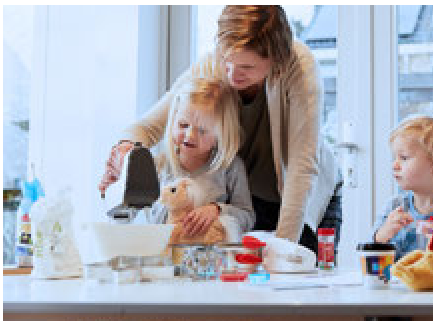
The world we live in

Annual report 2018

STEDIN GROUP

Content



The world we live in

Foreword

In the past year, climate change, the energy transition and natural gas-free housing have been widely discussed - in politics, in the media, at our customers and of course at Stedin Group. The energy system in the Netherlands will be transformed, this much is clear. Our energy management and hence the world we live in will soon look very different, as we are rapidly switching to sustainable energy. Stedin Group, as one of the regional operators of energy grids, is a party that is outstandingly well placed to contribute to this change.

Climate Tables
The draft Climate Agreement of the Dutch government contributes to that transition. By 2030, the Netherlands will be 49% climate-neutral - that is the overarching goal. We have been closely involved in the negotiations on how that goal can be achieved. It was and remains crucial for Stedin Group to be involved in such plans as early as possible. In the Climate tables, we were able to provide information on the consequences of the various choices on the reliability and affordability of the energy infrastructure. The outcome was sometimes that regulatory changes are required to ensure a fair allocation of tasks, risks and costs.

Better predictions, smarter technology, reinforcement
The far-reaching changes entail shifts of emphasis in the range of Stedin Group's tasks. We need to get better at predicting how much sustainable energy will be supplied to, and used, in our grids, and when.

To take only one example, the number of electric cars is expected to surge. This will result in increased demand for charging stations and an increased load on the grid, but may also stimulate smart solutions for feeding electricity back from car batteries. Smarter technology means that we must facilitate communication between all parties that demand and those that supply energy. Digitalisation is required to maintain the stability of the grid or to make different use of the existing infrastructure, such as using the gas grids for hydrogen. This will help to ensure that the transition remains affordable. Reinforcing our electricity grids enables them to handle larger volumes of electricity. As this is very expensive, we want to carry out those changes as intelligently as possible.

Natural gas-free new-build housing
Phasing out natural gas is one of the pathways towards the energy transition. It was partly due to our efforts that the legal obligation to connect newly built homes to the natural gas grid was abolished. Stedin Group advocated this in 2017 in the House of Representatives in the form of a research report with recommendations. The switch-over scheme we introduced in 2018 has also been a success: even after a contract for a construction project with natural gas has been signed, developers can still opt for an alternative. Existing buildings pose numerous challenges for the next 10 to 30 years, for which Dutch society as a whole needs to devise solutions. What is certain is that the energy mix will change and that heat is assuming an increasingly important role, alongside electricity and sustainable gases. We believe that we can offer added value in this process and aim to acquire further experience in this area in 2019 in association with a number of municipalities.

Connecting customers
In our drive to make our organisation more efficient and more customer-oriented, we focused especially on streamlining the process of connecting customers to our energy grid in 2018. We are required by law to connect new customers within eighteen weeks. Some customers want to be connected sooner, others later. In order to meet customer preferences as much as possible, we redesigned the connection process and improved our communication on its status and progress. The rising customer satisfaction rates that we already witnessed in the course of 2018 confirmed that those measures were necessary. We are on the right track - but we must still do better.

Safety
While our safety performance was slightly better than in 2017, we failed to achieve our target for 2018. We implemented more measures than ever but there were nonetheless too many incidents involving falling, stumbling or traffic accidents. Because many fitters are involved in installing smart meters, this activity proved to attract more risks. We will maintain our focus on safety and risk reduction in 2019.

Financial results
Earnings for 2018 were in line with expectations. Like all grid operators, we will be faced with a substantial challenge in the years ahead. To make the energy transition possible, we

will have to step up our investments – totalling some € 7 billion up to 2030 – while revenues are under pressure due to regulation. We therefore need to deploy people and resources even more intelligently and more efficiently.

Our employees

The far-reaching changes in energy supply are a powerful spur for our employees. Innovative and attractive plans are emerging within Stedin Group for solutions that contribute to the energy transition. This calls for adaptability and always, primarily, for consideration of the customer's interests. We are making progress on this. We would like to thank all our employees who ensure, each and every day, that our energy grid is among the best in the world.

