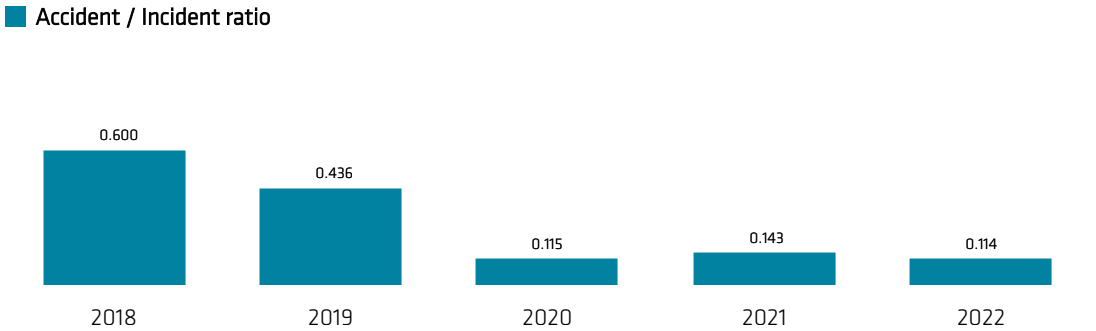
Total number of workplace incidents (including contractors)

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 lost-time injuries and the number of workplace incidents.



Health and environment

Complying with the full range of environmental requirements and applying the correct environmental regulations in the various situations is not easy. In 2021, it was decided to compile a database for extraordinary environmental incidents as well as incidents that are recorded by the Ground Desk (Bodemdesk), for example. There were only minor additions to this database in 2022, which is positive. If such incidents occur, the experiences and references serve as a practical guide for the recognition, prevention and correction of environmental issues.

We also respond to legislation and regulations on hazardous substances or pollutants, such as asbestos, benzene and chromium-VI. which present risks to health in addition to the environment. For reasons of health, we encourage preventive measures such as care, orderliness and hygiene, especially in relation to corona.

Quality: certification and compliance

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 and crisis management in 2022. Stedin also achieved certification for its Business Continuity Management System (ISO 22301) in 2022.

Stedin Group certification

Stedin Holding N.V.	**NetVerder**	**DNWG Infra**
ISO 9001	Certification in 2023	ISO 9001
NTA 8120		CKB
ISO 55001		VCA**
VCA**		Safety Culture Ladder, level 3
Safety Culture Ladder, level 4		
ISO 22301		
ISO 27001		

Continuous improvement

The theme of continuous improvement (Plan Do Check Act, PDCA) is crucial for improving quality. In view of the big challenges facing Stedin in relation to the energy transition, it is important to work faster and smarter and get things right first time (HRO). In 2022, we made a start on monitoring the timeliness and effectiveness of improvement actions based on the findings from certification audits. We will report on this from 2023 onwards.

Crisis management organisation

In 2022, the Crisis Management Plan (CMP) was updated, including with respect to ensuring adequate provision of information about crises through Grid-Centric Working (a working method where all parties involved share information as quickly as possible) and the deployment of information coordinators.

We are improving our crisis organisation by continuing the further training of the employees concerned, involving both information coordinators and new crisis managers. We also update our knowledge and experience by taking part in exercises, including at national level, with other crisis management organisations such as safety regions. This improves cohesiveness between the crisis organisation and ICT crisis management. The ICT colleagues concerned have followed knowledge sessions and training courses, among other things. We also work closely together in exercises.

Energy transition

From a safety perspective, alternative energy sources such as wind and solar energy, biogas and hydrogen present new opportunities and challenges. We are increasing the sustainability of our energy systems and developing new techniques, which involve the use of test locations. Whereas detailed safety guidelines and regulations exist for working with natural gas, they are currently absent for hydrogen. We are developing guidelines and regulations for hydrogen in consultation with Netbeheer Nederland.

Security

In 2021, we again experienced a series of burglaries and thefts from our business vehicles and premises (in many cases involving copper theft). This 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 increasing aggression, threats and violence toward our employees required appropriate attention. We always report incidents of this nature to the police. 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 often encounter energy theft in relation to hemp farms. Criminals make huge earnings from this illegal cultivation. As the equipment they use consumes large amounts of electricity, the criminals tap energy by bypassing the meter. In 2022, six house fires in Stedin's area were caused by hemp farms illegally tapping electricity (2021:11).

It is estimated that 15% of Stedin's total network losses are caused by fraud (2021: 17%). That is approximately 120 GWh of electricity. Based on the 2022 kWh price, that amounts to an estimated loss of nearly €25 million per year (2021: over €6 million). The estimated loss in 2022 is significantly higher than in previous years due to high purchase prices. Detecting this type of fraud is therefore even more relevant.

264 hemp farms were discovered in Stedin's service area in 2022 (2021: 399). We dealt with 881 cases of fraud in the same year (2021: 978). Alongside hemp farms, these cases include meter fraud as well as illegal connections and reinforcements, for instance.

So we are seeing a decline in the number of reports and cases of fraud in our service area. This is probably due to a combination of factors, including increasingly cunning fraudsters, less readiness by citizens to make reports, less attention to hemp cultivation by the police and the Public Prosecution Service (OM) and the higher number of disconnection jobs in the last six months, as a result of which less time was spent on the detection of fraud. This impression is shared throughout the sector by stakeholders and chain partners such as the police and the OM and our fellow grid managers. We assess the potential causes together and continually look for ways to increase our detection of fraud.

Cyber security

Cyber security is essential for the continuity of our business and one of the key risks for Stedin. For more information on the risk of cyber-attacks causing damage to society and business operations and how Stedin addressed this risk in 2022, see the section 'Key strategic opportunities and risks for Stedin Group in 2022'.

Good employment practice

Energy and decisiveness starts with our colleagues. Without them we are nowhere. That is why we make every possible effort to attract people, offer them great career prospects at Stedin and maintain their vitality. The results are good. With much effort, an attractive labour market campaign and a focus on development, we have been able to attract and retain employees.

Sufficient technical staff

There is a real need to attract more people. Based on developments and forecasts, Stedin has a Strategic Personnel Plan that looks five years ahead and anticipates future demand (based on our Strategic Investment Plan). This shows that without additional measures, we will have a shortage of 570 FTE fitters in 2026. Therefore, we have significantly ramped up our recruitment capacity, doubled our training capacity (including the opening of our in-house training school in Utrecht), formulated a recruitment plan to attract new groups, such as people entering from other professions and 16-year-old students doing the basic vocational learning pathway (BBL), and set up joint venture agreements with external parties, such as Regional Training Centres. The result is impressive, with 2.5 times as many vacancies filled this year as in 2021. This means that we filled 1,021 vacancies this year. According to the Strategic Personnel Plan, if we continue with these measures,we will reduce the shortage in 2026 to 61 FTE. In addition, in our operations we are working on implementing 'smarter working', by making processes efficient and being able to carry out more work with our current workforce.

It helps that we are seen as an attractive employer. The work is socially relevant, the employment benefits are attractive and the atmosphere with enthusiastic employees is highly appreciated.

Intake, advancement and exit

In the past year, we devoted additional attention to advancement: and important factor in retaining people. This means we offer our colleagues opportunities for continued development, something that is very highly appreciated. Advancement has therefore been a success, possibly too much so. It causes distress sometimes in teams when team members move to another department. In some teams, one in five of the members is new. It places demands on teams to warmly welcome new colleagues and devote the time and attention needed to get someone up to speed. We are still looking at ways to make the advancement process more effective.

Our staff exit rate is around 8% and has been reasonably stable in recent years. In today's tight labour market, we note that employees are slightly more inclined to leave on their own initiative than they used to be. The relationship between managers and employees is important for employee retention. This is a point of attention in our leadership training. The terms of employment for our technical personnel have been improved in the new Collective Labour Agreement. There is now an additional field allowance and an extra on-call and emergency repairs shift allowance. At all levels, we want to make it clear that we value our technical talent.

Training, learning and development

Stedin operates in a culture that prioritises continuous learning. We offer various activities and resources to give the best possible support to our employees in their personal development. We do this with our management training system and our cooperation with a training intermediary. Both these activities were again put out to tender in 2022. In addition, we made a start on creating one location where all training and development, both technical and non-technical, will be offered and assured. This brings clarity and focus.

Training programmes in 2022	
Number of training programmes followed, excl. in-house training school	2,069
Number of paid working hours spent on training	
General training costs (x € 1 million)	5.5
Average training costs per participant (x € 1 million)	1,267

In-house training school

Our in-house training school plays a crucial role in ensuring we have the right technical people in the right place. Many of them have been able to attain a stable position in society in recent years thanks to the in-house training school. The 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 (for professional practical skills (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.

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 2022, the courses for colleagues in Zeeland were made the same as for all Stedin employees. Most of the courses for these colleagues take place in Goes. Courses that cannot be offered in Goes are held in Rotterdam.

The in-house training school recorded 48,808 applications in 2022 for technical training, safety training such as BEI and VIAG, e-training and in-house safety training (2021: 49,801). In 2022, 170 pupils were trained as fitters and obtained their senior secondary vocational education (MBO) diplomas (2021: 208). The number of people taking safety training was 8,528.

In-house training school	2018	2019	2020	2021	2022
Number of training programmes leading to certification followed	5,561	8,277	7,885	8,232	8,528
Number of non-mandatory training programmes leading to certification followed	13,183	18,111	33,117	41,569	40,280
Number of training programmes followed through the in-house training school	18,744	26,388	41,002	49,801	48,808
Number of MBO diplomas awarded	120	166	162	208	170
People coming from other professions trained as smart meter fitters	82	51	0	0	60
Technology & Safety training budget (x € 1 million)	10.0	10.9	10.2	8.0	10.6

Successful process for people from other professions

We work hard on the focused and efficient training of new and current employees. The big challenge here is the correct length and content of the training. Accordingly, we have started with modular training for people entering from other professions. These people have work experience, but in most cases not in a technical profession. They learn the initial technical skills in two months, so that they can start on the practical work of consumer connections. This is followed by further professional training. This initiative has successfully trained 60 people from other professions, and a further 60 new people will start this process in 2023.

Making maximum use of training capacity

To make maximum use of our training capacity, we started several initiatives in 2022:

- The introduction of a single desk where all current and future employees can go for their training and development ambitions. This has increased efficiency. We formulated the first outlines for this desk this year, and further detailing will take place in 2023.
- A new training location in Rotterdam, with space for additional pupils. The new in-house training school replaces the old location and will be the place for learning and development.
- Introduction of a new management training system, in which courses and training will be linked to the strategic direction of and challenges for Stedin. Implementation will be completed in early 2023.


Gefeliciteerd met je diploma!
Gefeliciteerd met je diploma!
Gefeliciteerd met je diploma!
Gefeliciteerd met je diploma!

Attractiveness of technical professions

The in-house training school entered into new cooperation agreements to encourage participation in the technical professions in 2022. 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. In addition, a Girls Day was organised and 70 girls visited the in-house training school for an introduction to technical jobs. This initiative was nominated for a Computable Award for corporate social responsibility. In Utrecht, we have started our partnership with ROC Midden Nederland.

At national level, Stedin is working on innovations in education together with the Training and Education (O&O) fund, TenneT, Alliander and Enexis, among others. A start was made on the collective development of a subject dealing with infrastructure technology that can be offered in secondary schools. We have also joined forces on dividing current training into smaller modules, allowing more focused training.

Leadership

The themes in leadership development in 2022 were the revised strategy and the retention of our employees. As in previous years, we also paid much attention to a number of (recurring) development processes in 2022:

- Starting managers: For this group, we have a 10-month programme entitled 'Forward-Looking Leadership' ('Leiderschap Vooruit') that we continually evaluate and adjust as necessary. For the last class this year, we adjusted several modules to devote more attention to result-orientation and ownership.
- Makers of the Future: This is a 2-year programme for starting employees, usually recently graduated, who are being trained for permanent positions in the organisation. These 'Makers of the Future' advance to management positions.
- Development programmes at departmental level: In 2022, we started a new development programme in which we offer development and further growth opportunities to 'young' professionals engaged in the management of our assets. Our ambition is to continue these programmes and expand them to include other groups where desirable and necessary. There is also a development programme in the Finance department.

Vibrant organisation

Stedin offers an extensive range of vitality solutions. We are also running pilot studies involving participation, where employees can structure their own work. This year, the colleagues working on-call and emergency repairs shifts put together their schedules themselves. We will include more co-creation in the coming year, as this increases engagement. We also started a pilot project including team sessions, which was positively received and will be deployed in 2023-2024. In addition, we put together and launched the 'My Energy' programme in 2022. This programme encourages employees to work on ensuring their long-term employability.

Employee motivation

We conduct a survey of employee motivation once a year. This gives us insight into the commitment of our employees both per team and Stedin-wide. 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, including an active roll-out of the new strategy and an improvement in communication from the organisation to the employees. The emphasis on the cultural theme of 'Forward' was increased in 2022 with the introduction of the new Stedin strategy. In 2022, 74.1% of employees took part in the survey (2020: 72.6%).

Greater emphasis will be placed on the cultural theme of 'Forward' in order to accelerate the revised strategy. This involves result-orientation and ownership, continuous improvement and renewal, learning every day and continuing our personal development at all times.

Commitment / Engagement	2018	2019	2020	2021	Target for 2022	2022
Commitment	7.5	7.5	8.0	7.6	7.6	7.7
Engagement	7.8	7.8	8.1	7.8	7.9	7.9

Sickness absence

The sickness absence rate came to 5.8% in 2022. This is higher than at comparable companies in the industry and energy sector. A rising trend is observable that is in line with the benchmark in the Netherlands. In the summer of 2022, an in-depth analysis was made of the development of the sickness absence rate. The main observation was that the absenteeism figures for the medium term were higher than usual. We can prevent this to some extent by initiating a dialogue when someone has been on sick leave for only a short period. We had paid less attention to these 'frequent absenteeism' discussions due to the coronavirus pandemic. We now are actively working on readdressing this issue.

Sickness absence	2018	2019	2020	2021	2022
Average sickness absence in the industry and energy sector (second quarter of 2022)	4.5%	4.9%	5.0%	5.1%	5.5%
Sickness absence within Stedin Group (in per cent)	5.0%	4.8%	4.2%	4.3%	5.8%
Reporting frequency	1.1	1.1	0.9	0.8	1.0

Work-life balance

The results of the employee motivation survey show a high degree of employee satisfaction with the flexibility in working hours. Stedin Group offers the following arrangements:

- The Collective Labour Agreement for Grid Operators (CAO NWb), which applies to Stedin, includes normal working hours from 7 a.m. to 9 p.m., Monday to Friday. Employees who do not work according to a schedule or who do not have fixed working hours can arrange their own working hours in consultation with their manager (even varying them daily). At Stedin, employees may, in consultation with the manager and provided that a position is suitable, work on a flexible basis - for instance, choosing to work at home, at the office or at another location. This is detailed in our work concept Stedin@Work (see box). In 2022, a home working allowance of €2 per home working day was introduced in line with the work concept.
- In accordance with the Collective Labour Agreement for Grid Operators, employees can opt to purchase additional hours of leave, on top of their statutory minimum entitlement, using their monthly Personal Budget. We also offer an accumulated leave scheme, under which employees accumulate up to 36 hours of leave on an annual basis per calendar year. The accumulated leave can be saved for up to 10 years and used for taking leave over an extended period.
- Stedin has a Vitality Scheme, which allows employees aged 62 and above to reduce their weekly working hours. This creates more room for rest and leisure, which is beneficial to vitality and allows employees to

continue working on a healthy basis until retirement. Within Stedin, 145 employees (32.8% of the target group) are taking advantage of the scheme.
- The Flexible Working Act (Wet flexibel werken) allows employees to increase or reduce their contractual working hours and to adjust their working hours and workplace. This Act obviously also applies to Stedin's employees.
- In 2022, we worked on implementing this with the employees working the on-call and emergency repairs shifts. In 2022, the schedules for 2023 for these employees were drawn up with the involvement of the teams, for example, giving the employees more influence on their working times. This allows them to achieve a better work-life balance.

Stedin@work: our new work concept
A new work concept was introduced in November 2021, in which employees can consciously choose how, when, where and with whom they work. The guideline is working 50% at the office and 50% at home. An employee survey in May 2022 confirmed that this new work concept and the provisions we have made are appreciated. The actual division of work also corresponds to the guideline. We still have to make changes at the office to optimise this hybrid working. We need more cooperative workspaces, more space for quiet working and we need to expand our IT capabilities to enable more efficient remote working with colleagues from the office.

Care leave and special leave
Stedin employees can take leave to provide care or deal with special personal situations on the basis of various statutory, Collective Labour Agreement or company arrangements.

- Employees who use childcare receive a payment from the central government and choose their own childcare provider. Stedin does not provide on-site or other childcare.
- Employees are legally entitled to unpaid special leave (parental leave) for children aged up to 8 for 26 times their number of weekly working hours. Stedin pays employees 70% of their statutory minimum wage during these parental leave hours. Since 2 August 2022, during the first year of their child's life employees are entitled to up to nine weeks of parental leave, with 70% of their (maximum) daily wage paid by the UWV.
- For the care of someone close to an employee who becomes sick or in the event of an unforeseen, urgent situation requiring immediate action (e.g. picking up a sick child from school), employees may request paid special leave (emergency leave or short-term leave of absence). Employees can take long-term care leave for up to six weeks per year, if this is needed.
- Under the Collective Labour Agreement, employees can in certain situations take special leave on full pay. This leave is available for the employee's wedding day or that of their child or following the death of the employee's partner, children, foster children or stepchildren, or to enable the employee to perform duties if elected or appointed to public-law bodies, for example.
- Partners may take (additional) partner leave in the first six months following the birth of a child. Within four weeks of the birth, this is one week of paid leave, and within six months of the birth up to five weeks leave with a benefit of 70% of the (maximum) daily wage from the UWV.

Financial support
Due to inflation and rising energy prices, we focused more on preventive financial care in 2022. Assisting with debt issues is part of this. 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. Stedin reimburses the costs of these services. In addition, together with other grid managers we collaborate with the agency Geldvinder, which can help employees by providing financial coaching. We may introduce subsequent measures in early 2023 based on the evaluation of our preventive offering conducted at the end of 2022.

Inclusive society

Contributing to an inclusive society is part of our sustainability strategy. Stedin Group 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. Stedin prohibits and does not tolerate discrimination. To this end, Stedin enforces its code of conduct and behavioural guidelines, which lay down the standards and values that we have agreed with one another.

The code of conduct and behavioural guidelines (including non-discrimination) are also the starting point for HR processes, such as recruitment, selection, promotion, remuneration and training. These guidelines are generally accessible and can be viewed by all Stedin employees on our Intranet. If an employee is uncertain about the application of any policy, they can obtain further information from an HR professional. If an employee disagrees with a decision, they can lodge an objection. Objections can also be filed with the Security & Integrity reporting centre; for further information, see the 'Integrity' section.

As part of the theme of an inclusive society, we strive to increase the diversity of our workforce and promote an inclusive working environment.

Diverse and inclusive workforce

In recent years, we have laid a basis for our diversity and inclusion policy by devoting attention to awareness of this issue. In 2022, we formulated targets for 2030 on the basis of a baseline measurement conducted in 2021. 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 long way to go and are aware that a change in behaviour is needed to realise this aim. This is why we have set these targets for 2030.

Our diversity targets are as follows:

Topic	Target for 2030	Status in 2022
Male/ female ratio	• Ratio of men to women in operational departments: 80% - 20% • Ratio of men to women in other departments: 50% - 50% • Ratio of men to women in management positions: 50% - 50% • No unjustifiable differences in pay between men and women.	89% - 11% 70% - 30% 72% - 28% 1.3% unjustifiable
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 3% in 2024), with each business division contributing proportionally to achieving this target.	1.8% realised
Cultural diversity	• 29% of employees have a migration background • Proportionate representation of this 29% in all job groups at Stedin • Proportionate representation of this 29% in management positions	No data yet available, is being analysed

The targets for inclusion are:

Topic	Target for 2030	Status in 2022
Cultural diversity	• No difference in experienced social safety at Stedin between employees with or without a migration background.	Significant difference in experienced social safety
LHBTIQ+	• Non-heterosexual employees experience no difference in social safety at Stedin compared with heterosexual employees.	Significant difference in experienced social safety
Experienced inclusion	• The score in the employee motivation survey on the theme of inclusion was 8.8.	8.2
*Undesirable behaviour	• The percentage of employees *occasionally* experiencing undesirable behaviour by colleagues or managers is at most 2%. • The percentage of employees *regularly* experiencing undesirable behaviour by colleagues or managers is 0%. • 90% of undesirable behaviour is reported. • Employees feel that they are treated with respect after reporting undesirable behaviour.	10% 1.5% 32% 5.8: score given for support received after making report

* NB: The figures stated here include undesirable behaviour by customers.

Policy and actions per group

We have formulated policy and actions to move forward towards these targets for each group and each topic:

Male/female ratio:

Only 18% of our employees are women, due to the technical nature of the work we perform. Of the total number of students who started in MBO in the 2021-2022 school year, only 8% of the women chose a technical education, compared with 47% of the men. This percentage has hardly changed in recent years.

- Strategic executives: 32% women;
- Tactical executives and senior professionals: 22.6% women;
- Other job categories: approx. 17.4% women.

We are actively seeking to attract more women to a career in technology and engineering, and to technical training programmes in particular. Specifically for our training programme for people coming from other professions, we are looking for women wishing to work as fitters. We started a recruitment campaign focusing on this group in the fourth quarter of 2022.

Stedin is committed to the legislation introduced to increase the percentage of women in senior management positions and in 2022 we largely met the quota set by this legislation of at least 30% women in the organisation's senior management. The only exception is the Board of Management (currently 25% women). We strive to achieve a 50-50 ratio in management positions and we are actively looking for female talent.

Events are organised within Stedin Group by F-EMPOWER, a network that actively focuses on encouraging female employees.

Looking at the total workforce, women at Stedin on average earn 4.1% more than men. This is because women are more frequently represented in more senior positions. If we adjust for position level, service years and age, men on average earn 1.3% more than women. With an adjusted pay differential of 1.3%, Stedin is doing well in comparison with the Dutch benchmark: in the government sector, the adjusted pay differential is 3% and in business, 6%.

Age structure

In 2022, 24% of our workforce consisted of young people and younger adults under the age of 35, an increase compared with 2021. We encourage the influx of people from this group by providing basic vocational learning pathway (BBL) traineeships and a programme for 16-year-olds at our in-house training school, by offering work placements, and through campus recruitment (fifth class of 'Makers of the Future'). In addition, many young, inspired employees are members of Young Stedin (700 members), our young professionals' network that focuses on mutual connection and building a successful organisation.

Since the summer of 2022, we have invited colleagues to continue to work until their retirement age. The group of employees aged 65 or more is 135. There are 9 colleagues working past their statutory retirement age and there is 1 new in application.

Number of work placements*	2018	2019	2020	2021	2022
Number	109	122	126	122	119
Target > 1% of workforce	2.44%	2.81%	2.95%	2.91%	2.75%

* 2018, 2019 and 2020 excluding Zeeland

Working capacity

Despite our efforts, we have not yet achieved the target under the Occupational Disability (Employment Targets and Quotas) Act (Wet banenafspraak en quotum arbeidsbeperkten). Finding suitable work, and then suitable candidates, to meet this target takes much more time than for regular vacancies. In addition, this group takes longer to train up and requires a great deal of extra guidance. Although this means that the organisation has limited take-up capacity, we make an extra effort to assist people who need a helping hand, so that they can find and hold on to work. Our focus on programmes for people with an occupational disability enabled us to create yet more sustainable jobs for this group in 2022. We expect to achieve the quota target in 2025.

Participation Act jobs at Stedin	2018	2019	2020	2021	2022
Target	133	141	153	162	171
Realisation	19	43	67	94	115

The growth in the number of Participation Act jobs at Stedin was largely achieved through our training programme for assistant fitters for young people from the job arrangements target group as defined under the Participation Act. We currently have 58 in-house students, 29 of whom have already advanced to a regular operational team at Stedin. No less than 26 students are learning to become all-round fitters in our in-house training school. This was not foreseen at the start of this process, but as 45% of the students currently continue their training, this training programme is making an even bigger contribution to Stedin's recruitment needs.

Cultural diversity

In 2022, we launched a cultural diversity survey at Stedin, based on the cultural diversity barometer of Statistics Netherlands. We expect to have the results of this survey in early 2023 and we will take appropriate action based on the results. In April 2022, the third group of status holders (refugees with a Dutch residence permit) started their training to attain certification as a fitter. This time, we focused on the region of Utrecht and monitored the group attending lessons at our in-house training school there.

People with a (non-western) migration background have a structural disadvantage in the labour market. In order to offer everyone equal opportunity, Stedin aims for an objective recruitment and selection process that is not affected by unconscious bias. In 2022, the entire recruitment team was trained in the unbiased selection candidates. The training focused on the legal framework, how prejudices arise and how to recognise them, writing inclusive job adverts, and how to set up an objective selection process. This training was also made available to managers and others involved in recruitment and selection. 40 managers completed this training.

LHBTIQ+

Stedin has had a formal LHBTIQ+ network since 2022. This network has set itself the goal to create greater social safety for this group. It regularly organises meetings, drinks parties and talks to raise awareness.

Inclusion and social safety

The score for inclusion in the employee motivation survey in 2022 was 8.2. 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. We have developed a number of interventions aimed at increasing social safety and reducing undesirable behaviour. During the onboarding of new employees, we devote more attention to social safety and this theme is addressed in the training courses for all fitters. It deals with resilience, and handling aggression from the environment. We have also developed an intervention whereby managers can discuss social safety and undesirable behaviour with their teams. In 2022, we organised a diversity week, with around 14 events (workshops, lectures and training courses) on the theme of inclusive working and dealing with micro-aggression.

Freedom of association

Stedin actively supports the right of employees to freedom of association. Our Collective Labour Agreement provides that employees may join a trade union. Employees may use their Personal Budget to pay their trade union dues. Stedin has an elected Works Council. Elections for the Works Council were held in May 2022. Every employee with a permanent contract may stand for election.

Employment and employment practice

As the environment in which we operate changes, our focus remains on retaining jobs. By using data to continuously improve our ability to look ahead, we are able to choose proactively whether we can fill a vacancy with a colleague or whether we should take on an external worker on a temporary or permanent basis.

Commitment to providing work-to-work guidance

We are providing for timely development of our organisation and people to be prepared for the future, thereby ensuring employment. We are taking steps to develop competencies that will be needed in the future. We have also further equipped the mobility office to support employees. This is useful when someone is ready to make their next career step, or may be necessary because a department is undergoing such extensive change that employees need to look for a suitable job within Stedin. As part of the four restructuring programmes that were undertaken in 2021 (Business Support Services, Market, Integration of Stedin and DNWG, and Fleet Management), the employees concerned received close support from the moment the change was announced until possible redundancy due to the reduction of jobs or a job mismatch. Throughout this entire period, we were committed to providing work-to-work guidance, inside as well as outside Stedin. To facilitate this, we developed a working method that combines carefulness and transparency. If our focus on training and internal mobility does not produce the required results, we deploy the safety net under our sectoral Collective Labour Agreement to provide colleagues with work-to-work guidance outside Stedin.

In 2022, there were 14 colleagues affected by a restructuring who we were unable to guide to a new position at Stedin. In these cases, the restructuring therefore led to compulsory redundancy.

Flexible working practices

We limit the flexible use of agency workers as far as possible, but this depends on the type of work. We choose to deploy temporary workers for temporary, irregular work. This the case, for instance, with temporary projects, when temporary support is required (e.g. maternity leave replacement), when specific expertise is temporarily required, and for competencies that are very scarce (e.g. specialised IT staff). When using temporary contracts, we obviously comply with the applicable rules regarding the number of consecutive contracts and their duration. We periodically review the duration the deployment of our temporary workforce, its quality and the associated costs. This way, we avoid unnecessary costs and loss of knowledge, and we promote the possibility of internal staff members advancing to more senior positions.

In 2022, the percentage of external staff relative to internal staff was 18.0% (2021: 15.7%). The number of external staff members engaged rose due to the tightness in the labour market. Click here for a full listing of the key figures relating to Stedin Group's workforce.

Collective Labour Agreement

Although the Collective Labour Agreement (CAO) was not yet due to expire until the end of 2022, Stedin and the other employers in the sector considered it important in these turbulent times to give employees information about the new CAO well before this expiry date. With intensive cooperation and a positive approach, the employers and the unions were able to realise this ambition, with agreement reached in August on a short-term CAO lasting for one year. In addition to a structural pay increase with effect from 1 January 2023, the parties agreed on a one-off gross payment of €1,250 for full-time employees in 2022. This purpose of this payment is to compensate employees for the sharp increase in the cost of living. The parties also agreed to extend the Vitality Scheme for employees aged 62 by one year and to renew the sectoral social plan. In addition, an agreement was made on diversity and inclusion.

In connection with the agreements made on the on-call and emergency repairs shifts in the current CAO, Stedin started various initiatives focused on easing the workload of employees. In addition, the financial payment for on-call and emergency services in Stedin's company CAO was increased with effect from 1 April 2022.

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.

INTERVIEW WITH ADRI DE BRUIJNE, CHAIR OF STEDIN GROUP WORKS COUNCIL

Last summer, Alco de Lange stepped down after serving three years as chair of the Works Council and was replaced by Adri de Bruijne. Our colleagues, that's what it's about. 'First of all, to recruit and retain colleagues. But also to make sure that our colleagues can still pay their bills, given today's energy prices and inflation.'

Adri is not new to the Works Council, he has been a Works Council member since 2014 and has been vice-chair for the last five years. Last summer, he thought it was the right time to make himself available to take over as the chair. Adri: 'There is a lot going on at Stedin, I think it's important to play an active part in that.' After a smooth election, the new Works Council was elected with Adri as chair.

Major themes

2022 was an intense year for the Works Council, with regular discussions of the major themes at Stedin - sometimes in solely an advisory capacity, at other times with the right of approval. But they are always prepared to consult, for example on matters such as finances and the new strategy. 'The cooperation in the "golden triangle" - the Works Council, the Board of Management and the Supervisory Board - is very positive and productive. We are truly listened to.'

> “ We point out where the bottlenecks are „

The Works Council always points out where the bottlenecks are. 'For example, regarding the 500 million euros which the government has reserved for Stedin. We have asked what impact this will have on the governance and organisation.' Or take the issue of employees who may get into difficulties because of inflation. 'Some colleagues do not want to admit that they are financial trouble, Whereas the organisation can help them. While the Works Council does not have a say over wages, we are certainly consulting with HR to see what we can do.'

We are pleased to see increased co-creation with employees, such as in terms of setting schedules for the on-call and emergency repairs shifts. Adri: 'We have also suggested to hold a session about the design of the chains, where colleagues were told to be as critical as possible. The reason for this was that some concerns were not being expressed, and it is better for these to be brought out into the open. Decisive steps were taken. This type of session is good, because it ensures that a decision is broadly supported.'

People are listened to

Open communication has also been essential in the integration with DNWG to ensure this proceeded as smoothly as possible. 'A DNWG fitter called the Works Council at one point to share their concerns about the communication. We then immediately shifted gears to improve things. As a result, this person is now a member of the Works Council. This person experienced that if they say something, they are listened to and they can actually have influence. Complaints are really followed up.'

The Works Council believes that continuing to listen is essential. 'Through the employee motivation survey, for instance. There were many complaints regarding cooperation within departments last year. This was discussed during the first two or three months after the survey, but after five months it receded into the background. We then had a discussion with the Board of Management to highlight the issues around the survey again and to establish where we stood on this. Our advice was then to participate in working discussions with the employees. This is how you keep up awareness of the important themes.'

Impact on people and planet

The aim of our sustainability strategy is to be a climate-neutral, circular, (bio)diverse and inclusive organisation by 2030. We want to increase our positive impact on people and the environment and at the same time minimise the negative impact of our business operations. One of the major challenges here is reducing the impact of our gas network losses. This is part of our sustainability strategy. The focus on this strategy also affects risks such as scarcity of materials, the effects of climate change and taking chain responsibility.

Human-driven climate change is leading to the disruption of nature around the world and has a huge impact on the lives of billions of people. Even if global warming is limited to 1.5 degrees, there will be widespread losses and damage. This is the conclusion of the international scientific panel the IPCC. The most recent report from the World Wildlife Fund - The Living Planet Report 2022 - also shows that nature is under greater pressure than ever before. The dry summer of 2022 has underlined the urgency of combating climate change and loss of biodiversity. Accordingly, municipalities and other stakeholders are prioritising improvements to sustainability. This is increasingly reflected in requirements such as the ecological integration of stations or measures aimed at climate adaptation and the quality of life in built-up areas. Stedin recognises that climate change adaptation and biodiversity policy is essential to help us prepare for the effects of climate change. At Stedin, we feel the urgency of setting more ambitious targets as part of the revision of our sustainability strategy.

Sustainability strategy

In 2022, we added biodiversity as a strategic theme and further positioned climate adaptation as a theme within our organisation. We expect to complete the revision of our sustainability strategy in early 2023. This concerns the further reduction of our scope 3 CO_2 emissions (chain emissions), increasing circularity in our business operations, greening of our gas network losses, the addition of KPIs on biodiversity and climate adaptation, and policy for sustainable new-build of our stations and working further on being a diverse and inclusive organisation. Part of this revision entails the external validation of the sustainability strategy by the Science Based Targets Initiative, which will assess whether the revision brings Stedin in line with the maximum 1.5 degree warming scenario.

KPIs for sustainability

We concentrate our efforts on those areas in which our impact is greatest: CO_2 and particulate matter emissions, use of raw materials and an inclusive society. The steps that Stedin Group is taking as part of its commitment to working for equal opportunities and long-term employability for all are described in the 'Good employment practice' section.

One Planet KPIs		2019	2020	2021	2022	Target 2023
Reduction of CO2 emissions, excluding gas network losses	Target	-9%	-18%	-27%	-36%*	-50%
	Achieved	-13%	-28%	-45%	-48%**	
Greening of electricity grid losses, Stedin Group in %	Target	100%	100%	100%	100%	100%
	Achieved	100%	100%	100%	100%	
Circularity of purchasing of primary assets, Stedin	Target	n/a	n/a	38%	40%	40%
	Achieved	n/a	34%	38%	36%	

* Reduction target compared with base year 2018

** Without gas network losses, to enable a fair comparison. From 2020, grid managers are responsible for making gas network losses more sustainable. Carbon emissions including gas network losses have declined by 27% since 2020.

EU Taxonomy

The 'Financial and economic performance' Section states how much of our activities underlying the part of our revenue, capital expenditure and operating expenditure that we have qualified as sustainable is actually ecologically sustainable in accordance with the EU Taxonomy.

Climate

CO_2 and particulate matter emissions

Stedin uses the Greenhouse Gas Protocol (GHG), which is divided into three scopes, to monitor its CO_2 emissions. The following table contains a description of these scopes, including the topics we take account of in our internal business operations (insofar as we can exercise control over them). Alongside CO_2, emissions of other greenhouse gases also occur. These emissions are translated to CO_2 equivalents to produce a comprehensive overview of Stedin Group's emissions. In this report, we use the term 'CO_2 emissions' to denote these combined greenhouse gases.

CO2 emissions, including greening				Results in tonnes CO_2eq*			
Scope according to GHG protocol	**Note**	**Category**	**What this includes for Stedin**	**2019**	**2020**	**2021**	**2022**
Scope 1: Direct emissions	Greenhouse (GHG) emissions that occur from owned sources or from leased assets and result directly from our core activities	Energy consumption	Gas consumption of our buildings	454	453	385	263
		Mobility	Our vehicle fleet (lease & company cars)	8,856	7,311	6,283	5,620
		Network losses	Gas network losses**	105,008	108,082	102,774	79,281
		Other	SF6 influences	178	137	452	727
Scope 2: Indirect emissions	All greenhouse gas (GHG) emissions from the generation of electricity consumed by Stedin but generated by third parties.	Energy consumption	Electricity and heat consumption of our buildings	238	1,168	1,201	1,021
		Network losses	Electricity grid losses	433,346	386,456	377,562	329,383
		Greening of grid losses	Electricity grid losses***	-433,167	-385,890	-376,921	-329,383
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.	Mobility	Commuting	2,760	1,407	211	669
		Mobility	Business trips	659	411	387	388
		Other	Purchasing	191,396	170,129	153,374	159,402
			Total	**309,728**	**289,664**	**265,708**	**247,371**

* The result for CO_2 emissions is calculated using the most recent emission factors (2022) from various sources.
** The decline in CO_2 emissions due to gas network losses in recent years is due to the replacement of brittle pipelines. In addition, the volume taken up declined in 2022 and the conversion factor was lower in 2022.
*** The CO_2 emissions relating to electricity grid losses were not fully greened in previous years. Due to further integration of Enduris and Stedin, electricity grid losses are 100% greened with effect from 2022.

Explanatory information per scope

Scope 1: As of 2020, the grid managers are responsible for purchasing gas for gas network losses as well as for the reporting of the related CO_2 emissions. The possibilities for effective compensation for gas network losses were identified in 2022. A decision will be taken on the strategy to compensate for these losses in 2023. We reduce gas network losses mainly by replacing brittle pipelines with plastic pipelines from which there is less gas leakage during transmission. The CO_2 emissions from Stedin Group's business operations, excluding gas network losses, decreased by 48% compared with the base year 2018. That is well within the targets we have set (-36%). While most switchgear is leak-proof, a limited quantity of $SF_6$is emitted each year. In 2022, Stedin added 31 kg of SF_6 (2021: 19 kg).

Scope 2: Each year, Stedin Group compensates 100% of the CO_2 emissions arising from the electricity that we purchase for our electricity grid losses. Since 2021, we have purchased 40% of the electricity for our network losses through power purchase agreements; this involves us purchasing green electricity directly from a sustainable source, such as a wind or solar farm. 60% of these network losses are compensated by purchasing Guarantees of Origin (GoO). Stedin strives to achieve 80% compensation of its electricity grid losses via power purchase agreements by 2030.

	Electricity transmission	Grid losses	Grid loss percentage	Volume delivered
2018	21.330 GWh	1.076 GWh	5.1%	20.254 GWh
2019	21.100 GWh	1.069 GWh	5.1%	20.031 GWh
2020	20.171 GWh	953 GWh	4.7%	19.218 GWh
2021	20.529 GWh	931 GWh	4.5%	19.598 GWh
2022	20.746 GWh	892 GWh	4.3%	19.853 GWh

Scope 3: We are committed to reducing emissions from network components wherever possible. More information is available on commuting, business travel and public transport use under the heading 'Reduction of CO_2 and particulate matter emissions via our mobility'. The KPI for circular purchasing is based on the raw materials passport, which we request as part of our purchasing processes.

Under 'Additional information', you can find an overview of Stedin Group's CO_2 emissions classified by the various scopes.

Reduction of CO_2 and particulate matter emissions via our mobility

At Stedin Group, mobility is comprised of car use, commuting and business travel. We aim to have all our commercial vehicles fully electrified by 2030. The target is to achieve 25% of this by 2023. Our results on mobility in 2022:

- 83% of our 764 passenger cars are electric (2021: 73%). An electric passenger car fleet of this size is exceptional. Due to supply issues in the automobile industry, this percentage was lower than foreseen. Without these issues, the percentage would have been 91%. We expect to catch up on this during 2023.
- 210 electric commercial vehicles were ordered, of which 43 were delivered in 2022. Delivery is dependent on the availability of materials.
- We are closely monitoring the market for large commercial vehicles. We keep ourselves informed of the latest innovations to ensure we are at the front of the queue when suitable alternatives become available.
- We have introduced a lease bicycle scheme at Stedin, which we hope will persuade more employees to bike to work. 122 employees now make use of this scheme.

In 2022, steps have been taken to organise mobility centrally at Supply Chain Services. This enables even more efficient management of Stedin's broad mobility needs and the related strategic objectives.

Based on the replacement profile for our passenger cars, we can realistically expect that 100% of our passenger cars will run on electricity in 2023. In the category of small and medium-sized commercial vehicles, electric vans will be rolled out further and no new fossil-fuel vans will be added to our fleet. However, some fossil-fuel vans will still be used under shorter-term contracts. The government is developing legislation for 2023 that will make the registration of CO_2 emissions by companies with more than 100 employees compulsory. This registration will apply to all forms of mobility, including commuting. We are studying how we can set up this registration efficiently.

Privately registered vehicles by fuel type

This concerns commercial vehicles (carrying the Stedin logo) and company lease cars.

	Petrol	Diesel	LPG	Hybrid	EV
2017	58	244	1	512	38
2018	34	171	0	480	123
2019	26	115	1	417	273
2020	21	60	0	249	485
2021	19	26	0	181	569
2022	19	13	0	138	677

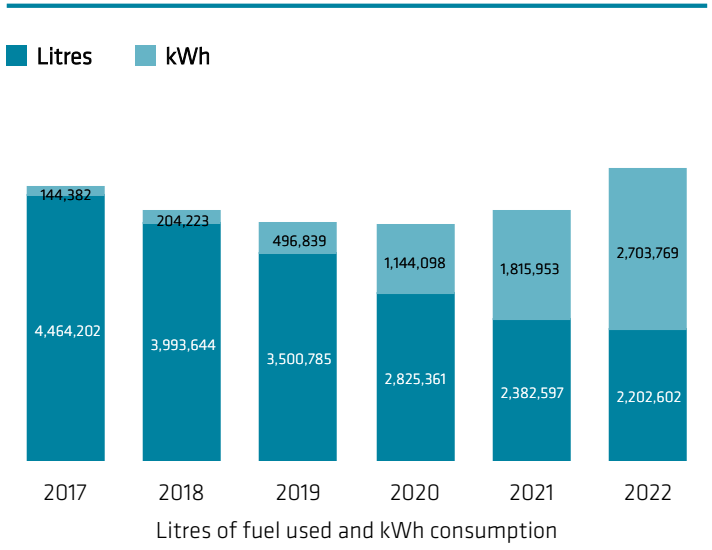
Commercially registered vehicles by fuel type

These are commercial vehicles in the small, medium and large categories.

	Petrol	Diesel	LPG	Hybrid	EV
2017	0	1,480	12	1	22
2018	37	1,484	9	0	22
2019	0	1,464	9	1	22
2020	0	1,315	0	23	18
2021	0	1,221	0	43	42
2022	0	1,172	0	49	103

Litres of fuel used and kWh consumption

We have seen a decrease in the use of fossil fuels and an increase in electric charging. In 2022, we used 179,995 litres less fossil fuels (petrol, diesel, LPG) for our commercial and lease vehicles than in 2021 (-8%). Electric charging of our commercial and lease vehicles increased by 887,816 kWh (33%) compared with the previous year.



