

Resiliently forward

Annual report 2021



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Disclaimer

This is a translation of the Dutch annual report 2021 of Stedin Group and is not the version prepared in accordance with ESEF requirements as formulated by the European Commission in the Regulatory Technical Standards for ESEF. The ESEF report is available at <https://jaarverslag.stedingroep.nl>. In case of any discrepancy, the ESEF report shall prevail.

Value creation as a basis

As a public 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. Our value creation model demonstrates how we do so. Guided by the six forms of value, or 'capitals' of the International Integrated Reporting Council (IIRC), we describe the results to which our activities lead and the value we thereby create for our stakeholders.

- **Input:** these are the building blocks that we need for our work. From financing to gas pipes and from insight into our grids to our employees.

- **Our organisation model:** our strategic pillars and material topics show how we utilise these building blocks to achieve our mission.
- **Output:** the results of our work include, for example, CO₂ reduction 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 [Sustainable Development Goals](#) of the United Nations).

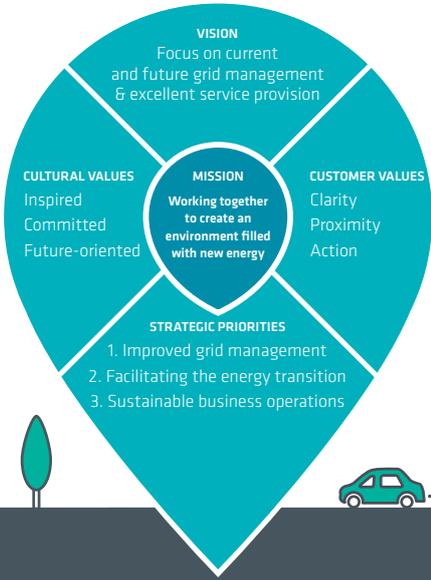
We are making our value creation increasingly measurable. That aids us both in identifying dilemmas and in gearing our operations management towards better solutions. For more information about impact measurement and our results for the past year, see '[Measuring impact](#)'.

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. In the second part, 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

This is followed by the sections: Governance, Report of the Supervisory Board, Financial Statements and Other information and supplementary information.



Value creation model



Input	Organisation model	Output	Impact	
<p>Financial capital: Stedin Group has a public task and has 44 municipalities as shareholders. We treat our social capital prudently and intelligently. In 2021, we invested €687 million.</p> <p>Produced capital: With our 57,573 km of electricity cables and 28,165 km of gas pipelines, we supply energy to more than 2.3 million private and business customers, day and night.</p> <p>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.</p> <p>Human capital: Our 4,194 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.</p> <p>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 16 account managers and 9 area directors.</p> <p>Natural capital: We consumed 478,959 m³ of gas and 6,437,457 kWh of electricity in our business operations. Our vehicle fleet consumed 2,382,597 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.</p>	<p>Improved grid management</p> <ul style="list-style-type: none"> Supply security Affordable and efficient services Customer satisfaction <p>Facilitating the energy transition</p> <ul style="list-style-type: none"> Stakeholder dialogue and environment Investments in our grids Smart grids, data technology and innovation <p>Sustainable business operations</p> <ul style="list-style-type: none"> Safety and security Good employment practice Positive impact on people and planet Financial, economic performance 	<p>We are working vigorously on improved grid management by continually improving our performance on our core tasks.</p> <ul style="list-style-type: none"> Average downtime for electricity 19 minutes Average downtime for gas 29 seconds Efficiency improvement achieved in 2021 (Opex, Capex): 22 million Customer satisfaction 75% <p>Through innovation and close collaboration with partners, we are facilitating the energy transition.</p> <ul style="list-style-type: none"> Stability of predictions of customer demand 70% 12,484 realized gas removals for sustainability <p>As ambassadors for the energy transition, we are aiming for sustainable business operations:</p> <ul style="list-style-type: none"> LTIR: 0.54 Employee satisfaction: engaged 7.8 and inspired 7.6 Reduction of CO₂ emissions in business operations (excl. gas network losses) -45% FFO/Net debt ratio: 11.3% 	<p>The value we add</p> <p>Customers By supplying energy to customers day and night:</p> <ul style="list-style-type: none"> we contribute to customers' well-being and make their life more comfortable; we enable business customers to develop economically; we enable customers to return their own sustainably generated energy. <p>Surroundings Having an energy supply 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:</p> <ul style="list-style-type: none"> implementing a sustainable procurement policy, enhancing the sustainability of our stations, stimulating circularity and restoring biodiversity; pursuing a reduction of CO₂ and particulate matter emissions; limiting inconvenience caused by our activities. <p>Employees We contribute to employees' well-being through:</p> <ul style="list-style-type: none"> income and opportunities for development; good employment practice with a focus on safe working practices. <p>Shareholders Shareholders can count on us to:</p> <ul style="list-style-type: none"> invest in assets, including sustainable assets; aim to distribute dividends; be a partner in the energy transition. 	<p>Contributions to the global goals</p> <p>VN Sustainable Development Goals</p> <ul style="list-style-type: none"> 7 AFFORDABLE AND CLEAN ENERGY 8 DECENT WORK AND ECONOMIC GROWTH 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 11 SUSTAINABLE CITIES AND COMMUNITIES 12 RESPONSIBLE CONSUMPTION AND PRODUCTION 13 CLIMATE ACTION

Resiliently forward

Resiliently forward

We faced a number of challenges in 2021, not just in dealing with COVID-19, but also in facilitating the energy transition and its financing. The way in which we are working on this and the excellent results we are achieving show that we are resilient and that we are looking towards the future. We continue to work ceaselessly towards our goals and to move forward, as people and as an organisation.



The Board of Management of Stedin Group. From left to right: David Peters, Koen Bogers, Danny Benima and Trudy Onland.

CEO's foreword

'Why is this taking so long?', a resident complained to one of our fitters who was replacing the old jute wiring in the resident's doorway. A time-consuming job. The fitter, who worked in accordance with our fixed protocol, scratched his head. Yes, perhaps this could in fact be done faster. In his free time, he devised a new method, and this worked in practice. His method was five times faster. And it also proved to be more reliable.

This is just one example from our day-to-day working practice of how our people make a difference and how we go resiliently forward – the theme of this annual report and essential to the steps we are currently taking. I took up my position as CEO in June 2021. What I found was a proud company with vast stores of professional expertise. A company that rightly works in accordance with fixed protocols. Improvising is usually not desirable, due to safety concerns. We will therefore never compromise on safety: the level of safety and reliability at Stedin is very high. That does not come about by itself, and we maintain a continual focus on this.

At the same time, the energy transition also calls for flexibility, daring choices and stepping away from the beaten path. Our task is to find an appropriate balance, within the possibilities provided by the law, between ensuring the grid's reliability and advancing its development. Only then will we progress and be able to meet customer demand. In recent years, we have invested substantially in smart grid management. We have taken the initial steps and now want to accelerate to enable us to reap the benefits sooner, with a grid that is able to cope with the growing demand.

Resiliently forward certainly also applies to the key theme in 2021: the energy transition. The COVID-19 crisis notwithstanding, the energy transition clearly remained in the spotlight. This year, congestion occurred for the first time in our Stedin grid. This is an issue to which we are devoting a great deal of attention,

and we are doing all we can to limit that congestion. The developments concerning financing were positive, and we took major strides in this area. We are grateful for the trust in us shown by our shareholders. In the years ahead, together with them, we want to look at how we can face the financial challenges of the energy transition.

After all, whichever way you look at it, more resources will be required to achieve the climate goals. If we do not have enough money, and if more room and flexibility are not provided under laws and regulations, we will simply not be able to keep pace with the energy transition. As far as we are concerned, that is an undesirable situation. In addition to financial and other resources, we will also need enough good professionals and available materials. We need help from others in order to achieve all this. Resiliently forward together is therefore the key motto. Together with public authorities, market parties and customers. Only together can we ensure that there is sufficient financing, that permit and other processes advance smoothly and that we provide the best possible services to our customers.

Besides the energy transition, another major transition is under way within Stedin: the integration of DNWG on 1 January 2022. From that day, the province of Zeeland was coloured in yellow, Enduris became Stedin and we became a single large Stedin Group. Preparations for this have gone well so far, we can take pride in that. I hope we will continue to learn from one another. We cordially welcome our Zeeland colleagues!

Huge steps have already been taken this year to go resiliently forward; I therefore look ahead to 2022 with great confidence and energy.

On behalf of the Board of Management
Koen Bogers

Terminology

'We', 'the network group' or 'Stedin Group' are used in this report to refer to Stedin Holding N.V. and its subsidiaries. 'Stedin' refers to Stedin Netbeheer. 'DNWG Group' refers to the subsidiaries Enduris Netbeheer and DNWG Infra.

Annual summary for 2021

1st quarter

4 February – The 'System study of energy infrastructure in the province of South Holland' provides an outline of future energy supply: from homes to industry, from energy demand to supply. The study was presented to the commissioning parties Stedin, The Port of Rotterdam Authority and the province of South Holland.



24 February – The Supervisory Board appointed Koen Bogers as new CEO and Trudy Onland as new COO of Stedin Group. Koen Bogers (51) succeeded Marc van der Linden who stepped down as of 1 June. Trudy Onland (46) succeeded Judith Koole.

16 March – On the north side of the port of Vlissingen, 1.5 kilometres of pipes were laid under Quarleshaven in the Sloe area in a single day. This underground electricity highway will make it possible to connect new solar and wind energy projects to the electricity grid.



23 March – Stedin Group successfully issued a perpetual subordinated hybrid bond loan of €500 million.

26 April – With its new Stedin Area Analysis Tool, Stedin supports municipalities in the heat transition. This tool calculates the optimum natural gas alternative for heating homes.

2nd quarter

25 June – Stedin Group's shareholders increase the grid operator's equity by €200 million in the form of cumulative preference shares. Stedin's equity needs to be strengthened to enable it to continue to make all the investments in the energy transition and to maintain our grids.

1 July – The Regional Energy Strategies were delivered. The plans have a substantial impact on the electricity grid. The agreed climate goal for sustainable onshore generation is attainable if all parties start now on its execution.



16 July – 208 technical talents who were trained in 2021 by our In-house training school received their highly coveted senior secondary vocational education (MBO) diplomas.

3rd quarter

2 September – Stedin starts construction of an additional distribution substation on the Dordtse Kil business park. The maximum capacity of the electricity grid had been reached owing to the rapid development of large solar roofs on industrial premises in the area. An additional substation, which is expected to be completed in 2025, is required in order to increase capacity.

20 September – The Netherlands Authority for Consumers and Markets (ACM) published its method decisions for the regional grid managers and TenneT. The grid managers called for changes in the existing regulatory model because it is

insufficiently aligned with the tasks of the grid managers in facilitating the energy transition. Despite several clear concessions by the ACM, these decisions do not yet sufficiently provide for what is required.

1 October – Stedin was proclaimed the 'Best vitality-promoting business for technical staff 2021' ('Vitaalste Vakbedrijf 2021'). With this award, employers' association WENB recognises organisations that undertake extensive efforts to ensure their employees remain deployable for work in a fit and vital manner.



4th quarter

12 October – The high-voltage grid in Utrecht reached the limit for feed-in capacity. As a result, there is temporarily no room for new applications for the transmission of green electricity from wind or solar parks or large solar roofs, for example. TenneT will adapt the grid in the coming years to create more room in the grid, by placing smart transformers and through other measures.



12 October – Owing to a complex medium-voltage failure in the municipality of Stichtse Vecht, 5,420 customers were left

without power. The failure lasted for more than 13 hours. It was caused by a defective cable.

28 October – Our CFO, Danny Benima, signed the Diversity at Work charter of the SER (Social Economic Council). We want our workforce to be just as diverse as our environment and endeavour to recognise and respect visible and invisible differences between employees.

1 November – We increasingly involve society when we assess investments in the energy system. Our draft investment plan 2022 was published, enabling national and regional parties to share their observations and questions about it with us. The investments are necessary to keep our grid at the current high level and to achieve the complex challenge of the energy transition.

9 November – Stedin Group successfully issued a green bond for the second time. The €500 million raised is linked to investments by Stedin Group in sustainable projects.

4 December – The Dutch current affairs programme Nieuwsuur produced an item about staff shortages in the energy transition. They visited our In-house training school to see what we do to train technical staff. Koen Bogers: 'The work package has doubled compared with five years ago'. In Stedin's opinion, a master plan needs to be developed to motivate young people to study science and technology subjects.



31 December – The last day on which the grid manager in the province of Zeeland carried the name Enduris. In 2017, Stedin Group acquired Enduris and the energy grid activities of DNWG. On 31 December, the collaboration had reached the stage in which we started jointly carrying out staff services and grid management activities under a single name: Stedin.

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 99.9964%.

Stedin Group in the energy supply chain

The electricity and gas grids are a key link in the energy system. Stedin and Enduris, the grid managers within Stedin Group, are responsible for the regional distribution of electricity and gas. We work with other parties forming part of the energy supply chain: the producers of electricity and gas, TenneT and Gasunie with their responsibility for 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.

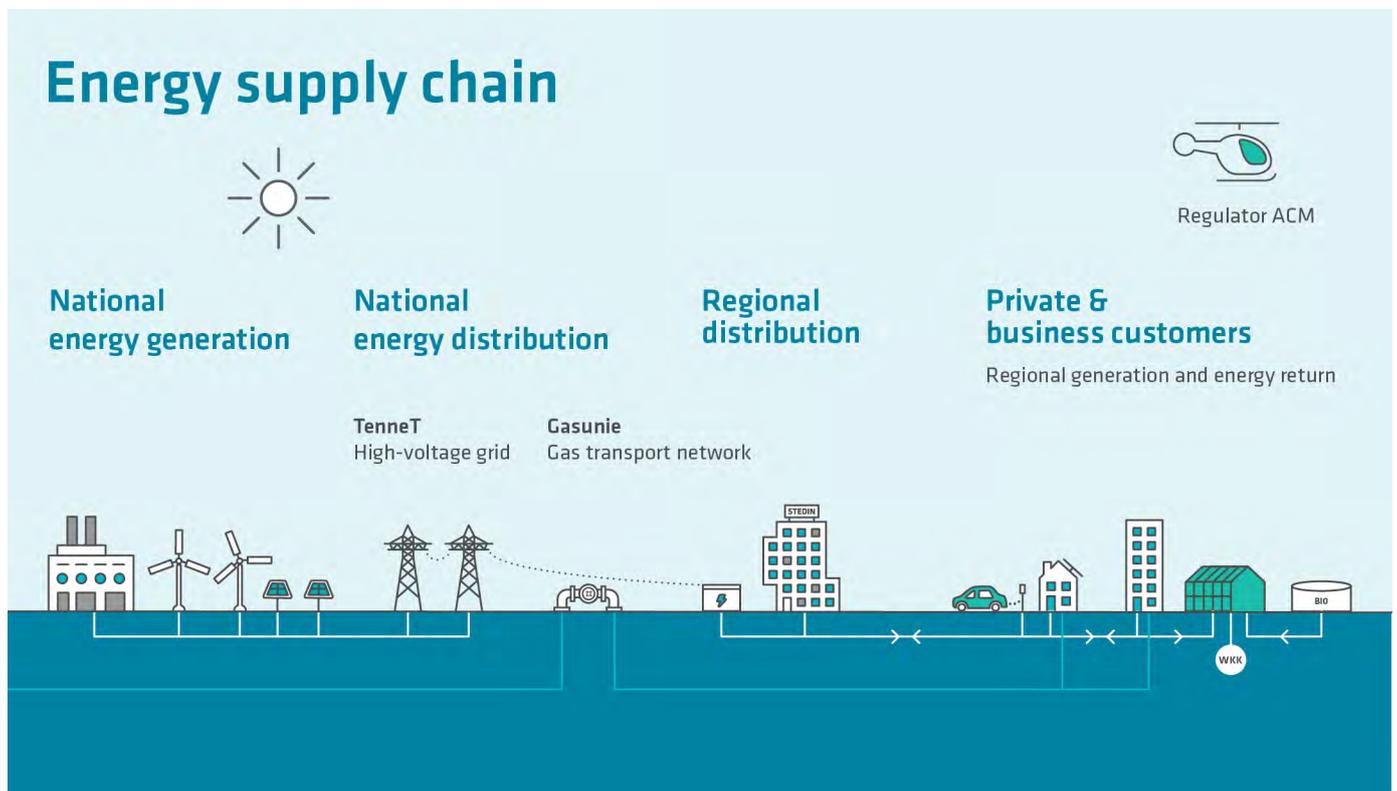
Our customers are also increasingly generating sustainable energy themselves, which they return to our electricity grid. As a result,

we are all part of a far-reaching societal shift to a clean economy based on renewable sources.

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 we also perform a number of non-regulated activities closely related to the energy infrastructure as a group. 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 covers 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. Parts of the provinces of North Holland and Friesland also fall within this area.



Stedin Group's activities

Stedin Group focuses on all activities relating to constructing, managing and maintaining energy grids. We also facilitate the energy market.

Grid management

Until 31 December 2021, Stedin and Enduris were two independent grid managers within Stedin Group. They operated alongside five other regional grid managers in a regulated market. Each regional grid manager is a monopolist in its area of operations. 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 regulation model encourages grid managers to achieve maximum performance in terms of efficiency and quality by using a benchmark comparison.

Stedin

As a grid manager, Stedin ensures a safe, reliable and affordable energy supply for its more than 2 million customers. Stedin has 4,331 employees. This figure includes 3,651 internal employees (male: 3,003; female: 648) and 680 external employees (male: 532; female: 148).

Enduris

Within DNWG Group (Enduris and DNWG Infra), grid manager Enduris manages the energy network for around 200,000 households and businesses in the province of Zeeland. DNWG Group has a total workforce of 635. This figure includes 537 internal employees (male: 451; female: 86) and 98 external employees (male: 70; female 28).

Facilitating the energy market

Facilitating the free energy market is part of our societal role as a grid manager and independent partner of market parties (energy suppliers). Among other things, this fact 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 insight to the market parties into customers' consumption and return of energy. Customers benefit from the ease of switching to a different energy supplier, the insight into their energy consumption

and how easy it is to return 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.

The non-regulated activities account for 3.3% of revenue (2020: 3.6%; 2019: 5.1%).

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, CO₂ and heat). These activities were consequently transferred in 2019 to a separate brand within Stedin Group: NetVerder. NetVerder promotes the energy transition by supporting the development, construction and maintenance of energy infrastructures for



- Gas Stedin
- Electricity and gas Stedin
- Electricity and gas Enduris

heat, steam and biogas. NetVerder also focuses on the independent transport and distribution of other new energy sources or carriers. NetVerder is an independent part of Stedin Group. NetVerder has seven employees. This figure includes six internal employees (male: 6; female: 0), and one external employee (male: 1; female: 0).

DNWG Infra

Within DNWG Group, DNWG Infra is the service provider that builds and maintains the electricity and gas grids in the Province of Zeeland, on behalf of Enduris. In addition, DNWG Infra maintains and manages the grids entrusted to it by other grid managers (e.g. Evides Waterbedrijf, Stedin and TenneT) and by industrial customers. The commercial metering service TUMS was carved out as per 1 August and sold to Censo on 10 February 2022. Censo is the new owner of TUMS Meetdiensten with effect from 1 January 2022.

telecommunications network, which is used to read out measurement data provided by smart meters and to communicate with smart grid applications. This network allows us to supply metering data to market parties and shorten or prevent energy supply disruptions

TensZ

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

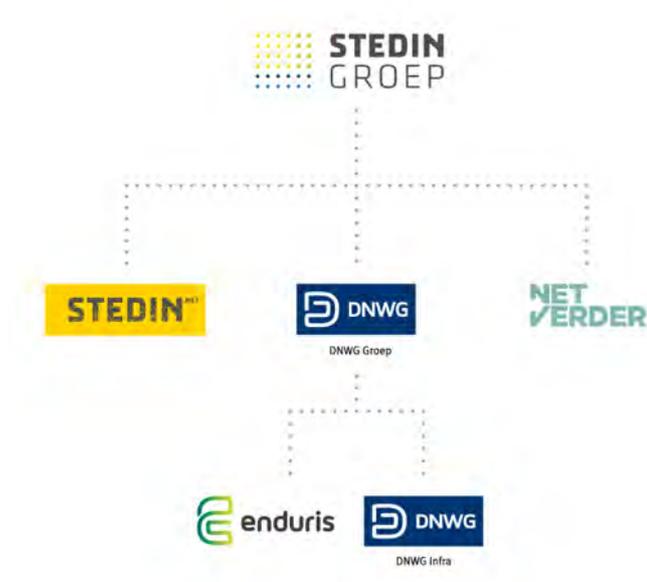
TeslaN

TeslaN B.V. is the joint service provider for the management and maintenance of the high-voltage grids of TenneT and Enduris. Each party holds a 50% share.

As part of the integration of Stedin Group and DNWG Group, TensZ and TeslaN merged on 1 January 2022 into a single organisation that will continue under the name TensZ.

Stichting Zeeuwse Publieke Belangen (Zeeland Public Interest Foundation)

Stichting Zeeuwse Publieke Belangen is a unique alliance between the province of Zeeland, the municipalities of Zeeland and Stedin Group. The foundation was established 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](#).



Organisation chart of Stedin Group up to 31 December 2021

Joint ventures

We form joint ventures with other parties for specific activities.

Utility Connect

Utility Connect B.V. is a joint venture with network group Alliander. The company operates its own wireless



Organisation chart of Stedin Group from 1 January 2022

Stedin and DNWG became a single organisation in 2022 – Stronger Together

Stedin and DNWG merged on 1 January 2022. From that date, we have jointly carried out staff services and grid management activities under a single name: Stedin. The name 'Enduris' ceased to exist from that date. The operational organisation will continue to be organised on a regional basis for the time being.

Developments in 2021

In the first half of the year, it was determined what positions the employees of DNWG will get with effect from 1 January 2022. For the time being, staff members of the operational departments will continue to carry out their activities in the province of Zeeland under the name DNWG. They will be integrated in due course. DNWG's non-regulated activities were further phased out or sold this year. For example, the transformers and commercial activities of Malfunctions & Maintenance were sold to Joulz Infradiensten B.V. Two follow-up surveys among employees of DNWG this year showed that there continues to be sufficient support for the integration. It is natural for employees to want to know where they stand. On 1 November, they received a letter describing the effects of the transfer to Stedin for their position, salary scale and personal terms and conditions of employment.

Synergy

The integration should generate financial gains in excess of €100 million over a period of eight to ten years. From 2018 to year-end 2021, they totalled €40 million. We will achieve the greatest synergy gains if we are actually a single organisation. We achieve these gains by:

- reducing operational expenses by modifying working methods and processes, for example by further developing multidisciplinary ways of working;
- carrying out all purchasing processes and tendering procedures jointly;
- Modifying maintenance and replacement intervals, based on knowledge and data of both companies;
- jointly using tax and financial schemes at group level;
- carrying out the same support activities for Stedin and DNWG together.

Completion of the integration

The integration of support departments and grid management from DNWG into Stedin has been largely completed as of 1 January 2022. The DNWG employees were transferred to Stedin Group with all their rights and responsibilities on 1 January 2022. To facilitate this process, a staff transfer protocol was drawn up that ensured equivalent and uniform employment terms and conditions for all current and future Stedin employees from that date.



The office of DNWG in Goes has been renovated, made more sustainable and completed in accordance with the Stedin corporate identity. This is an attractive work location within the integrated business.

Key figures and ratios for 2021

 Improved grid management	
2021	2020
Average downtime	
19	26
Electricity (in minutes)	
29	26
Gas (in seconds)	
Customer effort score	
75%	74%
Supply reliability (in %)	
99.9964	99.9951
Growth in downgrading and reinforcing connections for low-use consumers	
23%	*

 Facilitating the energy transition	
2021	2020
Investments (in millions)	
€ 687	€ 620
Electric driving	
2,791	2,012
Growth in number of low-use connections including Enduris	
Sustainable generation of solar power (in MW)	
600	*
Solar power connected in the year	
Sustainable generation of wind power (in MW)	
69	*
Wind power connected in the year	

* New in 2021

 Sustainable business operations	
2021	2020
Employee satisfaction	
7.6	8.0
Engagement	
7.8	8.1
Commitment	
Safety LTIR	
0.54	0.40
Number of lost-time injuries with absenteeism per million hours worked	
Safety RIF	
0.76	0.70
Number of recordable incidents per 200,000 hours worked	
Reduction CO₂ emissions business operations	
-45%	-28%
Excluding network losses gas	
Number of Participation Act-Employees	
94	*

 Financial Results	
2021	2020
Net revenue and other income (in millions)	
€ 1,279	€ 1,229
Solvency	
45.6%	43.0%
Balance sheet total (in millions)	
€ 8,182	€ 7,572
FFO/Net debt ratio	
11.3%	12.0%

Strategy

As a grid manager of gas and electricity grids, we are responsible for providing a critical infrastructure. With just under 5,000 colleagues, we are faced with the task of investing in the energy transition and maintaining the quality of our grids in the long term. The transition to renewable sources raises new questions and challenges for which solutions are required. If we go resiliently forward together, we will be successful.

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.

The energy transition is visibly accelerating, and the Climate Agreement is being implemented in the form of Regional Energy Strategies (RES), Cluster Energy Strategies (CES), transition visions for heat and other plans. This is still not progressing fast enough, however, and politicians and policymakers confirmed that view at the climate conference in Glasgow last November. The European Union revised its goals upwards in 2021 and is now aiming for a 55% net reduction in greenhouse gas emissions by 2030 compared with 1990. The European Commission presented its Fit for 55 package of measures for that purpose. The Dutch government likewise formulated more ambitious goals in the coalition agreement. A 55% reduction is included as a goal in the Climate Act, and policy is based on a 60% reduction.

The sector

We are seeing large-scale sustainable generation being initiated both offshore and onshore. Offshore wind farms are being developed with 'landfall points' for the high-voltage grid. We are also seeing onshore wind & solar farms in the RES. Total capacity of solar panels on the roofs of residential properties, for example, grew by 28% in 2021. The built environment is and remains a complex playing field, given the diversity of buildings and stakeholders, as well as the often high costs of enhancing sustainability. While a large majority of the municipalities in the area of operations of Stedin and Enduris have a transition vision for heat, they have often not yet taken the step towards its actual implementation in projects. A successful example is provided by the Implementation programme RES 1.0 in the province of Zeeland. In this programme, we cooperated with

municipalities, small and medium-sized businesses in Zeeland, the province, civil-society organisations and the water authority to define priorities. This implementation plan describes the goals and projects that will be committed to for at least the next two to three years in order to achieve the climate goals by 2030. On the industrial side, we are involved in the CES of Rotterdam-Moerdijk and Terneuzen, among others. There are plans for both, with concrete projects that will be executed in the next five to seven years. Their impact relates principally to TenneT's high-voltage grid. The part that relates to Stedin does not go beyond, for the time being, the boundaries of the scenarios that we had anticipated. It remains to be seen what impact the coalition agreement might have on this.

The increase in electric transport is clearly visible. The charging infrastructure is growing rapidly, and in several locations we are successfully utilising smart charging to avoid or at least postpone grid reinforcements. We are also seeing that the electrification of public and other bus transport is being increasingly implemented.

Grid capacity and voltage quality

Congestion occurred in 2021 in the Middelharnis region, at business parks in Dordrecht and in Utrecht. The latter was attributable to the transmission cap that TenneT imposes on us owing to the capacity shortage in the high-voltage grid. Further problems regarding our transmission capacity and voltage quality may occur. We therefore actively took part in the process of drawing up the RESs and performed calculations to indicate where we expect capacity issues. We are investing in grid reinforcement at present and in the future to facilitate the plans in the region.

We are also seeing that many municipalities are committing to utilising rooftop surfaces in order to install solar panels there. In our opinion, a number of actions are required to ensure that the situation remains manageable in the years ahead. On the one hand, it is necessary at a central

government level to programme and prioritise sustainability developments, so as to remain in control of infrastructure. On the other hand, it is essential for grid managers' capital position to be strengthened so as to be able to continue financing investments. It is also important for system costs and infrastructure costs to be included at the start of sustainability projects. This can be taken into account in the Sustainable Energy Generation Incentive (SDE++) scheme, for instance.

Laws and regulations & Politics

Both at the EU level and at the national level, the goals and policy directions must continue to be made more specific in the next few years. The Ministry of Energy & Climate Policy (formerly Economic Affairs and Climate Policy) has drawn up the Energy Act 1.0, in which the Electricity Act and the Gas Act are also combined, at the same time, for this new legislation. This is still under development after formal consultation. An impact analysis of the Energy Act 1.0 has confirmed that this piece of legislation impacts, to a greater or lesser extent, virtually all the processes undertaken by grid managers. Implementation will take place in the coming years.

The Collective Heat Supply Act (Wet Collectieve Warmtevoorziening, WCW) is an adjacent bill that is still undergoing drafting. Collective heating supply in the form of heat grids is a key element of the energy transition. In the service area of Stedin Group especially, large-scale heat grids are a realistic vision for the future. They are high on the agenda of several municipalities and can contribute to remedying the electricity shortages that are affecting a number of regions. The decision to build a heat transmission pipeline between Rotterdam and The Hague is also providing an impetus to heat grids.

It is very busy below ground in the Netherlands in terms of infrastructure, and this is increasingly playing a part in societal considerations in the energy transition. This can lead to relocation and/or replacement of existing infrastructure. Stedin accordingly foresees an increasing convergence of the critical infrastructures for electricity, gas and heat in the long term, which makes the construction and management of heat grids logical tasks for a network group as well. Municipalities are seeking expansion of the possibilities and a model with independent public grid management. We endorse that model: it is a good option that preselects the right lane towards a future in which energy carriers converge.

There is still a great deal of uncertainty regarding laws and regulations. On the one hand, both the EU and the central government are pushing targets further upwards, on the other, there is much uncertainty about specific implementation. Examples include the allocation of the costs of the transition and the exact tasks and responsibilities concerning heat grids. This has a considerable strategic impact on Stedin Group. We take account of differing scenarios in our strategy, and this influences our investment plans.

The completion timelines of projects are too long, partly owing to permit procedures. Around 70% of the completion time is taken up by decision-making procedures. This impacts the pace at which we can make the energy transition possible. Netbeheer Nederland has repeatedly raised this issue and in 2020 called for this time for procedures to be halved. In June 2021, the grid managers appealed to the parties engaged in coalition talks to adapt laws and regulations in order to accelerate the overhaul of the electricity grid. In October, they proposed a 'fast lane' to expedite handling of procedures. In June 2021, Ed Nijpels, chair of the Climate Agreement, advocated for 'emergency legislation'. In July 2021, a motion was submitted in the House of Representatives to accelerate completion times.

Socioeconomic aspects

We experienced in 2021 how a combination of geopolitical factors, the discontinuation of gas production in Groningen and the lagging pace of enhancing sustainability exposed a vulnerability. The affordability of energy has come under pressure, partly owing to the reduced availability of natural gas, and the market was also disrupted by insolvencies. Private individuals were faced with disconnection by insolvent suppliers or owing to energy shortages. The higher energy costs also pushed up the costs for our network losses. The purchasing strategy for network losses was adapted in the past year, sharply reducing this risk, as a result of which it ceased to form a strategic impediment.

We are also seeing that the challenge entailed by the ageing and scarcity of technical staff is and remains undiminished. That applies not just to us but to numerous sectors and is therefore a nationwide problem we must work on jointly with all partners. This means cooperating with parties such as the central government, vocational education and parties within the sector. This challenge now appears to be as significant for the transition as the financing challenge.

Grid managers are currently having to contend with a scarcity of materials. If we are short of materials, this may hamper our ability to carry out grid modifications and customer requests without delays, making us a limiting factor in the energy transition. Steel prices have risen by around 70% in the past year, owing to uncertainty about the continued survival of a number of steel plants and growing demand for steel throughout the world. Copper prices are likewise expected to rise because of growing demand driven by the energy transition and a supply gap as a result of limited new mine openings. As a consequence of those high prices, we are seeing sharp cost increases on our projects ranging from 5% to sometimes as much as 80%. Stedin continues to monitor these worldwide shortages of various raw materials. We are focusing in this connection on reciprocal knowledge sharing with the sector and other market parties in order to counteract potential materials shortages in advance. Stedin is at present not yet impacted substantially by the materials scarcity, but maximum efforts are required to counteract it.

COVID-19 continued to have an impact in 2021, and we expect this to persist in 2022. On the one hand, the strategic impact of the virus is indirect: transmission demand and the pace of the energy transition are largely determined by economic growth and the impact the virus has on it. On the other hand, the impact is direct, and we have adapted our way of working accordingly. For office staff, working 50% from home is the new normal, and Stedin has implemented this 'hybrid way of working' in Stedin@work. This policy makes it possible to 'move in sync' with the dynamics of the virus and any temporary tightening of nationwide measures. In addition, the virus has consequences for our work outdoors and at customers, such as the 1.5 metres social distancing requirement when carrying out work and visiting customers. We have adapted our business processes and protocols to this. COVID-19 also entailed staffing challenges. This did not hamper our operational performance in 2021 on a recurring basis.

Technology+

We are seeing that various technologies are maturing and slowly but surely 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 (domotica). The availability of reliable data is becoming increasingly important to ensure that technologies operate effectively and to make new transactions possible. 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. We are of course also looking ahead to upcoming innovations in the area of system integration in this connection.

Natural environment

The European Commission's Fit for 55 programme is not a luxury but a necessity. Enhancing sustainability is becoming increasingly important to private and business customers as well as our municipal shareholders and investors. We are therefore getting more questions about sustainable integration of infrastructure in a progressively busier urban environment.

Strategy recalibration

We initiated a recalibration of our sustainability strategy in 2021. We added biodiversity as a strategic theme, and climate adaptation is also playing a role in the organisation. We are specifically incorporating this in policies for enhancing the sustainability of our infrastructure, for instance. In addition, measures often help resolve technical challenges, such as heat stress.



SWOT analysis

Our SWOT analysis identifies the risks and opportunities for Stedin. These are connected with the 'Developments within society and the energy market' that form the basis of our strategy. The way in which we deal with the risks is described in the Risk Management section.

Strengths

- Central position in energy landscape
- Supply reliability
- Committed and inspired employees
- Attractive employer
- Knowledge and expertise in energy system

Opportunities

- Enter into strategic supplier relationships
- Developing and deploying disruptive technologies and utilisation of new energy carriers
- Rates structure of the future
- Increase predictability of investments through improved prediction of customer demand
- Perform comprehensive assessment for allocating investments between electricity, gas or future energy sources
- Future-proof grid management by means of data-driven forecasts and decision-making
- Increase effectiveness and efficiency through supply-chain-focused operations

SWOTANALYSIS

Weaknesses

- IT/OT landscape of the future
- Data quality and availability
- Obsolete assets
- Planning of gas investments
- Level of connection and transmission capacity
- Focus on cultural values and conduct

Threats

- Cyberattack causing damage to society and business operations
- Uncertainty about implications of changing E&G and other laws and regulations (NL or EU)
- Increasing pressure to maintain the 'A' category credit rating (at S&P) in the long term
- Shortage of technical staff in the labour market
- High activity in outdoor space and underground

Mission, vision and strategy

Working together to create an environment filled with new energy. That is our mission. We believe that we can make the energy transition possible by focusing on our core tasks for grid management, both now and in the future, and delivering an excellent service for our 2.3 million customers. We have identified the following three strategic spearheads: improved grid management, facilitating the energy transition and sustainable business operations.



Improved grid management

We want to continually improve our performance on core tasks. That way, we can supply energy 365 days a year 24/7 and be among the grid managers with the very best grids in the world, even if demand for electricity continues to grow and sustainable energy places different demands on our grid. We also want the energy infrastructure to remain as affordable as possible: for now and for subsequent generations. And we want everyone to be satisfied with our services, from families to the largest companies.



Facilitating the energy transition

We want to provide future-proof grids that can keep pace with the energy transition. In addition, where possible, we also share our grid information with other parties in the market and with municipalities. This aids them in making the right choices to turn the energy transition into a reality. After all, we can only achieve the energy transition together. We are seeing that the pace of our investments and therefore also the volume of our activities is accelerating, in part because the European climate ambitions have been upgraded. This places great demands on the organisation.



Sustainable business operations

As ambassador for the energy transition, we are aiming for sustainable business operations ourselves as well. This includes safe working conditions, professionally competent employees and recruiting and developing technical staff and talent, financial health and a positive impact on humans and the environment in accordance with the One Planet concept.

Our strategic challenges

Improving the quality of services

We are already doing well in many respects, but we could and must do better still. Therefore, we continuously monitor where we can make improvements. We can work faster as well as more efficiently for our customers by organising our services more intelligently. In the sections [Improved grid management](#) and [Facilitating the energy transition](#), we describe how we are responding to this challenge.

Retaining financial health going forward

Continuing social acceptance is crucial in the drive to achieve the energy transition. This is only possible if we are transparent about the costs and benefits of the transition and remain in dialogue with one another about how we intend to shoulder the burden as a society. You can read more about this in the section [Financial, economic performance](#).

Workload is increasing, scarcity in the labour market

The energy transition entails a substantial increase in investments and therefore in work. This has an impact on how we should shape our workforce. You can read more about this in the section [Good employment practice](#).

Our strategic initiatives

The four initiatives below contribute significantly to delivering our strategy:

1. Customer-focused supply chain organisation

Smarter management of our work by placing it in four different chains leads to a substantial increase in effectiveness and efficiency. This helps us to accommodate the growing workload and to move in step with changing customer demand. By working on the basis of supply chain goals and results, we foster improved cooperation and more effective, more efficient and more customer-focused processes within Stedin.

2. Multidisciplinary: efficiency and customer satisfaction

A multidisciplinary way of working is aimed at developing cooperation with other parties, such as the drinking water companies in our service area. As we all work below ground, a multidisciplinary approach to working enables us to carry out our work more efficiently, achieve savings, make better use of scarce personnel and reduce inconvenience for local residents.

3. Sustainable energy transition; ready for the future

Overseeing the entire energy system is essential in the energy transition: what customer requirements can we expect and what services match those requirements. This means fully engaging in dialogue with provinces, municipalities and market parties to inventory potential future customer demand for connections and grid capacity.

That information is important for preparing trend analyses and taking investment decisions. We also help customers in deciding on choices for sustainable generation, mobility, flexible capacity and heat in order to facilitate the energy transition and ensure it is affordable.

4. System operator; overseeing and directing the energy system

The System Operator initiative provides insight into and forecasts for our grids to enable earlier anticipation of congestion and problems concerning voltage quality. That helps us to prevent and/or mitigate them. Quantifying the financial implications of our

grids is important in this regard, both in real time for business operations and in the long term for investment decisions. We are expanding our role as a manager of physical grids with the management of digital data flows. We are exchanging increasing amounts of data with customers, municipalities, market parties and other grid managers on a range of topics, such as available grid capacity. This expanding role in overseeing and directing the energy system means we are becoming a system operator.

The results achieved in the area of these initiatives are discussed in the [section on Results](#).

Strategy recalibration

The current strategy has been adopted for a period of five years (2018-2022). Work is currently ongoing on a new strategy for the period 2023-2027. This will be launched in 2022.



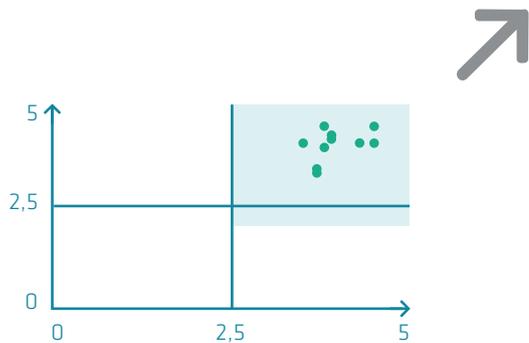
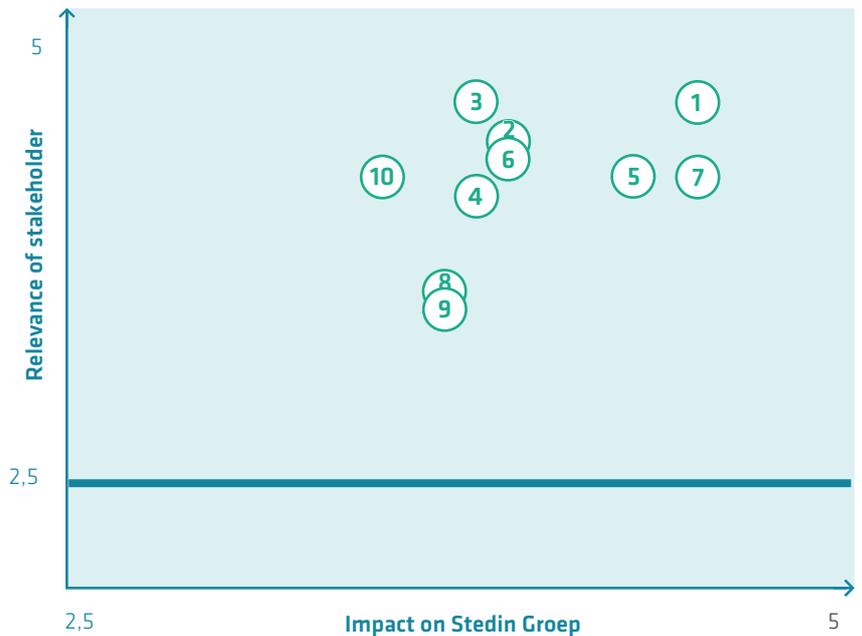
Stakeholders and materiality

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.

Materiality matrix

- ① Supply security
- ② Affordable and efficient services
- ③ Customer satisfaction
- ④ Stakeholder dialogue and environment
- ⑤ Investing in infrastructure
- ⑥ Smart grids, data technology and innovation
- ⑦ Safety and security
- ⑧ Good employment practice
- ⑨ Positive impact on people and the environment
- ⑩ Financial, economic performance



You can read more about how we arrived at the choice of material topics and the process to determine the materiality matrix in the ['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. We focus more closely on our stakeholders in the section ['Interaction with our environment'](#).

In conversation with **Manon van Beek & Koen Bogers**



What does the future look like for grid managers? What are the respective challenges for a nationwide grid manager and for a regional grid manager? And last but not least, when do they need each other? TenneT's CEO Manon van Beek and Stedin's CEO Koen Bogers discuss this. One thing is certain: together, we can accelerate.

In April of last year, the grid managers together with Gasunie presented the study I13050 to the outgoing Minister of Economic Affairs. It examined and described what the energy system will look like in 2030 and subsequently in 2050 and what this means for us as grid managers. 'A wonderful product', says Manon van Beek. 'It shows that societal considerations and political choices determine the route to 2050. The greatest change in our energy management arises from generating electricity from sustainable sources that depend on the weather. As a result, electricity supply and demand cease to be linked. We need to bridge the gaps with new forms of flexibility in our energy system.' 'The study shows very clearly what the consequences of the energy transition are', Koen confirms. 'Put simply, streets will have to be opened up in many places. If we reach efficient choices in close consultation, that will save a great deal of inconvenience, time and money. These are major factors for social acceptance.'

Chicken and egg problem

But what do we do as grid managers; what is the correct order? 'We need the government to break through the chicken and egg problem and to make choices for an integral approach', says Manon. 'What the grid managers would like is a systematic, efficient and above all phased roll-out of the infrastructure needed for the electrification. We simply cannot work everywhere at the same time. This has to be done in phases and on the basis of an assessment framework.' Koen is curious about TenneT's considerations for the purpose of prioritisation. Manon: 'We need help in the phasing of projects. We can only reach that phasing by means of prioritisation: which project is to be executed sooner, and which project can be carried out later? At present, customers are connected on a first-come, first-served basis. That is the

implementation of the current legislation that prescribes this. The assessment framework must be endorsed by the government. Together with the national, regional and local public authorities, we must start prioritisation and phasing. What will we do first and what has to be done later?' A structured approach is absolutely necessary, Koen believes.

Making better use of the grid

TenneT and Stedin also collaborate on grid congestion, including in Utrecht. Manon: 'This announcement gave rise to a great deal of public noise. There is no "simple" solution; we therefore jointly support the call of the employers' organisation VNO-NCW, for instance, to join forces – also in a Netbeheer Nederland context – and to look for solutions.' Koen sees making better use of the grid as one of the solutions. 'If we match supply and demand more closely, that will also reduce the need for us to transmit electricity.' The concept of the 'fast lane', in order to accelerate permit procedures, is another interesting idea, Manon believes. Koen agrees with this. 'This is a huge challenge. That means that we also need quicker processes. Seven years for a permit application for building a medium-voltage station is very long. Acceleration is required if we want to achieve the climate goals. Permits are an important aspect of this.'

Recruiting technical talent

That acceleration can only take place if we also have enough technical talents. Manon: 'We are looking for thousands of technical talents in the energy sector in the years ahead who can help us to put the required infrastructure in place. We are all fishing in the same pond. More financing is required for technical training programmes and graduation premiums for students. We are jointly committed to this.' Koen is pleased in that connection with the cooperation in the Training & Development (T&D) fund, for example. 'As far as I am concerned, in-house training, like we provide in our In-house training school, is a key way of attracting talent. If we can do that in more places, that will help enormously to ease the huge challenge we face.'

Results

Together with our partners, we ensure the provision of a vital network. 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.

1. Improved grid management

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

Strategic KPIs		Note	2020	2021	Target for 2022
	Supply security				
SAIDI	Average time in minutes during which the customer was not supplied with energy.		26	19	17
	Affordable and efficient services				
Efficiency (on controllable opex and capex)	Efficiency achieved on directly controllable operational expenses and investments		€26 million	€22 million	€14 million
	Customer satisfaction				
Customer convenience	The convenience experienced by customers in doing business with Stedin Group.		74%	75%	≥82%
Lead time for connections for low-use consumers	Completion of connections for low-use consumers within 18 weeks or on date preferred by customer		85%	90%	≥ 95%

Supply security

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.

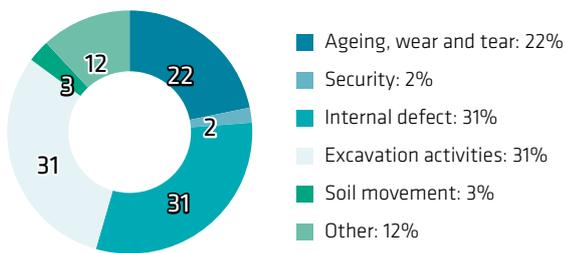
To facilitate earlier failure detection, we deploy inspections in combination with data. If failures nonetheless occur, we remedy them as quickly as possible while minimising the inconvenience for our customers. On average, customers were not supplied with electricity for 19 minutes in 2021 (2020: 26 minutes). The target for 2021 was less than 17

minutes, which means that the target for average downtime was not achieved. This was mainly attributable to a failure with a major impact in the municipality of Stichtse Vecht. There were also two comparatively large failures in Rotterdam and The Hague. These three failures combined represent downtime of a little over two minutes. That is 12% of the downtime in 2021. The average downtime for gas was 29 seconds. This is well below the target of one minute for 2021.

Annual average downtime for electricity (in minutes)

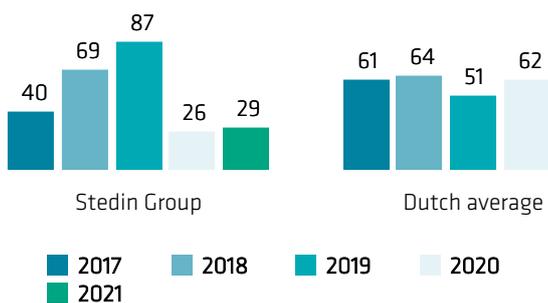


Causes of downtime for electricity (in per cent)

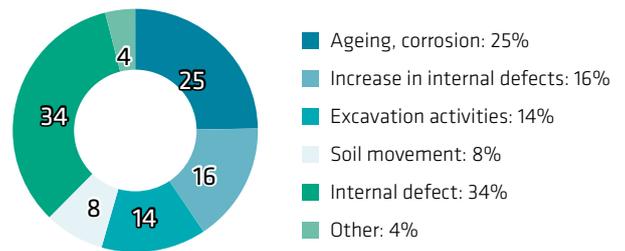


This year, we improved our registration of the causes of failures. As a result, the percentage in the category 'other' decreased compared with last year (2020: 24%). The increase in the number of excavation activities in particular caused the percentage of failures due to such activities to almost double compared with last year (2020: 16%).

Annual average downtime for gas (in seconds)



Causes of downtime for gas (in per cent)



For gas, the number of causes of downtime remained relatively stable compared with last year. An improvement was visible in the category 'other'. The number of instances of excavation damage edged up (2020: 13.5%). The percentage is lower than for electricity, as the gas grid is 40 cm deeper down than the electricity grid. Fewer excavation activities take place at that depth.

Supply reliability (in per cent)

Supply reliability increased compared with the previous year. We are proud that our grids are among the best in the world.



Rapid failure detection

The availability of data and smart grid management are the basis for predicting, planning for and resolving failures. This allows us to identify the type of failure and remedy it more rapidly. We may, for example, gain that time by already analysing the failure while the fitter drives to its location. Improved failure prediction also aids in providing clear and timely information to our customers.

Failures – their causes and what we do to prevent them

Ageing grids

The average age of the Stedin grid is increasing, and that is and remains a key focus area. 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 at 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. We call this 'risk-based replacement'. Targeted interventions will be needed in the years ahead to maintain the quality and safety of our grid in the long term as well. This means we must invest not only in the energy transition, but also in the quality of our grids with a view to the long term.

Failure localisation

Low-voltage failures in Rotterdam and The Hague last longer than average in our service area. We therefore conducted a pilot study in which smart meters in Rotterdam and The Hague are 'pinged' during a low-voltage failure. The meter then indicates whether it can be reached, and this tells us whether this connection is experiencing a failure. In order to remedy a failure, it is important for the grid manager to determine in advance the extent of the failure and the grid segment in which it is situated. With that information, we can send the right number of fitters with the right skills and instruction to the failure. Failures are resolved faster as a result.

Eurovision Song Contest and Formula 1 race

This year, both the Eurovision Song Contest and the Formula 1 race took place in our service area: two large-scale events watched by millions worldwide. With a view to ensuring the continuity of business operations and avoiding interruptions, we put together crisis teams for these kinds of large-scale events. We take measures to prevent potential failures, for example by deferring maintenance and excavation activities in the vicinity of the event concerned. We are also on heightened alert during the event. Both the Eurovision Song Contest and the Formula 1 race proceeded without problems.

Excavation activities

In 2021, the number of activities carried out below ground increased by 10%. As a result, the number of instances of

damage to our grids is also rising. The direct repair costs for this in Stedin's area of operation are around € 4 to 5 million a year. These costs can to a large extent be recovered from the party causing the excavation damage.

It is good to place the growing number of instances of excavation damage in the right context. The energy transition, construction of housing and of roads and the rapid roll-out of fibre-optic networks entail increasingly frequent excavation activities. The likelihood of damage grows in step with this, as there is hardly any room below ground in our densely built-up regions. Fortunately, we are able to limit the increase in the number of instances of damage: The 10% increase in the number of excavation activities resulted in 5% more excavation damage for Stedin. This shows that the measures we are taking to reduce the risk of excavation damage are successful.

Those measures include the following:

- We enter into covenants with telecommunications companies and municipalities on laying fibre-optic networks. This is accompanied by closer supervision by Stedin in the form of working visits and instructions for employees carrying out the work. As a result, it has proved possible to reduce the relative proportion of instances of damage caused by laying fibre-optic networks by one quarter, to around 20% of the number of instances of excavation damage.
- The 'Dig safe' campaign was continued in 2021. The campaign again had a positive effect, with the number of recorded instances of excavation damage by consumers decreasing by more than 10% in the spring.
- In the Cables and Pipelines Consultation (Kabel- en Leidingoverleg), we work jointly with all organisations that work below ground to create a joint framework for reducing the number of instances of excavation damage. Stedin has been working for a number of years in accordance with the guideline that was drawn up to prevent excavation damage (CROW 50).

Power outage with significant impact in 2021

A power outage can have a significant impact for a variety of reasons. This may be because it involves a large number of customers or a customer with critical processes that cannot be interrupted. We had one power outage with a significant impact in 2021. On Tuesday, 12 October, there was a complex medium-voltage failure in the municipality of Stichtse Vecht. As a result, 5,420 customers were left without power.

The failure lasted for more than 13 hours. It was caused by a defective cable. Owing to a telephony/data failure at the provider, that signal did not come through properly, making it difficult for us to read out information and to locate where the power outage had occurred. The power outage led to irritation and inconvenience in various places, for instance at the Merenhoef residential care home in Maarssen. Extra staff had been deployed there to be able to ensure proper care for all residents. The customers affected who were without power for more than four hours are entitled to compensation from us for the outage.

Maintenance and replacement

Smart, risk-based maintenance

Data-driven, risk-based maintenance has been accelerated. This involves us using data to pinpoint where maintenance is really needed, where it is not essential and which assets need replacing. In addition to quality improvements, this yields annual savings. The following are a few examples of how we use data for maintenance:

- Currently, we use analogue manometers to monitor below-ground oil-filled pressure cables for oil leakages. This covers 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 latent leakages in time. This can help to prevent environmental pollution.
- Stedin is also working on options for digitalisation in the gas grid to facilitate smarter working methods. A pilot project is ongoing in the gas stations to collect the

Severe weather in Leersum

On Friday, 18 June 2021, Leersum was hit badly by extremely severe weather. The emergency services were called up and so was Stedin.