Cooperation

In our work, we experience on a daily basis that the energy transition requires close cooperation between all parties. This applies, for instance, to the search for solutions to maintain a balance between energy supply and demand. We cannot do this on our own; we need the cooperation of the market and of residents. One example is the project in the Hoog Dalem area in Gorinchem described in this report (see Future-proof grids). We are also carrying out a trial to use hydrogen to heat in an existing apartment complex in the Rotterdam governing committee area of Rozenburg, which involves many different parties. And there are numerous other examples of projects and initiatives in which we partner with our stakeholders. It is for good reason that the words 'working together' are the first in our mission statement: 'Working together to create an environment filled with new energy'.

Conclusion

In this report, we look back on our performance in 2018 and also look ahead to the years to come, in which we will focus our knowledge and expertise of energy infrastructures on our environment in the future.

Board of Management

Marc van der Linden
Danny Benima
Judith Koole
David Peters

From left to right: Marc van der Linden, David Peters, Danny Benima, Judith Koole

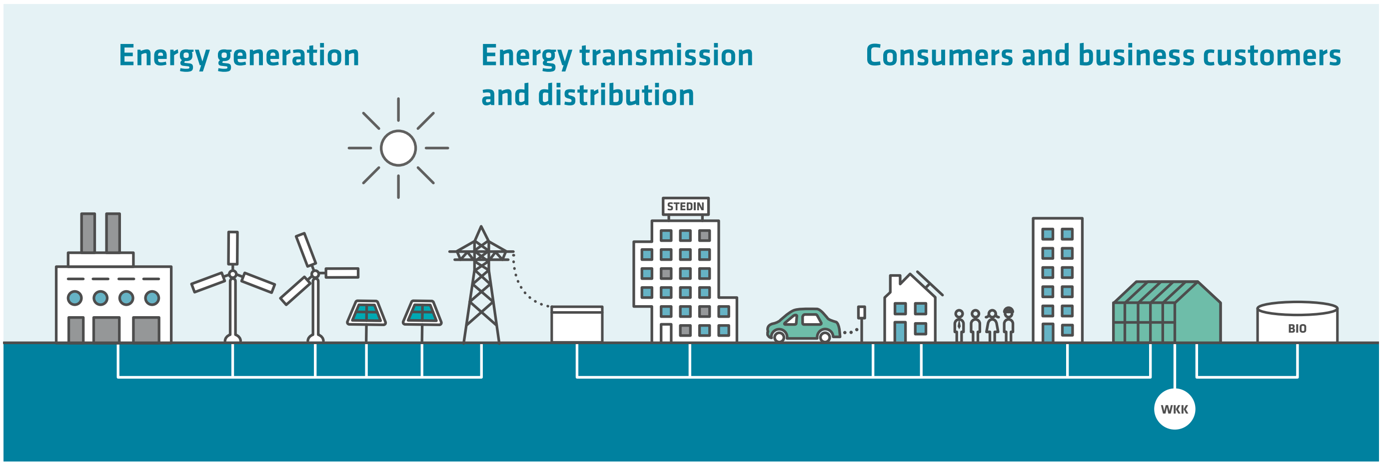
About Stedin Group

Profile

More than 2.2 million retail customers, businesses and industrial customers rely on Stedin Group for their energy supply. Day and night. Energy is indispensable in the world in which we live. The grid operators within Stedin Group, Stedin and Enduris, work with other parties forming part of the energy system: the producers of gas and electricity, the suppliers, the other grid operators and the organisations which monitor the reliability, affordability, safety and sustainability of the grids.

The electricity and gas grids are a key link in the energy system. We are proud that our grids are among the most reliable in the world. At the same time, we are part of a far-reaching societal shift: the urgent transition from an economy that is largely based on the use of fossil energy sources to a clean economy based on renewable sources. Stedin Group is committed to a community that is governed by sustainable connection.

Stedin Group operates and has its registered office in the Netherlands. We carry out regulated activities as a grid operator and we also perform a number of non-regulated activities as a group. Our head office is located at Blaak 8, 3011 TA in Rotterdam, The Netherlands. Our service area is characterised by its dynamism and densely built-up areas. We manage and maintain the energy grids in a large part of the Randstad conurbation and the Provinces of Utrecht and Zeeland, thereby covering three of the four largest cities in the Netherlands, the Port of Rotterdam and the port of Zeeland and large industrial and glasshouse horticulture regions. Parts of the Provinces of Noord-Holland and Friesland also fall within our area of operations.