Litres of fuel used and kWh consumption

* The comparative figures for 2020 and 2021 have been adjusted on the basis of revised calculations because certain elements were incorrectly included in previous calculations.

Electric vans

Our fitters prefer a higher, medium-sized electric van in which they can take all the necessary materials they need to properly carry out their works. Until recently, there was no suitable electric vehicle solution for medium-sized vans. Therefore, Stedin has together with chain partners commissioned the development and production of a raised van.

Reduction of CO_2 and particulate matter emissions via our premises

15% less energy use

The European Commission has published a plan for reducing demand for gas. From 1 August 2022 to 31 March 2023, demand for gas has to be reduced by 15%. This year, we reduced our gas use by 43% compared with the average use over the past five years. We achieved this by optimising our real estate portfolio and improving the sustainability of our premises. Simple short-term measures can also deliver extra savings. For example, we have set the thermostat in our buildings two degrees lower and on warm days we save electricity by setting the air conditioning temperature two degrees higher.

Sustainable premises

In addition to direct management of energy use, we are investing in making our office and business premises more sustainable, including by installing solar panels and making our buildings gas-free. Our offices at Goes were made gas-free during the renovation in 2021. Besides reducing its gas use, Stedin has also taken measures to reduce its electricity use. By setting the air conditioning temperature two degrees higher, for example, we make savings in warm periods. The flip side of the reduction of our gas use and our large-scale electrification of vehicles and internal heating is a significant 21% increase in electricity use. For example, we now have more than 200 charging points at our office premises. Where possible, we try to offset this increased electricity use with sustainable generation from our own solar panels, and by reducing use through energy-efficient solutions. We will continue to reduce our energy use in 2023 by making other buildings gas-free, installing more solar panels and possibly selling some buildings.

Sustainable courier services

When we put out a call for tender for courier services, we looked for the 'greenest possible' contractor. This resulted in a contract with a courier that uses only electric vehicles and performs its services with zero emissions. Therefore, these services, which were once fully fossil-fuelled, or now fully renewable. This is a marginal gain in the context of Stedin's entire operations. But it is a good example of how a green ambition, a clear request and a positive approach to the market can lead to (cheaper!) and more sustainable solutions.

Risks for Stedin associated with climate change and adaptation

Extreme weather conditions, with intense rainfall alternating with long periods of drought and high temperatures, are becoming more common and also more extreme. There is also an increased likelihood

of flooding as a result of rising sea levels. Hence, Stedin not only embraces measures to prevent climate change, but is also taking steps to prepare for the risks of a changing climate. We refer to this as climate change adaptation.

Flooding

The Delta Decision on Spatial Adaptation (Deltabesluit ruimtelijke adaptatie) makes it mandatory for managers of vital infrastructure to conduct research into the impact of flooding on the functioning of that infrastructure. They are required to take appropriate control measures where necessary. The impact of a potential flooding on the functioning of the electricity grid has received much attention in recent years, and has been the subject of numerous case studies in our service area. Using advanced calculation models, we identify the infrastructure that could be affected and what the effect would be on the electricity supply.

Together with Netbeheer Nederland, we have analysed the vulnerabilities in 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 scenarios 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 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 the electricity grid is more robust than most people think; transmission of electricity does not cease immediately, and outages usually remain limited to the area that is actually under water. We also see that due to the relatively low probability of flooding, it is not cost-effective to make changes to our stations in this respect. Therefore, the challenge is to look for logical times when climate-proofing of these stations can be carried out, such as when new stations are built or existing stations are expanded.

Extreme temperatures

Extreme temperatures can have a negative effect on the useful life of our infrastructure. The temperature in our stations can rise to the point where our installations cannot easily disperse the heat. We have developed sensors to monitor this effectively. These give us better insight into issues such as 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. We have installed around 100 sensors in all, distributed between 30 transmission stations and some medium voltage stations. We aim to install sensors in the secondary and telecommunication spaces of all our transmission stations next year: a total of approximately 600 units. Extra attention will also 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 2023, 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.

For more information on the physical and transition risks of climate change, click here.

PV Privé for employees

As an ambassador for the energy transition, Stedin has started the Private PV (PV Privé project) for its employees. Subject to conditions, they can borrow up to €5,000 from Stedin to invest in making their homes more sustainable. 162 Stedin employees participated in this project in 2022, As a result, solar panels were installed on the roofs of 144 houses and 18 hybrid heat pumps were installed, This has achieved an annual reduction in CO_2 emissions of 285,000 kg. In total, just over €728,000 was provided in loans under this project.

Circularity

We aim to maximise circularity both with a view to sustainability and in the interest of prolonging the useful life of our assets. We purchase products with as much recycled raw material content as possible, 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.

KPI for circular purchasing and the raw materials passport

Since 2021, our policy of requesting raw materials passports has provided us with good insight into the circular performance of our primary assets such as transformers, pipelines, pipes, stations and switchgear installations. We do this by analysing the data from the raw materials passports. Together with our suppliers, we are working to make our assets more circular.

The percentage of circularity in our purchasing of primary assets in 2022 was 36%. This figure is below the target of 40%.

We are engaged in a strategic revision of our sustainability targets and a redefinition of circularity. A new KPI will be formulated after the revision in early 2023. For this reason, no target will be set for 2023.

Aiming for circularity in tenders

Our sustainability ambitions play an important part in tenders for our assets. We have accordingly developed a CO_2 asset tool in cooperation with CE Delft and other grid managers. The tool enables us to calculate the environmental impact of our assets. It also enables us to include the outcomes in sustainability weighting in the tendering process. This gives us better insight into our impact in the chain and enables us to work on improvements in cooperation with suppliers and the sector.

Phase-out of SF_6 in switchgear installations continues

We are further reducing the use of the insulating gas SF_6 in our switchgear installations in our medium voltage and transmission grids. In 2022, 428 SF_6-free switchgear installations were installed (2021: 166). The switchgear installations are installed in our medium voltage grid and qualify for a subsidy. We will start in 2023 with the installation of 57% of newly tendered SF_6-free 24kV switchgear installations in our transmission and distribution stations. This will avoid an increase of the current quantity of SF_6 by on average 7.8 kilotonnes of CO_2-equivalent per year. In our Innovation Lab, we are conducting a Proof of Concept with two suppliers in order to identify leaks earlier. The aim here is to limit SF_6 losses and the consequent negative environmental impact. A tender for large switchgear installations in transmission stations has already produced a supplier for these SF_6-free switchgear installations. The second supplier in this tender has a circularity score of 85%. This means that virtually the entire switchgear installation consists of recycled materials and that the materials will also be recyclable after use.

Circularity in replacement of brittle pipelines

We use a specific type of connection for the replacement of the brittle pipelines in our gas grid. Replacing a pipeline route in a project takes several weeks, and each time we replace another part of the brittle pipelines. The connections are used for the transition from the brittle pipeline sections to the new pipeline until all the brittle pipeline sections have been replaced. We can use these connections several times, and then refurbish them. We put out a tender in 2022 in which the assessment of reusability and suitability for refurbishment was a major factor in our decision. As a result, we now need 60% fewer connections, leading to a lower CO_2 footprint of almost 5.5 tonnes CO_2-equivalent. The refurbishment of these connections will be carried out in due course by our Service Team Operations, where young people with an occupational disability are employed.

This successful prioritisation of sustainability in the tender has also delivered a financial saving of at least 33% (approximately €3 million).

Reuse of transformer materials

If a component can no longer be used in its entirety, we separate the residual materials in an environmentally friendly way, and where possible into recoverable raw materials. 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, which separates all these streams and where possible processes them into new materials or energy. Only a small amount of materials that cannot be reused by either ourselves or Renewi remains as waste.

Redeployment

Redeployment of assets is an initiative aimed at upscaling the reuse of pipelines and transformers, for instance. We make the components released from the grid suitable for reuse and store them. We register them in an ordering portal so that we can reuse them. In 2022, we redeployed around 150 transformers, 5,400 smart meters, 27 compact stations, one transmission station and one high voltage transformer. A welcome addition to our inventory given the current shortage of materials. We also ensure that older components which can no longer be ordered from the manufacturer remain available. Finally, this generates cost savings in the form of avoided purchase costs. These savings amounted to approximately €2.6 in 2022. We expect these savings to increase in the coming years to more than €5 million per year.

Waste (in kg)

The table shows the amount of waste from Stedin Group. The rise in the percentage of non-recyclable materials relates to asbestos. In 2020, 2021 and 2022, Stedin had to undertake remediation work in Utrecht involving the removal from the ground and disposal of asbestos. 770,375 kg of asbestos was removed in Utrecht this year. In the rest of Stedin's service area, excluding Zeeland, 641,400 kg of asbestos was removed. In Zeeland, 672,620 kg of asbestos was removed. 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 2022, we disposed of 2,967,900 kg of cast iron (2021: 2,861,725 kg). Cast iron is always recycled.

Waste (in kg)	2018*	2019*	2020*	2021**	2022**
Total volume of waste	8,588,912	9,576,136	8,885,295	11,424,839	11,024,321
Total volume of waste recycled	7,755,969	8,623,144	7,710,474	8,636,798	8,209,666
Total volume of waste not recycled	832,943	952,992	1,174,821	2,788,041	2,814,655
% waste not recycled	10%	10%	13%	24%	26%
Total asbestos	771,930	718,550	756,645	1,894,085	2,084,395
% of asbestos in waste not recycled	93%	75%	64%	68%	74%

* Stedin Netbeheer
** Stedin Netbeheer + Enduris

Biodiversity

Biodiversity is the variety of life in an area: the plants, animals and (micro)organisms that collectively form an ecosystem. As human beings, we depend on these ecosystems for our food, water purification and storage and climate regulation. In a densely populated and built-up country like the Netherlands, biodiversity is under severe pressure. Within the EU, the Netherlands has one of the lowest scores in this area. In December 2022, a global UN biodiversity summit was held, COP15, where the participating countries committed to protect at least 30% of land and water on earth over the next 7 years. By taking joint action, they hope to prevent the further extinction of plant and animal species.

Stedin is also committed to strengthening biodiversity. We are increasingly gaining insight into ways we can strengthen biodiversity in and around our infrastructure. Natural solutions can contribute to climate adaptation and reduce heat stress. At the same time, we see that public authorities are setting stricter requirements for the greening of our stations, and ecological integration in the environment is increasingly becoming an element in permitting procedures. Accordingly, we gave this theme a prominent place in our new strategy in 2022. Together with other grid operators in the Next Generation Infrastructure (Verbond van Brede Welvaart) initiative, we will measure the impact of our business operations on biodiversity and then determine how this should be managed.

Green Grids

Green Grids (Groene Netten) is a collaboration in the area of sustainability between MVO Nederland and the eight largest infrastructure operators in the Netherlands, including Stedin. Naturalis (the scientific institution for biodiversity) and the Dutch Butterfly Conservation foundation are helping Green Grids to identify the best opportunities for improving biodiversity around our infrastructure. These opportunities will be identified by intelligent combining of information from the Green Grids parties and biodiversity data for the Netherlands as a whole. This will concern biodiversity in a broad sense. We will consider threatened species, birds and mammals, as well as bees, butterflies, dragonflies and plants.

The opportunity map for the province of Zuid-Holland was completed in 2022. Together with our Green Grids partners, we will begin the first actual projects for the Ecological Main Infrastructure in 2023. For example, a joint design for biodiversity has been developed for the construction of a transmission station in the Zuidplaspolder, which will be built by Alliander, Stedin and TenneT together. Ecology management per location is another opportunity for strengthening biodiversity. Stedin is currently studying with Naturalis how we can use the opportunities for ecology management around our stations.

List of infra-nature measures

Together with around 40 ecologists and biologists, we developed 50 specific nature-inclusive measures for in and around our infrastructure this year. This list of infra-nature measures can be applied broadly in decision-making on construction, adaptation and management. In this way, we will strengthen biodiversity and contribute to a healthy and future-proof infra-nature.

Getting to work in practice

We are also strengthening biodiversity in practice in an increasing number of locations. Where possible, we use ecological mowing, so that herbs and flowers can reappear. We are also installing an increasing number of green roofs. This year, on Gerbrandyweg in Rotterdam, we started the construction of a station that will be ecologically integrated in its environment. In 2022, we included the strengthening of biodiversity as a tender criterion, for instance for the tender for multidisciplinary working with Evides.

Pilot project for greening of transformer kiosks

We are aware that our small transformer kiosks can also have an impact on local biodiversity. In November, we made an initial inventory of potential locations in The Hague as part of a pilot project. In this pilot, we will examine what kinds of indigenous planting are suitable for providing our transformer kiosks with green roofs and façades. This will also contribute to climate adaptation.

Impact in the purchasing chain

Stedin Group accepts its social responsibility for sustainability in its chain. We do this by means of active management aimed at our ambitions for CO_2 emissions, raw materials, particulate matter, biodiversity and social working conditions. We bear this responsibility both in our tendering procedures and in our collaboration with suppliers. The principles for this are set out in our Socially Responsible Purchasing Policy (Maatschappelijk Verantwoord Inkoopbeleid).

With a purchasing volume of €962 million in 2022, Stedin Group has a significant impact. Almost the entire purchasing volume (99%) is realised with suppliers having an office located in the Netherlands. The remaining (very small) proportion of our procurement comes from 14 EU member states, Canada, the United States, Turkey, Norway, the United Kingdom and Switzerland.

Supply chain responsibility

All our contracted suppliers are expected to sign the Stedin Supplier Code of Conduct (Stedin Gedragscode voor leveranciers). By signing this Code of Conduct, they commit to the basic principles concerning human rights, working conditions, fair and honest business practices (including the prevention of fraud and corruption), safety and integrity and the goals formulated in our sustainability strategy. Our Code of Conduct is based on the OECD (Organisation for Economic Cooperation and Development) guidelines, the Universal Declaration of Human Rights and the labour standards and working conditions drawn up by the International Labour Organization (ILO). We also expect our suppliers to ensure that their suppliers and the third parties that they engage comply with national and international legislation and regulation and our code of conduct.

We take responsibility for our chain emissions, such as the emissions that occur at our contractors or that arise during the production as well as the transport of the components and assets that we purchase. In our purchasing processes, we consider the CO_2 footprint as well as other factors, such use of materials and social working conditions. They form the basis for the selection of suppliers. The Code of Conduct has been signed by parties covering 54% of our expenditure. Signing the Code of Conduct is mandatory in all new tendering procedures. No self-assessments or (online) audits were carried out in 2022.

Governance in relation to the supply chain

The Supply Chain department reports directly to the Board of Management. The reporting is based on a KPI dashboard and monthly MT reviews related to insight and performance. Supply Chain reports particulars and deviations in the monthly Business Review. These may concern inventory positions, availability indications from the market, price fluctuations, risk management and sustainability risks.

Recovery procedures

There is regular consultation with stakeholders in the various categories (contractors and services, materials and smart meters, ICT and services). We initiate recovery procedures where necessary. The discussions involve matters such as materials availability, market developments, rate-setting, indexation and possibilities for sustainability. We did not perform any recovery procedures in 2022.

Workwear

This year, Stedin put out a tender for workwear. This included requirements for sustainability, human rights and working conditions. The tender has now been awarded to Heigo. The new clothing will be produced in 2023.

We work only with producers and suppliers that are affiliated to the Fair Wear Foundation. These companies are committed to avoiding discrimination on the shop floor, child labour and excessive overtime and to promoting the freedom of choice of work, the freedom to join trade unions, a liveable wage and safe and healthy working conditions in a legally established employment contract. A Fair Wear team monitors these aspects.

Governance in relation to sustainability policy

The Board of Management is responsible for the ambitions and objectives that have been formulated for Stedin Group. The Board of Management has approved the ambitions that provide direction for Stedin Group's sustainability policy towards becoming a climate-neutral organisation by 2030. The strategy and results were also discussed with the Supervisory Board in 2022. Results on the KPIs are reported to the Board of Management and the directors of the business units concerned every quarter. A quarterly analysis is also carried out of strategic risks and opportunities, which includes the topic of sustainability. The strategic risks (of 'Own excessive environmental impact' and 'Environmental pollution') are included in the table 'Strategic risks and opportunities'.

ESG Committee

As of 1 January 2023, Stedin will have an ESG committee. This will be our next step towards becoming an ESG-driven organisation, and ensure consistency in the activities we undertake in line with our (sustainability) strategy and how we inform our stakeholders in this respect.

The ESG committee will advise and put forward proposals to the MT Strategy in the areas of strategy, planning and reporting on sustainability issues and will support developments in sustainability throughout Stedin Group's value. Its main duties will concern the development of:

- Sustainability policy focused on value creation for all stakeholders in the medium and long term.
- Guidelines, targets and processes relating to sustainability, including reporting on related financial and non-financial figures.

The committee will meet regularly and will consist in any case of the E, S and G leads. They will be assisted by internal, and possibly external, experts in the field of reporting and impact measurement.

In 2023, the committee will focus on the following (ESG) topics, among others:

- Further reduction of CO_2 emissions;
- Greening and nature-inclusive construction;
- Diversity and inclusion;
- Reuse and recycling of materials;
- Influencing and monitoring human rights and working conditions in the chain; and
- Further development of the EU Taxonomy and implementation of the Corporate Sustainability Reporting Directive (CSRD) legislation.

Financial and economic performance

Stedin Group has a public task. We treat our social capital prudently and intelligently. A financially healthy Stedin Group has the necessary strength to facilitate the acceleration of the energy transition

To enable the accelaration of the energy transition and the electrification of the energy grid, facilitate economic grwoth and ensure the quality of the current grid, Stedin invested over € 700 million in its electricity and gas grids in 2022. Between 2023 and 2030, we will invest at least a further €8 billion. We will therefore have to scale this up to an average level of €1 billion a year. Additional ambitions such as Fit For 55, RePowerEU or fees for congestion management may further increase this amount.

Using opportunities

A lot of money will be needed to make these investments. Stedin is using all possibilities at its disposal to strengthen its financial position:

- **Efficient working**: Stedin continues to take a critical view of its own costs. We have an efficiency programme in place until year-end 2025 that aims to achieve long-term cost savings of €180 million. Read more about the objectives, results and follow-up of this efficiency programme in the 'Affordable and efficient services' section.
- **Effective investment**: Stedin is fully committed to risk-based maintenance. We carefully consider the investments needed to keep the grid safe.
- **Strengthening our equity**: Our shareholders made an initial capital contribution of €200 million to strengthen our equity in the short term in 2021. In addition, most of the previous gain of €251 million on the sale of the non-regulated entity Joulz has also remained within the company.

> “ Danny Benima, CFO of Stedin: Our call for sufficient capital has been made. It is now up to the politicians and our new or existing shareholders to respond. ”

Meeting the capital requirement

To be able to invest €8 billion in the energy infrastructure between now and 2030, we need €1.8 billion in additional equity as well as loans and our own tariff revenue. This requires a contribution from various parties. Close consultation with a large number of stakeholders on meeting this capital requirement was therefore a recurrent feature in 2022. This led to the central government reserving €500 million in its budget for strengthening Stedin Group's equity, as it announced on Budget Day. The latter months of the year featured the further development of this participation. We were closely involved with the grid managers Enexis and Alliander here, as they also may need to make an appeal to the central government in the future. Our 44 shareholders also played an important part in this process.

The government and the grid companies Alliander, Enexis and Stedin reached a joint agreement at the end of 2022 regarding the conditions under which a capital contribution could be made by the government in the grid companies and thus become a shareholder. The conditions have been laid down in an agreements framework. This will serve as the basis for a potential participation agreement in which more detailed agreements will be established. The agreements framework is currently before the Supervisory Boards, employee representative organisations and existing shareholders of the grid managers for consideration. Stedin has already made a request for a capital contribution of € 500 million under the agreements framework. The Ministry of Economic Affairs and Climate Policy set aside this amount of €500 in its budget for 2022. The exact conditions for this financial support will be further developed in 2023 between Stedin, the Ministries of Economic Affairs and Climate Policy and Finance and the shareholders of Stedin.

In addition, Stedin and the shareholders committee will consult with municipalities and provinces to consider how they can also contribute as (new) shareholders. In the summer, Stedin invited local and regional authorities in its service area to participate in Stedin. More detailed information was then provided and several information meetings were held. Discussions on possible participation in a shareholding are still ongoing. We hope to have a better idea of the outcomes in the third quarter of 2023.

Regulation

In addition to these solutions, Stedin continues to argue for changes to the regulatory model. The method decision published by the ACM in 2021 sets out how the grid managers' tariffs will be calculated until the end of 2026. For grid managers, it is essential that this enables sufficient funds to be generated for them to (pre)finance the energy transition. As costs precede revenues for the grid managers when undertaking investments, this presents a financing challenge. The grid managers urged that the current regulatory model needs to be adjusted, since at this moment it is not sufficiently in line with the tasks facing the grid managers in facilitating the energy transition. We continue to consult with the ACM on this issue. One result has been that a part of the network losses, the costs for loss of electricity due to factors such as transmission and theft, will be compensated earlier. Network losses increased substantially last year due to the rise in energy prices. More information on network losses is presented in the 'Financial results' and 'Risk management' sections.

Loan capital - green bond

Stedin Group successfully issued a €500 million green bond in May 2022. This capital will be invested in the expansion and reinforcement of the electricity grid that will be used for the connection of new wind and solar parks and improving the sustainability of our business operation, as well as for the repayment of a €300 million bond issued in 2017. Green bonds have already been issued in 2019 and 2021. Stedin Group has now issued €1.5 billion in green bonds, and published a new green bond report on this in December 2022. The loan of €500 million has a term of 8 years, an issue price of 99.318% and a coupon interest of 2.375% (effective interest rate of 2.47%). Stedin Group attracted both existing and new sustainable investors through this bond issue, which was oversubscribed almost twice. This was partly thanks to the excellent terms under which the bond was issued. The bond is listed on Euronext Amsterdam. More information on the Green Finance Framework and the green bond Reports is available on our website.

ISS ESG has given Stedin as a business a general sustainability rating of B. With this rating and the high rating of its level of transparency on non-financial information, Stedin has been awarded Prime status.

Credit rating

Standard & Poor's (S&P) has reaffirmed Stedin Group's A- credit rating with a stable outlook in a sector report published on 25 July 2022. This states that S&P has confidence in the government's readiness to support the credit ratings of the regional grid managers. S&P is of the opinion that government support helps to create space in the credit ratios of the three Dutch regional grid managers, where Stedin has the least financial room. The report also states that the rating would come under pressure if there are delays in the provision of government support or if no further support is forthcoming from the current and/or potential new shareholders of Stedin. In its report, S&P states that it would like to see evidence of upcoming support from the government and/or new or existing shareholders by the end of 2022.

For the latest developments regarding the credit rating, see note 34 Subsequent events.

EU Taxonomy

The EU Taxonomy is part of the European Union's Green Deal, which aims to ensure that Europe will be a climate-neutral continent by 2050. The taxonomy is a guideline for investments in sustainability and clarifies which of our activities may be qualified as ecologically sustainable. In 2021, as a public interest entity, we reported for the first time on the sustainable part of our revenue, capital expenditure (CapEx) and operating expenditure (OpEx), known as 'taxonomy-eligible' economic activities. In 2022, we took the next step in our reporting and assessed whether the taxonomy-eligible activities qualify for 'alignment'. This means that we assessed whether the taxonomy-eligible economic activities, according to the technical screening criteria established by the EU for the first two environmental objectives (climate mitigation and climate adaptation) contribute and do no harm to the other environmental objectives:

1. climate mitigation;
2. climate adaptation;
3. sustainable use and protection of water and marine resources;
4. the transition to a circular economy;
5. the prevention and combating of pollution;
6. the protection and recovery of biodiversity and ecosystems.

The technical screening criteria will be periodically revised to align with the trajectory towards achieving the Paris Agreement.

In addition, it must be shown that minimum social safeguards are met; a company's procedures and processes must be in accordance with the guidelines of the Organisation for Economic Cooperation and Development (OECD) and guiding principles from the UN on industry and human rights.

If the taxonomy-eligible economic activities meet the technical screening criteria and do no harm to the aforementioned environmental objectives and the minimum social safeguards are met, they are 'taxonomy-aligned'.

Taxonomy-eligible activities

Stedin contributes to sustainability with the following economic activities:

- 4.9 Transmission and distribution of electricity (this principal activity of Stedin falls under NACE code 35.13 'Distribution of electricity');
- 6.5 Transport with motorcycles, passenger cars and light commercial vehicles; and,
- 7.7 Acquisition and ownership of buildings.

The taxonomy also covers non-sustainable economic activities, known as 'taxonomy non-eligible' economic activities. For Stedin, this concerns NACE code 35.22 'Distribution of gaseous fuels through mains'.

For the above taxonomy-eligible activities, we have subsequently assessed whether these contribute to and do no harm to the six stated environmental objectives:

Climate change mitigation

Stedin's electricity grid is, as established in the Electricity Act 1998, connected to the European energy system and therefore meets one important screening criterion. Increasingly large amounts of sustainably generated electricity are transported on our electricity grid, and this activity thus complies with the principle of the taxonomy. The application of electric transport (for both passenger cars and commercial vehicles) has a positive impact. More than two-thirds of our newly purchased or replaced commercial vehicles emitted less than 50 g CO_2/km in 2022, and thus complied with the screening criteria. Lastly, we are seeing the positive effects of improving the sustainability of our buildings. Our three main premises (at Delft, Utrecht and Goes) have energy performance ratings of A or A++ and thus meet the screening criteria. The economic activities classified as eligible (4.9, 6.5 and 7.7) contribute to climate mitigation.

Climate change adaptation

Stedin has identified the climate changes that are most likely to affect its activities and have a material impact on its service area. These are the risk of flooding, and the impact of climate development on our grid. For instance, we are running a pilot project using heat sensors to establish the impact of heat stress on our assets above ground. In addition, Stedin is working with the other grid managers in Netbeheer Nederland on climate-related issues. We are also involved in the Delta Decree on Spatial Adaptation, which obliges managers of vital infrastructure to study the effects of water damage and flooding on the functioning of that infrastructure and take appropriate measures where necessary. Despite these important steps, we have concluded that we do not yet meet all the taxonomy criteria. In 2023, Stedin will devote itself to fully setting up its climate adaptation policy and taking action on the criteria it has not yet met, such as by performing of a comprehensive climate risk analysis and drawing up a climate adaptation plan. More information on this is presented under 'Risks for Stedin due to climate change and adaptation' in the 'Impact on people and planet' section.

Sustainable use and protection of water and marine resources

No criteria for this environmental objective have yet been published.

Transition to a circular economy
Together with our waste management partners, Stedin strives to achieve maximum reuse or recycling of assets and materials at the end of their useful lives in accordance with the waste hierarchy. This has been established contractually, meaning that we meet an important screening criterion. We are consulting with our suppliers to establish whether the passenger cars and commercial vehicles we use meet the requirements of this environmental objective. We do not have all the information necessary to report on this at this time. Read more about this in the 'Impact on people and planet' section.

Prevention and combating pollution
Stedin follows the principles of the IFC General Environmental, Health and Safety Guidelines and does not use polychlorinated biphenyls (PCBs) as prohibited under EEC Directive 85/467/EEC since 1985. We thus meet an important screening criterion. Here too, we depend on information from our suppliers to establish whether we contribute to this environmental objective. We are consulting about this with our suppliers, but we have not yet obtained the information we need to report on this at this time.

Protection and recovery of biodiversity and ecosystems
Stedin is consulting about this with municipalities, provinces, water boards and local residents, and has started work on repairing biodiversity at five large stations. This involves the installation of green roofs and/or planting at and around our transmission and distribution stations. Stedin works in accordance with the Nature Conservation Act (Wet natuurbescherming) and implements the required limiting and countervailing measures for an environmental effect assessment or screening. This is a permanent feature in our project approach.
In addition, in anticipation of the implementation of the Environment and Planning Act (Omgevingswet), an infographic 'Nitrogen deposition in investment projects', a toolbox 'Nitrogen deposition and Natura2000 areas at connections' and an instruction 'Natura 2000 Environmental Scan' have been implemented. These tools show the steps that need to be taken to design a route that takes account of the potential negative effects of our activities on plants, animals and habitats. The impact of nitrogen also plays a role. When essential works have to be carried out in a Natura2000 area, a quick scan or ecological study will be requested. The ecologist's findings have to be included in the design and execution at all times. Despite the many steps in the right direction, we do not yet meet all the taxonomy criteria. We will focus on completing all the details in 2023, including the implementation of our revised sustainability strategy. You can read more about biodiversity in the 'Impact on people and planet' section.

Minimum safeguards
Stedin applies the Dutch Corporate Governance Code. In addition, several steps have been taken to comply with the social minimum safeguards for all four of the ethical themes (human rights, bribery and corruption, tax and fair competition). We have had a potential risk analysis made of our supply chain and formulated an action plan in line with the Corporate Sustainability Due Diligence Directive (CSDDD) based on the six-step plan inspired by the OECD. We will produce quarterly reports on this in 2023. We have also taken measures to prevent risks and harmful (internal) effects on these themes with our confidential counsellors, whistle-blower scheme, code of conduct and procurement policy. Read more about this in the 'Governance' section. Finally, we have implemented appropriate processes to ensure that relevant legislation and guidelines with respect to bribery and corruption, tax and fair competition are complied with and we have achieved ISO 27001 certification (on information security). Despite all these important steps, we do not yet meet all the criteria for these minimum safeguards as for example, we do not have an overarching policy.

Where are we now
Stedin has made significant progress on achieving its sustainability goals in recent years. Based on a thorough assessment of the EU Taxonomy, however, our conclusion is that we do not yet fully meet the criteria set for the 'Climate adaptation' and 'Biodiversity and ecosystems' environmental objectives and the minimum social safeguards. Due to the binary nature of the EU Taxonomy (a company is aligned or it is not aligned), we accordingly report eligible revenue, CapEx and OpEx in 2022 but no alignment in these categories.

This is shown in table form, divided into revenue, CapEx and OpEx, below:

		x € 1 million	*%*	*%*	*%*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*%*	
Taxonomy-eligible but not environmentallysustainable activities (not Taxonomy-aligned activities)														
Transmission and distribution of electricity	4.9	890	68%	100%	0%	N.a.	No	N.a.	Yes	Yes	No	No		Facilitating

Taxonomy non-eligible activities		
Revenue of Taxonomy non-eligible activities	426	32%

		x € 1 million	*%*	*%*	*%*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*%*	
Taxonomy-eligible but not environmentallysustainable activities (not Taxonomy-aligned activities)														
Transmission and distribution of electricity	4.9	57	62%	100%	0%	N.a.	No	N.a.	Yes	Yes	No	No		Facilitating

Taxonomy non-eligible activities		
OpEx of Taxonomy non-eligible activities	36	39%

EU Taxonomy Reporting: CapEx

Economic Activities	Code(s)	Absolute CapEx	Proportion of CapEx	Substantial Contribution Criteria: Climate change mitigation	Substantial Contribution Criteria: Climate change adaptation	DNSH criteria (Does No Significant Harm): Climate change mitigation	DNSH criteria: Climate change adaption	DNSH criteria: Water and marine resources	DNSH criteria: Circular economy	DNSH criteria: Pollution	DNSH criteria: Biodiversity and ecosystems	Minimum Safeguards	Taxonomy aligned proportion of CapEx 2022	Category
		x € 1 million	*%*	*%*	*%*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*Y/N*	*%*	
Taxonomy-eligible but not environmentallysustainable activities (not Taxonomy-aligned activities)														
Transmission and distribution of electricity	4.9	459	64%	100%	0%	N.a.	No	N.a.	Yes	Yes	No	No	**0%**	Facilitating
Transport by motorbikes, passenger cars and light commercial vehicles	6.5	9	1%	100%	0%	N.a.	No	N.a.	No	No	N.a.	No	**0%**	
Acquisition and ownership of buildings	7.7	3	0%	100%	0%	N.a.	No	N.a.	N.a.	N.a.	N.a.	No	**0%**	
Total CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)		**471**	**65%**											
Taxonomy non-eligible activities														
CapEx of Taxonomy non-eligible activities		251	35%											
Total		**722**	**100%**											

Net impact on the six EU climate objectives

Stedin aims to be a climate-neutral, circular, diverse and inclusive organisation in 2030. We also aim to increase our positive impact on the environmental objectives and reduce the negative impact of our business operation as far as possible. The figure below shows an estimate of Stedin's net impact on the themes as formulated in the EU Taxonomy. In addition to the direct impact due to ecological damage from the procurement of goods and waste, there is also an impact due to our role in the energy supply chain. The main way in which we can reduce the presently still negative impact is by further facilitating the energy transition.

Greening the energy mix will lead to a significant reduction in the contribution to climate change, air pollution and water pollution. The EU climate objectives focus mainly on the assessment and reporting of the impact on what is known as the 'natural capital'. Stedin's impact on all capital types as stated in the value creation model is described in the 'Measuring impact' section. How we are increasing our positive impact and actively reducing our negative impact is explained in the 'Impact on people and planet' section.

Legend
Estimated impact in millions of euros per year: 100-500 10-100 1-10 0-1

Objectives within the EU Taxonomy	CLIMATE CHANGE MITIGATION	CLIMATE CHANGE ADAPTATION	WATER AND MARINE RESOURCES	CIRCULAR ECONOMY	POLLUTION PREVENTION	HEALTHY ECOSYSTEMS
What does either positive or negative contribution towards this objective entail?	The emission (or limitation of emission) of greenhouse gases. For Stedin this is mostly part of energy distribution.	Reducing or increasing risks for people, nature, and assets caused by the impact of climate change.	Increasing or decreasing the quality of water and related ecosystems.	An increase or decrease in the circular use of materials and use of non-renewable materials.	Improving soil-, water-, and air quality or increasing/ decreasing toxic emissions in the air, water and soil.	Increasing or decreasing the quality of ecosystems and related species.
Impact Stedin's current impact regarding this objective? positive negative	Limitation of climate change caused by energy distribution Contribution to climate change caused by energy distribution	*Not included in this analysis.*	Contribution to water pollution by energy distribution* Contribution to water scarcity by energy distribution	Ecological costs of purchasing materials Ecological damage caused by waste	Contribution to air pollution caused by energy distribution Contribution to water pollution caused by energy distribution* Contribution to soil pollution caused by energy distribution	Impact on land usage and biodiversity by energy distribution

* The same estimate is given twice for contribution to water pollution, because this impact is part of two themes. Therefore, this impact is not split between the two themes.

Accounting principles

Revenue

Total revenue under the EU Taxonomy is consistent with IFRS reporting standards and is thus equal to the total (net) revenue as presented in the consolidated income statement. The proportion of total revenue that is earned from taxonomy-eligible activities is determined by assessing for each revenue-generating activity to what extent this activity is mentioned in the EU Taxonomy.

Capital expenditure (CapEx)

Total capital expenditure under the EU Taxonomy concerns the investments in property, plant and equipment (see 'Property, plant and equipment'), as well as property, plant and equipment obtained through acquisitions (if applicable), investments in intangible assets (see 'Intangible assets') and additions to the right-of-use asset (IFRS 16) (see 'Leases'). The proportion of total capital expenditure that is related to taxonomy-eligible activities is determined by identifying the economic activity associated with each asset group and assessing to what extent this activity is mentioned in the EU Taxonomy,

Operating expenditure (OpEx)

Operating expenditure under the EU Taxonomy is defined as direct non-capitalised costs that relate to the maintenance of our assets. Based on this definition, Stedin has only classified expenditures relating to maintenance and failures as operating expenditure under the EU Taxonomy. The proportion of these maintenance and failure costs that relates to taxonomy-eligible activities has been determined.

The descriptions of the identified eligible activities (4.9, 6.5 and 7.7) do not contain any overlap. There is therefore no risk of double-counting in the determining the numerators for the three KPIs (revenue, CapEx and OpEx).

IN CONVERSATION WITH MARIA VAN DER HEIJDEN AND DANNY BENIMA

Maria van der Heijden has been managing director of MVO Nederland, the largest network of sustainable business in Europe, since July 2016. In a double interview with our CFO Danny Benima, Maria tells us about her view of the state of sustainability in the Netherlands in general, and at Stedin in particular.

MVO publishes the New Economy Index (Nex), an annual indication of the state of affairs in the area of sustainability in the Netherlands. So Maria has a pretty precise idea of sustainability performance in the year 2022. 'We can see a slight improvement, but the index isn't rising strongly enough. We need more action.' Danny: 'That's interesting. In our domain, we've been seeing a lot of things happening at the same time. Especially over the past year. Are things going fast enough, in your view?'

Speed and action

Maria: 'I'm quite satisfied with the level of awareness and priority, but less so when it comes to the pace of change and actual actions being taken. And we really need speed and action. Every day that we fall behind on our sustainability targets means that in the end we'll have to pay a higher price. Note that we have a 50% sustainability target for our business operations in 2030 and we're currently at just over 11%. In our view, 2025 should really be the turning point when we finally reach the critical mass required. This means we should do much more to gear our environment to the new economy and a new regulatory context.'

The required speed of change creates all kinds of dilemmas.

> "As a grid manager we do a lot in the field of sustainable business operations."

Danny: 'As a grid manager we do a lot in the field of sustainable

business operations. This concerns both our own business operations and our social tasks in the energy transition. This speed of change presents us with all sorts of dilemmas as a social organisation. Do we prioritise speed or cost-efficiency in the transition? We come from a world in which effectiveness is a key performance criterion. However, in our strategy we go for speed. So we choose to build those cables after all, even if no compensation is forthcoming.' According to Maria, cost-efficiency is typical of the old economy. 'I understand the argument, but it fails to recognise non-financial considerations and the needs of future generations. This calls for awkward and complicated discussions and decisions, but they are really essential.'

Turning point

Danny thinks that 2022 already was the turning point in the energy transition. 'Is that how you experience it?', Maria asks. 'Yes, it is. Within our sector, this was fuelled by war and high energy prices. These have resulted in a huge drive, internally and externally, to accelerate our sustainability efforts.'

The trick, according to Maria, is to take the time to work out a radically different method and actually confront the difficulties. 'For example, how do you calculate the costs of biodiversity, or the lack of biodiversity? You need courage to adopt a fundamentally different approach.'

Doing the right thing

Sometimes it is difficult to do the right thing. Danny: 'That's also true when it comes to accelerating. We are eager to highlight our internal sustainable business operations, but at the same time our external impact is much bigger. For example, we can accelerate the construction process if we opt for regular rather than circular purchasing. So the question is: what is your priority? Do we prioritise the sustainability of our own processes, or helping our customers become more sustainable by speeding up connections to solar farms or wind farms? Currently we're trying to do both, but the question is whether that is a feasible approach.

These are typical examples of 'complex and awkward'. Maria: 'The fact that this topic is on the agenda is already an important step. Besides, it would be good if we decided on this issue collectively, as a sector.' And we should not forget the regulatory context. 'That's very helpful. Sometimes rules are crucial to bring about change, because only rules will enforce truly different choices.' Danny adds, 'After all, people and companies will first consider their own financial interests, and that's understandable. A regulatory framework will help them to make other choices.'

Good news and bad news

When asked what advice she would give Danny, Maria says: 'Keep fighting for the full agenda. A compartmentalised approach would be unhelpful.' Danny responds with a bit of 'good news' and some 'bad news'. 'Sustainability is a crucial pillar of our strategy, So that's the good news. However, the ESG theme is currently assigned to many different departments, which is not helpful if you want to achieve comprehensive results. So there's still some room for improvement in that respect.' And let's not forget the influence of current events. 'Due to the nitrogen policy, there is a risk that we'll have to cancel €50 million of the investments in 2023. For us as a Board, this is unacceptable. So we are now trying to find alternative channels to secure those investments after all.

> “ Due to the nitrogen policy, there is a risk that we'll have to cancel €50 million of the €825 million in investments in 2023. For us as a Board, this is unacceptable. So we are now trying to find alternative channels to secure those investments after all. ”

Maria: 'That's what I call leadership. Taking action while acknowledging the risks, that's the approach we need today.'

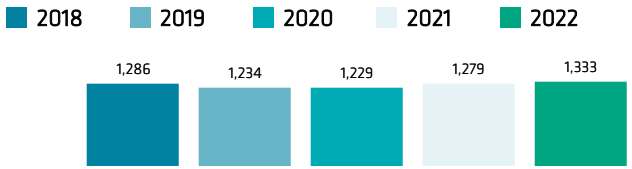
Maria van der Heijden: director of MVO Nederland
Danny Benima: CFO of Stedin

FINANCIAL RESULTS

Stedin Group achieved a net profit of €44 million in 2022 (2021: €21 million). This figure is lower than expected, which can be attributed to considerable geopolitical unrest over the period, driving up energy prices and reducing the availability of raw materials and commodities, combined with shortages in the labour market.

Operating income

Operating income in 2022 was €1,333 million. This is €54 million higher than in 2021, thanks to higher transmission revenues and higher revenues in the metering domain. With effect from 2022, the rates are based on new method decisions issued by the ACM that will apply from 2022 until year-end 2026. This had a positive effect on our net revenue and other income in comparison with the previous year. In addition, rates in the metering domain were reduced in 2021 to compensate for the excess returns achieved in previous years.



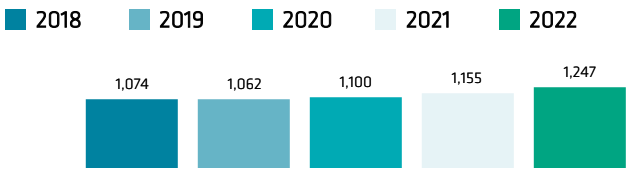
Net revenue and other income (x € 1 million)

Total operating expenses

In 2022, total operating expenses increased by €92 million (8%) to €1,247 million, driven by the €110 million increase in costs for network losses and, among other things, the €21million increase in transmission costs and the €16 million increase in personnel expenses. On the other hand, other operating expenses decreased by €40 million, which was due in part to the elimination of municipal sufferance taxes, which municipalities are no longer permitted to charge effective 2022, and a €27 million decrease in depreciation charges.

Due to the soaring energy prices, costs for network losses have increased considerably. In the years to come, this effect will continue to be visible in the costs reported by Stedin. 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. Partly due to the sharp increase in energy prices, Stedin decided to adopt a different purchasing strategy which involves longer-term purchasing compared with Stedin's previous practice. As a result, Stedin's costs are now less exposed to short-term fluctuations in energy prices, which improves the quality of financial forecasts. In addition to this change in purchasing strategy, Stedin has also considered other measures to minimise network losses. For example, it is implementing process optimisations with several of its internal departments. For more information about network losses caused by fraud, see the 'Energy theft and safety' section.