Stedin service engineers remedied failures in various places in the village. Five gas failures proved to have occurred during the evening and night. In addition, several power lines and lighting masts had been damaged by falling trees. It was therefore decided early in the evening, as a precaution, to shut down the Public Lighting grid voltage. This meant that emergency services had to continue their work in the dark or with emergency lighting in many places. In the course of the following day, the main problems had been resolved.

information from valve positions and inlet and outlet pressure. Besides the possibility of determining energy supply, it also indicates where the protective devices may be failing. That makes it possible to send out our fitters in a targeted way and to increase effectiveness.

- Power transformers regulate the tap setting to a different voltage level or the quality of electricity supply. The number of switches of the tap setting determines the maintenance cycle of the transformer. These transformers are equipped with an analogue meter for registering the number of switches. A simple IT solution allows us to determine the registration of these switching actions more accurately, and remotely. This not only saves capacity in collecting the data but also contributes to a more effective maintenance cycle and longer useful life.

Substantial investments are also necessary to maintain our assets at the appropriate level. You can read more about this in the 'Financial, economic performance' section.

Accelerated replacement of brittle pipelines

We are required to replace brittle gas pipelines (grey cast iron and asbestos cement) before 2030. Stedin has brought this deadline forward to 2028. A total of 180 km of brittle pipelines were due to be replaced in 2021. This target has been achieved by replacing 188 km of brittle pipelines. Around 60% of the brittle pipelines have now been replaced, with 1,222 km of such pipelines remaining in our coverage area. In the province of Zeeland, 5 km of brittle pipelines were replaced in 2021, bringing the total to 90% of the number of kilometres of brittle pipelines.

Planning of gas replacement in the centre of Delft

As in many other towns, Stedin faces a huge task to replace brittle pipelines in Delft. We have to replace 16 km of gas pipelines in Delft. In addition, the municipality aims to install drainage, maintain quay walls and replace dozens of kilometres of roads, sewers and water mains. Therefore, Stedin, the municipality of Delft and Evides utilised the platform SynergieNL to pool the various requirements. The centre of Delft has been divided into clusters. The possibilities for combining activities, and which ones among them are most urgent, were considered for each cluster. The result: we will comply with the planning for 2028, and residents of Delft will experience less inconvenience.



Affordable and efficient services

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.

Efficiency

In 2018, a five-year efficiency programme was launched with the aim of continually reducing our expenditure. The initial target was to achieve a reduction of €150 million by 2022. In 2020, we raised the target to €180 million, to be achieved by the end of 2025. From 2018 to year-end 2021, we have achieved savings of €143 million. We are therefore well on track to achieve the total level of savings of €180 million by the end of 2025. We are not only looking to achieve savings on operating expenses, since we also critically review whether investments are really necessary. You can read more about our investment plans and the investments made in ['Investments in our grids'](#).

We are realising a large part of the efficiency improvement through the results on our strategic initiatives. We are targeting smarter work practices, greater use of digitalisation and more collaboration in chains with customers, suppliers and utilities. This year, we prioritised preventing and remedying failures as efficiently as possible. We are also seeing positive results in our efficiency through the phased integration of DNWG in Stedin Group. The integration and digitalisation of support activities also generates significant savings. We are working more efficient, but the volume of our work is also increasing. This resulted in an increase in costs in absolute terms, compared with 2020, by €55 million to €1,155 million.

Multidisciplinary work

Collaborating below ground with drinking water companies, for example, offers numerous advantages; we carry out our work more efficiently, achieve savings, make better use of scarce personnel and reduce the inconvenience for local residents. By means of joint planning, in the form of the simultaneous replacement of gas and water pipelines, for example, we were able to reduce costs by approximately 7% in 2021 compared with 'solo' projects. We are entering into covenants for multidisciplinary work with more and more municipalities. An example is Rotterdam, where we jointly plan and execute our projects with the municipality and water company Evides. In 2021, this comprised 19 projects.

For these 19 projects, this yields cost savings of more than 2% of total project expenditure.

The projection for gains to be achieved through multidisciplinary work was €2 million. More than €3 million was achieved this year. Further savings are set to follow in the years ahead on the basis of the joint contracts we have in place and are also expected to be realised from 2023 through duplication-free activities below ground, in which we will apply a revised allocation of roles and duties.

Elimination of duplication in activities

Pursuant to the law, such elimination of duplication is not yet possible. That is because Stedin employees are prohibited from carrying out work for third parties such as a drinking water company. A complex legal construction is needed to nevertheless make this nonetheless for multidisciplinary work below ground. Together with the drinking water companies, we are therefore engaged in talks with politicians and ministries. In consultation with our regulators, we are trying to find ways to eliminate duplication in the activities in the interest of society, without complex and costly constructions.

In the Stedin area, we are working to deliver on multidisciplinary work. We do so, for example, by issuing tenders to prepare for the collaboration with the drinking water companies Dunea, Vitens and Oasen. We cannot yet eliminate duplication in this work. We are, however, already doing so in the collaboration with Evides – in the province of Zeeland and in due course also in the Rijnmond Region. You can read more about this in the section on ['Non-regulated activities'](#).

Smart cable replacement

When replacing parts of the grid, in addition to assessing the quality of the grid, we also take account of future capacity needs. Smart replacement means that Stedin replaces its 10 kV cables that require replacement with 20 kV cables, where possible.

Better matching of failure-related work

In 2021, we took steps to optimally match the work required and resources available for resolving and preventing failures. We use data and digital technology to facilitate swift action in response to interruptions. Failures show a clear time pattern (season, week, days, hours). We use these data to predict the work needed to deal with failures. At present, we

look 4 to 18 months ahead. This allows us to identify trends sooner, benefiting our ability to anticipate them.

Grid design automation for new housing developments

We have developed computer algorithms to automate grid designs for new housing developments. These grid designs show how below-ground cable lines should be routed to the connections. Stedin engineers are now able to produce these designs roughly three times faster than before. The algorithm also makes more efficient designs, potentially saving an estimated 15,000 metres of installed new cable per year.

Affordable energy by facilitating the energy market

Stedin is mainly known for the work we carry out on the energy network. Behind the scenes, we process a vast amount of data correctly and in a timely manner in our systems. This includes information on the capacity of connections, metering data and data for processing charges for all the energy flowing through our network. The customer is billed by the energy supplier, with the invoiced amount also including the costs of grid management. The energy supplier then pays Stedin monthly for using our network. We ensure well-functioning processes at a socially responsible price level. As a result, customers benefit from the ease of switching to a different energy supplier, the insight into their energy consumption and how easy it is to return energy to the grid.

Market facilitation: facts and figures 2021

- Data from 4.5 million connections processed.
- Transmission costs charged to our customers: Turnover of €1,104 million in 2021.
- Monthly validation of consumption on more than 45,000 high-use and business connections.
- Customer switches (to a different energy supplier) on 685,196 connections processed.
- Checks on 20,529 GWh amount of electricity transmitted and 4,907 million m³ gas in 2021.

Energy prices

High energy prices place a burden on the liquidity of market parties such as energy suppliers. Agreements have been made at the national level about how to deal with a market party that is no longer able to supply its customers with energy. The situation is closely monitored, and if necessary, immediate action is taken. In our role, we monitor the

monthly payments made to Stedin by market parties. In 2021, we filed three notifications with the Netherlands Authority for Consumers and Markets (ACM) regarding lost earnings sustained by Stedin. We ensure that the lost earnings from the bankrupt party are correctly processed in the future tariffs. We also ensure that administrative matters are taken care of for all customers who move to another energy supplier following a bankruptcy. In 2021, approximately 43,000 customers of Welkom Energie, KEN/ Anodey, Fenor and Sepa Green Energy in particular were affected by this.

Virtually 1 grid manager

Stedin has invested in good cooperation with other grid managers. Under the motto 'virtually 1 grid manager', we harmonise our processes to guarantee market parties increasingly the same standard of quality. Each year, we measure satisfaction among the many players in the sector.

In the 2021 measurement of market parties' satisfaction with grid managers, Stedin continued its improved rating performance of recent years. The market rated gave our services a score of 7.3, and the Customer Effort Score was also much improved. This puts Stedin Group in a good second place position among the grid managers.



C-ARM

The execution of data processes in a single central system, C-ARM (Centralisation Allocation, Reconciliation and Measurement Data), marked a major step in the context of national market facilitation. In November 2021, the programme was voted the winner of the *Computable Awards* in the category 'corporate ICT projects'. This prestigious award is a mark of appreciation for the good cooperation between the seven regional grid managers and EDSN (Energie Data Services Nederland). C-ARM will be further optimised in the coming years under the designation Allocation 2.0. This will be undertaken in collaboration between the grid managers and together with market parties, including the energy suppliers.



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.

Stedin customer convenience overall

	low effort (target: 75%)	high effort (target: 15%)
Customer convenience overall	2021 75%	14%

We express customer convenience in the Customer Effort Score. The Customer Effort Score in 2021 matched our ambition: 75% of customers report experiencing ease or considerable ease. In particular, customers are positive about smart meter installation and about our approach to remedying failures. Our fitters have a significant bearing on customer experience. Friendliness and expertise are terms that frequently crop up in customer feedback.

In terms of lack of ease, 14% of customers report high-effort or very high-effort service experiences. Although this means that we exactly reached the target, the result is not yet in line with our ambition: we want to be below 10%. The main cause driving this score is information provision and the long lead time of connections. Our customers feel that we are not keeping them sufficiently updated about the status and any changes affecting previously made agreements.

Customer convenience for connections

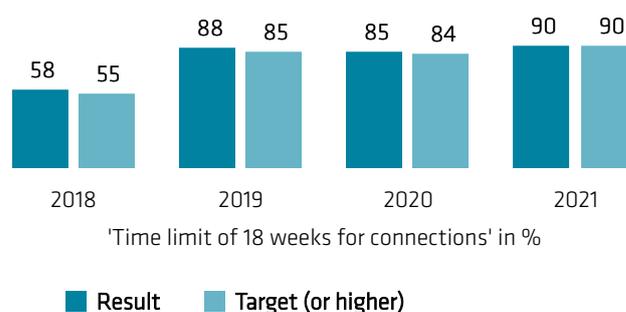
	low effort (target: 59%)	high effort (target: 31%)
Customer convenience for connections	2021 58%	28%

For many customers, the time at which they make an appointment for work to be carried out determines whether they have a low-effort or high-effort experience. Clarity is key. If an appointment is made quickly, customers know where they stand and experience a low-effort interaction. Any delay or difficulty in making an appointment is experienced as a high-effort interaction by customers.

Steps were taken in 2021 to address this need for clarity in relation to connections. This would involve us significantly improving the lead time and scheduling of work to complete connections following acceptance of a quotation. For that purpose, we launched a pilot scheme in the middle of the year which saw us scheduling work appointments with customers as soon as they accepted the quotation for reinforcing and downgrading connections. Customers rated this way of working highly, giving a customer effort score for December of 68% (compared to 36% in January 2021). As a result of the peak in requests for the removal of gas connections, accompanied by reinforcement of the electrical connection, we closed the year with an average Customer Effort Score of 58%. That means we barely failed to achieve our target of at least 59% for the year.

The Customer High-Effort score improved from 35% in January 2021 to 19% in December 2021. Our objective was to record an average score of no more than 31% in 2021. We closed the year with an average score of 28%, meaning we achieved our objective.

Low customer effort and completion time for connections for low-use consumers within 18 weeks

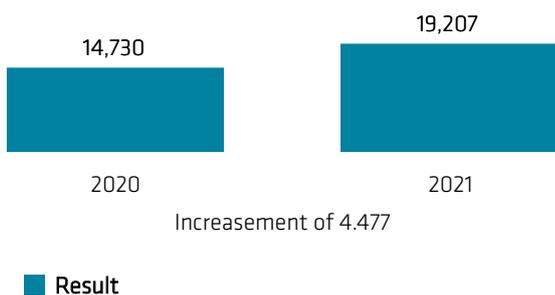




Increased number of requests for reinforcing and downgrading low-use connections

An electrical connection needs to be reinforced if, for instance, a customer installs a large array of solar panels. The number of requests for reinforcing and downgrading connections for low-use consumers rose by 23% in 2021 to 19,207 (2020: 14,730). As that demanded a more effective way of working, we began a schedule of robotisation and automation of all repetitive operations in the process in 2021. This enabled us to successfully complete 35.7% of this type of connections within four weeks in 2021 (2020: 14.5%).

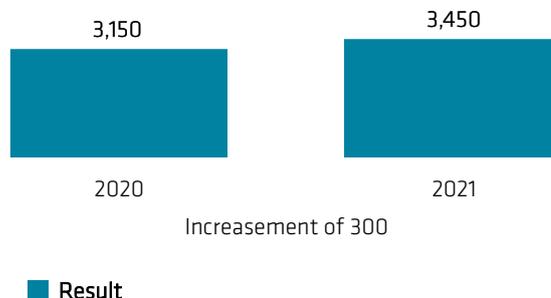
The improvements we made are also reflected in the other products for low-use consumers, such as moving, installation and removal of connections. Overall, a lead time of 18 weeks was achieved for 90.3% of connections for low-use consumers. We therefore achieved our target of 90% for 2021.



Increased number of requests for reinforcing and downgrading heavy-use connections

The impact of the COVID-19 pandemic on SMEs and the hospitality sector is reflected in the number of reinforcement requests from heavy-use customers. The increase matching the number of requests from low-use consumers that we expected failed to materialise. While the number of requests remained fairly constant, the percentage of sustainability-

driven reinforcements rose. Having accounted for roughly a quarter of all requests in 2020, this category represented just over a third of requests in 2021. Making a tool available online that shows the costs of a reinforcement for customers on an individual basis enabled us to prevent many unnecessary requests.



Customer convenience smart meters

	low effort (target: 86%)	high effort (target: 5%)
Customer convenience smart meters	2021 85%	6%

85% of all customers reported a low-effort experience from smart meter installation; by contrast, 6% reported a high-effort experience. The percentage of customers who experienced a low-effort service interaction remained the same as in 2020, while the number of customers experiencing a high-effort service interaction rose by 1%.

Digitalisation aids fitters and customers

When scheduling an appointment online, customers can provide additional data if they wish, such as photos or written comments. This additional information helps us to determine in advance how complex it is to install the smart meter. That further increases the likelihood of us completing the job in one visit.

Encouraging active use

Customers are informed in different ways about the features of the smart meters and energy consumption managers. Once the smart meter has been installed, customers receive an email in which we draw their attention to the website of Milieu Centraal highlighting energy consumption managers. Stedin's website also contains information on how to gain insight into energy consumption. We explain in detail the benefits of energy consumption managers on the ['Smart meter and how to save energy'](#) page.

Customer convenience when fixing problems in meter cupboards

		low effort (target: 80%)	high effort (target: 10%)
Customer convenience for problems in meter cupboards	2021	82%	9%

82% of customers reported a low-effort experience when a problem in their meter cupboard was fixed; 9% reported a high-effort experience. Both targets were therefore achieved.

Here, too, our fitters have a major bearing on the convenience that customers experience. Customers are very positive in particular about the speed with which our fitters fix any problems. The contact with the Central Outage Desk also contributes significantly to a low-effort experience.

Enduris customer convenience

		low effort (target: 75%)	high effort (target: 15%)
Customer convenience overall	2021	80%	9%
Customer convenience for connections	2021	low effort (target: 59%)	high effort (target: 31%)
Customer convenience for smart meters	2021	low effort (target: none)	high effort (target: none)
Customer convenience for problems in meter cupboards	2021	low effort (target: 80%)	high effort (target: 10%)

In 2020, Enduris began carrying out the same Customer Effort surveys as Stedin. Enduris surveys customer

convenience, measured in terms of low-effort or high-effort experiences, in relation to the installation, modification or removal of a connection, the smart meter and fixing problems in the meter cupboard. In 2021, Enduris received good ratings for customer convenience and, with scores of 80% for low effort and 9% for high effort, is well above the target. At Enduris, the work performed by fitters and the outage desk also have a positive impact on the customer effort experience.

With regard to the installation, modification or removal of a connection in 2021, 66% of customers reported a low-effort experience and 19% reported a high-effort experience. A downward trend can be observed as regards the customer effort experience. This is mainly attributable to the large amount of work as a result of the energy transition. The survey shows that an aftercare phone call has a positive impact on the customer effort experience. Enduris made significant advances last year as regards connecting heavy-use customers, with connections to 100% of heavy-use customers being completed on time (within 18 weeks or on the customer's preferred date). This has resulted in a very high customer satisfaction rating, averaging an 8 or more.

How we are further improving customer convenience

Effortless transactions

Our ambition for 2025 is to deliver an excellent service experience for our customers. Our customers report that they consider us excellent when they can transact with us effortlessly. To deliver on our commitment, we put ourselves in the role of the customer to experience their perspective of the process. We use the 'customer journey' method for this purpose.

A customer journey is the sum total of all of a customer's experiences during direct and indirect contact moments with Stedin. We capture their perception by conducting surveys and through dialogue with them, among other things. We take action to improve contact moments that a customer does not consider an 'easy' experience. We assess the improvement among customers before rolling it out across a broad front. In 2021, we optimised 14 customer journeys in total, including those involving a planned interruption and a brief power outage. Our optimisations result in enhanced customer convenience and less contact. We proactively inform customers so they do not need to seek out any information themselves. That is an effortless experience for them, which in turn leads to fewer questions and uncertainties.

Single customer profile

In 2021, we brought together all relevant customer data at a single central location, so that we can provide customers with the best possible service. In addition to contact details, the data also cover all our communication with the customer. The 'My Environment' link on our website fulfils an important role in that respect, allowing customers to manage their data themselves.

In conversation with **Annette Ottolini & Trudy Onland**



Smart collaboration is essential to moving resiliently forward. This is the only way for us to fulfil our social responsibility while at the same time tackling scarcity in many different areas. Annette Ottolini, CEO of Evides Waterbedrijf, and Trudy Onland, COO of Stedin, discuss how to develop effective collaboration in critical infrastructure and also where the challenges lie.

If you put the water company and grid management side by side, you see two organisations with many similarities: both manage essential utilities, both have a clear position and role by virtue of legislation and both face similar challenges. As Annette says, ‘Different as they are, electricity and water nonetheless have current in common.’ They face a shared challenge in terms of scarcity, evident in a shortage of qualified staff, an increasingly crowded subsurface and scarcity of materials. And with both companies sharing routes and having abutting operations below ground, it is only logical that they should work together. That is efficient and is in the interest of society in general. However, cooperation also presents some interesting issues.

A shining example: cooperation in Zeeland

When asked about her experience of cooperation in the past year, Annette first mentions the Cooperation Agreement for Zeeland, which Evides and DNWG/Stedin signed at the end of 2020. The two parties have a long history of working together below ground in Zeeland, with DNWG previously being contracted by Evides to carry out work in the province. With the new Cooperation Agreement, this relationship changed into one of equal partnership. ‘That change called for a high degree of coordination. Naturally, we were always driven by the desire to make life easier for our customers in

Zeeland. That means adopting efficient working practices and making quality and safety a priority at all times. The cooperation is good, and customers are highly appreciative of the good progress that is being made.’ Trudy, who has been on board at Stedin since mid-2021, also sees the cooperation in Zeeland as a shining example. ‘Customers don’t want the road to be dug up all the time; they just want to be able to park their car near their home.’

The same language

Annette believes the fact that both sets of employees ‘speak the same language’ is beneficial in the cooperation between Stedin and Evides: ‘Both organisations work with professionals. That our companies are similar is also evident in our shared focus on safety, for example. This common ground facilitates cooperation between us, at all levels.’ It is true that highlighting possible differences in our respective DNA is the last thing we need, adds Trudy. ‘For that reason, it is important that we can have access to what goes on behind the scenes, in terms of operational planning for example, at each other’s companies. Openness between us is crucial. It’s okay if our interests are not always the same, but let’s be honest and open about it. That creates clarity.’

Rules governing cooperation

Legislation makes cooperation between different parties in the subsurface difficult at times. ‘Yes, it’s complex,’ says Annette, ‘but we have found a solution, in the legal field, which enables us to work together.’ Trudy finds the current legislation ‘regrettable’ more than anything. ‘Because it means we sometimes have to construct unnecessarily complex arrangements to allow the same people to perform combined work in a smart manner. That shouldn’t be necessary in a tight labour market.’

2. Facilitating the energy transition

Facilitating the energy transition is a long-term undertaking. The change is complex and demanding, also in the light of the upward revision of the expectations formulated in Fit for 55. We are also making significant progress. We are accelerating through cooperation, we have increasingly better access to grid information and our grids are becoming ever more future proof. Our goal – an affordable energy transition – ensures that we remain resilient.

Strategic KPIs	Note	2020	2021	Target for 2022
 Stakeholder dialogue and environment				
Stability of customer demand predictions*	The extent to which the predicted development of customer demand matches earlier predictions.	-	-	70%
Accuracy of customer demand predictions*	The extent to which predicted customer demand, as known to Stedin, matches eventual customer demand.	-	-	70%
 Investments in our grids				
Investments in our grids (in million €)	The amount of euro's yearly invested in our grids	620	687	719
Implementation of strategic investment plan	The extent to which the proposed investments (capacity expansions and/or replacement investments) were realised.	-	-	E: 100% G: 100%
New capacity added (MVA)**	The amount of new capacity in megavolt ampere that was added in the grid.	-	496	TBD
 Smart grids, data technology and innovation				
% grids calculated in real time*	The grid percentage that can be calculated directly and without any delay.	-	-	90%
P4 smart meter data provision	The timely and full provision of smart meter data for energy services and market processes.	97%	97%	97%

* New KPI in 2022

** New KPI in 2021

Stakeholder dialogue and environment

As a grid manager, we play a key role in the energy supply chain and hence in the energy transition. Dialogue and cooperation with our stakeholders are therefore essential. By talking with customers, we know what level of customer demand to expect. We discuss the results grouped by the following three topics: built environment, mobility and industry.

1. Built environment

Improving the sustainability of the built environment is a complex puzzle that not only offers technical challenges but is also a social transition. By contributing to the Regional Energy Strategies, Transition Visions for Heat and Test Beds for natural gas-free districts, Stedin is actively involved as a partner. We are also working hard to develop and implement innovations, including heating homes with sustainable gases, such as hydrogen.

Regional Energy Strategies (RES)

Growth in energy generation continued unabated in 2021

The amount of sustainably generated electricity continued to grow in 2021. On the roofs of households alone, the capacity of installed solar panels increased by no less than 28%. Such tumultuous growth figures reflect the speed and size of the changes in the energy system. The growth is taking place right across the grid and requires different solutions at different places in the grid.

The commitments in the Climate Agreement relating to electricity and the built environment require each region to develop an RES. In 2021, the 14 RES regions in which Stedin and Enduris are involved developed their plans further in collaboration with the provincial and municipal authorities and water authorities, among others. Of the 11.3 TWh in total that we must connect in our service area by 2030, approximately 33% has already been completed, 18% is 'in the pipeline' and roughly half (49%) remains an ambition requiring further elaboration. That is an enormous challenge.

Services provided to RES regions

Stedin actively participates in consultations in RES regions, 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 space, time and investment is needed to achieve the grid expansions. We are also developing a strong relationship at the administrative and other levels that will help accelerate grid expansion implementation now and in the future.

RES 1.0 delivered

On 1 July 2021, the RES regions delivered their first energy strategy to Central Government: the RES 1.0. The analysis of the RES 1.0 carried out by grid managers shows that the Netherlands' agreed climate target of 35 terawatt hours (TWh) onshore renewable energy generation is feasible, provided that all the parties join together now in making the challenges posed by the RES concrete and draw up implementation programmes for modifying, developing and realising the spatial integration of infrastructure.

Making optimal use of our grids

Ensuring that grids are used as efficiently as possible is challenging in the RES regions. This is a key element of the energy strategy. Demand for space and certainty of support are key considerations that often lead regions to favour solar generation (71% of power consumption in the RESs), in particular rooftop solar, over wind generation (29%). The consequence of this is that additional energy infrastructure is needed.

Cooperation with local interests even more important

The next phase will see Stedin work with the RES regions on implementation plans for the RES 1.0. This involves further identifying the locations for sustainable energy generation, where storage and transmission (above as well as below ground) and heat are to be integrated into the surroundings, making suitable provision in the Environmental and Planning Act (Omgevingswet) and jointly coordinating planning, locations for energy generation and plans for expanding the energy infrastructure. Participation from an early stage is essential in this regard, as are our considerations of affordability and sufficient support.

Innovation: energy communities

In several test beds, we are working with energy communities, ranging from households to industrial parks. Initiatives such as Hoog Dalem in Gorinchem, Coöperatie Sterk op Stroom in The Hague, Eemnes and Greenparc in Bleiswijk have a common objective: to consume locally generated sustainable energy as far as possible. Stedin is pleased to play its part in these initiatives, since every kilowatt hour that is consumed locally contributes to reducing social expenditure. The combined purpose of energy community members as well as Stedin is to achieve the smart balancing of energy consumption and generation. Blockchain technology helps to facilitate local consumption of locally generated energy.



Voltage quality: a growing focus of attention

In the low-voltage grids in outlying areas and villages in particular, the increasing number of solar panels can lead to excessively high voltage on cables. This is causing problems for increasing numbers of customers. They may notice, for example, that solar inverters disconnect, causing them to lose some of the energy generated by their solar panels. Alternatively, high energy usage can lead to excessively low voltage. Equipment can then shut down for safety reasons. While customers can report problems with voltage levels to us, not all of them are aware of this possibility.

Pilot project in Hoeksche Waard

In 2021, a pilot project was conducted involving the use of smart meter data to determine whether the voltage was too high or too low. The pilot project was successful, providing a far more complete picture of the voltage issues than can be obtained from customers' reports. This insight increases our ability to define and schedule appropriate solutions (by combining them with other work, for example). Further upscaling and use of these data is an objective in 2022. This will depend, however, on clarity being obtained as to whether we may use the smart meter data for this purpose as well as how we should handle the data in the interest of safeguarding customer privacy.

Heat transition

Alternatives for existing buildings

The majority of the 99 municipalities in our coverage area had provided a transition vision for heat by 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. Our area directors and account managers actively supported municipalities in making their choices. They will continue to do so in the follow-up stage of defining district implementation plans, in which they will finalise their choices. A total of 3,500 districts are involved in our service area.

Opening Bid and Stedin Area Analysis Tool

The Opening Bid and Stedin Area Analysis Tool help municipalities to determine which neighbourhoods or building clusters are smart options for commencing the heat transition. In the Opening Bid, we do this by superimposing three renowned models (Vesta Mais, CEGOIA and the Energy Transition Model) over each other and analysing different energy futures. In 2021, Stedin and Enduris were joined by grid manager Capturam, for the area of grid manager Westland Infra, in adopting the Opening Bid. In May, we introduced the Area Analysis Tool. This uses the same method as the Opening Bid, although with a new area layout as a basis. An algorithm groups similar properties, producing clusters that are smaller in size than neighbourhoods. This provides more concrete guidance and assistance to municipalities, who expect that the Area Analysis Tool will play an important role in the follow-up phase of the Transition Visions for Heat: the district implementation plans.

Grid Impact Quick Scan

Stedin provides municipalities and building owners such as housing associations with insight into the impact of plans on the electricity grid. The Grid Impact Quick Scan, for example, is a tool that we employ to give an outline picture of whether plans can be implemented straight away, or whether Stedin first needs to carry out work. If work needs to be undertaken, we give an indication of the expected lead time and the space required for distribution stations. At the same time, the plans give Stedin increasingly better insight into how the heat transition is developing. This allows us to refine our investment forecast as well as analyse whether our expectations match real-life developments.



Test beds for Natural Gas-free Districts

The government is promoting moves to enhance the sustainability of the built environment through various grants, subsidies and programmes. Of the 27 test beds in the first round of the Natural Gas-free Districts Programme, 7 are located in the Stedin area; in the second round, 3 (Goeree-Overflakkee, Rotterdam and Pijnacker-Nootdorp) of the 19 test beds are in Stedin's service area. Stedin is actively involved in all the test beds. Each district is characterised by its own dynamics and planning phase and moves at its own pace.

Hybrid heat pumps

Besides the test beds, attention is also given to individual routes toward gas-free homes. Homeowners and housing associations can make their own decisions on making homes gas free by improving insulation and installing hybrid heat pumps. Stedin supports these routes by joining with Techniek Nederland, environmental protection organisation Natuur & Milieu and the NVDE Netherlands sustainable energy association in participating in the Hybrid Route Coalition, which aims to see 100,000 hybrid heat pumps installed per year.

Gas-free homes

The number of gas connections removed to enhance sustainability in Stedin's coverage area increased by 170% to 12,003 in 2021 (2020: 4,448/2021: 12,484 incl. DNWG). In 2021, 90% (2020: 89%) of the connections requested for new homes in our coverage area were natural gas free.

Collectives Desk

The Collectives Desk answers questions that energy collectives may have on subsidy schemes, feed-in connections and meters. In 2021, Stedin connected 26 projects of energy collectives and 7 projects of Owners' Associations, with feed-in connections for returning energy to the grid (2020: 20). Of these projects, 8 were in Zeeland (2020: 14).

Innovation: spatial challenge in Utrecht

We have to build roughly 1,000 new distribution stations in Utrecht alone by 2050. Fitting all these stations into the limited public space available is a complex challenge. Together, Stedin and the Municipality of Utrecht have grasped this challenge in an 'innovation accelerator'. As a result, we now emphasise the importance of 'spatial integration' far more explicitly in the tendering procedure for future distribution units. Take, for example, a colour scheme to create a uniform appearance. We are also putting up more compact buildings and have the possibility of using the same types of brick for the exterior of a station, for example, as commonly appear in the district where the station is built.

Innovation: hydrogen

Our gas network is of great social and economic value. Heating homes with sustainable gases such as hydrogen may offer a good alternative in the future, alongside fully electric heating and heat grids. In this way, we give our gas network a new lease of life. To ensure hydrogen is usable as a viable alternative, it is important that we gain knowledge and experience with how to distribute hydrogen now. We are doing this in the following projects.

Stad aan 't Haringvliet

In 2021, Stedin and its partners continued to examine the possibilities for replacing natural gas with hydrogen for heating in Stad aan 't Haringvliet, using the current gas grid, with effect from 2025. A Green Deal was concluded with the national government to remove potential policy obstacles. A broad national coalition was forged with various relevant

stakeholders, which resulted in a system design that provides adequate safeguards for safety and supply security.

Conversion trials

Following the successful conversion trial in Uithoorn, in which the current gas grid and 14 homes were temporarily converted to hydrogen from natural gas, we started the preparations for a follow-up project in 2021: the conversion of a 'demonstration home' in Stad aan 't Haringvliet. This home project will demonstrate conversion from natural gas to hydrogen. The demonstration is planned for early 2022.

Alliances and associations: The Green Village and HyDelta

The gas grid at The Green Village in Delft has been switched to hydrogen pressure since early 2021. We carried out small-scale tests and validation trials to find out how hydrogen and the gas grid behave in a static situation. HyDelta is a Dutch national research programme aimed at the safe integration of hydrogen into the existing gas transport and distribution infrastructure. The consortium comprises DNV, Gasunie, Kiwa, New Energy Coalition, Netbeheer Nederland, TKI Nieuw Gas and the Netherlands Organisation for Applied Scientific Research (TNO). The initial results were delivered in 2021 and are positive.

Energy system

The activities that Stedin undertakes with hydrogen are fully in line with the recommendations from the recently published Integrated Infrastructure Survey 2030-2050 ('Integrale Infrastructuurverkenning 2030-2050') (II3050). This infrastructure survey comprehensively examines the energy system and covers every single energy carrier.

Mission H2: the Netherlands: a pioneering hydrogen country

In August 2019, Stedin Group joined Mission H2, a consortium of seven companies that aims to promote hydrogen in the Netherlands. Mission H2 did so by sponsoring TeamNL at the Tokyo Olympic Games with the message: Together we will make the Netherlands a Hydrogen Country. Through our participation in Mission H2, we seek to raise awareness for the role the gas grid can continue to play in the energy transition. Research by various agencies shows that this campaign helped to boost awareness of Mission H2, from 6% to 21%.

Awareness of hydrogen rose from 9% to 16%.

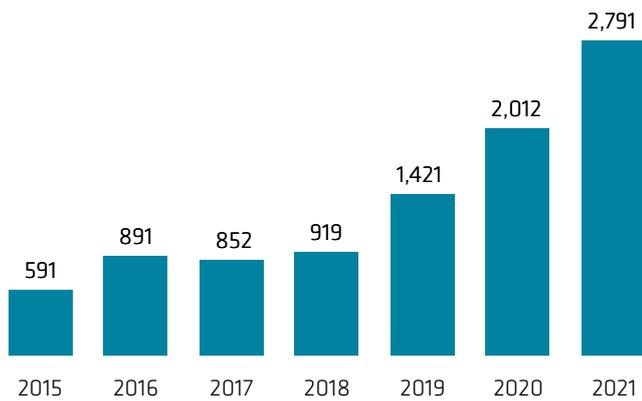
Awareness of hydrogen usage in industry and the built environment was also up (from 51% to 72% for the built environment).

2. Mobility

The number of electric vehicles in the Netherlands grew by 40% in 2021, to 381,815. The Climate Agreement includes a commitment to install 1.7 million charging points in the Netherlands by 2030, for 1.9 million electric cars. That illustrates the challenge that we as grid managers face in the coming years.

Number of connections for low-use consumers for charging infrastructure

The growth in the number of connections for low-use consumers for charging infrastructure increased by 39% from the end of 2020, to 2,791. Unlike previous years, these figures also include the growth at Enduris for the years 2019, 2020 and 2021. We are reporting on the growth of the number of low-use connections 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.



■ Growth in number of kV connections for charging...

National Agenda on the Charging Infrastructure Network (NAL)

The NAL is a multi-year implementation programme resulting from the Climate Agreement. It covers charging stations on private driveways and at businesses 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. Smart solutions, which are jointly developed by the NAL, are essential to prevent peak loads occurring on the low-voltage grid. Smart charging has been proven to work well in multiple test beds and system pilot projects. The next step is a national uniform market model that grid managers support with new variable and semi-variable low-use consumer tariffs. The introduction of zero-emission zones means that the logistics sector must also embrace electrification. Stedin and ElaadNL are jointly

researching the related necessary grid capacity on business parks and along freight corridors.

Innovation: smart charging

Smart charging involves charging electric cars as far as possible at times when sufficient sustainable energy is available at the lowest price. That way, we ensure that the electricity grid remains in balance and avoid consuming even more electricity during peak periods, among other things.

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.

Smart charging is the future and is key to ensuring optimal functioning of the energy grid. Read the position paper 'Keep the energy transition affordable - make smart charging the norm'.



Charging infrastructure forecasting process for grid impact

Regional and local authorities plan for charging infrastructure in their region/municipality on the basis of agreements on charging infrastructure in the Climate Agreement and the NAL. The grid managers need insight into these plans (what, when, where) to determine their impact on the electricity grid as well as to establish the grid capacity and level of investment that will be required. The NAL region is responsible for providing forecasts to the grid managers. The grid managers

then calculate the effects of these forecasts together with those of the RES, and an impact assessment is made for each NAL region setting out the specific impact of charging infrastructure. The first assessment was completed in 2021 and was shared with the regions at the start of 2022.

Connection specifications and inspection

New public charging points with an integrated network connection must meet grid manager requirements: the charging points must facilitate smart charging. An updated version of these specifications was implemented in 2021. Various new charging points were inspected and declared safe. The most significant advance in the new connection specifications concerns the requirement to provide information supporting smart meter accessibility in charging points. Furthermore, the contract for the tender put out jointly by the grid managers for compact connection boxes was awarded in 2021. This innovative product allows the connection time in the public space to be halved. The connection boxes will be rolled out in all facilities in the public space incorporating low-use connections in the coming year.



Tendering procedures launched by the Municipality of Rotterdam

The number of connections for public charging points is set to grow tremendously: from 18,000 drivers of electric cars without a private driveway in 2020 to 135,000 in 2030. It is an immense challenge: the number of installations undertaken by the Municipality of Rotterdam for charging points increased by 60% in 2021 alone (from 800 installations in 2020 to 1,300 in 2021).

The Municipality of Rotterdam issued a new call for tenders for the thousands of new public charging points that need to be installed. They were joined in the tender by 29 other municipalities in the province of South Holland. ENGIE installs the charging points based on the expected demand, and not just following a concrete request. In that way, the municipalities hope to shorten the lead times. Speed is also of the essence, due to the emerging market for previously owned electric cars. Since they are able to take immediate possession of their vehicle, the new owners want also immediate access to charging facilities. As Stedin was involved in this tendering procedure from the outset, its interests have been included in each call for tenders. All the charging stations will be able to provide smart charging, for example, and the necessary provisions are coordinated with Stedin, among others. As a result, the available capacity of the grid is taken into account at certain moments and critical locations. That way, we avoid unnecessary investments while also making efficient use of the grid.

3. Industry

To achieve the climate goals for industry, the necessary energy infrastructure must be in place in good time. Stedin's service area includes the most energy-intensive region in the Netherlands: the port of Rotterdam. There is plenty of industry beyond this region as well, for which new infrastructure is needed if they are to realise their transition plans.

Rotterdam Port Industry Complex (HIC)

The Rotterdam-Moerdijk industrial cluster is currently responsible for 17% of the Netherlands' CO₂ emissions. The 'cluster plan for the Rotterdam-Moerdijk Industrial Cluster' outlines that electrification in industry is expected to bring about an annual reduction in CO₂ emissions of roughly 2.5 Mt by 2030. Stedin is working closely with the various stakeholders in the Port Industry Complex (HIC) to make this electrification possible.

One example is the Energy Infrastructure Working Group. The Port of Rotterdam Authority, Stedin, Deltalinqs, TenneT, Gasunie, the Province of South Holland, the Municipality of Rotterdam and the Institute for Sustainable Process Technology (ISPT) effectively highlight obstacles in relation to infrastructure development. To facilitate this, overviews and instruments have been developed that lead to improved coordination between industry and the grid operators TenneT, Gasunie and Stedin.

Project Gridmaster: developing adaptive investment strategies

This project aims to combine models and methods to enable us to explore the many uncertainties within the transition of the industry. The project provides insight into possible transition pathways, the necessary infrastructure and matching investment strategies. The parties signed the cooperation agreement in 2020 and initiated the project in 2021. Participating parties are Stedin, TenneT, Gasunie, the Port of Rotterdam Authority, the Province of South Holland, the Municipality of Rotterdam, SmartPort, TU Delft, Siemens, Quintel and the Netherlands Organisation for Applied Scientific Research. The scenarios have been expanded compared to those under the master plan, increasing the scope for exploring opportunities for expansions in electricity, natural gas, heat and hydrogen grids. The first suitable investment plans have emerged from the computer models and have been assessed by the experts. That is also the prelude to fully automated calculations, which will enable Stedin to undertake sound and future-proof investments as well.

Master Plan: a port filled with new energy – current developments

In collaboration with the Port of Rotterdam Authority and TenneT, Stedin produced the master plan entitled 'a port filled with new energy' in 2019. The master plan identified several future bottlenecks in the electricity grid, based on future scenarios developed with the Wuppertal Institute. On the basis, among other things, of the master plan, six major investments in the grid are currently being developed or carried out, including a completely new station in Europoort.

Energy Mix Study project

In the Energy Mix Study, we identify the potential changes affecting the energy and raw material systems of roughly 30 companies in the HIC. In 2021, the final phase of the project was carried out by the Netherlands Organisation for Applied Scientific Research and Deltalinqs on behalf of Stedin and the Port of Rotterdam Authority. The results of the study consist of a 'business as usual' transition pathway up to 2030 and three transition pathways for the period thereafter; CCS (carbon capture and storage), hydrogen and electrification. We foresee a substantial increase in demand for electricity in all four scenarios. In the second half of 2021, the Province of South Holland commissioned the development of a model that uses the results of the Energy Mix Study. This model provides insight into the impact and timing of the transition pathways for the necessary energy infrastructure in the port. The results of this model can help Stedin identify future bottlenecks.



Cluster Energy Strategies & Data Safe House

The first Cluster Energy Strategies (CES) were written in 2021. In the CESs, our industry partners share the expected future energy needs of their transition plans. This helps us in planning the infrastructure. The CESs will be continuously

updated and refined in 2022 and beyond. There are two CESs in our coverage area: Rotterdam-Moerdijk and the Schelde-Delta region. There is an additional CES in the form of the non-regional CES for industry outside the HIC.

Rotterdam-Moerdijk CES

The Rotterdam-Moerdijk CES was written by a working group comprising the Port of Rotterdam Authority, Deltalinqs, the Province of South Holland, the Port of Moerdijk Authority and Stedin. Six core projects are identified in this CES, including reinforcement of the electricity grid in line with the master plan (see box) The Sustainable Industry Infrastructure Programme of the Ministry of Economic Affairs and Climate Policy considers whether these projects should be included in the Multi-year Programme for Energy & Climate Infrastructure, in the interest of accelerating implementation.

Schelde-Delta region CES

The Schelde-Delta region industrial cluster extends over the border to East Flanders and has its own transnational, cross-sectoral partnership: Smart Delta Resources (SDR). SDR consists of Dow, Trinseo, Yara, Zeeland Refinery, PZEM, Lamb Weston/Meijer, Ørsted, ArcelorMittal, North Sea Port and the Province of Zeeland. Here, Stedin Group works with SDR and the grid managers Enexis, TenneT and Gasunie.

Rooftop solar in Port of Vlissingen

In the Port of Vlissingen, Verbrugge Terminals and Kieszon have created the largest solar roof project in the world. The 140,000 panels that have been installed on the roofs of Verbrugge's terminals have a generating capacity of 50 MW. That is 7% of the RES objective for solar energy in Zeeland. This connection was made possible by a drilling operation carried out at a depth of 50 metres over a length of 1.5 kilometres beneath the port areas. The project is connected to the new main distribution station in the port.

Out-of-area industry

A CES is also being developed for industry that is not located within the HIC: 'Cluster six - out-of-area industry'. The location of these companies outside the HIC in particular makes it more difficult to assess their future energy infrastructure needs. They require a more customised approach. Stedin

and the other grid managers organised a series of webinars aimed at enhancing cooperation with the companies and raising awareness among them about what is involved in developing their transition plans.

We do not expect the first CES of cluster six to yield any information that will lead directly to any modification of our investment plans. A further analysis will be undertaken in 2022 to enable an accurate long-term prediction to be made of the infrastructure needs of these companies.

Data Safe House

A key condition for a good CES is reliable technical and planning data on forthcoming industrial projects and developments. A data safe house (DSH) provides a secure and confidential environment for exchanging data about proposed investments.

In 2021, Stedin, Deltalinqs, the Port of Rotterdam Authority and the Ministry of Economic Affairs and Climate Policy successfully carried out a feasibility study into developing a DSH. Further work was undertaken with a group of five industrial parties and three grid managers on addressing the legal framework, the governance and the structure and organisation of the DSH. The DSH went live at the end of 2021. We can now see whether this construction leads to improved predictability and planning certainty with regard to infrastructural needs. If the DSH proves successful, this can lead to countrywide application.

Maasvlakte expansion: Yangtze canal station and construction of 66 kV NoordRing

Capacity expansion has become necessary due to the huge growth in customer demand (on the generation as well as load side) on the Maasvlakte. The proposed building of 66 kV NoordRing phase 1 and the construction of a 66/25/23 kV station near the Yangtze canal will enable us to connect new customers. We will also bring the north side of the Maasvlakte (the existing Stedin Maasvlakte Station) to this new Yangtze canal station. This will free up space on the existing high-voltage station for connecting initiatives. The next phase of the NoordRing will see us connect a compressor station for CO₂ storage. Phase 3 of the NoordRing, which we have already developed, will be built once there is a clearer picture of customer demand.



Investments in our grids

The energy transition and implementation of the commitments in the Climate Agreement are driving huge growth in electricity consumption. The electricity grid is not completely ready to cope with this 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.

Investments in 2021

The investments we undertook in our grids in 2021 are part of the Investment Plan 2020-2022. This plan sets out the expansion and replacement capital expenditure planned for the electricity and gas grids. In this context, we achieved the following results in 2021:

Our investment levels have increased significantly since 2017. In 2021, we invested a total of €687 million, of which €668 million was invested in our regulated networks. Total investments were consequently €67 million higher than in 2020.

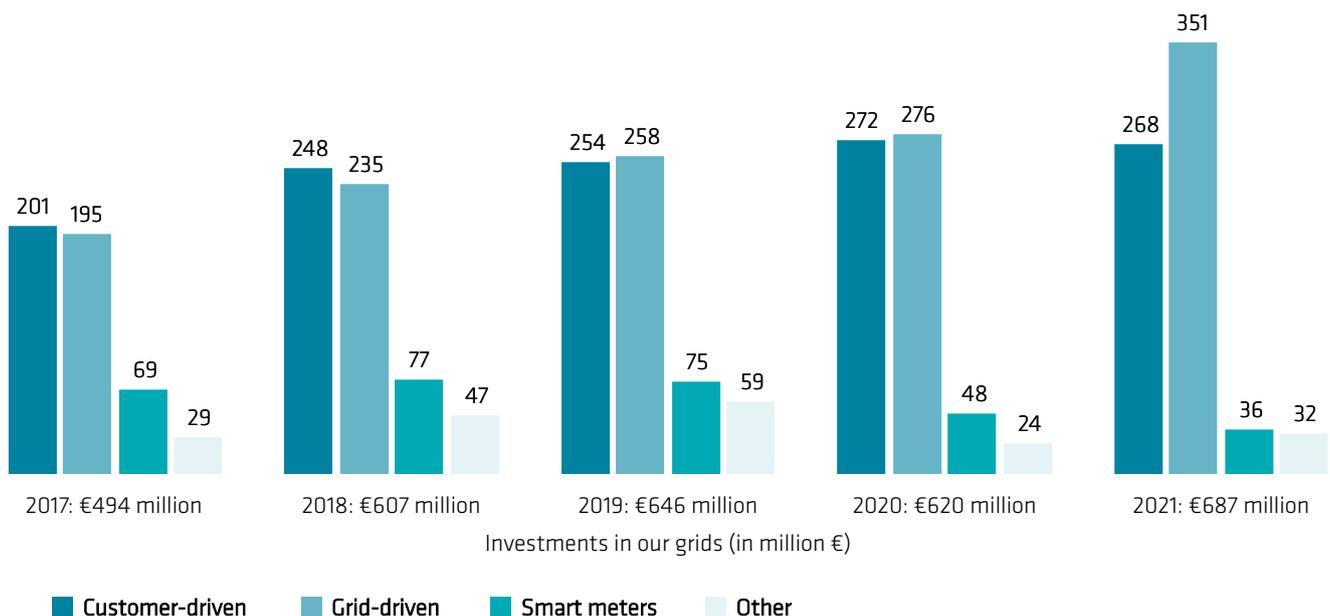
‘Stedin Group has invested €687 million in customer-driven and grid-driven activities, smart meters and other activities.’

Customer-driven investments

Customer-driven investments in 2021 amounted to €268 million. This is in line with budget planning and €4 million less than in 2020. These are the investments we make at the request of customers. Investments remained high in all areas due to the high volume of new houses being built, the increasing focus on sustainability and the work carried out at the request of public authorities. It is our expectation that the customer-driven investments will increase substantially in the coming years, driven in part by the pace of the energy transition. At the same time, national and international developments, such as energy prices, for example, have led to increased social and economic uncertainty. This trend makes planning and adjusting investments more challenging and even more important than in the past.

Grid-driven investments

Grid-driven investments are the investments that we make to guarantee and improve the capacity and quality of the existing grid. Our grid-driven investments in 2021 were €351 million. This is in line with budget planning and



€75 million more than in 2020. Part of the planned grid-driven investments were hit by delay as a result of planning changes initiated by customers and/or local stakeholders (e.g. due to permit procedures that took longer than expected).

More than roughly 27,600 primary gas connections (target 2021: 25,250, achieved in 2020: 22,000), 108 gas stations (target: 117) and more than 193 kilometres of 'brittle' pipelines were replaced (target 2021: 186 kilometres, realised in 2020: 139 km). Regarding electricity, we replaced 27 items of medium-voltage switchgear (target: 31). In addition, we undertook many high-voltage projects (95% achieved) as well as medium and low-voltage projects (76% achieved). These projects involve work to replace stations and grids aimed at increasing supply reliability and facilitating the energy transition, including increasing grid capacity.

Smart meters

Our investments in smart meters in 2021 were €36 million, which is €12 million less than in 2020. The long-term aim of having smart meters installed in at least 80% of all households was achieved in 2021. The additional mandate from the Ministry of Economic Affairs was delayed, which, alongside the pandemic and the cold winter, resulted in fewer replacements.

Other assets

The other investments in 2021 were €32 million, which is an increase of €8 million compared with 2020. This increase is attributable, among other things, to investments we made in IT and in our office at the Anthony Fokkerstraat in Goes.

Four investments undertaken in 2021 highlighted:

1. Capacity expansion at Utrecht Sorbonnelaan station

Utrecht Science Park (USP) continues to expand. The National Institute for Public Health and the Environment (RIVM) will shortly relocate to USP as well, joining the universities of applied sciences, Utrecht University, various research institutes and University Medical Centre Utrecht as well as other organisations there. The additional facilities, accompanied by a rising demand for energy, made a third transformer necessary in the Utrecht Sorbonnelaan station. This transformer provides an additional 25 MW. Its installation meant we also had to replace equipment in the feeder station in Nieuwegein in order to create additional energy supply capacity. The route at Amelisweerd was also widened. The project, which we commenced in 2017, was completed in 2021.

2. Capacity expansion at Middelharnis station, Goeree-Overflakkee



Goeree-Overflakkee, or "Energy Island", as it is also known, is a major hub for renewable energy generation. The capacity of the wind farms there has been roughly 225 MW since the start of 2022. There are also several solar farms, with a total capacity of approximately 200 MW. In order to cope with these vast amounts of electricity, Stedin began a major expansion of the high-voltage station in Middelharnis in 2010. Six large transformers, four 50 kV switch systems and two 13 kV switch systems are being installed in phases. Two 150 kV connections have also been laid to the Rotterdam port area. These two extra connections are needed in case more energy is generated than is consumed. The volumes involved can be huge, as much as 390 MW, in the summer. In 2021, we completed the second phase, and the final phase is scheduled for completion in mid-2023.

3. Vlissingen Oost2

The Vlissingen-Oost sustainable project is one of the pieces of the puzzle in RES Zeeland. Here, we are developing 'sockets' for 69 decentralized solar and wind generation projects. Demand for sustainable energy is particularly high here: Enduris is tasked with providing 80 MW. There was insufficient grid capacity on the north side of the port of Vlissingen. Solving this problem required creative thinking. Rather than simply demolish the former Thermphos high-voltage station, we opted instead to give it a 'second life' and increase its capacity fourfold.

4. New Merwedehaven main distribution station in Dordrecht

Several years ago, we launched the IJsselmonde C2 project with a master plan for the northern side of Dordrecht and Zwijndrecht. By doing so, we are making the electricity supply for this area robust and future-proof. The plan creates numerous expansion possibilities for new connections, including for renewable energy generation, for the future. IJsselmonde C2 is the second and final phase of execution. As part of the project, a new main distribution station was built at Kerkeplaat in Dordrecht. Here, the 50/13 kV station was replaced, and a new building was constructed to house two new 50 kV installations and two new 13 kV installations. In terms of capacity, it is now the largest main distribution station in the Stedin area.

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

To understand how demand for energy will develop, we need to have a clear picture of the necessary energy infrastructure in the long, medium and short term. For the long term, we make a master plan for each region. These plans provide a framework as well as guidance for our Strategic Investment Plan 2021-2036, which in turn is the basis for the Investment Plan 2022-2024.

From Master Plan 2050 to Investment Plan 2022-2024

For 15 subareas, we are developing a building board for our electricity grid in 2050, including the related intermediate stages. This enables us to initiate permitting procedures in good time and ensures we are predictable towards external stakeholders. In 2021, the master plans for various regions, including Gouda, Rotterdam-Zuid, Veenendaal and Driebergen, were finalised, meaning that 9 of the 15 master plans are now completed. We expect to complete the remaining master plans in the year ahead, after which we will have a building board for 2050 for our entire coverage area.

In a master plan, we use scenarios for the expected transmission requirement. We then develop alternative grid designs. The scenarios can vary greatly. To ensure robust investments, the alternatives are compared using the 'minimum regret' criterion. This helps us prevent disposals in situations involving great uncertainty. Our preferred grid design provides input for the Strategic Investment Plan (SIP) 2021-2036, in which investments are elaborated in greater detail and placed on a timeline. We take the SIP as a basis for assessing the extent to which we can finance and realise the

investment objectives. The Investment Plan 2022-2024 is based on the SIP.

On 1 November 2021, the draft investment plan 2022 was published for customer and stakeholder consultation. The investment plan details how we will ensure sufficient capacity for the distribution of electricity and gas in the next three years and how these distribution services will be provided safely. The plan also provides insight into the planned investments for the next ten years. The available insights from the RES, among other sources, are included in the scenarios. In addition, up-to-date customer information and recognised regional and national available sources, such as calculations of the effects 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. The plan was made available for consultation for four weeks, to give the opportunity for comments on the proposed investments. A total of 87 opinions were submitted. The submitted opinions and our responses to them were added to the investment plan. The plan was then submitted to the Netherlands Authority for Consumers and Markets (ACM) at the beginning of January 2022. It is expected that the investment plan will be finalised in April 2022.