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

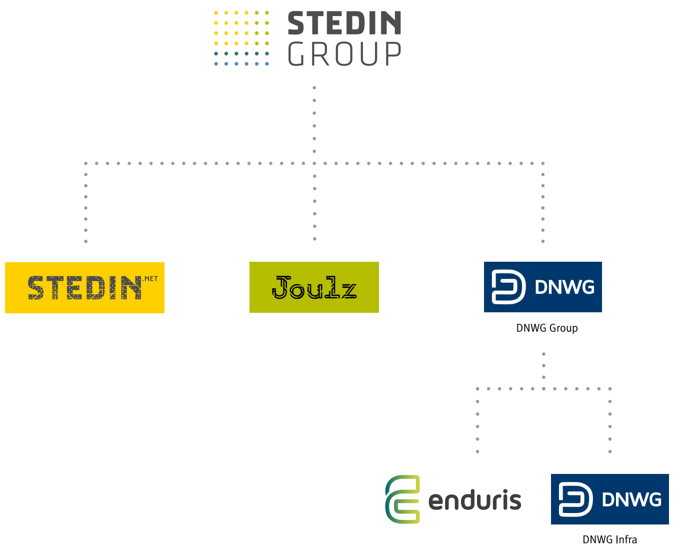
Stedin and Enduris are the independent grid operators within Stedin Group. They operate alongside five other regional grid operators in a regulated market. Each regional grid operator is a monopolist within its service area. Regulation means that the work performed by grid operators is provided for in Dutch law and that the rates they may charge for that work are set by the Netherlands Authority for Consumers and Markets (ACM). The regulation model encourages grid operators to achieve maximum performance in terms of efficiency and quality by using a benchmark comparison.

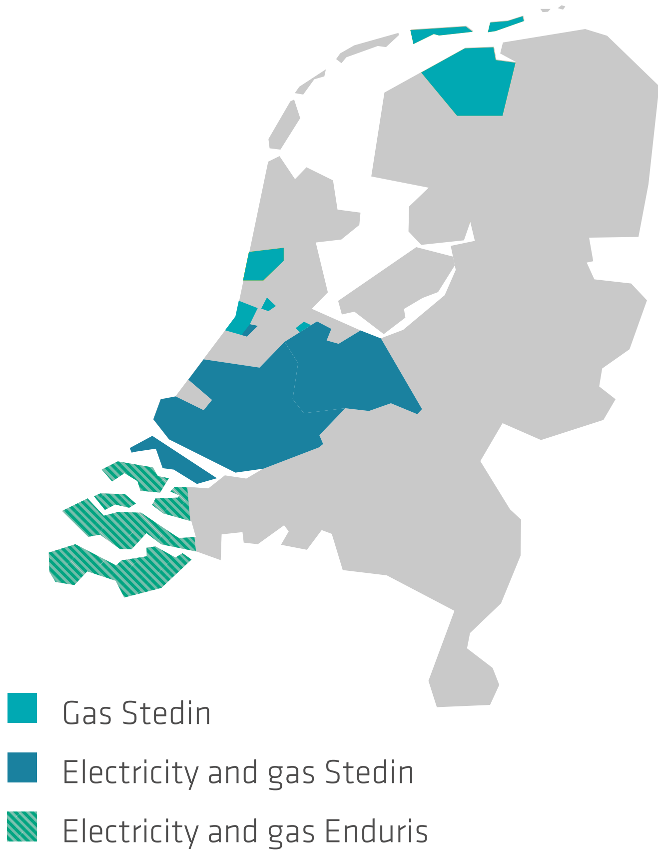
Stedin

As a grid operator, Stedin ensures a safe, reliable and affordable energy supply for its more than two million customers. It fulfils this task by constructing, managing and future-proofing the electricity and gas grids and by facilitating the energy market. Stedin has 3,665 employees.

Enduris

Within DNWG Group, grid operator Enduris manages the energy network for around 200,000 households and businesses in the Province of Zeeland. It is also responsible for constructing, maintaining and developing Zeeland's gas and electricity grids. DNWG Group has a total workforce of 652 (Enduris plus DNWG Infra). DNWG Group will remain a separate part of Stedin Group until the end of 2021.





Commercial activities

The commercial activities account for 9.8% of revenue.

Joulz Diensten

Joulz Diensten operates in the non-regulated market and provides a range of products and services via Joulz Meetbedrijf, Joulz Infradiensten and Joulz Stoomnetwerken: construction, management and maintenance of energy infrastructures, continuity services, acting as the party responsible for metering, energy management and building alternative energy infrastructures. These services are provided to parties such as energy producers, industrial customers and small and medium-sized businesses. Joulz Diensten has 153 employees.