The fall in depreciation charges can be largely attributed to a change in the depreciation method for gas-related assets (other than client meters), which was introduced on 1 January 2022. For further information, see 'Change of accounting estimate for depreciation method and useful life' in the notes to the consolidated financial statements'.

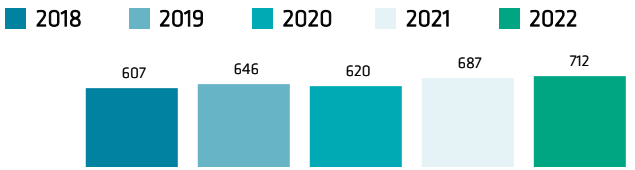


Operating expenses (x € 1 million)

Investments

Investments in property, plant and equipment and intangible assets in 2022 amounted to €712 million, an increase of 4% (2021: €687 million).

2022 saw a sharp rise in grid-driven investments while client and meter-driven investments decreased slightly compared with 2021. In the 'Financial and economic performance' section, we describe what we are doing to be able to finance those investments. The nature of the investments is described in the 'Facilitating the energy transition' section .



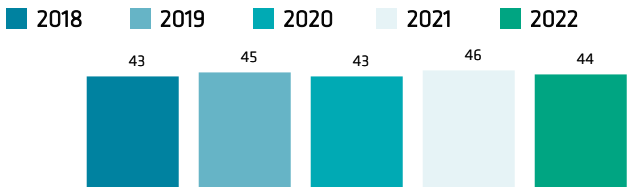
Investments (x € 1 million)

Financing, solvency and credit rating

This year, the increased investments led to a negative cash flow of €297 million after operating and investing activities. This has led to growing financing requirements. Combined with Stedin's financing activities, this has resulted in €53 million in cash and cash equivalents. For further details on this, see the 'Financial and economic performance' section

In all, Stedin currently has €1.5 billion in outstanding green bonds, which was the subject of a new Allocation & Impact report in December.

As at 31 December 2022, our solvency ratio was 44.4% (2021: 45.6%). Stedin Group's policy is aimed at maintaining a solvency ratio of at least 40% in the long term. The objective of the Group is to retain its A-credit rating with a stable outlook, provided by Standard & Poor's (S&P). On 25 July 2022, Stedin's credit rating of A- with a stable outlook was reaffirmed by S&P. For the latest developments regarding the credit rating, see note 34 Subsequent events.



Solvency (in %)

FFO/Net Debt ratio

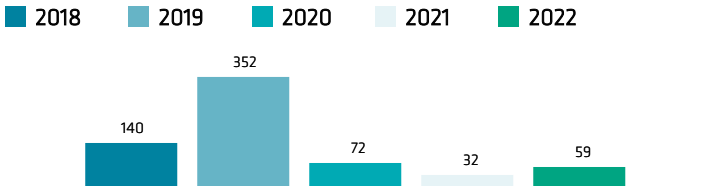
The FFO/Net Debt ratio as at 31 December 2022 was 10.1% (year-end 2021: 11.3%). The ratio fell, mainly as a result of the sharp fall in the FFO caused by the increase in costs for network losses. The net debt also increased as a result of financing raised.

Income tax

Profit before income tax for 2022 was € 59 million (2021: €32 million).

The tax expense increased by €4 million in 2022 to €15 million, partly due to a higher profit before income tax. The effective tax rate (as a percentage of profit before income tax from continuing operations) in 2022 was 25.3% (2021: 34.72%).

Deferred tax assets and liabilities were measured as at 31 December 2022 on the basis of the current tax rate of 25.8%.



Result before taxes (in € million)

RESULTS OF NON-REGULATED ACTIVITIES

NetVerder

NetVerder continued its progress on the development of collective heat grids in 2022. At several locations in Stedin's service area, we are developing open heat grids to which we will connect as many sources and users as possible over time. The first projects will be operational within a few years. The Delft Open Heat Grid project, (Open Warmtenet Delft, OWD) is closest to completion, and is working towards an investment decision in 2023. We also expect an investment decision and the start of realisation of the expansion in the Rotterdam Botlek Steam Network in 2023.

Deployment of sustainable sources

The deployment of sustainable energy sources such as residual heat, geothermal energy and low-temperature sources (outside air, water) is continually growing in importance. We work for and with municipalities, project developers, housing associations and residents to enhance the sustainability of the built environment. While our focus is on the infrastructure, we consider the entire energy system, as well as the affordability of the various routes and their supply security. In the meantime, we are preparing for a potentially larger role in heating in anticipation of a political decision on the Collective Heat Supply Act (Wet Collectieve Warmtevoorziening, WCW). More information on the market regulation of heat grids is available in the 'Strategy' section.

Green Village heat street

Work has begun on connecting the heat street in the Green Village on the Delft University of Technology campus to the university's heat grid, whereafter the heating network can be taken into operation. Once in operation, the heat street will make it possible to test heating innovations and (in combination with the available hydrogen and electricity infrastructure) to do system integration studies. The heat street is the product of a cooperation with Alliander and Enexis, and is managed by NetVerder.

Heating system in Goes

In 2022, as a result of the merger of Stedin and DNWG, NetVerder took over the management of DNWG Warmte's heating system in the Ouverture district of Goes. Five heat pumps were replaced in 2022 because they had reached the end of their useful lives. Unfortunately, we were unable to replace all the heat pumps in 2022 due to lengthier delivery times from suppliers.

The existing NetVerder assets performed in line with expectations in 2022, without operational failures.

Sustainable heating in Delft

In Delft, NetVerder is collaborating with heating supplier Equans (formerly Engie), the Geothermie Delft consortium (consisting of the Delft University of Technology, Shell, EBN and Aardyn), the housing associations Woonbron, Vestia, Vidomes and DUWO as well as the municipality of Delft to construct a heat grid In 2022, work proceeded on the further details of the design of the heat grid and the tender process for the realisation of the heat grid was started. In addition, the contractual agreements and the business case were further detailed. In 2022, the stakeholders involved took key steps towards obtaining certainty about the geothermal source, which has brought the realisation of the project a step closer. In 2022, we obtained allocation of a grant from the national growth fund through the New Heating Now! (Nieuwe Warmte Nu!) programme.

At the start of the project, the expected CO_2 savings are some 4.6 tonnes per year.

Rotterdam Botlek Steam Network

In 2022, NetVerder once again safely and reliably transmitted steam and condensate via the steam network in Rotterdam Botlek. Via this network, steam producers AVR (which uses two steam sources) and Cabot supply the sustainable steam to Lanxess (formerly Emerald Kalama Chemical). Maintenance was carried out on the steam network in 2022 during a complete shutdown of Lanxess. In 2022, 203,057 tonnes of steam in total were transmitted via the Rotterdam Botlek Steam Network (2021: 232,318 tonnes). This led to a net reduction of CO_2 emissions of approximately 20,000 tonnes. The plans to significantly expand the steam network have advanced. Key subsidies have been obtained for this from the province of Zuid-Holland (€ 2 million) and the municipality of Rotterdam (€ 0.7 million). NetVerder remains in intensive talks with the Port of Rotterdam Authority, local authorities and other parties in the Botlek area to jointly realise this project. Once the steam network has been expanded, the expected potential reduction in CO_2 emissions from the entire steam network will be around 160,000 tonnes a year.

Borculo biogas network

Since 2017, NetVerder has handled the distribution of biogas from Groot Zevert Vergisting in Beltrum to Friesland Campina in Borculo. In 2022, 6.3 million m^3 of biogas was transmitted via our gas grid without

problems via this 5.4 km transmission pipeline (2021: 7.2 million m^3). As a result, Friesland Campina saves substantial volumes of natural gas at its production location.

Risk controls

NetVerder's risk controls are fully in place as designed and operational. The risks of this business unit are periodically updated. Stedin Group's safety guidelines also apply to NetVerder. There are workplace inspections, we hold each other accountable on safety conduct where necessary, and reporting concerns is also part of our safety policy.

DNWG Infra

Stedin Group purchased DNWG Group of Zeeland in mid-2017. The grid managers and office staff of DNWG Group have been integrated with effect from 1 January 2022. The commercial activities (including TUMS meter services) of DNWG Group were sold or phased out in 2022, with the regulated tasks of TUMS incorporated into Stedin. As a result of these actions, DNWG now solely consists of a non-regulated business: DNWG Infra. The further integration of DNWG Infra into Stedin's operations is currently being elaborated and will be given further shape in 2023.

Until that time, DNWG Infra is fully focused on its core task: the maintenance and management (including fixing failures and installation work) of the electricity/gas grids of Stedin Netbeheer and the water network of Evides in its service area of Zeeland and Goeree. The aim of this multidisciplinary cooperation is to work efficiently and cost-effectively and to minimise nuisance for residents and municipalities. The employees of DNWG Infra and Evides work closely together on this within the Multidisciplinary Organisation Initiative (Regie Organisatie Multidisciplinair, ROM). The frameworks for this cooperation are established in the cooperative agreement between DNWG Infra and Evides. For more information on multidisciplinary working, see the 'Affordable and efficient services' section.

WHAT HAVE WE LEARNT

2022 was a momentous year, but above all a year in which we again learnt a great deal on the way to realising our new strategy. The following events and developments serve as examples of this.

Improved grid management

Outage in Spijkenisse

As a result of a fire in a distribution station in Spijkenisse, a switchgear installation was damaged beyond repair and large parts of Spijkenisse were without electricity for hours. The fire started in a switchgear installation, which is a rare occurrence. As there was no safety feature at this location to automatically switch off the electricity if something went wrong, the fire caused severe damage. The fire in Spijkenisse appears to have been an unfortunate combination of circumstances. We are aware that the outage had a huge impact on residents and businesses in Spijkenisse. We are learning from this and we want to prevent it happening again. We are therefore tightening up the automatic safety systems in our 150 distribution stations. In addition, all stations have since been preventively checked for deficiencies.

Facilitating the energy transition

Rapid development of the energy transition

The energy transition is accelerating, driven by national and international political decisions. The CO_2 emissions reduction target under the Dutch Climate Agreement has been raised from 49% to 55%, and there is discussion in Europe of a target of 62%. These increasingly ambitious targets are leading to practical policy measures. For example, the government has announced it will make hybrid heat pumps compulsory from 2026 and the combustion engine will be banned in 2035. This trend is further reinforced by the war in Ukraine and high energy prices, combined with a favourable subsidy policy. All this means that Stedin needs to accelerate the expansion of its infrastructure. Accordingly, we increase our investments significantly every year. But where we are unable to do so in good time, we had to give notice of congestion in previous years. This reality means that as a public company, we now have a much more central role in the public and social arena. More than before, we need to step forward and help to shape the debate on the energy transition. We also have to be more accountable to our stakeholders than before, and show them what measures we are taking to realise the infrastructure needed for the energy transition and avoid congestion. This is a new skill for us and we are learning how, when and in what form we should do this. At the same time, we need to structure our systems and processes in such a way that we have ready access to data and information enabling us to provide accountability in the area of non-financial information.

Smart grids

Digital measuring of our medium-voltage stations is essential to facilitate the energy transition. This is particularly important for measuring energy flows and voltage quality. A tender (DA3) has been launched for the necessary distribution automation so that these smart sensors can be rolled out a project. When we put this out to tender, we assumed that this concerned a product that was ready for use. In practice, however, it turned out that this product still needed considerable adjustments. It also became clear that in order to deal with product development, we would have to switch to another management system for this distribution automation. Based on previous experience with smart meters, we decided to set up an organisation for a 'smart device chain'. This will ensure that measurement data from the medium-voltage stations is received on the central platform. From there, the data can be released to the various users.

Sustainable business operations

Safety

Serious incidents, such as with the planned gas works in Zoetermeer and Rijswijk, require proper internal evaluation. Even though employees have extensive training, followed additional courses and were given guidance, things still went wrong. Errors were made during the works in Zoetermeer, from which we can learn important lessons both as an organisation and as a sector in both terms of both preparation and execution. It is clear that we need to raise awareness of the importance of calling each other to account with respect to attitudes and behaviour. We have started to address of the recommendations from the regulator, the State Supervision of Mines (SodM), which, among other things, recommended improvements to our internal control mechanism. We are implementing some of the recommendations in cooperation with the other grid managers.

Good employment practice

We have tested positive ways of solving issues together with our employees, such as in terms of how the schedules for the on-call and emergency repairs shifts are put together. Together, we are much better able to put together a schedule that better meets the need to always have the right professionals available 24/7 to fix outages, and we can also cater as best as possible to the wishes and needs of our employees. We intend to apply this kind of co-creation more widely in 2023.

FOCUS AREAS IN 2023

2023 is the first year in Stedin's new 2023-2027 strategy. The new strategy aims to achieve a congestion-free Stedin area by focusing on construction, use and management.

Construction

Grid capacity is the top priority in our new strategy (2023-2027). In 2023, we will invest €825 million in our grids and €200 million in works, including maintenance, fixing outages and connections. To facilitate the commercial and sustainable ambitions of customers in our service area, we will realise an additional 425 MVA of transformer capacity for our transmission grid and we will spend close to € 596 million on projects in the low and medium voltage grids and the gas network in our service area. We will create extra grid capacity in the medium-voltage grid, with 500 medium-voltage installations and an additional 1,300 km of electric cables added to the medium and low-voltage grids. In 2023, around 28,000 new homes will be connected and 14,000 maintenance works will be carried out in the Stedin area. We are replacing over 200 km of brittle pipelines and 25,000 primary gas connections. In Zeeland, we will install around 90 stations for the medium and low voltage grids and we will replace more than 300 km of electricity cables and 20 km of gas pipes. We expect to carry out close to 12,000 maintenance jobs for the electricity and gas grids in Zeeland.

To make this possible, we have to 'start earlier'. We will do this by setting up multidisciplinary teams in 2023 in order to accelerate the preparation phase for 78 transmission stations and cabling routes with a spatial component. We will accelerate work on the distribution grid by investing more proactively and starting with regional multi-year plans. We will also professionalise our regional stakeholder management and invest in management representation on the part of Stedin. We are expanding our expertise by recruiting and training strategic environment managers and project developers, environmental lawyers and management representatives. To be able to build faster, we are focusing on retaining our employees, doubling the capacity for our technical training and attracting new target groups. We will start to use other forms of cooperation and contracts to work more effectively with our contractors and partners. In addition, we will begin with innovations that enable us to work more efficiently and we will improve our processes and systems with a view to achieving 100% supply certainty for materials and project management.

Optimisation

In 2023, the activities under Optimal Use will focus on influencing customer demand, maximum use of technical solutions, congestion management and flexibility solutions. We will also work on grid monitoring and grid management on the basis of better insight and cooperating in the development and elaboration of energy legislation. We aim to increase our influence at locations on the basis of the Regional Energy Strategies (and other policies) and influence future locations for onshore and offshore wind farm connections. We also publish capacity maps. This will reduce the likelihood of congestion, as we will align customer demand with what is possible. In 2023, we will apply the technical solutions for maximum usage of our grids, for instance through the targeted release of the failure reserve (N-1), the application of capacity-restriction contracts and capacity switching.

Using the 'Flex Challenge', we investigate and test which flexibility solutions (both technical and contractual) will produce the best results for customers, market parties and Stedin. We will continue to build on the basis for grid monitoring and management, including the use of a modern geographical information system. Stedin will also cooperate in the development and elaboration of energy legislation to facilitate greater usage of the grid.

Management

The reliability of the grids is under pressure. It is thus important that we have good insight into the condition of our grids so that the correct maintenance can be carried out, the failure rate can be accurately estimated and components can be replaced in the correct locations in a timely and efficient manner.

We will carry out our Quality road map for our assets and monitor progress on this in 2023. Among other things, this means that we will improve our risk analyses and failure curve models. We also want to create more synergy between grid expansions and replacement investments. We are improving our installation and operation policy for five asset groups. We also intend to further improve how we deal with failures, for instance through better use of our intelligent failure tracers. This will enable us to resolve failures more quickly.

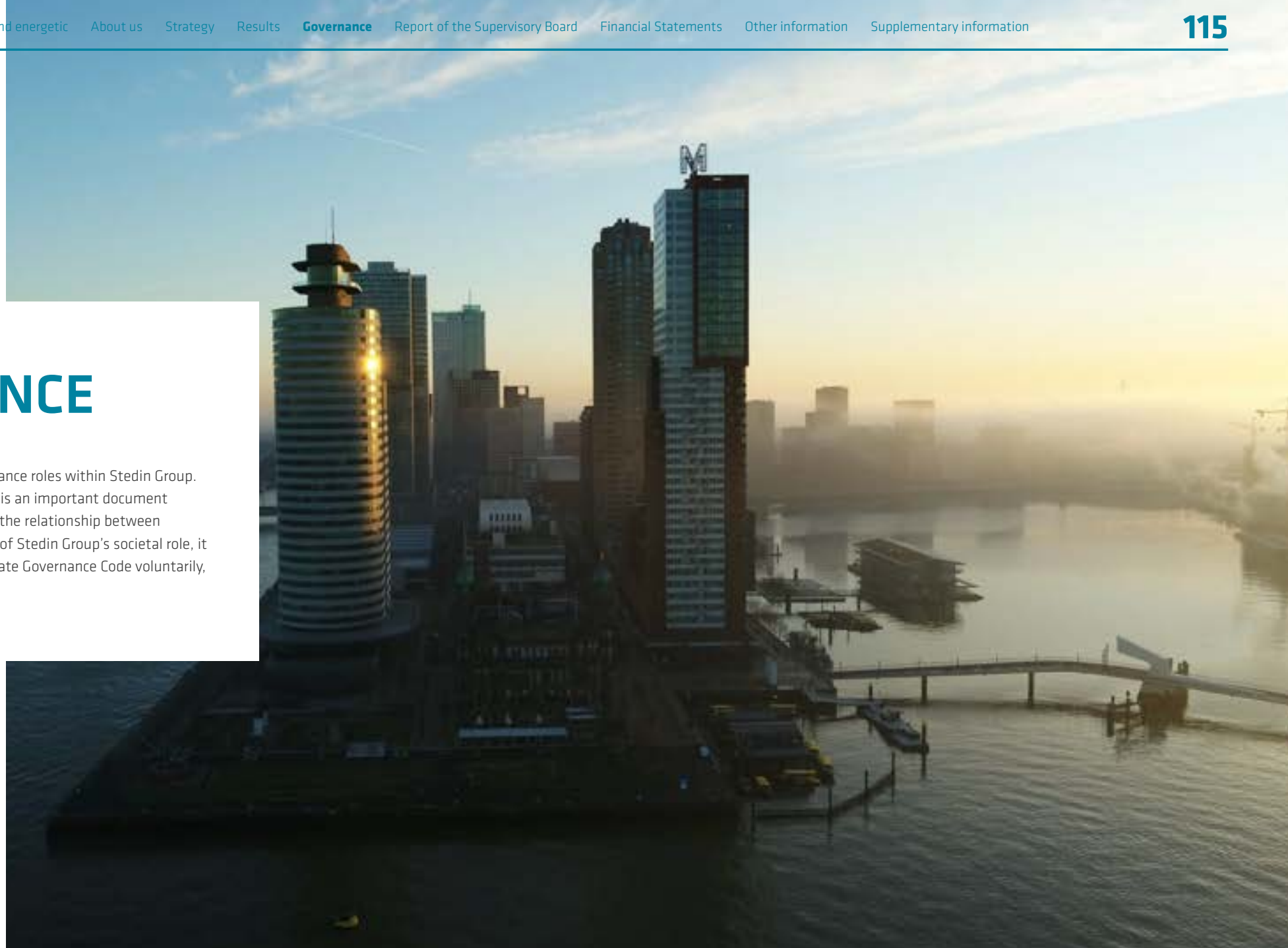
Other aims and preconditions

We have four other objectives besides our priorities for grid capacity and performance. We will make further progress on improving customer satisfaction and achieving efficiency, we will work on renewing and improving market facilitation, we will continue to improve sustainability in our own operations and we will continue to ensure the safety of our gas grids. We are moreover preparing for a role in alternative heating.

We have to ensure that the right preconditions are in place in order to realise our plans for 2023 and beyond. First of all, our employees must have a physically and socially safe environment in which to work. And environmental safety is obviously a top priority. Cyber security is another highly important issue, as our grids become more digitalised. Finally, we need sufficient funding, ICT and change capacity and competent and satisfied employees to achieve our ambitions.

GOVERNANCE

In this section, we describe the governance roles within Stedin Group. The Dutch Corporate Governance Code is an important document for Stedin, regulating matters such as the relationship between management and supervision. In view of Stedin Group's societal role, it was decided to apply the Dutch Corporate Governance Code voluntarily, where possible.



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., DNWG Infra B.V. and NetVerder B.V., among others. Stedin Holding heads the group structure and is, directly or indirectly, the statutory director of its subsidiaries. Effective 1 January 2022, the two grid managers Stedin and Enduris merged into a single grid manager within Stedin Group. 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.

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. Stedin Group additionally complies with the governance requirements under the Electricity Act and the Gas Act. A large 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.

The updated CGC was published on 20 December 2022 and will take effect from the start of the 2023 financial year. The most significant changes concern the topics of long-term sustainable value creation, the role of stakeholders, digitalisation, and diversity and inclusion. Stedin is considering the precise impact of these changes on its articles of association and terms of reference, and will process that impact in conjunction with the (conditions governing) the envisaged participation of the Dutch State in Stedin.

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 appointment and reappointment periods - management board members:* Members of the Board of Management are appointed as statutory director by the Supervisory Board for a maximum term of four years. They can be reappointed for successive maximum terms of four years. Such reappointments are not limited within Stedin Group, to ensure the continuity of Stedin.
- *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:* a combined Selection, Remuneration and Appointments Committee has been established within Stedin Group for practical reasons.
- *Provision 4.2.3 Meetings and presentations*: The shares of Stedin Holding are not listed. However, Stedin Group has issued bonds that are listed on the Amsterdam stock exchange. 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 local and regional authorities and are therefore not listed.

- 2.1.3 Executive committee
- 2.8.2-2.8.3 Takeover bid
- 3.1.3 Remuneration - executive committee
- 3.3.2-3.3.3 Remuneration of supervisory board members in shares and share ownership of supervisory board members
- 4.2.3-4.2.4 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
- 4.4 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 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 internal *Governance and Authority Manual* sets out the procedure for mandates to represent Stedin Group and its subsidiaries externally and also includes threshold amounts.

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' sections 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 as director under the articles of association by the Supervisory Board 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 2022, 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

Apart from the members of the Board of Management, the members of the Strategy Management Team (MT) also include the Asset Management, HR and Communication directors and the Strategy and Corporate Affairs managers. The Strategy MT discusses and provides strategic advice on the key strategic topics and the approach to sustainability strategy. 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 consists of five women and four men.

Strategic Coalition

The Strategic Coalition consists of 21 directors, managers and members of a Works Council delegation, aside from the 9 members of the Strategy MT. To develop the strategy and its implementation, they meet several times a year. The Strategic Coalition consists of 20 men and 10 women.

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. is also the Supervisory Board of the grid manager within the group, i.e. of Stedin Netbeheer B.V.

Terms of Reference

In addition to legal requirements and the articles of association, the Supervisory Board also 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.

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 various terms of reference of the Supervisory Board and its committees are posted on Stedin Group's website. 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 consulted on the Stedin Group website.

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 consists of five members: three men and two women, representing a variety of age categories. 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.

Shareholders

Stedin Group has 44 Dutch municipalities as its shareholders. The 44 shareholders are represented by the Shareholders' Committee, whose members are Rotterdam, The Hague, Dordrecht, Delft, Lansingerland, Molenlanden, Achtkarspelen, Nissewaard and Uithoorn.

General Meeting of Shareholders (AGM)

Stedin Holding N.V. holds a General Meeting of Shareholders (AGM) within six 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.

MUNICIPALITIES HOLDING MORE THAN 2% OF THE SHARES

Municipalities holding less than 2% of the shares

Aalsmeer	Goeree-Overflakkee*	Papendrecht*
Achtkarspelen*	Gorinchem*	Ridderkerk*
Alblasserdam*	Haarlemmermeer	Rijswijk*
Albrandswaard	Hardinxveld-Giessendam	Schiedam*
Ameland*	Heemstede*	Schiermonnikoog*
Amstelveen*	Hellevoetsluis*	Sliedrecht*
Barendrecht*	Hendrik Ido Ambacht*	Uithoorn*
Bloemendaal	Krimpen aan den IJssel*	Vijfheerenlanden*
Brielle	Krimpenerwaard*	Westbetuwe*
Capelle aan den IJssel*	Molenlanden*	Westvoorne
Castricum*	Noardeast-Fryslân*	Zandvoort*
		Zwijndrecht

* These shareholders also have cumulative preference shares

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 department (IA) 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 Audit Committee supervises the IA function and advises the Supervisory Board on its performance. IA reports to the Board of Management on audit-related topics, such as the effectiveness of internal controls, follow-up of recommendations and realisation of the annual audit plan. IA also reports the main features of these topics to the Audit Committee and informs the external auditor.

Each year, an annual audit plan is drawn up that is based on a risk analysis and interviews with senior management as well as the Board of Management. It also incorporates the input of the Audit Committee and the external auditor. Internal Audit submits the annual audit plan for approval to the Board of Management and then to the Supervisory Board.

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. and attends all the 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 audit 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 is then able to 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 and guidelines for 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 contacts 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 practice' 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. A compulsory e-learning course on desirable behaviour, developed in 2022, was presented to all our employees in December and has since been completed by over 3,000 of them.

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 2022, four workshops and awareness sessions were held on risks and learning points. On five occasions in 2022 (two in 2021), 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).

Fraud prevention

Stedin Group has a fraud risk prevention policy that has been approved by the Supervisory Board and is subject to an annual update. Based on discussions with the departmental management teams, fraud risk consultations produce a fraud risk analysis from which control measures may ensue. Fraud risk consultations are held at regular intervals (on three occasions in 2022) and are attended by the Internal Audit, Control and Risk managers and the Compliance Officer. They discuss the risk of fraud in a structured manner, also including practical cases tabled by the Compliance Officer, which may be used as a basis for control measures.

Reporting Facilities

Stedin Group has an 'Integrity & security' reporting facility. The Compliance Officer investigates every report, also 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 2022, 186 reports (2021: 256 reports) of possible breaches of the code of conduct were received within Stedin Group at the Integrity & security reporting facility. Of these reports, 51 (2021: 70) have been designated as involving an integrity element. In the first half of 2022, attention in broader society for undesirable conduct and intimidation and sexual harassment did not result in an increase in the number of reports on this topic. It did however receive extra attention from the Board of Management and integrity staff.

Confidential advisers

Employees can also contact one of the organisation's confidential advisers. Stedin Group has six internal confidential advisers. One external confidential adviser was added to the internal team of advisers on 1 November 2022, bringing the total of confidential advisers to seven. Confidential advisers work strictly confidential, 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

If an employee believes that an abuse within the company has not been addressed or has not been addressed adequately in accordance with the internal procedure, and if the abuse concerned is relevant to society in general, the employee can opt to report it to the external House for Whistleblowers. In 2022, no reports were made to the House for Whistleblowers. We refer to this 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 2022. 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

In addition, Stedin Group attaches great importance to regulatory compliance. This is a shared responsibility of the board, the management and employees. They are supported in this by Compliance & Integrity. Stedin Group has an effective and efficient 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 on legal compliance developments within and outside of Stedin

Group. In 2022, supervisory authorities did not impose any sanctions on Stedin for non-compliance with laws and regulations.

Stedin applies appropriate processes to ensure compliance with all relevant 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, turnover 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

Within Stedin Group, we exercise due care when handling personal data, in line with the General Data Protection Regulation (GDPR). The exercise of due care when handling personal data is part of our Code of Conduct. Each department has one or more Privacy Coordinators (totalling 32). They are joined by the Legal Privacy Officer, who serves as an adviser and provides support to the organisation. Lastly, the Data Protection Officer has an independent role and performs a monitoring and advisory function as an internal supervisor.

Stedin maintains a constant focus on making and keeping its people aware of the importance of due care in the processing of personal data of customers and employees. One of the ways we raise awareness on this issue is by organising an e-learning course that all employees are required to complete. In 2022 we made considerable progress in assuring the careful processing of personal data. For example, we updated our privacy policy, highlighting the crucial role of governance in this field. In addition, we updated guidelines and procedures and formulated basic rules for all employees regarding the careful processing of personal data. Those basic rules are shared via the intranet and discussed regularly in the various consultation platforms.

There were 39 reports of data breaches in 2022 (2021: 36 / 2020: 42). Five reports were submitted to the Dutch Data Protection Authority (2021: 2 / 2020: 4).

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. Previously, he worked for Siemens for more than 20 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 (since May 2022)

Mr D. (Danny) Benima
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: Control & Risk, 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, board member of NEDU (until 1 April 2022).

Ms G.M. (Trudy) Onland
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 12 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: The Business Project, Maintenance, Consumer and Business Complex, DNWG Infra and Client chains.

Other positions: None

Mr D. (David) Peters
Member/CTO

David Peters (b. 1980) has been a member of the Board of Management since January 2018. Since May 2015, he has held the position of Strategy director at Stedin and has been responsible for strategy and innovation. Until May 2015, he worked at Boston Consulting Group in the Netherlands as well as abroad on strategy and organisation issues, especially in the energy sector. He was a member of the National Think Tank in 2006. 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 Stichting Zeeuwse Publieke Belangen, board member of Elaad, board member of EDSO, member of the strategic advisory board of the European Network for Cyber Security, member of the Supervisory Board of GOPACS, member of the Supervisory Board of BAS B.V. (Agreements System Manager)

Biographical details of members of the Supervisory Board

Mr D.G. (Doede) Vierstra (chair of the Supervisory Board from 1 February 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 NGF Geleidehonden and member of the Supervisory Board of Leiden University Medical Centre (LUMC). He acquired his ample experience with stakeholders, including public shareholders, in his work as CFO at Nuon as well as in other positions. In the past, he was chair of the WENB (Energy and Utility Companies Employers' Association). He is familiar, therefore, with the challenges that Stedin Group faces in connection with the energy transition.

Ms H.L. (Hanne) Buis, LLM

Hanne Buis (b. 1976) has completed two degree programmes at Erasmus University Rotterdam: Health Policy & Management and Law. She 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

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

Arco Groothedde (b. 1964) is an independent consultant and interim manager. Until 1 November 2022 he served as Environment and Planning Act Digital System Operations Director. 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). At Translink, he assisted in the introduction of the public transport chip card, among other things. 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 director at DSW Zorgverzekeringen and ROC Aventus.

Ms A.J. (Annie) Krist

Annie Krist (b. 1960) commenced her career at N.V. Nederlandse Gasunie in 1987. At the end of the 1990s, she was a member of the Gasunie team that was responsible for commercial, technical and IT modifications resulting from the deregulation of the gas market. In 2005, she joined the management team of Gasunie Transport Services (GTS). From 2008 to 2011, she was Director of Strategy and Participations. On 1 July 2011, Annie was appointed as Managing Director of GTS. From 1 May 2016 to 1 April 2017, she was a member of the Executive Board and CEO of Gasunie Transport Services. Annie was appointed as CEO of GasTerra with effect from 1 April 2017. She is also a member of the board of Vereniging Energie Nederland, the sectoral organisation for energy companies. In addition, Annie is a member of the board of the Platform Groen Gas, Associate Member of the International Gas Union, chair of the Stichtingsraad New Energy Coalition, 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 and Vice President, Member of the Governing Board and Executive Committee at Eurogas.

All members of the Supervisory Board of Stedin Group have the Dutch nationality.

RISK MANAGEMENT

Managing risks and opportunities in order to achieve strategic and other objectives is an important responsibility. The risks and opportunities are therefore an integral part of our annual planning cycle. This approach helps us to purposefully deal with uncertainties (risks and opportunities) in attaining our objectives.

Risk governance

The Board of Management has final responsibility for the execution of risk management, together with the management of the business units. They are assisted by support departments such as Corporate Risk Management, Safety, Health, Environment & Quality (QHSE), Business Continuity Management, Security, Corporate Affairs (including Privacy Office), Compliance & Integrity and Treasury. The Asset Management department is tasked with making proposals for replacement and other investments based on a risk analysis. We apply the ISO-NTA 8120 (ISO 55000) standard for this. The operational asset risks are identified in the investment plan. The investment plan for the years 2022-2024 is available on www.stedin.net. Internal Audit performs audits and reports on the results to the Board of Management as well as the Supervisory Board's Audit Committee. The topic of Risk is an item on the agenda of the Audit Committee of the Supervisory Board four times a year. A detailed description of our risk management governance is available on www.stedingroep.nl.

Risk management process

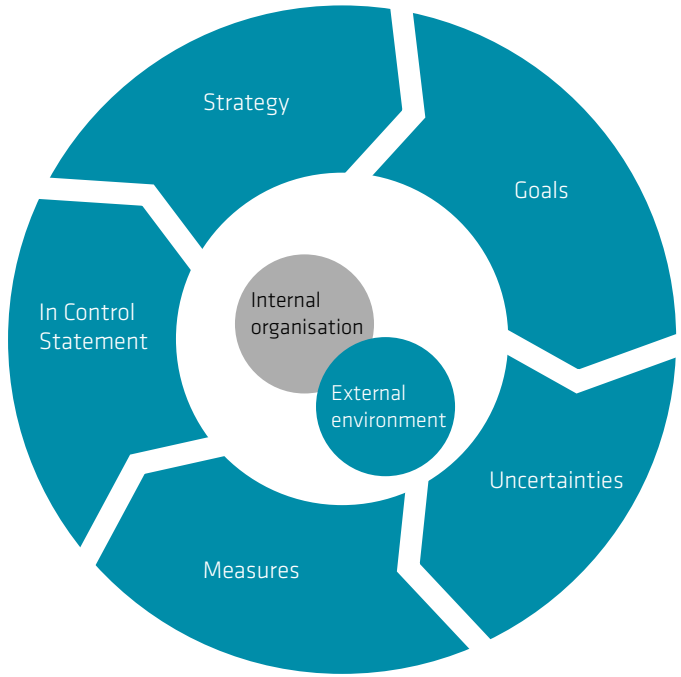
Stedin Group's Enterprise Risk Management (ERM) framework covers both long-term and short-term uncertainties. For the most part, this ERM framework has been translated into an In-Control Framework (ICF). This ICF consists of the risk categories Tactical/Operational, Financial, Fraud, Business Continuity, 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 a permanent part of the standard business planning and control cycle.

Long-term uncertainties

We update and report on the development of long-term risk appetite and the related control to the Strategy MT once every quarter. We compare the uncertainties to the risk tolerance. The long-term uncertainties also serve as input for the selection of change programmes within Stedin, are part of the financial-strategic forecasts and are incorporated in the annual planning process. In this way, the long-term uncertainties are addressed as much as possible in the planning. For further details about the long-term uncertainties, see the section entitled Most important strategic risks and opportunities for Stedin Group in 2022.

Short-term uncertainties

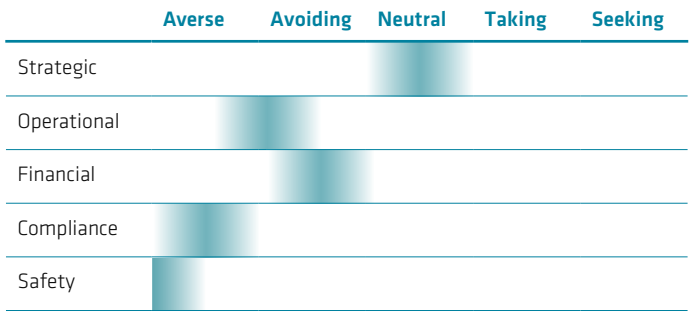
Short-term uncertainties have a time horizon of approximately one year. Operational risks such as service breakdowns and failures, fraud and reporting risks are examples of short-term uncertainties. We identify risks and opportunities as well as the associated controls with regard to short-term uncertainties. The short-term uncertainties and controls are linked to the business, supply chain and departmental objectives included in the supply chain and departmental plans. We review and update the risks and uncertainties at least once a year in risk and control sessions with management. The departmental management periodically reviews by means of self-assessment whether the controls are effective, in connection with the 'Jointly in Control process'. The



departmental management also determines the improvement potential and actions. Every quarter, we discuss the outcomes of these self-assessments with the operational management. We report on developments in the risks and the effectiveness of the controls applied to the Board of Management via monthly business unit reviews. In addition, the management of each business unit reports to the Board of Management in a Letter of Representation twice a year. In that Letter, they report on integrity, strategy and objectives, risks and controls, external reporting, and laws and regulations. Management uses the internal 'In-Control guidelines' to give thorough consideration to each of these elements. These statements serve as an important basis for the In-control statement of the Board of Management. If there are any issues, risk management determines their impact on the advice for the overall In-control statement of the Board of Management.

Risk appetite

We have to incur a certain degree of risk in order to achieve our appetite. Given the public and regulated nature of Stedin Group, it is generally inclined to be more risk averse and avoidant concerning its general risk tolerance. The extent to which we are prepared to be exposed to 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.

- **Strategic - Neutral**: Stedin Group is prepared to take moderate risks to achieve its mission, vision and strategic objectives.
- **Operational - Avoiding**: Stedin Group is risk averse in connection with risks concerning supply security. In this light, Stedin Group seeks a balance between supply security and social and other (social) affordability.
- **Financial - Avoiding**: Stedin Group is a capital-intensive enterprise. In order to ensure that our service provision to customers remains both reliable and affordable, we aim for an A category rating from Standard & Poor's. We do not accept any risks that may endanger that rating. The reliability of our financial reporting is one of the preconditions for retaining this rating.
- **Compliance - Averse**: We perform a regulated task in the energy world. We therefore seek to comply with all applicable laws and regulations.
- **Safety - Averse**: The electricity and gas infrastructure is potentially dangerous (and can pose a threat to lives). We have the lowest possible risk tolerance in connection with the safety of our employees and our environment.

Developments in 2022

External developments

In 2022, geopolitical developments resulted in extraordinary external circumstances and increased risks with an impact this year. One important external development is the energy crisis, which has caused various different risks to increase. We will discuss a number of these risks and the associated developments for Stedin below.

- One of our tasks as a regional grid manager is to transmission losses. The costs of this sharply increased in 2022 due to the rise in gas prices. On top of that, these costs also fluctuated considerably. For these reasons, this was added as a strategic risk in 2022.
- Another effect of the energy crisis is that it accelerated the energy transition and the associated electrification effort in 2022. At the same time, future customer demand is accompanied by huge uncertainties, for example as a result of national and international economic developments and issues surrounding the availability of energy sources. In anticipation of this, Stedin endeavours to make potential customer demand for connections and reinforcements more predictable.
- In the Porthos case determined at the end of 2022, it was ruled by the Council of State that the construction exemption is at odds with European nature conservation laws and cannot be applied to construction projects. But even without the construction exemption, this does not mean that all construction activity will come to a standstill. The ruling does not affect projects for which irrevocable planning permission had already been granted. As regards projects without such irrevocable permission, their nitrogen deposition effects in the environment must be studied and measures must be taken to reduce nitrogen emissions.

Feasibility of the energy transition

The feasibility of the energy transition is limited by such factors as materials, labour, space and funding. The central government may assist Stedin in strengthening its financial position. On Budget Day, the government announced its intention to set aside €500 million in the national budget for strengthening Stedin's capital position. Read more about this in the 'Financial and economic performance' section.

Geopolitical tensions are having an impact on the supply and commodities markets. As a result, Stedin is experiencing an overall lack of certainty as regards the availability of materials. We have taken additional measures to secure the supply of strategic materials in particular.

The Netherlands is struggling with severe shortages on the labour market, and many organisations are understaffed. Stedin is taking targeted measures to reduce these exceptional shortages of labour. The company is fairly successful in attracting and binding employees. At the same time, the government is developing measures to address the problem. For more details about this, see the 'Good employment practice' section.

Internal developments

With the integration of DNWG in 2022, Stedin entered a new phase. The risk registers have since been extended and control measures have been fleshed out. The key uncertainties for Stedin and DNWG are now part of the Stedin-wide risk and control framework. Challenges such as shortages of labour and developments within the organisation can have a temporary impact on the implementation of risk control measures. We are monitoring this 24/7 and take action where necessary.

Since 2019, within the Control Framework Stedin Group has had a specific control framework for its financial reporting, with a focus on the company's internal control structure. Keeping this framework up to date, effective and efficient is a continuous process. In 2022 we devoted a great deal of attention to integrating the DNWG processes. This work will continue in 2023. In addition, we have implemented a number of operational improvements, in collaboration with various different departments within our organisation. In 2023 we will continue our efforts to ensure the effectiveness and efficiency of the framework, with a special focus on developments in connection with the Corporate Sustainability Reporting Directive (CSRD).

Corporate Risk Management is experiencing an increase in the demand for guidance and support. In addressing risks and the development of those risks, the Board of Management and directors increasingly rely on the expertise of our Corporate Risk Management department.

Climate adaptation

The extent to which climate change affects our work remains uncertain. In view of our activities and our social responsibility, this is an area of focus for us and we adapt to the situation. We do so, for example, by exchanging knowledge and experiences within the sector and by conducting geographic analyses of our assets in combination with climate risk scenarios. See the 'Impact on people and planet' section for a number of examples of our organisation's priority areas in this context. The 'Climate scenarios' section contains a table with further details on the physical risks and opportunities associated with climate change.

Safety

At a company like Stedin, safety always comes first. This is reflected, for example, in our risk appetite in this regard, which is minimal. We simply do not accept any risks when it comes to safety. For a description of accidents in 2022, see 'Safety, security and cybersecurity'.

Other topics

For an overview of the average downtime in electricity and gas supply, see 'Supply security'. For uncertainties concerning the smart meter, see 'Smart grids, data technology and innovation'. For insights into our financial risks, see 'Financial risk management'.

Outlook for 2023

Stedin's new strategic objectives also come with recalibrated strategic risks. We determined those risks in late 2022 and we will further align the processes in 2023 so as to monitor the impact of those risks on our objectives. In this connection, risk management also supports the recalibration of risks in the amended departmental annual plans. In 2023, where necessary we will continue this support to ensure effective management of the risks associated with complex processes or projects. The new energy crisis is confronting us with a variety of new challenges both within and outside our organisation. For this reason we will also review our risk appetite in 2023 (along with the recalibration of our strategy), so that we can confront those challenges with confidence. Within the sector, Stedin collaborates with the other grid managers via Energie Data Services Nederland and the underlying Programme Organisation.