Planned investments

You can read about our planned investments in Utrecht, Zeeland and South Holland on www.stedin.net/investeringsplan. Here, we show the investments for electricity power stations and connections (≥ 25 kV) and for gas (≥ 8 bar) that will be carried out and completed between 2022 and 2031. This link will take you to an interactive map of our coverage area to view the projects we are working on for electricity, gas, wind or solar energy in 2022.

Fit for 55 and our investment plans

The European Commission aims to reduce net greenhouse gas emissions by 55% by 2030, compared to 1990 levels. This replaces the previous climate target of 49% from the Climate Agreement. The Fit for 55 package requires translation to national impact. The impact of Fit for 55 for Stedin's energy infrastructure cannot be estimated as yet, in light of the many political and policy choices that are still to be determined and elaborated. Take, for example, the way in which the 55% target is to be achieved: whether by means of carbon storage, raised targets for onshore renewable energy generation or additional offshore wind turbines. It is

therefore premature to incorporate assumptions in this regard in our investment plans.

Customer demand prediction as a basis for investment planning

Customer demand prediction is about identifying all possible future demand for connections and grid capacity (both energy consumption and feed-in). This information is crucial for our investment decisions and helps us to identify bottlenecks in a timely manner and to engage with customers on timing, location and capacity. High demand can have a significant impact on a high-voltage station, for example, as well as the low-voltage cables we need to connect new homes. The discussions with our customers are beneficial in that they improve our ability to predict customer demand. At the same time, we can observe that customer demand is complex and erratic. It can suddenly change, due to rising energy prices or new grants and subsidies, for example. That makes investment planning difficult.

By comparing insights regarding numbers, likelihood of realisation and regional developments within various RES themes (e.g. housebuilding, renewable energy generation and mobility), we are able to identify areas where greater demands will be placed on our grid.

Congestion

Despite the measures we are taking, electricity grid capacity shortage continues to increase. Rising electricity consumption and generation are outpacing our ability to expand the grid. One reason for this is that customer demand is developing faster than we can keep up with.

Where we foresee congestion, we plan, insofar as it has not already been undertaken, the necessary expansion capital expenditure and file an advance warning of expected structural congestion with the Netherlands Authority for Consumers and Markets (ACM). We also post a notice in this regard on our website and that of TenneT. We then examine the possibilities for performing congestion management. If this study shows that congestion management is possible, it is a temporary measure that takes place alongside investment in grid capacity and not as a substitute for it. We perform congestion management until such time as the grid has been strengthened.

Last year, we had to notify congestion for the first time in the electricity grid in Stedin's coverage area. Other grid managers have previously had to do the same thing. In 2020,

Enduris notified congestion in the area of Schouwen-Duiveland and Tholen.

Terms frequently used in this section:

- **Grid capacity and transmission capacity** are synonyms and refer to space on the grid.
- **Shortage of transmission capacity** refers to national and regional electricity grid capacity shortage.
- **Congestion** occurs when a network has insufficient capacity to transmit all the electricity that is generated and purchased.
- **Congestion management** uses price mechanisms and market forces to manage energy supply and demand. We refer to this as **flexibility**.

Congestion management not possible

A review carried out within Stedin and Enduris found that congestion management in the areas currently affected by congestion is not possible. One criterion is that, under the current rules, the congestion may not be resolved by curtailing solar and wind production. That is because energy sources that cannot be regulated are excluded from participation in congestion management under the current Grid Code. And that is precisely the issue in the areas affected by congestion in Middelharnis, in Dordtse Kil and on Schouwen-Duiveland: congestion is caused by sustainable energy generation, and there are insufficient other possibilities for using this sustainably generated electricity at the right moments.

Furthermore, the cause of the congestion may lie in the available grid capacity in the high-voltage grid managed and operated by TenneT, as is currently the case in the province of Utrecht, for instance. The outcome is that high-volume consumers in Utrecht are unable to return energy additionally to the grid. New initiatives such as wind or solar farms and rooftop solar projects that need a heavy-use connection may request a new connection, but whether they can return energy to the grid depends on the results of analysis of the possibilities of congestion management. Resolving this

congestion relies on TenneT’s high-voltage grid being strengthened.

New code for congestion management

In 2021, we joined the grid managers in submitting a proposal for congestion management to the ACM. The main thrust of this proposal is to enable customers to be connected to the grid as far as possible also in periods of shortage and to offer greater scope for flexibility to resolve the shortage. Grid security and affordability are key considerations in this context. The ACM evaluated the proposal and published a draft decision on congestion management. This was followed by Stedin and the combined grid managers jointly submitting an opinion. It is expected that the ACM will publish the finalised congestion management code somewhere in 2022.



Middelharnis high-voltage station

Impact of congestion

In all areas, the congestion only applies to high-volume consumers with a connection larger than 3x80 ampere (the limit may vary from one area to the next) who want to return generated electricity to the grid. A connection such as this is needed for a commercial roof with more than 200 solar panels, for instance, or for a small wind turbine. There is no problem for these customers in purchasing electricity. Consumers can continue to install solar panels and return electricity to the grid. The congestion affecting returning electricity to the grid does not apply to them. At present, there are no reasons to doubt the feasibility of the ambitions in the RES. The importance of integral cooperation between municipalities, provinces and grid managers is nonetheless increased as a result.

The congested areas in Stedin's and Enduris' coverage area

Dordtse Kil

We expect to have renewed transmission capacity available for returning electricity to the grid on the Dordtse Kil III and IV business parks in 2025. That is when our new 50/13 kV station built to a modular design will be ready. This grid expansion follows the construction and expansion of multiple distribution substations over the past seven years. The total investment is €50 million. For more information, visit www.stedin.net/dordtsekil.

Province of Utrecht

In October 2021, we issued a congestion notification in the Province of Utrecht as a result of the transmission restriction imposed on us by TenneT due to capacity shortages in the high-voltage grid. In parallel with the grid reinforcements being carried out by TenneT, we are strengthening our grid in line with our investment plan. This will result in capacity for returning electricity becoming available between 2026 and 2029, unless congestion management offers a solution sooner. TenneT is conducting the study into congestion management, which includes examining the feasibility of greater flexibility in the timing of electricity supply and demand. For more information, visit www.stedin.net/utrecht.

Middelharnis

In Middelharnis 50/13 kV, almost three times as much electricity is generated at peak times as is used at peak times. This results in us having to siphon large amounts of generated electricity off the island. More than €100 million has been invested in this over the past ten years, and we will invest a further €6.8 million on installing additional transformers in the coming years. It is expected that capacity for renewed returning of electricity to the grid will be available from the end of 2023. For more information, visit www.stedin.net/middelharnis.

Zeeland: Schouwen-Duiveland and Tholen

A notification of structural congestion was issued for Schouwen-Duiveland and Tholen in the autumn of 2020. Eliminating congestion on the islands requires expansion of the transmission capacity of the electricity grid. New high-voltage stations are needed on Schouwen-Duiveland and Tholen and near Bergen op Zoom to facilitate this expansion. In 2021, Enduris and TenneT launched a stakeholder dialogue with residents and municipalities to agree on a location for the new stations. It is our expectation that we can eliminate the congestion by the end of 2025. For more information, visit www.stedin.net.

Preventing shortage of transmission capacity

All grid managers experience a shortage of transmission capacity to a greater or lesser extent. We are working on solutions together, solutions that are focused on making maximum use of the current energy grid. And also solutions that contribute to reducing power surges or that focus on accelerated implementation of new infrastructure. At present, we are able to fully exploit only a handful of these solutions. It takes time to progress from proven applicability to implementation, often because legislation and regulations need to be amended, for example.

Stedin is running a series of pilots to test how the solutions can best be applied in practice. While each solution is at a different stage, the common denominator is that we are now gaining practical experience that we can later develop into products and services for customers. We offer three standard solutions as a new service or product.

1. Dispensing with the failure reserve

To create more room for customer requests for decentralised generation, Stedin is dispensing with the failure reserve in an increasing number of areas. This 'rush-hour lane' enables us to avoid or limit the duration of a service interruption in large areas by diverting energy transmission in the case of a failure or maintenance. Grid overload is a real risk when grids become congested. To address this risk, we developed Distributed Energy Resource management, which involves us working with customers who generate electricity to temporarily disconnect their production capacity in the event of emergencies or work being carried out. At the same time, however, this instrument, when deployed, puts extra load on the grid, causing grid components to wear out more quickly. Maintenance and replacement costs will rise as a result.

Pilot with control box for customers

Installing control boxes at heavy-use customers who return energy to the grid enables us to disconnect them temporarily if the grid is at risk of overloading or in case of works or a failure. Customers are automatically compensated (the Non Firm Connection and Transmission Agreement) for the time that they are unable to return energy to the grid. This allows customers to return energy to the grid as far as possible, while we safeguard the security of energy supply. It is expected that this will eventually be organised at the national level in close cooperation with TenneT. For now, we are rolling out the control system as part of the System Operator change programme and operating it manually from our control centre. Eventually, there will be an automated solution that detects grid overload and automatically intervenes. We refer to this as ‘active network management’. It is already being applied in Dordtse Kil and Middelharnis.

Pilot: Non Firm Connection and Transmission Agreement

Stedin Group has developed the Non Firm Connection and Transmission Agreement for areas affected by congestion. Under this agreement, while we can connect customers in areas subject to congestion, they have no guarantee that they can always return energy to our grid and/or purchase energy from our grid. We agree with the customer that the production installation will return less energy, or no energy, if the grid is at risk of overloading. The Non Firm Connection and Transmission Agreement is a pilot project in our Schouwen-Duiveland and Tholen congestion area in Zeeland.

2. Cable pooling

Cable pooling enables us to use a single cable to accommodate power generated from both wind and solar on a single connection. This has been permitted by law since July 2020. 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. A 40 MVA solar farm that is planned on the border between Zeeland and Noord-Brabant, for

example, will use the connection of an existing wind farm. Sharing the connection allows us to make better use of our grid.

3. Flexibility solutions

The increasing shortage of transmission capacity is creating greater need for flexibility solutions incorporating instruments as a temporary measure until a grid expansion has been carried out or to absorb peaks in supply and demand at the local level. We do this, among other things, by involving market parties, business customers, municipalities and housing associations and giving them a role in the flexible energy system, and hence in relation to issues, now and in the future, around shortage of transmission capacity. This gives us a firmer grip on the number of peaks resulting from increasing renewable energy generation and electrification. In 2022, we will evaluate with the market whether we can dampen peaks by establishing flexibility markets.

GOPACS

The GOPACS platform is a joint initiative of the regional and national grid managers that is intended to solve congestion issues, local and otherwise. The solution is based on local flexibility markets, with participating parties indicating at what price they are willing to consume more or less electricity or return it to the electricity grid. As soon as there is a risk of congestion in the grid, the grid manager appeals for flexible capacity to be made available. The past year saw a marked increase in the number of participants in the platform. More than 800 business customers now participate in the platform, of whom more than 150 are located in Stedin’s coverage area. Together, they provided more than 140 GWh in flexibility for the grid managers, valued at more than €45 million.

Zuidplaspolder

In 2020, we began a flexibility project in the Zuidplaspolder. This is designed to limit the load on the transformer station at peak times, which occur in particular during the winter. We signed a contract with AgroEnergy and Tenergy for this purpose. Between December 2020 and March 2021, we requested flexibility a total of 25 times, resulting in 52 MWh of flexibility in total being provided. This first period yielded positive experiences with regard to cooperation, the assignment of tasks

and responsibilities and the way in which market parties and the grid manager help each other, with respect for each others' interests. We also gained experience in making daily predictions of grid load and congestion in the area and how to deal with them. The pilot project will run until 2024, when the new high-voltage station will be delivered in cooperation with our partners TenneT and Alliander and the grid expansion realised.

European legislation

A key part of the third package of European network codes for the electricity market was implemented in 2021. The aim is to safeguard security of supply at the European level. The European network codes have implications, directly or indirectly, for Stedin and our customers. For instance, customers with a solar or wind farm, who therefore return energy to the grid, must show that their facility meets European standards. Stedin is tasked with determining whether this is correct and registering this before the connection can be completed. Stedin must furthermore comply with new requirements relating to cooperation across national borders, operation of electricity supply systems, maintaining grid stability as well as new consumption and production installations.





Smart grids, data technology and innovation

To facilitate the energy transition, we need smart grids that give insight into the status of the grid. Together with customer demand, these data provide 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 permit smart management of our grids, we install smart sensors. These sensors enable us to carry out remote measurements and, depending on the specific sensor, perform remote switching or enable autonomous switching.

Low voltage – the smart meter

Measurements are not customarily carried out on the low-voltage grid to monitor quality and capacity. Low-voltage grid usage is changing as consumers increasingly take to generating electricity themselves. Greater insight is therefore essential. Smart meters, which have now been installed in 82.4% of households in our coverage area, are starting to play an important role in this regard. In 2021, the regional grid managers drew up a Code of Conduct governing the use of data. This states that we may use smart meters to monitor voltage quality. In low-voltage grids, capacity shortages are expressed by excessively high or low voltage. Smart meters allow us to check up to connection level whether we are complying with the voltage limits under the Grid Code. In 2021, we also began using smart meters for the purpose of failure localisation. By identifying remotely which customers are affected, we can dispatch the right technician and scale up in a timely manner.

Availability of smart meter data

New legislation means we now have to store data for 24 months. Smart meter data read-outs increased by 40% due to meter readings requested for the purpose of building a database. Previously, meter readings were only requested following an application from an energy supplier. This increase has not affected our continued ability to provide market parties with smart meter data in a secure, reliable and efficient manner. We have also made improvements to the process of on-site smart meter installation. During installation, a fitter can check straight away whether the meter is online and communicating. This new working method has resulted in a 2% decrease in meter failures following installation.

High demands are placed on the privacy and security of the smart meter infrastructure. Every two years, all the grid managers are subjected to a detailed external audit, and privacy and security are assessed for compliance with the necessary quality criteria. This audit was carried out again in 2021. Based on the audit outcomes, adjustments are made as and where necessary.

Further development of smart meters

Several generations of smart meters are due for replacement from 2025. Together with the other grid managers in the Netherlands, we determine which requirements must be met by the next generation of meters.

Milestone for smart meter installation

After six years' work, the moment finally arrived: smart meter installation was offered to all the low-use customers in our service area, resulting in actual installation for at least 80% of them. That is a significant milestone. At the end of 2021, 82.4% of smart meters had been installed. That translates to 109,743 smart meter installations in 2021.

Total number of households in Stedin's coverage area: 2,364,670 / with a smart meter: 1,948,419.



Offer and installation of remaining smart meters: New mandate from the Ministry of Economic Affairs and Climate Policy

A commitment to phasing out the netting scheme was part of the coalition agreement reached by the previous government. For this purpose, a bill was prepared, which was declared controversial after the fall of the coalition government. The bill for the related Act will be debated once again now that a new government has been installed. Until the Act enters into force, we have been given a new mandate

by the Ministry of Economic Affairs and Climate Policy providing for the offer and installation of a smart meter in respect of 416,251 customers in our coverage area that remain without a smart meter. The absence of the Act and the related enforcement possibility by Radiocommunications Agency Netherlands mean it is more difficult to induce consumers to accept installation of a smart meter. We are in intensive discussions with the Ministry of Economic Affairs and Climate Policy to determine the impact of the delayed legislation on our organisation (people and meters).

What is the netting scheme?

Under the current scheme, customers deduct electricity returned to the grid from the electricity they purchase from the supplier. This is referred to as 'netting off'. Consumers only pay for the net purchased electricity. The scheme aims to incentivise the installation of solar panels. The scheme is so successful that it now shows signs of over-incentivisation. To tackle this problem, the current government has chosen to phase out the scheme. The 'Phasing Out of Netting Scheme' legislative amendment has been submitted to the Lower House of the Dutch Parliament. The bill sets out that consumers must have a meter that measures electricity consumption as well as feed-in. Consumers are therefore no longer able to refuse a meter of this type.

Phasing out of Tone Frequency (TF) signal

On 1 July 2021, the regional grid managers stopped transmitting the Tone Frequency (TF) signals. The transmission systems that emit the TF signals are severely outdated and need replacing. There are more modern techniques we could use, including smart meters. TF signals were used by traditional electricity meters to switch between peak and off-peak rates, and they were also used to turn public lights on and off. In addition, certain electrical boilers were operated using TF signals. Stedin phased out the TF signal that is used when electricity is bought at dual rates between 1 July and 1 November 2021. Peak and off-peak rates are now no longer available without a smart meter. Stedin has informed its customers of this. Unfortunately, some of these customers were mistakenly sent the wrong letter. We corrected this error and regret that this group of customers initially received incorrect information.

Connectivity for reading out smart meters

In 2021, we installed 17,089 new smart LTE meters. While they continue to use the GPRS signal to communicate, it is

expected that they will switch over to LTE communication technology in 2022. These LTE meters will replace the smart meters that use GPRS to communicate, since GPRS 2G technology is due to be phased out over the coming years. The negotiations with the telecom providers on using the GPRS network are continuing, in cooperation with other grid managers. The LTE meters are being installed at locations that have poor CDMA telecommunications network coverage. The choice of multiple communication techniques improves the quality of our data services.

The Ministry of Economic Affairs and Climate Policy plans to reallocate the 450 MHz frequency band in 2022. Stedin, Alliander and Westland Infra use this frequency band for the connection of roughly half the smart meters using CDMA technology. The Ministry intends to divide the band into two parts: one part is for grid managers for the existing CDMA meters, while the other part will be reallocated by the Ministry. This ensures the continuity of the existing CDMA meters. Stedin and Alliander are jointly preparing for this reallocation.

Medium voltage

Using available network information for the energy transition

As a system operator, we need to have up-to-date insight into the quality and capacity of the distribution network. This in light of the fact that the energy transition requires us to be able to conduct rapid assessment of our grids, so that we can take timely and targeted action to strengthen them, for instance. For that reason, we are installing smart sensors in our grids, such as the Smart Grid Terminals and, from next year, its successor, the DA box. The tendering procedure for the DA box has been completed. We will start installing the first DA boxes in 2022 before rolling them out in larger volumes in 2023.

High voltage

The key parts of transmission and distribution stations are fitted with smart equipment that protects the essential components, remotely monitors the condition of the substation and also remotely operates the substation. Each year, we carry out 15 to 20 major station automation projects.

Stedin Telecom Network

Since October 2018, Stedin has been phasing in the use of a new fibre-optic network (Stedin Telecom Network) across Stedin's entire area. 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 smarter management and control. This network has now been fully implemented in The Hague as well as large parts of Rotterdam, Dordrecht and Utrecht. We will complete the project during 2022.

IT strategy

In 2021, we upgraded several core systems, in a significant contribution to our strategic initiatives. One measure we have taken to work as a system operator is the implementation of the 'Forecast Manager'. This improves foresight into the energy flowing through the grid. A customer-oriented approach is easier now we record all customer information in a single system and have a clear view of the status of products and services. We also put foundations in place for a further simplification and automation of business processes and more innovative user experiences via apps. Finally, we made our IT landscape more agile by working increasingly with Application Programming Interfaces (APIs). APIs ensure that systems and applications can communicate with one another.

Data governance

To comply with the requirements for ISO 27001 certification, we implemented a new data and document classification policy. Employees followed an e-learning programme and took a test. Classification is also a standard provision in the Microsoft 365 products. 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. In 2021, the most important strategic and mandatory reports were incorporated in the metadata system, with the route followed 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 **Guido Frenken & David Peters**



How to meet the huge challenge of the energy transition with smart and effective strategies? That is one of the key issues facing Guido Frenken, Global Head of Innovation & Digital at technical service provider EQUANS (part of ENGIE), and Stedin Chief Transition Officer David Peters.

It goes without saying that 2021 continued to be dominated by the coronavirus pandemic. ‘The interpersonal aspect in particular is more important than ever,’ says Guido. ‘The past year has shown how important social interactions are for us as humans. The energy transition is also clearly at the top of many people’s minds. Every news summary nowadays includes an item directly related to sustainability. That is really a huge change within the space of just a couple of years.’ ‘The energy transition has definitely moved front and centre,’ agrees David. ‘It is critical to remain in dialogue at this crucial time. Many people think that the energy transition is about technology and digitalisation. While both are important, the real driver is people’s behaviour. There is a risk that increased digitalisation, combined with the pandemic, will cause everyone to become locked in their own world. And there is no doubt it is easier to hide away when things get complicated. But that is exactly what we shouldn’t be doing right now.’

Transition is about behaviour

A key element of the transition, says Guido, is the message that the energy transition will not be painless. ‘At the end of the day, a transition is about adopting different behaviours and about changes that come with a price tag. To soften the pain, it is important to make the right choices, think in terms of solutions and create the feeling that, by working together, we can do this.’ Are we doing that right now? ‘Sadly, no,’ says Guido. ‘We are stuck in past patterns and behaviours. That is a big problem for decision-making in particular. For instance, it can take up to seven years to secure a permit. If you invest during that time, you will burn through a lot of money

just through waiting. That money could have been put to other uses.’

Risk: yes or no?

‘You can’t manage a system transition,’ says David. ‘You’re continually forced to compromise. When is the right time to risk investing or launching a project, and when is it better to wait? And risk-taking is not something we like to do.’ Guido adds, ‘The heat transition in Delft is a good example. Everyone is keen to press ahead with the project, which in itself is unique, and there is a valid business case. In spite of this, the process is beset by serious delay, as all the boxes need to be ticked. But the boxes aren’t relevant for the end result. Then I think to myself, “is there no other way?”’ The transition calls for perseverance, says David. ‘But it also means that we need to change our mindset and just say: let’s do it. That is difficult, particularly for people in public office. They are subject to intense scrutiny and are mercilessly judged on social media. They honestly need to be thick-skinned. I have a lot of respect for them. Perhaps we should encourage greater interchange between public authorities and businesses, to create more mutual understanding.’

Making smart use of grids

When it comes to smart grid usage also, it is important always to consider how we can help each other and how we can make effective use of the grid. ‘There is still so much to be gained, particularly if we can make even smarter use of data,’ says David. ‘And what about thinking far more in terms of co-creation here too?’ adds Guido. ‘At present, grid managers are quick to repeat the mantra: “Thou shalt install.” I would like to be able to go to the grid manager and say: this is a case for society in general; how can we fix it together?’ David adds, ‘And if the two of us get good at these solutions, we are also creating a valuable export product as a country!’

3. 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.

Strategic KPIs	Note	2020	2021	Target for 2022
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.	0.70	0.76	≤ 0.90
LTIR	Lost Time Injury Rate: the number of lost-time workplace incidents per million hours worked.	0.40	0.54	≤ 1.90
Good employment practice				
Engagement	Engagement is the extent to which employees feel a sense of attachment towards their organisation.	8.1	7.8	≥ 7.7
Commitment	Commitment is the degree of passion and inspiration experienced by employees in their work.	8.0	7.6	≥ 7.5
Impact on people and planet				
Reduction of CO ₂ emissions	Percentage reduction of CO ₂ emissions from Stedin's business operations in tonnes compared to 2018 (excluding gas network losses)	-28%	-45%	-36%
Financial, economic performance				
Solvency	Ratio equity/total capitalisation (see glossary for definition)	43.0%	45.6%	> 40%
FFO/Net debt ratio	The FFO/Net debt ratio reflects the extent to which the net debt ratio can be repaid out of the cash flow from operating activities (see glossary for definition)	12.0%	11.3%	12.0%

Safety and security

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. At the same time, data security, privacy and cybersecurity also assume increasing importance in this period of digitalisation. We are taking effective steps to address these safety and security aspects, and with them the continuity of the energy supply. This way, we ensure the safety of our customers, employees, contractors and hired staff.

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. 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.

The entire Stedin Netbeheer organisation obtained certification for level 4 of the Safety Culture Ladder via an external audit. This standard aims to improve safety awareness (attitude, behaviour and culture) and to make it a constant focus of attention. A few 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 in the short and long term. The programme also contributes to reliability and predictability in the chain processes ('do things right the first time'). DNWG Operations obtained certification for level 3 of the Safety Culture Ladder in 2021. The aim is for the organisation in Zeeland to progress to level 4 in 2022.

HRO has five features: I think ahead – I am not afraid to ask and keep asking questions – I am prepared for the unexpected – I focus on solutions – I am open to the expertise of colleagues. In 2021, we worked further on the HRO phase: 'Embedding Routines'. The associated activities are aimed at maintaining awareness by focusing on continuous and individual learning.

Alongside awareness, attitude and conduct are also important for safety and quality. We paid ample attention to these matters in 2021 as well, by providing our employees with regular training. In April, we held our biannual 'Gas days', which are intended for all gas fitters. During the programme, we addressed everyday events and making use of our gas grid for gases other than natural gas. In 2022, we will organise the 'E-days' for technicians who work with electricity.

Safety in the supply chain

Our supply chain partners also play an important role with regard to safety. We aim to create broad support for certification according to the Safety Culture Ladder among them as well.

Attitude and conduct linked to quality and safety are key priorities. In 2021, we carried out 2,638 workplace audits. We make our reports available in a secure portal so that our contractors can directly access our findings. During our quarterly visits to them to discuss the results, we examine their management systems and instructions framework, assessed in accordance with the BEI and VIAG. We examine and discuss incidents and workplace accidents. Safety issues and policy are on the agenda of an annual executive review.

Each year, we present the Stedin Safety Award to the supply chain partner with the best safety and quality performance in the previous year. In May, the Stedin Safety Award was presented to the Van Gelder Group.

Golden Safety Shoes presentation

Each year, we present the Stedin Golden Safety Shoes as a sign 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 sign 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.

This year, the Golden (Social) Safety Shoe was presented to Mariëlle Vellinga and Theo Veenbrink, Arif Baran, Djilali Mohammed, Jonathan Geldof, René de Bonte and Bert Schouten.



Preventing workplace accidents

We are committed to preventing 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. In 2021, we achieved our target of remaining below 34 accidents. We eventually recorded 28 accidents.

Type of accidents for Stedin Group

	2017	2018	2019	2020	2021
Number of fatal accidents	0	0	0	0	0
Number of lost-time injuries (lost time > 1 day, LTI)	37	24	17	3	4
Number of accidents entailing alternative work (RWC)	5	8	11	15	17
Number of accidents without lost time requiring medical treatment (MTC)	7	8	11	8	7
Total	49	40	39	26	28

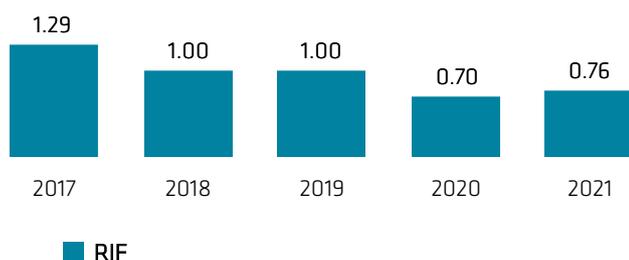
We monitor our safety performance on the basis of the following ratios:

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.

LTIR = Lost Time Injury Rate: number of lost-time workplace incidents per million hours worked.

RIF

The recorded RIF was 0.76, while the target was a maximum of 0.90.



LTIR

The recorded LTIR was 0.54, while the target was a maximum of 1.95.



The coronavirus crisis had a positive effect on the safety ratios at the beginning of 2021 in particular, with lower traffic volume and temporarily reduced customer contacts being contributory factors in that regard.

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. Many others are attributable to knocks, falls and stumbling.

The significant level of traffic movements accompanying the roll-out of smart meters initially resulted in a large number of traffic accidents, often with no more than bodywork damage, but sometimes also causing personal injury. In 2020, we launched a programme of training with the aim of increasing traffic awareness. This was continued in 2021. This training was a factor, together with the reduced level of traffic movements due to the coronavirus, that led to a substantially reduced number of traffic-related accidents.

Cause of accidents	2017	2018	2019	2020	2021
At work	23	20	17	14	15
Falling, stumbling, slipping	16	9	11	11	10
Participation in traffic	10	11	11	1	3
Total number of accidents	49	40	39	26	28

Causes of lost-time workplace incidents

Cause of LTIR	2017	2018	2019	2020	2021
At work	1.71	1.25	0.77	0.13	0.27
Falling, stumbling, slipping	1.98	1.00	0.52	0.27	0.135
Participation in traffic	1.19	0.75	0.90	0.00	0.135
Total LTIR	4.88	3.00	2.19	0.40	0.54

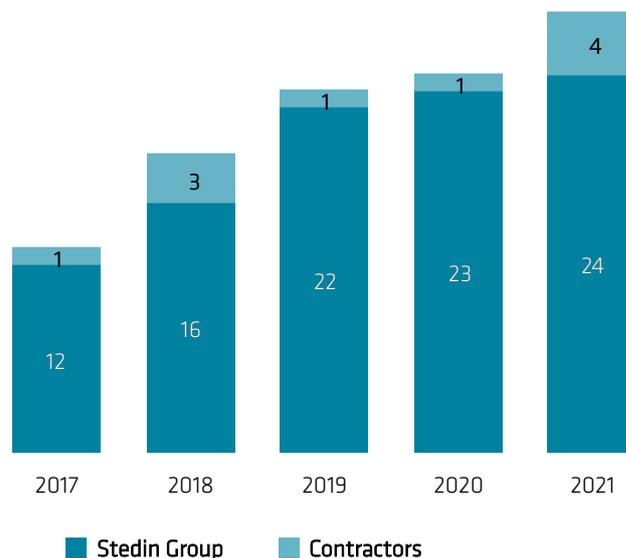
Number of lost-time workplace incidents (including contractors)

The chart shows the number of lost-time workplace incidents for Stedin Group and its contractors. The last five years show a downward trend. We believe that this trend can also be attributed to our efforts of raising safety awareness, in our organisation as well as among our supply chain partners. We also took steps to provide temporary alternative work as a means of reducing absenteeism as a result of accidents and to keep employees involved in work.



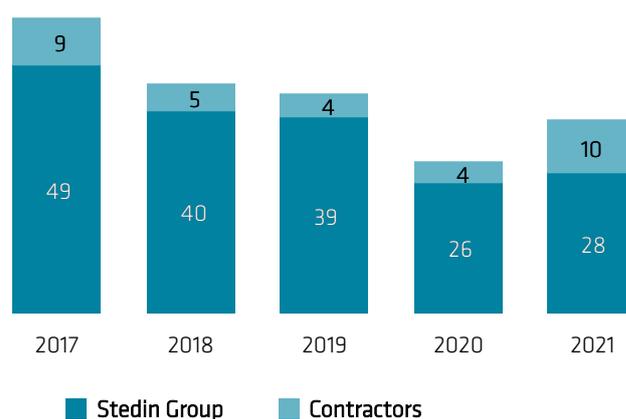
Number of workplace incidents without lost time (including contractors)

The following chart shows the number of workplace incidents without lost time for Stedin Group and its contractors.



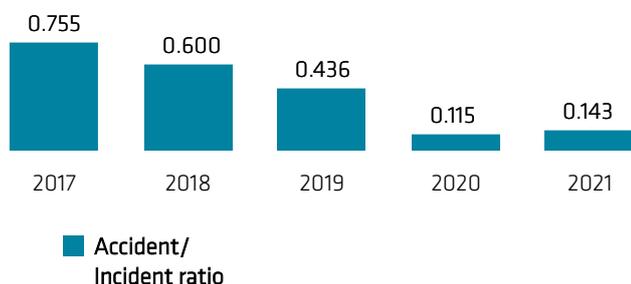
Total number of workplace incidents (including contractors)

The following chart shows the total number of workplace incidents as the sum of the number of lost-time workplace incidents and incidents without lost time for Stedin Group as well as its contractors.



Accident/incident ratio

The chart shows the accident/incident ratio for Stedin Group, which 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 2020, we began the development of a database that acts as a roadmap for the executing departments. This was continued in 2021 by making experiences and references available to give them a practical tool to help them in recognising, preventing and correcting environmental issues.

We also respond to legislation and regulations on hazardous substances or pollutants, such as asbestos, for example, which present risks to health in addition to the environment.

Crisis management organisation

The manner in which we dealt with the coronavirus crisis has proved that the approach we took with the updated Crisis Management Plan (CMP) is the correct one. In 2021, Stedin was certified for use of the National Crisis Management System (Landelijk Crisis Management Systeem, LCMS), which facilitates the central exchange of up-to-date information by relevant parties during a crisis (grid-centric

working concept). The LCMS has since been designated a National Crisis Management Facility by the Ministry of Justice and Security.

We are further improving our crisis management organisation by providing continual training to information coordinators and crisis managers. We also update our knowledge and experience by taking part in exercises, including at the national level, with other crisis management organisations.

Stedin and the coronavirus crisis in 2021

Whereas 2020 was a year of discovering how to deal with the pandemic, 2021 was more 'business as usual'. Colleagues followed guidance to work from home to a tee. For many of them, homeworking proved a boon. This resulted, among other things, in Stedin@Work, our new work concept (see the section on 'Professionally competent employees').

Alongside this, we were most affected by the night-time curfew in 2021. It came unexpectedly and required us to make multiple arrangements, mainly involving paperwork. In the weekend before the curfew took effect, almost 3,000 employees were issued with the necessary papers, often by courier delivery, to enable them to continue working after the curfew started.

We always comply with government policy in our decision-making.

Energy transition

Alternative energy sources, such as wind and solar, biogas and hydrogen, are becoming increasingly important. From the point of view of safety, this gives rise to 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 faced a series of burglaries, many involving copper theft, and thefts from business vehicles and premises. 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 considerable 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 illegal hemp cultivation. As the equipment they use consumes large amounts of electricity, the criminals tap energy by bypassing the meter. In 2021, 11 house fires in Stedin's and Enduris' coverage area were caused by hemp farms illegally tapping energy.

It is estimated that 17% of Stedin's total network losses are caused by fraud. That is approximately 161 GWh of electricity. Based on the 2021 kWh price, that amounts to an estimated loss of €6.2 million per year.

A total of 399 hemp farms were discovered in Stedin's coverage area in 2021. We dealt with 978 cases of fraud in total in the same year. Alongside hemp farms, these cases cover meter fraud as well as illegal connections and reinforcements, for instance.

Cybersecurity

Large-scale digitalisation of the energy grid is accompanied by increased cybersecurity risks, which can have an adverse impact on the supply security of the energy grid. We see around us that new or current vulnerabilities in the field of cybersecurity are already being exploited by malicious parties, occasionally leading to significant loss or damage. Stedin has been designated a 'vital service provider' pursuant to the Network and Information Systems Security Act (Wet

beveiliging netwerk en informatiesystemen), under the supervision of Radiocommunications Agency Netherlands. In 2021, there were no incidents that were covered by the reporting obligation of this legislation.

Cybersecurity is essential for the continuity of our activities. We are working on integral security that connects the related areas of expertise. Stedin applies internationally recognised standards in order to reduce its vulnerabilities to outside threats, with a focus on prevention, timely detection and the resulting actions. As Stedin bases its cybersecurity on the tried and tested Deming cycle for continuous quality improvement, we arrange to be regularly tested by external specialised parties in relation to the ISO 27001 standard. Certification was already in place for the design, building and management of infrastructures for electricity grid managers. The scope of this certification was further extended in 2021 to include HR and procurement-related support activities.

Stedin is not alone in reducing cybersecurity risks. Within Netbeheer Nederland, we make a constructive contribution to the formulation of a European Network Code. In addition, we work closely with other organisations in the private and public sector in the field of cybersecurity. At the European level, we do this through the European Network for Cyber Security (ENCS) with other grid managers in other countries. At the national level, we work with the Cyber Security Council, the Vital Infrastructure Committee of VNO/NCW, industry association Netbeheer Nederland and the National Cyber Security Centre, among others. We share information with these organisations on threats and measures, and we also collaborate with them to develop standards and provide mutual support in case of an actual threat. Exercises, such as the largest Dutch cyber-crisis exercise ISIDOOR, are a key element in this regard.

Certification

In 2021, Stedin Group demonstrably complied with the standards and guidelines in the field of safety and security, quality management, asset management, environmental management and working conditions.

Stedin Group certification

Stedin Netbeheer	Enduris	DNWG Infra
ISO 9001	ISO 9001	ISO 9001
NTA 8120	NTA 8120	ISO 14001
ISO 55001	ISO 55001	CKB
VCA**	ISO 27001	VCA**
Safety Culture Ladder, level 4		Safety Culture Ladder, level 3
ISO 27001, High voltage		ISO 27001, TUMS



Good employment practice

Stedin aims to be an attractive employer that treats its employees responsibly and with respect, encourages their development and offers equal opportunities for all. Key aspects are: having sufficient technical and other staff, capacity for change, education, training and development of staff and a vital, inclusive organisation.

Sufficient technical staff

The energy transition is accompanied by a significant increase in investment and hence work. This has an impact on how we should shape our workforce. We employ various instruments to meet this challenge: strategic staff planning, our In-house training school, proactive training programmes, learning paths to facilitate the influx of new colleagues as well as internal advancement, a labour market campaign and, together with the sector, a campaign to encourage young people to choose a technical profession. To retain our current employees, we keep them inspired and committed by continuously supporting them in their development and providing an inclusive work environment.

In 2021, we saw the average number of vacancies more than double. This ascending line is set to continue further in the coming year. In parallel, we undertook internal process improvements to ensure vacancies can be filled sooner if candidates are available.

Strategic staff planning

Data were employed to show how much technical and operational work will be needed in the coming years and what staff shortages are likely to arise over time as a result. We use this information to deploy effective tools and resources for maintaining our workforce at the right level.

Planning estimates show that, without additional measures, we will face a shortage of 450 FTEs from 2025 (in particular electrical fitters and work supervisors). With an expected influx from the In-house training school of 130 FTEs, we will therefore face a shortage of 320 FTEs.

There are steps that Stedin can take to reduce the shortage further. For example, by ensuring influx remains high. This is

facilitated, among other things, by our labour market campaign 'Plenty to do'. We also examine possibilities for outsourcing work (with the option of taking on external staff) and scaling up the capacity of the In-house training school. At the same time, we apply greater focus internally and use other types of labour innovation to enable us to do more work using our present technical workforce. The potential is great here and includes taking advantage of the opportunities presented by digitalisation, long-term employability, alternative and accelerated training approaches, as well as adopting even more efficient working methods such as those that we will implement in the chain organisation in the year ahead.

Organisation's capacity for change

The world around us and in the energy landscape is changing at an ever-accelerating pace, and the precise direction often remains uncertain. That brings with it a need for agility. We include our people within our development ambitions in defining which new skills and competencies they need, can deploy right now or need to develop to do so in the future. Clarity as to where we currently stand in terms of our leadership behaviour and where there is scope for development is crucial. Insights from our leadership scans show that, across Stedin as a whole, we score highly in terms of behaviour linked to 'Committed' and 'Inspired'. We have scope for development in particular in relation to the cultural value 'Forward' – providing frameworks and achieving results. We have room for improvement as regards more clearly defining results, giving each other feedback on those results and celebrating successes. Supervision in training and development supports these efforts, as do instruments such as improved performance management.

Training, learning and development

We seek to foster a culture that prioritises continuous learning. That is important to ensure sustained performance. Our actions are underpinned by our vision for learning: 'working is learning, learning is working.' Naturally, this takes place in a socially and physically safe work environment. We use various tools to support the continuous training and development of our employees. An example is good dialogue between employees and their managers, occasionally supplemented with 360° feedback from co-workers and customers, among others.

Training programmes in 2021

Number of training programmes followed, not including the In-house training school	2,024 programmes
Number of paid working hours spent on training	300,000 hours
General training costs	€4.5 million
Average training costs per participant	€1,087
Student supervision	117 students supervised. Senior secondary vocational education (MBO): 14 / Higher professional education (HBO): 77 / University (WO): 26

In-house training school

Our In-house training school plays a crucial role in ensuring the right technical people in the right place. By training people ourselves, we ensure that we maintain a substantial influx and internal advancement of colleagues. Many of them have been able to acquire a stable position in society in recent years thanks to the In-house training school. We also specifically invest in people with a distance to the labour market through special classes for newcomers and participation candidates, among other things.

In 2021, 1,340 safety programmes were provided for DNWG at the In-house training school. From January 2022, all training programmes for Zeeland are also provided through the In-house training school.

The In-house training school recorded 49,801 applications in 2021 for technical training, safety training such as BEI and VIAG, e-training and in-house safety training. In 2021, 208 pupils were trained as fitters and obtained their senior secondary vocational education (MBO) diplomas.

In-house training school	2017	2018	2019	2020	2021
Number of training programmes leading to certification followed	6,320	5,561	8,277	7,885	8,232
Number of non-mandatory training programmes leading to certification followed	16,000	13,183	18,111	33,117	41,569
Number of training programmes followed through the In-house training school	22,320	18,744	26,388	41,002	49,801
Number of MBO diplomas awarded	102	120	166	162	208
People coming from other professions trained as smart meter fitters	88	82	51	0	0
Technology & Safety training budget (in € million)	8.1	10.0	10.9	10.2	8.0
Total In-house training school training costs (in € million)					1.7



The 208 pupils who were trained as fitters by the In-house training school in 2021 are awarded their senior secondary vocational education (MBO) diplomas during a drive-in ceremony.

Learning paths as an instrument for influx and internal advancement

In 2021, the In-house training school developed a series of learning paths, which set out the development options available to fitters. They show which training courses and programmes are needed, and when, for advancement. By providing insight into the possibilities, we can motivate and encourage current employees to take their next career step. By doing so, we utilise the experience of these co-workers while also creating space for the influx of new employees.

The learning paths help to shape training that is targeted at meeting the needs of individual employees, as well as within the organisation.

Attractiveness of technical professions

Recruitment and the In-house training school are working together under various initiatives to promote technical professions. In 2021, we and other grid managers launched a recruitment campaign entitled 'Power Up the Planet'. Stedin has also signed up to various Work-Study Agreements. Under these agreements, we combine with regional education centres to organise guest lectures and provide work placements.

Making maximum use of training capacity

We also looked at how to optimise the training capacity of the In-house training school, by changing our training approach and through increased cooperation with the operational departments. What should take place at the In-house training school, and which elements can we provide in a practical setting? Cooperation with the operational units was intensified, and a national attack plan was made, supported by the Training & Development Fund for grid operators (T&D fund). Within the T&D fund, the larger grid operators have committed to working in multidisciplinary teams with a focus on efficient training, recruitment and safe working. For each topic, a plan of action has been defined, and employees from the three major grid operators are working together on elaborating the details of the various actions. These actions will be implemented further in 2022.

Various projects were carried out in the In-house training school in 2021, which we are proud to highlight:

- Pilot aimed at recruiting fitters ourselves. We want to ensure that our work-study programme is visible as a vacancy to a large target group. To do this, we focus on announcing the vacancy amongst and through Stedin employees. The In-house training school is responsible for the entire vacancy process: the services of a secondment agency are not needed. In September, 35 new fitters started work, 15 of whom were recruited by Stedin itself. The remaining 20 fitters were provided through the Werk en Vakmanschap secondment agency to the In-house training school.
- Integration of training programmes in Zeeland, involving custom arrangements for our colleagues in the province. We identified all the training programmes in Zeeland and considered which programmes we would continue offering in Zeeland, which would be dropped and which programmes we would provide in Rotterdam.
- Further development of the online platform, allowing us to support 'learning by doing' at all times. We do this with

the aid of online clips, which fitters can view at any place and at any time. The platform is now used by 462 employees.

Leadership

In support of our strategy, we conducted an in-depth review of our leadership profile. We provide our managers with a clear picture of what we require in terms of leadership behaviour.

In the leadership profile, we formulate aspects of helpful and unhelpful leadership behaviour based on our cultural values. In 2021, we completed the leadership profile and translated it into a 360° feedback questionnaire. Using this questionnaire, 96% of managers (Stedin as well as DNWG) reflected on the extent to which their behaviour conforms to the leadership profile. Their immediate work environment (manager, closest colleagues and employees) also gave feedback on the leadership behaviour of our managers using the questionnaire. The outcomes were the basis for dialogue between us, which we will continue in the year ahead. The overall outcomes also prompted us to set up the first development interventions, also leading us to offer broader support in relation to translating objectives, formulating those objectives in a SMART way and giving constructive feedback.

In addition, we provide the following resources for leadership development:

- *Three kick-forward days* for all our managers, about strategic developments and translating them to their own teams. These days were held online in 2021;
- *'Toekomstmakers' (Makers of the Future) traineeship*, a two-year traineeship programme for talented new employees. The aim is to train them to become 'leaders of the future'. The fourth class of seven new 'Makers of the Future' started in 2021. The second class has already successfully taken up permanent positions within Stedin;
- *Process Improvement (PI) programme*, a two-year programme during which participants are trained as Lean Six Sigma Black Belts for improving processes. Following completion, participants progress to a position as team leader, for example;
- *Basic Cohesive Leadership*, an eight-month programme for new managers. They learn what their unique leadership style is and what is expected from them as a manager. The fourth class started in 2021;
- *Horizon*: a ten-month executive programme. The aim of this programme is to support the development of our

strategic executives and to achieve our mission. In 2020/2021, 11 strategic executives completed the programme.

Vibrant organisation

In 2021, Stedin was awarded the title 'Most vibrant specialist company 2021'. The award is presented by WENB (Employers' association for companies in the energy, telecom, recycling and environment sectors) in recognition of efforts to maintain employees' physical and mental fitness. We are proud to receive this award. There was praise in particular for the attention we paid to the mental fitness of our employees, including the assistance that was made available during the pandemic. The sustainable employability budget of €500, which was taken up by 1,515 employees in 2021, was also highlighted.

Employee motivation

Each year, we carry out an employee motivation survey to provide insight into the degree of commitment and engagement among our Stedin colleagues. The survey yields detailed information on employees' perceptions of us at the team level. In the active follow-up after the survey, we initiate good dialogue, mutually and in teams, based on the insights and data. In 2021, 72.6% of employees took part in the survey (2020: 65%).

Stedin applies two KPIs in this context: commitment and engagement. In 2021, Stedin once again scored higher on both KPIs than the target, recording a 7.6 for commitment and a 7.8 for engagement. We are proud of the results that were achieved. Our score for the theme 'Forward' was 7.5. This is an incentive to pay greater attention to shared objectives and everyone's contribution to them.

Commitment/ Engagement	2017	2018	2019	2020	Target for 2021	2021
Commitment	7.4	7.5	7.5	8.0	7.5	7.6
Engagement	7.7	7.8	7.8	8.1	7.7	7.8

Sickness absence

Recorded sickness absence averaged 4.3% in 2021. This is lower than at comparable companies in the Industry and Energy sector. The focus on absenteeism and employability in the past two years has borne fruit.

Sickness absence	2017	2018	2019	2020	2021
Average sickness absence in the industry and energy sector (third quarter of 2021)	4.6%	4.5%	4.9%	5.0%	5.1%
Sickness absence within Stedin Group (in per cent)	5.2%	5.0%	4.8%	4.2%	4.3%
Reporting frequency	1.0	1.1	1.1	0.9	0.8

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 2021, a homeworking allowance of €2 per home working day was introduced in line with the work concept.
- In accordance with the Collective Labour Agreement for Grid Companies, employees can opt to purchase additional hours of leave, on top of their statutory minimum entitlement, using their monthly Personal Budget. We also offer accumulated leave arrangements, 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. In 2021, 59% of the accumulated leave was carried forward to the next year.
- 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, 111 employees (28% 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 naturally applies to Stedin's employees as well.

Stedin@Work: our new work concept

In November 2021, we introduced a new work concept: Stedin@Work. Employees consciously choose how, when, where and with whom they work. From home, at the office, out on site or at a different workplace. The location differs from one person to the next, just as each job differs from the next. Personal preferences also play a role. The starting point is that we do our work wherever and in whichever way is best for the job and job performance.

We offer considerable flexibility in the choice of whether to work from home or at the office. We stay focused when working from home, just as we conduct meetings online wherever possible. Provided that the situation related to COVID-19 allows, we go to the office to work with colleagues, to meet each other and to stay in touch with the organisation. This contributes to a better work-life balance and helps decrease traffic and congestion.

Care leave and special leave

Pursuant to the law, the Collective Labour Agreement and our HR Company Regulations, employees may take care leave and special leave.

- 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.
- Moreover, employees are legally entitled to 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.
- If someone dear to an employee 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 be granted paid special leave (emergency leave or short-term leave of absence).
- Employees can take long-term care leave, if needed, during which time they receive 70% of their salary.
- In a number of cases, employees are entitled to special leave on full pay in addition to the statutory arrangements. That is provided for in the Collective Labour Agreement. This leave is available for the employee's wedding day or that of a 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.

- Employees may take regular and additional childbirth leave. An employee may take one week's leave on full pay within four weeks after the birth of a child. This may be followed by additional childbirth leave, to be taken within six months following the birth of the child. This additional childbirth leave may be taken for up to five weeks, during which time the employee receives benefit at 70% of the (maximum) daily wage from the Employee Insurance Agency (UWV).

Financial support

Assistance is available for employees with debt problems or at risk of debt problems. Stedin offers:

- Staff welfare services: aimed at supporting employees with financial problems in regaining a grip on their financial situation. Employees can contact Stedin's staff welfare officer directly;
- Advance: where an employee needs funds at short notice, the manager can request an advance for them. This may help the employee get a short-term grip on financial problems. An advance can be provided at an amount of up to one month's gross salary;
- Preventive budget coaching: this takes the form of Stedin partially covering the costs of the intake/consultation.

COVID-19

The recurrent and sustained measures taken by the government demanded that constant attention be paid to caring for employees' well-being. Employees were subject to restrictions on meeting one another and missed the social contacts. Considerable attention was paid to colleagues working from home in the form of webinars. These covered a variety of topics, including how to look after health and mental fitness when working from home. The homeworking budget was also introduced. Employees were able to spend up to €750 on home working resources, to enable them to fit out their home workplace efficiently and sustainably. Steps were taken to ensure that field staff could continue to carry out their work safely.

The impact of COVID-19 affects us all. It is particularly tragic that two of our colleagues died due to COVID-19 in the past year. Stedin was deeply saddened by this news.



Inclusive society

Contributing to an inclusive society is an element of our One Planet 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, 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 section on [Integrity](#).

With respect to an 'inclusive society', we focus on three areas: a diverse workforce, working together to ensure everyone's continued participation and corporate social responsibility.

Diverse and inclusive workforce

In the past year, we worked on furthering our diversity and inclusiveness policy at Stedin based on two spearheads:

- **Baseline measurement:** we performed a qualitative and quantitative analysis of the degree of diversity and inclusiveness of our organisation. The outcomes of the baseline measurement show that we perform well on a number of fronts. Our employee satisfaction survey, for example, shows that employees give inclusiveness within our culture a rating of 8.1. Employees are accepted as they are in their work environment, are not afraid to be themselves and think that everyone is treated equally and with respect, regardless of their background or personal characteristics. Nevertheless, there is still room for improvement, for example, regarding the representation of various target groups within all business units and at all levels of the organisation. Based on the insights from the baseline measurement, we will frame our diversity and

inclusiveness policy in 2022 and determine appropriate and ambitious targets for various aspects, such as male-female ratio, age groups, people with an occupational disability and cultural diversity. We will also set targets for the perception of inclusiveness within our culture;

- **Awareness of diversity and inclusion:** making Stedin more diverse and inclusive requires behavioural change. For that reason, the focus in 2021 was on awareness within the entire organisation. We organised inspiration sessions in all MTs. In these sessions, attention was focused on new ways of looking at recruitment and selection, for example, as well as conscious and unconscious bias. A diversity week was organised in collaboration with network groups within Stedin, including the Jong Stedin young professionals network, F-EMPOWER and the 'Rainbow Drinks Receptions'. Over six days, inspiring speakers addressed the audience on a diversity or inclusion-related topic. We also ran an internal communication campaign that each month focused attention on sustainable and inclusive employability.

Danny Benima signed the Diversity at Work Charter on behalf of Stedin Group. Diversity at Work is a project of the Social and Economic Council (SER) aimed at stimulating diversity and inclusion in the workplace. This is done by drawing lessons from the experiences of what works and what does not of all the signatories to the Charter.



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 will be held in May 2022. Every employee with a permanent contract may stand for election.

This right may also be exercised by the following groups within Stedin:

Young people: 22% of our workforce consists of young people and adults aged below 35. 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 placement posts as well as campus recruitment (fourth class of 'Makers of the Future'). In addition, many young, inspired employees are members of 'Jong Stedin' (700 members), our young professionals network that focuses on mutual connection and building a successful organisation.

Number of work placement posts	2017	2018	2019	2020	2021
Number	96*	109	122	126	122
Target: > 1% of workforce	2.14%*	2.44%	2.81%	2.95%	2.91%

* Excl. DNWG

Male/female ratio: Only 18% of our employees are women, due to the technical nature of the work we perform. The percentage of women in each job level is as follows:

- Strategic executives: 35.5%;
- Tactical executives and senior professionals: 19.3%;
- Other job categories: approx. 16%.

We are actively seeking to attract more women to technology and engineering, and to technical training programmes in particular. An all-female team comprising seven women joined the Service Team Operations in January 2021. Events are organised within Stedin Group by F-EMPOWER, a network that actively focuses on encouraging female employees. We actively seek to recruit talented female employees.



LGBTI: a group of employees has organised so-called 'rainbow drinks receptions' since 2020. These gatherings are aimed at helping to make employees feel more at ease about discussing their personal situation at work, even if it differs from that of their colleagues. This initiative will grow into a formal LGBTI network from 2022.