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 of other grid operators (e.g. Evides Waterbedrijf, Stedin and TenneT) entrusted to it, and of industrial customers. DNWG Infra also supplies services in the area of metering technology in Zeeland and elsewhere, and is an approved party responsible for metering.

Review of the portfolio

We focus on high-quality grid management and excellent service, which is why we are cautious about commercial (non-regulated) activities. We only perform these if:

- the activity demonstrably adds value for efficient grid management;
- there is a gap in the market;
- Stedin Group is uniquely positioned for the activity concerned.

We apply the following conditions in this regard:

- every three years, we must conduct an evaluation of the activity in conjunction with a market survey;
- there must be transparency with regard to financing, investments and profit.
- the activity must contribute towards the energy transition.

Whether an activity remains in or is added to our portfolio depends partly on its economic attractiveness, its feasibility and its priority in relation to other activities.

Stedin Group evaluated its commercial (non-regulated) activities in 2018. This resulted in a reorganisation of the portfolio. As from 1 July 2018, grid operator Stedin pooled a large part of the expertise on high-voltage systems of Joulz Energy Solutions and Stedin within Stedin. That expertise is crucial in the energy transition and for the proper performance of Stedin's core tasks. As a result, a new, well-resourced High-Voltage department has been created within our group.

The commercial activities of Joulz Energy Solutions (activities not related to Stedin or TensZ) were sold to Visser & Smit Hanab B.V., a group company of VolkerWessels, with effect from 1 September 2018.

In 2018, Stedin Group investigated the possibility of hiving off and selling Joulz Infradiensten and Joulz Meetbedrijf. This led to a provisional purchase agreement with the British investment company 3i Infrastructure which was signed on 13 March 2019. You can read more about this in Non-regulated activities.

Joint ventures

We form joint ventures with other parties for specific activities.

Utility Connect

Commissioned by Stedin Group and network group Alliander, Utility Connect B.V. operates a CDMA-telecommunications network, which is used to read out measurement data provided by smart meters and to communicate with smart grid applications. This allows us to shorten or prevent disruptions in energy supply.

TensZ

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

TeslaN

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

ZEBRA

ZEBRA Gasnetwerk B.V. manages and operates a high-pressure gas distribution pipeline. This facility is used to distribute high-calorific gas that is taken in from the gas distribution network of Fluxys in the import station in Sas van Gent. The gas is distributed to connected high-volume consumers. Enduris has an interest of one third in ZEBRA Gasnetwerk B.V. and Enexis Netbeheer B.V. has an interest of two thirds.

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 areas including employment, energy supply and the energy transition. The foundation makes a budget available to promote the energy transition in Zeeland.

Terminology

'We', 'the company', 'Stedin Group' or similar terms or expressions are used in this report to refer to Stedin Holding N.V. and its subsidiaries (including Stedin Stedin Netbeheer B.V., Joulz Diensten B.V. and DNWG Groep N.V.). The term 'Stedin' refers to Stedin Netbeheer B.V. and its subsidiaries. 'DNWG' or 'DNWG Group' refers to DNWG Groep N.V. and its subsidiaries, including Enduris B.V. and DNWG Infra B.V.

‘We are proud that our grids are among the most reliable in the world.’

Key figures and key indicators for 2018

Key figures Stedin Group

Improved grid management

2018 | 2017

Investments in property, plant, equipment
In millions of euros

	2018	2017
Investments	€ 602	€ 490

Average downtime

	2018	2017
Electricity (in minutes)	17.01	16.44
Natural gas (in seconds)	69	40

Customer satisfaction
Customers who give an 8 or higher

2018	2017
69%	66%

Supply reliability

2018	2017
99.996%	99.996%

Facilitating the energy transition

2018 | 2017

Number of connections

	2018	2017
Charging stations / electric driving	1,215	1,110
Number of Fast chargers	44	31

Smart meters
Number of offers and % installed

2018	2017
377,906 80.6%	373,841 78.5%

Number of new-build homes natural gas free

2018	2017
56%	36%

Growth capacity of solar panels
Households and businesses change from 2017

49%
Provinces of Utrecht and Zuid-Holland 49% growth

133%
Province of Zeeland 133% growth

Sustainable business operations

2018 | 2017

Safety LTIR
Number of lost-time injuries with absenteeism per million hours worked