The most important strategic opportunities and risks for Stedin Group in 2022

This section contains an overview of our most important opportunities and risks, and a description of our top 5 risks. Our financial reporting risks are discussed in more detail in the 'Judgements, estimates and assumptions' section. For the risks concerning financial instruments, see the 'Financial risk management' section of the financial statements. For further information on the process related to strategic risks, see the 'Risk governance' section.

Connection of opportunities to strategic spearheads and material topics

Opportunity	Material topics	Strategic spearheads			Development relative to 2021
		Improved grid management	Facilitating the energy transition	Sustainable business operations	
1 Reduce societal costs through collaboration within the service area	Affordable and efficient services - Financial and economic performance	•		•	+
2 Application of new energy carriers	Investments in infrastructure - Smart grids, data technology and innovation		•		+
3 Increase predictability of investments through improved prediction of customer demand	Investments in infrastructure - Stakeholder dialogue and environment		•		+
4 Future-proof grid management based on data-driven predictions and decision-making	Smart grids, data technology and innovation - Security of supply	•	•		+
5 Development and deployment of disruptive technologies and methods	Smart grids, data technology and innovation		•		=
6 Make comprehensive assessment in relation to investments between electricity, gas or future energy sources	Investments in infrastructure - Smart grids, data technology and innovation		•		+
7 Position Stedin as a highly relevant partner in the energy transition	Stakeholder dialogue and environment - Smart grids, data technology and innovation		•		+
8 Strategic supplier relationships	Stakeholder dialogue and environment - Impact on people and planet			•	=
9 Rates structure of the future	Financial and economic performance - Affordable and efficient services	•		•	+

+ New in 2022 / = Equal to 2021 / ↑ Increased relative to 2021 / ↓ Decreased relative to 2021

Connection of risks to strategic spearheads and material topics

Risk	Category	Material topics	Strategic spearheads			Change from 2021
			Improved grid management	Facilitating the energy transition	Sustainable business operations	
1 Cyberattack causing damage to society and business operations	Operational	Security of supply - Smart grids, data technology - Safety, security and cybersecurity	•	•	•	=
2 Insufficient connection and transmission capacity	Strategic	Customer satisfaction - Stakeholder dialogue and environment - Investments in infrastructure	•	•		=
3 Availability of materials	Operational	Security of supply - Investments in infrastructure	•	•		↑
4 Availability and quality of data insufficient	Operational	Smart grids, data technology and innovation		•		=
5 Gas investments difficult to plan	Strategic	Financial and economic performance - Affordable and efficient services	•		•	↑
6 IT/OT landscape insufficiently prepared for the future	Strategic	Smart grids, data technology and innovation	•	•		=
7 Increased likelihood of surge to replace obsolete assets	Strategic	Security of supply - Investments in our infrastructure - Financial and economic performance	•	•	•	↓
8 High activity in outdoor space and below ground	Operational	Investment in infrastructure		•		=
9 Unavailability of enough people with the required competencies	Operational	Investments in infrastructure - Good employment practice		•	•	↓
10 network losses	Strategic	Financial and economic performance - Affordable and efficient services	•	•		+
11 Increasing pressure to maintain the A- category credit rating (at S&P) in the long term	Financial	Investments in infrastructure - Financial and economic performance	•	•	•	↓
12 Large-scale product recall	Operational	Security of supply - Impact on people and planet	•		•	↑
13 Environmental pollution of surroundings	Compliance	Impact on people and planet			•	↑
14 Services on core tasks insufficiently compliant	Operational	Security of supply - Customer satisfaction	•			=
15 Impact of accidents related to Stedin Group	Safety	Safety, security and cybersecurity			•	↑
16 Uncertainty about implications of changing E&G laws and other regulations (NL and/or EU)	Compliance	Stakeholder dialogue and environment - Investments in infrastructure	•	•	•	=
17 Management focus on cultural values and conduct insufficiently effective	Strategic	Good employment practice			•	↓
18 Excessive environmental footprint	Strategic	Impact on people and planet			•	↑
19 Uncertainty about the duration of availability of the communication network	Operational	Smart grids, data technology and innovation		•		↓

+ New in 2022 / = Equal to 2021 / ↑ Increased relative to 2021 / ↓ Decreased relative to 2021

The above table includes all the 'Strategic risks and opportunities' identified by us in 2022.

Categories of strategic risks and opportunities

Stedin Group assigns its strategic risks and opportunities to four categories, from 'low' to 'top'. 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 2022.

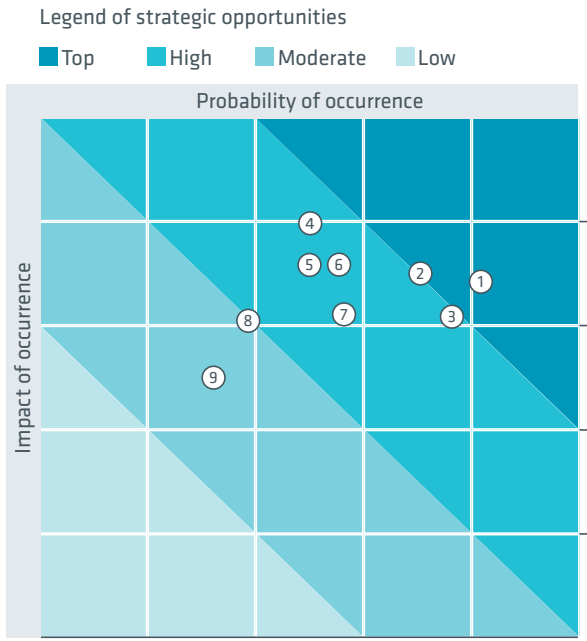
Risks are always changing, due to the multitude of uncertainties involved. We make periodic risk estimates, each time involving a reassessment of those factors to determine whether the risk is increasing, stable or decreasing. This applies both to the probability of a risk and to its potential impact if it does occur. We have identified several important developments compared with 2021:

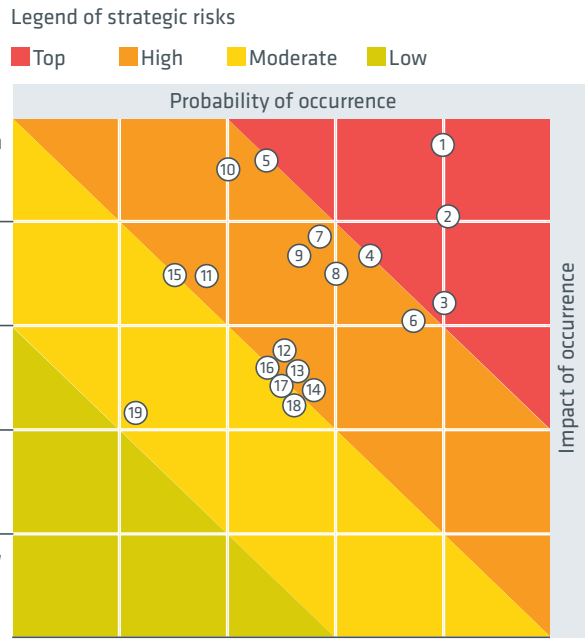
- The availability of materials poses a risk for Stedin. Unavailability of materials when they are needed can result in project delays. So far, Stedin has been able to ensure that the materials it needs are available when needed;
- Due to geopolitical tensions, the costs of energy increased and also became more volatile in 2022. In addition, 2022 saw a sharp increase in costs for network losses. However, the measures taken have helped to mitigate this risk to a certain extent;
- Since we signed the agreements framework with Alliander, Enexis and the national government, at the end of 2022, the pressure on maintaining our 'A' rating with S&P has decreased somewhat;
- By scaling up our recruitment department, maximising our focus on the training of fitters and optimising the Strategic Personnel Plan, we are continuously improving our understanding of the challenge ahead of us while also expanding our resources to tackle it.

The matrix below shows the principal risks, expressed in terms of the likelihood of their occurrence and their potential impact on Stedin. The safety of our people and our environment is and will always remain one of our top priorities.

Strategic opportunities:

1. Reduce societal costs through collaboration within the service area
2. Utilise new energy carriers
3. Increase predictability of investments through improved prediction of customer demand
4. Enable future-proof grid management by means of data-driven forecasts and decision-making
5. Develop and deploy disruptive technologies and methods
6. Perform comprehensive assessment for allocating investments between electricity, gas or future energy sources
7. Position Stedin as a highly relevant partner in the energy transition
8. Enter into strategic supplier relationships
9. Rates structure of the future





Strategic risks:

1. Cyberattack causing damage to society and business operations
2. Insufficient connection and transmission capacity
3. Availability of materials
4. Availability and quality of data insufficient
5. Gas investments difficult to plan
6. IT/OT landscape insufficiently prepared for the future
7. Increased likelihood of surge to replace obsolete assets
8. High activity in outdoor space and underground
9. Lack of people with the required competences
10. Grid losses
11. Increasing pressure to maintain the 'A' category credit rating (at S&P) in the long term
12. Large-scale product recall
13. Environmental pollution of surroundings
14. Services on core tasks insufficiently compliant
15. Impact of accidents related to Stedin Groep
16. Uncertainty about implications of changes in the Dutch and European regulatory environment (E&G)
17. Focus on cultural values and conduct insufficiently effective
18. Excessive environmental footprint (of own operations)
19. Uncertainty about the duration of availability of the communication network

Risks

Below are descriptions of our top 5 risks.

Title of risk:	① Cyberattack causing damage to society and business operations
Risk tolerance	Avoiding
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 network.

Causes: *State-sponsored actors*: well funded and organised, whether or not directly related to foreign powers; their actions are inspired by political motives / *Activist hackers (including terrorist organisations):* their 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*: actions are driven by economic motives. Employ ransomware or other means. Focus on personal data or improper 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 attacks of a non-advanced nature. Competition between actors and particular interest in the topic of security play an important role in this regard.

Consequences: Discontinuity due to failures throughout or in parts of the infrastructure and loss of control over the supply of energy / Quality and efficiency of service provision decrease, and loss of control over own data and information systems / A cyberattack will slow Stedin down in implementing its role 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 did we respond to this fact: We are working on integral security that connects the related areas of expertise. Stedin applies a range of internationally recognised standards in order to reduce its vulnerabilities to outside threats, with a focus on prevention, timely detection and the resulting actions. Stedin has been designated a 'critical service provider' pursuant to the Network and Information Systems Security Act (Wet beveiliging netwerk en informatiesystemen (Wbni)), under the supervision of Radiocommunications Agency Netherlands. Of course, we are not immune to incidents. Fortunately, those incidents were small and did not result in a mandatory report under the Network and Information Systems Security Act (Wbni). In 2022, our ISO 27001 certification was expanded to include security of information in connection with the development, design, construction, maintenance, monitoring and administration of electricity and gas grids and the transportation of energy, with the appropriate support processes, systems, applications and resources. In its efforts to mitigate cybersecurity risks, Stedin can also rely on others. We collaborate with other grid operators within the Netherlands and Europe to increase the resilience of energy networks. We share knowledge and experiences with a variety of public and private sector organisations to pursue our strategic priorities and objectives. As a welcome side-effect of this, we are also contributing to digital security in the Netherlands as a whole.

Title of risk:	② Insufficient connection and transmission capacity
Risk tolerance	Neutral
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 must then modify, defer or cancel the planned project. The achievement of climate targets is also delayed if congestion management is not possible. Once congestion management is possible, a number of customers can still be connected. However, congestion management also entails certain costs.

Causes: 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. Combined with the substantial increase in the number of connection applications, this has resulted in large parts of the Netherlands turning into congestion areas. Since congestion levels within our service area have remained relatively low so far, developers have increased their attention to our service area.

Consequences: 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 be required to either adapt, 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 did we respond to this fact: It is important to have a clear view of expected customer demand for grid capacity and connections. This enables us to identify potential bottlenecks in the grid, to make timely provisions for the required expansion of our grid and to address issues in collaboration with customers. For example, we consider parts of our grid that do still offer sufficient capacity or that would enable us to spread demand for capacity more evenly over time. We also use a number of technical solutions, such as the so-called failure reserve, or capacity-switching to ease the pressure on bottlenecks. In the latter case, for example, we engage in dialogue with customers that want to provide flexibility. We have gained considerable experience with this approach in the Zuidplaspolder, where commercial growers use their CHP installations to provide flexibility. We use the Regional Energy Strategies (RES) to provide insight into the available grid capacity, including scheduled grid reinforcements for our RES partners. And we use our 'opportunity maps' to show our customers and stakeholders where new initiatives are most likely to be implemented. This provides public authorities with clarity regarding the feasibility of the RES ambitions. In the years ahead, Stedin will continue its investments in improving the transparency of available and scheduled grid capacity levels. In addition, we endeavour to reduce the completion times for new infrastructure by speeding up the spatial integration of our new grids. For this purpose, we engage in early-stage consultation with our stakeholders. Together with fellow grid managers, moreover, we proactively lobby for an expansion of connection options. This has already resulted in the so-called 'opknipverbod' (a prohibition of multiple connections) and cable pooling. In addition, the adapted congestion management method has come into force, enabling grid managers to connect more customers.

You can read more about the impact of this risk in the 'Stakeholder dialogue and environment' and 'Investment in infrastructure' sections.

Title of risk:	③ Availability of materials
Risk tolerance	Neutral
Risk assessment	Top

Description: In the event of material shortages, we may be forced to slow down the implementation of grid adaptations and would thus become a limiting factor in the energy transition process. The principal objective is to further solidify supplier relationships for services and materials, to ensure the latter are available when we need them.

Causes: The past few years have seen repeated disruptions of demand and supply on the supplier market (due to COVID-19, the war in Ukraine and tensions between China and Taiwan, for example). Geopolitical developments in 2022 resulted in exceptional external circumstances on the supplier and commodity markets. High levels of uncertainty about global prices of production, transport and raw materials (at Tier 2 and Tier 3 level) among our suppliers and soaring inflation rates have led to considerable uncertainty about the availability of materials. Despite the current challenges on global supplier markets, Stedin actually intends to considerably increase its efforts to build the infrastructure for the energy transition in the years ahead.

Consequences: With reduced levels of availability, the prices of materials may increase sharply and Stedin's overall activities may become more expensive to perform. Work schedules may also come under pressure.

How did we respond to this fact: We took three mitigating measures. The most relevant preventive measures are the following: (1) designing a data-driven method to create an enhanced demand forecast system for 2023 and periodic forecast updates, so that we can order materials earlier if necessary, (2) determining and recalibrating optimum stock levels, and (3) measuring and improving supplier performance.

Title of risk:	④ Availability and quality of data insufficient
Risk tolerance	Avoiding
Risk assessment	Top

Description: Stedin's historical data policy combined with increasing demand for our data from our environment may cause the availability and quality of that data to be insufficient. In that case, the data cannot be used as an asset, potentially resulting in insufficient levels of management and asset information. This, in turn, may jeopardise the security of our operations and prevent us from achieving our strategic objectives.

Causes: Historical data policy / Low priority for data management within Stedin / Increased customer demand for data.

Consequences: Process inefficiencies / Inability to use data as an asset / Management information of insufficient quality / Failure to achieve improvements and to ensure continuous improvement / Non-central, local solutions for substandard data quality (which is an inefficient and non-future-proof approach) / Data-driven grid management infeasible.

How did we respond to this fact:
We improve the quality of our asset data by implementing a variety of data improvement projects. These projects are included in the strategic improvement plan. This year we completed the smoke-testing and updated the associated data sets of 22,000 medium-voltage installations. We also ran smoke tests of a considerable part of our low-voltage cabinets; the remainder will follow in 2023. We launched new projects to ensure the quality of public lighting data, especially on aspects such as contact safety and low voltage in the Zeeland service area. This had to do with a scheduled data integration. These data improvements are essential to ensure optimal utilisation of the asset data. In addition to improving the quality of our asset data in projects, we have also launched a programme to improve newly recorded data in our operational management. The chain structure also means that the focus on data quality in operational management has increased. Revision processing (recoding adaptations to the grid) in particular is seeing significant improvements. The new geographic information system (GIS) and Mobile Workforce (GIS app for fitters), implemented in late 2023 and early 2024, signify another major step forward. In addition, we worked on extracting data from developments at our customers, including housing associations, municipalities and power generation companies. For housing construction forecasts, for example, we look at actual numbers built, planning permission granted and long-term forecasts from the various perspectives. This enables us to continually improve our estimates. We also extract valuable data from customer demand for additional capacity. By using that data we continually enhance our insight into our grids. Among other things, this has resulted in a congestion management dashboard. In addition, we have developed several models which provide data-based insight into our future grid capacity and quality, allowing us to make more targeted investments. This also provides insight into the data improvements necessary for even more reliable results.

You can read more about the impact of this risk in the 'Smart grids, data technology and innovation' section.

Title of risk:	⑤ Gas investments difficult to plan
Risk tolerance	Neutral
Risk assessment	Top

Description: Since we are unable to plan for the energy transition in the best possible way and only have limited space below ground, there is a risk that the necessary gas-related investments are underestimated and turn out to be higher than expected.

Causes: Inability to optimally plan for the energy transition / Limited space below ground.

Consequences: Higher investments and costs than estimated in the Strategic Investment Plan.

How did we respond to this fact: Active lobby within Netbeheer Nederland to minimise the impact of EU legislation on methane emissions (initial impact 20-fold work package) / Prepared a Master Vision for Gas formulating a vision for gas based on developments and identifying the interventions required / Construction of heat grids (and possibly other infrastructure) affects our own gas infrastructure, forcing us to either reposition or replace our gas grids. We identified where this might be an issue and how we might be able to influence this, focusing mainly on municipalities / More stringent requirements of municipalities result in higher gas infrastructure construction costs due to the measures to be implemented; we are in consultation with the municipalities on this issue, particularly with the municipality of Utrecht / By focusing on innovations such as green gas and hydrogen, we can identify where and how the gas grid can be reused and will continue to be required after 2050.

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, including the financial reporting process, 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 2022 and discussed this with the senior leadership team, the Board of Management and the Supervisory Board. 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 Letters of Representation 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. These interim assessments gave rise to improvement plans that have in part already been implemented and in part are yet to be implemented. Full implementation of the recovery plans will lead to more demonstratable 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 12 months after the preparation of the report.

Rotterdam, 17 February 2023

Board of Management,

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

REPORT OF THE SUPERVISORY BOARD

Report of the Supervisory Board
Remuneration report for 2022

INTERVIEW WITH DOEDE VIERSTRA, CHAIR OF THE SUPERVISORY BOARD

'Decisive and Energetic - that is Stedin all over. It just couldn't be more Rotterdam-like,' says Doede Vierstra, chair of the Supervisory Board. And qualities such as decisiveness and energy are badly needed, he adds. 'Consider the multitude of challenges that Stedin is facing, in the areas of finance, grid capacity, employees and equipment. I have every confidence that Stedin will be able to tackle each of those challenges. We're already making serious progress.'

Doede Vierstra is 'extremely pleased' that the government has set aside €500 million for Stedin in the national budget. 'That is a major sign of support and confidence, the fruit of our efforts over the past period in good cooperation with the shareholders. The government has now made this move and that is very good news.' Doede also regards this contribution as an acknowledgement of Stedin's changed potion. 'While we used to move in the background, we now have a pivotal role in the energy transition. Our infrastructure is of crucial importance in this context. We were quick to take up this role, and that has not remained unnoticed.'

Task

At the same time, says Doede, the government contribution also signifies a task for Stedin: 'It helps enormously, but it doesn't mean we can now lean back. On the contrary, now is the moment for us to go for it, together with local and provincial authorities and other stakeholders. This is absolutely essential to prepare the Netherlands for the energy transition, because we still have a long way to go.' Doede points out that the collaboration is quite productive: 'We have a lot of contacts with all municipalities within our service area, on topics such as planning, area development issues and their own ambitions when it comes to sustainability improvement. The support we receive is enormous, but we do not take it for granted. That's why we actively maintain those intensive contacts.'

> " Stedin has a pivotal role in the energy transition "

Important steps have been made

Doede points out that again important steps have been made this year, for instance in connection with the new strategy. 'There is now a strong focus, on the grid in particular. Rightly so, because the grid is the basis of our work. As regards congestion avoidance, we have set ourselves a very ambitious target. It sounds simple enough, and in fact the level of congestion in the Stedin area is actually relatively low. But it is in the interest of all of us - customers who purchase and feed in electricity, shareholders - to keep it that way. This presents us with quite a challenge.' The main focus currently is on grid capacity. 'This means that a number of other issues, such as hydrogen, have less priority for a while. We need to really focus our attention. We should first get the basics right - our grid capacity - and then we can consider a broader role for Stedin.'

Security of supply

The Supervisory Board is kept up to date on matters of content by various experts from within the organisation. This year, security of supply was at the centre of attention. 'At the Supervisory Board we are obviously not at the controls of the company. That is the role of the Board of Management. But we do want to make sure the organisation is going in the right direction,' says Doede. 'That's why we choose a special subject for in-depth discussion at each meeting. This year the focus is on the quality of our grids, network losses and shortages of staff and resources. And each time we're quite impressed with the level of our specialists.' Supervisory Board members also visit the shop floor themselves to stay in touch with employees and projects and their issues and concerns. 'This year we had a lunch meeting with employees in Delft. It was great to see how passionate they are when talking about their work at Stedin.' Supervisory Board members also visited a pipeline replacement project at Zoutmankade in The Hague. Two things struck Doede in particular: 'There was a joint team made up of people from the client and the contractor, working so closely you could hardly make out who worked for which organisation. Second, it was great to see that shops and everything else remained open during the renovation - the street, shops, the tram line. It's immensely clever the way they create flexibility, allowing people to continue their daily lives even during a major renovation of their street.'

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 2022.

In performing its duties, the Supervisory Board focuses on long-term value creation. The main theme this year was the recalibration of Stedin's multi-year strategy and, in connection with that, the challenges associated with the energy transition. Considerable time and attention were also devoted to the projects launched by Stedin to strengthen its capital position by attracting new shareholders (municipalities, provinces, the central government).

A number of specific topics that were addressed in 2022 are described below.

Topics

Strategy

In 2022, the 2027 Multi-Year Strategic Plan was drawn up by the Board of Management and approved by the Supervisory Board and the General Meeting of Shareholders. Three strategic spearheads (Construction, Optimisation and Management) were given greater focus, the ambition being to achieve a congestion-free Stedin area: grid access for all. Progress on the realisation of this new strategy will be an important focus for the Supervisory Board in the years ahead.

Over the past year, the Supervisory Board regularly considered specific strategic topics in more detail in its meetings. The annual two-day session provided an opportunity for additional in-depth examination of such topics by the Supervisory Board. For example, the Supervisory Board extensively discussed grid quality, network losses and the lack of human and material resources. The Supervisory Board was also invited to join discussions on the theme of flexibility.

Financing of the energy transition

The energy transition comes with huge challenges, and Stedin will need significant capital resources to tackle them. This capital need is to be met by various routes. In 2022, long-term financing was frequently discussed within the Supervisory Board and between the Supervisory Board and the Board of Management. The Supervisory Board is very pleased that this has resulted in a decision by the central government to set aside funds for a €500 million investment in Stedin from the national budget. This is an important step. Given its substantial need for capital, 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 reality. The reality is that Stedin wants to and indeed needs to undertake investments far more proactively and that the current regulatory regime fails to take this sufficiently into account. Cooperation on all fronts is of great national importance in this regard, as this issue concerns the sustainable future of the Netherlands and the cost of the energy transition come before the benefits.

Site visit

During the two-day session, we also reserved time to visit one of the project sites in The Hague. The Supervisory Board was highly impressed with the excellent collaboration between the client and the contractor in this complex project, noting that 'everything remained open as usual' during the renovation. This visit gave the Supervisory Board a better understanding of the effect of the strategic themes that are important to Stedin on day-to-day working practice, and of the complexity of Stedin's work in historic city centres.

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 service area. They know where to find Stedin, and vice versa. In dialogue with the regulator ACM as well, Stedin's position was clearly highlighted, and possibilities for improvement in relation to the compensation of network losses were addressed. Stedin interacts with stakeholders effectively and on all fronts, while ensuring visibility of its interests.

Climate, Energy Transition & Sustainability

In 2022, geopolitical unrest and the resulting increase in energy prices accelerated the energy transition. The energy transition and the use of sustainable energy sources are essential conditions for the success of this endeavour. 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, in 2020 and 2021 Stedin had to declare a state of congestion in several parts of its service 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 all of us. Having said that, in 2022 the capacity limits of TenneT's high-voltage grid were reached in several provinces. This also affects heavy-use consumers in the Stedin area. With a future-proof grid and grid management approach, Stedin has a huge impact on sustainability efforts in its service 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. In 2022, the Supervisory Board also approved the issue of Stedin Group's third green bond of €500 million. This is in keeping with the strategy for sustainable business operations.

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 again improved in 2022. 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 is analysing the outcomes of that investigation. We deeply regret this accident. There was also a gas incident in Rijswijk, in November 2022. This incident is currently under investigation by the Labour Inspectorate and SodM.

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 a further 170 employees were trained as fitters this year.

Supervisory Board's role as employer

In 2022, 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 singled out above, the Supervisory Board devoted attention to the following topics:

- the preparation of the meetings of shareholders;
- prioritisation and establishment of the material topics and materiality matrix of Stedin Group
- Approval of the internal audit annual plan
- Public affairs
- Cybersecurity

Composition, working method and meetings

The Supervisory Board held six regular meetings in 2022, including one specifically devoted to the annual report and half-year report, and six extra ad hoc information meetings on the Multi-Year Strategic Plan, the reappointment of CFO Danny Benima and long-term financing. The regular meetings were always preceded by a consultation 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.

Annie Krist's term of office as a member of the Supervisory Board was set to expire on 13 April 2022; at the Extraordinary General Meeting of Shareholders (EGM) of 16 February 2022, she was reappointed for a second term of four years by the general meeting. Hanne Buis' term of office as a member of the Supervisory Board was set to expire on 21 September 2022; at the General Meeting of Shareholders of 23 September 2022, she was reappointed for a term of four years by the general meeting.

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 2019	20 September 2023
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
Mr A.J. (Annie) Krist	13 April 2022	13 April 2026

The Supervisory Board attaches importance to the diversity in its composition. The male/female ratio on the Supervisory Board is 3/2.

Attendance rate of Supervisory Board members at meetings

Name	Supervisory Board meeting	Audit Committee	Selection, Remuneration and Appointments Committee
Doede Vierstra	88.9%		100%
Hanne Buis	100%		100%
Theo Eysink	88.9%	100%	
Annie Krist	88.9%	100%	
Arco Groothedde	100%	0%*	100%

* Arco Groothedde is closely involved in Stedin Group's equity strengthening project. To free up the time he needed for that, Arco temporarily resigned from his duties in the AC in 2022.

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 and compliance. In this year's meetings, extensive attention was also given to long-term financing and the further development of control information. The meetings, of which eight were held in 2022, are attended as standard by the CFO, the internal audit manager and the external auditor Deloitte. The Compliance Officer attends as a guest at least twice a year. The terms of reference of the Audit Committee have been posted on the Stedin Group website.

Selection, Remuneration and Appointments Committee

Hanne Buis is the chair of the Selection, Remuneration and Appointments Committee. This committee met four times in 2022. A great deal of attention was paid to the reappointment of the CFO for four years, effective 1 January 2023, continuing education of supervisory directors, self-assessment, compliance and integrity. The Selection, Enumeration and Appointments Committee also discussed Stedin's diversity policy. The remuneration of the Board of Management members and Supervisory Board members for 2022, which is in accordance with the adopted remuneration policy and which respects the limits of the Senior Executives in the Public and Semi-Public Sector (WNT), is presented in the Remuneration report for 2022. The terms of reference of the Selection, Remuneration and Appointments Committee have been posted on the Stedin Groupwebsite.

Self-assessment and education

The self-assessment was carried out in several steps in 2022, 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 December. The main outcomes of this process were shared with the members of the Board of Management. Among other things, this has made the Supervisory Board decide to reserve more time during its meetings to discuss current dilemmas in the sector. The Supervisory Board members will involve the Board of Management in this.

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 addition, in 2022 the Supervisory Board elected to receive refresher training, in the form of a customised Nyenrode programme, in two modules: Integrity and Culture, and Leadership in Transition Processes.

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 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 23 September 2022. No material transactions occurred in 2022 that involved potential conflicts of interests between the company and Supervisory Board members.

Contacts with shareholders

In 2022, the contacts between Stedin and the shareholders were intensified, mainly in connection with the process around 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 appointment and reappointment of directors. In 2022, this concerned the reappointment of the CFO. There were three shareholders' meetings, which were all 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 contact with the Works Council. A 'tripartite consultation' was held once again in 2022. Besides the members of the Supervisory Board, this consultation included the members of the Board of Management and a delegation from the Works Council. The theme of the consultation was the new strategy for 2023-2027. The new Works Council elected last summer has since been fully merged with the DNWG Works Council. 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 'Good employment practice' section.

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 2022 financial statements to the General Meeting of Shareholders for adoption in 2023, together with the dividend proposal for the 2022 financial year. We furthermore propose to the General Meeting of Shareholders to discharge the Board of Management in respect of its management in the financial year 2022 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, 17 February 2023

The Supervisory Board

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

REMUNERATION REPORT FOR 2022

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 the 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. 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 Supervisory Board 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.

Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act (Wet normering topinkomens, WNT)

The 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. Since they are in the service of Stedin Groep Personeels B.V., they qualify as senior executives *without* employment. Koen Bogers entered the employment of Stedin Groep Personeels B.V. upon the start of his contract on 1 May 2021. The contracts of the other three Supervisory Board members were transferred to Stedin Groep Personeels B.V. effective 1 July 2021.

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

The WNT transitional rules do not apply at Stedin Netbeheer B.V. The reporting on the WNT remuneration of Stedin Group is part of the Notes to the consolidated financial statements, 6.2 WNT compliance for 2022 by Stedin Netbeheer B.V.

The WNT does not apply to other employees of Stedin Group. Like the Supervisory Board 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 €216,000, calculated in proportion to the scope of the employment) only applies to employees of Stedin Netbeheer N.V. As disclosing this information on an individual basis regarding employees of Stedin Groep Personeels B.V. may constitute a breach of their privacy pursuant to the General Data Protection Regulation (GDPR), we do not report this information. The maximum salary, including 8% holiday allowance, for positions reporting to the Board of Management was €167,500 in 2022. Stedin Group also applies the maximum hourly rate under the WNT as the maximum rate for external staff hired to temporarily fill senior management positions. In 2022, that was €206 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.

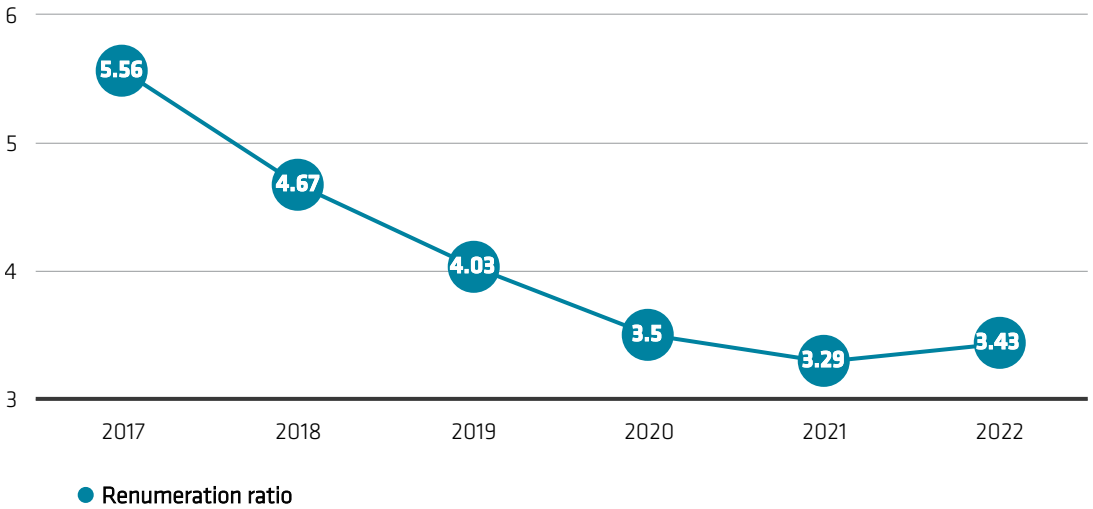
Remuneration ratio

The ratio between the highest remuneration and the median remuneration increased for the first time in 2022. The ratio was 3.34 in 2022, which is 4.2% higher than in 2021 (3.29). This increase was mainly attributable to the 2.1% decrease of the median remuneration. The ratio between the increase of the highest remuneration and the decrease of the median remuneration was -15.5%. The decrease of the median remuneration is due in part to the large group of people from other professions entering employment and being trained as fitters.

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 2022. 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.

Renumeration 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



2022 FINANCIAL STATEMENTS

These financial statements present the financial information of Stedin Holding N.V. for the full year 2022, with comparative figures for 2021.

References in the financial statements to Stedin Group are to Stedin Holding N.V. and its subsidiaries including its legal predecessors.

CONSOLIDATED INCOME STATEMENT

x € 1 million	Note	2022	2021
Net revenue	4	1,316	1,265
Other income	5	17	14
Total net revenue and other income		**1,333**	**1,279**
Personnel expenses	6	453	436
Cost of sales and contracted work	7	499	357
Other operating expenses	8	165	209
Capitalised own production	9	-216	-207
		901	**795**
Depreciation, amortisation and impairment of non-current assets	10	346	360
Total operating expenses		**1,247**	**1,155**
Operating profit		**86**	**124**
Financial income and expenses	11	-30	-93
Result from associates and joint ventures after income tax		3	1
Profit before income tax		**59**	**32**
Income tax	12	-15	-11
Result after income tax		**44**	**21**
Profit distribution:			
Profit after income tax attributable to holders of Stedin Holding N.V. perpetual subordinated bonds (after income tax)	46	6	17
Profit after income tax attributable to the shareholders of Stedin Holding N.V.	46	38	4
Result after income tax		**44**	**21**

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

x € 1 million	Note	2022	2021
Result after income tax		**44**	**21**
Unrealised gains and losses that will not be reclassified to the income statement (net of tax effects)			
Adjustment for fair value of regulated networks	13, 22	-	176
Effect of changes in tax rate on revaluation reserve	17, 22	-	-7
Unrealised gains and losses that may be reclassified to the income statement			
Unrealised gains and losses on cash flow hedges	32	57	22
Recycling cash flow hedge reserve to income statement		-6	10
Deferred tax liabilities on cash flow hedges / cost of hedging	17	-13	-8
Effect of change in tax rate on cash flow hedge reserve / cost of hedging	17	-	1
Total other comprehensive income		**38**	**194**
Total comprehensive income		**82**	**215**
Profit distribution:			
Holders of Stedin Holding N.V. perpetual bond loan (after income tax)		6	17
Shareholders of Stedin Holding N.V.		76	198
Total comprehensive income		**82**	**215**

CONSOLIDATED BALANCE SHEET

x € 1 million	Note	31 December 2022	31 December 2021
ASSETS			
Non-current assets			
Property , plant and equipment	13	8,008	7,635
Intangible assets	14	100	92
Right-of-use assets	15	70	73
Financial assets		-	-
- Derivative financial instruments	18	-	-
- Other non-current financial assets		13	14
Total non-current assets		**8,191**	**7,814**
Current assets			
Assets held for sale		-	4
Inventories	19	54	51
Trade and other receivables	20	222	165
Derivative financial instruments	18	-	15
Cash and cash equivalents	21	53	133
Total current assets		**329**	**368**
TOTAL ASSETS		**8,520**	**8,182**

x € 1 million	Note	31 December 2022	31 December 2021
LIABILITIES			
Group equity			
Equity attributable to Stedin Holding N.V. shareholders	22	2,836	2,764
Perpetual subordinated bond loan	22	506	506
Total group equity		**3,342**	**3,270**
Non-current liabilities			
Provisions for employee benefits	22	10	9
Other provisions	24	11	15
Deferred tax liabilities	17	349	340
Derivative financial instruments	18	34	64
Interest-bearing debt	25	3,116	2,675
Lease liability	15	59	61
Deferred revenue	26	960	876
Total non-current liabilities		**4,539**	**4,040**
Current liabilities			
Provisions for employee benefits	22	5	4
Other provisions	24	1	3
Derivative financial instruments	18	19	-
Interest-bearing debt	25	280	531
Lease liability	15	12	14
Current tax liabilities	28	14	12
Trade and other liabilities	27	308	308
Total current liabilities		**639**	**872**
TOTAL LIABILITIES		**8,520**	**8,182**

CONSOLIDATED CASH FLOW STATEMENT

x € 1 million	Note	2022	2021
Profit after income tax		**44**	**21**
Adjusted for:			
· Financial income and expenses recognised in the income statement	11	30	93
· Income tax recognised in the income statement	12	15	11
· Share in result of associates and joint ventures		-3	-1
· Depreciation, amortisation and impairments of property, plant and equipment, intangible assets and right-of-use assets	10	346	360
· Result on sale of property, plant and equipment and intangible assets		-7	-
· Movements in working capital	35	-60	-
· Amortisation of customer construction contributions received	26	-22	-22
· Movements in derivative financial instruments	32	7	6
· Movements in provisions and other		-13	-10
Cash flow from business operations		**337**	**458**
Dividend received from associates and joint ventures		-	4
Interest paid*		-38	-87
Interest paid leases		-1	-1
Interest received		4	1
Corporate income tax paid		-17	1
Cash flow from operating activities		**285**	**376**
New loans issued		-7	-10
Repayments of loans granted		7	12
Disposal of subsidiaries		9	-
Investments in property, plant and equipment		-703	-679
Disposal of property, plant and equipment		8	-
Investments in intangible assets		-3	-2
Customer construction contributions received	26	107	112
Cash flow from investing activities		**-582**	**-567**

x € 1 million	Note	2022	2021
Dividend payments		-1	-21
Dividend payments preference shares		-3	-
Paid-up capital preference shares		-	200
Repurchase of hybrid securities		-	-511
Proceeds from issuance of hybrid securities		-	500
Payment of lease liabilities		-14	-17
Coupon and cost on perpetual subordinated bonds	22	-7	-7
Cost from issuance of preference shares and subordinated bonds		-	-5
Repayment of non-current interest-bearing debt	25	-533	-195
Repayment of current interest-bearing debt	25	-770	-2,800
Non-current interest-bearing debt newly issued	25	495	497
Current interest-bearing debt newly issued	25	1,050	2,600
Cash flow from financing activities		**217**	**241**
Movements in cash and cash equivalents		**-80**	**50**
Balance of cash and cash equivalents as at 1 January		133	83
Balance of cash and cash equivalents as at 31 December		**53**	**133**

* Interest paid in 2021 includes the premium for early repayment of the USD and GBP loans of €38 million. The repayment of the USD and GBP loans is recognised as cash flow from financing activities.

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	Revaluation reserve	Legal reserve	Cash flow hedge reserve	Cost of hedging reserve	Retained earnings	Undistributed profit	Total	Perpetual subordinated bond loan	Non-controlling interests	Total group equity
As at 1 January 2021	**497**	**-**	**662**	**4**	**-78**	**-**	**1,275**	**30**	**2,390**	**501**	**-**	**2,891**
Total other comprehensive income after income tax	-	-	128	-	25	-	41	-	**194**	-	-	**194**
Profit after income tax 2021	-	-	-	-	-	-	-	4	**4**	17	-	**21**
Total comprehensive income	**-**	**-**	**128**	**-**	**25**	**-**	**41**	**4**	**198**	**17**	**-**	**215**
Transactions with shareholders												
Dividend payments relating to 2020	-	-	-	-	-	-	-	-21	**-21**	-	-	**-21**
Capital reinforcement	42	158	-	-	-	-	-	-	**200**	-	-	**200**
Additions to perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	500	-	**500**
Redemption of perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	-511	-	**-511**
Coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	-7	-	**-7**
Disagio and cost	-	-	-	-	-	-	-5	-	**-5**	-	-	**-5**
Tax on coupon on perpetual subordinated bond loan	-	-	-	-	-	-	1	-	**1**	6	-	**7**
Total transactions with shareholders	**42**	**158**	**-**	**-**	**-**	**-**	**-4**	**-21**	**175**	**-12**	**-**	**163**
Other												
Profit appropriation 2020	-	-	-	-	-	-	9	-9	**-**	-	-	**-**
Reclassification	-	-	-	-1	-	-	2	-	**1**	-	-	**1**
Total other	**-**	**-**	**-**	**-1**	**-**	**-**	**11**	**-9**	**1**	**-**	**-**	**1**
As at 31 December 2021	**539**	**158**	**790**	**3**	**-53**	**-**	**1,323**	**4**	**2,764**	**506**	-	**3,270**

	Equity attributable to Stedin Holding N.V. shareholders											
x € 1 million	Paid up and called-up share capital	Share premium	Revaluation reserve	Legal reserve	Cash flow hedge reserve	Cost of hedging reserve	Retained earnings	Undistributed profit	Total	Perpetual subordinated bond loan	Non-controlling interests	Total group equity
As at 1 January 2022	**539**	**158**	**790**	**3**	**-53**	**-**	**1,323**	**4**	**2,764**	**506**	**-**	**3,270**
Total other comprehensive income	-	-	-	-	39	-1	-	-	**38**	-	-	**38**
Profit after income tax 2022	-	-	-	-	-	-	-	38	**38**	6	-	**44**
Total comprehensive income	**-**	**-**	**-**	**-**	**39**	**-1**	**-**	**38**	**76**	**6**	**-**	**82**
Transactions with shareholders												
Dividend payments relating to 2021	-	-	-	-	-	-	-	-1	**-1**	-	-	**-1**
Cumulative preference dividend	-	-	-	-	-	-	-	-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	**-**	-	-	**-**
Release from revaluation reserve due to depreciation of regulated networks	-	-	-37	-	-	-	37	-	**-**	-	-	**-**
Reclassification	-	-	-	6	-	-	-7	1	**-**	-	-	**-**
Total other	**-**	**-**	**-37**	**6**	**-**	**-**	**31**	**-**	**-**	**-**	**-**	**-**
As at 31 December 2022	**539**	**158**	**753**	**9**	**-14**	**-1**	**1,354**	**38**	**2,836**	**506**	-	**3,342**

See note 22 Group equity for more details on group equity.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1 Accounting principles for financial reporting

1.1 General information

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

Stedin Group's main activity is to ensure safe, reliable and affordable energy supply. The grid manager of Stedin Group, Stedin Netbeheer, achieves this by constructing and managing the electricity and gas networks and preparing them for the future, and by facilitating the energy market. Stedin operates in the provinces of South Holland and Utrecht and in parts of the Noordoost-Friesland, Kennemerland and Zeeland regions. The subsidiary DNWG Infra provides energy infrastructure services to business customers. Utility Connect is a joint operation with Alliander that focuses on data communication for smart meters. TensZ is a joint venture between Stedin Netbeheer and TenneT for the maintenance, service and building of high-voltage electricity grids.