Limited access to the labour market

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 more sustainable jobs for this group once again in 2021. In 2021, Stedin achieved the target under the Participation Act for the number of employees with an occupational disability. The target for 2024 is to create 122 jobs under the Participation Act (that is 3% of our workforce) since it came into force in 2015. We are on course to achieve this target.

In the Service Team Operations, we train young people with an occupational disability (and a jobs agreement indication issued by the Employee Insurance Agency (UWV) or the municipality) as assistant fitters. In order to work as an assistant fitter, they first need to obtain several safety certificates. We adapted the training material to present a practical focus for this group, and we gave the work supervisors a role in passing the knowledge on to them. The results are extremely encouraging, with a high success rate (77%) and a low drop-out rate. At the end of 2019, 17 people with an occupational disability worked for the Service Team Operations; by the end of 2021, this figure had grown to 52 trainees (the target was 49 trainees). By now, 12 trainees have joined a regular operational team within Stedin.

How Stedin Group implements the Participation Act*

Business unit	FTE internal	Target (2.56%)	Number of jobs	Achieved in 2021
Stedin	3,512.4	89.9	91.0	101%
DNWG	516.0	13.2	3.0	23%
Stedin Group total	4,028.4	103.1	94.0	91%

* Excluding the Board of Management and NetVerder

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, Stronger Together and Fleet Management), the employees concerned received close support and assistance from the moment the change was announced until possible redundancy due to the downsizing of positions 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 employ the safety net under our sectoral collective labour agreement to provide colleagues with work-to-work guidance outside Stedin.

Flexible working practices

We limit the flexible use of temporary agency workers as far as possible, depending on the type of work. A conscious decision is made to use the temporary workforce in order to fulfil a need for temporary, irregular work. This situation may apply to temporary projects, to temporary support (e.g. maternity leave replacement), when specific expertise is momentarily required and to competencies that are very scarce (e.g. specialised IT staff). When using temporary contracts, we ensure that we comply with the applicable rules on their number and duration. We check our temporary workforce

for length of use, quality and costs at regular intervals. That way, we avoid unnecessary costs and loss of knowledge. This also allows us to promote the possibility of internal advancement by colleagues.

The percentage of external compared to internal employees in 2021 was 15.7% (2020: 14.2%; 2019: 15.6%). This ratio was affected by the impact of the coronavirus crisis on the workload. [Click here](#) for a full listing of ratios and key figures relating to Stedin Group's workforce.

Collective Labour Agreement

A new Collective Labour Agreement was concluded in 2021. The short period of validity of 20 months (1 May 2021 to 31 December 2022, inclusive) makes it possible to take additional steps in the shorter term in relation to long-term employability. A sectoral analysis was carried out in the context of the Customised Arrangement for Long-term Employability & Early Retirement (Maatwerkregeling Duurzame Inzetbaarheid & Eerder Uittreden, MDIEU). Partly on this basis, the grid managers and the trade unions worked together to develop a joint vision for long-term employability. This enables the parties to the collective agreement, at the sectoral as well as company level, to take appropriate measures to further improve long-term employability. Special attention is paid in this context to the workload and workload capacity of on-call and emergency repair workers.

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 Alco de Lange – chair of Stedin Group Works Council

‘Trust is increasingly important as the basis of our organising endeavours!’

How do we treat our employees, and what do changes mean for them? From digitalisation to a new performance review system: that is the key issue that continues to exercise the Works Council.

What were the key topics for the Works Council in 2021?

All the important matters within Stedin Group, from chain-based working to financial issues, are discussed by the Works Council. The issue of long-term financing was one of our main concerns in 2021. The integration with DNWG was also discussed at length during the year. Not to forget the energy transition and the evolving measures to deal with the COVID-19 pandemic, of course. We also discussed the outsourcing of work. What is the best way forward? And if we outsource more and increasingly become work inspectors, how can we ensure the timely engagement of the workers concerned in that move? Digitalisation is another key topic. While we have the means to monitor many things remotely, from laptops to company cars, is that what we want? Finally, we strongly promoted structural improvement in on-call and emergency repair work provisions. Instead of an increasingly heavier workload for an ever decreasing group of colleagues, we would like to ensure a larger pool is created to spread the workload more evenly.

What do you consider highlights last year?

One of the highlights was the launch of the pilot on the role of HR mediators. Where can you turn if you encounter issues at work, such as teasing or a poor relationship with your manager, for example? The HR mediator can actively bring these issues into the open, often also helping to resolve them in that way. The Works Council set up this pilot in cooperation with HR and the confidential advisers. In November, social safety was once again the focus of attention with the award of the Golden Social Safety Shoe. This award was originally initiated by the Works Council.

Three members of DNWG’s Works Council already take part in Stedin Group’s Works Council, of whom one sits in our Executive Committee. As such, we formed an integrated Works Council well before 1 January 2022. This has brought us many benefits.

We are also pleased with the growing role played by our Networking Works Council members. They are not Works Council members, instead forming an important advisory group that provides input to the Works Council. An ‘NWC consultation’ is held every six weeks, during which we update them on recent developments and they can share questions and concerns with us. Last year, we also made good progress in terms of internal cooperation. Our Works Council Dashboard, in which useful information is recorded, is a great help in this regard.

Any low points?

The coronavirus crisis. It continued to pose severe challenges in 2021. We were naturally deeply saddened at the death of colleagues who had contracted a COVID-19 infection. Fortnightly consultations with the director of Safety provided an effective platform for responding to many tensions and concerns. In our role as Works Council, we voice the feelings in the workplace, so that they can be immediately addressed.

Elections

Backed by the Board of Management and the workforce, we previously extended our term of office by one year in the light of the integration with DNWG. Our five-year term is therefore set to expire in May 2022. We will organise a campaign highlighting the positives of Works Council engagement, leading to the creation of a new Works Council, made up of motivated colleagues, which reflects our organisation!



Positive impact on people and planet

Stedin wants to be at the forefront in terms of sustainable business operation. We are working to achieve climate-neutral business operation by 2030. We concentrate our efforts on those areas in which our impact is greatest: CO₂ and particulate matter emissions, use of raw materials and the restoration of biodiversity. At the same time, we also have a social responsibility in the supply chain, prompting us to engage suppliers in dialogue on the same topics. This results in sustainable and socially responsible products and services.

It became clear in 2021 that sustainability is no longer seen as aspirational but as essential and a 'licence to operate'. In its 'Fit for 55 programme', for example, the European

Commission tightened its climate targets, adopting a revised 55% net emissions reduction target by 2030. At the same time, we can observe that municipalities and other stakeholders attach increasing value to sustainability. We are being asked more and more questions about the sustainable integration of infrastructure in an increasingly congested urban environment. Alongside this, it is clear that climate change adaptation policy is essential to help us prepare for the effects of climate change.

One Planet KPIs

We concentrate our efforts on those areas in which our impact is greatest: CO₂ 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 section on [Good employment practice](#).

One Planet KPIs

		2019	2020	2021	Target for 2022
Reduction of CO ₂ emissions, excluding gas network losses	Target	-9%	-18%	-27%*	-36%
	Achieved	-13%	-28%	-45%**	
Greening of electricity grid losses, Stedin Group in %	Target	100%	100%	100%	100%
	Achieved	100%	100%	100%	
Circularity of purchasing of primary assets, Stedin	Target	n/a	n/a	38%	40%
	Achieved	n/a	34%	38%	

* Reduction target compared to base year 2018

** As of 2020, grid managers are responsible for making gas network losses more sustainable. Including gas network losses, there is a decrease of 6% compared to 2020.

Review of One Planet strategy

In 2021, we began a review of our One Planet strategy, by developing policy for improving the sustainability of our current and new infrastructure and by launching a training programme aimed at enabling colleagues to engage with sustainability and undertake related initiatives themselves. The strategy review is focused on achieving a tightening up of our targets, the addition of biodiversity as a strategic theme and positioning climate change adaptation as a topic within the organisation. Climate change mitigation has been an established part of our sustainability strategy for some time.

Science Based Targets

An analysis carried out in 2019 established that, in the light of our measures, we are operating within the limits of the Paris Agreement. In 2022, Stedin will commence a process that takes its lead from the Science Based Targets Initiative.

External verification of our sustainability strategy by the Science Based Targets Initiative means that it will be officially established that Stedin is operating in line with the 'max. 1.5 degrees warming scenario' under the Paris Agreement.



CO₂ and particulate matter emissions

Stedin uses the Greenhouse Gas Protocol (GHG) to monitor its CO₂ emissions. The GHG Protocol classifies a company's GHG emissions into three 'scopes'. 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 CO₂, emissions of other greenhouse gases also occur. These emissions are translated to CO₂ equivalents to produce a comprehensive overview of Stedin Group's emissions. In this

Report, the term 'CO₂ emissions' is used to denote these combined greenhouse gases.

CO ₂ emissions, including greening			Results in tonnes CO ₂ eq		
Scope according to GHG protocol	Explanatory information	What this includes for Stedin	2019	2020	2021
Scope 1: Direct emissions	Greenhouse (GHG) emissions that occur from owned sources or from leased assets and result directly from our core activities	Gas consumption of our buildings	454	453	385
		Our mobility (lease & company cars)	8,856	7,311	6,283
		Network losses from our gas network*	105,008	106,842	101,552
		SF6 addition	187	137	452
Scope 2: Indirect emissions	All greenhouse gas (GHG) emissions from the generation of electricity consumed by Stedin but generated by third parties.	Electricity and heat consumption of our buildings	238	1,168	1,201
		Electricity grid losses	179	566	641
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.	Commuting	2,760	1,407	211
		Business trips	659	411	387
		Purchasing	191,396	170,129	153,374
		Waste (emissions avoided by recycling)	-831	-855	-906

* excl. administrative gas network losses of Enduris

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 CO₂ emissions. In 2021, we began the development of a purchasing strategy aimed at effectively compensating the gas network losses. This will be implemented further in 2022. We reduce gas network losses by replacing, throughout our entire network, brittle pipelines with plastic pipelines from which there is less gas leakage during transport. The CO₂ emissions from Stedin Group's business operations, excluding network losses, decreased by 45% compared to the base year 2018. That is well within the targets set. The largest decrease occurred in relation to mobility, mainly as result of the coronavirus crisis. While most switchgear is leak-proof, a limited quantity of SF₆ is emitted each year. In 2021, Stedin added 18 kg of SF₆ (2020: 6 kg); also in 2021, DNWG added 1.0 kg (2020: 1.0 kg) of SF₆.

Scope 2: each year, Stedin Group compensates almost 100% of the CO₂ 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 a power purchase agreement; this involves us purchasing green electricity directly from a sustainable source such as a wind or solar farm. 60% of the network losses are compensated by purchasing Guarantees of Origin (GoO). In the longer term, Stedin Group wishes to increase

the percentage of network losses it compensates through power purchase agreements. This figure should be over 80% by around 2030.

	Energy transmission	Grid losses	Percentage
2016	20,270 GWh	1,020 GWh	5.03%
2017	21,893 GWh	1,052 GWh	4.80%
2018	21,330 GWh	1,076 GWh	5.05%
2019	21,100 GWh	1,069 GWh	5.06%
2020	20,171 GWh	953 GWh	4.50%
2021	20,529 GWh	931 GWh	4.14%

Scope 3: we are committed to reducing emissions from network components wherever possible. You can read more about commuting, business trips and public transport use under the heading 'Reduction of CO₂ 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 CO₂ emissions classified by the various scopes.



Reduction of CO2 and particulate matter emissions via our mobility

At Stedin Group, mobility is jointly comprised of car use, commuting and business travel. We have a phased approach to making our mobility more sustainable based on the three As of Avoiding, Adjusting and Augmenting the sustainability of what remains. Our results in 2021 are as follows:

- With 569 electric cars, this part of our vehicle fleet is largely electrified. Full electrification is in sight. It is our policy when the timing is natural, on the expiry of a lease contract, to replace petrol or diesel-driven cars with electric vehicles.
- We received a first proposal for company vans that suits our needs. In 2021, we operated 42 medium-sized electric company vans. The range of these vehicles is adequate.
- We now have more than 300 charging points at our Stedin locations. We have installed a 150 kW fast charger at two locations for our company transport, with a third soon to be added.

We foresee that electrification of the entire fleet will present a major challenge. A further impetus is needed to ensure the availability of vehicles, subsidy options and charging infrastructure if the ambitions under the Climate Agreement for Zero-Emission urban logistics are to be facilitated.



Yellow registration plates by fuel type

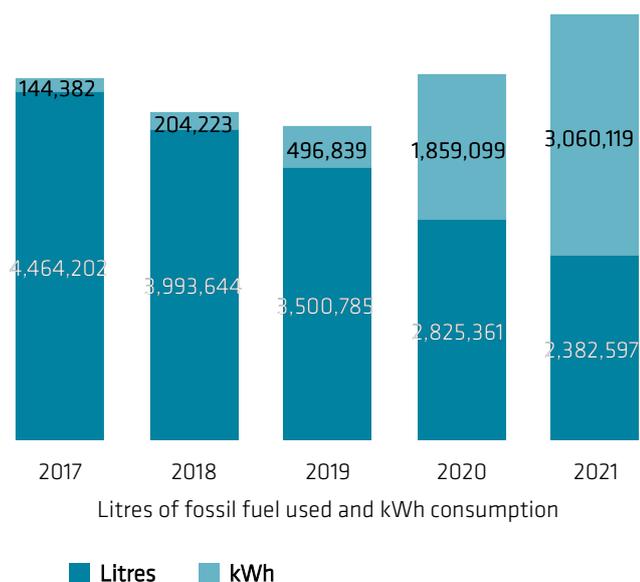
Number of yellow registration plates by fuel type	Petrol	Diesel	LPG	Hybrid	EV
2017	58	244	1	512	38
2018	34	171	0	480	123
2019	26	115	1	417	273
2020	21	60	0	249	485
2021	19	26	0	181	569

Commercially registered vehicles by fuel type

Number of commercially registered vehicles by fuel type	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

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 2021, we used 442,764 litres less fossil fuels (petrol, diesel, LPG) for our commercial and lease vehicles than in 2020 (a reduction of 16%). Electric charging of our commercial and lease vehicles increased by 1,201,020 kWh (65%) compared to the previous year.



Commuting

Employees who have a free season ticket for public transport can travel by public transport for business as well as private purposes. In 2021 as well, few employees used public transport in connection with the COVID-19 pandemic. We are also encouraging other sustainable alternatives at the same time. The tendering procedure for lease bicycles was concluded at the end of 2021. Under the new scheme, Stedin employees can opt for a lease bicycle from early 2022.

Stedin Group participates in the Anders Reizen Coalitie (Travelling Differently Coalition). In this Coalition, Stedin leads the task force examining ways to make fleet operations of company vans more sustainable. Stedin is also a participant in the Covenant ZECL (Zero Emission City Logistics) of the Municipality of Rotterdam, aimed at contributing to a sustainable, accessible and energy-efficient city.

Accommodation

Stedin takes a conscious approach to its real estate. This means that we implement sustainability measures when undertaking renovation, during use as well as in relation to mobility. We green the CO₂ emissions from our buildings that we are unable to avoid or reduce by entering into green energy contracts with our suppliers. The Stedin@Work (see 'Professionally competent employees') work concept will furthermore result in lower accommodation and mobility costs in the longer term.

Renovation of Anthony Fokkerstraat

The renovation of our Goes location was undertaken in 2021. The aim was to create a sustainable building and to close two other locations. The new work environment in Goes was designed with flexibility and efficiency in mind, enabling us to add more workspaces. By applying various approaches, most notably the Stedin@Work work concept, in which working from home is an integral element, we have been able to achieve real estate consolidation. All parts of the building are now gas free, a heat pump has been installed, energy-efficient lighting and climate control systems have been fitted and 678 solar panels with a generating capacity of 190 kWp have been installed on various roofs. In addition, 57 charge points have been created for electrification of company and other transport.



Raw materials and environment

We aim to maximise circularity both from a sustainability perspective 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 after the useful life has expired and work with our waste processors to ensure the highest-grade recycling of products.

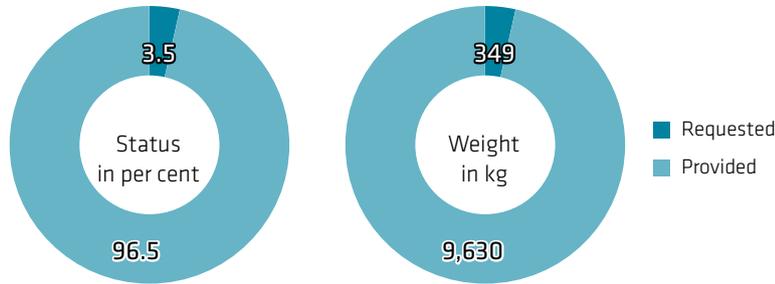
KPI for circular purchasing and the raw materials passport

Since 2021, our policy of requesting raw materials passports has provided us with good insight into the circular performance of our primary assets. We do this by analysing the data from the raw materials passports and by working with suppliers to determine a strategy for increasing the circularity of the assets. This can be achieved in two ways. On the one hand, by ensuring that more recycled raw materials are used in the production process. On the other hand, by ensuring a higher recyclable percentage for assets (high-grade recycling) after their useful life has expired. An example of this is a current tendering procedure for joints that we use in the replacement of grey cast iron pipes. In this context, we are aiming for continuous recyclability at a rate of 50-80%. Fewer raw materials are needed, since we purchase fewer products and only buy the replacement parts. Technicians can perform reconditioning work on site or centrally in the workshop. This not only leads to fewer transport movements, it also generates financial savings of approximately 50%.

Based on our current understanding, we appear to be on course to achieve a circularity percentage of 38%. This would

mean we achieved our 2021 target of 38%. Our target for 2022 is 40%.

Status of request for raw materials passport based on total ordered weight (in kg x 1,000).



Assessing the environmental impact of purchased assets

To deepen our understanding of the impact of our purchased assets and allow us to assess the sustainability performance of suppliers, we teamed up with the other grid managers and CE Delft to develop an Asset Tool. This tool makes it possible to calculate the environmental impact for transformers, cables, pipelines, conductors, stations and switchgear. It also enables us to include the outcomes as an integral factor in sustainability weighting in the tendering process. The tool provides us with better insight into our impact in the chain and enables us to advance improvements in cooperation with suppliers and the sector.



Investments linked to green bonds

We issued a green bond for the first time in 2019. The €500 million raised is linked to investments made by Stedin Group in sustainable projects, such as connecting new wind turbines and solar farms to Stedin’s electricity grid and

energy-efficient housing. Some examples of the investments we have undertaken with the green bond are highlighted below. You can read more about the green bond we issued in 2021 in the section on 'Financial, economic performance'.

Redeployment of scarce raw materials

Used assets are re-used in our grid. This helps to reduce CO₂ emissions and maximise use of scarce raw materials. An example is used transformers, which we check, test and then re-use. In 2021, we did this with 74 transformers (9% of the total number of transformers that were deployed). We also established a database for available parts and raw materials. Multiple grid operators use this database to share information, via Ksandr, for example, on cables, transformers and other materials to facilitate their possible re-use. Using this approach, Enexis recently provided Stedin with a number of MX time switches, for example. These parts are no longer available and can now be used by Stedin in the event of a failure affecting this type of MS switch.

Improving circularity

The useful life of many assets in the grid can be extended by replacing parts. However, the assets may be so old that replacement parts are no longer available. When replacing a smart meter, for example, the old plastic protective covers of the home connection box may break off. As these protective covers are no longer available, the entire box would need replacing. We have now developed 3D-printed protective covers, thereby extending the useful life of the home connection box. The benefits of this are reduced inconvenience for our customers, greater efficiency and a need for fewer raw materials thanks to an extended useful life of our assets.

Phasing out ‘SF6’ in switchgear

SF₆ is used as an insulation medium in our high and medium-voltage switchgear. We want to limit the use of these types of gas as far as possible by preventing new switchgear from containing SF₆. The new standard medium-voltage switchgear that is installed for grid expansion or replacement is SF₆ free. In 2021, SF₆-free switchgear was installed 166 times (25.5% of the total switchgear). We are also running a tender for larger switchgear, where SF₆-free switchgear is conferred an economic advantage due to a lower CO₂ footprint rating and the possibility for subsidy. In addition, we are working to minimise transport leakage from current switch gear containing SF₆. We are carrying out studies in this regard in our Innovation Lab.

Waste (in kg)

The table below shows the amount of waste from Stedin Group in 2021. The rise in the percentage of non-recyclable materials relates to asbestos. In 2020 as well as in 2021, Stedin had to undertake remediation work in Utrecht involving the removal from the ground and disposal of asbestos. In Zeeland as well, 567,420 kg of asbestos was removed. This asbestos originated mostly from the replacement of water pipes and represents 85.5% of the proportion of asbestos in non-recycled waste. Cast iron makes up a large share of the materials that are recycled, due to the accelerated replacement of our cast-iron gas pipelines. We disposed of 2,861,725 kg of cast iron in 2021. For this specific flow, that is 300 tonnes more than in 2020: 2,561,060 kg. Cast iron is always recycled.

Waste (in kg)	2017*	2018*	2019*	2020*	2021**
Total volume of waste	6,400,386	8,588,912	9,576,136	8,885,295	11,424,839
Total volume of waste recycled	5,831,399	7,755,969	8,623,144	7,710,474	8,636,798
Total volume of waste not recycled	568,987	832,943	952,992	1,174,821	2,788,041
% of waste not recycled	9%	10%	10%	13%	24%
Total asbestos	487,730	771,930	718,550	756,645	1,894,085
% of asbestos in waste not recycled	86%	93%	75%	64%	68%

* Stedin Netbeheer, ** Stedin Netbeheer + Enduris

Biodiversity

In 2021, we began developing biodiversity as a new theme in our sustainability strategy. Stedin’s infrastructure offers a unique opportunity to strengthen biodiversity. Green roofs, sinus management (a meandering mowing method) and full ecological integration of stations in the surroundings, for example, are potential sources of biodiversity gains. In addition to a direct contribution to biodiversity and improved sustainability, local authorities and residents are increasingly demanding that our stations be sustainably integrated in the landscape. We also see that natural solutions contribute to climate change adaptation or can mitigate technical challenges, such as heat stress. We focus on integrating measures aimed at promoting biodiversity in new construction, existing infrastructure and maintenance/management.

Collaboration: Groene Netten Coalition

Groene Netten is a collaboration between MVO Nederland and the eight largest infrastructure operators in the Netherlands: Alliander, Enexis, Gasunie, KPN, ProRail, Rijkswaterstaat, TenneT and Stedin. Together, we are targeting action to improve sustainability faster, smarter and

at lower societal cost. Stedin is working with the coalition, among other things, on the creation of an ecological main infrastructure: an area of 922 square kilometres in urban and outlying areas that is being jointly developed to contribute to biodiversity restoration. That is larger than the Veluwe national park and a quarter of the land-based nature in the Netherlands. Naturalis Biodiversity Center and Dutch Butterfly Conservation are helping Groene Netten to analyse where the greatest impact can be achieved. The analysis is being carried out on the basis of an opportunity map, which is being developed with Naturalis. In 2022, Groene Netten aims to take concrete steps towards setting up and carrying out projects at promising locations.

One Planet governance

The Board of Management (BoM) is responsible for the ambitions and objectives that have been formulated for Stedin Group. The BoM 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 2021.

Results on the KPIs are reported to the BoM 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 'Excessive environmental impact' and 'Environmental pollution' are included in the table 'Strategic risks and opportunities'.

Risks for Stedin associated with climate change and adaptation

Heavy rainfall, flooding and prolonged drought are increasingly common and, additionally, are becoming more extreme. Stedin therefore not only embraces measures to prevent climate change, it is also taking steps to prepare for the risks of a changing climate. We refer to this as climate change adaptation. Four risks apply in particular to Stedin: sea-level rise, extreme rainfall, drought and extreme temperatures and flooding.

To acquire and share knowledge, Stedin has joined the 'Climate Adaptation Coalition', a coalition of parties who are exploring appropriate ways of identifying the risks of climate change and how we can best prepare ourselves for those risks. In the context of Netbeheer Nederland, Stedin is also

paying attention to sharing knowledge and experience, and we have analysed vulnerabilities in components in relation to climate change. Together with municipal authorities and security regions, Stedin has also carried out area studies to share and identify the impact of excess water and flooding on a region-by-region basis. These studies show that the electricity grid is more robust than was previously thought. Undertaking investments to proactively mitigate the risk is therefore not cost effective. In 2022, 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 risks are minimised. An example is green roofs on our stations.

Climate sensors

Stedin has developed climate sensors to give better insight into temperature and humidity, among other things, in electricity stations. This information is used to implement measures aimed at improving climate conditions, thereby optimising station performance and preserving useful life. The methods currently employed fail to provide that insight at a sufficient level or on time. In 2022, we will begin rolling out the climate sensors in stations where that is necessary.

Green roof for biodiversity and heat stress prevention

In October 2021, a green Sedum roof measuring 750 m² was installed on our high-voltage station at Benjamin Franklinstraat in Rotterdam. This is an example of how we are deploying our own infrastructure in the interest of biodiversity restoration. This fits in with our strategy for improving sustainability. Aside from this, the green roof also has many additional benefits. This particular station is affected by heat issues, with excessively high temperatures in the summer. Our systems therefore have difficulty releasing the heat. A green roof helps resolve the heat problem, with a temperature up to 5 degrees lower than roofs without green matting.

Measuring biodiversity

To increase the biodiversity impact, Stedin had the roof sown with a mix of native herbs and flowers of 19 different species. This attracts numerous insects. Furthermore, the station is located in an area with an increased risk of flooding. A green roof retains water for longer periods, thereby decreasing the risk. These positive effects prompted the Municipality of Rotterdam to award Stedin a grant for the green roof.



Impact in the purchasing chain

Stedin Group bears its social responsibility for sustainability in the supply chain by actively focusing on the ambitions regarding CO₂ emissions, raw materials, particulate matter emissions, biodiversity and social working conditions. Stedin bears this responsibility both in its tendering procedures and in its collaboration with suppliers. With a purchasing volume of €864 million in 2021, 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 portion of the purchasing volume, which is very small, comes from 16 European countries, Turkey and the United States.

Supply chain responsibility

All our contracted suppliers are expected to sign the [Stedin Supplier Code of Conduct](#). 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 One Planet 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). The Code of Conduct has been signed covering 63% of our expenditure. Signing the Code of Conduct is a mandatory element in all new tendering procedures. That way, the percentage automatically increases each year at the natural moments of contact renewal.

Self-assessments were sent to 12 strategic equipment suppliers in relation to corporate social responsibility. If it is clear from the data and self-assessments that a follow-through in greater depth is required for the replies given, it may be necessary to perform an external audit at a supplier. The purpose of the audit is to formulate joint improvement plans to reduce the greatest risks concerning sustainability, human rights and integrity.

An online audit was carried out in the case of three suppliers; shortly after the COVID-19 measures were relaxed, the first physical audit was performed on site. As the outcomes of the audits were positive, no additional action was necessary.

We take responsibility for our supply chain emissions, such as the emissions that occur at our contractors or that arise

during the production and transport of the components and assets that we purchase. We take the CO₂ footprint as well as other issues such as material usage and social working conditions into consideration in our purchasing processes. They form the basis for selecting suppliers.

Governance in relation to the supply chain

In July 2021, the Board of Management approved the ambitions outlined in the Supply Chain strategic plan. This plan sets out the development of the Supply Chain organisation in the area of supply chain management.

Supply Chain has its own reporting line to the Board of Management. The reporting is based on a KPI dashboard and monthly MT reviews related to insight and performance. Details and deviations are reported to the Board of Management through the Monthly Business Review (BUR). In the BUR, we report on topics such as stock positions, availability indications from the market and price fluctuations.

Our risk management and the potential sustainability risks in our supply chain were redefined and reintegrated in the new Supply Chain organisation at the end of 2021. This ensures that structural covering is now also extended to monitoring and the reporting of deviations from monitoring.

Recovery procedures

Discussions are held at regular intervals with stakeholders from the various categories (Contracting & services, Materials & smart meters, ICT and Services), so that findings can be immediately shared and converted into recovery procedures.

An example of this policy can be seen in the Materials Task Force: a collaboration between the business, the logistics department and vendor management, aimed at minimising shortages in supplies of materials during the COVID pandemic. Prices and availability of materials are interconnected and therefore need to be managed together. The work undertaken by the Materials Task Force proved our ability to fully mitigate this risk. We aim to maximise added value for all purchased materials and services by taking quality, price, sustainability, safety and innovation as the basis for awarding tenders, contracting and conducting assessments. These criteria are included in the KPIs that are assessed on the basis of data, assessments and self-assessments as well as audits.



Financial, 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 energy transition.

The conversion of the energy system is a condition for achieving the climate targets that have been set and for facilitating a climate-neutral economy by 2050. In the spring of 2021, PwC calculated that the three major regional grid managers (Liander, Stedin and Enexis Netbeheer) and the manager of the national high-voltage grid (TenneT) will need to invest at least €102 billion in the electricity grid and the regional gas grids by 2050. It is becoming increasingly apparent that it will only be possible to secure the financing if all the parties work together, from regulators to public authorities. Close consultation with a large number of stakeholders was therefore a recurrent feature of 2021. The two round-table meetings that were held with representatives of the grid managers, VNG/IPO, the Netherlands Authority for Consumers and Markets (ACM) and the Ministry of Economic Affairs and Climate Policy are an example of this. While these meetings produced several positive results, much still needs to be done to secure the necessary financing up to 2030 in any event.

Increasing investments

Stedin's total investments in the energy transition in the period from 2021 up to and including 2030 are expected to total over €8 billion. That is almost €2 billion more than previously estimated for this period. At the same time, the developments in relation to Fit for 55 as well as around congestion are not yet included in these figures. As soon as it is clear how the plans are to be implemented, the assessment of the financial implications will be updated and the investment agenda will increase further. The investments by Stedin in the energy network are necessary to keep the grid safe and reliable, to achieve the climate objectives, to fulfil the ambitions in the Regional Energy Strategies as well as to facilitate economic growth. The necessary funds will come partly from our own earnings and partly from loans that we raise. Additional equity will also be needed.

Capital requirement

Further to the €200 million in equity capital that has already been paid up, Stedin expects to need an additional €800 million at a minimum. This is the minimum amount

needed to continue to meet our core tasks and maintain an 'A' category credit rating. Otherwise investments need to be further deferred, and there is no financial buffer. In the desirable situation, Stedin has sufficient financial means to enable it to provide maximum facilitation of the energy transition and economic growth as well as to ensure management and maintenance to be at the appropriate risk level into the future. In this scenario, Stedin expects to need at least €1.8 billion to guarantee a safe and reliable grid for future generations as well. In light of its responsibility, Stedin is targeting this desirable scenario.

ACM method decision

A key element in relation to financing is the new method decision established by the ACM, which was published in September 2021. This decision determines how the tariffs that grid managers are allowed to charge are structured 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 should be adjusted, since at this moment it is not sufficiently in line with the tasks facing the grid managers in facilitating the energy transition. This resulted, among other things, in the ACM no longer pushing back part of the 'reasonable revenues' of the grid managers. As a consequence, the need for (pre)financing is reduced. However, that is still not sufficient to cover the sharply rising costs for the electricity grid.

And-and strategy

Alongside appropriate regulations, the only way to generate sufficient financial resources is to adopt an 'and-and strategy'. That means continuously improving the efficiency of our own organisation, lobbying for regulatory improvements and also asking current and potential new shareholders to make a contribution. Progress was made on all fronts in 2021.

Working effectively and efficiently

In 2018, a five-year efficiency programme was launched with the aim of structurally reducing our expenditure. You can read more about the objectives and results of this efficiency programme in the section on [Affordable and efficient services](#).

Long-term financing

Stedin has reached out to its shareholders. In 2021, to cover the short-term requirement, shareholders made a capital contribution of €200 million to strengthen Stedin's equity, after a large part the profit of €251 million related to the 2019 disposal of Joulz Diensten has been retained within the company. Municipalities with shares in Stedin were able to individually subscribe to the issue of cumulative preference shares. During the meeting of shareholders on 25 June, the shareholders approved the capital contribution. 80% of the shareholders subscribed to the preference shares. By doing so, they have enabled us to take a major next step towards a financially healthy future for Stedin Group, supporting the progress of the energy transition in our region. In accordance with the agreements that were made relating to the contribution of €200 million, in the second half of 2021, Stedin and its shareholders again started discussions on how the long-term capital requirement can be met.

Exploring possibilities for attracting new shareholders

Financing the energy transition places demands on us as a grid manager, on our shareholders and also on other parties including the central government. In 2021, the Ministry of Economic Affairs and Climate Policy and the Ministry of Finance noted that, in addition to the Method Decision, an adjustment is needed to finance the conversion of the energy system. Stedin, Alliander and Enexis are jointly engaged in talks with the two ministries and are involving their shareholders in this process. We are also exploring the possibilities of attracting other new shareholders. Stedin sees a strategic interest in attracting new shareholders, municipalities and provinces, since we, as public bodies, need to act in partnership to achieve the energy transition in the period until 2050.

Equity

In March, Stedin Group successfully refinanced a perpetual subordinated hybrid bond loan of €500 million. The bond loan has a coupon rate of 1.500% and can be redeemed early in March 2027. The issue of the bond loan enabled Stedin to redeem the current hybrid bond loan with a coupon rate of 3.25%. This hybrid refinancing will reduce Stedin's capital costs. The proceeds will be used for general business purposes, with an emphasis on the energy transition.

Debt – Stedin Group issues green bond

In November, Stedin Group successfully issued a green bond for the second time. The €500 million raised is linked to investments made by Stedin Group in sustainable projects, such as connecting new wind turbines and solar farms to

Stedin's electricity grid and energy-efficient housing. The loan of €500 million has a term of five years, an issue price of 99.666% and a coupon interest of 0.0%. Stedin Group attracted existing and new sustainable investors through the bond issue. The issue was oversubscribed four times. This is partly attributable 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.

The issue of the green bond was undertaken in line with the latest legislation and regulations and was also based on an update of our Green Finance Framework. This update enables Stedin to continue issuing green debt securities into the future. The framework was assessed by ISS ESG as an independent expert. In addition, ISS ESG gave Stedin a B corporate sustainability rating, putting Stedin amongst the top 10 companies in its sector.

Stedin issued a green bond for the first time in 2019. The section on ['Impact on people and planet'](#) gives various examples of the green investments we have been able to undertake using the funds raised through this bond.



Credit rating

Standard & Poor's (S&P) reaffirmed Stedin Group's A- credit rating with a stable outlook. In their report, S&P state that they now project that Stedin will have no headroom under the current credit rating in 2021-2023. Lower returns coupled with incremental capex will result in persistently negative cash flows, subsequently putting pressure on Stedin's financial ratios. S&P nonetheless notes that Stedin is firmly committed to an unchanged financial policy. The equity injection of €200 million shows that shareholders are supportive of this policy. In talks, S&P has noted the ongoing absence of formal, public confirmation in this regard. S&P believes that Stedin will require additional measures to

strengthen its financial position in the coming period, for example through raising more equity from new or existing shareholders. They state that they will keep a close eye on developments and closely monitor progress in the coming period.

EU Taxonomy

The EU Taxonomy is part of the European Union’s Green Deal, which aims to see Europe becoming a climate-neutral continent by 2050. The Taxonomy is a guide for investments in sustainability and makes clear which of our activities may be classified as sustainable and contribute to preventing climate change or to mitigate its consequences (climate change adaptation). In 2021, Stedin complied with the first reporting obligations. As a public-interest company, we are obliged to report on the sustainable proportion of our turnover, capital expenditure (CapEx) and the proportion of

operating expenses (OpEx) for the 2021 financial year in alignment with the EU Taxonomy.

Based on the NACE codes (the EU classification of economic activities), sustainable economic activities are made transparent. They constitute the ‘taxonomy-eligible’ economic activities. Stedin’s main activities fall under NACE codes ‘35.13 Distribution of electricity’ and ‘36.0 Water collection, treatment and supply’. Non-sustainable economic activities are part of the ‘taxonomy of non-eligible’ economic activities. This includes NACE code ‘35.22 Distribution of gaseous fuels through mains’. A different view may possibly emerge in the future regarding these activities, impacting the level of Stedin’s eligible economic activities. We report on the non-sustainable economic activities and related revenue streams, capital expenditure and operating expenses in accordance with the EU Taxonomy rules applicable to 2021 in our annual report.

Economic activities (x €1 million)	NACE codes	Absolute turnover	Proportion of turnover	Absolute capital expenditure	Proportion of capital expenditure	Absolute operating expenses	Proportion of operating expenses
Taxonomy-eligible activities							
Transmission and distribution of electricity	35.13	€866	68%	€422	61%	€52	62%
Water collection, treatment and supply	36.0	€26	2%	€0	0%	€4	4%
Total eligible activities		€892	70%	€422	61%	€56	66%
Taxonomy non-eligible activities							
Taxonomy non-eligible activities		€387	30%	€265	39%	€28	34%
Total		€1,279	100%	€687	100%	€84	100%

Total turnover under the EU Taxonomy is consistent with IFRS reporting standards and hence is equal to the total turnover included in the financial statements. The turnover under NACE code 35.13 includes revenues recognised for electricity transmission and connection services, metering services and other services, such as the lease, installation and management of electrical plant and systems. The operating expenses stated under NACE code 35.13 include expenditure for maintenance of and clearance of failures affecting assets for the purpose of maintenance of our electricity grid. The capital expenditure under 35.13 consists of all the investments in property, plant and equipment related to our electricity grid. The capital expenditure under NACE code 36.0 consists of property, plant and equipment

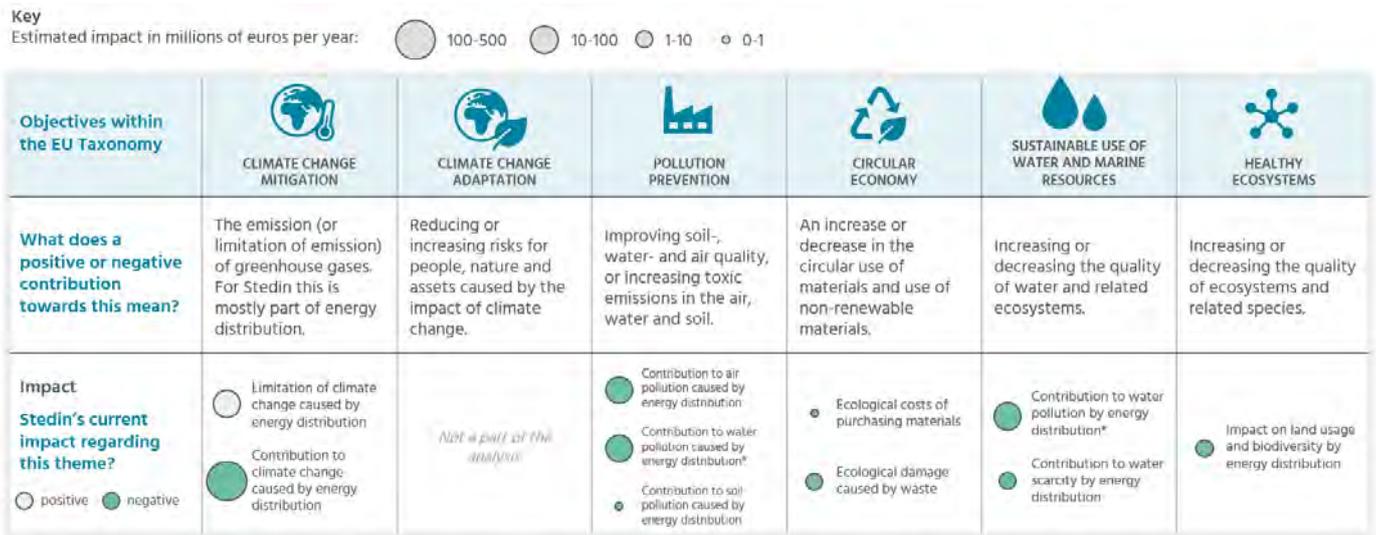
for the pipelines and installations of the water network in the province of Zeeland.

The EU Taxonomy establishes six environmental objectives. In 2021, the descriptions of the sustainable economic activities classified by the European Union were only elaborated for two of the six environmental objectives: climate change mitigation and climate change adaptation. The EU is expected to elaborate the remaining four objectives in 2022. Stedin must meet these objectives for financial year 2022. Specifically, they relate to the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control and the protection and restoration of biodiversity and ecosystems. Subsequent to the introduction of the remaining four

objectives, the following provisions will be important for determining whether an economic activity can be classified as sustainable: 1. contributes substantially to one or more of the six environmental objectives, including the transition to a circular economy; 2. does no significant harm to one of the remaining five environmental objectives; 3. meets the minimum social safeguards.

The figure below shows an estimate of Stedin's net impact on the themes in the EU Taxonomy. In addition to direct impact due to ecological damage from the procurement of goods and waste, the impacts shown concern the climate and environmental impacts due to our role in the energy

supply chain. The main way in which we can reduce the presently still negative impacts is by 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. An analysis of the climate themes in the EU Taxonomy shows that 61% of our investments in 2021 qualify as eligible (see the table on the previous page). In addition to our supply chain responsibility, we have direct impact from our own operations. How we are working on reducing our own climate and environmental impact is explained in the sections 'Positive impact on people and the environment' and 'Measuring impact'.



* 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.

In conversation with **Jan-Willem van den Beukel & Danny Benima**



The climate targets, RESs and the financing challenge facing grid managers are driving increasingly closer cooperation with municipalities. In this double interview between Jan-Willem van de Beukel, alderman responsible for finance of the municipality of Lansingerland, and Stedin CFO Danny Benima, they delve more deeply into that cooperation. The joint conclusion is clear, ‘We have to act as a single authority.’

A series of events in 2021, including flooding in Limburg, rising gas prices and the latest climate conference in Glasgow, made the energy transition front and centre all of a sudden, says Jan-Willem. In spite of the negative impact of some of these events, they have generated widespread understanding of the need to accelerate the energy transition. We need to act now.

In Lansingerland, that action is taking very concrete shape in the form of the planned branch of the WarmtelinQ network to the municipality, which will transport residual heat from the Rotterdam port area to The Hague and surrounding region. ‘That branch represents an important success,’ says Jan-Willem. ‘Our municipality is home to a large greenhouse horticulture cluster, which at the moment uses natural gas, geothermal energy and residual heat from a conventional power plant. The branch provides an important impetus to retaining the sector’s competitiveness, since it enables even more combined heat and power systems to be disconnected, provided that the heat is affordable and reliable and the CO₂ network is simultaneously expanded.’ For Danny too, the very concrete actions taken are the highlights of 2021. ‘The €200 million investment by our shareholders, several improvements in the Method Decision after concerted lobbying and the fact that we managed to engage central government to consider whether and, if so, in what way they can contribute financially to ensure the success of the energy transition are all necessary steps towards facilitating the concrete projects Jan-Willem refers to.’

Who provides the financing?

The conversation with a CFO and an alderman responsible for finance very quickly turns to financing the energy transition –

an important, complex issue. Would Jan-Willem be open to the possibility of non-public organisations also contributing financially? At present, the legal possibilities are limited. ‘Let me state clearly that I am pleased that times have changed after the years of privatisation activity and that we are now seeing a reappraisal of public goods. I am not against other parties in principle, but I prefer for us to act as a single authority and take steps jointly to ensure a robustly financed grid manager. After all, the grid concerns us all. We now have the opportunity to set out a clear path for the coming decades. So I would prefer first talking with municipalities in Stedin’s area that are not yet shareholders and also entering into dialogue with the provinces and central government.’

Danny, too, has no objections in principle to non-public organisations, provided that they are identified with social responsibility. Nevertheless, his preference is for public parties: ‘The added value lies not just in the financial domain. Municipalities and provinces are also partners in the RESs. Combined action in relation to spatial planning issues can lead to significantly shorter lead times. ‘That is entirely in line with my idea of acting as a single authority,’ says Jan-Willem. ‘Stedin’s service area should ideally map perfectly to the shareholders so that, together, we can tackle the challenge as a single authority.’

Unpredictable developments

In the past year, we have been surprised on several occasions by unpredictable developments in the energy market, such as the sharp rise in gas prices and congestion. How do we get more grip on this? Jan-Willem smiles. ‘The question is whether it is actually so unpredictable. I have my doubts. We’re all in the process of phasing out fossil fuels; we’ve known that for some time. These are the inevitable severe hiccups that accompany any major change of this type. As public authorities, we need to get better in terms of strategic competence and long-term thinking. We have the capability – just look at the Delta Works. But it needs to become far more embedded in our thinking.’

Danny: ‘Traditionally, we are an organisation with a long-term strategy, and that long term was always very stable. In terms

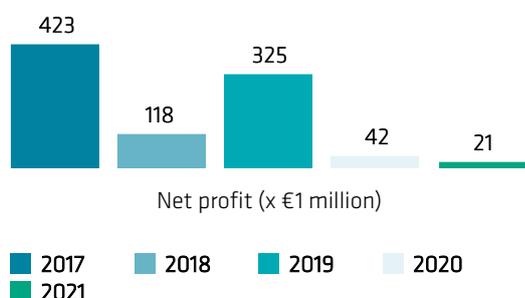
of investments as well as the one-dimensional nature of the energy system. Nowadays, however, we are facing a system transition with multiple uncertainties, including customer demands that are developing faster than expected, rising energy prices and prices for other commodities, and shortages of materials and staff. Political decision-making in relation to the energy system and the desired speed of the energy transition are also making it challenging to make clear and accurate judgements for the long term. We have significantly improved our ability in recent years to think in scenarios and translate that to strategic decisions and calculations. Last year, we asked McKinsey to review our investment plans, which concluded that we have a robust and mature process. That confirms that we are on the right path.'

Stedin's role

How does Jan-Willem see Stedin's role in the energy transition? 'I believe that Stedin, and the same also applies to the municipality, by the way, plays a driving role in the change. An important element in this regard is providing clarity to customers. When someone in our municipality wants to install charging points on their land, for example, and it then takes 20 weeks to connect the charging points, they can become quite irritated. If something like that is made clear in advance and you are open about the dilemmas you face, then it is far more likely that you will forge a true partnership with customers in the energy transition. We need to embrace the concept of 'system-based thinking', where everyone, customers included, moves in the same direction.' 'There is much still to be gained,' says Danny, 'but we're moving in the right direction. As a grid manager, we are bound by legislation and regulations and are simply not able to do certain things. But let's focus above all on what is possible. After all, ensuring the success of the energy transition is a shared responsibility.'

Financial results

Stedin Group achieved a net profit of €21 million in 2021 (2020: €42 million). The net result was in line with our expectations. We were able to offset the rising energy prices negatively impacting our costs for network losses.

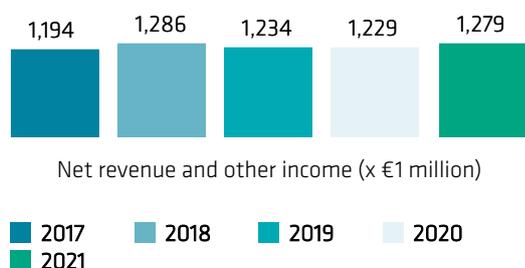


The 2017 net result included €355 million that were directly connected with the unbundling of Eneco Group. The 2019 net result included €251 million related to the sale of Joulz Diensten.

The coronavirus crisis has had limited negative financial consequences for Stedin Group. For instance, we noted lower off take volumes at our customers, which adversely affected our net revenue and other income. We also had to deal with more frequent absence due to illness both of our employees and at our subcontractors, which led to some delays in operations.

Net revenue and other income

Net revenue and other income in 2021 was €1,279 million. This is €50 million more than in 2020, mainly due to a €62 million increase in transmission revenue driven by higher rates, partly offset by a €18 million decrease in metering domain revenue.

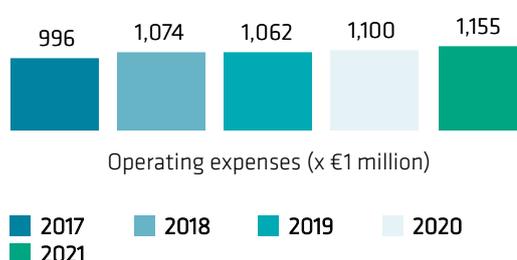


In the metering domain, the rates are set following the decision on rates (tariefbesluit) of the Netherlands Authority

for Consumers and Markets (ACM). The rates include a reduction to compensate for excess returns achieved in previous years.

Total operating expenses

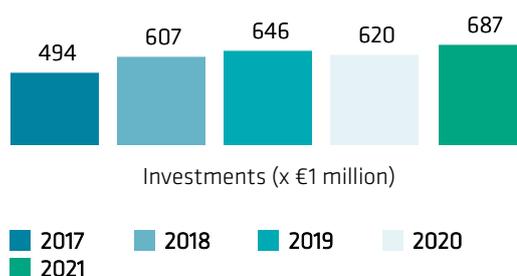
Total operating expenses increased by €55 million (5%) in 2021 to €1,155 million. This was mainly attributable to higher personnel expenses, partly offset by an increased allocation of personnel expenses to (capitalised) investments; increased transmission costs and costs for network losses; and higher depreciation and amortisation due to the higher level of investment and a revaluation of regulated assets. These increases were offset by lower 'other operating expenses', including a release of a provision and refunds of municipal surffrance taxes.



The costs for network losses rose substantially in 2021, by €44 million compared to 2020. The lower gas production in the Netherlands led to higher imports and hence to greater dependency on the gas market. In combination with the lower gas inventories within Europe, the strong dependency on electricity prices and the short-term purchasing, in part, of gas and electricity by Stedin, this resulted in higher costs for network losses.

Investments

Investments in property, plant and equipment and intangible assets in 2021 amounted to €687 million, an increase of 11% (2020: €620 million).



In 2020, investments were less than planned, as the volume of work carried out at customers was reduced by the coronavirus crisis. COVID-19 continued to have an impact on our activities in 2021, and we had to deal with more frequent absence due to illness of our employees and of subcontractors. Stedin nonetheless invested more than in 2020.

Investments in regulated networks increased from €613 million in 2020 to €667 million in 2021.

In 2021, the grid-driven investments in particular increased substantially compared to 2020, with a slight decrease in customer and meter-driven investments. In the [Financially healthy](#) section, we describe what we are doing to be able to finance those investments. In the [Facilitating the energy transition](#) section, we discuss the nature of the investments.

Financing, solvency and credit rating

The increased investments led to a negative cash flow of €191 million this year after operating and investing activities, further increased by the dividend payment. This has led to growing financing requirements. In combination with the financing activities of Stedin described below, this has ultimately resulted in a positive movement in cash and cash equivalents of €50 million.

In March 2021, Stedin issued a perpetual subordinated bond loan of €500 million at a coupon rate of 1.500%. Due to its equity classification, this instrument results in a strengthening of the balance sheet and key ratios and replaces the €500 million subordinated bond loan issued in 2014 with a coupon rate of 3.25%. This hybrid loan was repurchased from the holders of the loan through a tendering process at a premium of €11 million. This largely comprises future interest, which was paid in addition to the principal.

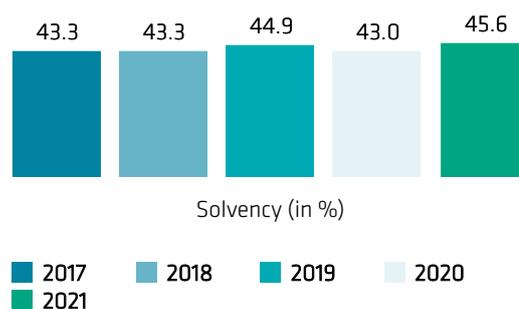
In addition, in May 2021, Stedin early redeemed several loans denominated in USD and GBP. A principal amount of €196 million was redeemed, at a premium of €38 million. This largely comprised future interest, which was paid in addition to the principal.

On 25 June 2021, Stedin agreed a capital contribution with its shareholders in the form of preference shares totalling €200 million.

In November 2021, Stedin issued a five-year green bond loan of €500 million with a coupon rate of 0.0%. To that end,

Stedin updated a prospectus and its Green Finance Framework to the most recent laws and regulations.

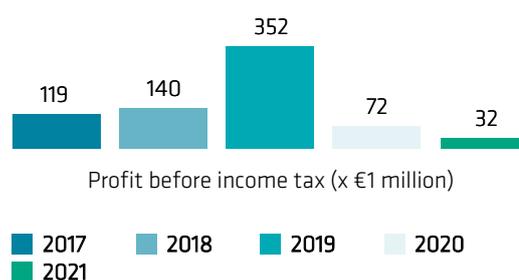
Our solvency on 31 December 2021 was 45.6% (year-end 2020: 43.0%). Stedin Group's policy is aimed at maintaining a solvency ratio of at least 40% in the long term. Stedin Group's goal is to retain the A- credit rating with a stable outlook, provided by Standard & Poor's (S&P). On 8 November 2021, Stedin's credit rating of A- with a stable outlook was reaffirmed by S&P.



The FFO/Net Debt ratio as at 31 December 2021 was 11.3% (year-end 2020: 12.0%). The FFO decreased, mainly due to the timing of tax payments and an increase in interest paid, including the premiums in respect of early redemptions. The net debt ratio (Net Debt) as at 31 December 2021 was higher compared to 31 December 2020, as a result of financing raised.

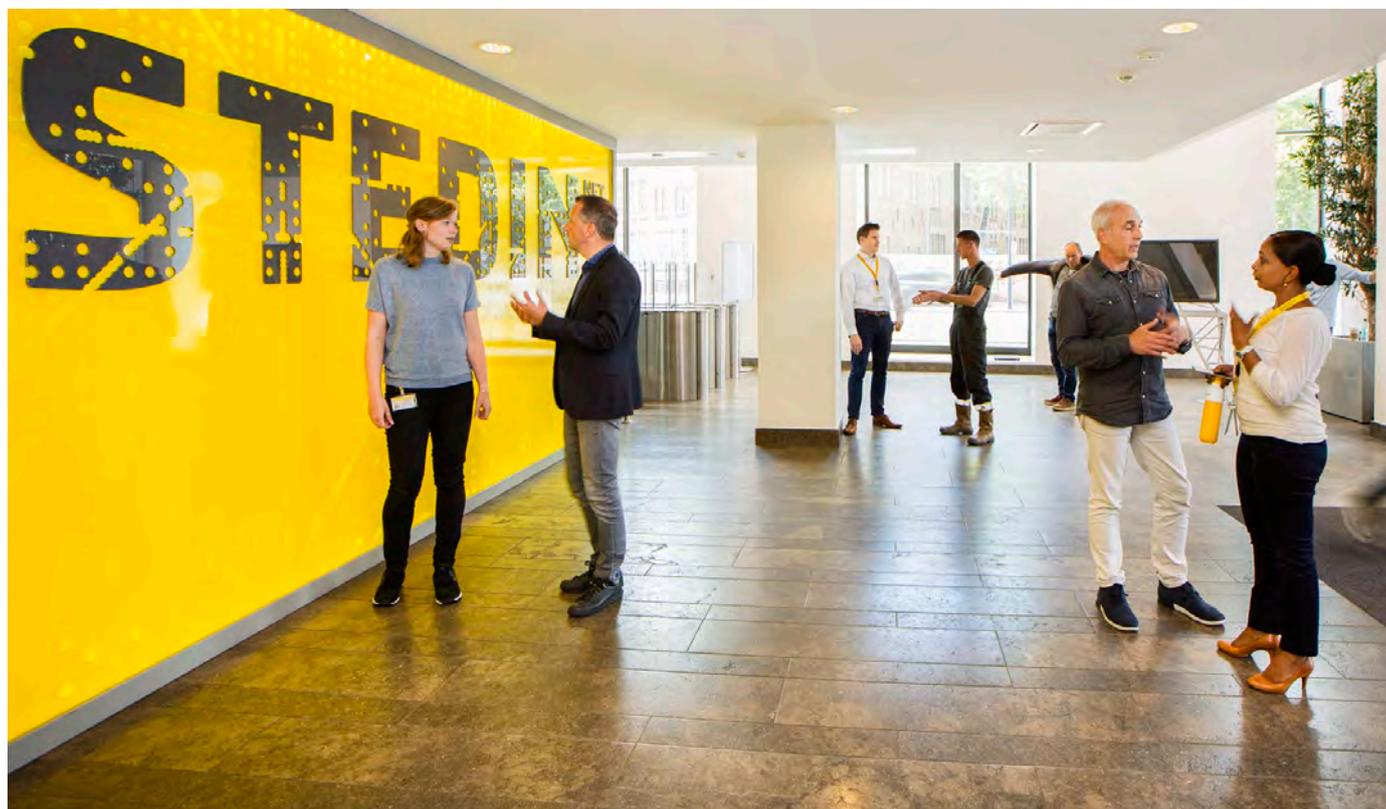
Taxes

Profit before income tax was €32 million for 2021 (2020: €72 million).



The tax expense fell by €19 million in 2021 to €11 million, partly due to a lower profit before income tax. The effective tax rate (as a percentage of profit before income tax from continuing operations) in 2021 was 34.7% (2020: 41.2%).

In December 2021, the Upper House of Dutch Parliament approved the bill that includes an increase of the corporate income tax rate from 25% to 25.8% as of 2022. As a consequence of the increased tax rate, deferred tax assets and liabilities will be realised at 25.8% instead of 25% in the future. The measurement of the deferred tax assets and liabilities as at 31 December 2021 at this higher rate results in a negative effect of €3 million on the tax expense in 2021.



Results of non-regulated activities

NetVerder

NetVerder continued its progress on the development of collective heat grids in 2021. At several places 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 project Open Warmtenet Delft (Delft Open Heat Grid, OWD) is closest to completion. More information on the market regulation of heat grids is available in the section on [Strategy](#).

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 WarmingUP collective, a national 3-year cooperation programme, we are working with 38 participants on developing usable knowledge, with the aim of achieving collective heating systems that are reliable, sustainable and affordable. This knowledge continually increases our ability to make responsible choices for the long term. This cooperation programme is now in its second year. Concrete intermediate and other results include the alpha release of a design toolkit for heating systems, an ongoing measurement campaign to establish necessary heating temperatures in existing buildings and a report on residents' incentives and willingness to switch from natural gas to heat.

In 2021, Stedin, Alliander and Enexis invested in a 'heat street' in The Green Village on the campus of TU Delft.

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 standards 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.

The existing assets performed in line with expectations in 2021, without operational failures.

Sustainable heating in Delft

In Delft, NetVerder is collaborating with heating supplier Equans (formerly Engie), the housing associations Woonbron, Vestia, Vidomes and DUWO as well as with the municipality of Delft to create a heating network. Work progressed in 2021 on further developing the design of the heating grid. Progress was also made in the business cases. In 2021, we were granted a subsidy under the DEI (Demonstration Energy and climate Innovation) scheme. The municipal council of Delft adopted a resolution at the end of 2021 approving the decision to co-invest in a future-proof scenario. This means that, in addition to connecting roughly 7,000 homes of the housing associations, we are also undertaking work to prepare the grid for a further 10,000 homes. In doing so, we are paving the way for several suppliers to supply heat on the grid. This design necessitates the introduction of a second source besides the planned geothermal energy source. Together with the municipality, NetVerder is engaged in talks with Warmteling (Gasunie) to coordinate the future supply scenario.

The expected carbon savings are some 5.5 tonnes per year at the start of the project.

Rotterdam Botlek Steam Network

In 2021, NetVerder continued to safely and reliably perform the distribution of steam and condensate via the steam network in Rotterdam Botlek. Steam producers AVR (via two sources of steam) and Cabot sustainably supply steam to the customer Emerald Kalama Chemical. In 2021, 232,318 tonnes of steam in total were distributed using the Rotterdam Botlek Steam Network (2020: 251,433 tonnes; 2019: 223,000 tonnes). The plans to significantly expand the steam network are still in place. NetVerder continues to be engaged in extensive talks with the Port of Rotterdam Authority, local authorities and other parties in the Botlek area to execute this project jointly.

Borculo biogas network

Since 2017, NetVerder has handled the distribution of biogas from Groot Zevert Vergisting in Beltrum to Friesland Campina in Borculo. In 2021, 7.2 million m³ of biogas was transmitted to our gas grid without problems via this 5.4 km transmission pipeline (2020: 7 million m³; 2019: 1.5 million m³). As a result, Friesland Campina saves substantial volumes of natural gas at its production location.

DNWG Infra

Cooperation between DNWG Infra and Evides Waterbedrijf

On 1 January 2021, the cooperation agreement between DNWG Infra and Evides entered into force. This cooperation provides the framework for implementing the planning related to a multidisciplinary working approach for 2021 to the tune of €25 million. In 2021, significant progress was made towards further shaping the cooperation in a Multidisciplinary Organisation Initiative (Regie Organisatie Multidisciplinair, ROM), in which we work with deduplicated roles. The governance of this ROM and the desired financial transparency are important factors. A strong cooperative relationship with contractors lays the foundation for discussing changes in the chain. These changes include reallocating certain tasks (such as work preparation) to the contractor, for example. To avoid duplication of tasks, DNWG Infra and Evides submit work in the context of their cooperation on an equal basis.

High-voltage technology, new build HVS Terneuzen-Zuid

The High-voltage technology division is constructing a new 10 kV main distribution station commissioned by Enduris. We are building a new hall at HVS Terneuzen-Zuid, in which a new 10 kV facility will be placed at the end of 2020. We are also making preparations for the installation of an additional transformer. This is an existing transformer, which will come from HVS Kruiningen. The entire facility was tested and completed at the end of 2021.

DNWG Warmte – Ouverture

DNWG Warmte B.V. (DNWG Warmte) is part of DNWG and was established in order to facilitate heat projects. An example is the supply of heating and cooling in the Ouverture district of Goes. DNWG Warmte was incorporated into NetVerder with effect from 1 January 2022.

DNWG Meetdiensten

On 10 February 2021, Stedin Group and Censo signed the agreement for the sale of TUMS Meetdiensten. Under this agreement, Censo became the owner of TUMS on 1 January 2022. The sale was preceded by the establishment on 1 August 2021 of TUMS B.V., which brings together all the commercial electric, gas, water and heat metering services. The employees also transferred to TUMS B.V. from the same date.

Certification

The follow-up visits with external audits for the certifications of TUMS for ISO 14001, Certification Scheme for Cable Infrastructure and Pipe-Laying Companies (Certificatieregeling Kabelinfrastructuur and Buizenlegbedrijven, CKB) and ISO 27001 went well. Recertification took place in the context of ISO 9001 and VCA **, for which DNWG received a new certificate. DNWG Infra obtained certification for the Safety Culture Ladder, level 3, for the first time in 2021, joining the High-voltage technology division, which again renewed its certification for Safety Culture Ladder, level 3 last year. DNWG Infra is now also an approved heat metering company, in addition to being an ODA (independent service provider) and EMV (approved party responsible for metering) for gas and electricity metering systems.

What have we learnt

This was another momentous year, but above all, 2021 was a year in which we again learnt a great deal on the way to realising our strategy.

Improved grid management

We are continuously working to improve our service offering for customers. A key initiative that we progressed in 2021 was the customer-focused supply chain organisation. The greater emphasis on supply chain-based working results in a more central role for the customer, enables a better balance to be achieved between supply and demand and allows us to work more efficiently. Although we can already see a positive impact on our objectives in terms of customer convenience and efficiency, we are only just beginning to implement this chain structure. It will be taken further as a strategic initiative in 2022. Cooperation is becoming increasingly important in other areas too, such as staffing capacity. Instead of fishing from the same pond, we are working more closely with contractors and other grid managers to train and retain technical staff. There is scope for intensifying this cooperation.

Facilitating the energy transition

In 2021, we took part in various studies that provide greater insight into this undertaking, including the 'Systeemstudie Energie-infrastructuur Zuid-Holland' (South Holland Energy Structure System Study) and the 'Integrale infrastructuurverkenning 2030-2050 (II3050)' (Integral Infrastructure Survey). They show that the task is not becoming any less, but rather increasingly more challenging and extensive. For that reason, there arose a much stronger focus in 2021 on what we can actually influence as a company. Whereas in previous years we wanted to do everything at the same time and everything was equally important,

we now have clear prioritisation. Grid quantification is top of the list. Together with the predictability of customer demand, this constitutes the basis for ensuring that the grid remains in balance. Alongside this, cooperation with municipal authorities and other market parties is increasingly important for discussing, addressing, making transparent and communicating situations with regard to shortage of transmission capacity.

Sustainable business operations

The COVID-19 pandemic continued to have an impact on our business operations in 2021. Together, we quickly adapted to the changing, hybrid way of working, and 50% of office staff now work from home. At the same time, the integration with DNGW is progressing smoothly, and we are getting increasingly better at finding our way together, although this naturally also has an impact on how we collaborate. These changes also place demands on the management skills and actions of our people. We can observe that leadership is effective when it comes to unifying relations inside and outside the organisation and the commitment of our people. However, the theme 'forward' is seen as a point for attention. Highlighted are setting clear expectations, giving feedback and realising potential. This will be a topic of dialogue between us and a focal point going forward.



Focus areas in 2022

We are committed in 2022 to following through on our three strategic spearheads. The challenges facing us compel us to make decisive choices. These choices are necessary to continue moving resiliently forward in the coming years as well. In 2022, the foundation will also be laid for a new strategy for Stedin Group for the period 2023-2027. We are in dialogue about this with our stakeholders and are developing a strategy that addresses the main challenges.



Improved grid management

In 2022 also, we will pay close attention to ways of becoming more customer-oriented and efficient in our work. Greater emphasis on chain-based working, digitalisation of our work and reaffirming the core importance of customer convenience ensure that we work more efficiently and make it easier for customers to transact with us. The strategic initiative 'Customer-oriented chain organisation' focuses on chain management: improved internal and external cooperation to enhance the efficiency and speed of the processes within a chain. In 2022, the focus will be specifically on the chain where we see the biggest challenge: the Business Project chain. We face increasing work volumes in this chain. This includes challenging projects that we need to carry out effectively and efficiently in partnership with customers and municipalities to ensure the energy grid now and into the future. In concrete terms, this focus means: developing cooperation with water companies (multidisciplinary), sharing work with contractors in the most efficient way (reallocation in the chain) and, finally, professionalisation of project management. This is not done alone, but with our partners throughout the chain, including municipalities and contractors.



Facilitating the energy transition

In 2022, we will accelerate our development towards a system operator. Only in that way can we predict, plan and control the energy flowing through the grids in a smart and digital manner and in constant consultation with customers and market parties. We are also making better use of the capacity of the energy grid, so that the grid remains in balance and our customers can continue to rely

on the energy supply. We are enhancing our forecasting ability by improving and modernising our geographical information system and operating assets register, while also installing new sensors in our medium-voltage stations. We are mastering important new skills, such as quantifying grids in all timescales and predicting customer demand. This gives us greater real-time insight into the energy flowing through our grids and allows us to control this energy flow as well as, where possible, apply flexibility instruments, together with market parties, to make optimal use of capacity. Mutual knowledge sharing is an important factor for optimum decision-making in this respect. For example, by agreeing on coordinated transition planning with municipalities and partners for Regional Energy Strategies, Transition Visions for Heat, Energy Strategies Clusters and the Regional Agenda for Charging Infrastructure. Or by working with large sustainable energy generators in ensuring that we make optimal use of grid capacity during periods of congestion. We are working with strategic partners to develop essential innovations. Close cooperation between the national and regional grid managers allows us to learn from one another about shared challenges and enables us to accelerate our actions.



Sustainable business operations

Safety in our work and our environment is crucial. Through the existing programmes, we will continue our strong safety culture in 2022 as before. Furthermore, there will be an increasing focus on cybersecurity, in the light of the constantly growing digitalisation of our infrastructure. Another key element of sustainable business operations is a future-oriented organisation, in which we have the right people and skills to facilitate the energy transition. In 2022, we will continue to deploy our strategic personnel plan on developing our understanding of the necessary roles and skills. We will also concentrate on our career policies (staff influx, advancement and exit) and focus in the area of leadership on the cultural value 'forward'. Sustainable business operations also means ensuring that societal costs and benefits remain in balance. We will advance our efficiency programme in 2022. Financing remains an important topic, with regard to both raising loan capital and equity.

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 sets great store by 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 Groep N.V. and NetVerder B.V., among others. Stedin Holding heads the group structure and is, directly or indirectly, the director under the articles of association of its subsidiaries. From 1 January 2022, the two grid managers within Stedin Group are integrated into a single grid manager (further information can be found in the section [About us](#)). 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.

The Corporate Governance Code 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.

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. We therefore explain below which principles in the CGC we depart from.

Departures from the CGC

- *Provision 2.2.1 Maximum appointment and reappointment periods – management board members:* 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. 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 stock exchanges of Luxembourg and Amsterdam. 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 because the two-tier board structure applies. In addition, the shares of Stedin Holding are held by local and regional authorities and are therefore not listed. The governance structure of Stedin Group is also different (two-tier and not one-tier).

- 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

Responsibilities and duties

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](#) section and is confirmed in the [In-control statement](#).

Terms of Reference

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

Appointment and dismissal

Members of the Board of Management are appointed 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 2021, 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.

The Supervisory Board appointed Koen Bogers as the new CEO and Trudy Onland as the new COO of Stedin Group with effect from 1 June 2021. Koen Bogers succeeded Marc van der Linden, who stepped down following the expiry of his term of office. Trudy Onland succeeded Judith Koole, who announced her intention to step down as COO at the end of 2020.

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, Strategy and Corporate Affairs directors. 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 decision-making by the Board of Management. The Strategy MT consists of four men and four women.

Strategic Coalition

The Strategic Coalition consists of more than 20 directors, managers and members of a Works Council delegation, aside from the members of the Strategy MT. To develop the strategy and its implementation, they meet several times a year. The Strategic Coalition consists of 14 men and 9 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 managers within the group, i.e. of Stedin Netbeheer B.V. and Enduris 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 [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

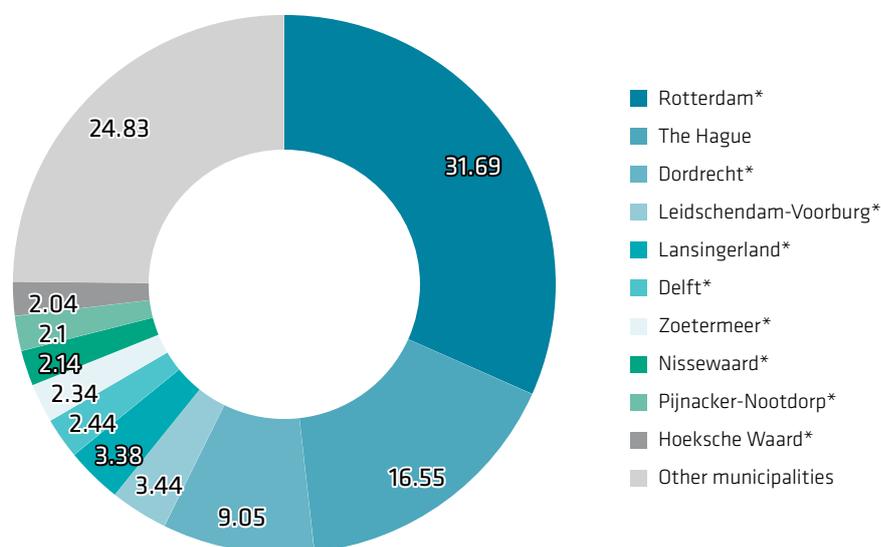
relationships and the performance of duties and powers. These agreements are laid down in the [Articles of Association of Stedin Holding N.V.](#) and the [Stedin Group shareholders covenant](#). The Shareholders' Committee also has its own terms of reference: the [Terms of Reference of the Shareholders' 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. Each share entitles its holder to one vote. In addition, Stedin issued cumulative preference shares for €200 million to its existing shareholders in 2021.

The Energy Transition Committee was established in 2021. The Committee consists of a delegation of shareholders and Stedin Group. The Committee's 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 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 (IA) department consists of a team of independently operating internal auditors. IA supports the organisation by providing insight, advice and supplementary assurance on the extent of risk management.

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 IA 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 reports the main features of these topics to the Audit Committee and informs the external auditor.

Each year, IA draws up an annual audit plan 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. Deloitte Accountants B.V. is the external auditor of Stedin Group. The external auditor attends all meetings of the Audit

Committee. The external auditor in any case attends the part of the meetings of the Supervisory Board in which the report of the external auditor on the audit of the financial statements is discussed and a resolution concerning the approval of the financial statements is adopted. The external auditor also attends the General Meeting of Shareholders in which the financial statements are adopted. The General Meeting of Shareholders can then take the opportunity to question the auditor about their report on the true and fair view provided by the financial statements.

Integrity

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

Code of conduct and guidelines for conduct

Those standards and values and rules determined by law are laid down in Stedin Group's [Code of Conduct](#). This sets out how we treat each other and external parties such as customers, shareholders, regulators and other contacts of Stedin Group.

The code of conduct 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 and discrimination in any form whatsoever. These forms of unacceptable behaviour are not tolerated. 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 also the section on '[Good employment practice](#)'.

Our code of conduct is not a case of take it or leave it. 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](#). Our supervisors play a vital role in promoting an ethical business culture. After all, integrity starts with setting a good example.

Any failure by an employee to comply with the code of conduct, or guidelines covered by the code of conduct, can have serious consequences for Stedin Group. In the event of a reported suspected violation of the code of conduct, a detailed investigation will always take place in accordance with an established protocol. This investigation may lead to us taking measures. The nature and severity of the violation will determine which measures (disciplinary or otherwise) we will take, which may include instant dismissal.

Within Stedin Group, we work with guidelines for specific topics such as competition, tendering and disclosure. 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 2021, five awareness sessions were held on risks and learning points. We also twice requested attention in 2021 for integrity and compliance via the general means of communication (four times in 2020).

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).

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.

In 2021, 256 reports (2020: 275 reports) on possible breaches of the code of conduct were received within Stedin Group at the Integrity & security reporting facility. Of these reports, 70 (2020: 76) have been designated as involving an integrity element.

Confidential advisers

Employees can also contact one of the organisation's confidential advisers. At the start of 2021, Stedin and DNWG both had three confidential advisers. From June 2021, there are five confidential advisers for Stedin Group who may be contacted by colleagues at Stedin as well as DNWG. Confidential advisers work in strict confidence, have a duty of secrecy and never act on their own initiative or without the approval of the employee concerned. 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 2021, as far as is known, 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 Board of Management 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 2021. 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.

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](#).

There are privacy coordinators for each department. They are joined by the Privacy Officer, who is active as an adviser and provides support to the organisation. Lastly, the Data Protection Officer has an independent role and performs a monitoring function as an internal supervisor.

Awareness of the importance of exercising due care when handling personal data of our customers, amongst others, is a continual point for attention within Stedin. The steps we take in this regard include a privacy e-learning module, which is mandatory for all employees. As at the end of 2021, the module was 92% completed.

There were 36 reports of data breaches in 2021 (2020: 42). Two reports were submitted to the Dutch Data Protection Authority (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 2021. Koen was until recently 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



Mr D. (Danny) Benima
Member/CFO

Danny Benima (b. 1978) has been the CFO since January 2019 and is a member of the Board of Management of Stedin Group. Prior to that date, 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 (Dutch: 'registercontroller', 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 (from February 2021), member of the Advisory Board of Stichting Hartekind (from May 2020), board member of NEDU (from 20 January 2021).



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 for 12 years at Dutch National Railways (Nederlandse Spoorwegen, NS) in various management positions. 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: Meter Cabinet & Connection, Malfunctions & Maintenance, High Voltage, Construction & Replacement, Customer.

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. He studied Applied Physics at Eindhoven University of Technology and Applied Ethics at KU Leuven.

Areas of responsibility: Data Office, Change Office, Asset Management, Innovation, Market, NetVerder, DNWG, IT.

Other positions: Board member of Stichting Zeeuwse Publieke Belangen, chair of the Supervisory Board of USEF (until 1 July 2021), board member of Elaad, board member of EDSO, strategy adviser to ENCS, member of the Supervisory Board of GOPACS.

Stepped down in 2021



Mr M.W.M. (Marc) van der Linden
Chair/CEO

Marc van der Linden (b. 1972) was chair of the Board of Management between 1 February 2017 and 1 June 2021. Prior to that, he had been a member of the Board of Management of Eneco Holding N.V. from December 2012. He joined Eneco in 1997 and held various positions, including as director of Eneco Energy Projects, director of Eneco Installation Companies and director of Eneco Wind. Before that, Marc worked at Van Gansewinkel Group. He studied Economics at Tilburg University.

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

Other positions: Member of the Cyber Security Council of the Netherlands, member of the Economic Board for South Holland.

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

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 Geleidenhonden 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 therefore familiar 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 courses at Erasmus University Rotterdam: Health Policy & Management and Law. At present, she is Chief Projects & Assets Officer and a member of the Board of Management of Schiphol Group. Before this, she was managing director of Lelystad Airport, which is part of Royal Schiphol Group. Before joining Lelystad Airport, she held various positions at Amsterdam Airport Schiphol, where she managed complex operational processes. Her other positions include that of member of the Supervisory Board of the Netherlands Bach Society and member of the Board of the University Council of Erasmus University.



Mr T.W. (Theo) Eysink RA

Theo Eysink (b. 1966) started his career at Arthur Andersen, after which he worked in financial positions 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, he is CFO of the Business Market division of KPN. Eysink is a sound financial leader with experience of a range of sectors. In addition, particularly in his last years at KPN, he acquired extensive

experience with new business models. He has supervisory experience in the public and semi-public sector, including at a housing foundation. Eysink 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. Currently, he is working as Environment and Planning Act Digital System Operations Director. Prior to that, he was CEO at Translink Systems, a 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 card, among other things. Groothedde's extensive experience in managing the digital transformation at the Land Registry Office and Translink are very useful to Stedin Group. He is keen to make a contribution to customer-focused service provision with social relevance. Groothedde is also a member of the Supervisory Board of ROC Aventus and a member of the Supervisory Board at DSW



Ms A.J. (Annie) Krist

Annie Krist (b. 1960) commenced her career at N.V. Nederlandse Gasunie in 1987. In the late 1990s, she was a member of the Gasunie team that was responsible for the 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 Strategy and Participations. On 1 July 2011, Annie Krist 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 Krist was appointed 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.

Stepped down in 2021



Mr D. (Dick) van Well

Dick van Well (b. 1948) served as a member of the Supervisory Board of Stedin Netbeheer B.V. from 2012 to 2021. From 1998 to October 2010, he chaired the Management Board of construction company Dura Vermeer, where he had worked since 1973 and had held various positions. His other positions include that of member of the Supervisory Board of Dura Vermeer Groep N.V. and of APG Groep N.V. Dick van Well is also a director of the Stichting Continuïteit Feijenoord (Feijenoord Continuity Foundation).

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 supported by support departments specialising in Corporate Risk Management, Safety, Health, Environment & Quality (VGMK), Business Continuity Management, Security, Corporate Affairs, 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 2020-2022 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 twice 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 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 developments of the long-term uncertainties 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. Further information on the long-term uncertainties can be found in the section on 'Most important strategic risks and opportunities of Stedin Group in 2021'.

Short-term uncertainties

Short-term uncertainties have a time horizon of approximately one year. Operating 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'. We also define potential improvements 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 risks and controls, external reporting and integrity. Two further elements were added in 2021: strategy and objectives and legislation and regulations. In addition, management uses the internal 'In-Control guidelines' to give



thorough consideration to each element. These statements form an important basis for the In-control statement of the Board of Management.

Risk tolerance

We have to incur a certain degree of risk in order to achieve our organisational objectives. Given the public and regulated nature of Stedin Group, the general risk tolerance tends predominantly toward risk aversion and avoidance. The extent to which we are prepared to be exposed to risks (the risk tolerance) differs for each risk category:

	Averse	Avoiding	Neutral	Taking	Seeking
Strategic					
Operational					
Financial					
Compliance					
Safety					

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 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 2021

More effective focus

In 2021, the risk management department targeted excellent execution of our core tasks in relation to strategic (long-term risks) and operational (short-term risks) risk management. We ensured that full and up-to-date insight into the risks is continually available, for example, and that we implement appropriate measures to manage those risks. This resulted in the In-Control Framework being expanded in 2021 by 60 controls to almost 400 controls a year. Specific attention was paid to a review of all strategic opportunities for the organisation, which led to an increase in the number of identified opportunities. We also further added to all the basic registers of operational risks for all 23 departments. Finally, we further developed the various risk reports. Continually updated risk registers and transparent reporting ensure a sharper and more effective focus on achieving the organisation's objectives. The department also underwent a further development towards Enterprise Risk Management. We broadened the basis for the In-Control Statement from three to five elements, to provide a truer and fairer insight into risk and also to strengthen the demonstrable degree of risk management. An *appraisal methodology* was implemented, providing for a uniform method of assessment to determine the In-Control status. The management organisation for Financial Reporting Risks has now been operational for a year and has produced several improvements reflected, for example, in the maturity of the chain structure and the performance of assessments as well as a significant decrease in the number of findings not acted upon. Faster identification and recording of process changes are facilitated through the chain structure. As a result, the impact on the In-Control Framework can be assessed more quickly and the necessary modifications made. Alongside these improvements, there are also points still requiring attention, such as the integration of DNWG and improvements in the internal controls in respect of regulated financial reporting. These will be addressed in 2022. Lastly, we integrated various risk areas, such as Business Continuity Management and Fraud, into the risk management application, thus providing a more uniform insight into risk.

Climate adaptation

With climate change now an established fact, we are taking measures to adapt. Just how much climate change affects our work remains uncertain, however. In the light of our social responsibility, we are paying increasing attention to this matter. For instance, we are exchanging information and experience in external cooperation frameworks, such as the

Climate Adaptation Coalition. In 2022, 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 buildings in such a way that risks are minimised. The section on ['Positive impact on people and planet'](#) includes several examples of the steps we are taking in this regard.

For a description of the accidents in 2021, see [Safety and security](#).

For an overview of the average downtime in electricity and gas supply, see [Reliability of our grids](#).

For an overview of uncertainties concerning the smart meter, see [High-quality products and services](#).

For an overview of our financial instruments, see ['Derivative financial instruments'](#).

Risks that had an impact in 2021

Risks that had a major impact in 2021 are dealt with in the section on ['Results'](#). 'Nitrogen issue' and 'Asbestos in fitter's sealant' are not included in this overview. In relation to the

'Nitrogen issue', Stedin has been granted partial exemption for its activities. As a result, the impact is limited. In relation to 'Asbestos in fitter's sealant', special work instructions have been prepared. These instructions have been approved by the sector and implemented in standard operations. As no special actions and/or major remediation are necessary, the impact is limited. No further information is provided on these topics in the annual report.

Outlook for 2022

The core objective of risk management remains unchanged in 2022: to support the line in performing risk management. To do so, Risk Management is targeting excellent execution of its core tasks in the risk management process. We are taking steps to further add to, while also rationalising (omit whatever is unnecessary), the basic registers for various types of risk. The department is paying extra attention to the rapid developments and new uncertainties that accompany the energy transition. Focus on climate adaptation is one concrete example. The department is seamlessly aligned with the various organisational developments, such as the integration of DNWC. Lastly, we are pursuing a clearer allocation of roles in the performance of risk management tasks by the department and its second-line risk partners.

Most important strategic risks and opportunities for Stedin Group in 2021

This section contains an overview of our most important risks and opportunities and a description of our top 5 risks. For information about our financial reporting risks, see the sections on Judgements, estimates and assumptions For information on the risks related to the financial instruments, see the section on Management of financial risks in the Financial Statements. For further information on the process related to strategic risks, see the section on Risk management.

Connection of risks to strategic spearheads and material topics

Risk	Category	Material topics	Strategic spearheads			Change from 2020
			Improved grid management	Facilitating the energy transition	Sustainable business operations	
① Cyberattack causing damage to society and business operations	Operational	Supply security – Smart grids, data technology – Safety and security	•	•	•	↑
② Increasing pressure on our long-term ability to retain the 'A' credit rating issued by S&P	Financial	Investments in our grids – Financial, economic performance – Affordable and efficient services		•	•	⊖
③ Increased likelihood of surge to replace obsolete assets	Strategic	Supply security – Investments in our grids – Financial, economic performance	•	•	•	↑
④ Unavailability of enough people with the required competencies	Operational	Investments in our grids – Good employment practice		•	•	↑
⑤ Insufficient connection and transmission capacity	Strategic	Customer satisfaction – Stakeholder dialogue and environment – Investments in our grids	•	•		⊖
⑥ IT/OT landscape insufficiently prepared for the future	Strategic	Smart grids, data technology and innovation		•	•	⊖
⑦ Uncertainty about implications of changing E&G laws and other regulations (NL and/or EU)	Compliance	Stakeholder dialogue and environment – Investments in our grids	•			⊖
⑧ Availability and quality of data insufficient	Operational	Smart grids, data technology and innovation		•		⊖
⑨ Services on core tasks insufficiently compliant	Operational	Customer satisfaction – Supply security	•			⊖
⑩ Gas investments difficult to plan	Strategic	Financial, economic performance – Affordable and efficient services			•	⊖
⑪ High activity in outdoor space and below ground	Operational	Investments in our grids		•		+
⑫ Excessive environmental footprint	Strategic	Positive impact on people and planet			•	⊖
⑬ Focus on cultural values and conduct insufficiently effective	Strategic	Good employment practice			•	⊖
⑭ Large-scale product recall	Operational	Positive impact on people and planet – Supply security	•		•	⊖
⑮ Impact of accidents related to Stedin Group	Safety	Safety and security			•	⊖
⑯ Environmental pollution of surroundings	Compliance	Positive impact on people and planet			•	⊖
⑰ Uncertainty about the duration of availability of the communication network	Operational	Smart grids, data technology and innovation		•		↓
⑱ Shortages of materials	Operational	Investments in our grids		•		↑

+ New in 2021 / = Equal to 2020 / ↑ Increased relative to 2020 / ↓ Decreased relative to 2020

Connection of opportunities to strategic spearheads and material topics

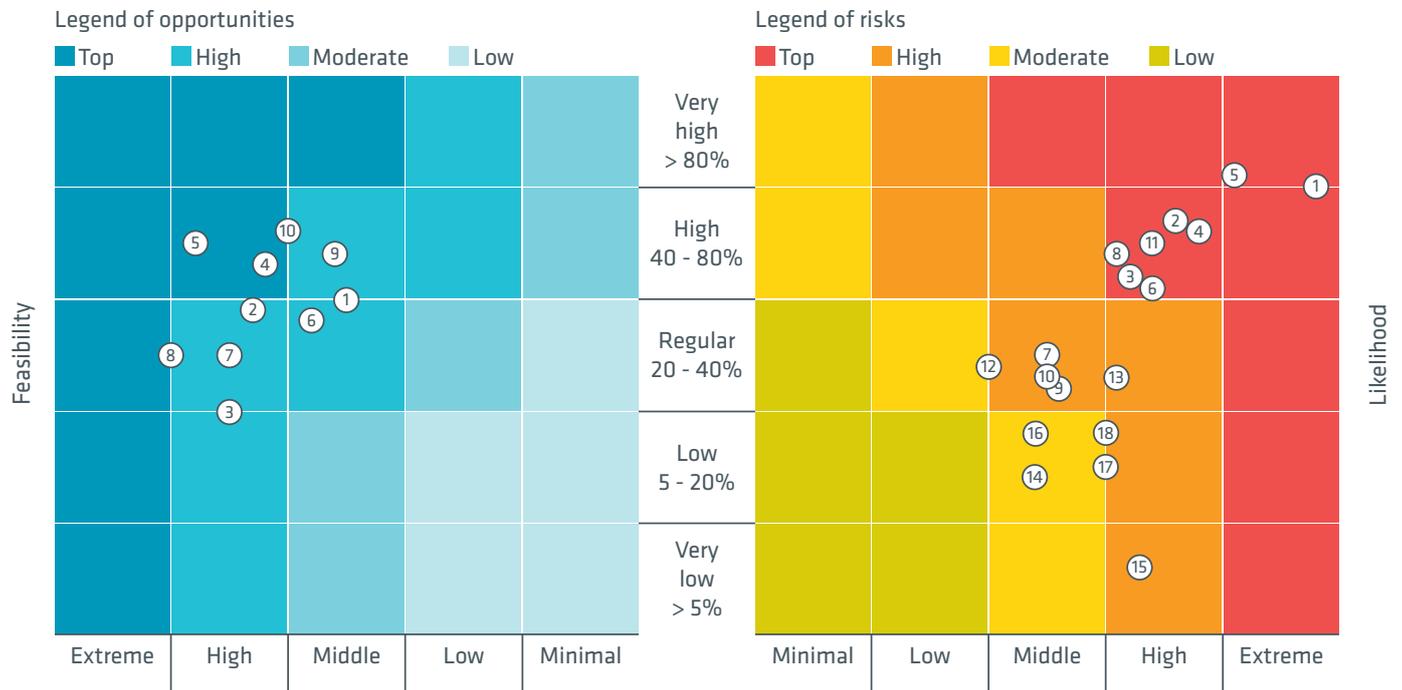
Opportunity	Material topics	Strategic spearheads			Developments relative to 2020
		Improved grid management	Facilitating the energy transition	Sustainable business operations	
① Strategic supplier relationships	Stakeholder dialogue and environment - Positive impact on people and planet			•	⊖
② Development and deployment of disruptive technologies and methods	Smart grids, data technology and innovation		•		⊖
③ Rates structure of the future	Financial, economic performance - Affordable and efficient services	•		•	⊕
④ Application of new energy carriers	Investments in our grids - Smart grids, data technology and innovation		•		⊕
⑤ Increase predictability of investments through improved prediction of customer demand*	Investments in our grids - Stakeholder dialogue and environment		•		⊕
⑥ Position Stedin as an essential link in the energy transition	Stakeholder dialogue and environment - Smart grids, data technology and innovation		•		⊕
⑦ Make comprehensive assessment in relation to investments between electricity, gas or future energy sources	Investments in our grids - Smart grids, data technology and innovation		•		⊕
⑧ Future-proof grid management based on data-driven predictions and decision-making	Smart grids, data technology and innovation - Supply security		•		⊕
⑨ Increased effectiveness and efficiency through supply chain-focused operations	Affordable and efficient services - Financial, economic performance	•		•	⊕
⑩ Lower societal costs through collaboration with partners in coverage area	Affordable and efficient services - Financial, economic performance	•		•	⊕

* This is a continuation of the opportunity 'Facilitate stakeholders and customers and provide them with more self-services'.

The above table includes all the 'Strategic risks and opportunities' identified by us in 2021.

Categories of strategic risks and opportunities

Stedin Group assigns its strategic risks and opportunities to five 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 2021.



Positive impact on strategic goals

1. Enter into strategic supplier relationships
2. Develop and deploy disruptive technologies and methods
3. Rates structure of the future
4. Utilisation of new energy carriers
5. Increase predictability of investments through improved prediction of customer demand
6. Position Stedin as an indispensable link in the energy transition
7. Perform comprehensive assessment for allocating investments between electricity, gas or future energy sources
8. Future-proof grid management by means of data-driven forecasts and decision-making
9. Increase effectiveness and efficiency through supply-chain-focused operations
10. Reduce societal costs through collaboration in the coverage area

Negative impact on strategic goals

1. Cyberattack causing damage to society and business operations
2. Increasing pressure on our long-term ability to retain the 'A' credit rating issued by S&P
3. Increased likelihood of surge to replace obsolete assets
4. Unavailability of enough people with the required competences
5. Insufficient connection and transmission capacity
6. IT/OT landscape insufficiently prepared for the future
7. Uncertainty about implications of changing E & G and other laws and regulations (NL or EU)
8. Availability and quality of data insufficient
9. Services on core tasks insufficiently compliant
10. Gas investments difficult to plan
11. High activity in outdoor space and underground
12. Excessive environmental footprint
13. Focus on cultural values and conduct insufficiently effective
14. Large-scale product recall
15. Impact of accidents related to Stedin Group (internal and external)
16. Environmental pollution of surroundings
17. Uncertainty about the duration of availability of the communication network
18. Shortages of materials

Information on top 5 risks: Core & More

In 2021, it was decided to adopt a different format for explaining the most important risks and opportunities. Stedin Group is increasingly confronted with the limitations affecting the engineerability of the energy transition. This complexity manifests itself in various areas. We have therefore decided to provide a more detailed explanation in 2021 of the five most important risks related to this engineerability.

Risks

Title of risk:	① Cyberattack causing damage to society and business operations
Risk tolerance	Avoiding
Risk assessment	Top
<p>Description: As a result of its strategic location as well as its social and economic importance, the Stedin Group infrastructure is an attractive target for cyberattacks. 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.</p> <p>Causes: State-sponsored actors: well funded and organised, whether or not directly related to foreign powers, whose actions are inspired by political motives. - Activist hackers (including terrorist organisations): actions are inspired by political, social or other activist motives. Driven by their ideological motives, they carry out targeted attacks on Stedin due to its social relevance. - Organised crime: actions are driven by economic motives, employing 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. - Script kiddies: using 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.</p> <p>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 and loss of control over own data and information systems. - A cyberattack slows down the role Stedin fulfils in the energy transition. - Loss of control over switchgear can lead to serious personal injury. - Very high repair costs: consequential loss for Stedin Group and society.</p> <p>How did we respond to this fact: We are working on integral security that connects the related areas of expertise. Stedin applies internationally recognised standards in order to reduce its vulnerabilities to outside threats, with a focus on prevention, timely detection and the resulting actions. As Stedin bases its cybersecurity on the tried and tested Deming cycle for continuous quality improvement, we arrange to be regularly tested by external specialised parties in relation to the ISO27001 standard. Within Netbeheer Nederland, we make a constructive contribution to the formulation of a European Network Code In addition, we work closely with other organisations in the private and public sector in the field of cybersecurity. At the European level, we do this through the European Network for Cyber Security (ENCS) with other grid managers in other countries. At the national level, we work with the Cyber Security Council, the Vital Infrastructure Committee of VNO/NCW, industry association Netbeheer Nederland and the National Cyber Security Centre, among others. We share information with these organisations on threats and measures, and we also collaborate with them to develop standards and provide mutual support in case of an actual threat. Exercises, such as the largest Dutch cyber-crisis exercise ISIDOOR, are a key element in this regard. You can read more about the impact of this risk in the section on 'Safety and security'.</p>	

Title of risk:	② Increasing pressure on our long-term ability to retain the 'A' category credit rating issued by S&P
Risk tolerance	Avoiding
Risk assessment	Top
<p>Description: Facilitating the energy transition and enabling the rapidly growing (digital) economy are pushing up Stedin Group's levels of investment. The present regulatory model is not sufficiently aligned with the financial challenges accompanying this growth: It provides for compensation for the costs incurred, including a reasonable return. However, Stedin Group receives this compensation over an extended period, while the investments need to be made now. Our credit rating comes under increased pressure due to the difference in outgoing and incoming cash flows. While this pressure was partly alleviated by a capital injection from the shareholders of Stedin Group in 2021, more equity will need to be raised in the coming years to strengthen our balance sheet.</p> <p>Causes: Increasing levels of investment - Impact of method decision - Investments need to be financed now, while the compensation for these investments will be received with a time-lag over the coming years.</p> <p>Consequences: Unable to retain desired A category credit rating (S&P), as a result of which the weighted average cost of capital will probably rise and access to the capital market at all times cannot be guaranteed. - Reduced scope for investment accompanied by increasing pressure on carrying out the core tasks of Stedin Group.</p> <p>How did we respond to this fact:</p> <p>Strengthening our equity capital base: In 2021, our equity capital base was strengthened through an equity injection of €200 million. It was decided to issue preference shares. Existing shareholders subscribed to this issue. As part of the strengthening exercise, we also made agreements with the shareholders on follow-on arrangements, which we are currently discussing. A review of our long-term financing strategy was also commenced (until mid-2029). This involves us exploring the broad scope of possibilities in governance and shareholder structure for further strengthening our financial position.</p> <p>Regulation: Stedin Group is engaged in constant dialogue with the shareholders concerned on this issue, on its own behalf as well as with the other national and regional grid managers. In 2021, the new method decision for the regulation period 2022-2026 was announced. In this decision, the ACM has made some changes to the former method decision, increasing, on these specific points, the allowable revenue for the grid managers. However, as the allowable return on investment in general decreases significantly compared to the previous regulation period (in line with the decreasing interest rates), the additional financial capacity is insufficient to tackle the financial challenge.</p> <p>Alternative financing options: Alongside the follow-up arrangements with the existing shareholders, we also initiated discussions with potential new shareholders. You can read more about the impact of this risk in the section on 'Financial, economic performance'.</p>	

Title of risk:	③ Increased likelihood of surge to replace obsolete assets
Risk tolerance	Neutral
Risk assessment	Top
Description:	As a result of the current replacement policy, the average age of our assets is increasing. This gives rise to the risk that grid performance will deteriorate in the future. The risk of a surge of replacements increases if the current policy were to be continued. In view of the potential number of these assets needing to be replaced, it will not be possible in practice to scale down these replacements quickly. This will then result in increased failures and disruptions, which will have an adverse impact on our customers and stakeholders while also leading to high repair costs.
Causes:	Age composition of grid – Restrained replacement policy and due to the loss of support from suppliers – Limited quality of available information.
Consequences:	Possible surge of replacements – Larger scale quality investment – Greater challenge to undertake, and complete, this work (technical staff and financing)
How did we respond to this fact:	
Condition and risk analysis:	Each year, we carry out a condition analysis of Stedin's assets. This condition and related risk analysis provides input for the Strategic Investment Plan: the potential surge of replacements is identified in this multi-year investment plan. We track the developments over time, and the risks are partly mitigated, due to our implementation in recent years of data-driven maintenance and replacement via advanced analytics. We therefore expect that developments related to risk for the grids will decrease. Having implemented these measures across a reasonably broad front for our asset base, we can observe that this mitigation is insufficient to prevent obsolescence in our grids. In addition to framing multi-year plans for replacing the assets, various initiatives have been launched within our change programmes System Operator and Sustainable Energy Transition aimed at achieving better management of this risk. The availability and quality of the necessary data remain crucial. Furthermore, we are currently working to establish the most cost-effective measures for preventing increasing grid obsolescence.
Other activities include:	- Participation in Ksandr foundation: here, we share knowledge about ageing and obsolete assets with TenneT and the other regional grid managers. We also engage in dialogue with suppliers of the assets and make agreements about placing components in stock when assets are removed from use. The dossiers under Ksandr have been expanded and made more complete. - Portfolio planning and transition planning: Portfolio planning aims to intelligently combine transition planning and replacements. Intelligent combining is about coordination between replacements by reason of quality (maintenance) and by reason of capacity (expansion). For example, replacement of a small, old transformer with a large new transformer instead of a small replacement one. The idea is to allow transition planning to free-ride on necessary actions to assure the quality of the assets, resulting in a decreased surge of replacements.
You can read more about the impact of this risk	in the section on 'Supply security'.

Title of risk:	④ Unavailability of enough people with the required competencies
Risk tolerance	Avoiding
Risk assessment	Top
Description:	Due to ageing and tightness in the labour market, there is a risk that we will in the longer term no longer have enough staff with the required technical and other competencies to achieve our strategic objectives.
Causes:	Fierce competition in the labour market, fewer and fewer technicians on the labour market; little insight into the necessary skills and numbers for the future; Stedin has too low a profile as an employer; in the objectives of the organisational units, there is insufficient focus on the energy transition and the lack of adequate predictive modelling.
Consequences:	Stedin is unable to sufficiently perform its core tasks, resulting in: a deterioration in the quality and efficiency of service provision, an inability to fulfil our role in facilitating the energy transition and decreased employee satisfaction.
How did we respond to this fact:	
Strategic personnel planning:	The Strategic Personnel Plan provides insight into and an overview of current and future roles and necessary staffing numbers. While this does not overcome the shortage, it does provide us with a roadmap clearly setting out where we need to train or recruit now in order to minimise the shortage in the future.
Providing training ourselves:	In the In-house training school, we provide technical training to colleagues for appointment as fitters and internal advancement to higher technical positions. In 2021, progress was achieved in setting out continuous educational and training pathways. In combination with the insights from the Strategic Personnel Plan, this enables us to take proactive action to address the shortage of qualified technicians in the Netherlands and for the grid managers. This means, amongst other things, that we take action well in advance of extra workload, anticipated or otherwise (including in case of retirement), to take on and train new people and/or to train people from our existing workforce to be ready for further steps.
Labour market campaign:	Substantial investment has been made in a labour market campaign in recent years. Stedin was portrayed as an attractive employer, with intensive engagement by colleagues in the organisation. Communication across various media was used to reach specific target groups. Amongst other things, this has boosted the number of visits to our website werkenbijstedin.nl .
You can read more about the impact of this risk	in the section on 'Good employment practice'.

Title of risk:	⑤ Insufficient connection and transmission capacity
Risk tolerance	Neutral
Risk assessment	Top
<p>Description: The expansion of our electricity grids is planned on the basis of the prediction of customer demand. Timely reinforcement of our grids may not be possible if customer demand evolves significantly faster than expected or if execution takes significantly longer than planned. In that situation, we can offer our customers a connection but not the necessary transmission capacity. As a result, we are 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. If congestion management is possible, some of the customers can then be connected, provided that congestion management is applied in the case of the area affected by congestion. It is expected that applying congestion management will entail costs.</p> <p>Causes: Long lead times of licensing and planning procedures for spatial integration, amongst other things, mean that lead times for grid reinforcements are far longer than the lead times of our customers' projects. - There is significantly increased demand due to SDE subsidies, under the Sustainable Energy Generation Incentive scheme (since 2016), as well as rapid growth in the number of connections for wind, solar farms, rooftop solar and electric charging points. - The grid configuration in rural areas does not provide for large generation volumes. - Limited engineerability due to constrained scope for investment and labour market shortages. - Congestion affecting TenneT.</p> <p>Consequences: Unable to deliver in a timely manner according to customers' requirements. - The customer has to modify, defer or cancel the planned project. Realisation of energy transition delayed. - Reputational damage in respect of grid manager's core task. - Claims filed by developers and others. - Costs of temporary solutions (market-based flexibility/congestion management).</p> <p>How did we respond to this fact:</p> <p>Flexibility for managing supply and demand: Encourage deployment of flexibility for managing supply and demand, enabling us to make more efficient use of grid capacity. In 2021, we called up flexibility on several occasions in the Zuidplaspolder, where commercial growers use their CHP installation to help keep the grid load within the permitted limits. - Improved system efficiency: Encourage improved system efficiency. This enables us to make better use of grid capacity by linking local energy generation and use to smart choices of location as well as cable pooling, whereby solar and wind-generated energy is combined, or pooled, on a single cable to increase the capacity utilisation of a connection.- Active lobbying for expanding connection possibilities: We actively lobby to create grid capacity for other types of connections. In 2021, we finalised the implementation of amendments to the Electricity Act. These amendments concern the prohibition of multiple connections for solar farms, cable pooling and supplements to the standard connection methods. In addition to facilitating the connection of more sustainably generated energy, these measures also enable us to make better use of existing grid capacity, amongst other things. The amendments were partly the result of lobbying by the grid managers. - Insight into grid capacity: Maps are published on the Stedin website showing the current grid capacity for power generation as well as consumption. The information this provides on possible restrictions in available grid capacity is useful to business customers in a planning context. For the Regional Energy Strategies (RES), we provide insight into the available grid capacity, including planned grid reinforcements. We have developed opportunity maps to show where new initiatives are most likely to succeed when implemented in a planning horizon up to 2020. This provides public authorities with greater clarity regarding the feasibility of their RES ambitions up to 2020. Stedin will continue to invest in the coming years in making available and planned grid capacity transparent to support the market in general and that of national and regional programmes in the energy transition in particular. - Spatial integration of grid infrastructure: We use master plans to make clear to municipalities and provinces where new infrastructure is needed. In that way, we aim to shorten the lead times for issuing permits, to speed up the availability of new infrastructure.</p> <p>You can read more about the impact of this risk in the section on 'Facilitating the energy transition'.</p>	

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 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 2021 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 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 manifest 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 2022

Board of Management,

Koen Bogers, CEO (chair)

Danny Benima, CFO

Trudy Onland, COO

David Peters, CTO

Report of the Supervisory Board

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Interview with Doede Vierstra, chair of the Supervisory Board

For the Supervisory Board, 2021 was dominated by two topics: financing the energy transition and a new composition of the Board of Management. While financing is proving a tough issue, the renewal of the Board of Management went smoothly.

‘We need to enlarge the circle of shareholders.’ Doede Vierstra, chair of the Supervisory Board, often uses this phrase when talking about how to finance the energy transition. A larger circle of shareholders is essential to ensure sufficient funding into the future. The issue of financing calls for an integrated approach to various parties. New shareholders, such as central government, provinces or municipalities that have no shareholding at present, are needed to strengthen Stedin’s financial position and enable the necessary investments to be made. ‘We can’t expect our regional shareholders to shoulder this heavy burden by themselves. Furthermore, the interest we are pursuing, facilitating the energy transition, has both a regional and national dimension. It is a shared responsibility.’ Doede sees the equity injection of €200 million by the current shareholders in mid-2021 as an important step. ‘We are delighted with the commitment we received. Now for the next steps.’

Discussion at the national level

Doede welcomes the fact that Stedin made its voice clearly heard in the discussion on the Method Decision issued by the ACM. ‘That discussion, about how we organise the energy transition and at the same time our regular business, also needs to be conducted at the national level,’ says Doede. ‘And it may not be a bad thing if the discussion becomes fiercer. Cooperation is more important than ever. After all, we’re talking about the sustainable future of the Netherlands. As a country, we need to remove the obstacles to making the necessary progress. We have to do this before it’s too late.’ In this light, Doede views the first capacity problems in our service area as a cause for concern. ‘That is something you don’t want, of course.’

Grid managers key in energy transition

Doede sees it as a trend that the role of grid managers will be crucial. ‘Due to our infrastructure, we have become key in the energy transition. Although we set clear priorities, as a grid manager we are naturally limited in our freedom of choice, in view of our public task. The law says: first come, first served. We process customers in order of receipt and act on a non-discriminatory basis. At the same time, we want to fulfil customers’ wishes and expectations. Stedin must be enabled to meet these challenges and to fulfil this key role,’ he says. ‘We are a company that wants to move forward resiliently. With the right resources, we can make significant advances as a country in improving sustainability.’ Having good technical personnel presents a challenge in this respect. ‘The best way is to train them ourselves. I am therefore very pleased with the results of our In-house training school. It is a positive sign that, through our initiative, we are able to provide so many people with good technical training. But we need even more.’ An outstanding highlight is the award to Stedin of the title ‘Most vibrant specialist company 2021’. That too shows that Stedin is an attractive organisation to work for.