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 the Group, see note 3 Operating segments and 36 Overview of subsidiaries and associates.

The consolidated financial statements have been prepared by the Board of Management of Stedin Group.

Adoption of financial statements for preceding financial year

The 2021 financial statements have been signed by both the Board of Management and the Supervisory Board of the company during the meeting on 17 February 2022 and were adopted by the General Meeting of Shareholders on 22 April 2022.

Unless otherwise stated, all amounts in this annual report are in millions of euros. The historical cost principle is applied. Certain assets and liabilities, including property, plant and equipment and derivatives, deviate from this as they are measured at fair value. Unless stated otherwise, these accounting policies have been consistently applied for all financial years included in these financial statements. The accounting policies applied in the financial statements are based on the assumption of the company's continuity.

1.2 Key events in 2022

No events occurred in 2022 that represent a significant uncertainty for the equity and results as at the end of the financial year on 31 December 2022. For more details, see our annual report.

Stronger together

Since the acquisition of DNWG Group by Stedin in 2017, we have worked towards combining the various entities within the group. Several transfers of entities took place within the Group in 2021. The Enduris shares were also transferred to Stedin Netbeheer in 2021. As per 1 January 2022, Enduris has merged with Stedin Netbeheer, making it the sole network operator within Stedin Group. The other entities with overlapping activities within the Group (DNWG Staff with Stedin Groep Personeels B.V., and TensZ with TeslaN) also merged as of 1 January 2022.

Financing

In May 2022, Stedin Group issued its third green bond of €500 million. This capital will be invested in the expansion and reinforcement of the electricity grid to facilitate the energy transition and will also be used to repay a €300 million bond issued in 2017. The loan of €500 million has a term of 8 years, an issue price of 99.318% and a coupon interest of 2.375% (effective interest rate of 2.47%).

In September 2022, the government announced that it would reserve an amount of €500 million to strengthen Stedin Group's equity. The timing of this strengthening is still being elaborated upon.

Network losses in 2022
The costs for network losses rose substantially in 2022, by €110 million compared with 2021. The lower gas production in the Netherlands led to higher imports and hence to greater dependency on the international gas market. A strong increase in gas prices and therefore higher costs for network losses were due to a combination of lower gas inventories within Europe, strong dependency on electricity prices and partly due to short-term purchasing of gas and electricity by Stedin. Partly due to a sharp increase in energy prices, Stedin decided to adopt a different purchasing strategy for energy. This involves longer term purchasing compared to what was done previously. As a result, Stedin's costs are now less exposed to short-term fluctuations in energy prices, which improves the quality of financial forecasts. In addition to this change in purchasing strategy, Stedin has also considered other measures to minimise network losses. For example, it is implementing process optimisations with several of its internal departments.

1.3 International Financial Reporting Standards (IFRS)

The consolidated financial statements of Stedin Group have been prepared in conformity with IFRS as applicable at 31 December 2022 and as adopted by the European Union (EU) and the definitions of Part 9, Book 2 of the Dutch Civil Code. IFRS comprises both the IFRS standards and the International Accounting Standards issued by the International Accounting Standards Board (IASB) and the interpretations of IFRS and IAS standards by the IFRS Interpretations Committee (IFRIC) and the Standing Interpretations Committee (SIC) respectively. Where necessary, the accounting policies of joint operations and associates have been aligned with those of Stedin Holding N.V. The consolidated financial statements have been prepared using the going concern and accruals concepts.

New or amended IFRS standards and interpretations relating to the current financial year
The following amendments to IFRS standards have been adopted by the EU with effect from the financial year 2022:

- amendments to IAS 16 - Property, Plant and Equipment - Proceeds before Intended Use;
- amendments to IAS 37 - Onerous Contracts - Cost of Fulfilling a Contract;
- annual improvements to IFRS Standards 2018-2020 (IFRS 1, IFRS 9, IFRS 16 and IAS 41);
- amendments to IFRS 3 - Reference to the Conceptual Framework;
- amendments to IFRS 16 - COVID-19-related rent concession for leases.

These amendments have no material impact on Stedin's 2022 financial statements.

New or amended IFRS standards and interpretations relating to subsequent financial years
The following IFRS standards that have been adopted by the EU but are not mandatory for 2022 can be applied, where relevant, in the future:

- amendments to IAS 1 - Classification of Liabilities as Current or Non-current;
- amendments to IAS 8 - Definition of Accounting Estimates;
- amendments to IAS 12 - Income Taxes;
- amendments to IFRS Practice Statement 2 - Making Materiality Judgements;
- amendments to IFRS 16 - Sale and Leaseback Transactions on Leases;
- IFRS 17 (including amendments) - Insurance Contracts.

These amendments to existing standards and the new IFRS standard have no material impact on Stedin's 2022 financial statements.

2 Accounting policies

2.1 Basis of consolidation

The consolidated financial statements incorporate the financial statements of Stedin Holding N.V., its subsidiaries and the relevant proportion of its joint operations, including non-consolidated joint ventures, associates and other capital interests.

An overview of the entities included in the consolidation is provided in note 36 Overview of subsidiaries and associates 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 in addition to 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. 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 between subsidiaries are eliminated. Unrealised losses are likewise eliminated, unless the transaction

concerned provides cause for recognising an impairment loss. The accounting policies of subsidiaries have, if necessary, been adapted to ensure a consistent application of accounting policies within Stedin Group. Losses on associates are recognised up to the amount of the net investment in the associate, including the carrying amount as well as any expected credit losses on loans and guarantees granted to the associate.

Minority interests consist of the capital interests of minority shareholders and are measured on the basis of the fair value of the identifiable assets and liabilities when a subsidiary is acquired and the minority interest in subsequent changes to the equity. Minority interests in the equity and results of subsidiaries are disclosed separately.

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 in the assets, liabilities, income and expenses of joint operations is consolidated on the basis of Stedin Group's accounting policies. Joint ventures are recognised using the equity method in accordance with the accounting policies of Stedin Group. 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 control. In general, 20% to 50% of the voting rights are held in an associate.

The share of the results of associates is recognised in the consolidated financial statements using the equity accounting method, in which initial recognition is at historical cost, with the carrying amount being adjusted for the share of the result. Dividends received are deducted from the carrying amount. 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.

Losses on associates are recognised up to the amount of the net investment in the associate, including the carrying amount as well as any expected credit losses on loans and guarantees granted to the associate.

2.2 Accounting policies

2.2.1 General
The main accounting policies used in preparing the 2022 financial statements of Stedin Group are summarised below. The accounting policies used in these financial statements are consistent with the accounting policies applied in the 2021 financial statements.

2.2.2 Impairments of assets
Impairment is present when the carrying amount of an asset is higher than the recoverable amount. The recoverable amount of an asset is the higher of its sale price less costs to sell or 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 external cash flows 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 the expected future cash flows.

Annually, an assessment is carried out for assets other than goodwill to assess whether 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 carrying amount of assets allocated to a cash-generating unit is higher than the recoverable amount, the carrying amount 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 carrying amount 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, except if these currency risks are hedged by derivative financial instruments for which hedge accounting is applied.

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 to settle on a net basis or actual net 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.

The transfer prices on which internal revenues and costs are based are at arm's length terms. 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

Net revenue

Stedin Group recognises revenue when it satisfies the performance obligation by transferring goods or services to the customer. The time of transfer is:

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

It is inherent in the services of Stedin Group that these are transferred to the customer during the period in which they are provided. The services of the Group can be subdivided into regulated services and non-regulated services.

Revenue from regulated services

The rates for the regulated services of Stedin Group are subject to the regulation framework of the Dutch regulator for the provision of energy services, the Netherlands Authority for Consumers and Markets (ACM). With regard to the non-regulated services, Stedin Group is not subject to a regulator for the pricing of the services.

Energy distribution services

Energy distribution services comprise transmission, connection and metering services for electricity as well as the transmission, connection and metering services for gas. 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. The 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 connection contributions received and reconstructions

In order to facilitate distribution services for electricity and gas, Stedin Group will construct grid connections for new supply points. The customer pays a contribution towards the connection costs for such a new connection. This is because the connection is inseparably linked to the distribution services and forms an integral part of the fee for distribution services. Revenue from customer connection contributions is therefore recognised in

accordance with the depreciation method over the expected useful life of the connection point concerned (for a detailed explanation of the depreciation method, see section 2.2.10). Stedin Group also receives contributions for reconstruction work carried out on the grid. Similar to the customer connection contributions, these are accounted for on a straight-line basis over the expected useful life of the grid. The customer connection and reconstruction contributions received in advance are contract liabilities which are recognised in the balance sheet under 'Deferred revenue'.

Selling prices

The selling prices of regulated services are based on the rates as determined by the ACM for the distribution of energy. The rates for customer connection contributions have also been determined by the ACM. Adjustments in the selling prices of regulated services can arise mainly as a consequence of failures in the grid for which customers are required to be compensated by law. These adjustments in selling prices are presented as a deduction from variable revenue. Variable revenue is recognised only to the extent that it is highly probable that this revenue will not be reversed.

Other income, revenue from non-regulated services

The non-regulated services of Stedin Group comprise the data processing of energy meters; the management, maintenance and rental services of energy meters; failure, management, maintenance and rental services for transformers; and services in the field of high-voltage projects. Stedin Group applies the portfolio approach for these activities, under which revenue is recognised for the progress of the delivered performance. Revenue from other services is mainly allocated on the basis of the percentage of completion of the project based on the accumulated costs of the project on the balance sheet date compared with the total expected project costs. Selling prices for non-regulated services are in line with the market as laid down in the relevant agreement between Stedin Group and the customer.

Stedin Group sells transformers to third parties on an incidental basis. These assets are recognised by Stedin Group in property, plant and equipment. The net realisable value from such as sale, being the selling price less any depreciation of the carrying amount, is recognised as other income in Stedin Group's consolidated financial statements once the customer has obtained control of the relevant transformer.

Contract assets and liabilities

Contract assets relate to the non-enforceable claims under and expenditure for contracts with customers. For Stedin Group, these are the amounts not yet invoiced. Stedin Group presents contract assets under 'Trade and other receivables'. A bad debt provision is recognised for the balance sheet item 'amounts not yet invoiced' in the same way as for the trade receivables. Contract liabilities are presented as 'Deferred revenue' and as part of 'Trade and other liabilities'.

2.2.7 Cost of sales and contracted work

The purchase costs for compensation of technical and administrative network losses are recognised in the period in which the revenues from the sale are realised. The costs of materials and services from third parties are also included in this 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 for the perpetual subordinated bond loan is not included in this item. It is accounted for directly in group equity. In addition, financial expenses also include the 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. Dividend income from other capital interests is recognised when it falls due.

2.2.9 Income taxes

Income taxes comprise current taxes and movements in deferred taxes. These amounts are recognised in profit or loss unless they concern items that are recognised directly in group equity. Current tax is the amount of income taxes payable or recoverable in respect of the taxable result for the year under review and is calculated on the basis of applicable tax legislation and rates.

Income taxes comprise all taxes based on taxable profits and losses, including taxes payable by subsidiaries and associates on distributions to Stedin Holding N.V. Additional income taxes on the result before dividend distributions are recognised at the same time as the obligation to distribute that dividend is recognised.

2.2.10 Property, plant and equipment

Property, plant and equipment is subclassified into the following categories:

- Land and buildings
- Machinery and equipment
- Regulated networks
- Other operating assets
- Assets under construction

Regulated networks

Stedin Group's networks and network-related assets in the regulated domain (network regulated) are measured at the revalued amounts. The revalued amount is the fair value at the date of the revaluation less accumulated depreciation and any impairment.

The fair value of these network assets is measured at the beginning of each new regulatory period. If there are indications in the interim period that the fair value differs significantly from the carrying amount, the revaluation will be adjusted. An increase in the carrying amount as a result of a revaluation of networks and network-related assets in the regulated domain is recognised directly in group equity through the revaluation reserve. A reduction in the carrying amount is first recognised directly in group equity through the revaluation reserve insofar as the amount of the revaluation reserve is sufficient. If the decrease exceeds the revaluation reserve, the excess is charged to the consolidated income statement.

Networks and network-related assets are initially recognised at cost, until the time of the first revaluation. The difference between the depreciation based on the revalued carrying amount and depreciation based on the original historical cost, less deferred taxes, is transferred periodically from the revaluation reserve to the retained earnings reserve.

Network-related assets also include the metering domain, including the meters. The metering domain is not covered by the measurement regulation of the ACM. The fair value of these network assets is therefore established annually. They are accounted for in accordance with Stedin Group's networks and network-related assets in the regulated domain, as described above.

See note 2.2.26 Fair value for a detailed description of fair value.

Land and buildings, machinery and equipment, other operating assets and assets under construction

Other property, plant and equipment is stated at cost less accumulated depreciation and impairments. 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 the asset's 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 carrying amount of an asset if and to the extent they have led to an improvement of the condition of the asset relative to the originally formulated performance standards. Overhaul, repair and maintenance 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 carrying amount of the replaced components.

Depreciation and amortisation

Depreciation is recognised in the consolidated 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 client meters), the company applies a declining balance method, taking into account an acceleration factor (1.2) based on estimated future use, useful life and residual value. The consumption, useful life and residual values 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
Machinery and equipment	10 - 50
Regulated networks	10 - 55
Other operating assets	3 - 25

Change of accounting estimate for depreciation method and useful life

As of 1 January 2022, the declining balance depreciation method has been used for gas-related assets (other than customer meters) in accordance with the Variable Declining Balance method. An acceleration factor of 1.2 is applied. The most important reason for this change is an expected decrease in consumption of the gas-related assets due to the use of alternative energy sources. The declining balance depreciation method

was chosen as it is better suited to the expected future decrease in use of the gas network as a result of the energy transition. The acceleration factor of 1.2 is based on the expected pace at which the use of the gas network will decrease.

Despite an expected decrease in the use of the gas network, the main infrastructure of the gas network will remain largely operational. In addition, we expect the gas network to continue to be relevant for the transmission of natural gas and sustainable alternatives such as green gas and hydrogen. Therefore, any shortening of the useful life of the gas networks is not applicable.

From 1 January 2022, the amortisation pattern of the customer connection contributions for the gas-related assets has also been changed to the Variable Declining Balance method. Thus the net depreciation charges (gross depreciation less the amortisation of the customer connection contributions) of the gas-related assets follow a declining balance pattern, in line with the related assets.

Based on a revised estimate of the useful life of our gas-related assets (networks and connections), including information that has become available during the process of implementing the described change to the depreciation method, we estimate the technical useful life of part of our gas-related assets to be longer than previously estimated. The revised estimate has been made on the basis of newly available information and more in-depth insight into the useful life of our (gas-related) assets and is therefore incorporated prospectively in the 2022 financial statements as a change in accounting estimate, in line with IAS 8.36.

The change in the useful life of part of the gas-related assets led to a higher operating result of €39 million than if the useful life had been kept the same as the estimate for 2021 (€43 million lower depreciation charges adjusted for €4 million lower amortisation of customer connection contributions). In addition, in 2022, due to the application of the declining balance depreciation method for the gas-related assets, the profit is €17 million lower than if the straight-line depreciation method had been applied (€18 million higher depreciation costs adjusted for €1 million higher amortisation of customer connection contributions). In total, the net impact on the operating result for 2022 is therefore €22 million positive. The effects show a slightly upward trend over the next six years, after which the effects of these estimate changes will level out.

2.2.11 Leases

Stedin Group as lessee

The provisions of IFRS 16.9 are taken into account by Stedin Group in assessing whether a contract is or includes a lease. Upon commencement of a contract, Stedin Group assesses 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 return for compensation. 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.

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.

The right-of-use asset and the lease liability must be assessed together as a single transaction for the purpose of recognising deferred taxation. Therefore, there are no temporary differences upon initial recognition. Deferred taxation is recognised for temporary differences subsequently arising when the right-of-use asset is amortised and the lease liability is reduced.

Leases are recognised in the balance sheet under right-of-use assets and lease liabilities. Amortisation of right-of-use assets is recognised under depreciation and amortisation, and the interest expense is recognised under 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 as net revenue and other income in Stedin Group's income statement on a straight-line basis over the term of the lease.

Depreciation and amortisation

Depreciation 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, joint venture or associate is equal to the amount paid to purchase the interest. If the acquisition price is higher than the share in the fair value at the date of acquisition of the identifiable assets, liabilities and contingent liabilities, 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 allocated to one or more cash-generating units. Allocated goodwill is tested for impairment annually. This test is not performed as long as goodwill has not been allocated.

Goodwill purchased on acquisition of subsidiaries and joint operations is recognised in the balance sheet under intangible assets. Goodwill paid to acquire an interest in a joint venture or associate is included in the cost of acquisition.

For further details, see note 14 Intangible assets.

2.2.13 Other intangible assets

Other intangible assets comprise customer databases acquired with acquisitions, software, concessions, permits, rights, development costs and investments in technological platforms. The related costs are capitalised if it is probable that these assets will generate economic benefits and their costs can be reliably measured. The other intangible assets, except the investments in technological platforms, have a finite useful life and are stated at cost less accumulated amortisation and any impairment. The investments in technological platforms have an indefinite useful life and are stated at cost less any 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.

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, except the investments in technological platforms, 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
Investments technological platforms	infinite

2.2.14 Deferred taxes

Deferred taxes are calculated using the balance sheet method for the relevant differences between the carrying amount and tax base of assets and liabilities. 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 are recognised for deductible temporary differences, tax losses carried forward and unused tax credits available for set-off 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 all deductible temporary differences relating to investments in subsidiaries, joint operations, and interests in associates and 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.

As soon as insights change following consultation with the inspector or Stedin and positions become less uncertain, this will result in recognition in the current tax position or reassessment of risks. The uncertain tax position is disclosed in the financial statements when a cumulative material uncertain impact can be expected to arise from it, i.e. before it is accounted for in the current tax position.

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 Derivative financial instruments

Hedge accounting

Derivative financial instruments 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 particular 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 derivative financial instruments are recognised as hedging instruments.

The positive carrying amounts of the derivative financial instruments are recognised under derivative financial instruments in current and non-current assets in the consolidated balance sheet. The negative carrying amounts of the derivative financial instruments are recognised in current and non-current liabilities in the consolidated balance sheet.

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 the changes to

the fair value of the derivative financial instruments concerned 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 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.

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 hedged positions and the change in fair value of the derivative financial instruments are recognised in the consolidated income statement. The ineffective portion is recognised directly in the consolidated 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 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 discontinued operations are classified as held for sale when the carrying amount will be recovered through a sale transaction rather than through continuing 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 carrying amount 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 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 carrying amount exceeds the net realisable value.

2.2.19 Trade and other receivables

Trade and other receivables have a term of less than one year. These receivables also include the net amounts at the reporting date that have yet to be invoiced for services supplied. On initial recognition, receivables are measured 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 comprise cash and bank balances, short-term cash loans as well as deposits with a maturity of no more than three months.

2.2.21 Perpetual subordinated bond loan

The perpetual subordinated bond loan is classified under group equity in the consolidated financial statements, in agreement with the contractual conditions for the bond loan.

The principal of the perpetual subordinated bond loan is presented at nominal value. Both the discount and transaction costs relating to the issue of the bond loan were charged directly to equity when the loan was issued. The coupon interest payable annually and the associated tax effects are recognised in the valuation of the loan.

The company financial statements likewise apply IFRS for the presentation of this bond loan.

2.2.22 Provisions for personnel 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. 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.

Other provisions for personnel 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, continued 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 nominal 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 pre-tax 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. 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 nominal value.

2.2.26 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 derivative financial instruments are measured by agreement with the counterparty, using observable interest rate and foreign currency forward curves.

Level 3

Level 3 recognises financial instruments and grids 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, they relate to the useful life of property, plant and equipment, the measurement of the fair value of the relevant assets and liabilities and impairments of assets. 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 may, 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.

Utilisation, useful life and residual value of property, plant and equipment and intangible assets

The depreciation periods and residual values of property, plant and equipment and intangible assets are based on the asset's expected useful technical and economic life. For gas-related assets, utilisation is also taken into account, based on the expected future decrease in the utilisation of the grids and connections. The utilisation, useful life and residual value are reviewed annually. An asset's utilisation, 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. If there is an indication of possible impairment, the asset's recoverable amount is measured and compared with its carrying amount. If the recoverable amount is lower, impairment is recognised. For more information, see note 13 Property, plant and equipment.

Fair value of regulated networks

The fair value of regulated networks is determined in alignment with the expected tariffs' calculation method of the ACM. The expected future rates related to Stedin Groups market share and expected limits for possible rate components are included in the calculation method. For more information, see note 13 Property, plant and equipment.

Goodwill

The acquisition price of a subsidiary, joint venture or associate is equal to the amount paid to purchase the interest. If the acquisition price is higher than the share in the fair value at the date of acquisition of the identifiable assets, liabilities and contingent liabilities, the excess is recognised as goodwill.

Goodwill is measured at cost less impairment. Allocated goodwill is allocated to one or more cash-generating units. Allocated goodwill is tested for impairment annually. If the goodwill allocation has not been completed yet, this item will not be tested for impairment annually.

For further details, see notes 14 Intangible assets.

Network losses

Allocation is a process by which estimates are used to determine the quantities of distributed electricity and gas and allocate them to users. In addition, as part of the allocation process, the network losses are determined as accurately as possible on the basis of data on standard annual consumption. The consumption levels initially allocated to 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 estimate of the obligation in connection with network losses not yet settled is part of 'Other liabilities and deferred revenue' as stated in note 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 network and that we invest heavily in expanding and reinforcing our electricity network. We describe the expectations regarding the future of our gas network and the financial consequences thereof under the heading 'Utilisation, useful life and residual value of property, plant and equipment and intangible assets' and in more detail in section 2.2.10 Property, plant and equipment.

The investments that Stedin makes to expand and reinforce the electricity network fall under the regulation of the ACM, with the starting point being that efficient investments are reimbursed, including a reasonable return. Determining the extent to which our investments are efficient is part of comparing to the benchmark. 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. We describe in more detail how we resolve this in section 1.2 Key events in 2022.

A final important factor of the energy transition in a financial sense is the increased volatility of energy prices. For Stedin Group, this has a particular impact on the amount of the costs for network losses. We describe the exact impact in more detail in section 1.2 Key events in 2022. Costs for network losses fall under the regulation of the ACM. Due to the unexpected sharp increase in the costs for network losses in 2022, the ACM has seen reason to recalculate the costs for network losses in 2022 for the regional grid managers. With a subsequent calculation, costs are usually only reimbursed to grid managers two years later. Because the ACM wants to prevent grid managers from having less room for investment in projects that are important for the energy transition due to these higher costs, the ACM is already giving the grid managers an advance for the higher costs for network losses in 2023. With the advance on the subsequent calculation, the ACM already offsets part of the costs incurred by grid managers in 2022 in the tariffs for the year 2023. The eventual exact method of subsequent calculation of costs for network losses is the subject of discussion between the grid managers and the ACM.

The rising energy prices do not immediately result in a material increase in the debtor risk at Stedin Group, because the credit risk for Stedin Group's low-use customers lies at the level of the energy supplier. This is explained in more detail in section 32.2 Credit risk.

3 Operating segments

Business segments are based on Stedin Group's internal organisation and management reporting structure. The segments have changed with effect as of the 2022 financial year, because the integration between DNWG and Stedin has been completed. Grid manager Enduris has merged with and become part of Stedin Netbeheer, as well as a number of other entities of the former DNWG Group, as a result, the distinction between Stedin and DNWG is no longer visible and is not managed in this way internally. The comparative figures have been adjusted accordingly. 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. As of 1 January 2022, the grid manager Enduris was fully included in grid manager Stedin and is part of this segment.

'Other and eliminations' segment

The most important units of the 'Other and eliminations' segment are the infrastructure, metering and steam network services of NetVerder, the heat infrastructure services by DNWG Warmte, the activities of the holding company and the cost entities being Stedin Groep Personeels BV and Stedin Groep Services, as well as the elimination of intragroup transactions. The units are non-reportable segments according to the criteria in IFRS 8 'Operating Segments', since they are not material and are therefore included within the 'Other and eliminations' segment.

Since the balance sheets per operating segment are not periodically reported in the internal management information, Stedin Group has decided not to present these. The accounting policies for the group's 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 in the Netherlands. In accordance with the requirements of IFRS 15, the following table disaggregates the net revenue in 2022 into categories that reflect the way that the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

For the regulated domain, Stedin Group sought alignment wherever possible with the periodic reports required by the Netherlands Authority for Consumers and Markets (ACM). The table also provides a reconciliation of the disaggregated revenue with the segment information on the basis of the internal organisation and management reporting structure:

2022 x € 1 million	Segment Stedin	Other and eliminations	Total
Net revenue			
- Regulated electricity transmission, connection and metering services	866	-	866
- Regulated gas distribution, connection and metering services	360	-	360
- 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	322	24	346
Total operating expenses	**1,205**	**42**	**1,247**
Operating profit	**86**	**-**	**86**
Financial income and expenses	6	-36	-30
Profit after income tax subsidiaries	-	3	3
Profit before income tax	**92**	**-33**	**59**
Income tax	-25	10	-15
Profit after income tax	**67**	**-23**	**44**

Investments in 2022 based on the internal organisation and management reporting structure were as follows:

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 2021 based on the internal organisation and management reporting structure were as follows:

2021 x € 1 million	Segment Stedin	Other and eliminations	Total
Net revenue			
- Regulated electricity transmission, connection and metering services	824	-	824
- Regulated gas distribution, connection and metering services	347	-	347
- Infrastructure services and other	52	42	94
Other income	6	8	14
Total revenue	**1,229**	**50**	**1,279**
Operating expenses	767	28	795
Depreciation, amortisation and impairments of property, plant and equipment and intangible assets	341	19	360
Total operating expenses	**1,108**	**47**	**1,155**
Operating profit	**121**	**3**	**124**
Financial income and expenses	-24	-69	-93
Profit after income tax subsidiaries	19	-18	1
Profit before income tax	**116**	**-84**	**32**
Income tax	-28	17	-11
Result after income tax	**88**	**-67**	**21**

2021 x € 1 million	Segment Stedin	Other and eliminations	Total
Investments in property, plant and equipment, intangible assets and right-of-use assets	669	26	695

Non-current assets by country

The non-current assets of the Stedin and 'Other and eliminations' segments relate in full to entities registered in the Netherlands.

Major customers

Stedin Group has no customers for which the revenue per customer amounts to 10% or more of total revenue.

4 Net revenue

x € 1 million	2022	2021
Electricity transmission and connection services	819	782
Gas distribution and connection services	315	322
Metering services	92	63
Infrastructure services and other	90	98
Total	**1,316**	**1,265**

Net revenue for 2022 increased by €51 million compared with the preceding financial year. This is attributable to higher revenue for the transmission of electricity amounting to €37 million driven by higher rates compared with last year. In addition, the revenue from metering services increased by €29 million compared with 2021, when more surplus profits were repaid.

This was offset by a decrease in gas distribution revenues of €7 million and a decrease in other revenues of €8 million.

5 Other income

Other income increased by €3 million compared with the preceding financial year to €17 million. Other income includes the revenue from non-regulated services as described in note 2.2.6 Revenue. In 2022, other income includes €7 million related to sales of non-regulated transformers. These sales 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	2022	2021
Salaries	257	252
Social security contributions	34	36
Pension contributions	41	43
External staff	82	76
Other personnel costs	39	29
Total	**453**	**436**

Personnel expenses increased by €17 million compared with the preceding year.

The increase in personnel expenses is mainly due to an increase in wages and salaries of €5 million as a result of the Collective Labour Agreement. In addition, the costs of external staff have increased as a result of higher rates and a higher number of external staff members. Hours worked by externally hired staff and directly attributed to own investment projects are deducted from costs of external staff as capitalised production. The amount concerned is €13 million (2021: €12 million).

6.1 Number of staff members

Average own workforce (in FTEs)	2022	2021
Stedin	3,781	3,766
DNWG Infra*	271	319
NetVerder	7	5
Total average no. of own fte	**4,059**	**4,090**
Employed outside the Netherlands	-	-
Male	82%	82%
Female	18%	18%

* In the 2021 amounts besides DNWG Infra, also Enduris was included, which merged in 2022 with Stedin Netbeheer.

6.2 WNT compliance for 2022 by Stedin Netbeheer B.V.

The Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT) is applicable to Stedin Netbeheer B.V. The applicable maximum remuneration in 2022 was €216,000. This is the general maximum remuneration.

6.2.1. Remuneration of senior executives

The members of the Board of Management of Stedin Group have an employment contract for an indefinite period. CEO Koen Bogers immediately entered the employment of Stedin Groep Personeels B.V. at the start of his employment contract on 1 May 2021. The other members of the Board of Management have been employed by Stedin Groep Personeels B.V. since 1 July 2021. Therefore, pursuant to the WNT, for Stedin Netbeheer BV they qualify as senior executives *without* an employment relationship. The scope of their employment for Stedin Netbeheer has been set at 100%. Pursuant to the WNT, a maximum remuneration of €216,000 applied to all members of the Board of Management for 2022.

All senior executives were appointed after 2013. Therefore, no transitional rules apply.

TABLE: Senior executives with and senior executives without an employment relationship after the 13th month of fulfilling their duties

Data for 2022 x € 1	Koen Bogers	Danny Benima	Trudy Onland	David Peters
Position details	CEO	CFO	COO	CTO
Start and end dates of duties in 2022	1 May- 31 December	1 January- 31 December	1 January- 31 December	1 January- 31 December
Scope of employment (in FTEs)	1	1	1	1
Employment relationship	no	no	no	no
Remuneration				
Remuneration plus taxed expense allowances	127,691	191,736	191,690	191,716
Remuneration payable in future	16,309	24,264	24,310	24,284
Sub-total	*144,000*	*216,000*	216,000	*216,000*
Maximum remuneration for position holder	144,986	216,000	216,000	216,000
-/- Amount paid but not owed and not yet refunded	N/A	N/A	N/A	N/A
Total remuneration	**144,000**	**216,000**	**216,000**	**216,000**
Amount of excess and reason for (non-) allowability of excess	N/A	N/A	N/A	N/A
Information on receivable due to amount paid but not owed	N/A	N/A	N/A	N/A

Data for 2021							
Start and end dates of duties in 2021	-*	1 January - 30 June	1 July - 31 December	1 June - 30 June	1 July - 31 December	1 January - 30 June	1 July - 31 December
Scope of appointment (in FTEs)	-*	1	1	1	1	1	1
Employment relationship	-	yes	no	yes	no	yes	no
Remuneration							
Remuneration plus taxed expense allowances	-*	91,571	93,289	15,160	93,249	91,571	93,289
Remuneration payable in future	-*	12,070	12,070	2,018	12,110	12,070	12,070
Sub-total	-*	*103,641*	*105,359*	*17,178*	*105,359*	*103,641*	*105,359*
Maximum remuneration for position holder	-*	103,641	105,359	17,178	105,359	103,641	105,359
Total remuneration	**-***	**103,641**	**105,359**	**17,178**	**105,359**	**103,641**	**105,359**

* Refer to table: Senior Executives without employment in the period of calendar months 1 to 12

Table: Senior executives without employment relationship in the period of calendar months 1 to 12

x € 1	Koen Bogers	
Position details	CEO	
Calendar year	2021	2022
Period of duties in the calendar year (start – end)	1 May - 31 December	1 January - 30 April
Number of calendar months of duties in the calendar year	8	4
Scope of employment in hours per calendar year	1387	693
Maximum remuneration for position holder	0	0
Maximum hourly rate in the calendar year	€ 199	€ 206
Maximum based on maximum hourly rate	€ 275,947	€ 142,827
Maximum based on standardised amounts per month	€ 208,200	€ 86,800
Maximum remuneration for position holder for entire period of calendar months 1 to 12	€ 295,000	
Remuneration (all amounts excluding tax)		
Actual hourly rate lower than the (average) maximum hourly rate?	yes	
Remuneration in the period concerned	€ 140,288	€ 72,000
Total remuneration for entire period calendar month 1 to 12	€ 212,288	
-/- Amount paid but not owed and not yet refunded	N/A	
Total remuneration, excluding VAT	**€ 212,288**	
Amount of and reason for (non-) allowability of excess	N/A	N/A
Information on receivable due to amount paid but not owed	N/A	N/A

6.2.2 Remuneration of senior supervisory directors

In 2022, the composition of the Supervisory Board was unchanged. The chair and four other members of the Board qualify as senior supervisory directors under the WNT. They serve in this role on a basis other than an employment contract.

Table: Senior supervisory directors

x € 1	Doede Vierstra	Hanne Buis	Theo Eysink	Arco Groothedde	Annie Krist
Position details	Chairman	Member	Member	Member	Member
Start and end dates of duties in 2022	1 January - 31 December	1 January - 31 December	1 January - 31 December	1 January - 31 December	1 January - 31 December
Remuneration					
Total remuneration	**32,400**	**21,600**	**21,600**	**21,600**	**21,600**
Maximum remuneration for position holder	32,400	21,600	21,600	21,600	21,600
-/- Amount paid but not owed and not yet refunded	N/A	N/A	N/A	N/A	N/A
Total remuneration	**32,400**	**21,600**	**21,600**	**21,600**	**21,600**
Amount of and reason for (non-) allowability of excess	N/A	N/A	N/A	N/A	N/A
Information on receivable due to amount paid but not owed	N/A	N/A	N/A	N/A	N/A
Data for 2021					
Position details	Chairman	Member	Member	Member	Member
Start and end dates of duties in 2021	1 January - 31 December	1 January - 31 December	1 January - 31 December	1 January - 31 December	1 January - 31 December
Remuneration					
Total remuneration	**31,350**	**20,900**	**20,900**	**20,900**	**20,900**
Maximum remuneration for position holder	31,350	20,900	20,900	20,900	20,900

6.2.3 Remuneration of non-senior executives

Stedin employees are employed by Stedin Groep Personeels B.V. and not by Stedin Netbeheer B.V. Pursuant to the WNT, there were no other executives employed who received remuneration in 2022 that exceeded the individually applicable threshold amount.

An explanation of the remuneration of other executives employed by Stedin Group can be found in the Remuneration report for 2022.

7 Cost of sales and contracted work

x € 1 million	2022	2021
Cost of sales	392	261
Contracted work	107	96
Total	**499**	**357**

The cost of sales and contracted work increased by €142 million compared with 2021.

The increase in the purchase costs is mainly attributable to higher costs for purchasing network losses, due to increased energy prices, with an impact of approximately €110 million, and purchasing of energy, due to the increase in TenneT's rates, with an impact of €21 million. In addition, the costs of contracted work have increased due to higher material prices.

8 Other operating expenses

x € 1 million	2022	2021
Municipal sufferance taxes and concessions	-1	64
IT costs	55	52
Lease expenses	10	5
Accommodation costs	22	21
Provisions	-	-5
Other expenses	79	72
Total	**165**	**209**

Other operating expenses decreased by €44 million compared with the previous year. This decrease is mainly due to the abolishment of municipal sufferance taxes, as a result of which municipal sufferance taxes of €65 million were no longer levied.

On the other hand, there was an increase in IT costs of €3 million, other costs of €7 million due to higher consultancy costs and an increase in lease expenses of €5 million, mainly due to higher maintenance costs and fuel costs for lease cars and lower charging on of rental costs of business premises due to the expiry of the lease to third parties.

9 Capitalised own production hours

Hours worked by own staff and directly attributed to own investment projects are deducted from operating expenses as capitalised production.

Capitalised own production hours increased by €9 million compared with the preceding financial year, to €216 million. The increase is in line with the increasing level of investment.

Hours worked by external staff attributed to own investment projects are deducted from personnel expenses (external staff), see note 6 Personnel expenses.

10 Depreciation, amortisation and impairments of non-current assets

2022 x € 1 million	Land and buildings, machinery and equipment	Networks	Other	Total
Depreciation and amortisation	6	304	4	314
Depreciation and amortisation lease	5	-	10	15
Disposals	-	17	-	17
Disposals lease	-	-	-	-
Total 2022	**11**	**321**	**14**	**346**

2021 x € 1 million	Land and buildings, machinery and equipment	Networks	Other	Total
Depreciation and amortisation	7	313	5	325
Depreciation and amortisation lease	7	-	10	17
Disposals	-	18	-	18
Disposals lease	-	-	-	-
Total 2021	**14**	**331**	**15**	**360**

Depreciation and amortisation as well as disposals relate to property, plant and equipment as well as to intangible assets and to right-of-use assets, and they decreased by €14 million compared with 2021. This is mainly explained by a change of accounting estimate in the depreciation and amortisation, see section 2.2.10 Property, plant and equipment for more information.

11 Financial income and expenses

x € 1 million	2022	2021
Interest income	-4	-2
Interest expense	41	94
Interest expense lease liabilities	1	1
Redemption costs interest-bearing debt	-8	-
Total	**30**	**93**

The financial expenses relate mainly to the interest expense for external financing. Interest expenses decreased in 2022 compared with 2021, mainly due to the early redemption of the USD and GBP loans in 2021, for which the interest for the original remaining term had to be settled as a lump sum, for an amount of €38 million. In addition, the interest expenses for these loans have ceased for the year itself.

In addition, a loan was repaid in 2022, for which a profit of €8 million was realised on the derivatives associated with this loan. Also in 2022, interest was capitalised on the assets under construction for an amount of €6 million (2021: €5 million).

12 Income tax

Income tax on the result from continuing operations is as follows:

x € 1 million	2022	2021
Current tax expense and tax income for current year	19	21
Current tax income prior years	-	-1
Current tax expense and tax income for current year	**19**	**20**
Release of deferred taxation due to a change in corporate income tax rates	-	3
Movements in deferred taxes	-4	-11
Other tax income and expenses	-	-1
Income taxes	**15**	**11**

The breakdown of current tax expense/income on the result from continuing operations is as follows:

x € 1 million	2022	2021
Profit before income tax	**59**	**32**
Participation exemption	-2	-1
Non tax-deductible expenses	1	6
Different depreciation methods for tax purposes	16	45
Taxable profit	**74**	**82**
Nominal tax rate	25.8%	25%
Current tax expense	**19**	**21**

The effective tax burden expressed as a percentage of the result from continuing operations before income tax is as follows:

	2022	2021
Nominal tax rate	**25.8%**	**25.0%**
Effect of:		
- Participation exemption	-1.5%	-0.8%
- Non tax-deductible expenses	0.5%	4.7%
- Change in corporate income tax rates	0.0%	9.4%
- Corporate income tax for prior years	0.7%	-3.1%
- Other	-0.2%	-0.5%
Effective tax rate	**25.3%**	**34.7%**

The difference of the effective tax rate compared with the nominal tax rate is largely attributable to the fact that a subsidiary was sold in 2022, with the profit on disposal being subject to the participation exemption.

The corporate income tax is settled between Stedin Holding N.V. and its subsidiaries as if the subsidiaries were independently liable to tax.

13 Property, plant and equipment

x € 1 million	Land and buildings	Machinery and equipment	Regulated networks*	Other operating assets	Assets under construction	Total
Historical cost as at 1 January 2021	**69**	**43**	**11,193**	**64**	**1**	**11,370**
Investments	1	1	667	1	15	**685**
Disposals	-1	-	-48	-	-	**-49**
Fair value adjustment for regulated networks	-	-	382	-	-	**382**
Reclassification from / to assets held for sale	-	-5	-	-	-	**-5**
Reclassification other	7	-1	-14	12	-2	**2**
Historical cost as at 31 December 2021	**76**	**38**	**12,180**	**77**	**14**	**12,385**
Investments	1	1	700	1	6	**709**
Disposals	-3	-	-25	-1	-	**-29**
Reclassification other	3	1	45	-37	-18	**-6**
Historical cost as at 31 December 2022	**77**	**40**	**12,900**	**40**	**2**	**13,059**
Accumulated depreciation and impairment as at 1 January 2021	**17**	**23**	**4,226**	**47**	**-**	**4,313**
Annual depreciation and impairment	4	3	313	2	-	**322**
Disposals	-1	-	-30	-	-	**-31**
Fair value adjustment for regulated networks	-	-	144	-	-	**144**
Reclassification from / to assets held for sale	-	-2	-	-	-	**-2**
Reclassification other	3	-	-10	11	-	**4**
Accumulated depreciation and impairment as at 31 December 2021	**23**	**24**	**4,643**	**60**	**-**	**4,750**
Annual depreciation and impairment	4	2	304	2	-	**312**
Disposals	-3	-1	-8	-	-	**-12**
Reclassification other	1	1	39	-40	-	**1**
Accumulated depreciation and impairment as at 31 December 2022	**25**	**26**	**4,978**	**22**	**-**	**5,051**
Net book value as at 31 December 2021	**53**	**14**	**7,537**	**17**	**14**	**7,635**
Net book value as at 31 December 2022	**52**	**14**	**7,922**	**18**	**2**	**8,008**

* Regulated networks also comprises assets under construction.

The net carrying amount of property, plant and equipment increased by €373 million compared with the preceding year. Stedin Group's investments in property, plant and equipment amounted to €709 million and related mainly to the regulated gas and electricity grids. The disposals related to asset retirements (especially the machinery and equipment in the regulated domain).

Regulated networks also comprise assets under construction. An amount of €6 million in interest was capitalised in 2022 on these assets under construction, applying an interest rate of 1.75% (2021: €5 million, at 2.3%).

Regulated networks (consisting of grids, connections and meters) are measured at the revalued amount, being the fair value at the date of the revaluation, which is equal to the normalised standardised asset value ((N)SAV) set by the ACM, less accumulated depreciation and impairment. Other property, plant and equipment is recognised at cost less accumulated depreciation and impairments.

Stedin applies the income approach in determining the fair value of its regulated networks. The starting point for determining the fair value of the regulated assets is the standardised asset value (SAV) of the grids and connections based on the most recent information available from the ACM (from 2021), which has subsequently been adjusted for realised depreciation and investments. The SAV of Stedin's grids and connections is normalised for Stedin Group's market share in the sector (NSAV). In addition, the determination of the fair value of the regulated networks also takes account of the expected future position of Stedin Group in the sector / benchmark and the development of the weighted average cost of capital (WACC). The determination of the fair value of regulated networks has been prepared without involvement of external specialists.