Changes on Board of Management

The changes on the Board of Management are of a different order than the energy transition. ‘Appointing new members of the Board of Management is a very important task for a Supervisory Board,’ says Doede. ‘And this year saw not just one, but two appointments: Koen Bogers as CEO and Trudy Onland as COO. As the Supervisory Board, we give serious thought to the leadership that is essential for Stedin at this moment. We consider whether a candidate fits well in the team, providing us with the right mix of qualities, knowledge and experience in the Board of Management. Everything matters, and the overall balance has to be right. Because even though financing is important, and laws and regulations are important, it’s the people who are key. As the Supervisory Board, we are very pleased with the appointments, and we have great confidence in this team.’

New schedule

A highlight of the year for Doede, therefore, was a two-day session with the Supervisory Board and Board of Management, including a business visit to DNWG/Enduris in Zeeland. ‘There, we visited the operation and set out our markers for the coming period.’ Doede sees formulating the strategy for 2023-2027 as a key task in 2022. ‘This will form our schedule for the coming years. Stedin is at a very important stage. I look forward to constructing a well-thought-out and supported plan together.’

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 vis-a-vis the Board of Management in 2021.

This year was largely characterised by the challenges inherent in the energy transition and the means of financing it. In performing our duties, we focus on long-term value creation. Considerable time and attention were additionally devoted to the search for a new CEO and COO. The CTO was also reappointed in 2021.

A number of specific topics that were addressed in 2021 are described below.

Topics

Strategy

Progress on strategy, based on the three strategic spearheads, is a recurring topic for discussion in the Supervisory Board. The strategic spearheads have been translated to ten clear objectives, which will be central in the coming year also. With the aid of a strategic dashboard, Stedin informs the Supervisory Board about execution and progress with regard to the objectives that have been formulated. Many of the tasks related to good grid management and the energy transition are driven by customer demand.

Strategic topics are regularly reviewed in the Supervisory Board meetings. The annual two-day session provides an opportunity for additional in-depth examination of such topics. In a session this year, we extensively considered market facilitation, regulation and administering the energy system. The energy transition is changing the energy



The Supervisory Board of Stedin Group, from left to right: Annie Krist, Theo Eysink, Doede Vierstra, Arco Groothedde and Hanne Huis.

system, and with it the way in which Stedin facilitates market parties. Consideration was given to what this means for the work of the Market department and how it is preparing for future developments. In relation to the topic of regulation, in-depth consideration was given to the problems that arise as the rising costs of the energy transition heighten the discrepancy between increased costs and revenues. This resulted, amongst other things, in the plan for addressing long-term financing together with our shareholders.

Other topics that were considered in depth during the year were the Energy Act (which replaces the current Electricity Act and Gas Act) and Transmission Capacity; congestion unfortunately occurs at certain places in Stedin's service area, too.

DNWG company visit

During the two-day session, we also reserved time to visit our colleagues at DNWG. 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. Examples are the energy transition and the integration of DNWG and Stedin.

Strategy recalibration

Looking ahead to 2022, the recalibration of the strategy for the period 2023-2027 will be an important theme. This is necessary because our current strategy only covers the period until the end of 2022. This year, a team with new Board of Management members took office; they will work intensively, including with our shareholders, on detailing the strategy for the coming years with the aim of producing a good and well-supported plan.

Composition of the Board of Management

Several important changes took place in the Board of Management in 2021. In September 2020, the imminent departure of the former CEO Marc van der Linden was announced. Finding a successor in this role and the search for a new COO were important tasks for the Supervisory Board in 2021. Both positions have now been filled, and with the arrival of Koen Bogers (CEO) and Trudy Onland (COO), the Board of Management is complete once again. The process of reappointing David Peters (CTO) was also completed in 2021, and his next term of office commences in January 2022. The new members of the Board of Management have already become well acquainted with the shareholders and other municipalities. In addition, the Supervisory Board and the full Board of Management spent much time together in close

consultation during the two-day session in July. The Supervisory Board is very pleased that the right people were found and has every confidence in the Board of Management's ability to successfully fulfil its challenging task of leading Stedin in these turbulent times.

Financing of the energy transition

Stedin has a substantial need for capital in order to finance the energy transition. This is to be met by various routes. In 2021, this topic was frequently discussed by the Supervisory Board and between the Board of Management and the Supervisory Board. We are pleased that this resulted in an equity injection of €200 million by the shareholders and the issue of cumulative preference shares. That was an important step. Given the substantial need for capital, it is essential that we as Stedin seek a broader basis of contributions towards the financing of Stedin. The Supervisory Board furthermore notes that regulations and the new method decision are lagging behind reality. The reality is that Stedin proactively undertakes investments and that the current regulatory regime fails to take this sufficiently into account. Cooperation on all fronts is of great national and international importance in that connection, as this issue concerns the sustainable future of the Netherlands, and the cost of the energy transition will be enormous.

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

Stedin is a unique company, not least because of the great diversity of stakeholders with an interest in seeing Stedin thrive. 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. In that respect, the Supervisory Board pays attention to the different roles that stakeholders can perform. A shareholder of Stedin, for example, has not only a financial relationship but also a political relationship and a customer relationship with the company, amongst other things. Zooming in on various key stakeholders, Stedin joins with Alliander and Enexis in actively engaging with politicians at the national level with the aim of ensuring that there is proper consideration, now and into the future, for the grid managers' interests. In dialogue with the regulator ACM as well, Stedin's position was clearly highlighted, and possibilities for improvement in relation to the method decision were addressed. We interact with stakeholders on all fronts, while ensuring visibility of Stedin's interests.

Climate, Energy Transition & Sustainability

Events in 2021 underlined the importance of finding a solution to the problem of climate change. 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 new key role in facilitating the acceleration in the energy transition. That requires Stedin to be in a position to make the right investments on time, those investments should be responsibly financed and laws and regulations should permit the fulfilment of a new key role. It is essential that Stedin be able to facilitate the energy transition through its grids and that action be taken to prevent the network from forming a bottleneck. While disappointing, the fact that Stedin was forced to report capacity limitations in 2021, for the first time, was to be expected. A future-proof grid and grid management are criteria for a successful, accelerated energy transition. Stedin accepts its responsibility in this regard, as is also shown by its actions to electrify its vehicle fleet and reduce its environmental footprint. In 2021, the Supervisory Board also approved the issue of Stedin Group's second green bond. 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 2021. 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.

Resilient employees

The Supervisory Board also views the shortage of technical staff as a major constraint. Stedin has made good progress with strategic personnel planning. In addition, Stedin 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 208 employees were trained as fitters this year.

Supervisory Board's role as employer

In 2021, 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 five regular meetings in 2021, two specifically to consider the annual report and half-year report and several extra meetings that were organised for the purpose of discussing 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.

The Supervisory Board has appointed Elise Reeker as company secretary with effect from 13 February 2021. She is succeeding Suzanne van Nieuwenhuijzen.

Dick van Well stepped down as a member of the Supervisory Board with effect from 12 February 2021. Theo Eysink's term of office as a member of the Supervisory Board was set to expire on 1 February 2021; at the Extraordinary General Meeting of Shareholders (EGM) of 12 February 2021, he was reappointed for a second term of four years by the general meeting.

Committees

The Supervisory Board has two committees, the Audit Committee 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 the long-term financing, the finance transformation plan, the performance benchmark of the grid managers and the further development of control information. The meetings, of which seven were held in 2021, 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 Groupwebsite](#).

Selection, Remuneration and Appointments Committee

Hanne Buis is the chair of the Selection, Remuneration and Appointments Committee. A lot of attention was paid to the selection of a new CEO and COO and the reappointment of the CTO. The recruitment and selection of a new member of the Supervisory Board was one of the topics; in line with the governance agreements, consultation took place on this with the delegation of shareholders. Other topics included the continuing education for Supervisory Board members, self-assessment and the amendment of the profile for the Supervisory Board (adopted in the General Meeting of Shareholders in September 2020). The remuneration of the Board of Management members and Supervisory Board members for 2021, which is in accordance with the adopted remuneration policy and respects the limits of the Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act, is described in the [Remuneration report for 2021](#) section. The terms of reference of the Selection, Remuneration and Appointments Committee have been posted on the [Stedin Groupwebsite](#).

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 2018	21 September 2022
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 2018	13 April 2022
Mr D. (Dick) van Well	30 January 2017	12 February 2021 (stepped down)

The Supervisory Board sets great store by diversity in its composition. Until September 2020 and after February 2021, the gender ratio male/female in the Supervisory Board was and is 3/2.

Attendance rate of Supervisory Board members at meetings

Name	Supervisory Board meeting	Audit Committee	Selection, Remuneration and Appointments Committee
Doede Vierstra	100%		100%
Hanne Buis	91%		100%
Theo Eysink	100%	100%	
Annie Krist	100%	100%	
Arco Groothedde	100%	100%	100%
Dick van Well	100%	100%	100%

Self-assessment and education

The self-assessment was carried out in several steps in 2021, supported by an external facilitator. The outcomes of questionnaires and individual interviews were presented to the Supervisory Board and discussed at the offsite retreat in July. The main outcomes of this process were shared with the members of the Board of Management. One of the results this led to was further enhancement of the Supervisory Board's role in acting as a sparring partner for the members of the Board of Management.

As members of the Supervisory Board, we believe it is important to develop continually. The world around us is changing rapidly, and we will have to change with it if we are to serve effectively in our role. In addition, we elected to receive refresher training, in the form of a customised Nyenrode programme, in two modules (Developing Corporate Governance 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 independence requirement for supervisory board members pursuant to the Corporate Governance Code is complied with in full. A 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 29 September 2021. No material transactions occurred in 2021 that involved potential conflicts of interests between the company and Supervisory Board members.

Contacts with shareholders

In 2021, the contacts between Stedin and the shareholders were intensified, mainly in connection with the process concerning the long-term financing. Within the Supervisory Board, the chair in particular was closely involved in this process, and consultation regularly took place with the other Supervisory Board members. There was also regular contact

with a delegation of the shareholders' committee on and involvement in the process of appointment and reappointment of directors. There were four meetings of shareholders, two of which took place in digital or hybrid form. These meetings of shareholders were chaired by the chair of the Supervisory Board.

Contacts with the Works Council

In the context of broadly weighing up stakeholder interests, the Supervisory Board sets great store by good contact with the Works Council. A 'tripartite consultation' takes place twice a year; in 2021, this was in July and in December. Besides the members of the Supervisory Board, these are attended by the members of the Board of Management and a delegation from the Works Council. The topics that were discussed in 2021 were stakeholder management and cybersecurity. The chair of the Audit Committee was present when the full-year figures were discussed by the 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. You can read more about the Works Council in the section on [Good employment practice](#).

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 2021 financial statements to the General Meeting of Shareholders for adoption in 2022, together with the dividend proposal for the 2021 financial year. It is furthermore proposed to the General Meeting of Shareholders to discharge the Board of Management in respect of its management in the financial year 2021 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. We would also like to thank Judith Koole who, following her retirement as COO in 2020, had responsibility for specific strategic and administrative tasks in 2021.

Lastly, a word of thanks to the former chair of the Board of Management, Marc van der Linden, who ensured a smooth transfer of his duties to Koen Bogers, who took over the role of chair of the Board of Management with effect from 1 June 2021. We wish the Board of Management as newly composed every success.

Rotterdam, 17 February 2022

The Supervisory Board

Doede Vierstra (chair)

Hanne Buis

Theo Eysink

Arco Groothedde

Annie Krist

Remuneration report for 2021

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 package consists of the fixed annual salary, consisting of 12 monthly salaries plus 8% holiday allowance, and additionally a number of other elements of remuneration that are partly at the option of the members of the Board of Management. The other elements of remuneration include the ABP pension scheme, 30 days of leave annually, group health insurance and invalidity insurance, a tax-free monthly expense allowance and a fully 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 business units Stedin Netbeheer B.V. and Enduris 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. The director of DNWG Groep N.V. qualifies as a senior executive of grid manager Enduris B.V.

Until 1 July 2021, the members of the Board of Management were employed by Stedin Netbeheer B.V. and qualified as senior executives *with* employment. With effect from this date, their employment was transferred to Stedin Groep

Personeels B.V. under the Energy Transition (Progress) Act (Wet Voortgang Energietransitie, Wet VET), and under the WNT, they qualify as senior executives *without* employment. Immediately upon commencement of his employment, the new CEO entered the employment of Stedin Groep Personeels B.V. with effect from 1 May 2021. Accordingly, Koen Bogers qualifies as a senior executive without employment from that date. The employment of Trudy Onland, together with that of the other members of the Board of Management, was transferred to Stedin Groep Personeels B.V. with effect from 1 July 2021.

The director of DNWG Group, like the Board of Management, is employed by a personnel company, and accordingly, he also qualifies under the WNT as a senior executive without employment. His work is performed on a 50% basis for Enduris and on the remaining 50% basis for infrastructure company DNWG Infra B.V., to which the WNT does not apply. However, DNWG Staff B.V. is an affiliated enterprise of Enduris B.V. Therefore, his total remuneration including DNWG Infra is disclosed in the Notes to the consolidated financial statements in a separate table, alongside the WNT remuneration relating to Enduris B.V.

The members of the Supervisory Board of Stedin Group qualify as senior supervisory directors under the WNT. The WNT transitional rules apply neither at Stedin Netbeheer B.V. nor at Enduris B.V.

In connection with his stepping down as CEO of Stedin Group, the Supervisory Board made agreements with Marc van der Linden on the termination of his employment. Marc van der Linden took a sabbatical from 16 July 2021; accordingly, his role as senior executive terminated with effect from that date in accordance with the WNT rules on employment. His employment was effectively terminated from 1 January 2022. In accordance with the maximum amount permitted under the WNT, Marc van der Linden was awarded a severance payment of €75,000, which was paid to him in monthly instalments during his sabbatical.

The reporting on the WNT remuneration of Stedin Group is part of the Notes to the consolidated financial statements, [WNT compliance for 2020 by Stedin Netbeheer B.V. and Enduris B.V.](#)

The WNT does not apply to other employees of Stedin Group, since they are employed by a personnel company and personnel companies are not subject to a requirement to report on other executives who receive remuneration

exceeding the individually applicable threshold amount (the WNT standard of €209,000, calculated in proportion to the scope of the employment). As disclosing this information on an individual basis may constitute a breach of their privacy pursuant to the General Data Protection Regulation (GDPR), we do not report this information. Instead, we report the number of other employees who receive remuneration exceeding the individually applicable threshold amount. In 2021, no employee of Stedin Group received remuneration above the individually applicable threshold amount. Since the remuneration package for Stedin employees directly under the level of the Board of Management was revised with effect from 1 January 2019, the number of other executives who receive remuneration exceeding the individually applicable threshold amount has decreased from five in 2018 to zero in 2021. The revision was aimed in part at preventing new instances of executives receiving remuneration exceeding the individually applicable threshold amount and reducing the number of executives who currently do so. The maximum salary, including 8% holiday allowance, for positions reporting to the Board of Management was €165,000 in 2021. 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 2021, that maximum was €199 per hour.

Pursuant to Section 4.2 of the WNT, Stedin has decided not to report on specific remuneration information on the grounds of Section 383(1) and Section 383c of Book 2 of the Dutch Civil Code. 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.

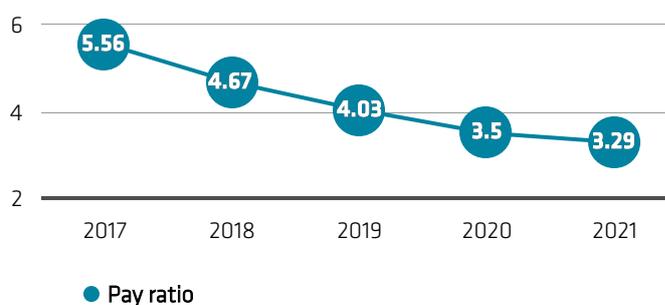
Pay ratios

The ratio between the highest remuneration and the median remuneration decreased in 2021, for the fourth consecutive year. In 2021, the ratio was 3.29. That is 5.9% lower than the ratio in 2020, which was 3.50. Nonetheless, the decrease was less than in previous years. The highest remuneration decreased slightly compared with 2020. The decrease of 5.9% is almost entirely attributable to the 5.7% increase of the median remuneration.

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 2021. 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.

Pay 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



2021 Financial Statements

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Financial Statements

These financial statements present the financial information of Stedin Holding N.V. for the full year 2021, with comparative figures for 2020.

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	2021	2020
Net revenue	4	1,265	1,216
Other income	5	14	13
Total net revenue and other income		1,279	1,229
Personnel expenses	6	436	409
Cost of sales and contracted work	7	357	317
Other operating expenses	8	209	228
Capitalised own production	9	-207	-188
		795	766
Depreciation, amortisation and impairment of non-current assets	10	360	334
Total operating expenses		1,155	1,100
Operating profit		124	129
Financial income and expenses	11	-93	-56
Result from associates and joint ventures after income tax	12	1	-1
Profit before income tax		32	72
Income tax	13	-11	-30
Result after income tax		21	42
Profit distribution:			
Profit after income tax attributable to holders of Stedin Holding N.V. perpetual subordinated bonds (after income tax)		17	12
Profit after income tax attributable to the shareholders of Stedin Holding N.V.		4	30
Result after income tax		21	42

Consolidated statement of comprehensive income

x € 1 million	Note	2021	2020
Result after income tax		21	42
Unrealised gains and losses that will not be reclassified to the income statement (net of tax effects)			
Adjustment for fair value of regulated networks	14, 23	176	-
Effect of changes in tax rate on revaluation reserve	18, 23	-7	-29
Unrealised gains and losses that may be reclassified to the income statement			
Unrealised gains and losses on cash flow hedges	33	22	-17
Recycling cash flow hedge reserve to income statement		10	3
Deferred tax liabilities on cash flow hedges / cost of hedging	18	-8	3
Effect of change in tax rate on cash flow hedge reserve / cost of hedging	18	1	4
Total other comprehensive income		194	-36
Total comprehensive income		215	6
Profit distribution:			
Holders of Stedin Holding N.V. perpetual bond loan (after income tax)		17	12
Shareholders of Stedin Holding N.V.		198	-6
Total comprehensive income		215	6

Consolidated balance sheet

x € 1 million	Note	31 December 2021	31 December 2020
ASSETS			
Non-current assets			
Property, plant and equipment	14	7,635	7,057
Intangible assets	15	92	93
Right-of-use assets	16	73	81
Associates and joint ventures	17	-	4
Financial assets			
- Derivative financial instruments	19	-	16
- Other non-current financial assets		14	16
Total non-current assets		7,814	7,267
Current assets			
Assets held for sale	12	4	-
Inventories	20	51	51
Current tax assets	29	-	3
Trade and other receivables	21	165	165
Derivative financial instruments	19	15	3
Cash and cash equivalents	22	133	83
Total current assets		368	305
TOTAL ASSETS		8,182	7,572
LIABILITIES			
Group equity			
Equity attributable to Stedin Holding N.V. shareholders	23	2,764	2,390
Perpetual subordinated bond loan	23	506	501
Total group equity		3,270	2,891
Non-current liabilities			
Provisions for employee benefits	24	9	11
Other provisions	25	15	24
Deferred tax liabilities	18	340	274
Derivative financial instruments	19	64	84
Interest-bearing debt	26	2,736	2,893
Deferred income	27	876	787
Total non-current liabilities		4,040	4,073
Current liabilities			
Provisions for employee benefits	24	4	3
Other provisions	25	3	5
Derivative financial instruments	19	-	2
Interest-bearing debt	26	545	290
Current tax liabilities	29	12	-
Trade and other liabilities	28	308	308
Total current liabilities		872	608
TOTAL LIABILITIES		8,182	7,572

Consolidated cash flow statement

x € 1 million	Note	2021	2020
Profit after income tax		21	42
Adjusted for:			
· Financial income and expenses recognised in the income statement	11	93	56
· Income tax recognised in the income statement	12	11	30
· Share in result of associates and joint ventures	13	-1	1
· Depreciation, amortisation and impairments of property, plant and equipment, intangible assets and right-of-use assets	10	360	334
· Result on sale of property, plant and equipment and intangible assets		-	-1
· Movements in working capital	36	-	3
· Amortisation of customer construction contributions received	27	-22	-21
· Movements in derivative financial instruments	33	6	22
· Movements in provisions, derivative financial instruments and other		-10	-11
Cash flow from business operations		458	455
Dividend received from associates and joint ventures		4	-
Interest paid*		-88	-58
Interest received		1	1
Corporate income tax received		1	10
Cash flow from operating activities		376	408
New loans issued		-10	-7
Repayments of loans granted		12	4
Investments in property, plant and equipment		-679	-614
Disposal of property, plant and equipment		-	1
Investments in intangible assets		-2	-1
Customer construction contributions received	27	112	105
Cash flow from investing activities		-567	-512
Dividend payments		-21	-52
Paid-up capital preference shares		200	-
Repurchase of hybrid securities		-511	-
Proceeds from issuance of hybrid securities		500	-
Payment of lease liabilities		-17	-17
Coupon on perpetual subordinated bonds	23	-12	-16
Repayment of non-current interest-bearing debt	26	-195	-
Repayment of current interest-bearing debt	26	-2,800	-1,175
Non-current interest-bearing debt newly issued	26	497	-
Current interest-bearing debt newly issued	26	2,600	1,375
Cash flow from financing activities		241	115
Movements in cash and cash equivalents		50	11
Balance of cash and cash equivalents as at 1 January		83	72
Balance of cash and cash equivalents as at 31 December		133	83

* 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

x € 1 million	Equity attributable to Stedin Holding N.V. shareholders											Total group equity
	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	
As at 1 January 2019	497	-	720	-	-70	-1	989	313	2,448	501	-	2,949
Total other comprehensive income after income tax	-	-	-29	4	-8	1	-4	-	-36	-	-	-36
Profit after income tax 2019	-	-	-	-	-	-	-	30	30	12	-	42
Total comprehensive income	-	-	-29	4	-8	1	-4	30	-6	12	-	6
Transactions with shareholders												
Dividend payments relating to 2018	-	-	-	-	-	-	-	-52	-52	-	-	-52
Coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	-	-16	-	-16
Tax on coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	-	4	-	4
Total transactions with shareholders	-	-	-	-	-	-	-	-52	-52	-12	-	-64
Other												
Profit appropriation 2018	-	-	-	-	-	-	261	-261	-	-	-	-
Release from revaluation reserve due to depreciation of regulated networks	-	-	-29	-	-	-	29	-	-	-	-	-
Total other	-	-	-29	-	-	-	290	-261	-	-	-	-
As at 31 December 2019	497	-	662	4	-78	-	1,275	30	2,390	501	-	2,891
Total other comprehensive income	-	-	128	-	25	-	41	-	194	-	-	194
Profit after income tax 2020	-	-	-	-	-	-	-	4	4	17	-	21
Total comprehensive income	-	-	128	-	25	-	41	4	198	17	-	215
Transactions with shareholders												
Dividend payments relating to 2019	-	-	-	-	-	-	-	-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 2019	-	-	-	-	-	-	9	-9	-	-	-	-
Reclassification	-	-	-	-1	-	-	2	-	1	-	-	1
Total other	-	-	-	-1	-	-	11	-9	1	-	-	1
As at 31 December 2020	539	158	790	3	-53	-	1,323	4	2,764	506	-	3,270

See note 23 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 11, 3011 TA in Rotterdam, the Netherlands, a holding company of subsidiaries, and is registered with the Chamber of Commerce under number 24306393.

Stedin Group's main activity is to ensure safe, reliable and affordable energy supply. The grid managers of Stedin Group, Stedin Netbeheer and Enduris achieve this on the one hand by building and managing the electricity and gas networks and preparing them for the future and on the other hand 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 (Enduris). 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 and TeslaN are joint operations between Stedin Netbeheer and Enduris and TenneT, respectively, for maintenance, service and building high-voltage electricity grids.

Stedin Netbeheer and Enduris operate 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.

More information on the composition of the Group is provided in notes [3 Operating segments](#) and [37 Overview of subsidiaries](#).

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

Adoption of financial statements for preceding financial year

The 2020 financial statements have been signed by both the Board of Management and the Supervisory Board of the company in the meeting of 17 February 2021 and were adopted by the General Meeting of Shareholders on 25 June 2021.

Unless otherwise stated, all amounts in this annual report are in millions of euros. The historical cost principle is applied. In derogation from this, certain assets and liabilities, including property, plant and equipment and derivatives, 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 2021

No events occurred in 2021 that represent a significant uncertainty for the equity and results as at the end of the financial year on 31 December 2021. For more details, see our annual report.

Coronavirus

The coronavirus crisis has had limited negative financial consequences for Stedin Group. For instance, we saw lower sales volumes at our customers, which adversely affected our net revenue and other income. We also had to contend with more frequent absence due to illness both of our employees and at our subcontractors, which led to some delays in operations.

Financing

In March 2021, Stedin issued a perpetual subordinated bond loan of €500 million at a coupon rate of 1.500%. Due to its equity classification, this instrument leads to a strengthening of the balance sheet and key ratios and is deemed to replace the €500 million subordinated bond loan issued in 2014 at a coupon rate of 3.25%. This hybrid loan was repurchased from the holders of the bond loan via a tendering process. The costs involved in this concern a premium to compensate for future interest payments of € 11 million.

In addition, in May 2021, Stedin redeemed USD and GBP bond loans for a total principal of €196 million; they were redeemed early at a premium of €38 million. This largely comprises future interest, which was paid in addition to the principal owing to the early redemption.

On 25 June 2021, Stedin agreed a capital contribution with its shareholders in the form of preference shares totalling €200 million.

In November 2021, Stedin issued a five-year green bond loan of €500 million at a coupon rate of 0.0%. To that end, Stedin updated a prospectus and its Green Finance Framework to the most recent laws and regulations.

Update on method decisions for new Regulation Period

On 20 September 2021, the Netherlands Authority for Consumers and Markets (ACM) published the method decisions for the 2022-2026 regulation period. The ACM stated in its press release that these method decisions gave the grid managers additional room to be able to facilitate the energy transition. In the opinion of the grid managers, the ACM has still not done enough, and the energy transition may be slowed down because of this method.

In the new method decisions, the ACM introduced several changes compared with the present method, which result in part of the 'reasonable revenues' no longer being pushed back. As a consequence, the grid managers need to provide less in the form of prefinancing. However, this is still not sufficient to cover the sharply rising costs for the energy transition.

Key points in the method decisions for Electricity and Gas:

Electricity:

The ACM has opted for a hybrid WACC (weighted average cost of capital) in which half of the projected inflation is already compensated during the regulation period. This yields a WACC that starts at 2.2% and tails off to 1.9% in 2026. Interim compensation will be provided for changes in the volume of electricity that is generated at decentralised locations. This represents earlier compensation for the costs that are incurred for this. The purchase costs for transmission are currently determined annually on the basis of TenneT's new rates. This means that increases in those rates can be passed on immediately rather than first needing to be pre-financed for two years by the grid managers.

Gas:

For gas, the ACM has switched to a nominal WACC in which the projected inflation is already immediately compensated during the regulation period. This yields a WACC that starts at 3.0% and tails off to 2.8% in 2026. From 2022, the ACM applies a declining balance method of depreciation for gas. This means that the depreciation periods are unchanged but that the amount of depreciation charged decreases over time. This method was chosen with a view to the expected decrease in the number of users of the gas grids.

The costs of the sector have risen in recent years. This cost increase is factored into the tariffs from 2022. Combined with the declining balance method of depreciation for gas, the total impact on income, including the decrease in the WACC, is limited for Stedin.

Network losses in 2021

The costs for network losses rose substantially in 2021, by €44 million compared with 2020. The lower gas production in the Netherlands led to higher imports and hence to greater dependency on the gas market. In combination with the lower gas inventories within Europe, the strong dependency on electricity prices and the short-term purchasing, in part, of gas and electricity by Stedin, this resulted in higher costs for network losses.

Changes in the corporate income tax rate

On the 2021 Budget Day (Prinsjesdag), the government announced an increase in the corporate income tax rate to 25.8% as from 2022. Calculations performed in 2020 still applied rates of 25% as from 2021, which were the future statutory rates in 2020 but were changed to 25.8% in 2021. This means that the deferred tax assets and liabilities are settled and measured at the rate of 25.8%. For the explanation, see [18 Deferred tax assets and liabilities](#).

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. In 2021, the shares of Enduris were also transferred to Stedin Netbeheer so the entities can go forward from 1 January 2022, when the entities will merge, as a single grid manager: Stedin Netbeheer. The other entities with overlapping activities within the Group will also merge (DNWG Staff with Stedin Groep Personeels B.V., and TensZ with TeslaN) as from 1 January 2022. Stedin expects to achieve further synergies through those mergers to continue contributing to the energy transition.

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 2021 and as adopted by the European Union (EU) and with the provisions 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.

Amended IFRS standards and interpretations

The following amendments to IFRS standards have been adopted by the EU with effect from the financial year 2021:

- COVID-19-related rent concessions - amendment to IFRS 16;
- Extension of the temporary exemption from applying IFRS 9;
- Interest Rate Benchmark Reform - amendments;
- Various editorial corrections.

These amendments are not relevant for Stedin Group and therefore have no impact on Stedin's 2021 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 2021 can be applied, where relevant, from 1 January 2021 or later:

- 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 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 10 and IAS 28 - Sale or Contribution of Assets between an Investor and its Associate or Joint Venture;
- Amendments to IFRS Practice Statement 2 - Making Materiality Judgements;
- IFRS 17 - Insurance Contracts.

These amendments to existing standards and the new IFRS standard are not relevant for Stedin Group and therefore have no impact on Stedin's 2021 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 [37 Overview of subsidiaries](#) in the notes to these financial statements.

Subsidiaries

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

Pursuant to the full consolidation method, 100% of the assets, liabilities, income and expenses of subsidiaries are recognised in the consolidated financial statements. 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 book value 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 the share of Stedin Group 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 in associates is recognised in the consolidated financial statements using the equity accounting method, in which initial recognition is at historical cost, with the book value being adjusted for the share in the result. Dividends received are deducted from the book value. Associates are recognised from the date on which significant influence is obtained until the date on which that influence no longer exists. Results on transactions with associates are eliminated in proportion to the equity interest in the associate.

Losses on associates are recognised up to the amount of the net investment in the associate, including the book value 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 2021 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 2020 financial statements.

2.2.2. Impairments of assets

Impairment is present when the book value of an asset is higher than the recoverable amount. The recoverable amount of an asset is the higher of the sale price less costs to sell and the value in use. An asset's value in use is based on the present value of 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 expected future cash flows.

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

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

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

2.2.3. Foreign currencies

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

Transactions in foreign currencies are translated into the functional currency (€) at the exchange rate prevailing on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies on the reporting date are translated into euros at the exchange rate prevailing on the reporting date. Foreign currency exchange differences that arise on foreign

currency transactions or translation of balance sheet items are recognised in the income statement, except if these foreign currency risks are hedged by derivative financial instruments for which hedge accounting is applied.

2.2.4. Netting off

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

2.2.5. Segment information

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

Transfer prices for internal revenues and costs are at arm's length 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 profit of associates and joint ventures or the tax charge.

2.2.6. Net revenues and other income

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 distribution, connection and metering services for electricity as well as distribution, connection and metering services for gas. Stedin Group distributes 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 in equal amounts. Allocation in equal amounts 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 construction contributions received and reconstructions

In order to make distribution services for electricity and gas possible, Stedin Group will construct grid connections for new supply points. The customer pays a contribution towards the construction costs for such a new connection. The connection is inseparably linked to the distribution services and forms an integral part of the payment for distribution services. Revenue from customer construction contributions is therefore recognised in equal amounts over the expected useful life of the connection point concerned. Stedin Group also receives contributions for reconstruction work carried out on the grid. Like the customer construction contributions, these are recognised in equal amounts over the expected useful life of the grid. The customer construction and reconstruction contributions received in advance are contract liabilities which are recognised in the balance sheet under 'Deferred income'.

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 construction 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.

In addition, Stedin Group leases a number of business premises and parts of business premises, due to cost considerations, and transformers to third parties. The assets are recognised by Stedin Group in property, plant and equipment. Lease revenues are recognised in equal amounts through the income statement of Stedin Group as net revenue and other income over the term of the lease.

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 income' 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 line item.

2.2.8. Financial income and expenses

Financial income comprises interest income from the financial assets, including loans issued and cash and cash equivalents. This interest income is calculated on the basis of the effective interest method.

Financial expenses consist mainly of interest expense on interest-bearing liabilities, calculated on the basis of the effective interest method. The interest-bearing liabilities consist of borrowings and debt, except 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.

Gains and losses on financial hedging instruments are, insofar as these are taken through the income statement, 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 through 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.

Networks and network-related assets

Stedin Group's networks and network-related assets in the regulated domain are measured at the revalued amounts. The revalued amount is the fair value at the date of the revaluation less accumulated depreciation and 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 book value, the revaluation will be adjusted. An increase in the book value 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 book value 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 recognised through the consolidated income statement.

Networks and network-related assets are initially measured at cost, until the time of the first revaluation. The difference between the depreciation based on the revalued book value and depreciation based on the original historical cost, less deferred tax, is transferred periodically from the revaluation reserve to retained earnings.

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 processed 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 recognised at cost less accumulated depreciation and impairment. Cost comprises the initial acquisition price plus all directly attributable costs. Cost of assets constructed by the company comprises the cost of materials and services, direct labour and an appropriate proportion of directly attributable overhead costs.

Financing costs

Financing costs directly attributable to the purchase, construction or production of an eligible asset are recognised in cost in accordance with IAS 23. If an asset comprises multiple components with differing useful lives, these components are recognised separately.

Subsequent expenditure

Expenses incurred at a later date are only added to the book value of an asset if and to the extent that the condition of the asset is improved compared to the originally formulated performance standards. 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 book value 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. Useful lives 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 - 50
Other operating assets	3 - 25

Attribution of estimate change

Stedin charges directly attributable costs to the projects in accordance with IAS 16.17. With effect from 1 January 2021, as a result of changes to the recharging system, recharges were € 8 million higher compared to the previous recharging system. There were no estimate changes in this respect in 2020.

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 or includes 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 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, a right-of-use asset is measured at cost. This cost price consists of the amount of the initial statement of the lease liability, the initial direct costs incurred and the lease payments made on or before the commencement date, minus all the lease incentives received and the initial direct costs incurred.

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 depreciated and the lease liability is reduced.

Leases are recognised in the balance sheet under right-of-use assets and interest-bearing debt for the lease liability. Depreciation on right-of-use assets is recognised in depreciation, and the interest expense is recognised in financial expenses in the income statement. Cash flows relating to the leases are shown separately in the cash flow statement.

Stedin as lessor

Stedin Group leases a number of business premises and transformers to third parties. The assets are recognised by Stedin Group in property, plant and equipment. Lease revenues are recognised in equal amounts through the income statement of Stedin Group as net revenue and other income over the term of the lease.

Depreciation 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 [15 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 recognised at cost less accumulated depreciation, amortisation and impairment. The investments in technological platforms have an indefinite useful life and are recognised at cost less impairment, if applicable.

Software

Software is capitalised at cost. Cost of customised software comprises the one-time cost of acquiring it. Costs of software maintenance are recognised as an expense in the period in which they are incurred.

Depreciation and 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 book value 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 recognised at face 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 as well as joint ventures are only recognised if it is probable that the temporary difference will reverse in the near future and that future taxable profit will be available against which the deductible temporary difference can be utilised.

Deferred tax liabilities are recognised for all taxable temporary differences arising from investments in subsidiaries, joint operations and interests in associates and joint ventures, unless Stedin Group can determine the time at which the temporary difference will reverse and it is probable that the temporary difference will not reverse in the near future.

As soon as insights change following consultation with the inspector or Stedin and positions become less uncertain, it 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 book values of the derivative financial instruments are recognised under the derivative financial instruments in current and non-current assets in the consolidated balance sheet. The negative book values of the derivative financial instruments are recognised in the current and non-current liabilities in the consolidated balance sheet.

Cash flow hedge accounting

Cash flow hedge accounting is intended to mitigate movements in future cash flows. 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'. These changes (after income tax) are then recognised in the cash flow hedge reserve in group equity or in the reserve for cost of hedging.

Amounts recognised through group equity are transferred to the consolidated income statement when the hedged asset or liability is settled. 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 a liability for which the fixed interest is locked in ('interest rate swap') with an effective date in the future ('forward starting') for a selected term.

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 hereby recognised directly through the consolidated income statement.

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 book value 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 book value preceding classification as held for sale and fair value less costs to sell.

2.2.18. Inventories

Inventories are recognised at the lower of weighted average cost and direct net realisable value. Cost of inventories is the purchase price including directly attributable costs incurred to bring the inventories to their present location in their present condition. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to sell. Impairment of inventories is recognised through the consolidated income statement if the book value exceeds the 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 billed for services supplied. On initial recognition, receivables are accounted for at amortised cost less impairment losses due to expected losses for bad debts in connection with credit risk.

The expected credit losses are estimated on the basis of the credit quality of the counterparty on the basis of individual estimates or estimates for a portfolio of similar receivables. For the assessment of risks in portfolios, Stedin Group uses a simplified model that is based on Stedin's experience of receivables with the same risk profile, supplemented by expected developments of the debtors and the economic environment.

Receivables are written off when it is clear that the debtor will no longer be able to pay.

2.2.20. Cash and cash equivalents

Cash and cash equivalents 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 face 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, salary payments in the event of illness and the employer's risk under the Unemployment Insurance Act (Werkloosheidswet). Where appropriate, these liabilities are calculated at the reporting date using the projected unit credit method, using a pre-tax discount rate that reflects the current market assessment of the time value of money.

2.2.23. Other provisions

A provision is recognised when there is a present legal or constructive obligation that is of an uncertain amount or timing due to a past event, the settlement of which will probably lead to an outflow of resources.

Provisions that will be settled within one year of the reporting date, or that are of limited material significance, are recognised at face value. Other provisions are recognised at the present value of the expected expenditure. The specific risks inherent to the relevant obligation are taken into account when determining this expenditure. The present value is calculated using a 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 payables and other financial 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 face 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 impairment 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 could, however, differ from the estimates. Judgements, estimates and assumptions are reviewed on an ongoing basis. Changes in accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period.

If the revision also affects future periods, the change is made prospectively in the relevant periods. Any points of particular importance with regard to judgements, estimates and assumptions are set out in the notes to the income statement and balance sheet items concerned.

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. The useful life and residual value are reviewed annually. An asset's 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 book value. If the recoverable amount is lower, impairment is applied. For more information, see note [14 Property, plant and equipment](#).

Fair value of regulated networks

The fair value of regulated networks is determined in alignment with the expected payment method of the ACM. The expected future rates related to Stedin Group's market share and expected limits for possible rate components are included in the calculation method. For more information, see note [14 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 note [15 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 income' as stated in note [28 Trade and other liabilities](#).

3. Operating segments

Business segments are based on Stedin Group's internal organisation and management reporting structure and have not changed in comparison with the 2020 financial statements of Stedin Group. The segments are:

Segment Stedin

The business segment Stedin comprises the regulated domain: the grid manager Stedin. Stedin manages the gas and electricity grids in its service area. From 1 January 2022, the grid manager Enduris is fully included in grid manager Stedin and is part of this segment.

Segment DNWG

The business segment DNWG is the entity DNWG Groep N.V., consisting of the grid manager Enduris B.V., which manages the gas and electricity grids in the province of Zeeland; DNWG Infra B.V. (formerly DELTA Infra B.V.), which provides non-regulated electricity, gas, water and data infrastructure services; and DNWG Warmte B.V., which provides heat infrastructure services. With effect from 1 January 2022, this segment comprises solely DNWG Infra and DNWG Warmte; Enduris has merged with Stedin Netbeheer and is part of the Stedin segment from that date.

Segment 'Other and eliminations'

The main components of the segment 'Other and eliminations' are the infrastructure, metering and steam network services of NetVerder, the activities of the holding company and the elimination of intragroup transactions. The other 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 segment 'Other and eliminations'.

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 revenues 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 2021 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:

2021 x € 1 million	Segment Stedin	Segment DNWG	Other and eliminations	Total
Net revenue				
- Regulated electricity transmission, connection and metering services	728	97	-1	824
- Regulated gas distribution, connection and metering services	316	31	-	347
- Infrastructure services and other	47	42	5	94
Other income	1	3	10	14
Total revenue	1,092	173	14	1,279
Operating expenses	686	113	-4	795
Depreciation, amortisation and impairments of property, plant and equipment and intangible assets	304	40	16	360
Total operating expenses	990	153	12	1,155
Operating profit	102	20	2	124
Financial income and expenses	-22	-2	-69	-93
Profit after income tax subsidiaries	-	1	-	1
Profit before income tax	80	19	-67	32
Income tax	-23	-6	18	-11
Profit after income tax	57	13	-49	21

Investments in 2021 based on the internal organisation and management reporting structure were as follows:

2021 x € 1 million	Segment Stedin	Segment DNWG	Other and eliminations	Total
Investments in property, plant and equipment and intangible assets	598	86	11	695

Revenue and results for and investments in 2020 based on the internal organisation and management reporting structure were as follows:

2020 x € 1 million	Segment Stedin	Segment DNWG	Other and eliminations	Total
Net revenue				
- Regulated electricity transmission, connection and metering services	681	99	-13	767
- Regulated gas distribution, connection and metering services	325	30	-	355
- Infrastructure services and other	44	48	2	94
Other income	10	3	-	13
Total revenue	1,060	180	-11	1,229
Operating expenses	650	132	-16	766
Depreciation, amortisation and impairments of property, plant and equipment and intangible assets	287	37	10	334
Total operating expenses	937	169	-6	1,100
Operating profit	123	11	-5	129
Financial income and expenses	-23	-3	-30	-56
Profit after income tax subsidiaries	-	1	-2	-1
Profit before income tax	100	9	-37	72
Income tax	-39	-6	15	-30
Result after income tax	61	3	-22	42

2020 x € 1 million	Segment Stedin	Segment DNWG	Other and eliminations	Total
Investments in property, plant and equipment & intangible assets	560	66	4	630

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	2021	2020
Electricity transmission and connection services	782	726
Gas distribution and connection services	322	316
Metering services	63	81
Infrastructure services and other	98	93
Total	1,265	1,216

Net revenue for 2021 increased by €49 million compared with the preceding financial year. This is attributable to higher revenue for the transmission of electricity and distribution of gas driven by higher rates compared with last year,

partly offset by a decrease in metering revenue of €18 million. The decrease for metering services was due to higher repayments of surplus profits compared with last year. The remaining repayable surplus profits in future tariffs are disclosed in [14 Property, plant and equipment](#).

5. Other income

Other income increased by €1 million compared with the preceding financial year to €14 million. Other income includes the revenue from non-regulated services as described in note [2.2.6 Net revenues and other income](#).

6. Personnel expenses

x € 1 million	2021	2020
Wages and salaries	252	243
Social security contributions	36	33
Pension contributions	43	38
External staff	76	65
Other employee benefit expenses	29	30
Total	436	409

Personnel expenses increased by €27 million compared with the preceding year.

The increase in personnel expenses is mainly attributable to an increase in wages and salaries of €9 million resulting from an increase under a Collective Labour Agreement as of 1 May 2020 (3%) and 1 January 2021 (2%), an increase in pension expenses resulting from an increase in the pension contribution (€5 million) and social security contributions (€3 million). In addition, the costs of external staff have increased as a result of higher rates and a higher number of external employees. 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 €12 million (2020: €10 million).

6.1. Number of employees

Average workforce (in FTEs)	2021	2020
Stedin	3,524	3,532
DNWG	561	607
NetVerder	5	5
Total average no. of fte	4,090	4,144
Employed outside the Netherlands	-	-
Male	82%	84%
Female	18%	16%

6.2. WNT compliance for 2021 by Stedin Netbeheer B.V. and Enduris B.V.

The Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act (WNT) is applicable to Stedin Netbeheer B.V. and Enduris B.V. The applicable maximum remuneration in 2021 was €209,000. 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. Until 1 July 2021, they were employed by Stedin Netbeheer B.V. and qualified as senior executives *with* employment pursuant to the WNT. As of 1 July 2021, the employment contracts were transferred to Stedin Groep Personeels B.V.; since then, they have qualified on a 100% basis as senior executives *without* employment. Koen Bogers immediately entered the employment of Stedin Groep Personeels B.V. at the start of his employment contract on 1 May 2021 and therefore already qualified from that date as senior executive *without* employment.

The senior executive of Enduris B.V. is employed by DNWG Staff B.V., on the basis of an employment contract for an indefinite period. He qualifies as a senior executive without employment on a 50% basis for the grid manager Enduris B.V. At the start of 2021, he had already filled this position for more than 12 months.

All senior executives were appointed after 2013. Therefore, no transitional rules apply.

Table: *Senior executives with employment and senior executives without employment after the 13th month of fulfilling their duties*

Data for 2021 x € 1	Marc van der Linden		Danny Benima		Trudy Onland		David Peters		Koen Verbogt
Position details	CEO	Former CEO	CFO	CFO	CFO	COO	CTO	CTO	Director
Start and end dates of duties in 2021	1 January - 30 June	1 July - 15 July	1 January - 30 June	1 July - 31 December	1 June - 30 June	1 July - 31 December	1 January - 30 June	1 July - 31 December	1 January - 31 December
Scope of appointment (in FTEs)	1	1	1	1	1	1	1	1	0.5
Employment relationship	yes	no	yes	no	yes	no	yes	no	no
Remuneration									
Remuneration plus taxed expense allowances	91,579	7,616	91,571	93,289	15,160	93,249	91,571	93,289	83,300
Remuneration payable in future	12,062	973	12,070	12,070	2,018	12,110	12,070	12,070	11,770
<i>Sub-total</i>	<i>103,641</i>	<i>8,589</i>	<i>103,641</i>	<i>105,359</i>	<i>17,178</i>	<i>105,359</i>	<i>103,641</i>	<i>105,359</i>	<i>95,070</i>
Maximum remuneration for position holder	103,641	8,589	103,641	105,359	17,178	105,359	103,641	105,359	104,500
-/- Amount paid but not owed and not yet refunded	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total remuneration	103,641	8,589	103,641	105,359	17,178	105,359	103,641	105,359	95,070
Amount of excess 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 2020									
Position details	CEO		CFO		N/A		CTO		Director
Start and end dates of duties in 2020	1 January- 31 December		1 January- 31 December		N/A		1 January- 31 December		1 January- 31 December
Scope of appointment (in FTEs)	1		1		N/A		1		0.5
Employment relationship	yes		yes		N/A		yes		no
Remuneration									
Remuneration plus taxed expense allowances	178,680		178,538		N/A		178,319		80,378
Remuneration payable in future	22,320		22,462		N/A		22,681		10,875
<i>Sub-total</i>	<i>201,000</i>		<i>201,000</i>		<i>N/A</i>		<i>201,000</i>		<i>91,253</i>
Maximum remuneration for position holder	201,000		201,000		N/A		201,000		100,500
Total remuneration	201,000		201,000		N/A		201,000		91,253

Table: *Senior executives without employment in the period of calendar months 1 to 12*

x € 1	Koen Bogers
Position details	CEO
Calendar year	2021
Period of duties in the calendar year (start – end)	1 May - 31 December
Number of calendar months of duties in the calendar year	8
Scope of employment in hours per calendar year	1387
Maximum remuneration for position holder	
Maximum hourly rate in the calendar year	€ 199
Maximum based on maximum hourly rate	€ 275,947
Maximum based on standardised amounts per month	€ 208,200
Maximum remuneration for position holder for entire period of calendar months 1 to 12	€ 208,200
Remuneration	
Actual hourly rate lower than the (average) maximum hourly rate?	yes
Remuneration in the period concerned	104,288
Total remuneration for entire period calendar month 1 to 12	104,288
-/- Amount paid but not owed and not yet refunded	N/A
Total remuneration, excluding VAT	104,288
Amount of and reason for (non-) allowability of excess	N/A
Information on receivable due to amount paid but not owed	N/A

Marc van der Linden stepped down as CEO of Stedin Group with effect from 1 June 2021. He took a sabbatical from 16 July 2021 to the end of the year.

Table: *Severance payments to senior executives with or without employment including those who continue to be qualified as senior executives for a further four years on the basis of their former position.*

x € 1	Marc van der Linden
Position at employment termination	Former CEO
Scope of appointment (in FTEs)	1
Year of employment termination	2021
Remuneration related to employment termination	
Contractual remuneration related to employment termination	75,000
Maximum remuneration for position holder	75,000
Total remuneration	75,000
Of which paid in 2021	75,000
-/- Amount paid but not owed and not yet refunded	N/A
Amount of and reason for (non-) allowability of excess	N/A
Information on receivable due to amount paid but not owed	N/A

6.2.2 Remuneration of senior supervisory directors

At the start of 2021, the Supervisory Board had six members. Dick van Well stepped down as a member with effect from 1 February 2021. He was succeeded by Arco Groothedde, who had already joined the Supervisory Board last year on 1 October 2020. The members of the Supervisory 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	Dick van Well
Position details	Chairman	Member	Member	Member	Member	Member
Start and end dates of duties in 2021	1 January - 31 December					

Remuneration

Total remuneration	31,350	20,900	20,900	20,900	20,900	1,775
Maximum remuneration for position holder	31,350	20,900	20,900	20,900	20,900	1,775
-/- Amount paid but not owed and not yet refunded	N/A	N/A	N/A	N/A	N/A	N/A
Total remuneration	31,350	20,900	20,900	20,900	20,900	1,775

Amount of and reason for (non-) allowability of excess	N/A	N/A	N/A	N/A	N/A	N/A
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Information on receivable due to amount paid but not owed	N/A	N/A	N/A	N/A	N/A	N/A
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Data for 2020

Position details	Chairman	Member	Member	Member	Member	Member
Start and end dates of duties in 2020	1 January - 31 December	1 January - 31 December	1 January - 31 December	1 October - 31 December	1 January - 31 December	1 January - 31 December

Remuneration

Total remuneration	29,299	20,100	20,100	5,052	20,100	20,100
Maximum remuneration for position holder	29,299	20,100	20,100	5,052	20,100	20,100

6.2.3 Total remuneration of senior executive employed by an affiliated entity

The director of Enduris B.V. is employed by DNWG Staff B.V. and is also responsible, as director of DNWG Groep N.V., for DNWG Infra B.V. DNWG Staff B.V. is an affiliated enterprise of Enduris B.V. The remuneration subject to the WNT at Enduris has been determined in accordance with the definition of remuneration for senior executives with employment, of which 50% is charged to Enduris. The total remuneration at DNWG Staff B.V. is therefore double that amount.

Table: *The total remuneration of senior executives, including those who continue to be qualified as senior executives for a further four years on the basis of their former position, for all their positions at an entity subject to the WNT and any legal entities affiliated with that entity subject to the WNT*

Remuneration 2021	
x € 1	Koen Verbogt
Remuneration for the work performed as a senior executive at Enduris B.V.	95,070
Remuneration for the work performed other than as a senior executive at Enduris B.V.	0
Remuneration for work performed at related companies of Enduris B.V.	190,140
-/- Double counting due to internal invoicing	95,070
Subtotal	190,140
The remuneration maximum applicable to the WNT institution or a higher remuneration permitted for the individual senior official	209,000
-/- Amount paid but not owed and not yet refunded	N/A
Remuneration	190,140
Amount of excess and reason for (non-) allowability of excess	N/A
Information on receivable due to amount paid but not owed	N/A
Data for 2020	
Remuneration for the work performed as a senior executive at Enduris B.V.	91,253
Remuneration for the work performed other than as a senior executive at Enduris B.V.	0
Remuneration for work performed at related companies of Enduris B.V.	182,506
-/- Double counting due to internal invoicing	91,253
Subtotal	182,506
The remuneration maximum applicable to the WNT institution or a higher remuneration permitted for the individual senior official	201,000
-/- Amount paid but not owed and not yet refunded	N/A
Remuneration	182,506

6.2.4 Remuneration of non-senior executives

Besides the senior executives listed above, there were no other executives employed at Stedin Netbeheer B.V. or Enduris B.V. whose remuneration exceeded the individually applicable threshold amount.

For the remuneration report as included in the report of the Supervisory Board, see [Remuneration report for 2021](#).

7. Cost of sales and contracted work

x € 1 million	2021	2020
Cost of sales	261	208
Contracted work	96	109
Total	357	317

The cost of sales and contracted work increased by €40 million compared with 2020.

The increase in the purchase costs is mainly attributable to purchases of energy, owing to the increase in TenneT's rates, with an impact of around €10 million, and higher costs for purchasing for network losses owing to increased energy prices, with an impact of around €44 million. This was partly offset by a decrease in contracted work owing to a decrease in external costs (around €14 million) by making more use of internal resources.

8. Other operating expenses

x € 1 million	2021	2020
Municipal sufferance taxes and concessions	64	70
IT costs	52	54
Lease expenses	5	5
Accommodation costs	21	23
Provisions	-5	1
Other expenses	72	75
Total	209	228

Other operating expenses decreased by €19 million compared with the previous year.

In 2021, the provision for the accelerated removal of 'gas connections out of operation' was largely released, see note [25 Other provisions](#) for more information.

Under provisions, €4 million (2020: €- million) is accounted for as an addition to and €2 million (2020: €2 million) as a withdrawal from the provision for expected credit losses.

9. Capitalised own production

Hours worked by own staff and directly attributed to own investment projects are deducted from operating expenses as capitalised production.

Capitalised own production increased by € 19 million compared with the preceding financial year, to €207 million. The increase is due to the fact that Stedin was forced to stop projects in 2020 because of the coronavirus, whereas the work continued in 2021, though more safety measures were applied and therefore more man-hours were expended per project.

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 impairment of non-current assets

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

2020 x € 1 million	Land and buildings, machinery and equipment	Networks	Other	Total
Depreciation and amortisation	7	288	9	304
Depreciation and amortisation lease	7	-	10	17
Disposals	2	11	-	13
Disposals lease	-	-	-	-
Total 2020	16	299	19	334

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 increased by €26 million compared with 2020.

Regular depreciation and amortisation increased by €21 million. This was due to an increase in property, plant and equipment at the end of 2020 and in 2021. Disposals increased by €5 million. This increase was attributable in full to disposals in regulated networks.

11. Financial income and expenses

x € 1 million	2021	2020
Interest income	-2	-1
Interest expense	94	56
Interest expense lease	1	1
Total	93	56

The financial income and expenses in 2021 amounted to €93 million (2020: €56 million). The financial expenses relate mainly to the interest expense for external financing. Interest expenses rose in 2021 compared with 2020, mainly due to the early redemption of the USD and GBP loans, 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, interest was capitalised in 2021 on the assets under construction for an amount of €5 million (2020: €5 million).

12. Assets held for sale

Assets and liabilities held for sale

Stedin Group decided during 2021 to hive off the meter read-out service, which was part of DNWG Infra, and to put it up for sale in a separate entity, TUMS B.V. The employees working for those activities have been legally transferred to TUMS B.V. At year-end, Stedin Group was in an advanced stage of the sale, but the entity had not yet been transferred to the buyer, also refer to [35 Subsequent events](#).

The company meets the criteria under IFRS 5 to be classified as 'held for sale'.

13. Income tax

Income tax on the result from continuing operations is as follows:

x € 1 million	2021	2020
Current tax expense	21	11
Current tax income prior years	-1	-
Current tax expense and tax income for current year	20	11
Release of deferred taxation due to a change in corporate income tax rates	3	11
Movements in deferred taxes	-11	8
	-1	-
Income taxes	11	30

The current tax income and expense on the result from continuing operations is as follows:

x € 1 million	2021	2020
Profit before income tax	32	72
Participation exemption	-1	1
Non tax-deductible expenses	6	1
Different depreciation methods for tax purposes	45	-30
Taxable amount	82	44
Nominal tax rate	25%	25%
Current tax expense	21	11

The effective tax burden expressed as a percentage of the profit before income tax from continuing operations is as follows:

	2021	2020
Nominal tax rate	25.0%	25.0%
Effect of:		
- Participation exemption	-0.8%	0.4%
- Non tax-deductible expenses	4.7%	0.4%
- Change in corporate income tax rates	9.4%	15.4%
- Corporate income tax for prior years	-3.1%	0.2%
- Other	-0.5%	-0.2%
Effective tax rate	34.7%	41.2%

The difference of the effective tax rate compared with the nominal tax rate is largely attributable to two factors. For 2021, a larger portion of the costs is non deductible compared with 2020, which leads to a higher tax burden. Secondly, an additional tax expense arises because the existing tax liability will be settled at a higher rate in the future owing to the change in the corporate income tax rate.

The corporate income tax is settled between Stedin Holding N.V. and its subsidiaries as if the subsidiaries were independently liable to tax.

14. 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 2019	70	43	10,607	63	6	10,789
Investments	1	2	613	2	1	619
Disposals	-2	-	-36	-	-	-38
Reclassification other	-	-2	9	-1	-6	-
Historical cost as at 31 December 2019	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 2020	76	38	12,180	77	14	12,385
Accumulated depreciation and impairment as at 1 January 2019	14	22	3,956	44	-	4,036
Annual depreciation and impairment	3	4	288	5	-	300
Disposals	-	-	-25	-	-	-25
Reclassification other	-	-3	7	-2	-	2
Accumulated depreciation and impairment as at 31 December 2019	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 2020	23	24	4,643	60	-	4,750
Net book value as at 31 December 2019	52	20	6,967	17	1	7,057
Net book value as at 31 December 2020	53	14	7,537	17	14	7,635

* Regulated networks also comprises assets under construction.

The net book value of property, plant and equipment increased by €578 million compared with the preceding year. Stedin Group's investments in property, plant and equipment amounted to €685 million and related mainly to the regulated gas and electricity grids as well as to the large-scale offer and installation of smart meters. 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 €5 million in interest was capitalised in 2021 on these assets under construction, applying an interest rate of 2.3% (2020: €5 million, at 2.3%).

Regulated networks (consisting of grids, connections and meters) are measured at the revalued amount, i.e. the fair value at the date of the revaluation (NRAV) less accumulated depreciation and impairment. Other property, plant and equipment is recognised at cost less accumulated depreciation and impairment.

The main data used to measure fair value are:

Parameters for measuring fair value of regulated networks

Valuation method (ACM)	Income approach derived from regulated assets value (RAV) normalised for market share.
Cash flow horizon for networks in years	Remaining life of regulated networks
WACC (ACM) applied in percent	2.2% - 3.5%
Date of change of WACC (ACM)	2021
Market share of Stedin Group in the Netherlands (ACM) in percent	Electricity transmission 26% and gas distribution 28%

A revaluation was made of the regulated networks as per 1 January 2021. In 2021, the ACM publicly disclosed new regulation data, including the indexed regulated asset value and the respective market shares of the grid managers, as a result of which the unobservable parameters for fair value measurement of 'level 3' in IFRS 13 are 'objective market data' again for Stedin Group for that moment. The normalised, indexed asset value of the grids and connections is the main parameter for the valuation. In addition, cash flows were measured with regard to the maintenance of the assets, taking into account the expected developments in the position of Stedin Group in the benchmark and the development of the WACC.

There were no indications that the fair value varied materially from the book value between the revaluation date and year-end. Key parameters for the determination of fair value (in particular, Stedin Group's market share) are not observable at year-end. These will become objective market data again when the regulation data for the sector are published in 2026.

The metering domain is not covered by the measurement regulation of the ACM. The indexed asset value (of Stedin) is the main parameter for the meters. Information is also available on the parameters that determine the valuation of this category of assets, and a revaluation of these assets was carried out on 31 December 2021. An adjustment has been made in the valuation of the meters for future surplus profits to be repaid in future in an amount of approximately €11 million.

The total fair value of the regulated networks at 1 January 2021 was €5.9 billion.

Stedin assessed the useful life of assets in 2021. No adjustments were necessary.

As described in 'Removing gas connections' in note [25 Other provisions](#), Stedin will accelerate the removal of gas connections that are 'out of operation'. The accelerated removal affects the estimated remaining useful life of the connections concerned. This situation did not affect the 2020 and 2021 results.

As at 31 December 2021, the book value of regulated networks at historical cost, excluding assets under construction, adjusted for customer connection contributions, was €5,1 billion (31 December 2020: €4,8 billion).

For the recognition in group assets, see note [23 Group equity](#).

15. Intangible assets

The movements in intangible assets in 2021 were as follows:

x € 1 million	Goodwill	Software	Other	Total
Historical cost as at 1 January 2019	77	32	14	123
Investments	-	-	1	1
Historical cost as at 31 December 2019	77	32	15	124
Investments	-	-	2	2
Disposals	-	-13	-	-13
Historical cost as at 31 December 2020	77	19	17	113
Accumulated amortisation and impairments as at 1 January 2019	-	23	5	28
Annual amortisation and impairment	-	3	1	4
Reclassification other	-	-	-1	-1
Accumulated amortisation and impairments as at 31 December 2019	-	26	5	31
Annual amortisation and impairment	-	3	-	3
Desinvesteringen	-	-13	-	-13
Accumulated amortisation and impairments as at 31 December 2020	-	16	5	21
Net book value as at 31 December 2019	77	6	10	93
Net book value as at 31 December 2020	77	3	12	92

Goodwill

The goodwill relates to the acquisition of DNWG in 2017. Stedin Group completed the fair value measurement of the identifiable assets and liabilities in the first half of 2018. The finalised goodwill was allocated, on the basis of the synergy benefits, to the cash-generating units Stedin Netbeheer (€30 million) and DNWG (€47 million). As a result of the merger of Stedin Netbeheer B.V. and Enduris B.V., the goodwill as at 1 January 2022 will be allocated to the cash-generating unit Stedin Netbeheer B.V.

Impairment test

For the purpose of the annual impairment testing, goodwill arising from the DNWG acquisition was allocated to two cash-generating units (CGUs), Stedin and DNWG, which were determined at the operating segments level.

The book values of the goodwill as at 31 December 2021 were as follows:

x €1 million	Stedin	DNWG	Total
Book value	30	47	77

Stedin Group carried out an impairment test on goodwill for each CGU as at 30 June 2021. This involves a comparison between the fair value of the CGU and its net book value. The fair value is determined based on the realisable value. Due to the lack of observable market data, the valuation method is a level 3 analysis within the fair value hierarchy. The realisable value functions, where appropriate, as an approximation of the recoverable value. In principle, the realisable value is based on post-tax cash flow projections, discounted using a post-tax weighted average cost of capital (post-tax WACC).

The estimated projected cash flows for the 2021-2046 period are derived from the Financial Strategic Plan (FSP) of Stedin Group as approved by the Board of Management and the Supervisory Board, among other things. The budgets for the CGUs Stedin and DNWG are distinctly included in the FSP, covering the 2021-2026 period. The 2027-2046 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 (2021-2035). The investments after 2035 are derived from an extrapolation of the SIP projections. The rationale for a projection period up to 2046 is that this is more closely aligned with the energy transition. As a result of the Climate Agreement and the national climate goals for 2030 and 2050, the investments in the grids will occur over a longer term. Therefore, the projection period has been extended. With the projection period up to 2046, the residual value period starts in 2047.

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 so-called normalised regulated asset value or NRAV);
- the market shares of Stedin and DNWG respectively;
- the relative profitability of Stedin and DNWG respectively; the return on investment on the regulated assets (real pre-tax WACC), as set 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 NRAV. As a logical consequence of this accounting policy, the variance between the realisable value and the net book value of the regulated assets for both CGUs (Stedin and DNWG) over time is relatively limited.
- The market shares of the CGUs Stedin and DNWG are based on the relative market shares of Stedin and DNWG in the combined output (samengestelde output, SO) of the sector as a whole. This is based on data for the period 2018-2020, as published by the ACM in 2021. It has been assumed for the future that the market share will develop on the basis of the new connections in the sector, for both Stedin and DNWG.
- The profitability of Stedin and DNWG partly depends on the instrument of 'yardstick competition'. The allowed revenue which the ACM grants to the individual Dutch grid managers for their regulated activities depends on the sector-average costs and the market share of each grid manager. The allowable income is revisited by the ACM at the beginning of each five-year regulation period. Compared with the preceding year, the ACM changed the system for compensation to a declining-balance method of depreciation for gas, from 2022. That change has been included in the future projections. The underlying data on which the recalibration is based are also published once every five years. As a result, grid managers cannot reliably estimate overperformance or underperformance compared to other regional grid managers during a regulatory period, nor the potential impact on their future cash flows. The recalibration was performed in 2021. Market share was adjusted on that basis. Stedin's market share is approximately 23% for electricity transmission and 26% for gas distribution. DNWG's market share is approximately 3% for electricity transmission and 3% for gas distribution. The system of 'yardstick competition' means that the revenues and future cash flows of Stedin and DNWG are affected by both their own performance and that of other grid managers.

- In view of the deviations between the individual performance of Stedin and DNWG compared with the benchmark (on the basis of which performance versus other regional grid managers is determined), a convergence assumption of 20 years was used in determining the realisable value of both CGUs. In this convergence assumption, the operational expenses and the level of investment of Stedin and DNWG in the year are assumed, with effect from the year 2042, to be equivalent to those of their market share. In the period up to convergence, Stedin Group drew up an estimate of the future investments of the sector as a whole and its relative position in the benchmark.
- The capital costs as defined by the ACM constitute an important cost component for determining the sector-average costs. The capital costs include depreciation charges based on regulatory accounting principles as well as a return on the NRAV on the basis of the real pre-tax WACC. The ACM determines the WACC based on relevant market parameters and corporate finance theories. The WACC assumptions utilised by Stedin Group management for its projections are derived from the proposed WACC communicated by the ACM for the next regulation period. For the subsequent regulation periods as from 2027 onwards, Stedin Group management made its own estimate for the regulated and non-regulated WACCs. These WACCs are primarily derived from i) market observations with regard to the relevant parameters such as interest rates, risk profiles, market fees and capital ratios and ii) the approach utilised by the ACM to define the WACC. The WACCs were used for two objectives, namely for the return on the NRAV and for the discount rate. The post-tax WACC of Stedin and DNWG is a weighted average for the regulated (2.2%-3.5%) and non-regulated activities (9.0%). Compared with the previous year, the range of the regulated post-tax WACC has narrowed. This is the consequence of new information from the ACM and the developments in the market observations.
- The long-term growth rate that was used to determine the terminal values of the two CGUs is conservatively estimated at 0%. For the projection period until 2046, a growth rate has been used that is equal to the short-term and long-term expected inflation (2.0%).

For both Stedin and DNWG, the buffer between the net book value and the realisable value is positive. On the basis of the above assumptions, no impairment is indicated.

Based on the impairment test carried out on 30 June 2021 as well as additional analysis, there was no indication as at 31 December 2021 that the goodwill associated with both CGUs is impaired.

The outcome of the goodwill impairment test depends on changes in certain key estimates and assumptions. The most important ones are:

- the investment levels;
- the convergence assumption;
- the discount rate; and
- the long-term growth rate/inflation.

Stedin Group performed a sensitivity analysis of changes in the key assumptions and estimates that were used to determine the realisable value for both CGUs. Stedin Group is of the opinion that any reasonably possible change in the key assumptions on which the realisable values are based will not lead to a decrease of the realisable value below the net book value. The sensitivities to changes in key assumptions on which the realisable values of Stedin and DNWG are based are described below:

- If 1% of the regulated investments is not earned back via future tariffs (for example due to inefficiencies), this results in a decrease in the realisable value of Stedin by €18 million and of DNWG by €2 million.
- A one-year delay in the convergence assumption results in a decrease in the realisable value of Stedin by €13 million and an increase in the realisable value of DNWG by €7 million.

- An increase in the (regulated) discount rate of 0.1% results in a decrease in the realisable value of Stedin by €52 million and of DNWG by €11 million.
- A decrease of the long-term growth rate by 0.2% results in an increase in the realisable value of Stedin by €23 million and of DNWG by €4 million.

None of the above sensitivities result in a material negative buffer or an impairment indication.

16. Right-of-use assets

x € 1 million	Land and buildings	Lease vehicles	Total
Right-of-use assets as at 1 January 2020	63	39	102
Investments	1	9	10
Contract modifications	2	-	2
Disposals	-2	-2	-4
Right-of-use assets as at 31 December 2020	64	46	110
Investments	-	8	8
Contract modifications	1	-	1
Right-of-use assets as at 31 December 2020	65	54	119
Accumulated depreciation as at 1 January 2020	7	9	16
Annual depreciation and impairment	7	10	17
Disposals	-2	-2	-4
Accumulated depreciation as at 31 December 2020	12	17	29
Annual depreciation and impairment	7	10	17
Accumulated depreciation as at 31 December 2020	19	27	46
Net book value as at 31 December 2019	52	29	81
Net book value as at 31 December 2020	46	27	73

Stedin Group has entered into leases for a number of business premises and sites. In addition, Stedin Group leases a vehicle fleet. In 2021, Stedin Group concluded new leases for the vehicle fleet in particular.

The lease liabilities are disclosed in [26 Interest-bearing debt](#).

The table below presents the total lease expenses for 2021:

x € 1 million	2021	2020
Depreciation charges for right-of-use assets	-17	-17
Interest expense on lease liabilities	-1	-1
Lease cost in profit & loss	-5	-5
Total	-23	-23

17. Associates and joint ventures

x € 1 million	2021	2020
Book value as at 1 January	4	3
Share in profit after income tax	-	1
Dividends received	-4	-
Book value as at 31 December	-	4

This table relates to the 33.3% interest in Zebra Gasnetwerk B.V. (hereinafter: Zebra). ZEBRA manages and operates a high-pressure gas transport pipeline. On 19 December 2019, an asset sale and purchase agreement was signed between Enduris B.V., Enexis Netbeheer B.V., Zebra Activa B.V., Entrade Pipe B.V. and Gasunie Transport Services B.V. Among other things, the transaction provided for the transfer of the assets of the extra-high-pressure gas grids to Gasunie Transport Services B.V. in 2020. The last settlement took place in 2021, and the entity will cease to exist in 2022.

18. Deferred tax assets and liabilities

Deferred tax assets and liabilities are as follows.

x € 1 million	Assets as at 31 December 2021	Assets as at 31 December 2020	Liabilities as at 31 December 2021	Liabilities as at 31 December 2020
Property, plant and equipment	-	-	359	297
Cash flow hedges	18	26	-	-
Provisions	1	1	-	-
Interest-bearing debt	-	-	-	4
Total	19	27	359	301

Deferred tax assets and liabilities relate mainly to property, plant and equipment and cash flow hedges taken through group equity.

Movements in deferred taxes during 2021 were as follows:

x € 1 million	Net balance as at 1 January 2020	Recognised in profit or loss	Recognised in other comprehensive income	Net balance as at 31 December 2020	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 income tax liabilities (assets) for netting	274	-9	75	340	19	359
Netting off					-19	-19
Total					-	340

The major portion of the deferred tax on property, plant and equipment relates to the difference between the book value and tax bases in the valuation of the networks. The deferred tax liability relating to property, plant and equipment was caused mainly by the difference between the book values and tax bases in the valuation 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.

On the 2021 Budget Day, the government announced an increase in the corporate income tax rate to 25.8% as from 2022. Calculations performed in 2020 still applied rates of 25% as from 2021; these were the future statutory rates in 2020 but were changed to 25.8% in 2021. This means that the deferred tax assets and liabilities are settled and measured at the rate of 25.8%.

	As at 31 December 2020	As at 31 December 2020	Difference
	old rates	new rates	
Deferred tax assets	103	106	-3
Deferred tax liabilities	-433	-447	14
Netted	-330	-341	11
Released to income statement			-3
Addition charged to cash flow hedge reserve			1
Released to the revaluation reserve in equity			-9
Total			-11

Movements in deferred taxes during 2020 are as follows:

x € 1 million	Net balance as at 1 January 2019	Recognised in profit or loss	Recognised in other comprehensive income	Net balance as at 31 December 2019	Assets	Liabilities
Property, plant and equipment	250	18	29	297	-	297
Cash flow hedges	-20	-	-6	-26	26	-
Provisions	-2	1	-	-1	1	-
Interest-bearing debt	4	-	-	4	-	4
Deferred tax liabilities (assets) before netting	232	19	23	274	27	301
Netting off					-27	-27
Total					-	274

Expiration periods for deductible temporary differences as at 31 December 2020 are as follows:

Category	Period
Property, plant and equipment	1 - 50 years
Intangible assets	1 - 25 years
Cash flow hedges	1 - 30 years
Provisions	1 - 10 years

19. Derivative financial instruments

Fair value of derivative financial instruments:

x € 1 million	Assets as at 31 December 2020	Liabilities as at 31 December 2020	Assets as at 31 December 2019	Liabilities as at 31 December 2019
Currency swap and forward contracts	15	64	19	86
Total	15	64	19	86

The classification by maturity is set out below:

x € 1 million	Assets as at 31 December 2020	Liabilities as at 31 December 2020	Assets as at 31 December 2019	Liabilities as at 31 December 2019
Classification				
Current / short term	15	-	3	2
Non-current / long term	-	64	16	84
Total	15	64	19	86

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 [33.4 Derivative financial instruments and cash flow hedge reserve](#).

20. Inventories

Inventories were unchanged compared with the preceding financial year. An obsolescence allowance of €2 million has been deducted from the value of inventories (2020: €2 million).

An amount of €- million within the obsolescence allowance relates to meters (2020: €1 million).

21. Trade and other receivables

Trade and other receivables includes mainly amounts receivable from customers and amounts not yet invoiced (contract assets) for the provision of transmission services.

This item can be broken down as follows:

x € 1 million	As at 31 December 2021	As at 31 December 2020
Trade receivables	118	113
To be invoiced*	43	39
Other receivables and accruals*	4	13
Total	165	165

* The 2019 figures have been adjusted for comparison purposes.

Note [33.2 Credit risk](#) states the age and impairments of the trade receivables and contract assets.

Trade receivables increased by €5 million compared with the preceding year. This increase was mainly attributable to a higher position of the receivables from energy companies due to higher revenue at the end of 2021 compared with 2020.

22. Cash and cash equivalents

At 31 December 2021, cash and cash equivalents comprised bank balances of €48 million and short-term cash loans of €85 million (2020: bank balances of €50 million, short-term cash loans of €33 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 (2020: €- million) at year-end.

23. 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 2021, 5,387,046 shares, of which 4,970,978 ordinary shares and 416,068 cumulative preference shares, had been issued and fully paid (2020: 4,970,978 ordinary shares only).

Share premium

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.

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 book value and depreciation based on the original historical cost, less deferred tax, was transferred from the revaluation reserve to retained earnings. The revaluation reserve is not freely at the disposal of the shareholders. The revaluation reserve amounted to €790 million at year-end 2021 (2020: €662 million). In 2021, €176 million was added to the revaluation reserve as a result of the revaluation of property, plant and equipment. In addition, €48 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 book value 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 2021, the market value was €501 million. The book value at year-end 2021 was €506 million, which is the nominal principal amount including €6 million in accrued interest.

The perpetual subordinated bond loan is regarded 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 wound up. 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.

The perpetual subordinated bond loan entered into in 2014 was redeemed in full in 2021. The associated costs, which concern a premium as compensation for interest payable of €11 million, are recognised in equity.

24. Provisions for employee benefits

x € 1 million	Long-service benefits	Other	Total
As at 1 January 2019	10	5	15
Additions	1	4	5
Withdrawals	-1	-1	-2
Release	-1	-3	-4
As at 31 December 2019	9	5	14
Additions	1	3	4
Withdrawals	-1	-2	-3
Release	-1	-1	-2
As at 31 December 2020	8	5	13

Classification (x € 1 million)	As at 31 December 2021	As at 31 December 2020
Current	4	3
Non-current	9	11
Total	13	14

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 2021	31 December 2020
Discount rate	1.0%	1.0%
Future salary increments	1.5% - 2.5%	1.4% - 2.5%
Mortality table	GBM & GBV 2015-2020	GBM & GBV 2014-2019

Long-service payments are made over the long term. The provision is remeasured annually using current employee information.

25. Other provisions

x € 1 million	Restructuring	Other	Total
As at 1 January 2020	-	32	32
Additions	1	2	3
Withdrawals	-	-4	-4
Release	-	-2	-2
As at 31 December 2020	1	28	29
Additions	2	1	3
Withdrawals	-1	-2	-3
Release	-	-11	-11
As at 31 December 2021	2	16	18

Classification (x € 1 million)	As at 31 December 2021	As at 31 December 2020
Current	3	5
Non-current	15	24
Total	18	29

The other provisions amount to €18 million (2020: €29 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 (2020: €4 million), accelerated removal of 'gas connections out of operation' of €3 million (2020: €12 million) and obligations amounting to €7 million entered into on behalf of Stichting Zeeuwse Publieke Belangen (2020: €8 million).

Removal of gas connections

In the first half of 2019, grid managers agreed at the industry level in Netbeheer Nederland that removing gas connections is no longer to be performed at the discretion of grid managers but will be accelerated with a view to safety and be subject to supervision by State Supervision of Mines. This agreement relates to shut-off gas connections with the status 'out of operation' that are still 'pressurised'. The related costs are not charged to existing and former customers.

Stedin Group expects that it will have removed the gas connections concerned by the end of 2024. The accelerated removal affects the estimated remaining useful life of the connections concerned. Depreciation due to the change in useful life does not affect the 2020 and 2021 results.

Part of the provision was released in 2021 owing to the update of the method decisions for the new regulation period.

Stichting Zeeuwse Publieke Belangen (Zeeland Public Interest Foundation)

Stichting Zeeuwse Publieke Belangen is a unique alliance between the province of Zeeland, the municipalities of Zeeland and Stedin Group. The foundation was established to safeguard the arrangements concerning the sale of DNWG/Enduris to Stedin Group in terms of employment, energy supply and the energy transition, among other things. The foundation makes a budget available to promote the energy transition in Zeeland.

Restructuring provision

The restructuring provision includes the payments and/or additions to payments that are made to employees whose employment is likely to be terminated. The payments are based on the Social Plan for the grid operator sector (Sociaal Plan Sector Netwerkbedrijven) and are calculated on the basis of the gross salary, a weighted average number of years of service

and an estimate concerning redundancy. To calculate the provision, future turnover of the redundant employees was also estimated.

The provisions were discounted in 2021 using a rate of 1.0% (2020: 1.0%).

26. Interest-bearing debt

Classification (x € 1 million)	As at 31 December 2021	As at 31 December 2020
Current	545	290
Non-current	2,736	2,893
Total	3,281	3,183

Movements in interest-bearing debt:

x € 1 million	2021	2020
As at 1 January	3,183	3,004
New non-current interest-bearing debt	497	-
New current interest-bearing debt	2,600	1,375
Repayments of non-current interest-bearing debt	-195	-
Repayments of current interest-bearing debt	-2,800	-1,175
Lease liabilities	-8	-5
Foreign currency exchange differences	6	-29
Interest rate swaps	-7	13
Other movements	5	-
As at 31 December	3,281	3,183

The maturities of the interest-bearing debts are presented below:

x € 1 million	As at 31 December 2019	As at 31 December 2018
Within 1 year	545	290
1 to 2 years	11	535
2 to 3 years	49	11
3 to 4 years	536	121
4 to 5 years	504	534
After 5 years	1,636	1,692
Total	3,281	3,183

Most interest-bearing debts as at 31 December 2021 were contracted by Stedin Holding N.V., and no collateral has been provided. More information on interest-bearing debt is included in [33 Financial risk management](#).

The lease liabilities that are capitalised as of 1 January 2019 as a result of the application of IFRS 16 are included in interest-bearing debt. For information on right-of-use assets, see [16 Right-of-use assets](#).

The total lease liability as at 31 December 2021 was €74 million (2020: €81 million). The maturities of this lease liability are: €13 million within one year, €31 million from one to five years and €30 million after five years.

There is no liquidity risk for the lease liabilities arising from right-of-use assets. The lease liabilities are monitored by the Corporate Control department.

The following significant financing transactions took place in 2021:

- Equity was strengthened by issuing €200 million in preference shares to some of the existing shareholders.
- In May 2021, Stedin redeemed USD and GBP bond loans; in total, €196 million in principal was redeemed, part of which was redeemed early at a premium of €38 million. As a result of this early redemption, the financing expenses for these loans were brought forward, which gave rise to an one-off interest expense in 2021. This is offset by lower interest expenses for future years. Both loans are refinanced via active Stedin Group financing programmes.
- The €500 million hybrid financing dating from 2014 was redeemed with a tender offer to investors and replaced with a new €500 million hybrid issue with a call date in 2027 and a coupon of 1.5%
- A new five-year green bond loan of €500 million with an interest coupon of 0.0% was issued under the Euro Medium Term Note programme and Green Finance Framework, which were updated.

Some of the loans are subject to financial covenants, which are set out below:

- a gearing ratio (Total net borrowings / Total capitalisation) lower than 70%;
- an interest coverage ratio (EBITDA / net interest expense) higher than 3.

The above ranges for ratios are assessed at the end of each measurement period.

The following definitions apply:

- Measurement period: 12-month moving average per 31 December and 30 June of each financial year.
- Total net borrowings: sum of current and non-current interest-bearing debt, minus cash and cash equivalents.
- Total capitalisation: sum of current and non-current interest-bearing debt and total group equity adjusted for goodwill, intangible assets and minority interests.
- EBITDA: profit before income tax, adjusted for depreciation, amortisation, net interest payable, profit of group entities sold, revaluations, one-off items and share of minority interests.
- Net interest expense: sum of financial income and expenses.

The tables below show that Stedin Holding N.V. complied with the conditions stated above during 2021.

Gearing ratio	2021	2020
Principal amounts payable of interest-bearing debt	3,281	3,183
Cash and cash equivalents	-133	-83
Net debt	3,148	3,100
Principal amounts payable of interest-bearing debt	3,281	3,183
Equity	3,270	2,891
Equity adjustments	-92	-93
Total equity	6,459	5,981
Gearing ratio	48.7%	51.8%

Interest coverage ratio	2021	2020
Profit before income tax	32	72
Depreciation and amortisation	360	334
Financial income and expenses	93	56
Profit after income tax of group entities sold	-1	1
EBITDA	484	463
Net interest payable	88	60
Interest coverage ratio	5.5	7.7

27. Deferred income

x € 1 million	2021	2020
Book value at 1 January	809	725
Customer construction contributions received	112	105
Customer construction contributions paid	-1	-
Income recognised	-22	-21
Book value at 31 December	898	809
Classification	2021	2020
Current	22	22
Non-current	876	787
Total	898	809

The short-term deferred income is reported under 'contract liabilities' in 'Trade and other liabilities'.

28. Trade and other liabilities

x € 1 million	As at 31 December 2021	As at 31 December 2020
Trade liabilities	100	74
Accrued and other liabilities	157	173
Contract liabilities	23	27
VAT	24	30
Pension contributions	4	4
Total	308	308

Classification

Current	308	308
Non-current	-	-
Total	308	308

Trade and other liabilities were unchanged from 2020.

The increase in trade liabilities was mainly attributable to an increase in investments and higher costs in the fourth quarter of 2021 compared with the fourth quarter of 2020, which led to an increase in invoices received.

The increase in trade liabilities was set off by a decrease in other liabilities of €16 million. This was attributable to an overestimate of invoices yet to be received from TenneT in 2020.

The contractual obligations decreased by €4 million, partly as a result of a decrease of the work in progress position.

29. Current tax assets and liabilities

Current tax assets and liabilities are as follows:

x € 1 million	As at 31 December 2021	As at 31 December 2020
Corporate income tax	-	3
Total current tax assets	-	3

x € 1 million	As at 31 December 2021	As at 31 December 2020
Corporate income tax	12	-
Total current tax liabilities	12	-

30. 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 2021, the obligation amounts to €752 million (2020: €292 million) and relates to the period from 2022 to the end of 2031.

Investment obligations

At 31 December 2021, Stedin Group had entered into investment obligations for a total amount of €34 million (2020: €46 million). These investment obligations relate to investments in smart meters. The investment obligations have been entered until 2024.

Other obligations

In addition, Stedin Group entered into contractual obligations for an amount of €7 million (2020: €8 million). These are mainly contractual obligations for maintenance.

Guarantees

Stedin Group has issued group and bank guarantees to third parties of €1 million (2020: €6 million). Of that total, Stedin Holding N.V. issued €- million (2020: €- 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 domain 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. Also see note [14 Property, plant and equipment](#) for the disclosure on measuring profits.

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 [25 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. Due to uncertainties, this potential receivable is not recognised in the balance sheet as at 31 December 2021.

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. The proceedings are currently ongoing at a district court and are expected to be completed during 2022. Accordingly, Stedin will acquire the electricity grid and gas grid for an amount to be determined in due course.

Fiscal unity

Stedin Holding N.V. forms a fiscal unity for corporate income tax purposes with all its consolidated participating interests as included in note [37 Overview of subsidiaries](#). 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 participating interests as included in note [37 Overview of subsidiaries](#). 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.

31. 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 €19 million (2020: €17 million) and are mainly of a long-term nature. In 2021, €6 million of loans were granted and €5 million of repayments were received. The loans have a term of five years, at interest rates varying from 0.3% to 2.6%. Receivables and liabilities in respect of related parties are not covered by collateral and are paid by bank.

Related parties in which members of the Supervisory Board or members of the Board of Management are or were involved are as follows:

- Stichting Zeeuwse Publieke Belangen is coordinated from within Stedin Group 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 2021, the governing board of the foundation committed €0.8 million to six approved project proposals and paid out €0.6 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 Supervisory Board of PGGM, a Dutch pension administrator. Stedin Group has no direct relationship with PGGM.

- 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 Chief Projects & Assets Officer of Royal Schiphol Group. 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.
- Former Supervisory Board member Dick van Well is a member of the Supervisory Board of Dura Vermeer Groep N.V. Dura Vermeer 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.
- Former Board of Management chair Marc van der Linden was chair of Netbeheer Nederland until September 2021 and is a member of the Advisory Board of Technisch College Rotterdam. Netbeheer Nederland has a cooperative alliance with Stedin Group. Technisch College Rotterdam facilitates training courses for Stedin Group.
- Board of Management member David Peters is chair of the Supervisory Board of USEF, governing board member of E-Laad and Supervisory Board member of GOPACS. USEF 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.

Note 6 Personnel expenses provides details of the remuneration of members of the Board of Management and the Supervisory Board. These persons are 'key management'. There is no other relationship between the members of the Management and Supervisory Boards and Stedin Group except that of customer on normal arm's length terms and conditions.

In addition to the severance payment, disclosed under the Senior Executives in the Public and Semi-Public Sector (Standards for Remuneration) Act (Wet Normering Topinkomens, WNT) compliance in Section 6.2, Stedin awarded a statutory payment of €20,829, pursuant to Section 673 of Book 7 of the Dutch Civil Code, to a departing member of the key management, as part of their agreed extended involvement with Stedin and with deferred payment dates.

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.

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	-
2020 x € 1 million	Purchased goods & services	Recharging of employee benefits, facilities and other expenses
Joint arrangements		
Utility Connect B.V.	7	0
TensZ B.V.	2	7
TeslaN B.V.	7	6
Infra Netwerkgroep Omexom VOF	-	-
Total	16	13
Associates		
Energie Data Services Nederland B.V.	19	-
Zebra Gasnetwerk B.V.	1	1
Total	20	1

32. Auditors' fees

The fees below concern auditors' fees and advisory services provided by 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	2021	2020
Audit of the financial statements	1,408	1,127
Other audit engagements	402	413
Other non-audit services	-	-
Total	1,810	1,540

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 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. has qualified 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.

33. 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 US private placement market and 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, for which the perpetual subordinated bond loan is treated 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 commit Stedin Group are specified in the Governance & Authority Structure document. Mandates have also been drawn up for all business units to manage the above risks – for instance, for purchasing. The Board of Management and operational and staff management regularly review the results, the ratios, the principal risks (or the concentration of certain risks) and the measures to manage them.

Scenarios are applied in the long-term financial plan. Operational and staff management reports to the Board of Management by means of an In-control statement twice a year.

The internal Investment Risk Committee is in charge of the formulation and application of the risk policy and advises the Board of Management accordingly. The Supervisory Board exercises supervision over the course of business and risk management by conducting reviews and discussions of strategic plans, budgets, key performance indicators, forecasts, results and risk policy.

The Treasury department is responsible for the active monitoring and management of capital, market risks, credit risks 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 valuation 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	Forward contract / Cross Currency SWAP Hedge accounting	Interest rate swap Hedge accounting	Not applicable	Not applicable
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 33.1 to 33.4 discuss individual aspects of the table for each risk.

33.1. 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 book value of the loans portfolio that is subject to market risks. Borrowings of € 3.1 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 2021	Fair value as at 31 December 2021	Bookvalue as at 31 December 2020	Fair value as at 31 December 2020
Bond loans	2,302	2,342	1,811	1,885
Other loans	905	1,052	1,291	1,524
Total	3,207	3,394	3,102	3,409

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 information for establishing value is 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 23 Group equity for more details.

Foreign currency risk

Foreign 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 foreign currency risks are risks in respect of future cash flows in foreign currencies and in respect of balance sheet positions in foreign currencies. To meet Stedin Group's financing requirements, loans were 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 book value of €196 million. As a result of this early redemption, 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. Following repayment of the loan, the cash flow hedge reserve of €8 million was reclassified to the income statement as financial expense.

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

At 31 December 2020, the foreign currency risks arising from these loans were hedged for the entire term using cross-currency interest swaps and FX forward contracts. The main nominal values and rates of the derivative financial instruments as at 31 December 2021 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
Expected cash flows	USD 92	USD 0	USD 92	1.387	66	81
	JPY 510	JPY 28,670	JPY 29,180	132.188	221	153
Total					287	234

Stedin applies cash flow hedging to these borrowings and derivative instruments, and therefore the foreign currency exchange differences with regard to the borrowings and changes in fair value of the derivative financial instruments are taken in conjunction to the cash flow hedge reserve and any hedging ineffectiveness is taken in conjunction through 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 hedge reserve	Reclassification recognised in the income statement
Expected cash flows	-49	9	-49	43	9
Total	-49	9	-49	43	9

The hedging relationships did not lead to hedge ineffectiveness in the reporting period. A breakdown of movements in the cash flow hedge reserve is provided in note [Derivative financial instruments and 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. A specified range for the proportions of loans at fixed and variable interest rates and a desired weighted average term of the debt portfolio serve as the basis for this. 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.

	2021	2020
Average interest rate	1.6%	2.4%

The average interest rate is calculated as the weighted average of the monthly interest expense in 2021. If all other variables remain constant, it is estimated that a general increase of 1 percentage point in Euribor (for a period of 12 months) would lead to a decrease in profit before income tax of €1.0 million (at 31 December 2020: €4.0 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 hedge reserve	Reclassification recognised in the income statement
Cash flow hedge reserve for interest expense	10	-2
Total	10	-2

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 2021 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	-	-1	-1	0.10%	100	100
Total					100	100

The table below shows details of the hedging relationship:

x € 1 million	Change in the fair value of:			
	Derivative financial instrument	The hedged interest risk	Derivative financial instrument recognised in other comprehensive income	Accumulated change in interest-bearing debt
Expected cash flows	-	-	-	4
Total	-	-	-	4

The hedging relationships did not lead to hedge ineffectiveness in the reporting period. A breakdown of movements in the cash flow hedge reserve is provided in note Derivative financial instruments and 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, highly 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.

33.2. 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 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 retail consumers is borne by the energy suppliers, where the concentration risk has consequently grown. A range of risk-mitigating measures have been implemented for this, including periodic monitoring and reporting of the risk profile of the energy suppliers. Individual signals for potential bad debts and credit ratings are used to value credit risk on energy suppliers.

The credit risk for high-use customers, other receivables and contract assets is limited, as most receivables are limited in size and the concentration risk is also limited. For the assessment of risks in the various heavy-use portfolios, Stedin Group uses a simplified model that is based on Stedin's experience of receivables with the same risk profile, supplemented by expected developments of the debtors and the economic environment.

Trade receivables, amounts not yet invoiced and other receivables are as follows:

x € 1 million	As at 31 December 2021	As at 31 December 2020
Trade receivables	118	113
To be invoiced*	43	39
Other receivables and accruals*	4	13
Total	165	165

* The 2019 figures have been adjusted for comparison purposes.

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:

x € 1 million	Expected loss %	2021		2020	
		Receivables	Provision / impairments	Receivables	Provision / impairments
Receivables from low-use customers	0.1% - 100%	79	4	75	1
Receivables from high-use customers, other receivables and to be invoiced					
Before maturity date	0.1% - 1%	69	-	64	-
After maturity date					
- under 3 months	1% - 25%	13	1	10	-
- 3 to 6 months	1% - 100%	2	-	1	-
- 6 to 12 months	5% - 100%	2	1	3	1
- over 12 months	65% - 100%	4	2	5	4
Face value		169	8	158	6
Less: provision / impairments		-8	-	-6	-
Total		161	-	152	-

In the bad debt provision, an amount of €4 million (2020: €2 million) concerns trade receivables that have been provided in full. The table below presents the movements in the bad debts provision in detail:

x € 1 million	2021	2020
As at 1 January	6	8
Additions through income statement	4	-
Withdrawals	-2	-2
As at 31 December	8	6

33.3. 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 no drawdowns were outstanding at 31 December 2021 (2020: €100 million) and a €3 billion Euro Medium Term Note programme under which €2.3 billion had been issued at 31 December 2021 (2020: €1.8 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 2020, Stedin Group did not receive any margin calls in 2021.

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 26 Interest-bearing debt for the terms).

As at 31 December 2021 x € 1 million	Within 1 year	1 to 5 years	After 5 years	Total
Interest-bearing debt	568	687	2,332	3,587
Derivative financial instruments	15	-	-64	-49
Trade and other liabilities	308	-	-	308
Total	891	687	2,268	3,846

As at 31 December 2020 x € 1 million	Within 1 year	1 to 5 years	After 5 years	Total
Interest-bearing debt	328	1,323	1,812	3,463
Derivative financial instruments	1	12	-80	-67
Trade and other liabilities	308	0	0	308
Total	637	1,335	1,732	3,704

Trade and other liabilities include, in 'contract liabilities', deferred income of €23 million (2020: €27 million).

33.4. Derivative financial instruments and cash flow hedge reserve

Derivative financial instruments

The derivative financial instruments are of a long-term nature. As in 2020, 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 2020	-15	-55	-70
Movement in fair value of cash flow hedges	-	-18	-18
Deferred tax liabilities	2	1	3
Reclassification cash flow hedge reserve to income statement	-1	4	3
	1	3	4
As at 31 December 2020	-13	-65	-78
Movement 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

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 2021	-61	-17	-78
Movement of cash flow hedges	25	8	33
Deferred tax liabilities	-6	-2	-8
Reclassification of cash flow hedge reserve	-1	1	-
As at 31 December 2021	-43	-10	-53

Periods in which the cash flows from the cash flow hedges are expected to be realised:

x € 1 million	As at 31 December 2021	As at 31 December 2020
Expected cash flows		
Within 1 year	15	1
1 to 5 years	-	12
After 5 years	-64	-80
Total	-49	-67

The total cash flow hedges 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 2021	As at 31 December 2020
Expected recognition through the income statement after income tax		
Within 1 year	2	-1
1 to 5 years	-16	-21
After 5 years	-39	-56
Total	-53	-78

34. 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 (below: 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.

The most recent rating awarded by S&P in November 2021 is A- with a stable outlook for the long term and A-2 for the short term. This rating is unchanged from 2020.

The most important ratio for Stedin Group is the ratio of Funds from Operations (below: 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 2021 and 2020.

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 (by contrast to 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	2021	2020
EBITDA*	485	461
-/- Interest paid	-87	-57
-/- Tax paid	1	10
-/- S&P adjustments**	-14	-11
S&P - Funds from Operations	385	403
Non-current interest-bearing debt	2,676	2,826
Current interest-bearing debt	531	276
Lease liabilities	74	81
-/- Cash and cash equivalents	-133	-83
IFRS - NET DEBT	3,148	3,100
+ S&P adjustments**	261	261
S&P - NET DEBT	3,409	3,361
FFO / Net Debt – S&P adjusted	11.3%	12.0%

* Profit before income tax adjusted for depreciation, amortisation, net interest payable, profit of group entities sold, revaluations and share of minority interests.

** These adjustments are published by S&P on behalf of Stedin Group for 2020.

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 11.3% in 2021, from 12.0% in 2020. The €18 million decrease in FFO was driven mainly by higher interest paid owing to the early redemption of the USPP loans. The net debt ratio (Net Debt) at year-end 2021 was €48 million higher than in 2020 due to short-term cash loans. Total interest-bearing loans outstanding increased by €105 million.

Tax paid in 2021 was €11 million higher, as a refund had been received in 2020 arising from the adjustment of the advance payment in 2020, whereas this reverted back to an expense, as usual, in 2021. The higher operating profit of €7 million was 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>.

35. Subsequent events

Mergers within Stedin Group

Following the acquisition of DNWG Group in 2017, the Stronger Together programme was initiated in order to integrate Stedin and DNWG with each other within five years. The restructuring within Stedin Group commenced in 2021, through various transfers of entities, see also [1.2 Key events in 2021](#). These transferred entities were merged as of 1 January 2022. Stedin Netbeheer B.V. and Enduris B.V. will jointly continue as Stedin Netbeheer B.V. Stedin Groep Personeels B.V. and DNWG Staff B.V. will jointly continue as Stedin Groep Personeels B.V. TensZ B.V. And TeslaN B.V. will continue as TensZ B.V.

Disposal of TUMS

With effect from 1 August 2021, Stedin incorporated TUMS B.V. to enable it to sell the commercial metering services of DNWG Infra B.V. All commercial metering services relating to electricity, gas, water and heat are combined in this new company. The employees also joined TUMS B.V. as of that date; see also [12 Assets held for sale](#). The sale of this entity was completed on 10 February 2022.

36. 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 income tax is adjusted for items in the income statement as well as for movements in the balance sheet that did not affect receipts and payments during the financial year 2021.

The cash flow statement distinguishes between cash flows from operating, investing and financing activities. Cash flow from operating activities includes interest and income tax payments as well as interest and dividend receipts. Development costs and investments in and disposals of non-current assets (including financial interests) are included in cash flow from investing activities. Dividends paid out are recognised as outgoing cash flow from financing activities.

The consolidated cash flow statement includes the cash flows for continuing operations and for discontinued operations.

Movements in working capital

Working capital consists of inventories and current receivables less trade and other liabilities. The table below shows movements in working capital recognised in the cash flow from operating activities:

x € 1 million	2021	2020
Movements in inventories	-	-15
Movements in trade and other receivables	-	7
Movement in trade and other liabilities	-	11
Total	-	3

37. Overview of subsidiaries

	2021 %	2020 %	City
Consolidated participating interest			
Stedin Netbeheer B.V.*/**	100.00	100.00	Rotterdam
Stedin Netten B.V.*	100.00	100.00	Rotterdam
N.V. Stedin Netten Noord-Holland*	100.00	100.00	Rotterdam
N.V. Stedin Noord-Oost Friesland*	100.00	100.00	Rotterdam
DNWG Groep N.V.*/**	100.00	100.00	Goes
DNWG Infra B.V.*	100.00	100.00	Goes
DNWG Warmte B.V.*	100.00	100.00	Goes
DNWG Staff B.V.*	100.00	100.00	Goes
Enduris B.V.*	100.00	100.00	Goes
TUMS B.V.*	100.00	0.00	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	-	Rotterdam
Stedin Groep Services II B.V.*	100.00	-	Rotterdam
Joint arrangements			
Utility Connect B.V.**	40.72	40.72	Vianen
TensZ B.V.	50.00	50.00	Rotterdam
TeslaN B.V.	50.00	50.00	Goes
Infra Netwerkgroep Omexom VOF	50.00	50.00	Dordrecht
Associates			
Energie Data Services Nederland B.V.	21.16	21.16	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.

Company income statement

x € 1 million	Note	2021	2020
Total net revenue and other income	39	3	3
Cost of sales, contracted work and operational expenses		-1	-2
Depreciation, amortisation and impairment of non-current assets		-2	-6
Total operating expenses		-3	-8
Operating profit		-	-5
Financial income and expenses	45	-69	-31
Profit before income tax		-69	-36
Profit of participating interests*	42	72	63
		3	27
Income tax		18	15
Profit after income tax		21	42
Profit distribution:			
Profit after income tax attributable to holders of Stedin Holding N.V. perpetual subordinated bonds (after income tax)		17	12
Profit after income tax attributable to shareholders of Stedin Holding N.V.		4	30
Profit after income tax		21	42

* Profit of participating interests 2020 concerns € 65 million for participating interests and € -2 million for the sold associate Joulz Diensten.

Company balance sheet

Before profit appropriation

x € 1 million	Note	As at 31 December 2021	As at 31 December 2020
ASSETS			
Non-current assets			
Property, plant and equipment	40	-	54
Intangible assets	41	78	77
Financial assets	42	5,590	5,355
Total non-current assets		5,668	5,486
Current assets			
Receivables from group companies	43	1,000	760
Current tax assets		-	2
Accruals and other receivables		20	18
Cash and cash equivalents		98	46
Total current assets		1,118	826
TOTAL ASSETS		6,786	6,312
LIABILITIES			
Equity			
Share capital	23	539	497
Share premium	23	158	-
Revaluation reserve	23	790	662
Legal reserve	23	3	4
Cash flow hedge reserve	23	-53	-78
Cost of hedging reserve	23	-	-
Retained earnings	23	1,323	1,275
Undistributed profit for the year	23	4	30
Equity attributable to Stedin Holding N.V. shareholders		2,764	2,390
Perpetual subordinated bond loan	23	506	501
Total equity		3,270	2,891
Non-current liabilities			
Provisions		11	4
Deferred tax liabilities		72	59
Interest-bearing debt	26	2,676	2,825
Derivative financial instruments	19	64	84
Total non-current liabilities		2,823	2,972
Current liabilities			
Interest-bearing debt	26	531	276
Liabilities to group companies	43	116	137
Current tax liabilities		12	-
Derivative financial instruments	19	-	2
Other liabilities	44	34	34
Total current liabilities		693	449
TOTAL LIABILITIES		6,786	6,312

Notes to the company financial statements

38. 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 disclosures of directors' remuneration and a list of participating interests in group companies, also apply to the company financial statements.

The company financial statements of Stedin Holding N.V. consist of the company income statement and the company balance sheet. The euro is the functional currency. All amounts are in millions of euros, unless stated otherwise.

Participating interests in group companies

Participating interests in group companies over whose commercial and financial policies significant influence is exercised are stated at net asset value, but not for an amount lower than nil. If the net asset value is negative, the participating interest is stated at nil. In this context, other long-term interests are taken into account, which in effect must be qualified as part of the net investment in the participating interest. Where the company provides security for all or part of the debts of the participating interest concerned, or is in effect under an obligation (in proportion to its share) to enable the participating interest to pay its debts, a provision will be created. The amount of this reserve is determined with due regard for any bad debt provisions already deducted from the receivables concerned. A statutory reserve is formed for reserves of participating interests that are subject to restrictions on distributions.

Stedin Holding N.V. provides loans to participating interests, and credit losses might arise on those loans. Stedin has opted to eliminate the expected credit losses on loans to and receivables from participating interests 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, directly recognised in equity;
- increases in the value of assets for which changes in value are taken to 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 relating to equity, see note [2.2.21 Perpetual subordinated bond loan to the consolidated financial statements](#).

39. Net revenue and other income

Net revenue and other income relates 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.

40. Property, plant and equipment

The item property, plant and equipment used to include a number of office premises in use by Stedin. These premises were transferred to a subsidiary of Stedin Holding N.V., Stedin Groep Services B.V., at book value in the course of 2021.

41. Intangible assets

Intangible assets relates to the goodwill arising on the acquisition of DNWG. For more details, see note 15 Intangible assets to the consolidated financial statements.

42. Financial assets

x € 1 million	Subsidiaries	Receivables from subsidiaries	Derivative financial instruments	Total
Bookvalue as at 1 January 2020	3,979	1,306	39	5,324
Result of subsidiaries	65	-	-	65
Effect in corporate income tax changes	-11	-	-	-11
Movement in fair value of financial instruments	-	-	-16	-16
Reclassification	-	-	-7	-7
Bookvalue as at 31 December 2020	4,033	1,306	16	5,355
Result of subsidiaries	72	-	-	72
Revaluation tangible fixed assets	176	-	-	176
Movements in loans to subsidiaries	-	-1	-	-1
Reclassification	4	-	-16	-12
Bookvalue as at 31 December 2021	4,285	1,305	-	5,590

In both 2021 and 2020, no depreciation and impairments were applied to the non-current financial assets.

For an overview of all capital interests, see note 37 Overview of subsidiaries to the consolidated financial statements.

43. Receivables from and liabilities to group companies

Receivables from and liabilities to group companies are all short term.

44. Other liabilities

Other liabilities can be specified as follows:

x € 1 million	As at 31 December 2020	As at 31 December 2019
VAT	23	19
Other	11	15
Total other liabilities	34	34

45. Financial income and expenses

The financial expenses relate mainly to the interest expense for external financing of Stedin Group. The financial expenses amount to €99 million (2020: €61 million) and the financial income to €30 million (2020: €30 million). The income concerns interest amounts recharged within the Group.

46. Contingent assets and liabilities

Fiscal unity

Stedin Holding N.V. forms a fiscal unity for corporate income tax purposes with all its consolidated participating interests as included in note [37 Overview of subsidiaries](#). 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 participating interests as included in note [37 Overview of subsidiaries](#) in 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.

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 [30 Contingent assets and liabilities](#) in 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 403 of Book 2 of the Dutch Civil Code. This declaration is included in the overview in note [37 Overview of subsidiaries](#). Pursuant to these liability statements, Stedin Holding N.V. is jointly and severally liable for all debts arising from legal acts performed by those group companies.

47. Subsequent events

Mergers within Stedin Group

Following the acquisition of DNWG Group in 2017, the Stronger Together programme was initiated in order to integrate Stedin and DNWG with each other within five years. The restructuring within Stedin Group commenced in 2021, through various transfers of entities; see also [1.2 Key events in 2021](#). These transferred entities were merged as of 1 January 2022. Stedin Netbeheer B.V. and Enduris B.V. will jointly continue as Stedin Netbeheer B.V. Stedin Groep Personeels B.V. and DNWG Staff B.V. will jointly continue as Stedin Groep Personeels B.V. TensZ B.V. And TeslaN B.V. will continue as TensZ B.V. The number of indirect subsidiaries of Stedin Holding N.V. decreased as a result.