Parameters for measuring at fair value of regulated networks (grids and connections)	**2022**		**2021***	
Standardised asset value (SAV)	Estimated sector SAV derived from investment plans and indexation	Level 3	ACM determined sector SAV	Level 1
Market share of Stedin Group in the Netherlands (ACM) in percentages	Estimated market share: electricity 25% and gas 28% derived from investment plans and indexation	Level 3	ACM determined market share: electricity 26% and gas 28%	Level 1
Cash flow forecast	Estimated future cash flows based on forecasts	Level 3	Estimated future cash flows	Level 3
Discount factor (WACC) used for the cash flows	3.7% - 4.5%	Level 2	2.2% - 3.5%	Level 2

* 1 January 2021

In 2026, the ACM will publish the updated normalised, indexed asset value of the grids and connections, so that the unobservable parameters for fair value measurement in hierarchy level 3 in IFRS 13 will be market data that are objectively observable for Stedin Group at that time.

The metering services are not covered by the measurement regulation of the ACM. For the meters, the standardised asset value (SAV) is the most important parameter for determining the fair value. The standardised asset value is derived from the cumulative investments less depreciation and adjusted for indexation (level 2 input). Other elements are surplus profits and cash flows and these are based on estimates (level 3 input).

The most recent revaluation for the regulated networks took place on 1 January 2021 based on the market data published by the ACM (level 1 input, objectively observable market data under IFRS 13). Until publication of new market data by the ACM in 2026, the first two parameters in the table above are classified as level 3 input (not observable market data). The fair value of the regulated networks (NSAV) is assessed annually based of the above parameters and compared with the carrying amount for the relevant year; in the event of significant deviations, the carrying amount is revalued. The parameter market share of Stedin Group in the Netherlands has the highest sensitivity in the context of the valuation of regulated grids. As at 31 December 2022, the carrying amount does not differ materially from the value that would have been used if the fair value as at 31 December 2022 had been used. The total revaluation, as included in the carrying amount of regulated networks as at 31 December 2022, amounts to €1.0 billion (2021 €1.1 billion). This amount, adjusted for the tax effect, has been included in the revaluation reserve.

As at 31 December 2022, the carrying amount of regulated networks at historical cost was €6.9 million (31 December 2021: €6.5 billion).

Stedin has assessed the useful life of assets in 2022. For a more detailed explanation of the changes in the useful life of the assets, please refer to section 2.2.10 Property, plant and equipment.

14 Intangible assets

x € 1 million	Goodwill	Development costs	Software	Other	Total
Historical cost as at 1 January 2021	**77**	**-**	**32**	**15**	**124**
Investments	-	-	-	2	**2**
Disposals	-	-	-13	-	**-13**
Historical cost as at 31 December 2021	**77**	**-**	**19**	**17**	**113**
Investments	-	1	-	2	**3**
Disposals	-	-	-1	-	**-1**
Reclassification other	-	7	-	-1	**6**
Historical cost as at 31 December 2022	**77**	**8**	**18**	**18**	**121**
Accumulated amortisation and impairments as at 1 January 2021	**-**	**-**	**26**	**5**	**31**
Annual amortisation and impairment	-	-	3	-	**3**
Reclassification other	-	-	-13	-	**-13**
Accumulated amortisation and impairments as at 31 December 2021	**-**	**-**	**16**	**5**	**21**
Annual amortisation and impairment	-	-	2	-	**2**
Disposals	-	-	-1	-	**-1**
Reclassification other	-	-	-	-1	**-1**
Accumulated amortisation and impairments as at 31 December 2022	**-**	**-**	**17**	**4**	**21**
Net book value as at 31 December 2021	**77**	**-**	**3**	**12**	**92**
Net book value as at 31 December 2022	**77**	**8**	**1**	**14**	**100**

Goodwill

The goodwill relates to the acquisition of DNWG in 2017 and was initially allocated, based on the synergy benefits, to cash-generating units (CGUs) Stedin Netbeheer for €30 million and to DNWG for €47 million. As a result of the merger of Stedin Netbeheer B.V. and Enduris B.V., the goodwill of €77 million as at 1 January 2022 will be allocated in full to the cash-generating unit Stedin Netbeheer.

Impairment test

As at 30 June 2022, Stedin Group carried out the annual goodwill impairment test for CGU Stedin Netbeheer. This involves a comparison between the fair value of the CGU and its net carrying amount. The fair value is determined based on the net realisable value. Due to the lack of observable market data, the valuation method is a level 3 analysis within the fair value hierarchy. The net realisable value functions as an approximation of the recoverable amount. In principle, the net realisable value is based on post-tax cash flow projections, discounted applying a post-tax weighted average cost of capital (post-tax WACC).

The estimated projected cash flows for the 2022-2046 period are mainly derived from the Financial Strategic Plan (FSP) of Stedin Group as approved by the Board of Management and the Supervisory Board. The budgets for the CGU are distinctly included in the Stedin Group FSP, covering the 2022-2027 period. The 2028-2046 period is derived from the extrapolation of the FSP projections. The projected investments are based on the Strategic Investment Plan (SIP). The SIP covers a 15-year projection period (2022-2036). The investments after 2036 are derived from an extrapolation of the SIP projections. A projection period up to and including 2046 has been chosen because this fits in well with the estimated duration of the energy transition, also following the Climate Agreement and the national targets set therein for 2030 and 2050. The residual value period starts after 2046.

The following items are the most important factors and assumptions used in the goodwill impairment test:

- the estimated fair value of the regulated assets (the normalised standardised asset value, NSAV);
- the market share of Stedin Netbeheer;
- the relative profitability of Stedin Netbeheer; the return on investment (nominal/actual pre-tax WACC) for the regulated assets as determined by the Netherlands Authority for Consumers and Markets (ACM);
- the inflation forecasts and the long-term growth rate; and
- the weighted average cost of capital (WACC).

Regarding the aforementioned items, we note the following:

- Stedin Group applies fair value as the valuation principle for its regulated network components. The fair value is derived from the NSAV. A consequence of this valuation principle is that the buffer between the realisable value and the net carrying amount of the CGU Stedin Netbeheer is more limited over time than if Stedin Group were to value its regulated network components at historical cost.

- The profitability of Stedin partly depends on the instrument of 'benchmark comparison'. The system of 'benchmark competition' means that the revenues and future cash flows of Stedin Netbeheer are affected by both their own performance and that of other grid managers. The allowable income is revisited by the ACM at the beginning of each five-year regulation period. The underlying data on which the recalibration is based are also published once every five years. As a result, grid managers cannot entirely reliably estimate overperformance or underperformance compared with other regional grid managers during a regulatory period, nor the potential impact on their future cash flows. The recalibration was performed in 2021. Stedin Netbeheer's market share was adjusted in 2021 on the basis of this. Stedin Netbeheer's market share is approximately 25% for electricity transmission and 28% for gas distribution. For the future it is assumed that the market share will develop based on the expected developments in volumes in the sector.

- In view of the existing deviations between the individual performance of Stedin Netbeheer compared with the benchmark (on the basis of which performance versus other regional grid managers is determined), a convergence assumption of approximately 20 years was used in determining the net realisable value of the CGU. This convergence assumption assumes that Stedin Netbeheer's operational expenses and capital costs around the year 2042 are equal to its market share of the sector's total operational expenses and total capital costs. In the period up to convergence, Stedin Group prepared an estimate of its relative position in the benchmark.

- From 2022, ACM applies a declining balance method of depreciation for the compensation system for depreciation of the gas network. This is included in the projections. The capital costs as defined by the ACM constitute an important cost component for determining the sector-average costs. The capital costs include the depreciation charges determined on the basis of regulatory accounting principles as well as a return on the standardised asset value based on the pre-tax return on investment (the nominal and hybrid actual pre-tax WACC for gas and electricity respectively). The ACM determines this pre-tax WACC based on relevant market parameters and corporate finance theories. From 2022, ACM will apply subsequent costing to the difference between its estimated risk-free interest rate and the actual risk-free interest rate, and the grid manager may incorporate this difference in its tariffs. In our projections, we follow 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.

- The post-tax WACCs (discount rate) (3.0% - 3.6%) are determined separately for each year of the projection period and are primarily derived from market observations on relevant parameters such as interest rates, risk profiles, market fees and capital ratios.

- The long-term growth rate that is used to determine the terminal values of the CGU is conservatively estimated at 0%. For the projection period until 2046, a growth rate has been used that is equal to the expected inflation, i.e. 2.0%.

The buffer between the net carrying amount and the net realisable value is positive.

Based on the impairment test carried out on 30 June 2022, and the additional analyses performed for the period between 30 June 2022 and 31 December 2022, there is no impairment indication as at 31 December 2022 related to goodwill.

15 Leases

The table below shows the development of the right-of-use assets:

x € 1 million	Land and buildings	Lease vehicles	Total
Right-of-use assets as at 1 January 2021	**64**	**46**	**110**
Investments	-	8	**8**
Contract modifications	1	-	**1**
Right-of-use assets as at 31 December 2021	**65**	**54**	**119**
Investments	1	9	**10**
Contract modifications	2	-	**2**
Disposals	-2	-2	**-4**
Right-of-use assets as at 31 December 2022	**66**	**61**	**127**
Accumulated depreciation as at 1 January 2021	**12**	**17**	**29**
Annual depreciation and impairment	7	10	**17**
Accumulated depreciation as at 31 December 2021	**19**	**27**	**46**
Annual depreciation and impairment	5	10	**15**
Disposals	-2	-2	**-4**
Accumulated depreciation as at 31 December 2022	**22**	**35**	**57**
Net book value as at 31 December 2021	**46**	**27**	**73**
Net book value as at 31 December 2022	**44**	**26**	**70**

Stedin Group has entered into leases for a number of business premises and sites. In addition, Stedin Group leases a vehicle fleet. In 2022, Stedin Group concluded new leases for the vehicle fleet in particular.

The table below shows the development of the lease liabilities:

x € 1 million	2022	2021
Lease liability as at 1 January 2021	**75**	**83**
New lease contracts	10	9
Lease payments	-16	-18
Accrued interest	1	1
Release lease liability	-1	-
Contract modifications	2	-
Lease liability as at 31 December 2022	**71**	**75**

Classification (x € 1 million)	2022	2021
Within 1 year	12	14
1 to 2 years	11	12
2 to 3 years	9	10
3 to 4 years	7	8
4 to 5 years	2	5
After 5 years	30	26
Total	**71**	**75**

The table below presents the total lease expenses for 2022:

x € 1 million	2022	2021
Depreciation charges for right-of-use assets	-15	-17
Interest expense on lease liabilities	-1	-1
Lease cost in profit & loss	-10	-5
Total	**-26**	**-23**

16 Associates and joint ventures

Stedin Netbeheer has a joint venture, TensZ BV, with TenneT for the maintenance of the joint networks. Stedin's share in TensZ's equity is €0.4 million.

17 Deferred tax assets and liabilities

Deferred tax assets and liabilities are as follows.

x € 1 million	Assets as at 31 December 2022	Assets as at 31 December 2021	Liabilities as at 31 December 2022	Liabilities as at 31 December 2021
Property, plant and equipment	-	-	355	359
Cash flow hedges	5	18	-	-
Provisions	1	1	-	-
Interest-bearing debt	-	-	-	-
Total	**6**	**19**	**355**	**359**

Deferred tax assets and liabilities relate mainly to property, plant and equipment and cash flow hedges accounted for in group equity.

Movements in deferred taxes during 2022 are as follows:

x € 1 million	Net balance as at 1 January 2022	Recognised in profit or loss	Recognised in other comprehensive income	Net balance as at 31 December 2022	Assets	Liabilities
Property, plant and equipment	359	-4	-	355	-	355
Cash flow hedges	-18	-	13	-5	5	-
Compensating losses	-1	-	-	-1	1	-
Deferred income tax liabilities (assets) for netting	**340**	**-4**	**13**	**349**	**6**	**355**
Netting off					-6	-6
Total					**-**	**349**

The deferred taxation relating to property, plant and equipment largely concerns the difference between the carrying amounts and tax bases of the networks. The deferred tax liability relating to property, plant and equipment was mainly caused by the difference between the carrying amounts and tax bases of the networks at the time of the introduction of corporate income tax for Stedin Group, accelerated depreciation for tax purposes applied in the past, the revaluation of the networks and the valuation of the acquired networks as part of the accounting for the acquisition of DNWG.

Movements in deferred taxes during 2021 are as follows:

x € 1 million	Net balance as at 1 January 2021	Recognised in profit or loss	Recognised in other comprehensive income	Net balance as at 31 December 2021	Assets	Liabilities
Property, plant and equipment	297	-5	67	359	-	359
Cash flow hedges	-26	-	8	-18	18	-
Provisions	-1	-	-	-1	1	-
Interest-bearing debt	4	-4	-	-	-	-
Deferred tax liabilities (assets) before netting	**274**	**-9**	**75**	**340**	**19**	**359**
Netting off					-19	-19
Total					**-**	**340**

Expiration periods for deductible temporary differences as at 31 December 2022 are as follows:

Category	Period
Property, plant and equipment	1 - 55 years
Intangible assets	1 - 25 years
Cash flow hedges	1 - 30 years
Provisions	1 - 10 years

18 Derivative financial instruments

Fair value of derivative financial instruments:

x € 1 million	Assets as at 31 December 2022	Liabilities as at 31 December 2022	Assets as at 31 December 2021	Liabilities as at 31 December 2021
Currency swap and forward contracts	-	53	15	64
Total	**-**	**53**	**15**	**64**

The classification by maturity is set out below:

x € 1 million	Assets as at 31 December 2022	Liabilities as at 31 December 2022	Assets as at 31 December 2021	Liabilities as at 31 December 2021
Classification				
Current / short term	-	19	15	-
Non-current / long term	-	34	-	64
Total	**-**	**53**	**15**	**64**

All derivative financial instruments have been assigned to a hedging relationship, and value changes of these instruments are recognised directly in group equity and presented in the cash flow hedge reserve, where applicable. More information on movements in that reserve and the expected cash flows is provided in note 32.4 Derivative financial instruments and cash flow hedge reserve.

19 Inventories

Inventories increased by €3 million compared with the preceding financial year. An obsolescence allowance of €3 million has been deducted from the value of inventories (2021: €2 million).

An amount of €0 million within the obsolescence allowance relates to meters (2021: €0 million).

20 Trade and other receivables

Trade and other receivables mainly includes amounts receivable from customers and amounts not yet invoiced (contract assets) for the provision of distribution services.

This item can be broken down as follows:

x € 1 million	As at 31 December 2022	As at 31 December 2021
Trade receivables	131	118
To be invoiced	44	43
Prepayments	35	-
Other receivables and accruals	12	4
Total	**222**	**165**

Note 32.2 Credit risk states the age and impairments of the trade receivables and contract assets.

Trade and other receivables increased by €57 million compared with the preceding year. This increase is mainly attributable to prepaid network losses of approximately €27 million and prepaid invoices of €3 million. In addition, receivables increased by €5 million due to a higher balance on low-use consumption. The upward adjustments of the estimates of large-scale consumption also increased by approximately €5 million.

21 Cash and cash equivalents

As at 31 December 2022, cash and cash equivalents comprised bank balances of €53 million (2021: bank balances of €48 million, short-term cash loans of €85 million). Cash and cash equivalents are held mainly in euros. Cash and cash equivalents that are not freely available to Stedin Group amounted to €- million (2021: €- 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. At 31 December 2022, 5,387,046 shares, of which 4,970,978 ordinary shares and 416,068 cumulative preference shares, had been issued and fully paid (2021: 4,970,978 ordinary shares and 416,068 cumulative preference shares).

Share premium account

Stedin Holding N.V. raised €200 million in additional equity in 2021 to strengthen the equity capital position. This was raised by issuing 416,068 cumulative preference shares with a nominal value of €100 each. In addition, the shareholders paid in share premium of €380.69 per share, for an aggregate amount of €158.4 million. In 2022, there were no changes in the share premium account.

Revaluation reserve

The revaluation reserve relates to the revaluation of networks and network-related assets at fair value. The difference between depreciation based on the revalued carrying amount and depreciation based on the original historical cost, less deferred taxes, was transferred from the revaluation reserve to the retained earnings reserve. The revaluation reserve is not freely at the disposal of the shareholders. The revaluation reserve amounts to €753 million at year-end 2022 (2021: €790 million). No revaluations took place in 2022 and no additions were made to the revaluation reserve. However, €37 million has been added to the undistributed profit from the revaluation reserve due to depreciation expenses.

Preference dividend reserve

In 2021, Stedin issued cumulative preference shares on which a yield of 3% is required to be distributed or reserved each year. The distribution of this yield is at the discretion of the Board of Management, subject to the approval of the Supervisory Board. If it is not distributed, this yield is taken to a separate reserve.

Statutory reserve

A statutory reserve is included in group equity for the amount of the carrying amount of the internally developed intangible assets.

Cash flow hedge reserve

The cash flow hedge reserve is not freely at the disposal of the shareholders. More information on the movements and the underlying hedging relationships is set out in note Derivative financial instruments and cash flow hedge reserve.

Perpetual subordinated bond loan

On 23 March 2021, Stedin Holding N.V. issued a new 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 2022, the market value was €413 million. The carrying amount at year-end 2022 was €506 million, which is the nominal principal amount including €6 million in accrued interest.

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 2021	**9**	**5**	**14**
Additions	1	3	4
Withdrawals	-1	-2	-3
Release	-1	-1	-2
As at 31 December 2021	**8**	**5**	**13**
Additions	1	4	5
Withdrawals	-	-2	-2
Release	-1	-	-1
As at 31 December 2022	**8**	**7**	**15**

Classification (x € 1 million)	As at 31 December 2022	As at 31 December 2021
Current	5	4
Non-current	10	9
Total	**15**	**13**

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 2022	31 December 2021
Discount rate	2.71%	1.0%
Future salary increments	1.5% - 2.5%	1.5% - 2.5%
Mortality table	GBM & GBV 2016-2021	GBM & GBV 2015-2020

Long-service payments are made over the long term. The provision is remeasured annually using current employee information.

24 Other provisions

x € 1 million	Restructuring	Other	Total
As at 1 January 2021	**1**	**28**	**29**
Additions	2	1	3
Withdrawals	-1	-2	-3
Release	-	-11	-11
As at 31 December 2021	**2**	**16**	**18**
Withdrawals	-1	1	-
Release	-1	-5	-6
As at 31 December 2022	**-**	**12**	**12**

Classification (x € 1 million)	As at 31 December 2022	As at 31 December 2021
Current	1	3
Non-current	11	15
Total	**12**	**18**

The other provisions amount to €12 million (2021: €18 million), comprise several provisions of different kinds and are mainly of a long-term nature. They include, for instance, a provision for decommissioning of €4 million (2021: €4 million) and obligations amounting to €7 million entered into on behalf of Stichting Zeeuwse Publieke Belangen (2021: €7 million).

During 2022, the remainder of the provision for the removal of gas connections has been released in full for the amount of €3 million. In addition, reserves for claims amounting to approximately €2 million have also been released.

25 Interest-bearing debt

Classification (x € 1 million)	As at 31 December 2022	As at 31 December 2021
Current	280	531
Non-current	3,116	2,675
Total	**3,396**	**3,206**

Movements in interest-bearing debt:

x € 1 million	2022	2021
As at 1 January	**3,206**	**3,100**
New non-current interest-bearing debt	495	497
New current interest-bearing debt	1,050	2,600
Repayments of non-current interest-bearing debt	-533	-195
Repayments of current interest-bearing debt	-770	-2,800
Foreign currency exchange differences	-11	6
Interest rate swaps	-45	-7
Other movements	4	5
As at 31 December	**3,396**	**3,206**

The maturities of the interest-bearing debts are presented below:

x € 1 million	As at 31 December 2022	As at 31 December 2021
Within 1 year	280	531
1 to 2 years	40	-
2 to 3 years	529	40
3 to 4 years	498	529
4 to 5 years	300	500
After 5 years	1,749	1,606
Total	**3,396**	**3,206**

Most interest-bearing debts as at 31 December 2022 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 following significant financing transactions took place in 2022:

- Repayment of €300 million on the loan from 2018, in accordance with the regular schedule.
- A new €500 million green bond has been issued with a term of 8 years and an interest coupon of 2.375%

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.
- Net debt: 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: Profit before income tax adjusted for depreciation, amortisation, net interest expense, gains/losses on disposal of group entities, revaluations and the minority interest.
- 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 2022.

Gearing ratio	2022	2021
Principal amounts payable of interest-bearing debt	3,396	3,206
Lease liabilities	71	75
Cash and cash equivalents	-53	-133
Net debt	**3,414**	**3,148**
Principal amounts payable of interest-bearing debt	3,396	3,206
Lease liabilities	71	75
Equity	3,342	3,270
Equity adjustments	-100	-92
Total equity	**6,709**	**6,459**
Gearing ratio	**50.9%**	**48.7%**

Interest coverage ratio	2022	2021
Profit before income tax	59	32
Depreciation and amortisation	346	360
Financial income and expenses	30	93
Profit after income tax of group entities sold	-3	-1
EBITDA	**432**	**484**
Net interest payable	**43**	**97**
Interest coverage ratio	**10.0**	**5.0**

26 Contributions received in advance

x € 1 million	2022	2021
Book value at 1 January	898	809
Customer construction contributions received	107	112
Customer construction contributions paid	-	-1
Revenue recognised	-22	-22
Book value at 31 December	**983**	**898**

Classification	2022	2021
Current	23	22
Non-current	960	876
Total	**983**	**898**

The short-term deferred revenue is reported under 'contract liabilities' in 'Trade and other liabilities'.

Stedin assessed the useful life of assets in 2022. This also has consequences for the amortisation of the customer construction contributions. For a more information, please refer to section 2.2.10 Property, plant and equipment.

27 Trade and other liabilities

x € 1 million	As at 31 December 2022	As at 31 December 2021
Trade liabilities	59	100
Accrued and other liabilities	221	157
Contract liabilities	23	23
VAT	-	24
Pension contributions	5	4
Total	**308**	**308**

Classification		
Current	308	308
Non-current	-	-
Total	**308**	**308**

Trade and other liabilities are in line with 2021.

28 Current tax assets and liabilities

Current tax assets and liabilities are as follows:

x € 1 million	As at 31 December 2022	As at 31 December 2021
Corporate income tax	-	-
Total current tax assets	**-**	**-**

x € 1 million	As at 31 December 2022	As at 31 December 2021
Corporate income tax	14	12
Total current tax liabilities	**14**	**12**

29 Contingent assets and liabilities

Off-balance sheet assets and liabilities other than guarantees are presented at present value. Present value is calculated using a discount rate that reflects current market assessments of the time value of money. The discount rate applied is the euro zero coupon yield curve.

Energy purchase commitments

Stedin Group has energy purchase commitments to offset administrative and technical network losses. Based on the rates applicable in 2022, the obligation amounts to €841 million (2021: €752 million) and relates to the period from 2023 to the end of 2030. The rates applicable to the purchase commitment for 2023 have largely been agreed already, in line with our purchasing strategy. Where rates have not been agreed yet, Stedin Group uses the expected rates in the energy market for the relevant delivery year as these applied as at 31 December 2022. 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

As at year-end 2022, Stedin Group had entered into investment obligations with a total amount of €31 million (2021: €34 million). These investment obligations relate to investments in smart meters. The investment obligations have been entered into through to 2024.

Other obligations

In addition, Stedin Group entered into contractual obligations for an amount of €6 million (2021: €7 million). These are mainly contractual obligations for maintenance.

Guarantees

Stedin Group has issued group and bank guarantees to third parties of €1 million (2021: €1 million). Of that total, Stedin Holding N.V. issued €0 million (2021: €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, the 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 meter rental 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 Roll-Out of Smart Meters 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. We currently estimate that Stedin has achieved sufficient returns at this moment compared with the costs of the large-scale roll-out of smart meters (GSA). 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 largely returned to consumers by means of tariff reductions. The surplus profits amounted to €5 million as at year-end 2022 and will offset in the future by means of tariff reductions.

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 note 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 (2021: €37 million). Due to uncertainties, this potential receivable is not recognised in the balance sheet as at 31 December 2022.

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 network in 2022 for a payment of €1.6 million. 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 currently planned for the end of the first quarter of 2023. Given the current uncertainties regarding the final valuation, further potential receivables and/or liabilities in this respect, apart from the €1.6 million already paid, have not yet been recognised in the financial statements as at 31 December 2022.

Fiscal unity

Stedin Holding N.V. forms a fiscal unity for corporate income tax purposes with all its consolidated subsidiaries and associates as listed in note 36 Overview of subsidiaries and associates 36 Overview of subsidiaries and associates. 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.

There is also a fiscal unity for VAT purposes that includes Stedin Holding N.V. and all its consolidated subsidiaries and associates as listed in note 36 Overview of subsidiaries and associates 36 Overview of subsidiaries and associates. Only 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

Under its participation in the Stedin Group cash pool, Stedin Holding N.V., like the other participants, is jointly and severally liable for deficits in Stedin Group's cash pool.

30 Related party transactions

Related parties are entities affiliated with Stedin Group in which key management (or their family) of Stedin Group has reporting or partial control or decisive influence. Associates and joint ventures are related parties 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 €17 million (2021: €19 million) and are mainly of a long-term nature. In 2022, €2 million in loans were granted and €4 million in repayments were received. The loans have a term of six 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 under the Samen Sterker programme. Its governing board is composed of the following individuals: David Peters (Stedin Group), Koen Verbogt (Stedin Group), Carla Schönknecht (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 2022, the governing board of the foundation committed €0.8 million and paid out €0.5 million.
- The object of Stichting OUNZ (OUNZ foundation) is to hold ownership of the rights of principal superficies with regard to the grids of DNWG Group and to provide rights of subsuperficies with regard to the gas grids as well as the electricity grids to DKCN, Evides and Enduris in order to carry out grid manager tasks. Stedin has the right, through Enduris, 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. Stedin Group has no direct relationship with GasTerra.
- 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 is 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 and a board member of the Dutch energy data exchange organisation NEDU. EDSN and NEDU have a cooperative alliance with Stedin Group.

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 on the remuneration of members of the Board of Management and the Supervisory Board, see note 6 Personnel expenses The persons qualify as 'key management personnel' as defined in IAS 24. There is no other relationship between the members of the Board of Management and Supervisory Board and Stedin Group except that of customer on normal arm's length terms and conditions. Based on the wage definition under the WNT, the remuneration of Board of Management and Supervisory Board members for 2022 amounted to €982,800. The total remuneration of the Board of Management and Supervisory Board members for 2022, including social security contributions and pension expenses, in accordance with Section 383 of the Dutch Civil Code, amounted to €1,132,136.

Other relationships with parties:

- The municipality of Rotterdam is the largest shareholder of Stedin Group (approximately 31.7%) 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).
- 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.

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
Infra Netwerkgroep Omexom VOF	-	-
Total	**9**	**12**
Associates		
Energie Data Services Nederland B.V.	25	-
Zebra Gasnetwerk B.V.	-	-
Total	**25**	**-**

As of 1 January 2022, TeslaN has merged with TensZ and TeslaN has been liquidated.

2021 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	6
TeslaN B.V.	4	6
Infra Netwerkgroep Omexom VOF	-	-
Total	**13**	**13**
Associates		
Energie Data Services Nederland B.V.	19	-
Zebra Gasnetwerk B.V.	-	-
Total	**19**	**-**

31 Auditors' fees

The fees below concern the auditors' fees of Stedin Group's external auditor: Deloitte Accountants B.V., as defined in Section 1.1 of the Audit Firms (Supervision) Act (Wet toezicht accountantsorganisaties, Wta), and the entities associated with the Deloitte network.

x € 1.000	2022	2021
Audit of the financial statements	995	1,408
Other audit engagements	584	402
Other non-audit services	-	-
Total	**1,579**	**1,810**

In the fee for the audit of the financial statements of Stedin Holding N.V., all auditor's fees required to be incurred in order to audit the consolidated and company financial statements of the company are attributed to the financial year to which the financial statements apply.

The other audit engagements concern audits for regulation data on behalf of the ACM and in respect of the statutory financial statements of subsidiaries and related engagements.

Other non-audit services concern services permitted under the Wta that are fully or partly charged by entities associated with the Deloitte network. Since 24 October 2017, Stedin Holding N.V. qualifies as a public interest entity (PIE). Hence, as of that date, a prohibition applies on performing the engagement for the statutory audit of the financial statements if the audit firm or another part of its network provides or has provided services other than audit services to Stedin Holding N.V. and its affiliated entities during the period in which independence is required. Since that time, the auditor's engagement has only covered audit engagements.

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 capital (including the perpetual subordinated bond loan) and non-subordinated debt as relevant components of its financing structure and therefore of its capital management. The current interest-bearing debt is, aside from the private loans, raised mainly in the European bond market. In addition to 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 all made financing capacity available to Stedin. These banks can also offer a wide range of financial products and services if required.

Since 2017, there has been a Stedin Group financing strategy that targets the ratios that are relevant for the credit rating and particularly the core ratio: cash flow from operating activities/net interest-bearing debt. In this context, for the purpose of calculating the ratios, the perpetual subordinated bond loan issued in 2021 (which replaces the perpetual subordinated bond loan issued in 2014 that was redeemed in 2021) is classified by Standard & Poor's as an instrument with a 50% equity and 50% debt component. This qualification differs from the treatment under IFRS, which qualifies the perpetual subordinated bond loan entirely as equity. Net interest-bearing debt (excluding discontinued operations) is defined as current and non-current interest-bearing debt less cash and cash equivalents.

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 arises when the company 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 enter into commitments on behalf of 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 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 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
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

Sections 32.1 to 32.4 discuss individual aspects of 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 derivative financial instruments.

The table below shows the fair value and the carrying amount of the loans portfolio that is subject to market risks. Borrowings of €3.2 billion are fixed rate (fair value risk). The other borrowings bear a variable interest rate that follows the development in market rates (cash flow / interest rate risk).

x € 1 million	Bookvalue as at 31 December 2022	Fair value as at 31 December 2022	Bookvalue as at 31 December 2021	Fair value as at 31 December 2021
Bond loans	2,456	2,190	2,302	2,342
Other loans	940	954	905	1,052
Total	**3,396**	**3,144**	**3,207**	**3,394**

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 loan, as this item is classified as equity under IFRS; see note 22 Group equity 22 Group equity for more details.

Currency risk

Currency risk within Stedin Group relates mainly to borrowings denominated in currencies other than the euro and to a lesser extent to purchasing and cash and cash equivalents. The currency risks are risks in respect of future cash flows in foreign currencies as well as balance sheet positions in foreign currencies. To meet Stedin Group's financing requirements, loans were contracted in 2009 in non-euro currencies: US dollars (USD), Japanese yen (JPY) and pounds sterling (GBP).

In 2021, Stedin Group carried out the early repayment of two loans, in GBP and USD, with a carrying amount of €196 million. As a result of this early repayment, the financing expenses for these loans were brought forward, which gave rise to a one-off interest expense of €38 million in 2021. This is offset by lower interest expenses for future years.

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

As at year-end 2022, the foreign currency risks arising from these loans were hedged for the entire term using cross-currency interest swaps and. The main nominal values and rates of the derivative financial instruments as at 31 December 2022 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 28,670	JPY 29,180	132.188	221	141
Total	**JPY 510**	**JPY 28,670**	**JPY 29,180**	**JPY 132.188**	**221**	**141**

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 derivative financial instruments 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	-24	-10	-24	10	8
Total	**-24**	**-10**	**-24**	**10**	**8**

The hedging relationships did not lead to hedge ineffectiveness in the reporting period. Note Derivative financial instruments and cash flow hedge reserve provides a breakdown of movements in the cash flow hedge reserve.

Interest rate risk

The interest rate risk policy is aimed at managing the net financing liabilities through fluctuations in market interest rates. To this end, a specific range for the ratio of fixed-interest to variable-interest loans and a desired weighted average term of the debt portfolio are applied. Stedin Group can use derivative financial instruments to achieve the desired risk profile.

Changes are expected in interest rate benchmarks. These amendments do not have consequences for the financial statements of Stedin Group, because there have been no changes to the market interest rate used for hedge accounting. Apart from this, Stedin only recognises financial instruments on the balance sheet that are linked to Euribor, which already complies with the European Benchmark Regulation arising from this amendment and therefore does not need to be replaced.

	2022	2021
Average interest rate	1.3%	1.6%

The average interest rate is calculated as the weighted average of the monthly interest expense in 2022. If all other variables remain constant, it is estimated that a general increase of one percentage point in Euribor (for a period of 12 months) would lead to a decrease in profit before income tax of €2.0 million (at 31 December 2021: €1.0 million).

Cash flow hedge for interest rate risk

In the past, in anticipation of the issue of loans, Stedin Group entered into derivative financial instruments to hedge the interest rate risk during the term of the loan. The derivative financial instruments entered into for this 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	5	1
Total	**5**	**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. The fair value hedging relationships for interest rate risks as at 31 December 2022 were as follows:

x € 1 million	Nominal cash flows less than one year	Nominal cash flows more than one year	Total nominal cash flows	Average rate	Nominal value	Book value
Expected cash flows	-2	-17	-19	1.19%	200	171
Total	**-2**	**-17**	**-19**	**1.19%**	**200**	**171**

The table below shows details of the hedging relationship:

	Change in the fair value of:				
x € 1 million	Derivative financial instrument	The hedged interest risk	Derivative financial instrument recognised in other comprehensive income	Accumulated change in interest-bearing debt	Reclassification recognised in the income statement
Expected cash flows	-29	-29	-	43	2
Total	**-29**	**-29**	**-**	**43**	**2**

The hedging relationships did not lead to hedge ineffectiveness in the reporting period. Note Derivative financial instruments and cash flow hedge reserve provides a breakdown of movements in the cash flow hedge reserve.

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. In December 2021, partly with a view to the turbulent market, a change in approach was initiated for the purchasing strategy for electricity grid losses. This is aimed at greater predictability. This policy reduces sensitivity to short-term price fluctuations. In addition, very 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 derivative financial instruments.

32.2 Credit risk

The maximum credit risk is equal to the balance sheet value of the financial assets, including derivative financial instruments. Stedin Group's credit risk towards financial institutions mainly concerns cash and cash equivalents and derivative financial instruments 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 by Standard & Poor's (S&P) and/or Moody's and/or Fitch (for which purpose the lowest rating is decisive).

Credit risk for trade 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 low-use customers 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 heavy-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 not yet invoiced and other receivables are as follows:

x € 1 million	As at 31 December 2022	As at 31 December 2021
Trade receivables	131	118
To be invoiced	44	43
Prepayments	35	-
Other receivables and accruals	12	4
Total	**222**	**165**

The breakdown of the outstanding trade receivables (including those not yet invoiced, excluding other receivables and accruals) and bad debts provision by age is as follows:

		2022		2021	
x € 1 million	Expected loss %	Receivables	Provision / impairments	Receivables	Provision / impairments
Receivables from low-use customers	0.1% - 100%	88	4	79	4
Receivables from high-use customers, other receivables and to be invoiced					
Before maturity date	0.1% - 1%	75	-	69	-
After maturity date					
- under 3 months	1% - 25%	11	1	13	1
- 3 to 6 months	1% - 100%	2	1	2	-
- 6 to 12 months	5% - 100%	4	1	2	1
- over 12 months	65% - 100%	5	3	4	2
Face value		**185**	**10**	**169**	**8**
Less: provision / impairments		**-10**	**-**	-8	
Total		**175**	**-**	**161**	

In the bad debts provision, an amount of €3 million (2021: €4 million) concerns trade receivables that have been provided for in full. The table below presents the movements in the bad debts provision in detail:

x € 1 million	2022	2021
As at 1 January	**8**	**6**
Additions through income statement	4	4
Withdrawals	-2	-2
As at 31 December	**10**	**8**

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 mid-2017, Stedin Group concluded a revised Revolving Credit Facility of €600 million with six banks. The facility matures at the end of July 2024 and can be used for general operational purposes, working capital financing or debt refinancing. Stedin Group also has a €750 million Euro Commercial Paper programme under which €150 million had been withdrawn at 31 December 2022 (2021: €- million) and a €3 billion Euro Medium Term Note programme under which €2.5 billion had been issued at 31 December 2022 (2021: €2.3 billion).

Liquidity risk arising from potential margin calls relating to foreign currency and interest rate management transactions is closely monitored. There are also procedures to ensure that appropriate thresholds and provisions are included in ISDAs and CSAs (Credit Support Annex). As in the preceding year, Stedin Group did not receive any margin calls in 2022.

Cash outflows

The table below shows forecast nominal cash outflows and any interest arising from financial instruments over the coming years. The cash flows from derivative financial instruments are based on the forecast net cash outflows (also see note 25 Interest-bearing debt for the terms).

As at 31 December 2022 x € 1 million	Within 1 year	1 to 5 years	After 5 years	Total
Interest-bearing debt	280	1,367	1,749	3,396
Lease liabilities	12	29	30	71
Derivative financial instruments	19	-	34	53
Trade and other liabilities	308	-	-	308
Total	**619**	**1,396**	**1,813**	**3,828**

As at 31 December 2021 x € 1 million	Within 1 year	1 to 5 years	After 5 years	Total
Interest-bearing debt	531	1,069	1,606	3,206
Lease liabilities	14	35	26	75
Derivative financial instruments	-15	-	64	49
Trade and other liabilities	308	-	-	308
Total	**838**	**1,104**	**1,696**	**3,638**

Trade and other liabilities include, in 'contract liabilities', deferred revenue of €23 million (2021: €23 million).

32.4 Derivative financial instruments and cash flow hedge reserve

Derivative financial instruments

The derivative financial instruments are of a long-term nature. As in 2021, the derivative financial instruments are categorised as fair value level 2. The cash flow hedge instruments applied are derivative financial instruments that are subject to net settlement between parties.

Cash flow hedge reserve

Movements in the cash flow hedge reserve with regard to the hedges referred to above were as follows:

x € 1 million	Interest rate risk	Foreign currency risk	Total
As at 1 January 2021	**-13**	**-65**	**-78**
Movement in fair value of cash flow hedges	2	21	**23**
Deferred tax liabilities	-1	-7	**-8**
Reclassification cash flow hedge reserve to income statement	2	8	10
As at 31 December 2021	**-10**	**-43**	**-53**
Movement 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**

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 2022	**-43**	**-10**	**-53**
Movement of cash flow hedges	50	1	51
Deferred tax liabilities	-13	-	-13
Reclassification of cash flow hedge reserve	-4	4	-
As at 31 December 2022	**-10**	**-5**	**-15**

Periods in which the cash flows from the cash flow hedges are expected to be realised:

x € 1 million	As at 31 December 2022	As at 31 December 2021
Expected cash flows		
Within 1 year	-19	15
1 to 5 years	-	-
After 5 years	-34	-64
Total	**-53**	**-49**

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 cash flows from the cash flow hedges are expected to be realised:

x € 1 million	As at 31 December 2022	As at 31 December 2021
Expected recognition through the income statement after income tax		
Within 1 year	-1	2
1 to 5 years	-6	-16
After 5 years	-9	-39
Total	**-16**	**-53**

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 important to that end that existing and potential capital providers have proper insight into Stedin Group's credit rating.

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 outlook and a short-term rating. The outlook indicates the expected change in the long-term rating for the coming years.

As at the balance sheet date, Stedin's credit rating awarded by S&P is A- with a stable outlook for the long term and A-2 for the short term. This rating is unchanged from 2021. For the latest developments regarding the credit rating, see note 34 Subsequent events.

The most important ratio for Stedin Group is the ratio of Funds from Operations (FFO) to the Net Debt ratio for freely available cash and cash equivalents (net debt), which is a customary ratio in the market for the sustainability 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 figure only at year-end 2022 and 2021.

The calculation of this 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 as well as the financial position between Stedin Group and other businesses. The main adjustment concerns the perpetual subordinated bond loan as an instrument with a 50% equity component and a 50% debt component (in contrast with IFRS, where it is part of equity in its entirety). 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	2022	2021
EBITDA	432	485
-/- Interest paid	-35	-87
-/- Tax paid	-17	1
-/- S&P adjustments	-9	-14
S&P - Funds from Operations	**371**	**385**
Non-current interest-bearing debt	3,116	2,676
Current interest-bearing debt	280	531
Lease liabilities	71	74
-/- Cash and cash equivalents	-53	-133
IFRS - NET DEBT	**3,414**	**3,148**
+ S&P adjustments	263	261
S&P - NET DEBT	**3,677**	**3,409**
FFO / Net Debt – S&P adjusted	**10.1%**	**11.3%**

Current and non-current interest-bearing debt, interest paid and tax paid in accordance with these financial statements. Lease liabilities are part of non-current interest-bearing debt and are presented separately for comparative purposes.

The FFO/Net Debt ratio decreased to 10.1% in 2022, from 11.3% in 2021. The decrease of the FFO by €14 million is mainly driven by high costs for network losses. The net debt position (Net Debt) at year-end 2022 is €268 million higher than in 2021, which can be explained by the raising of a new green bond of €500 million and the regular repayment of part of an old loan of €300 million.

The annual FFO/Net Debt ratio of 10.1% is below the target of at least 12%. However, S&P uses a multi-year (forward-looking) average for its assessment of the FFO/Net Debt ratio. Stedin has for some time been working on strengthening its balance sheet through consultation with the central government and new and current (regional) shareholders and has confidence in the (future) outcome. Stedin therefore regards the current lower rating as a temporary situation. For the latest developments regarding the credit rating, see note 34 Subsequent events.

The tax paid is €18 million higher in 2022 as a result of a higher profit. The higher operating profit was partly attributable to higher capitalised own production.

S&P adjustments can be viewed in the S&P rating report of November 2021 (which is available via the Investor Relations website) on the basis of figures in the 2020 financial statements. For the most recent rating reports, see our website: http://www.stedingroep.nl/investor-relations.

34 Subsequent events

S&P credit rating

On 14 February 2023, Standard & Poor's (S&P) published a sector report including an update of Stedin's credit rating. The most important conclusions are:

- S&P has downgraded the Stand Alone Credit Profile (SACP) from A- to BBB+ on the basis of the 3-year outlook.
- The Dutch regional grid managers with an S&P rating are given the status of "Government Related Entity".
- The consequence for Stedin is a "1 notch uplift" of the SACP, as a result of which the Issuer Credit Rating (ICR), including the downgrade, is an A- with a stable outlook.
- The short-term credit rating has remained unchanged at A-2.

The Dutch regional grid managers are given the status of "Government Related Entity" after an assessment of the framework agreement and the willingness and ability of the State to pay additional capital if the credit rating is jeopardised. The reservation of €500 million by the State in the national budget to strengthen Stedin's equity is also regarded as essential. S&P underlines in the report that capital reinforcement by (potential) shareholders will remain important in the future in order to be able to make all the necessary investments and to maintain the credit rating. The consequences of the conclusions from the report are currently being investigated by Stedin. Stedin's financial policy remains unchanged for the time being, with retention of an ICR of A- remaining an essential starting point.

For the S&P publication, we refer to the Credit Ratings section of our Investor Relations website: https://www.stedingroep.nl/investor-relations.

35 Notes to the consolidated cash flow statement

The consolidated cash flow statement has been prepared using the indirect method. To reconcile the movement in cash and cash equivalents, the profit after tax is adjusted for items in the income statement and movements in the balance sheet that did not affect receipts and payments during the financial year 2022.

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 cash outflows from financing activities.

The consolidated cash flow statement includes the cash flows for continuing operations and for discontinued operations.

Movement 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	2022	2021
Movements in inventories	-3	-
Movements in trade and other receivables	-57	-
Movement in trade and other liabilities	-	-
Total	**-60**	**-**

36 Overview of subsidiaries and associates

	2022 %	2021 %	City
Consolidated participating interest			
Stedin Netbeheer B.V.*/**	100.00	100.00	Rotterdam
Stedin Netten B.V.***	0.00	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 Groep **/***	0.00	100.00	Goes
DNWG Infra B.V.*/**	100.00	100.00	Goes
DNWG Warmte B.V.*	100.00	100.00	Goes
DNWG Staff ***	0.00	100.00	Goes
Enduris B.V.***	0.00	100.00	Goes
TUMS B.V.****	0.00	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
Stedin Groep Services II B.V.***	0.00	100.00	Rotterdam
Infradock B.V.	100.00	0.00	Rotterdam
Joint arrangements			
Utility Connect B.V.**	40.72	40.72	Vianen
TensZ B.V.	50.00	50.00	Rotterdam
TeslaN B.V.***	0.00	50.00	Goes
Infra Netwerkgroep Omexom VOF***	0.00	50.00	Dordrecht
Associates			
Energie Data Services Nederland B.V.	21.16	21.16	Amersfoort
Beheerder Afsprakenstelsel (BAS) B.V.	14.11	0.00	Amersfoort
Zebra Gasnetwerk B.V.	33.33	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 subsidiaries are direct subsidiaries of Stedin Holding N.V.

*** These subsidiaries have merged into other subsidiaries within the group.

**** The commercial metering service TUMS was sold to Censo on 10 February 2022.

COMPANY INCOME STATEMENT

x € 1 million	Note	2022	2021
Total net revenue and other income	38	**-**	**3**
Cost of sales, contracted work and operational expenses		-2	-1
Depreciation, amortisation and impairment of non-current assets		-	-2
Total operating expenses		**-2**	**-3**
Operating profit		**-2**	**-**
Financial income and expenses	43	-35	-69
Profit before income tax		**-37**	**-69**
Profit of participating interests	40	72	72
		35	**3**
Income tax		9	18
Profit after income tax		**44**	**21**
Profit distribution:			
Profit after income tax attributable to holders of Stedin Holding N.V. perpetual subordinated bonds (after income tax)		6	17
Profit after income tax attributable to shareholders of Stedin Holding N.V.		38	4
Profit after income tax		**44**	**21**

COMPANY BALANCE SHEET

x € 1 million	Note	As at 31 December 2022	As at 31 December 2021
Before profit appropriation			
ASSETS			
Non-current assets			
Intangible assets	39	77	77
Financial assets	40	5,667	5,596
Total non-current assets		**5,744**	**5,673**
Current assets			
Receivables from group companies	41	1,369	1,000
Accruals and other receivables		20	15
Cash and cash equivalents		19	98
Total current assets		**1,408**	**1,113**
TOTAL ASSETS		**7,152**	**6,786**

x € 1 million	Note	As at 31 December 2022	As at 31 December 2021
LIABILITIES			
Equity			
Share capital	22	539	539
Share premium	22	158	158
Revaluation reserve	22	753	790
Legal reserve	22	9	3
Cash flow hedge reserve	22	-14	-53
Cost of hedging reserve	22	-1	-
Retained earnings	22	1,354	1,323
Undistributed profit for the year	22	38	4
Equity attributable to Stedin Holding N.V. shareholders		**2,836**	**2,764**
Perpetual subordinated bond loan	22	506	506
Total equity		**3,342**	**3,270**
Non-current liabilities			
Provisions		10	11
Deferred tax liabilities		95	72
Interest-bearing debt	25	3,116	2,676
Derivative financial instruments	18	34	64
Total non-current liabilities		**3,255**	**2,823**
Current tax liabilities			
Interest-bearing debt	25	280	531
Liabilities to group companies	41	218	116
Current tax liabilities		13	12
Derivative financial instruments	18	19	-
Other liabilities	42	25	34
Total current liabilities		**555**	**693**
TOTAL LIABILITIES		**7,152**	**6,786**

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 as permitted by Section 362(8), Part 9, Book 2 of the Dutch Civil Code. The descriptions of the activities and structure of the company as stated in the notes to the consolidated financial statements, including the disclosure of directors' remuneration and the overview of subsidiaries and associates, 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.

Associates

Associates 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 associate is stated at nil. In this context, other long-term interests are taken into account, which in effect must be qualified as part of the net investment in the associate. Where the company provides security for all or part of the debts of the associate concerned, or has the constructive obligation (in proportion to its share) to enable this associate to pay its debts, a provision is recognised. The amount of this provision is determined by taking into account any bad debt provisions already deducted from the receivables concerned. A statutory reserve is formed for reserves of associates that are subject to restrictions on distributions.

Stedin Holding N.V. provides loans to associates, and credit losses might arise on those loans. Stedin has opted to eliminate the expected credit losses on loans and receivables from associates in the company financial statements, as required by IFRS 9.

Revaluation reserve

The legal entity maintains a revaluation reserve with respect to:

- increases in the value of assets, other than financial instruments, recognised directly in equity;
- increases in the value of assets for which value adjustments are recognised in profit and loss and for which no regular market prices exist; and
- changes in the value of derivatives stated at fair value and subject to cash flow hedge accounting.

Deferred tax liabilities are deducted from the revaluation reserve in the event of differences between valuation for accounting and for tax reporting purposes. The realised part of the revaluation reserve is taken to the other reserves.

For the other accounting policies with regard to equity, see note 2.2.21 Perpetual subordinated bond loan in the notes to the consolidated financial statements.

38 Net revenue and other income

Net revenue and other income related to the accommodation costs for the premises at Nijverheidsweg, Utrecht, as well as Keileweg, Rotterdam, recharged to Stedin Netbeheer B.V., up to the end of July 2021. As of August 2021, these premises were transferred to Stedin Groep Services B.V., and the accommodation costs are recharged from that entity.

39 Intangible assets

Intangible assets relate to the goodwill arising on the acquisition of DNWG. For more details, see note 14 Intangible assets.

40 Financial assets

x € 1 million	Subsidiaries	Receivables from subsidiaries	Derivative financial instruments	Total
Bookvalue as at 1 January 2021	**4,039**	**1,306**	**16**	**5,361**
Result of subsidiaries	72	-	-	**72**
Revaluation tangible fixed assets	176	-	-	**176**
Movements in loans to subsidiaries	-	-1	-	**-1**
Reclassification	4	-	-16	
Bookvalue as at 31 December 2021	**4,291**	**1,305**	**-**	**5,596**
Result of subsidiaries	72	-	-	**72**
Movements in loans to subsidiaries	-	-1	-	**-1**
Bookvalue as at 31 December 2022	**4,363**	**1,304**	**-**	**5,667**

In both 2022 and 2021, no depreciation and impairments were applied to the non-current financial assets. In 2022, subsidiary DNWG Groep N.V. merged with Stedin Holding N.V. and thus ceased to exist. The value of the subsidiary has been adjusted in the comparative figures.

The capital interests are listed in note 36 Overview of subsidiaries and associates in the notes to the consolidated financial statements.

41 Receivables from and liabilities to group companies

Receivables from and liabilities to group companies are all short term.

42 Other liabilities

Other liabilities can be specified as follows:

x € 1 million	As at 31 December 2022	As at 31 December 2021
VAT	7	23
Other	18	11
Total other liabilities	**25**	**34**

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 €38 million (2021: €99 million) and the financial income to €3 million (2021: €30 million). The income concerns interest amounts recharged within Stedin Group.

44 Contingent assets and liabilities

Fiscal unity

Stedin Holding N.V. forms a fiscal unity for corporate income tax purposes with all its consolidated subsidiaries and associates as listed in note 36 Overview of subsidiaries and associates. 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. There is also a fiscal unity for VAT purposes that includes Stedin Holding N.V. and all its consolidated subsidiaries and associates as listed in note 36 Overview of subsidiaries and associates in the notes to the consolidated financial statements. Only 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. Settlement of the positions with the fiscal unity takes place by means of recharging between Stedin Holding N.V. and its subsidiaries.

Cash pool

Under its participation in the Stedin Group cash pool, Stedin Holding N.V., like the other participants, is jointly and severally liable for deficits in Stedin Group's 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.

For an overview of the contingent assets and liabilities for Stedin Holding N.V., see note 29 Off-balance sheet assets and liabilities in the notes to the consolidated financial statements.

Liabilities statements of group companies

On behalf of the group companies included in the consolidation, liability statements have been issued by the legal entity as referred to in Section 2:403 of the Dutch Civil Code. This declaration is included in note 36 Overview of subsidiaries and associates. Pursuant to these liability statements, Stedin Holding N.V. is jointly and severally liable for all debts arising from legal acts performed by these group companies.

45 Subsequent events

S&P credit rating

On 14 February 2023, Standard & Poor's (S&P) published a sector report including an update of Stedin's credit rating. The most important conclusions are:

- S&P has downgraded the Stand Alone Credit Profile (SACP) from A- to BBB+ on the basis of the 3-year outlook.
- The Dutch regional grid managers with an S&P rating are given the status of "Government Related Entity".
- The consequence for Stedin is a "1 notch uplift" of the SACP, as a result of which the Issuer Credit Rating (ICR), including the downgrade, is an A- with a stable outlook.
- The short-term credit rating has remained unchanged at A-2.

The Dutch regional grid managers are given the status of "Government Related Entity" after an assessment of the framework agreement and the willingness and ability of the State to pay additional capital if the credit rating is jeopardised. The reservation of €500 million by the State in the national budget to strengthen Stedin's equity is also regarded as essential. S&P underlines in the report that capital reinforcement by (potential) shareholders will remain important in the future in order to be able to make all the necessary investments and to maintain the credit rating. The consequences of the conclusions from the report are currently being investigated by Stedin. Stedin's financial policy remains unchanged for the time being, with retention of an ICR of A- remaining an essential starting point.

For the S&P publication, we refer to the Credit Ratings section of our Investor Relations website: https://www.stedingroep.nl/investor-relations.

46 Profit appropriation

Proposal for appropriation of profit for 2022

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 addition, the articles of association state that the Board of Management may reserve a maximum of 50% of the profit available for distribution (after the preference dividend), as a result of which at least 50% of the profit is available for the General Meeting of Shareholders, excluding exceptional income. 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 resolve to distribute this amount in whole or in part.

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 2022.

In addition, the Board of Management intends, with the approval of the Supervisory Board, to increase the reserves by an amount equal to 50% of the profit available for distribution for the 2022 financial year, i.e. an amount of €15.6 million.

Stedin Holding N.V. has designated the following items as incidental items:

x € 1 million	2022	2021
Profit after income tax	**43.6**	**21.0**
Result attributable to holders of Stedin Holding N.V. perpetual subordinated bonds	-5.6	-16.9
Result attributable to shareholders of Stedin Holding N.V.	**38.0**	**4.1**
Cumulative preference dividend to be distributed	-6.0	-3.1
Incidental income:		
Profit on disposal of TUMS 50%	-0.9	-
Profit after income tax available for distribution to the shareholders	**31.1**	**1.0**
Proposed dividend	15.6	0.5
Increase of general reserve after proposed dividend distribution	**15.6**	**0.5**

A recommendation will be made to the General Meeting of Shareholders to resolve to pay a dividend of €15.6 million. This would represent a total dividend of €3.13 per share (2021: €0.11 per share).

The proposed profit appropriation has not been recognised in the balance sheet as at 31 December 2022.

Rotterdam, 17 February 2023

Stedin Holding N.V.

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% yield. 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.

In addition, the Board of Management may increase the reserves by an amount equal to at most half of the profit available for distribution (after accounting for the preference dividend), with the approval of the Supervisory Board. 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.

The articles of association also state that the General Meeting of Shareholders may decide to make interim distributions, subject to the provisions of the articles of association. There are no restrictions in the articles of association on the size of interim distributions, only the legal restrictions that apply to public limited liability companies. A decision to distribute an interim dividend from the profit for the current financial year can also be taken by the Board of Management, subject to the approval of the Supervisory Board.

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This independent auditor's report is an English translation of the signed Dutch independent auditor's report as issued at February 17, 2023

INDEPENDENT AUDITOR'S REPORT

To: the shareholders and the Supervisory Board of Stedin Holding N.V.

Report on the audit of the financial statements 2022 included in the annual report

Our opinion

We have audited the accompanying financial statements 2022 of Stedin Holding N.V., based in Rotterdam. The financial statements comprise the consolidated financial statements and the company financial statements, as included on page 144 until 211 of the annual report.

In our opinion:

- The accompanying consolidated financial statements give a true and fair view of the financial position of Stedin Holding N.V. as at 31 December 2022, and of its result and its cash flows for 2022 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS), with Part 9 of Book 2 of the Dutch Civil Code, and with the provisions of and under the Public and Semi-public Sector Senior Officials (Standard Remunaration) Act ("Wet normering topinkomens" or "WNT").

- The accompanying company financial statements give a true and fair view of the financial position of Stedin Holding N.V. as at 31 December 2022, and of its result for 2022 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 2022.

2. The following statements for 2022: the consolidated income statement, the consolidated statements of comprehensive income, changes in group equity and cash flows.

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3. The notes comprising a summary of the accounting policies and other explanatory information.

The company financial statements comprise:

1. The company balance sheet as at 31 December 2022.

2. The company income statement for 2022.

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 and the Audit Protocol WNT ("het controleprotocol WNT"). 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 Holding N.V. in 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.

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Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at EUR 15 million. The materiality is based on EBIDTA of (i.e. the result before financial income and expenses, taxes, depreciation and amortization) as defined by Stedin Holding N.V. on page 23 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 7,5 million to EUR 12,75 million.

We agreed with the Supervisory Board that misstatements in excess of EUR 0,75 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 or WNT grounds.

Scope of the group audit

Stedin Holding N.V. is at the head of a group of entities. The financial information of this group is included in the consolidated financial statements of Stedin Holding N.V.

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.

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 page 125 of the annual report for the approach that management follows concerning the fraud risks.

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We have evaluated the design and relevant aspects of the internal control system and in particular the fraud risk analysis, as well as, for example, the code of conduct, whistleblower policy and incident registration. We have evaluated the design and implementation and, to the extent we deem necessary, tested the operating effectiveness of internal controls aimed at mitigating fraud risks. We involved forensic specialists in our risk assessment.

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.

Furthermore, we performed substantive audit procedures, including detailed testing of relevant journal entries, evaluating accounting estimates for bias, and assessing the supporting documentation in relation to post-closing adjustments.

The procedures described are based on applicable auditing standards and are not primarily designed to detect fraud. Our assessment of risks of material misstatement due to fraud did not result in a Key Audit Matter.

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 management, those charged with governance and others within the group.

Based on this, no fraud signals that could lead to a material misstatement have been identified.

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.

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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.

To the extent material for the related financial statements, and 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 and financial reporting regulations, the requirements under the International Financial Reporting Standards as adopted by the European Union (EU-IFRS), Part 9 of Book 2 of the Dutch Civil Code and the WNT with a direct effect on the financial statements as an integrated part of our audit procedures.

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, Stedin Holding N.V. is 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, the Gas Act, The Independent Network Management Act, the Energy Transition Progress Act, the General Data Protection Regulation and the Public Procurement Act 2012 as those laws and regulations that most likely would have such an effect.

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 the group's ability to continue its business, or to avoid material penalties; 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 to help identify non-compliance with those laws and regulations that may have a material effect on the financial statements are limited to: (i) inquiry of management, and if applicable, those charged with governance, as to whether the group is in compliance with such laws and regulations; (ii) inspecting correspondence, if any, with the relevant licensing or regulatory authorities.

Naturally, we remained alert to indications of (suspected) non-compliance throughout the audit.

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Finally, we obtained written representations that all known intances of (suspected) fraud or non-compliance with laws and regulations have been disclosed to us.

Audit approach going concern

As described in Note 1.1 of the financial statements, management has composed the financial statements of Stedin Holding N.V. 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 liquidy 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 in conflict with management's assumptions and judgments when applying the going concern assumption.

The impact of energy transition on Stedin Holding N.V.

We draw attention towards the described impact of the energy transition on Stedin Holding N.V., including the related uncertainties, risks, chances and results as described on page 24 of the Report of the Board of Management.

We emphasize the following important elements in the Report of the Board of Management:

- The Board of Management notes that due to the energy transition, Stedin Holding N.V. is facing future substantial investments that cannot be timely financed by means of the expected growth in regulated revenue through the current regulatory model. In 2022 Stedin Holding N.V. reached an agreement with the State in return for a EUR 500 million investment which is an important step to strengthening the equity capital. Following this, Standard & Poor published an update of Stedin Holding N.V.'s credit rating on 14 February 2023. We draw your attention to the explanation in this regard in the Report of the Board of Management on page 97 and to note 34 related to subsequent events within the financial statements on page 203.

- The energy transition has impact on the estimates and underlying assumptions concerning the valuation of the regulated networks as included in the balance sheet. We refer to the first key audit matter of our audit.

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- In its report of the Board of Management, Stedin Holding N.V. also reports on non-financial information on the energy transition and sustainability, including information on EU taxonomy. We draw attention to this information from page 41 and 66 onwards respectively in the Report of the Board of Management. We do not provide assurance on this information and refer to the section "Report on the other information included in the annual report" for the work we performed on this information.

Our judgement is not adjusted for this matter.

Our key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements. We have communicated the key audit matters to the Supervisory Board. The key audit matters are 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 these matters.

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Key Audit Matter	
Valuation of regulated networks	
Description	*How the key audit matter has been addressed*
The book value of the regulated networks off Stedin Holding N.V. totals EUR 7,922 million*. This valuation is primarily based on the fair value of the regulated assets, based on an income model. This model is primarily built on the earnings of the current regulated networks and the performance of Stedin Holding N.V. and other regional grid operators. Stedin Holding N.V. has made a reassessment of the fair value of the regulated networks in 2022, and concluded that the book value does not materially deviate from the fair value as per 31 December 2022. Henceforth, Stedin Holding N.V. has determined that there is no need for a revaluation of the regulated networks. Furthermore, the valuation of the regulated networks is influenced by estimates in regard to the expected useful life and use of the asset. In 2022, Stedin Holding N.V. has implemented various changes in accounting estimates that had an impact on the depreciation of the gas assets. Stedin Holding N.V. has changed the deprecation method of its gas assets to the variable declining balance method, since this method is more suitable due to the expected future decline in the utilization of the gas grids resulting from the energy transition. Additionally, Stedin Holding N.V. has also conducted a revised assessment of the useful life of its gas assets. The financial impacts of these revisions are further explained in 2.2.10 on page 156.	We evaluated the assessment made by management of the fair value of the regulated assets and the underlying assumptions using our valuation expert. Additionally, we have paid specific attention to the changes in accounting estimates concerning the future use and useful life of these assets, and tested the underlying assumptions and calculations. *Observation* Based on the materiality as described above and the procedures we have performend and described above, we are in agreement with management assessment.

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The assumptions, estimates and uncertainties concerning the valuation of regulated networks are included in Note 13 of the financial statements. **The book value at historical cost for the regulated networks totals EUR 6.9 billion.*	

Key Audit Matter	
Developments in Stedin's In-Control Framework	
Description	*How the key audit matter has been addressed*
Stedin Holding N.V. has a specific control framework for financial reporting, with special attention towards internal control of the administrative organisation within its In-Control Framework ("ICF") from 2019 onwards. It is a continious process to keep this framework up-to-date, effective and efficient. For an overview of the internal developments with regard to this framework, we refer to the Report of the Board of Management on this matter on page 127. We also refer to the In-Control Statement in the Report of the Board of Management on page 134, in which is explained that improvement plans from interim assessments have partly been implemented, and that the remaining part will be implemented.	As part of our procedures, we have obtained an understanding of the internal control environment to assess the risks of material misstatements and to determine further audit procedures to address these risks. We have reported our findings to the Management Board and the Supervisory Board. We do not rely on the internal control environment of Stedin Holding N.V. thus follow a full substantive audit approach. *Observation* Based on the procedures performend we do not have any findings to report on the financial statements.

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Compliance with anti-accumulation provision WNT not audited

In accordance with the Audit Protocol WNT 2022, we have not audited the antiaccumulation clause, as described in Article 1.6a WNT and Article 5, lid 1, sub n and o 'Uitvoeringsregelent WNT'. This means that we have not audited whether or not there is a violation of standards by a senior officer due to any employment as a senior officer at other institutions subject to WNT, and whether the information required in this context is accurate and complete.

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.
- The Report of the Supervisory Board.
- 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.

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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.

Report on other legal and regulatory requirements

Engagement

We were engaged by the Supervisory Board as auditor of Stedin Holding N.V., 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 and the provisions of and under the WNT. 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.

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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, the audit protocol WNT, 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.

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- 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, February 17, 2023

Deloitte Accountants B.V.

Signed on the original: A. van der Spek

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SUPPLEMENTARY INFORMATION

The supplementary information does not form part of the financial statements.

REPORTING POLICY

In this integrated 2022 Annual Report, Stedin Group renders account on its financial and non-financial performance and the value that the company creates for stakeholders in the short and long term.

Stedin Group reports half-yearly and yearly per calendar year; the most recent report was the Stedin Holding 2022 half-year report. This annual report of Stedin Group relates to the period 1 January 2022 to 31 December 2022. It consists of the Report of the Board of Management, the Report of the Supervisory Board (including the Remuneration Report) and the financial statements. The financial information of Stedin Holding N.V. for the full year 2022 and comparative figures for 2021 are presented and accounted for in the financial statements. Figures for 2022 and comparative figures for 2018 2019, 2020 and 2021, where available, are presented and accounted for in the management report. The financial statements have been prepared in conformity with International Financial Reporting Standards (IFRS), as adopted by the EU. The Global Reporting Initiative (GRI) Standards are applicable to our non-financial performance, at comprehensive level. Stedin Group also complies with the EU Directive on disclosure of non-financial and diversity information as applicable to Public Interest Entities (PIE).

The financial information in this annual report has been consolidated for Stedin Holding N.V. and its subsidiaries. The subsidiaries Stedin, Joulz Diensten, and DNWG are consolidated in the non-financial information within Stedin Group. Discontinued operations are included for the period in which they were part of the group.

Stakeholder selection

By means of this report, we aim to inform a broad target group of stakeholders about our performance. We identify the following groups of stakeholders: customers, employees, shareholders, local environment and communities, government and regulators, investors and rating agencies, suppliers, partners and environmental organisations/NGOs. This selection is based on our analysis, according to which they have the greatest influence on our strategy and business operations and at the same time experience the greatest impact from our activities and strategic choices.

Reporting standards

For its non-financial performance, Stedin Group applies the GRI Standards at the 'comprehensive' level and the guidelines of the <IR> Framework of the International Integrated Reporting Council. We aim to progress continually towards structuring our report as an integrated report that meets the requirements of the <IR> Framework and the GRI Standards. Stedin Group also complies with the EU Directive on disclosure of non-financial information and diversity and the requirements under the EU Taxonomy.

The consolidated financial statements of Stedin Group have been prepared in conformity with IFRS as applicable at 31 December 2022 and as adopted by the European Union (EU) and the definitions of Part 9, Book 2 of the Dutch Civil Code. IFRS comprises both the IFRS standards and the International Accounting Standards issued by the International Accounting Standards Board (IASB) and the interpretations of IFRS and IAS standards by the IFRS Interpretations Committee (IFRIC) and the Standing Interpretations Committee (SIC) respectively.

Our value creation model is based on the six types of value, or 'capitals', identified by the International Integrated Reporting Council (IIRC).

In addition, Stedin Group complies with the regulations applying to Public Interest Entities, including the Audit Firms (Supervision) Act (Wet toezicht accountantsorganisaties, Wta). With effect from 2018, Stedin Group also voluntarily applies the Dutch Corporate Governance Code. Departures are explained.

Stedin is taking steps in the transition towards ESG reporting. Due to the ongoing implementation and development of the CSRD, the underlying definitions and the units of non-financial information included may change.

No external assurance was sought for 2022 with regard to the reliability of the non-financial information. For the 2023 financial year we will seek assurance with regard to our impact model and intend to take the first step towards assurance regarding non-financial figures that are of material relevance to Stedin.

Reporting process

The Board of Management is ultimately responsible for the integrated annual report and has delegated its preparation to a steering group. The reporting project leader is responsible for the composition of the report. The responsibility regarding content is divided between the Strategy, Communication, Finance and Risk departments. 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. A responsible party is designated for each topic on the basis of an accountability index. The Board of Management reviews the final version before it is submitted to the Supervisory Board.

Selection of topics

Content selection is based on the strategy including strategic themes, risks and opportunities and key performance indicators (KPIs) as defined by the Board of Management. The contents of the annual report will be partly determined in the years ahead on the basis of the materiality analysis. The topics in the 2022 materiality matrix are based on interviews held with both internal and external stakeholders.

SDGs

Stedin Group reports on the United Nations' Sustainable Development Goals (SDGs, drawn up to make the world 'a better place' by 2030) that are relevant to us. We use our value creation model to show to which of these global goals Stedin Group contributes. The Impact on people and planet and United Nations' Sustainable Development Goals sections provide insight into this (directly and indirectly) with cross-references to the relevant disclosures in the annual report.

FIVE-YEAR SUMMARY

	Unit	2022	2021	2020	2019	2017
Income statement						
Revenue	€ mln	1,316	1,265	1,216	1,220	1,270
Total operating income	€ mln	1,333	1,279	1,229	1,234	1,286
Total operating expenses	€ mln	1,247	1,155	1,100	1,062	1,074
EBITDA	€ mln	432	484	463	489	509
Operating profit	€ mln	86	124	129	172	212
Profit after income tax	€ mln	44	21	42	325	118
Balance sheet						
Property, plant and equipment	€ mln	8,008	7,635	7,057	6,753	6,406
Total assets	€ mln	8,520	8,182	7,572	7,289	6,991
Equity	€ mln	3,342	3,270	2,891	2,949	2,699
Total interest-bearing debt	€ mln	3,396	3,281	3,183	3,004	3,044
Investments in non-current assets	€ mln	712	687	620	646	607
Cash flows						
Cash flow from operating activities	€ mln	285	376	408	374	461
Cash flow from investing activities	€ mln	-582	-567	-512	-236	-587
Cash flow from financing activities	€ mln	217	241	115	-235	222
Credit rating						
Long-term rating (S&P)	rating	A-	A-	A-	A-	A-
Solvency	%	44.4	45.6	43.0	44.9	43.3
FFO/Net debt	ratio	10.1	11.3	12.0	12.3	12.2
Shares at 31 December						
Number of ordinary shares outstanding (x 1,000)	number	4,971	4,971	4,971	4,971	4,971
Number of preference shares outstanding (x 1,000)	number	416	416	-	-	-

	Unit	2022	2021	2020	2019	2018
Operational key figures						
High-use electricity connections	number	20,340	19,911	19,379	18,912	22,692
Low-use electricity connections	number	2,339,571	2,322,087	2,303,313	2,283,563	2,263,009
Quantity of electricity transported	GWh	20,746	20,529	20,171	21,100	21,330
Length of electricity cables*	km	58,250	57,616	56,854	56,140	55,604
Length of electricity cables laid*	km	715	998	1,059	1,034	806
High-use gas connections	number	8,561	9,112	9,556	9,633	10,761
Low-use gas connections	number	2,091,573	2,104,230	2,111,265	2,111,038	2,104,174
Quantity of gas distributed	million m^3	3,782	4,907	4,365	4,651	4,852
Length of gas pipelines*	km	28,145	28,160	28,206	28,216	28,190
Length of gas pipelines laid*	km	231	256	227	221	250
Medium-voltage failures resulting in disruption	number	507	465	523	519	433
Facilitated supplier switches (x 1.000)	number	395	685	883	824	713
Safety						
Lost Time Injury Rate (LTIR)	ratio	0.52	0.53	0.39	2.13	2.92
Recordable Incident Frequency (RIF)	ratio	0.91	0.74	0.68	0.98	0.97
Outages and interruptions in electricity supply						
Average duration of interruption MV/LV (CAIDI)	minutes	96	87	112	82	76
Interruption frequency MV/LV (SAIFI)	number	0.225	0.216	0.231	0.245	0.223
Annual downtime MV/LV (SAIDI)	minutes	22	19	26	20	17
Annual downtime HV/MV/LV (SAIDI)	minutes	25	20	27	21	18
Outages and interruptions in gas supply						
Average duration of interruption (CAIDI)	minutes	141	88	75	270	122
Interruption frequency (SAIFI)	number	0.006	0.006	0.006	0.005	0.0094
Annual downtime (SAIDI)	seconds	50	29	26	87	69

* Based on GIS data from early February 2023; 2022 information still incomplete due to changes still to be processed. Historical data deviates due to later processed mutations.

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 note 13 Property, plant and equipment 13 Property, plant and equipment.

x € 1 milion	2022	2021
Book value		
Electricity	4,706	4,305
Gas	1,915	1,813
Smart meters	311	335
Green buildings (Utrecht building)	34	34
Other	1,042	1,148
	8,008	**7,635**

The table below provides a breakdown of property, plant and equipment by activity within Stedin, adjusted for customer construction contributions, as stated in the statement of movements in note 13 Property, plant and equipment and note 26 Contributions received in advance.

x € 1 million	2022	2021
Book value		
Tangible fixed assets (gross)	**8,008**	**7,635**
Electricity	3,910	3,613
Gas	1,728	1,636
Smart meters	311	335
Green buildings (Utrecht property)	34	34
Other	1,042	1,119
Tangible fixed assets (net)	**7,025**	**6,737**
Customer construction contribution	960	876
Income recognized	23	22
	983	**898**

OTHER NON-FINANCIAL INFORMATION

Detailed information on CO_2 emissions

The energy intensity ratio is energy consumption (in GJ) divided by annual revenue (in million €). The GHG emission intensity ratio is total greenhouse gas emissions including greening (in tonnes CO_{2eq}) divided by annual revenue (in million €).

Transport	Unit	2022	2021	2020	2019	2018
Transport of electricity	GWh	20,746	20,529	20,171	21,100	21,330
Transport of gas	million m3	3,782	4,907	4,365	4,651	4,852

Energy intensity ratio	Unit	2022	2021	2020	2019	2018
Energy consumption	GJ	129,076	139,572	157936	182,168	233,927
Annual revenue	€ million	€ 1,316	€ 1,265	€ 1,216	€ 1,220	€ 1,270
Energy intensity ratio	GJ/€ million	98	110.3	129.9	149.3	184.2

GHG emission intensity ratio						
Scope 1	Unit	2022	2021	2020	2019	2018
Gas consumption of buildings	tonnes CO2eq	263	385	453	454	635
Network losses from our gas network*	tonnes CO2eq	79,281	102,774	108,082	105,008	88,159
Lease & company cars	tonnes CO2eq	5,620	6,283	7,311	8,856	10,193
SF6 influences	tonnes CO2eq	727	452	137	178	n.b.
Total	**tonnes CO2eq**	**85,891**	**109,894**	**115,983**	**114,496**	**98,987**
Scope 2	Unit	2022	2021	2020	2019	2018
Electricity/heat consumption of buildings	tonnes CO2eq	1,021	1,202	1,167	238	826
Network losses electricity	tonnes CO2eq	329,383	377,562	386,456	433,346	432,364
Total	**tonnes CO2eq**	**330,404**	**378,764**	**387,623**	**433,584**	**433,190**
Scope 3	Unit	2022	2021	2020	2019	2018
Commuting, business trips, flights	tonnes CO2eq	1057	598	1,818	3,419	3,735
Purchasing	tonnes CO2eq	159,402	153,374	170,129	191,396	213,071
Total	**tonnes CO2eq**	**160,459**	**153,972**	**171,947**	**194,815**	**216,806**
Total	Unit	2022	2021	2020	2019	2018
Total footprint	tonnes CO2eq	576,754	642,630	675,553	742,895	748,983
Greening of network losses electricity	tonnes CO2eq	-329,383	-376,921	-385,890	-433,167	-432,364
Total including greening	**tonnes CO2eq**	**247,371**	**265,709**	**289,663**	**309,728**	**316,619**
Annual revenue	€ million	€ 1,316	€ 1,265	€ 1,216	€ 1,220	€ 1,270
GHG emission intensity ratio	tonnes CO2eq/million €	188.0	210.0	238.2	253.9	249.3

* In recent years, the decrease in CO_2 emissions associated with the loss of our gas network has resulted from the replacement of brittle pipes. In addition, the purchased volume will decrease in 2022 and the conversion factor will be lower in 2022.

Detailed information on staff

	2022	2021	2020	2019	2018
Information about the total workforce (at year-end)					
Number of employees of Stedin Groep	4,324	4,194	4,276	4,346	4,470
Number of employees at Stedin	4,029	3,651	3,652	3,672	3,665
Number of employees at NetVerder	8	6	5	5	-
Number of employees at Joulz Diensten	-	-	-	-	153
Number of employees at DNWG Infra	287	537	619	669	652
Number of employees on a full-time contract					
Male employees	3,296	3,250	3319	3,403	3,517
Female employees	386	364	363	357	385
Number of employees on a part-time contract					
Male employees	252	210	217	200	184
Female employees	390	370	377	386	384
Number of employees on a permanent contract					
Male employees	3,168	3,207	3,323	3,402	3,457
Female employees	670	650	667	679	701
Number of employees on a temporary contract					
Male employees	380	253	213	201	244
Female employees	106	84	73	64	68
CLA / non-CLA					
Covered by Collective Labour Agreement (CLA)	4,110	4,007	4,092	4,158	4,282
Not covered by CLA	214	187	184	188	188
Diversity of boards and employees					
Younger than 25	121 (3%)	70 (2%)	76 (2%)	66 (2%)	59 (1%)
Between 25 and 34	942 (22%)	814 (19%)	908 (21%)	843 (19%)	872 (20%)
Between 35 and 44	1.110 (26%)	1.089 (26%)	1.060 (25%)	1.056 (24%)	1.060 (24%)
Between 45 and 54	898 (21%)	863 (21%)	908 (21%)	923 (21%)	1.005 (22%)
55 and older	1.253 (29%)	1.358 (32%)	1.324 (31%)	1.458 (34%)	1.474 (33%)
Number of women in management positions	80	79	64	60	64
Number of men in management positions	213	223	224	224	231

	2022	2021	2020	2019	2018
Information about internal versus external staff					
Employees (internal) at year-end	4,324	4,194	4,276	4,346	4,470
Employees (external) at year-end	951	779	709	804	1,059
FTEs (internal) at year-end	4,148	4,041	4,127	4,213	4,339
FTEs (external) at year-end	844	689	607	700	791
Sickness absence (internal) (%)	5.8	4.3	4.2	4.8	5.0
Male employees (internal) (%)	82	82	83	83	83
Female employees (internal) (%)	18	18	17	17	17

UNITED NATIONS' SUSTAINABLE DEVELOPMENT GOALS

Stedin Group contributes to attaining several of the goals defined by the United Nations in order to end poverty, inequality and climate change by 2030: the Sustainable Development Goals. Below, we describe our efforts to contribute to achieving the goals on which we have an impact.

SDG	Description	Application to Stedin and subtargets of the SDGs	Strategic spearhead/Material topic
7 AFFORDABLE AND CLEAN ENERGY 	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. We achieved supply reliability of 99.9959% in 2022. (SDG 7.2). 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 (SDG 7.1).	Improved grid management, Facilitating the energy transition, Sustainable business operations /Supply security, Affordable and efficient services, Customer satisfaction, Stakeholder dialogue and environment, Smart grids, data technology and innovation, Safety, security and cybersecurity
8 DECENT WORK AND ECONOMIC GROWTH 	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. We do this, for instance, through our focus on projects for people with an occupational impairment (SDG 8.5). In our purchasing 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 (SDG 8.8).	Sustainable business operations / Good employment practice Impact on people and planet, Safety, security and cybersecurity,Integrity
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	Investments in infrastructure are crucial to making sustainable development possible.	Stedin Group is working on facilitating the energy transition and has a facilitating role in the sustainable development of, for instance, the Port of Rotterdam and the Port of Zeeland as well as major industry in our coverage area. In 2022, we invested €712 million in our grids (SDG 9.1).	Facilitating the energy transition, Improved grid management Stakeholder dialogue and environmentInvestments in our grids
11 SUSTAINABLE CITIES AND COMMUNITIES 	The cities and communities of the future must offer opportunities to everyone through innovation and progress, including access to basic facilities such as energy.	Stedin Group helps ensure pleasant and sustainable urban environments by building and maintaining networks. We contribute to increasing the sustainability of the built environment through our role in the Regional Energy Strategies and the heat transition (SDG 11.6), for example. Stedin Group is committed to the goals set out in the Climate Agreement and works to achieve them with its stakeholders (SDG 11.1; SDG 11.2).	Sustainable business operations, Facilitating the energy transition / Supply security Stakeholder dialogue and environment
12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	Sustainable consumption and production means saving raw materials and energy, sustainable infrastructure, appropriate labour practices and a higher quality of life for everyone.	Stedin Group devises and implements solutions to reduce its own energy consumption as well as to improve the sustainability of our grid. For example, through electrification of the large vehicle fleet and by reducing network losses (SDG 12.2). These solutions include intelligently balancing supply and demand as well as combating wastage. This increases the circularity of our assets (SDG 12.4; SDG 12.5).	Sustainable business operations /Impact on people and planet
13 CLIMATE ACTION 	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 Group 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).	Sustainable business operations, Facilitating the energy transition / Impact on people and planet

MEASURING IMPACT

Stedin Group's value creation model is based on the six capitals of the International Integrated Reporting Council (IIRC). Stedin Group's actions have positive as well as negative impacts. We will show our impact for each type of capital.

Positive and negative impacts on society

The table on the next page provides qualitative as well quantitative insights into the added value of our social impact on stakeholders. On each line, for each type of capital - form left to right - we present our negative impact, which consists of the social costs and inconvenience associated with what we do, and our positive impact, which consists of the social benefits of what we do. The information under 'Financial' capital is in line with the IFRS figures from the 2022 financial statements and is quantitative. We report other quantified impacts in ranges. Through our impact, we contribute to the UN Sustainable Development Goals. In separate tables we then explain the six types of capital and the way in which they cause capital value to increase or decrease.

STEDIN **IMPACT MODEL**

Capital	Negative impact	(In € million)		Positive impact	SDGs
Financial capital Financial capital comprises the value of financial flows between Stedin and external stakeholders.	Capital raised, received repayments and interest Payments by customers (low-use) Payments by customers (heavy-use) Contributions received Other revenues	1,268 900 315 107 17	1,405 1,159 452 80 16	Dividend, repayments and interest Payments to suppliers Payments to employees Change in cash and cash equivalents Taxes	
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 distribution Value of goods purchased for gas distribution	1,750 - 2,250 1,000 - 1,500	1,750 - 2,250 1,500 - 2,000 709 250 - 350	Contribution of gas distribution to consumers' well-being Contribution of electricity distribution to consumers' well-being** Economic change in the value of assets Value of energy distribution for business customers Digital security*	
Intellectual capital Intellectual capital comprises the value that Stedin creates by investing in the development of knowledge and technology.			3 1 - 3	Change in value of intangible assets Value of data collection and market facilitation Development of new market models and open platforms* Technological development*	
Human capital Human capital comprises the value of the well-being and competencies 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*	30 - 50 0.2 - 0.5	30 - 50 15 - 25	Effects on well-being from having work Employee development	
Social capital Social capital comprises the value our activities have for the well-being and social relationships in society.	Digital security: breaches of privacy*		0 - 2	Value of change in reputation of Stedin Group Contribution to improved institutions and regulations* Contribution to social cohesion in the Netherlands* Social impact of diversity and inclusion* Reduction of inequality in society*	
Natural capital Natural capital comprises the pressure on natural resources from Stedin's activities and the entire energy chain. We strive to minimise our negative impact.	Contribution to climate change through CO_2 emissions Other environmental impacts due to energy distribution Ecological costs of purchasing materials Ecological damage caused by waste	50 - 150 40 - 60 8 - 12 0 - 1			

** These values are qualitative so cannot be expressed in figures. ** Including energy fed back into the electricity network.*

Financial capital

The impacts on **financial capital** comprise the value of financial flows between Stedin and external stakeholders. Payments to stakeholders are seen as a positive contribution to society. Conversely, payments from a stakeholder to Stedin are seen as capital withdrawn from society.

With these we contribute to the following: SDGs 7 (Affordable and clean energy), 8 (Decent work and economic growth) and 11 (Sustainable cities and communities).

x € 1 million	2021	x € 1 million	2022	Note
				Positive impact
3,095	Dividend, repayments and interest	1,405	Dividend, repayments and interest	The positive impact of dividend, repayments and interest has decreased compared with 2021. More long-term loans were refinanced in 2021. Due to increased investments in the grid, payments to suppliers and to employees increased by €179 million and €16 million respectively compared with 2021. In this way we stimulate the economy as a whole and the prosperity of employees throughout the value chain. Stedin paid €47 million less tax in 2022 compared with 2021, mainly because we are no longer obliged to pay sufferance tax since 2022.
980	Payments to suppliers	1,159	Payments to suppliers	
436	Payments to employees	452	Payments to employees	
63	Taxes	16	Taxes	
		80	Change in cash and cash equivalents	
				Negative impact
3,098	Capital raised, received repayments and interest	1,268	Capital raised, received repayments and interest	The negative impact from capital raised has decreased compared with 2021, as there was more refinancing of long-term loans in 2021. The need for financing has increased further as a result of increased investments. A large part of this comes from the payments we receive from households (low use) and business customers (heavy use). Compared with 2021, these show an increase of €47 million and a decrease of €3 million compared with 2021, respectively.
853	Payments by customers (low-use)	900	Payments by customers (low-use)	
318	Payments by customers (heavy-use)	315	Payments by customers (heavy-use)	
112	Contributions received	107	Contributions received	
14	Other revenue	17	Other revenue	
50	Change in cash and cash equivalents			

Produced capital

The impacts on **produced capital** comprise the value of services and products that Stedin and its suppliers create for society. This mainly concerns the value of energy transmission and distribution, with which Stedin creates value for society, and the value of products from suppliers that Stedin uses for this purpose.