Disposal of TUMS

With effect from 1 August 2021, Stedin incorporated TUMS B.V. to enable it to sell the commercial metering services of DNWG Infra B.V. All commercial metering services relating to electricity, gas, water and heat are combined in this new company. The employees also joined TUMS B.V. as of that date; see also [12 Assets held for sale](#). The sale of this entity was completed on 10 February 2022. The number of indirect subsidiaries of Stedin Holding N.V. decreased as a result.

48. Profit appropriation

Proposal for appropriation of profit for 2021

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), where at least 50% of the profit is available for the General Meeting of Shareholders, excluding exceptional income. The General Meeting of Shareholders may decide to distribute this amount in whole or in part. The Board of Management shall, after the approval of the Supervisory Board, make a recommendation to the General Meeting of Shareholders concerning the amount to be distributed.

The Board of Management intends, with the approval of the Supervisory Board, to distribute the preference dividend of € 3.1 million to the holders of preference shares. This would represent a dividend of €7.51 per preference share for 2021. 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 2021 financial year, i.e. an amount of €0.5 million.

Stedin Holding N.V. has designated the following items as incidental items:

x € 1 million	2021	2020
Profit after income tax	21.0	42.2
Result attributable to holders of Stedin Holding N.V. perpetual subordinated bonds	-16.9	-12.2
Incidental income:		
Change in corporate income tax rate	-	11.0
Profit after income tax available for distribution to the shareholders	1.0	41.0
Proposed dividend	0.5	20.5
Increase of general reserve after proposed dividend distribution	0.5	20.5

A recommendation will be made to the General Meeting of Shareholders to resolve to pay a dividend of €0.5 million. This would represent a total dividend of €0.11 per share (2020: €4.14 per share).

The proposed profit appropriation has not been recognised in the balance sheet as at 31 December 2021.

Rotterdam, 17 February 2022

Stedin Holding N.V.

Board of Management

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

Supervisory Board

Doede Vierstra (chair)
 Hanne Buis
 Theo Eysink
 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, 2022.

Independent auditor's report

To the shareholders and the Supervisory Board of Stedin Holding N.V.

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS 2021 INCLUDED IN THE ANNUAL REPORT

Our opinion

We have audited the accompanying financial statements 2021 of Stedin Holding N.V., (hereafter: 'the Company'), based in Rotterdam. The financial statements comprise the consolidated financial statements and the company financial statements, as reported on page 123 until 202 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 December 31, 2021, and of its result and its cash flows for 2021 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 Remuneration) 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 December 31, 2021, and of its result for 2021 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 December 31, 2021.
2. The following statements for 2021: the consolidated income statement, the consolidated statements of comprehensive income, changes in group equity and cash flows.
3. The notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

1. The company balance sheet as at December 31, 2021.
2. The company profit and loss account for 2021.
3. The notes comprising a summary of the accounting policies and other explanatory information.

Deloitte Accountants B.V. is registered with the Trade Register of the Chamber of Commerce and Industry in Rotterdam number 24362853. Deloitte Accountants B.V. is a Netherlands affiliate of Deloitte NSE LLP, a member firm of Deloitte Touche Tohmatsu Limited.

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.

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 EBITDA (i.e. the result before financial income and expenses, taxes, depreciation and amortisation) as defined by Stedin Holding N.V. in disclosure note 26 of the annual report. We also take into account misstatements and/or possible misstatements that we believe are material to 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 6.6 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 the board, as well as smaller misstatements which in our view contain an obligation to be reported on qualitative or WNT grounds.

Scope of the group audit

Stedin Holding N.V. is 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 components. We ourselves have performed audit procedures for entities Stedin Netbeheer B.V., Stedin Groep Personeels B.V., Stedin Groep Services B.V. and Stedin Holding N.V. We have used other Deloitte auditors to perform the audit of entity DNWG Groep N.V. We have performed review procedures or specific audit procedures for other entities.

For the audit of DNWG Groep N.V., we have determined the audit procedures to be performed on the financial information of DNWG Groep N.V. We have also determined the nature, timing, and extent of our involvement in the work of the auditor of DNWG Groep N.V. We have sent out audit instructions to the Deloitte auditor concerning the audit of DNWG Groep N.V. and we have had several meetings with the management of DNWG Groep N.V. and the respective audit team during the planning-, interim-, and year-end audit phases. During these meetings, amongst others, the findings of the Deloitte auditor were



discussed. We have also assessed the performed audit procedures and audit file of the auditor DNWG Groep N.V.

By performing the abovementioned audit procedures at the respective (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 about the consolidated financial statements.

Fraud risks

We identified and assessed risks of material misstatement due to fraud in the financial statements. During our audit, we obtained an understanding of the company and its environment, the components of the internal controls, including the fraud risk assessment, the way in which the board manages fraud risks and monitors the internal control system and the way in which the Supervisory Board exercises supervision, as well as the results thereof.

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 risks of material misstatement due to fraud of the financial statements, we considered fraud risk factors related to fraudulent financial reporting, misappropriation of assets and bribery and corruption in close cooperation with our forensic specialists. We have evaluated whether these factors are indicative of the presence of the risk of material misstatement due to fraud.

Our audit procedures to respond to these fraud risks include evaluation of design and implementation of the internal controls relevant to mitigate these risks. Furthermore, we performed substantive audit procedures, including detailed testing of 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.

In our audit we considered an element of unpredictability. Moreover, we assessed the outcome of further audit procedures and considered whether any deficiencies noted might indicate fraude or non-compliance with law and regulation.

We have considered available information and performed inquiry with management, those charged with governance and other within the group. Based on this, no fraud signals that could lead to a material misstatements have been identified.

Compliance with laws and regulations

We assessed the laws and regulations relevant to Stedin Holding N.V. 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 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, the group 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.

Finally, we obtained written representations that all known instances of (suspected) fraud or non-compliance with laws and regulations have been disclosed to us.

The impact of the energy transition on future investments, financing and valuation of the existing network

The energy transition has a significant impact on Stedin as a grid operator. We draw your attention to the results and risks described from page 23 of the Report of the Board of Management.

The Board of Management notes that due to the energy transition, Stedin Groep 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. Stedin is therefore investigating additional options for strengthening equity capital. We draw your attention to the explanation in this regard in the Report of the Board of Management on page 108.

On the basis of the method decisions 2022-2026 published by the ACM in 2021, Stedin has carried out a revaluation of its regulated networks. In addition, Stedin has updated its forecast and assumptions regarding the business value model - the basis for both the revaluation of the regulated networks and the goodwill impairment test - based on the most recent forecasts, taking into account the Climate Agreement and the national climate targets for 2030 and 2050. We refer to the first key audit matter of our audit.

Furthermore, Stedin has also conducted an assessment of the useful life of assets. Stedin concludes that no changes are required in the useful life.



In its report of the Board of Management, Stedin also reports on non-financial information on energy transition and sustainability, including information on EU taxonomy. We do not provide assurance on this information, and refer to the section "statement on other information included in the annual report" for the work we performed on this information.

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.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereof, and we do not provide a separate opinion on these matters, nor are these matters to be viewed as separate opinions.

Key Audit Matters Audit 2021

Key Audit Matter

Valuation of regulated networks and goodwill

<i>Description</i>	<i>How the key audit matter has been addressed</i>
<p>Regulated networks</p> <p>The revalued book value of regulated networks of Stedin Holding N.V. amounts to € 7.5 billion. This includes the revalued value as at the revaluation date 01-01-2021 of € 5.9 billion, increased by 2021 investments at historical cost and less accumulated depreciation and impairments if applicable.</p> <p>In 2021, the ACM published the new regulatory methodology as part of the method decisions 2022-2026. Based on this data, Stedin has revalued the regulated networks as of 01-01-2021 in accordance with the revaluation model in IAS 16. This revaluation is based on the income approach, which is mainly based on the standardized asset value as determined by the ACM for Stedin (GGAW).</p> <p>The revalued book value contains, amongst others, significant assumptions regarding:</p> <ul style="list-style-type: none"> - The energy transition and the climate agreement. - The market share and profitability of Stedin and DNWG respectively, including the performance compared to other regional grid operators. 	<p>We have audited the revaluation as carried out by management as of 01-01-2021. Our audit also includes testing the design and implementation of internal controls regarding this revaluation. The results of the revaluation are included in note 14 of the financial statements.</p> <p>We have reconciled the GAW as used by Stedin with the ACM method decisions. We reconciled the standardization applied by Stedin with the ACM method decisions and assessed it mathematically. With the assistance of our valuation experts, we tested the income approach as applied by Stedin. We have assessed the assumption used, reconciled the forecast of cash flows with Stedin's overall budgets and assessed the estimates for allocation to the regulated networks.</p> <p>Finally, we have assessed whether the disclosures in the financial statements meet the requirements of IAS 16, are adequate and provide sufficient insight into the valuation of the regulated assets. We furthermore emphasize the sensitivities of important valuation parameters as disclosed by Stedin in note 14 of the financial statements.</p>

- The return on investment for the regulated assets as determined by the Authority for Consumers and Markets (ACM).
- The discount rate.
- Inflation expectations and long-term growth rate.

The carrying amount at historical cost of the regulated networks is - less the related contribution connection costs - € 5.1 billion.

Goodwill

The goodwill in the consolidated balance sheet amounts to EUR 77 million and is related to the acquisition of DNWG Groep N.V. in 2017. The goodwill is allocated to the cash generating units (CGU's) Stedin Netbeheer B.V. and DNWG Groep N.V. Stedin conducts a goodwill impairment test on an annual basis in line with EU-IFRS.

The valuation of the regulated networks and goodwill is based on the same business value model. Therefore, the valuation of both components is addressed as one key audit matter.

Based on the goodwill impairment test performed, the Management Board has determined that the recoverable amount per CGU is higher than the carrying amount as stated in note 15 of the financial statements.

We have audited management's impairment test for the CGU's to which goodwill is allocated to assess whether goodwill might be subject to an impairment. This also includes an assessment of the design and implementation of internal controls related to this impairment test. The outcome of this analysis is included in note 15 in the financial statements.

With the assistance of our valuation experts, we evaluated the realizable value of the CGU's to which goodwill has been allocated and assessed the most significant assumptions.

Finally, we verified whether the notes in the financial statements comply with the requirements of IAS 36, are sufficient and give appropriate insight in the valuation of goodwill.

Observation

Based on the materiality described above and the procedures we have performed and described above, we are in agreement with management's assessment.



Control Framework and reliability and continuity of automated data processing

<i>Description</i>	<i>How the key audit matter has been addressed</i>
<p>As per end of 2020, the In Control Framework ("ICF") has been finalized in design. Steps were taken in 2021 to further implement and monitor the operation of this ICF. This resulted in improvement plans that have in part already been implemented and in part are yet to be implemented, as explained in the in-control statement in the Report of the Board of Management on page 111 and on page 103 of the report of the board of management.</p> <p>An element of internal control within Stedin relates to automated data processing.</p>	<p>As part of our procedures, we have obtained an understanding of the internal control environment to assess the risks of material misstatement and to determine further audit procedures to address these risks.</p> <p>As various improvement plans regarding the ICF are yet to be implemented, we have solely tested the manual internal controls – insofar relevant for the scope and planned procedures of our audit on the financial statements – on design and implementation.</p> <p>We have tested the effectiveness of the IT controls to the extent relevant within the scope of our audit of the financial statements, such as change management, access security and information security. This work was performed by specialized IT-auditors in our audit team. Our procedures consisted of evaluating developments in the IT-infrastructure and subsequently testing the design, implementation and operating effectiveness of relevant IT controls.</p>
<p>The reliability hereof is dependent on the effectiveness of IT controls. Several applications, databases and interfaces are used which are relevant for the primary processes and the preparation of the financial statements.</p>	<p>Control deficiencies that were identified, were addressed by testing alternative controls or by performing specific substantive procedures.</p> <p><i>Observation</i> Based on the procedures performed we do not have any findings to report on the financial statements</p>

Compliance with antiaccumulation clause WNT not audited

In accordance with the Audit Protocol WNT 2021, we have not audited the antiaccumulation clause, as described in article 1.6a WNT and article 5, lid 1, sub j 'Uitvoeringsregeling 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

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that 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 the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of the other information, including the Report of the Management Board 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 date.

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.

European Uniform Electronic Reporting Format (ESEF)

Stedin Holding N.V. has prepared its Dutch annual report in ESEF. The requirements for this are included in the Commission Delegated Regulation (EU) 2019/815 with regard to regulatory technical standards on the specification of a single electronic reporting format (hereinafter: the RTS for ESEF).

In our opinion, the annual report prepared in XHTML format, including the partially marked-up consolidated financial statements as included in the reporting package by Stedin Holding N.V. complies in all material respects with the RTS on ESEF.

The board is responsible for preparing the annual report, including the annual accounts in accordance with the RTS for ESEF, whereby the board combines the various components into a single reporting package.

It is our responsibility to obtain reasonable assurance that the annual report in this reporting set complies with the RTS for ESEF.

Our procedures, taking into account Alert 43 of the NBA (the Netherlands Institute of Chartered Accountants), included amongst others:

- obtaining an understanding of the company's financial reporting process, including the preparation of the reporting package;
- obtaining the reporting package and performing validations to determine whether the reporting package containing the Inline XBRL instance and the XBRL extension taxonomy files has been prepared in accordance with the technical specifications as included in the RTS on ESEF;
- examining the information related to the consolidated financial statements in the reporting package to determine whether all required mark-ups have been applied and whether these are in accordance with the RTS on ESEF.



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, 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.

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 skepticism throughout the audit, in accordance with Dutch Standards on Auditing, The Audit Protocol WNT 2021, ethical requirements, and independence requirements. Our audit included e.g.:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures.
- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Deciding factors 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 have communicated with the Supervisory Board regarding, amongst 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 have provided 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, 2022

Deloitte Accountants B.V.

drs. A. van der Spek RA

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The supplementary information does not form part of the financial statements.

Five-year summary

	Unit	2021	2020	2019	2018	2017
Income statement						
Revenue	€ mln	1,265	1,216	1,220	1,270	1,154
Total operating income	€ mln	1,279	1,229	1,234	1,286	1,194
Total operating expenses	€ mln	1,155	1,100	1,062	1,074	996
EBITDA*	€ mln	484	463	489	509	471
Operating profit	€ mln	124	129	172	212	198
Profit after income tax	€ mln	21	42	325	118	423
Balance sheet						
Property, plant and equipment	€ mln	7,635	7,057	6,753	6,406	6,140
Total assets	€ mln	8,182	7,572	7,289	6,991	6,551
Equity	€ mln	3,270	2,891	2,949	2,699	2,582
Total interest-bearing debt	€ mln	3,281	3,183	3,004	3,044	2,753
Investments in non-current assets	€ mln	687	620	646	607	494
Cash flows						
Cash flow from operating activities	€ mln	376	408	374	461	278
Cash flow from investing activities	€ mln	-567	-512	-236	-587	-1,317
Cash flow from financing activities	€ mln	241	115	-235	222	692
Credit rating						
Long-term rating (S&P)	rating	A-	A-	A-	A-	A-
Solvency**	%	45.6	43.0	44.9	43.3	43.3
FFO/Net debt***	ratio	11.3	12.0	12.3	12.2	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	-	-	-	-

* Earnings before interest, taxes, depreciation and amortization

** 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, connection contributions received and free cash and cash equivalents.

*** This ratio is calculated in accordance with the Standard & Poor's (S&P) method. Funds From Operations (FFO) divided by net debt. FFO consists of EBITDA adjusted for lease expense, adjusted interest expense and tax expense. The net debt position is the sum of current and non-current interest-bearing debt, adjusted for off-balance liabilities, the hybrid loan and minus cash and cash equivalents. The ratio was calculated as at 31 December 2021. S&P applies a multi-year weighting to determine this ratio when assessing the credit rating.

	Unit	2021	2020	2019	2018	2017
Operational ratios						
High-use electricity connections	number	19,911	19,379	18,912	22,692	21,786
Low-use electricity connections	number	2,322,087	2,303,313	2,283,563	2,263,009	2,256,608
Quantity of electricity transported	GWh	20,529	20,171	21,100	21,330	21,893
Length of electricity cables	km	57,616	56,854	56,140	55,604	55,191
Length of electricity cables laid	km	874	852	1,034	806	611
High-use gas connections	number	9,112	9,556	9,633	10,761	10,852
Low-use gas connections	number	2,104,230	2,111,265	2,111,038	2,104,174	2,108,397
Quantity of gas distributed	million m ³	4,907	4,365	4,651	4,852	4,865
Length of gas pipelines	km	28,160	28,206	28,216	28,190	28,137
Length of gas pipelines laid	km	251	197	221	250	210
Medium-voltage failures resulting in disruption	number	465	523	519	433	390
Facilitated supplier switches (x 1,000)	number	685	883	824	713	584
Safety						
Lost Time Injury Rate (LTIR)	ratio	0.54	0.40	2.19	3.00	4.88
Recordable Incident Frequency (RIF)	ratio	0.76	0.70	1.00	1.00	1.29
Outages and interruptions in electricity supply						
Average duration of interruption MV/LV (CAIDI)	minutes	87	112	82	76	88
Interruption frequency MV/LV (SAIFI)	number	0.216	0.231	0.245	0.223	0.188
Annual average downtime MV/LV (SAIDI)	minutes	19	26	20	17	16
Annual average downtime HV/MV/LV (SAIDI)	minutes	20	27	21	18	17
Outages and interruptions in gas supply						
Average duration of interruption (CAIDI)	minutes	88	75	270	122	78
Interruption frequency (SAIFI)	number	0.006	0.006	0.005	0.0094	0.0086
Annual average downtime (SAIDI)	seconds	29	26	87	69	40

Other non-financial information

Detailed information on staff

	2021	2020	2019	2018	2017
Information on total number of employees					
Number of employees of Stedin Group	4,194	4,276	4,346	4,470	4,488
Number of employees at Stedin	3,651	3,652	3,672	3,665	3,185
Number of employees at NetVerder	6	5	5	-	-
Number of employees at Joulz Diensten	-	-	-	153	-
Number of employees at Joulz (incl. Joulz Diensten)	-	-	-	-	648
Number of employees at DNWG	537	619	669	652	655
Number of employees on a full-time contract					
Male employees	3,250	3,319	3,403	3,517	3,539
Female employees	364	363	357	385	396
Number of employees on a part-time contract					
Male employees	210	217	200	184	173
Female employees	370	377	386	384	380
Number of employees on a permanent contract					
Male employees	3,207	3,323	3,402	3,457	3,425
Female employees	650	667	679	701	669
Number of employees on a temporary contract					
Male employees	253	213	201	244	287
Female employees	84	73	64	68	107
CLA/Non-CLA					
CLA	4,007	4,092	4,158	4,282	4,268
Non-CLA	187	184	188	188	220
Diversity of boards and employees					
Younger than 25	70 (2%)	76 (2%)	66 (2%)	59 (1%)	59 (1%)
Between 25 and 34	814 (19%)	908 (21%)	843 (19%)	872 (20%)	933 (21%)
Between 35 and 44	1,089 (26%)	1,060 (25%)	1,056 (24%)	1,060 (24%)	1,000 (22%)
Between 45 and 54	863 (21%)	908 (21%)	923 (21%)	1,005 (22%)	1,058 (24%)
55 and older	1,358 (32%)	1,324 (31%)	1,458 (34%)	1,474 (33%)	1,438 (32%)
Number of women in management positions	79	64	60	64	58
Number of men in management positions	223	224	224	231	235

	2021	2020	2019	2018	2017
Informatie over intern versus extern personeel					
Employees (internal) at year-end	4,194	4,276	4,346	4,470	4,488
Employees (external) at year-end	779	709	804	1,059	1,004
FTEs (internal) at year-end	4,041	4,127	4,213	4,339	4,365
FTEs (external) at year-end	689	607	700	791	750
Sickness absence (internal) (%)	4.3	4.2	4.8	5.0	5.2
Male employees (internal) (%)	82	83	83	83	83
Female employees (internal) (%)	18	17	17	17	17

Detailed information on CO₂ emissions

The energy intensity ratio is the energy consumption (in GJ) divided by annual revenue (in million €). The GHG emission intensity ratio is the total greenhouse gas emissions including greening (in tonnes CO_{2eq}) divided by annual revenue (in million €).

Transport	Unit	2021	2020	2019	2018
Transport of electricity	GWh	20,529	20,171	21,100	21,330
Transport of gas	million m ³	4,907	4,365	4,651	4,852

Energy intensity ratio	Unit	2021	2020	2019	2018
Energy consumption	GJ	144,051	157,936	182,168	233,927
Annual revenue	€ million	€ 1,265	€ 1,216	€ 1,220	€ 1,270
Energy intensity ratio	GJ/€ million	113.9	129.9	149.3	184.2

GHG emission intensity ratio

Scope 1	Unit	2021	2020	2019	2018
Gas consumption of buildings	tonnes CO ₂ eq	385	453	454	635
Leakage loss of natural gas grid	tonnes CO ₂ eq	101,552	106,842	105,008	88,159
Lease & company cars	tonnes CO ₂ eq	6,282	7,310	8,856	10,193
Total	tonnes CO₂eq	108,219	114,605	114,318	98,987
Scope 2	Unit	2021	2020	2019	2018
Electricity/heat consumption of buildings	tonnes CO ₂ eq	1,202	1,167	238	826
Electricity grid losses	tonnes CO ₂ eq	377,353	386,271	433,167	432,364
Total	tonnes CO₂eq	378,555	387,438	433,405	433,190
Scope 3	Unit	2021	2020	2019	2018
Commuting, business trips, flights	tonnes CO ₂ eq	598	1,818	3,419	3,735
Total	tonnes CO₂eq	598	1,818	3,419	3,735
Total	Unit	2021	2020	2019	2018
Total footprint	tonnes CO ₂ eq	487,372	503,861	551,142	535,912
Greening	tonnes CO ₂ eq	-376,921	-385,890	-433,167	-432,364
Total including greening	tonnes CO₂eq	110,451	117,971	117,975	103,548
Annual revenue	€ million	€ 1,265	€ 1,216	€ 1,220	€ 1,270
GHG emission intensity ratio	tonnes CO ₂ eq/ million €	87.3	97.0	96.7	81.5

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 14 Property, plant and equipment:

x € 1 million	2021	2020
Book value		
Electricity	4,068	3,909
Gas	1,960	1,850
Smart meters	348	350
Other	1,259	948
	7,635	7,057

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 14 Property, plant and equipment and note 27 Deferred income:

x € 1 million	2021	2020
Book value		
Tangible fixed assets (gross)	7,635	7,057
Electricity	3,379	3,305
Gas	1,774	1,667
Smart meters	348	350
Other	1,259	948
Tangible fixed assets (net)	6,760	6,270
Construction contribution	876	787
Income recognized	22	22
	898	809

Reporting policy

In this integrated 2021 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 2021 half-year report. This annual report of Stedin Group relates to the period 1 January 2021 to 31 December 2021. 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 2021 and comparative figures for 2020 are presented and accounted for in the financial statements. Figures for 2021 and comparative figures for 2017, 2018, 2019 and 2020, 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 2021 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.

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.

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 2021 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. We provide insight into this in the sections '[Positive impact on people and environment](#)' and '[Sustainable Development Goals](#)' (directly and indirectly) with cross-references to the relevant disclosure in the annual report.

DNWG

We have aimed to disclose results at the Stedin Group level wherever possible in this report. Where it was not possible at year-end 2021 to present the DNWG results, the Stedin result only is reported. To the best of our knowledge, the reported data fairly present our performance.

Assurance of non-financial information

This financial year, no external assurance was sought with regard to the reliability of the non-financial information. It is possible that this will be done in the financial year 2022.

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, economic performance		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.		
Strategic spearhead 		Connection to risks (R) and opportunities (O) R: uncertainty about whether the present financial policy can be continued in the long term – insufficiently prepared for surge to replace obsolete assets/O: rates structure of the future – increase effectiveness and efficiency through supply-chain-focused operations		
SDG: 9 – Industry, innovation and infrastructure				
KPI	Target for 2021	Implementation in 2021	Target for 2022	Where can you read more about this topic?
FFO/Net debt ratio	≥ 12%	11.3%	12%	Financial, economic performance Financial results Risk management
Solvency	40.0%	45.6%	≥40.0%	

Material topic  Affordable and efficient services		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.		
Strategic spearhead 		Connection to risks (R) and opportunities (O) R: uncertainty about whether the present financial policy can be continued in the long term – insufficiently prepared for surge to replace obsolete assets/O: increase effectiveness and efficiency through supply-chain-focused operations		
SDG: 7 – Affordable and clean energy				
KPI	Target for 2021	Implementation in 2021	Target for 2022	Where can you read more about this topic?
Efficiency (on controllable opex and capex)	€26 million	€22 million	€14 million	Affordable and efficient services

 Improved grid management  Facilitating the energy transition  Sustainable business operations



Produced capital

Material topic Investments in our grids		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.		
Strategic spearhead 		Connection to risks (R) and opportunities (O) R: uncertainty about whether the present financial policy can be continued in the long term – insufficiently prepared for surge to replace obsolete assets – insufficient connection and transmission capacity – unavailability of enough people with the required competences – uncertainty about implications of changing laws and regulations – high activity in outdoor space and below ground – shortages of materials/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.		
SDG: 9 – Industry, innovation and infrastructure		Where can you read more about this topic? <ul style="list-style-type: none"> Investments in our grids Financial, economic performance 		
KPI	Target for 2021	Implementation in 2021	Target for 2022	
Investments in infrastructure	€687 million	€687 million	€719 million	
Execution of Strategic Investment Plan*	-	-	E: 100%/G: 100%	
New capacity in megavolt-ampere added (MVA)*	-	496	t.b.d.	

* New Strategic KPI in 2022

Material topic Supply security		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.		
Strategic spearhead 		Connection to risks (R) and opportunities (O) R: cyberattack causing damage to society and business operations – insufficiently prepared for surge to replace obsolete assets – services on core tasks insufficiently compliant – large-scale product recall/O: future-proof grid management by means of data-driven forecasts and decision-making		
SDG: 7 – Affordable and clean energy/11 – Sustainable cities and communities		Where can you read more about this topic? <ul style="list-style-type: none"> Supply security Risk management 		
KPI	Target for 2021	Implementation in 2021	Target for 2022	
Annual average downtime MV/LV (SAIDI) in minutes	≤ 17	19	≤ 17	

Material topic Customer satisfaction		Why is this topic relevant? 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) R: insufficient connection and transmission capacity O: give stakeholders and customers more control		
SDG: 7 – Affordable and clean energy		Where can you read more about this topic? <ul style="list-style-type: none"> Customer satisfaction 		
KPI	Target for 2021	Implementation in 2021	Target for 2022	
Customer satisfaction (CES)	≥ 75%	75%	82%	
Completion time for connections within 18 weeks or on date preferred by customer	≥ 90%	90%	≥ 95%	

Social capital

Material topic  Stakeholder dialogue and environment		Why is this topic relevant? As grid manager, we have a central role in the energy supply chain and therefore in the energy transition. That is why dialogue and collaboration with our stakeholders are essential. By talking with customers, we know what level of 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) R: uncertainties concerning changes in laws and regulations; insufficient connection and transmission capacity/O: enter into strategic supplier relationships; position Stedin as indispensable link in the energy transition		
SDG: 11 – Sustainable cities and communities/9 – Industry, innovation and infrastructure				
KPI	Target for 2021	Implementation in 2021	Target for 2022	Where can you read more about this topic?
Stability of predictions of customer demand*	-	-	70%	Facilitating the energy transition Stakeholders and materiality Interaction with our environment
Accuracy of predictions of customer demand*	-	-	70%	
Actively involved in 100% of the RESs in our coverage area**	100%	100%		

* New Strategic KPI in 2022/** This KPI no longer features in 2022

Human capital

Material topic  Good employment practice		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.		
Strategic spearhead 		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		
SDG: 8 – Decent work and economic growth				
KPI	Target for 2021	Implementation in 2021	Target for 2022	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 7.6 Committed 7.8	Inspired 7.5 Committed 7.7	Good employment practice Risk management

 Improved grid management  Facilitating the energy transition  Sustainable business operations

Natural capital

Material topic  Positive impact on people and environment		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 particulate matter emissions, use of raw materials and restoring 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.		
Strategic spearhead 		Connection to risks (R) and opportunities (O) R: excessive environmental footprint – large-scale product recall – environmental pollution of surroundings/O: enter into strategic supplier relationships		
SDG: 11 – Decent work and economic growth/12 – Responsible consumption and production/13 – Climate action		Where can you read more about this topic? Positive impact on people and environment		
KPI	Target for 2021	Implementation in 2021	Target for 2022	
Reduction of CO ₂ emissions in business operations (excl. gas network losses)*	-27%	-45%	-36%	

* The CO₂ emissions in 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		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.		
Strategic spearhead 		Connection to risks (R) and opportunities (O) R: cyberattack causing damage to society and business operations – IT/OT landscape insufficiently prepared for the future – availability and quality of data insufficient – uncertainty about duration of availability of communication network/O: develop and deploy disruptive technologies and methods – perform comprehensive assessment for allocating investments between electricity, gas or future energy sources – future-proof grid management by means of data-driven forecasts and decision-making		
SDG: 7 – Affordable and clean energy		Where can you read more about this topic? Smart grids, data technology and innovation		
KPI	Target for 2021	Implementation in 2021	Target for 2022*	
% of grids for which financial implications quantified in real time* Data supplied by smart meter P4 (Stedin)	- 97%	- 97%	90% 97%	

* New Strategic KPI and target in 2022

Material topic  Safety and security		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.		
Strategic spearhead 		Connection to risks (R) and opportunities (O) R: cyberattack causing damage to society and business operations – impact of accidents related to Stedin Group		
SDG: 7 – Affordable and clean energy/8 – Decent work and economic growth		Where can you read more about this topic? Safety and security Risk management		
KPI	Target for 2021	Implementation in 2021	Target for 2022	
RIF	≤ 0.90	0.76	0.90	
LTIR	≤ 1.95	0.54	1.90	

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
 <p>7 BETAALBAAR EN DUURZAAM ENERGIE</p>	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 99.9964% in 2021. (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 continues to be affordable and reliable. To that end, we are, for example, examining the possibilities for heating homes with sustainable gases and hydrogen (SDG 7.1).	 <p>Supply reliability, Affordable and efficient services, Customer satisfaction, Stakeholder dialogue and environment, Smart grids, data technology and innovation, Safety and security</p>
 <p>8 EERLIJK WERK EN ECONOMISCHE GROEI</p>	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 equal opportunities, long-term employability and a workforce that reflects our society. We do this, for instance, through our focus on projects for people with an occupational impairment. In 2021, we achieved the target under the Participation Act (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).	 <p>Good employment practice, Positive impact on people and environment, Safety and security, Integrity</p>
 <p>9 INDUSTRIE, INNOVATIE EN INFRASTRUCTUUR</p>	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 2021, we invested €687 million in our grids (SDG 9.1).	 <p>Stakeholder dialogue and environment, Investments in our grids</p>
 <p>11 DUURZAAM STEDEN EN GEMEENSCHAPPEN</p>	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 in the Climate Agreement and works towards them with its stakeholders (SDG 11.1; SDG 11.2).	 <p>Supply security, Stakeholder dialogue and environment</p>
 <p>12 VERANTWOORDE CONSUMPTIE EN PRODUCTIE</p>	Sustainable consumption and production means promoting savings of 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 waste. This increases the circularity of our assets (SDG 12.4; SDG 12.5).	 <p>Positive impact on people and environment</p>
 <p>13 KLIMAATACTIE</p>	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 goals and complies with the initial conditions of the EU Taxonomy. Through sustainable innovations, Stedin Group contributes to technologies and systems that combat climate change and to facilitating the energy transition (SDG 13.1).	 <p>Positive impact on people and environment</p>

 Improved grid management
  Facilitating the energy transition
  Sustainable business operations

Impact measurement

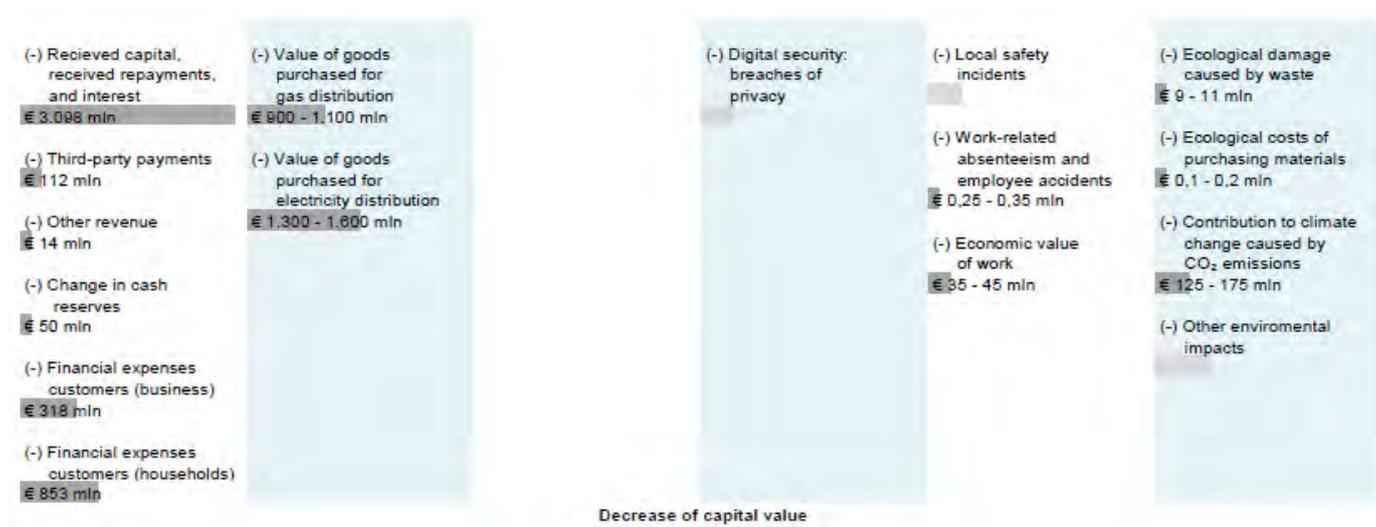
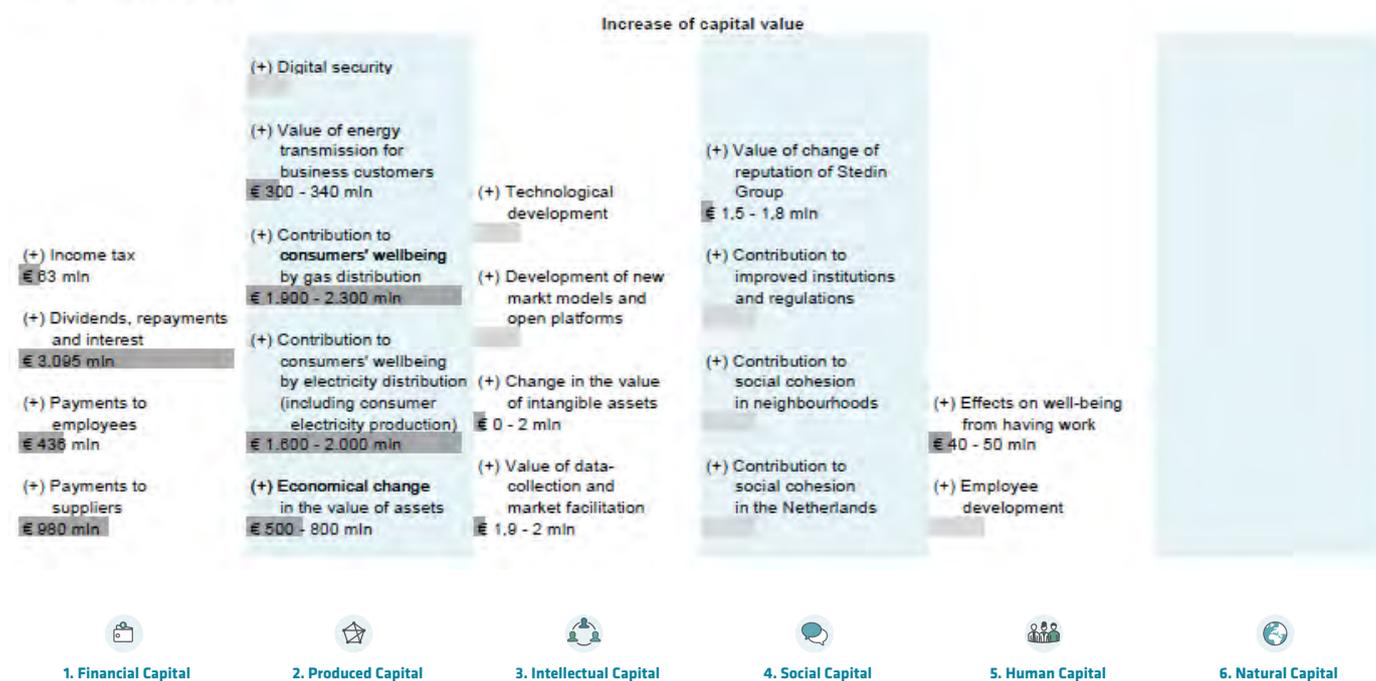
Stedin Group's value creation model is based on the six capitals of the International Integrated Reporting Council (IIRC). Stedin Group's actions have a positive as well as a negative impact on society. For each capital, we show our key input topics and output results. We also highlight our value for society.

Positive and negative impact on society

The table on the next page provides qualitative as well quantitative insight into the added value of our social impact on stakeholders. The six capitals in the centre of the table represent the baseline. The increased value due to the benefits of what we do for society is shown above the baseline, and our decreased value consisting of the costs as well as any inconvenience associated with what we do is shown below the baseline. The information under the 'Financial' capital is in line with the IFRS figures from the 2021 financial statements and is quantitative. We report other quantified impacts in ranges. Our qualitative indication of all unquantified impacts offers insight into the relative scope of our social impact on society. We then explain the six capitals and the way in which they cause capital value to increase or decrease in an overview. Through our impact, we contribute to the UN Sustainable Development Goals.

IMPACT

Amounts in million euro's
 ■ quantified in euro's
 ■ not quantified in euro's



Result of impact measurement

Concept	Increase of capital value	Decrease of capital value
<p>Financial</p> <p>Incoming and outgoing cash flows have a positive as well as a negative impact on society (SDG 7, 8, 11).</p>	<p>Payments to suppliers and employees, tax paid, dividends, interest and repayments are considered to be capital that is invested in society. In total is this amounted to €4,574 million.</p>	<p>Capital raised for the financing of activities, third-party payments, other revenue as well as financial expenses for both business and private customers are considered to be capital that is withdrawn from society. This amounted to €4,445 million in 2021.</p>
<p>Produced</p> <p>Stedin Group's produced capital mainly consists of energy transmission and distribution (SDG 7, 9, 11, 12).</p>	<p>The availability of energy, taking into account failures and outages, contributes to the welfare and well-being of private as well as business customers. Stedin Group created between €3,800 and €4,640 million in value for society in 2021.</p> <p>The value of our assets increases, which benefits society.</p>	<p>The products and services intended for our infrastructure, which Stedin Group receives from suppliers, therefore increase in value. These products and services cannot be invested in society. Thus, between €2,200 and €2,700 million in value was withdrawn from society in 2021.</p>
	<p>By investing in digital security, Stedin Group minimises undesirable data exchanges. As a result, the online security of society improves.</p>	
<p>Intellectual</p> <p>By investing in knowledge development, Stedin Group creates capital (SDG 9).</p>	<p>Stedin Group actively invests in knowledge development for future grid management. This approach raises the value of our intangible assets, creates new market models/platforms and improves/increases data processing. Its application creates value for us and for society.</p>	
<p>Social</p> <p>Our social capital is defined by how the public values Stedin Group and our activities (SDG 11).</p>	<p>Improving the reputation of Stedin Group increases customer satisfaction, reduces recruitment costs and creates new opportunities for cooperation. This increases our potential to create long-term value for society.</p>	<p>Leaking privacy-sensitive data has a negative social impact and results in loss of value.</p>
<p>Human</p> <p>Stedin Group affects the well-being of its employees both positively and negatively (SDG 8, 11).</p>	<p>Having a job positively affects the well-being of the relevant employee. As an employer, in 2021, we contributed between €40 and €50 million to the well-being of our employees, and hence to society.</p>	<p>Work-related absenteeism and accidents reduce the well-being of the people involved, as do safety incidents. As an employer we cause these situations and consequently decrease well-being in society for a value between €0.25 and €0.35 million in 2021.</p> <p>All employees devote time to their job. The total value of this time is between €35 and €45 million in 2021. Since this time cannot be spent elsewhere, we withdraw its value from society as an employer.</p>

Natural

Our normal business operations affect the climate, nature and the environment (SDG 12, 13).

Our normal business operations emit CO₂, which, in 2021, had a negative impact between €125 en €175 million on climate, nature, the environment and hence society.

As we are unable to recycle 100% of the materials used, the resulting waste causes ecological damage. This negative impact over 2021 is valued between €9 and €11 million.

Furthermore, the purchase of materials caused ecological damage which carries a negative impact between €0.1 and €0.2 million in 2021.

Process for the materiality analysis

We used the following steps to arrive at the choice of material topics and to determine the Materiality Matrix for 2021:

1. We changed the grouping of our material topics in 2021. This approach resulted in a set of ten material topics. Two material topics are no longer featured in this set. These are 'Stedin Group's Reputation' and 'Heat transition'. 'Stedin Group's Reputation' is omitted because we target this by doing the right things in the right way. 'Heat transition' is no longer featured because this is now part of the material topic 'Stakeholder dialogue and environment'. A number of topics have been combined. 'Capacity for change of the organisation', 'Sufficient technical staff' and 'Training and development' are now part of the topic 'Good employment practice'. 'Data security, privacy and cybersecurity', together with 'Safety at work and in the environment', is now part of 'Safety and security'. 'Social responsibility in the supply chain' is part of 'Positive impact on people and environment', and 'Contributing to the energy transition' is part of 'Investing in infrastructure'. One new topic has been added. That is 'Affordable and efficient services', with a view to public support for the energy transition.
2. The material topics were reviewed, adopted and ranked by the Board of Management in 2021. 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 (monthly, quarterly and half-yearly).
3. The Supervisory Board also discussed the material topics at its meeting held on 15 December 2021, 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 add any potential new material topics. We defined the following stakeholder groups:
 - internal: the members of the Works Council;
 - external: business customers, private customers, shareholders, local environment/communities, government and regulators, suppliers, the energy supply chain, NGOs, investors and rating agencies and

partners. A total of 164 stakeholders indicated the impact of each topic.

5. The result of the steps referred to above is reflected in the [Materiality Matrix](#). In the [Connectivity table](#), we show how the material topics (including their description) correlate to our strategy, risks, KPIs and objectives and the [Social Development Goals of the United Nations](#).

We focus more closely on our stakeholders in the section ['Interaction with our environment'](#)

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 actively 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 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 2022, 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 reticent in engaging in sponsorship activities. Accordingly, we base our choice for sponsoring or a financial contribution on initiatives in which we foreground our primary core tasks in the energy transition and get energy users on board in the changing energy world. Our most important initiative in 2021 concerned supporting the 'Energiebank' in Rotterdam and The Hague.

The purpose of the 'Energiebank' 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. Two Stedin employees provide advice as energy coaches to reduce energy costs. In addition, we donate €8,000 annually. In 2021, the 'Energiebank', together with the Hartekind foundation, was again one of the two charitable causes as part of the annual end-of-year gift. Stedin employees were able to opt for a personal gift or a financial contribution to one of the two charitable causes. As a result, we were able to hand over an amount of €1,700 to the 'Energiebank' in Rotterdam and The Hague. The goal for 2021 was to support 200 households and to deploy 80 active coaches in that connection. That is also the goal for 2022. The outcome for 2021 was that we deployed 65 coaches and visited 80 households. The goal was not achieved due to the restrictions relating to COVID-19.

In addition, Stedin engaged in sports sponsorship by sponsoring cycling activities. This is aimed at positioning Stedin in the province of Zeeland. A small part was also used for community initiatives and good causes in which individual Stedin employees played an active role. In 2021, Stedin's total

budget for sponsorship and financial contributions was €30,750 (2020: €36,000).

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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 (Vereniging Eigen Huis - VEH) and the Dutch Consumers' Association 	① ② ③ ④ ⑦
Business customers	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	All material topics
Investors and rating agencies	<ul style="list-style-type: none"> Annual rating review meeting, financial publications 	② ⑤ ⑦ ⑧ ⑨ ⑩

① Supply reliability ② Affordable and efficient services ③ Customer satisfaction ④ Stakeholder dialogue and environment ⑤ Investing in infrastructure ⑥ Smart grids, data technology and innovation ⑦ Safety and security ⑧ Good employment practice ⑨ Positive impact on people and environment ⑩ Financial, economic performance

Stakeholder	Note	Material topic
Government	<ul style="list-style-type: none"> 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, Test Beds 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	<ul style="list-style-type: none"> Upper House of Parliament 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
Regulators	<ul style="list-style-type: none"> 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 Supervisors – inform (standard and ad hoc), knowledge exchange 	① ② ⑤ ⑥ ⑦ ⑧ ⑨ ⑩
Energy supply chain	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Water authorities, Water companies, Directorate-General for Public Works and Water Management, ProRail, Staatsbosbeheer (National Forest Service in the Netherlands), housing associations, Cyber Security Council – consultation and coordination of work below ground and permit applications 	① ② ③ ④ ⑤ ⑥ ⑦
Local environment	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Natuur en Milieu, Milieudefensie, Greenpeace, Springtij – knowledge exchange, dialogue Jinq, 'Energiebank' Rotterdam and The Hague, Stichting Hartekind, USEF Foundation – voluntary work, cooperation 	⑧ ⑨
Suppliers	<ul style="list-style-type: none"> Contractors and suppliers of goods and services – cooperation, relationship management and dialogue 	② ③ ④ ⑦
Media	<ul style="list-style-type: none"> National, regional and online media – inform 	All material topics
Memberships	<ul style="list-style-type: none"> 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 	① ② ③ ④ ⑥ ⑦
Interest groups/ industry organisations	<ul style="list-style-type: none"> 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 	
Knowledge institutions	<ul style="list-style-type: none"> Delft University of Technology, Eindhoven University of Technology, Wageningen University & Research, Erasmus University, Utrecht University and Groningen University, Nijenrode – knowledge exchange, research, cooperation 	④ ⑥ ⑧
Partners	<ul style="list-style-type: none"> 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 	⑧ ⑤ ⑥ ⑦

GRI Index

We have adopted the GRI Standards guidelines in our sustainability reporting.

[GRI_Index_NL](#)

GRI Std.	GRI Indicators	Reference
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: 2021 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: 2021 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 Governance Code and Stedin Group Governance: Corporate Governance / Integrity
102-13	Membership of associations or advocacy organisations	2. Facilitating the energy transition / Stakeholder dialogue and environment / Alliances: The Green Village and HYDelta
102-14	A statement from the organisation's highest authorised party about the relevance of sustainability to Stedin Group and its strategy for addressing sustainability.	Resiliently forward: 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 Supplementary information: Connectivity, KPIs and targets Supplementary information: Sustainable Development Goals
EU3	Number of household, industrial and institutional customers	Supplementary information / Five-year summary
EU4	Length of transmission and distribution networks per regulatory regime	Supplementary information / Five-year summary
Ethics and Integrity		

102-16	The organisation's values, principles, standards and norms of behaviour	Governance: 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 confirmed or suspected unethical or illegal practices whistleblower procedure	Governance: Corporate Governance / Integrity / Whistleblower 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 Results: Corporate Governance / Supervisory Board
102-25	Process for the highest governance body for employees with integrity issues / whistleblower procedure	Corporate Governance Corporate Governance / Integrity
102-26	Role in the development of mission, vision, strategy, policy and goals related to ESG impact	Strategy Results: Sustainable business operations / One Planet Thinking / One Planet Governance Governance: Risk management / Risk governance
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 / One Planet Thinking / One Planet Governance 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 2021
102-36	Process for determining remuneration	Report of the Supervisory Board: Remuneration report for 2021
102-37	Stakeholders' involvement in remuneration policies	Report of the Supervisory Board: Remuneration report for 2021
102-38	Ratio of top salary – median salary	Report of the Supervisory Board: Remuneration report for 2021
102-39	Ratio of the increase in top salary – average increase	Report of the Supervisory Board: Remuneration report for 2021
205-1	Operations assessed for risks related to corruption	Governance: Corporate Governance / Integrity
205-2	Percentage of employees that receive training on anti-corruption policies	Governance: Corporate Governance / Integrity
205-3	Action in response to incidents of corruption	Governance: Corporate Governance / Integrity
206-1	Legal actions against unfair competition, cartels and monopolies	Governance: 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	Resiliently forward: Foreword Strategy: Stakeholders and materiality
102-43	Approach to and frequency of stakeholder engagement	Resiliently forward: 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 a basis Strategy Stakeholders and materiality Supplementary information: Reporting policy
102-47	A list of all the material topics identified in the process for defining report content	Strategy: Stakeholders and materiality
102-48	The effect of any restatements of information given in previous reports	Financial statements: Notes to the consolidated financial statements 2. Accounting policies:
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 chosen by the organisation	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		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Value creation as basis Strategy: Stakeholders and materiality Supplementary information: Connectivity, KPIs and targets Supplementary information: Reporting policy
EU 28	Interruption frequency for electricity	Supplementary information / Five-year summary
EU 29	Average duration of interruption Annual average downtime	Supplementary information / Five-year summary
Affordable and efficient services		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Value creation as basis Strategy: Stakeholders and materiality Supplementary information: Connectivity, KPIs and targets Supplementary information: Reporting policy
Customer satisfaction		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Value creation as basis Strategy: Stakeholders and materiality Supplementary information: Connectivity, KPIs and targets Supplementary information: Reporting policy
EU3	Number of household, industrial and institutional customers	Supplementary information / Five-year summary
Stakeholder dialogue and environment		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Value creation as basis Strategy: Stakeholders and materiality 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	Governance: Corporate Governance / Integrity
Investments in our grids		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Value creation as basis Strategy: Stakeholders and materiality Supplementary information: Connectivity, KPIs and targets Supplementary information: Reporting policy
Smart grids, data technology and innovation		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Value creation as basis Strategy: Stakeholders and materiality Supplementary information: Connectivity, KPIs and targets Supplementary information: Reporting policy
Safety and security		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Value creation as basis Strategy: Stakeholders and materiality Supplementary information: Connectivity, KPIs and targets Supplementary information: Reporting policy

403-1	Workers' representation 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	Positions with high risk of diseases or accidents related to their occupation	Results: Sustainable business operations: Safety and security
403-4	Health and safety topics covered in formal agreements with trade unions	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 and targets
Good employment practice		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Value creation as basis Strategy: Stakeholders and materiality 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 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		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Value creation as basis Strategy: Stakeholders and materiality 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
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 screened 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 screened 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 the supply chain and actions taken	Results: Sustainable business operations: Positive impact on people and environment: Impact in the purchasing chain / Supply chain responsibility
Financial, economic performance		
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
201-1	Economic ratios (incl. accruals) 'for the community' in euros	2021 Financial Statements
201-2	Financial implications and other risks and opportunities for Stedin's activities due to climate change	Strategy Governance: Risk management
201-3	Coverage of the organisation's defined benefit plan obligations	2021 Financial Statements

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.

A- rating

The rating score of a company, or 'rating', is an assessment of its credit rating in the form of a 'mark'. Ratings are awarded by specialised agencies.

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. In Congestion management, price mechanisms and market forces are used to manage demand and supply. 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.

Commercial or non-regulated activities

These are the activities of Stedin Group that are subject to competition and are offered at the customer's request.

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 (flexibility).

FFO – Net debt ratio

Funds from Operations (FFO) comprises revenue minus costs, taxes and interest expense, adjusted on the basis of the S&P method. Net debt ratio is the total of current and non-current debt, including adjustments for the hybrid loan and pension

liabilities, minus the total of (free) cash and cash equivalents at year-end. Both are calculated on the basis of the financial information of Stedin Group.

FTE

Full-time equivalent. Equivalent of the number of employees in full-time employment.

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.

GPRS

General Packet Radio Service. This technology is an addition to the GSM network and can be used to send and receive mobile data quickly and reliably.

GRI

Global Reporting Initiative. The internationally applied standards for sustainability reporting, in which an organisation reports publicly on its economic, environmental and social performance.

IFRS

International Financial Reporting Standards. Set of reporting rules issued by the IASB. Stedin Group complies with these reporting rules, which were drawn up to harmonise financial reporting at an international level.

<IR> Framework

Integrated reporting is an extensive framework for business and investment decisions that are long term, inclusive and purpose oriented.

kV

Kilovolt (kV) is a unit of voltage equal to 1,000 volts.

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 is an event that results in absence from work for more than one working day or shift – for instance, an accident in a workshop. Work carried out by and accidents of third parties are not included.

LTIR

Lost Time Injury Rate. Number of lost-time incidents per million hours worked.

Grid capacity and transmission capacity

Both terms are synonymous and refer to capacity in the grid.

Network losses

Network losses arise during the distribution 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 implement 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 The supervisory board in the Netherlands is the supervisory body of public limited liability companies and private limited liability companies.

RIF

Recordable Incident Frequency. The number of occupational accidents 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 or via the CDMA network. The use of the smart meter should lead to 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.

Stakeholders

Stakeholders are individuals and groups that have an interest in a variety of ways in Stedin Group, such as employees, shareholders, customers, capital providers, suppliers, government and media.

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.

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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