With these we contribute to the following SDGs: 7 (Affordable and sustainable energy), 9 (Industry, innovation and infrastructure), 11 (Sustainable cities and communities) and 12 (Responsible consumption and production).

x € 1 million	2021	x € 1 million	2022	Note
				Positive impact
1,900 - 2,300	Contribution of gas transmission to consumers' well-being	1,750 - 2,250	Contribution of gas transmission to consumers' well-being	Access to energy has a positive impact on consumers and business customers. The value creation for consumers of gas and electricity transmission has decreased slightly compared with 2021, mainly due to a decrease in the volume of gas transmitted compared with 2021. The economic value creation for business customers is in line with 2021 because lower transmitted volumes and price increases offset one another. We once again invested heavily in our grids, €33 million more than last year, with 65% of our capital expenditure eligible for the EU Taxonomy's sustainability feature.
1,600 - 2,000	Contribution of electricity transmission to consumers' well-being (including returning energy to the grid)	1,500 - 2,000	Contribution of electricity transmission to consumers' well-being (including returning energy to the grid)	
300 - 340	Value of energy transmission for business customers	250 - 350	Value of energy transmission for business customers	
500 - 800	Economic change in the value of assets	709	Economic change in the value of assets	
-	*Digital security**	-	*Digital security**	
				Negative impact
1,300 - 1,600	Value of goods purchased for electricity transmission	1,750 - 2,250	Value of goods purchased for electricity transmission	To create positive value for our customers, we use third-party products and services for our activities related to the gas and electricity grid. The value of these products and services increased in 2022 compared with last year. The largest increase relates to expansion investments in the electricity grid.
900 - 1,100	Value of goods purchased for gas transmission	1,000 - 1,500	Value of goods purchased for gas transmission	

Intellectual capital

The impacts on **intellectual capital** comprise the value that Stedin creates by investing in the development of knowledge and technology.

In the process we contribute to SDG 9 (Industry, innovation and infrastructure).

x € 1 million	2021	x € 1 million	2022	Note
				Positive impact
0 - 2	Change in value of intangible assets	3	Change in value of intangible assets	The change in value of intangible assets is in line with 2021 and mainly concerns IT-related investments. In addition, we achieve a positive impact by making part of the data that we collect and process available free of charge for use by our stakeholders.
1.9 - 2	Value of data collection and market facilitation	1 - 3	Value of data collection and market facilitation	
-	*Development of new market models and open platforms**	-	*Development of new market models and open platforms**	
-	*Technological development**	-	*Technological development**	
	No impact		No impact	**Negative impact**

Human capital

The impacts on **human capital** comprise the value of the well-being and competencies of our employees and other individuals affected by the business operations. We invest heavily in the well-being and development of our employees. We try to prevent safety incidents and nuisance in the local community as much as possible.

In the process we contribute to SDGs: 8 (Decent work and economic growth) and 11 (Sustainable cities and communities).

x € 1 million	2021	x € 1 million	2022	Note
				Positive impact
40 - 50	Effects on well-being from having work	30 - 50	Effects on well-being from having work	Having a job positively affects the well-being of the employee. The average employee satisfaction of our employees is 7.7 (commitment). In addition, we stimulate the development of our employees with our in-house training school, proactive training courses and learning paths for recruitment and promotion. This also has a positive impact on the labour market given the scarcity of technical personnel.
t.b.d.	Employee development	15 - 25	Employee development	
				Negative impact
0.25 - 0.35	Work-related absenteeism and employee accidents	0.2 - 0.5	Work-related absenteeism and employee accidents	Working on the energy infrastructure involves risks for employees. The safety of our employees is and will remain our priority. In 2022, there were four work-related accidents resulting in absence and the average absence due to sickness amounted to 5.8%. This entailed a loss of well-being for our employees. The time employees spend on their work cannot be used elsewhere and therefore has a negative impact.
35 - 45	Economic value of work	30 - 50	Economic value of work	
-	*Security incidents in the area**	-	*Security incidents in the area**	

Social capital

The impacts on **social capital** comprise the value that Stedin's activities have for well-being and the relationship between different groups in society. This includes inequalities in society in the form of energy poverty and the protection of human rights in international procurement chains. This also affects Stedin's reputation, which is important for continuing to create value for society in the long term.

In the process we contribute to SDG 11 (Sustainable cities and communities).

x € 1 million	2021	x € 1 million	2022	Note
				Positive impact
1.5 - 1.8	Value of change of reputation of Stedin Group	0 - 2	Value of change of reputation of Stedin Group	In the changing nature of the energy system, the way customers view us is of great importance for the value we add to society. The value of our reputation is in line with the growth in 2021. It shows that, as part of the national infrastructure, we are becoming increasingly important for the functioning of Dutch society. In 2022, some new qualitative impacts have been added, including our positive impact on social cohesion in the Netherlands and our contribution to reducing inequality and to diversity and inclusion. The quantification of this is being investigated.
-	*Contribution to improved institutions and regulations**	-	*Contribution to improved institutions and regulations**	
-	*Contribution to social cohesion in neighbourhoods**	-	*Contribution to social cohesion in the Netherlands**	
	Contribution to social	-	*Social impact of diversity and inclusion**	
-	*cohesion in the Netherlands**	-	*Reduction of inequality in society**	
				Negative impact
-	*Digital security: breaches of privacy**	-	*Digital security: breaches of privacy**	The negative impacts of our activities on social capital have not yet been quantified.

** These values are qualitative and therefore cannot be expressed in figures.*

Natural capital

The impacts on **natural capital** comprise the pressure on natural resources from Stedin's activities and the entire energy chain. This includes contributing to climate change, pollution and the use of scarce materials. We strive to minimise this negative impact.

In the process we contribute to SDGs: 12 (Responsible consumption and production) 13 (Climate action).

x € 1 million	2021	x € 1 million	2022	Note
	No impact		No impact	**Positive impact**
				Negative impact
0 - 1	Environmental damage caused by waste	0 - 1	Environmental damage caused by waste	The negative impact of our waste is relatively limited because 74% of our waste is recycled. The environmental damage caused by waste shows a slight increase within the range compared with 2021 as a result of an increase in the share of 'asbestos'. Asbestos cannot be recycled. An impact case study was performed in 2022 in which options were investigated to increase the circularity of our business operations. CO_2 is emitted in connection with Stedin's business operations and the energy chain as a whole and contributes to climate change. The CO_2 emissions of our own operations have decreased slightly compared with 2021. Pollution, water use and loss of biodiversity are examples of other environmental impacts to which Stedin makes a negative contribution.
9 - 11	Environmental costs of purchasing materials	8 - 12	Environmental costs of purchasing materials	
125 - 175	Contribution to climate change through CO_2 emissions	50 - 150	Contribution to climate change through CO_2 emissions	
t.b.d.	Other environmental impacts from energy transmission	40 - 60	Other environmental impacts from energy transmission	

CLIMATE SCENARIOS

The TCFD (Task Force on Climate-Related Financial Disclosures) is an international set of recommendations to promote voluntary and consistent reporting on climate-related financial risks for organisations. The aim is to provide investors and financial and other stakeholders with more insight. The focus is on physical and transition risks. The 'Impact on people and planet' section provides further details on the risks for Stedin associated with climate change and climate adaptation.

Physical risks

Climate change comes with four types of relevant physical risks: rising sea levels, heavy precipitation, extreme temperatures and drought. These risks threaten our infrastructure, with the impact of sea level rise expected to overshadow the consequences of the other three in view of the geographical location of our service area.

Physical risks	Potential effects
Sea level rise	• Damage to energy infrastructures • Damage to assets • Damage in the upstream and downstream energy chains
Heavy precipitation	• Damage to energy infrastructures • Damage to assets • Damage in the upstream and downstream energy chains • Damage to the transport and distribution infrastructure • Increase of gas outage duration
Extreme temperatures	• Damage to assets • Increased demand for electricity to power ACs
Drought	• Damage to energy infrastructures • Damage to assets • Damage to the transport and distribution infrastructure • Increase of energy outage duration

Risks and opportunities associated with the energy transition

Our energy infrastructure is a key precondition for the energy transition. Transition-related risks and opportunities mainly concern the increasing electrification and the requisite speed thereof.

Risks and opportunities associated with the energy transition	Potential effects
Through sustainable innovations, Stedin contributes to technologies and systems that combat 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

PROCESS FOR THE MATERIALITY ANALYSIS

We used the following steps to determine the materiality matrix for 2022:

1. The 10 material topics formulated in 2021 have remained unchanged in 2022.
2. The material topics were reviewed, re-adopted and ranked by the Board of Management in 2022. The Board of Management is responsible for management and control in relation to the material topics. This takes place by means of reports on the adopted KPIs, each issued at their own frequency.
3. The Supervisory Board also discussed the material topics at its meeting held on 6 December 2022, after which the Board of Management and the Supervisory Board agreed on a joint ranking of the material topics.
4. In a written survey, we asked representatives of our stakeholder groups to determine what impact each of the material topics has on their business operations. In this way, they determine which topics we should highlight in our annual report. The stakeholders did not present any new material themes. A total of 77 stakeholders indicated the impact of each topic. We defined the following stakeholder groups:
   - internal: the members of the Works Council;
   - external: business customers, private customers, shareholders, national and local government, supervisory bodies, suppliers, market parties and energy chain sector, NGOs, financial stakeholders, groundwork contractors, sector associations.
5. Relative weight: The stakeholders' 77 responses were all assigned equal weight. This determined the ranking of the material topics on the vertical axis of the materiality matrix. The weight of the impact on Stedin Group according to the Board of Management and the Supervisory Board was 50%/50% and determined the position of the material topics on the horizontal axis.
6. The result of the steps referred to above is reflected in the materiality matrix. 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'Interaction with our environment' section focuses on our stakeholders.

INTERACTION WITH OUR ENVIRONMENT

Being 'in touch with our environment' is an increasingly important part of our task and our day-to-day work. 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 prioritised by us and our stakeholders.

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 Group 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 Group to a large extent determines the categorisation below into stakeholder groups.

- internal: employees;
- external: private and business customers, shareholders, investors and rating agencies, government, politics, regulators, energy supply chain, public organisations, local environment, NGOs and civil-society organisations, suppliers, media, memberships, interest groups and industry organisations, knowledge institutions and partners.

Policymakers and policy frameworks

Stedin Group 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 Group's interests in this regard 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 Group. We do not engage a Public Affairs consultancy firm on a permanent basis. Nor does Stedin Group 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, the new Environmental and Planning Act (Omgevingswet) will come into force, under which participation will be required, whereas at present it is voluntary.

Corporate social responsibility

Given our societal role, we are reserved in engaging in sponsorship activities, also in 2022. 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 2022 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 initiatives in 2022: supporting the Energy Bank in Rotterdam and The Hague, sponsoring the Delta Ride for the Roses in Goes and sponsoring various football teams in our service area.

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 2022, 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 €1,150 to the Energy Bank Rotterdam and The Hague. In 2022 we deployed 65 coaches and visited 80 households. This means we did not reach our target to support 200 households and to deploy 80 active coaches in that connection. The target for 2023 remains unchanged.

Strengthening the employer brand

The Delta Ride for the Roses, a major cycling event, was held in the town of Goes on 11 June 2022. The Delta Ride is the largest cycling event in the province of Zeeland for the general public. Participants all share a single objective: raising money for cancer research. Stedin was an 'Official Partner' of this event and donated €10,000. In addition to supporting cancer research, this sponsoring activity also helped to strengthen our position in the province of Zeeland. Through a range of communication tools, we placed the Stedin (employer's) brand in the spotlight in the run-up to the event and during the event itself.

In the summer we invited colleagues within Stedin to register their (or a family member's) football teams for our football sponsoring campaign. Again, the aim was to promote the position of Stedin within our service area and highlight Stedin as an attractive employer. The number of teams that registered was overwhelming; in the end lots were drawn and 21 teams were sponsored. Each team received a fixed amount of €750 for shirts, jackets, scoreboards or advertising boards around the pitch, depending on the specific needs of the team concerned. In addition, each team received a pack with water bottles and sports bags printed with the Stedin logo and was referred to the 'work-at-stedin' website. Sponsoring costs in 2022 totalled €23,740.

This year, as always, all Stedin employees received an end-of-year gift in December. Besides the Energy Bank, colleagues could choose from five more charities to donate their end-of-year gift to. These other charities received a total of €8,225 in donations.

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	Note	Material topic
Employees	• All employees - quantitative employee survey • Works council - formal consultation and 3D consultation with Supervisory Board and Board of Management • Trade unions - periodical negotiations on terms and conditions of service	⑦ ⑧
Private customers	• 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	① ② ③ ④ ⑦
Business customers	• 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	① ② ③ ④ ⑤ ⑥ ⑦
Shareholders **Investors and rating agencies**	• 44 Dutch municipalities - General Meeting of Shareholders and Extraordinary General Meeting of Shareholders. Formal and informal consultation, meetings on specific topics, individual contact • Shareholders' Committee - 9 members who represent the 44 shareholders of Stedin Group • Annual rating review meeting, financial publications	All material topics ② ⑤ ⑦ ⑧ ⑨ ⑩

① Security of supply ② Affordable and efficient services ③ Customer satisfaction ④ Stakeholder dialogue and environment ⑤ Investments in infrastructure ⑥ Smart grids, data technology and innovation ⑦ Safety and security ⑧ Good employment practice ⑨ Impact on people and planet ⑩ Financial and economic performance

Stakeholder	Note	Material topic
Government	• European and national - laws and regulations, energy policy • Province, region, municipalities - 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, Testing Grounds for Natural Gas-free Districts, coordinate realisation of investments in the grids, covenants for multidisciplinary operations, cooperation of security regions.	① ② ③ ④ ⑤ ⑥ ⑦ ⑨ ⑩
Politics	• Senate and House of Representatives, States General, Ministries - influencing policy on relevant themes, frameworks for, for instance, Regional Energy strategies, contributing expertise and experience.	② ④ ⑤ ⑥ ⑩
Supervisors	• State Supervision of Mines, Netherlands Authority for Consumers and Markets, Radiocommunications Agency Netherlands, Social Affairs and Employment Inspectorate, Dutch Safety Board, Dutch Data Protection Authority, Dutch Authority for the Financial Markets, Human Environment and Transport Inspectorate, EU regulators - inform (standard and ad hoc), knowledge exchange	① ② ⑤ ⑥ ⑦ ⑧ ⑨ ⑩
Energy supply chain	• Netbeheer Nederland, regional grid managers, national grid managers TenneT and Gasunie, energy producers and energy suppliers, parties responsible for metering, independent service providers, Energie Nederland, Energie Data Services Nederland, Vereniging Nederlandse Energie- en Data Uitwisseling - aimed at knowledge exchange, partnerships, promotion of interests, cooperation, dialogue	All material topics
Public organisations	• Water authorities, water companies, Directorate-General for Public Works and Water Management, ProRail, National Forest Service (Staatsbosbeheer), housing associations, Cyber Security Council - consultation and coordination of work below ground and permit applications	① ② ③ ④ ⑤ ⑥ ⑦
Local environment	• Businesses and private individuals in an area where work is being or will in due course be carried out - environment management, engage in dialogue and inform	③ ④ ⑬
NGOs and civil-society organisations	• Natuur en Milieu, Milieudefensie, Greenpeace, Springtij - knowledge exchange, dialogue • Jinq, Energy Bank Rotterdam and The Hague, Stichting Hartekind, USEF Foundation - voluntary work, cooperation	⑧ ⑨
Suppliers	• Contractors and suppliers of goods and services - cooperation, relationship management and dialogue	② ③ ④ ⑦
Media	• National, regional and online media - inform	All material topics
Memberships **Interest groups/ sector associations**	• IPMA, Mijnaansluiting.nl, Dutch Power, Cigre Nederland, Nestor rapportage, Vereniging voor Energie Milieu en Water - member and/or an active role as chair or board member • Dutch Consumers' Association, Association of (Prospective) Homeowners (VEH), construction and electrical engineering industry association, Techniek Nederland, employers' association WENB, VNG (Association of Netherlands Municipalities) - inform, engage in dialogue, knowledge exchange	① ② ③ ④ ⑥ ⑦
Knowledge institutions **Partners**	• Delft University of Technology, Eindhoven University of Technology, Wageningen University & Research, Erasmus University, Utrecht University and Groningen University, Nyenrode - knowledge exchange, research, cooperation • Senior secondary vocational education (MBO) and higher professional education (HBO) degree programmes - cooperation • Universal Smart Energy Framework, Deltalinqs, Dutch Power, Energy WEb Foundation, Energie Data Services Nederland, Green Village, Platform Groene Netten, Stichting Elaad, Missie H2, Starthubs.com, CE Delft, Netherlands Energy Research Alliance, Netherlands Organisation for Applied Scientific Research (TNO), GOPACS, IPO (Association of Provincial Authorities), Economic Board South Holland, Bouwend Nederland, Techniek Nederland - participation in management, cooperation	④ ⑥ ⑧ ⑧ ⑤ ⑥ ⑦

CONNECTIVITY, KPIS AND TARGETS

This section focuses on the connections between our strategy, the 10 numbered material topics, risks and opportunities as well as KPIs and targets. We group them according to the six capitals from our value creation model.

Financial capital

Material topic

Financial and economic performance

Strategic spearhead

Improved grid management, Facilitating the energy transition, Sustainable business operations

SDG: 9 - Industry, innovation and infrastructure

Why is this topic relevant?

Stedin Group 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.

Connection to risks (R) and opportunities (O)

R: Gas investments difficult to plan - Increased likelihood of surge to replace obsolete assets - Network losses - Increasing pressure to maintain the A- category credit rating (at S&P) in the long term / O: Reduce societal costs through collaboration within our service area - Rates structure of the future

KPI	Target for 2022	Actual in 2022	Target for 2023	Where can you read more about this topic?
FFO/Net Debt ratio	≥ 12%	10.1%	≥ 12%	Financial and economic performance Financial results Risk management
Solvency	≥ 40.0%	44.4%	≥ 40	

Material topic

Affordable and efficient services

Strategic spearhead

Improved grid management, Facilitating the energy transition, Sustainable business operations

SDG: 7 - Affordable and clean energy

Why is this topic relevant?

In our view, it is important that the energy transition is achieved at the lowest public cost. That also means that we ourselves continually examine how we can work more efficiently.

Connection to risks (R) and opportunities (O)

R: Gas investments difficult to plan - Network losses / O: Reduce societal costs through collaboration within our service area - Rates structure of the future

KPI	Target for 2022	Implementation in 2022	Target for 2023	Where can you read more about this topic?
Efficiency (on controllable opex and capex)	€14 million	€12 million	TBA*	Affordable and efficient services

* The five-year efficiency programme was completed in late 2022. The savings programme will be recalibrated and then used as a basis for the new target for 2023.

Produced capital

Material topic

Investment in infrastructure

Strategic spearhead

Improved grid management, Facilitating the energy transition

SDG: 9 - Industry, innovation and infrastructure

Why is this topic relevant?

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. To safeguard the reliability of the grids into the future, it is essential that we invest in grid reinforcement. We are also focusing more on innovative, smart solutions in cooperation with the market.

Connection to risks (R) and opportunities (O)

R: Insufficient connection and transmission capacity - Availability of materials - Increased likelihood of surge to replace obsolete assets - High activity in outdoor space and below ground - Lack of people with the required competencies - Increasing pressure to maintain the A- category credit rating (at S&P) in the long term - Uncertainty about the implications of changes in the Dutch and/or European laws and regulations on electricity and gas / O: Utilisation of new energy carriers - Increase predictability of investments through improved prediction of customer demand - Perform comprehensive assessment for allocating investments between electricity, gas or future energy sources.

KPI	Target for 2022	Actual in 2022	Target for 2023	Where can you read more about this topic?
Investments in our grids	€719 million	€712 million	€825 million	• Investment in infrastructure
Execution of grid-driven scope for electricity and gas	E: 100%/G: 100%	E: 93%/G: 96%	E: 100%/G: 100%	• Financial and economic performance
New capacity in megavolt-ampere added (MVA)	-	437	425	

Material topic

Supply security

Strategic spearhead

Improved grid management, Facilitating the energy transition

SDG: 7 - Affordable and clean energy / 11 - Sustainable cities and communities

Why is this topic relevant?

We work continually on the reliability of our grids. Supply security and preventing and reducing the number of failures and downtime are central to this.

Connection to 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 - Large-scale product recall / O: Enable future-proof grid management by means of data-driven forecasts and decision-making.

KPI	Target for 2022	Actual in 2022	Target for 2023	Where can you read more about this topic?
SAIDI Electricity	≤ 17	22	≤ 25	Supply security Risk management

Material topic	**Why is this topic relevant?**
Customer satisfaction	As we want to be a reliable partner for customers, the quality of our service provision and the satisfaction of our customers are important.
Strategic spearhead	**Connection to risks (R) and opportunities (O)**
Improved grid management, Facilitating the energy transition	R: Insufficient connection and transmission capacity - Services on core tasks insufficiently compliant.

SDG: 7 - Affordable and clean energy

KPI	Target for 2022	Actual in 2022	Target for 2023	Where can you read more about this topic?
Customer convenience (CES)	≥ 82%	81%	*	Customer satisfaction
Completion of connections for low-use consumers within 18 weeks or on date preferred by customer	≥ 95%	95%	≥ 91%	

* In 2023, the target for customer convenience will be replaced by three KPIs: Customer convenience on meters and connections, commercial customers and meter cupboard and grid failures.

Social capital

Material topic	**Why is this topic relevant?**
Stakeholder dialogue and environment	As a grid manager, we have a central role in the energy supply chain and hence in the energy transition. That is why dialogue and collaboration with our stakeholders are essential. By talking with customers, we know what customer demand to expect. We discuss the results below, grouped into the following three topics: Built environment, Mobility and Industry.
Strategic spearhead	**Connection to risks (R) and opportunities (O)**
Improved grid management, Facilitating the energy transition	R: Insufficient connection and transmission capacity - Uncertainty about implications of changes in Dutch and/or European laws and regulations on electricity and gas / O: Increase predictability of investments through improved prediction of customer demand - Position Stedin as a highly relevant partner in the energy transition - Enter into strategic supplier relationships
SDG: 11 - Sustainable cities and communities / 9 - Industry, innovation and infrastructure	

KPI	Target for 2022	Actual in 2022	Target for 2023	Where can you read more about this topic?
Stability of customer demand predictions	70%	72%	N/A*	Stakeholder dialogue and environment Stakeholders and materiality Interaction with our environment

* Due to the new strategy for 2023-2027, this KPI no longer applies in 2023. For the new set of strategic KPIs, see 'Focus areas in 2023'.

Human capital

Material topic

Good employment practice

Strategic spearhead

Sustainable business operations

SDG: 8 - Decent work and economic growth

Why is this topic relevant?

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.

Connection to risks (R) and opportunities (O)

R: Unavailability of enough people with the required technical competences - Focus on cultural values and conduct insufficiently effective

KPI	Target for 2022	Actual in 2022	Target for 2023	Where can you read more about this topic?
Inspired and committed employees (on a scale of 1 to 10)	Inspired ≥ 7.5 Committed ≥ 7.7	Inspired 7.7 Committed 7.9	-* - *	Good employment practice Risk management

* In 2023, these KPIs will be replaced by the results from the motivation survey on the cultural value 'Forward'.

Natural capital

Material topic*

impact on people and planet

Strategic spearhead

Sustainable business operations

SDG: 11 - Decent work and economic growth / 12 - Responsible consumption and production / 13 - Climate action

Why is this topic relevant?

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 fine dust 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 risks (R) and opportunities (O)

R: Large-scale product recall - Environmental pollution of surroundings - Excessive environmental footprint / O: Enter into strategic supplier relationships

KPI	Target for 2022	Actual in 2022	Target for 2023	Where can you read more about this topic?
CO_2 emission reduction in business operations, in tonnes Stedin compared with 2018 (excl. gas network losses)*	-36%	-48%	-50%	Impact on people and planet

* The CO_2 emissions from business operations of Stedin Group excl. gas network losses decreased by 45% compared with 2018.

Intellectual capital

Material topic

Smart grids, data technology and innovation

Strategic spearhead

Improved grid management, Facilitating the energy transition

SDG: 7 - Affordable and clean energy

Why is this topic relevant?

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.

Connection to 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 - Uncertainty about duration of availability of communications network / O: Utilise new energy carriers - Enable future-proof grid management by means of data-driven forecasts and decision-making - Perform comprehensive assessment for allocating investments between electricity, gas or future energy sources - Position Stedin as a highly relevant partner in the energy transition.

KPI	Target for 2022	Actual in 2022	Target for 2023	Where can you read more about this topic?
P4 smart meter data provision	≥97%	97%	≥97%	Smart grids, data technology and innovation

Material topic

Safety, security and cybersecurity

Strategic spearhead

Facilitating the energy transition, Sustainable business operations

SDG: 7 - Affordable and clean energy / 8 - Decent work and economic growth

Why is this topic relevant?

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. Data security, privacy and cybersecurity also become more important in times of digitalisation. We apply effective procedures to work on these security aspects and therefore on the continuity of energy supply. This way, we ensure the safety of our customers, employees, contractors and hired staff.

Connection to risks (R) and opportunities (O)

R: cyberattack causing damage to society and business operations - impact of accidents related to Stedin Group

KPI	Target for 2022	Actual in 2022	Target for 2023	Where can you read more about this topic?
RIF	≤0.90	0.91	≤0.90	Safety, security and cybersecurity
LTIR	≤1.90	0.52	≤1.90	Risk management

GRI INDEX

We have adopted the GRI Standards guidelines in our sustainability reporting.

GRI Std.	GRI Indicators	Reference
	GENERAL INFORMATION - GENERAL DISCLOSURES	
102-1	Name of the organisation	About us: Stedin Group's activities
102-2	Primary brands, products and/or services	About us: Stedin Group's activities
102-3	Location of headquarters	About us: Profile
102-4	Number of countries where the organisation operates (that are relevant to sustainable development)	About us: Profile
102-5	Nature of ownership and legal form	Governance: Corporate Governance / Stedin Group
102-6	Major markets served (geographical distribution, sectors and types of customers)	About us: Stedin Group's activities
102-7	Scale of the reporting organisations	About us: 2022 in figures Supplementary information / Five-year summary Supplementary information / Other non-financial information
102-8	Information on total number of employees	About us: Stedin Group's activities About us: 2022 in figures Supplementary information / Other non-financial information
401-1	Employee turnover	Supplementary information / Other non-financial information
405-1	Diversity of boards and employees	Supplementary information / Other non-financial information
102-9	The organisation's value and supply chain	About us: Profile About us: Stedin Group's activities Strategy: Mission, vision and strategy Strategy: Stakeholders and materiality Supplementary information: Impact measurement
102-10	Significant changes during the reporting period	About us: Stedin Group's activities / Non-regulated activities
102-11	Information on application of the precautionary principle	Governance: Risk management
102-12	Externally developed economic, environmental and social charters or principles to which the organisation subscribes	Results: Sustainable business operations / Safety and security / Certification Governance: Corporate Governance / Corporate Goverance Code and Stedin Group Governance: Corporate Governance / Integrity
102-13	Memberships of associations or advocacy organisations	Facilitating the energy transition / Stakeholders dialogue and environment / Alliances: The Green Village and HYDelta

GRI Std.	GRI Indicators	Reference
102-14	A statement from the Executive Board about the relevance of sustainability to Stedin and its strategy for addressing sustainability.	Decisive and energetic: CEO's foreword Strategy: Developments within society and the energy market Results: Sustainable business operations / One Planet Thinking / One Planet governance
102-15	Key impacts, risks, and opportunities	Strategy: Developments within society and the energy market Strategy: Stakeholders and materiality Strategy: Connectivity, KPIs and targets Strategy: Sustainable development goals
EU3	Number of household, industrial en 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	Goverance: Corporate Governance / Integrity Code of conduct and guidelines for conduct
102-17	Procedure for advice about unethical or illegal practices	Governance: Corporate Governance / Integrity / Reporting Facility Governance: Corporate Governance / Integrity / Confidential advisers
	Procedure for raising concerns about (suspected) unethical or illegal practices | whistleblower procedure	Governance: Corporate Governance / Integrity / Whisleblower procedure
	Governance	
102-18	Governance structure of those responsible for decision-making on economic, social and ecological (ESG) impact	Governance Report of the Supervisory Board
102-19	Process for delegating authority for ESG topics	Governance: Corporate Governance: Governance roles Results: Sustainable business operations / One Planet Thinking / One Planet Governance
102-20	Responsibility for ESG topics at executive level and/or post holders reporting to highest governance body	Governance: Corporate Governance: Governance roles Results: Sustainable business operations / One Planet Thinking / One Planet Governance
102-21	Processes for consultation between stakeholders and the highest governance body on ESG topics	Governance: Corporate Governance: Governance roles Results: Sustainable business operations / One Planet Thinking / One Planet Governance Strategy: Stakeholders and materiality
102-22	Composition of the highest governance body	Governance: Corporate Governance: Biographical details of members of the Board of Management
102-23	Chair of the highest governance body	Governance: Corporate Governance: Biographical details of members of the Board of Management Governance: Corporate Governance: Biographical details of members of the Supervisory Board
102-24	Nomination and selection processes for the highest governance body	Governance: Corporate Governance / Governance roles Governance: Corporate Governance / Supervisory Board
102-25	Process for the highest governance body for employees with integrity issues / whistleblower procedure	Corporate Governance: Corporate Governance / Integrity

GRI Std.	GRI Indicators	Reference
102-26	Role in the development of mission, vision, strategy, policy and goals related to ESG impact	Strategy Results: Sustainable business operations: Positive impact on people and environment Governance: Risk management / Riskgovernance
102-27	Actions taken to enhance knowledge of ESG topics	Value creation as basis Strategy: Developments within society and the energy market Strategy: Stakeholders and materiality Supplementary information: Connectivity, KPIs and targets Supplementary information: Sustainable development goals Supplementary information: Impact measurement
102-28	Evaluating the highest governance body's ESG performance	Value creation as basis Strategy: Developments within society and the energy market Strategy: Stakeholders and materiality Governance: Risk management / Risk governance Results: Sustainable business operations: Positive impact on people and environment Report of the Supervisory Board Supplementary information: Connectivity, KPIs and targets
102-29	Role of the highest governance body in identifying and managing ESG impacts, risks, and opportunities	Governance: Risk management
102-30	Role of the highest governance body in reviewing the effectiveness of risk management processes for ESG topics	Governance: Risk management
102-31	Frequency of review of ESG impacts, risks and opportunities	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	Governance: Corporate Governance / Integrity
102-34	Number of critical concerns communicated and procedure for response of highest governance body	Governance: Corporate Governance / Integrity
102-35	Remuneration policies for the highest governance body	Report of the Supervisory Board: Remuneration report for 2022
102-36	Process for determining remuneration	Report of the Supervisory Board: Remuneration report for 2022
102-37	Stakeholders' involvement in remuneration policies	Report of the Supervisory Board: Remuneration report for 2022
102-38	Ratio of top salary - median salary	Report of the Supervisory Board: Remuneration report for 2022

GRI Std.	GRI Indicators	Reference
102-39	Ratio of the increase in top salary - average increase	Report of the Supervisory Board: Remuneration report for 2022
205-1	Operations assessed for risks related to corruption	Goverance: Corporate Governance: Integrity
205-2	Percentage of employees that receive training on anti-corruption policies	Goverance: Corporate Governance: Integrity
205-3	Action in response to incidents of corruption	Goverance: Corporate Governance: Integrity
206-1	Legal actions against unfair competition, cartels and monopolies	Goverance: Corporate Governance: Integrity
102-40	A list of stakeholder groups engaged by the organisation	Strategy: Stakeholders and materiality Supplementary information: Interaction with our environment
102-41	Percentage of employees covered by collective labour agreements	Supplementary information / Other non-financial information / Detailed information on staff
102-42	The basis for identifying and selecting stakeholders	Decisive and energetic: Foreword Strategy: Stakeholders and materiality
102-43	Approach to and frequency of stakeholder engagement	Decisive and energetic: Foreword Strategy: Stakeholders and materiality
102-44	Results of stakeholder management	Strategy: Stakeholders and materiality
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	Value creation as basis Strategy: Stakeholders and materiality Attachments: 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
102-49	Significant changes from previous reporting periods	
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	Disclaimer: 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	Governance: In-control statement Other information: Independent auditor's report Supplementary information: Reporting policy
	SPECIFIC INFORMATION - SPECIFIC DISCLOSURES	
	Supply security	

GRI Std.	GRI Indicators	Reference
103-1	Description and definition of material topics; (evaluation) management approach	Value creation as basis
103-2		Strategy: Stakeholders and materiality
103-3		Supplementary information: Connectivity, KPIs and targets
		Supplementary information: Reporting policy
EU 28	Interruption frequency electricity	Supplementary information / Five-year summary
EU 29	Average duration of interruption	Supplementary information / Five-year summary
	Annual downtime	
	Affordable and efficient services	
103-1	Description and definition of material topics; (evaluation) management approach	Value creation as basis
103-2		Strategy: Stakeholders and materiality
103-3		Supplementary information: Connectivity, KPIs and targets
		Supplementary information: Reporting policy
	Customer satisfaction	
103-1	Description and definition of material topics; (evaluation) management approach	Value creation as basis
103-2		Strategy: Stakeholders and materiality
103-3		Supplementary information: Connectivity, KPIs and targets
		Supplementary information: Reporting policy
EU3	Number of household, industrial en institutional customers	Supplementary information / Five-year summary
	Stakeholder dialogue and environment	
103-1	Description and definition of material topics; (evaluation) management approach	Value creation as basis
103-2		Strategy: Stakeholders and materiality
103-3		Supplementary information: Connectivity, KPIs and targets
		Supplementary information: Reporting policy
413-1	Degree of local community engagement in operations	Strategy: Developments within society and the energy market
415-1	Financial or in-kind contributions to political parties, persons or institutions	Corporate Governance: Corporate Governance / Integrity
	Investments our grids	
103-1	Description and definition of material topics; (evaluation) management approach	Value creation as basis
103-2		Strategy: Stakeholders and materiality
103-3		Supplementary information: Connectivity, KPIs and targets
		Supplementary information: Reporting policy
	Smart grids, data technology and innovation	
103-1	Description and definition of material topics; (evaluation) management approach	Value creation as basis
103-2		Strategy: Stakeholders and materiality
103-3		

GRI Std.	GRI Indicators	Reference
		Supplementary information: Connectivity, KPIs and targets
		Supplementary information: Reporting policy
	Safety and security	
103-1	Description and definition of material topics; (evaluation) management approach	Value creation as basis
103-2		Strategy: Stakeholders and materiality
103-3		Supplementary information: Connectivity, KPIs and targets
		Supplementary information: Reporting policy
403-1	Workers' engagement with regard to health and safety policies	Results: Sustainable business operations: Safety and security
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities.	Results: Sustainable business operations: Safety and security
403-3	Health and safety topics covered in formal agreements with trade unions	Results: Sustainable business operations: Safety and security
403-4	Job Positions with high risk in relation with occupational sickness and accident	Results: Sustainable business operations: Safety and security
418-1	Total number of substantiated complaints concerning breaches of customer privacy and losses of customer data	Strategy: Connectivity KPIs en targets
	Good employee practices	
103-1	Description and definition of material topics; (evaluation) management approach	Value creation as basis
103-2		Strategy: Stakeholders and materiality
103-3		Supplementary information: Connectivity, KPIs and targets
		Supplementary information: Reporting policy
404-1	Investments in training per employee per category	Results: Sustainable business operations: Professionally competent employees now and in the future
404-2	Programmes for skills management and lifelong learning that support the continued employability and facilitate career endings	Results: Sustainable business operations: Professionally competent employees now and in the future
404-3	Percentage of employees receiving regular performance and career development reviews	Results: Sustainable business operations: Professionally competent employees now and in the future
406-1	Number of incidents of discrimination and corrective actions taken	Governance: Corporate Governance / Integrity / Reporting Facility
	Positive impact on people and environment	
103-1	Description and definition of material topics; (evaluation) management approach	Value creation as basis
103-2		Strategy: Stakeholders and materiality
103-3		Supplementary information: Connectivity, KPIs and targets
		Supplementary information: Reporting policy
301-1	Total weight or volume of materials used	Results: Sustainable business operations: Positive impact on people and environment
301-2	Percentage of input materials consisting of waste sourced externally	Results: Sustainable business operations: Positive impact on people and environment
302-1	Energy consumption inside the organisation	Results: Sustainable business operations: Positive impact on people and environment
302-2	Energy consumption outside of the organisation	Results: Sustainable business operations: Positive impact on people and environment
302-4	Reduction of energy consumption	Results: Sustainable business operations: Positive impact on people and environment

GRI Std.	GRI Indicators	Reference
302-5	Reductions in energy requirements of products and services	Results: Sustainable business operations: Positive impact on people and environment
305-1	Direct (Scope 1) GHG emissions by weight	Results: Sustainable business operations: Positive impact on people and environment
305-2	Indirect (Scope 2) GHG emissions by weight	Results: Sustainable business operations: Positive impact on people and environment
305-3	Other indirect (Scope 3) GHG emissions by weight	Results: Sustainable business operations: Positive impact on people and environment
305-5	Reduction of GHG emissions	Results: Sustainable business operations: Positive impact on people and environment
305-6	Emissions of ozone-depleting substances	Not applicable
305-7	NOx, SOx and other significant air emissions	Results: Sustainable business operations: Positive impact on people and environment
306-2	Total waste by type and disposal method	Results: Sustainable business operations: Positive impact on people and environment
306-4	Hazardous waste	Results: Sustainable business operations: Positive impact on people and environment
308-1	Percentage of new suppliers assessed using environmental criteria.	Results: Sustainable business operations: Positive impact on people and environment: Impact in the purchasing chain / Supply chain responsibility
414-1	Percentage of new suppliers that were assessed using 'labour practices' criteria.	Results: Sustainable business operations: Positive impact on people and environment: Impact in the purchasing chain / Supply chain responsibility
407-1	Identified significant risks of non-freedom and actions taken.	Results: Sustainable business operations: Positive impact on people and environment: Impact in the purchasing chain / Supply chain responsibility
408-1	Identified significant risks of child labour and actions taken.	Results: Sustainable business operations: Positive impact on people and environment: Impact in the purchasing chain / Supply chain responsibility
409-1	Identified significant risks of forced or compulsory labour and actions taken.	Results: Sustainable business operations: Positive impact on people and environment: Impact in the purchasing chain / Supply chain responsibility
412-1	Issue and risk management in the supply chain with regard to human rights.	Results: Sustainable business operations: Positive impact on people and environment: Impact in the purchasing chain / Supply chain responsibility
414-1	Degree of screening of suppliers on human rights issues.	Results: Sustainable business operations: Positive impact on people and environment: Impact in the purchasing chain / Supply chain responsibility
414-2	Negative impacts on human rights resulting from supply chain and actions taken.	Results: Sustainable business operations: Positive impact on people and environment: Impact in the purchasing chain / Supply chain responsibility

GLOSSARY

This section presents explanations of terms or 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. Next comes the highest possible reuse. Third, waste incineration to generate energy. The least desirable approach is dumping or discharging waste.

A rating
The rating score of a company, or 'rating', is an assessment of the creditworthiness of a company in the form of a 'mark'. Ratings are awarded by specialised agencies.

Cable pooling
In cable pooling, a single cable is used to accommodate power generated from both solar and wind on a single connection. This is important, in view of the limited utilisation of the total capacity of a connection in the case of generation plants for solar and wind. After all, the wind does not always blow and the sun is not always out. The connection must nevertheless be able to cope with periods of peak load. Cable pooling enables us to curtail the output of the solar or wind farm at peak times, when the capacity of the connection is not sufficient.

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.

CDMA
Code Division Multiple Access is a telecommunications network for transmitting information across a wireless radio connection using spread spectrum techniques.

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 concerns relations between the board of management, the supervisory board and the general meeting of 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
Corporate Governance Code. Good governance of a company protects the interests of shareholders, employees and other stakeholders. Rules of conduct for this are set out in the Corporate Governance Code. Listed companies are required to comply with this code by law. Stedin Group adheres to the CGC insofar as possible and applicable.

EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortisation)
Profit before income tax adjusted for depreciation, amortisation, net interest payable, profit of group entities sold, revaluations and share of minority interests.

ESG criteria
Environmental, social and governance criteria for a company's activities with a potential impact on society or the environment. The ESG (*Environmental, Social and Governance*) criteria are the most important criteria used to measure the sustainability and ethical implications of an investment in a company or in a sector of the economy.

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.

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;
- 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 standardise 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.

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: the number of lost-time workplace incidents per million of hours worked.

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.

Grid capacity and transmission capacity
Both terms are synonymous and refer to capacity in the grid.

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).

Net investments
Gross investments less customer construction contributions received from third parties.

NOC
Network Operations Center. Stedin's modernised control centre that monitors Stedin's service area 24/7.

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.

OT infrastructure
This comprises the smart sensors in our network that detect, for example, whether the voltage is correct and reliable, flexible, affordable and safe.

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 most senior executive body of an organisation. A board of management is responsible for the strategic management of the entity.

SB
Supervisory Board In the Netherlands, the supervisory board is the supervisory body of public limited liability companies and private limited liability companies.

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.

Petajoule (PJ)
That is 1 thousand trillion joules, and 1 petajoule is sufficient to supply energy to around 15,000 households for a full year.

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.

SDGs
Sustainable Development Goals. The Sustainable Development Goals are a set of goals for future international development. They have been formulated by the United Nations and are promoted as the global goals for sustainable development.

Smart meter
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. The use of smart meters should result in energy savings.

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.

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 suppliers provide our Tier 2 suppliers with the raw materials of which those 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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Publication details

Published by
Stedin Holding N.V.
PO Box 49
3000 AA Rotterdam

The annual report is available online on our website: www.stedingroep.nl

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