2018	2017
3.00	4.88

Safety RIF
Number of recordable incidents per 200,000 hours worked

2018	2017
1.00	1.29

Employee satisfaction
On a scale from 1 to 10

	2018	2017
Engagement	7.5	7.4
Commitment	7.7	7.6

CO_2-emmissions
Generated by internal business operations in tonnes

2018	2017
15,352	15,648

Financial results

2018 | 2017

Total net revenue and other income
in millions of euros

2018	2017
€ 1,286	€ 1,194

Balance sheet total
in millions of euros

2018	2017
€ 6,991	€ 6,551

Solvency

2018	2017
43.3%	43.3%

	Unit	2018	2017*
Financial figures			
Net revenue and other income	€ million	1,286	1,194
Investments in property, plant and equipment	€ million	602	490
Total assets	€ million	6,991	6,551
Result after income tax	€ million	118	423
Solvency**	%	43.3	43.3
Operational key indicators			
High-use electricity connections	number	22,692	21,786
Low-use electricity connections	number	2,263,009	2,256,608
Quantity of electricity transported	GWh	21,330	21,893
Length of electricity cables	km	55,604	55,191
Length of electricity cables laid	km	806	611
High-use gas connections	number	10,761	10,852
Low-use gas connections	number	2,104,174	2,108,397
Quantity of gas distributed	million m^3	4,852	4,865
Length of gas pipelines	km	28,190	28,137
Length of gas pipelines laid	km	250	210
Medium-voltage failures resulting in disruption	number	433	390
Personnel			
Employees at year-end	number	4,470	4,488
FTEs at year-end	number	4,339	4,365
Absence through sickness	%	5.0	5.2
Male employees	%	83	83
Female employees	%	17	17
Safety			
Lost Time Injury Rate (LTIR)	ratio	3.00	4.88
Recordable Incident Frequency (RIF)	ratio	1.00	1.29
Outages and interruptions in electricity supply			
Average duration of interruption MS/LS (CAIDI)	minutes	76	88
Interruption frequency MS/LS (SAIFI)	number	0.223	0.188
Annual average downtime MS/LS (SAIDI)	minutes	17	16
Annual average downtime HS/MS/LS (SAIDI)	minutes	18.3	16.6
Outages and interruptions in gas supply			
Average duration of interruption (CAIDI)	minutes	122	78
Interruption frequency (SAIFI)	number	0.0094	0.0086
Annual average downtime (SAIDI)	seconds	69	40

* The comparative figures have been restated. See note 3 to the consolidated financial statements on the adjustment as a result of differences between the finalised and the provisional accounting for the acquisition of DNWG.

** 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.

The world of entrepreneur Danier van der Spek

Heat, electricity and sustainability are of strategic importance to Ichtus Flowers, grower and supplier of the cut Phalaenopsis. This butterfly orchid has propelled Ichtus Flowers, based in Waddinxveen, to be a market leader within this sector.

Orchid grower aims to become self-sufficient

Energy as a major cost item

'Heating, lighting and cooling the greenhouses is a vital part of our growing process,' says Danier van der Spek, one of the two business owners. As energy is a major cost item, energy management is essential.

Danier is responsible for purchasing energy. 'Based on the philosophy of our business, we devote care not only to our Phalaenopsis but also to the way in which we grow the flowers. When we engage in business and production, we do so in a responsible and conscientious manner. To this end, we critically review our production process and actively seek methods as well as processes to improve the sustainability of our cultivation. That fact is certainly true for our energy consumption.'

Both heat and electricity required

The right temperature is hugely important for growing Phalaenopsis, which is originally a tropical flower. Danier van der Spek: 'Our greenhouse surface area of 44,000 m^2 need quite a lot of energy to achieve growth. For this reason, we use combined heat and power systems for heating our greenhouses. This special, fuel-efficient technology is ideal for large buildings which require both heat and electricity. We use the heat that is released to heat our greenhouses and produce electricity for our own use. From March to October, we also supply to the general electricity grid. We buy green electricity in case of any electricity shortage.'

Self-sufficient and energy-neutral

Ichtus wants to be as self-sufficient as possible with regard to its energy requirements and to operate as efficiently as possible. With a view to the energy transition, the business is looking at a heat 'roundabout' or other options such as biomass power plants, together with the heat cooperative Zuidplaspolder. 'We are considering all options in order to treat energy as responsibly as possible, with a view to a sustainable future. Ultimately, we aim to be energy-neutral. We have yet to decide which route exactly we will choose. Stedin can aid us in this choice, however', a determined Danier says in closing.

Stedin Group's Strategy

The energy infrastructure will be transformed significantly in the years ahead. In the Netherlands, we are committed to turning the transition to a new world with sustainable energy sources into a reality, and have geared our strategy accordingly. We are therefore investing substantially in readying our gas and electricity grids for this.

Mission, vision and strategy

Our mission: *Working together to create an environment filled with new energy.* To ensure that future generations also have access to sufficient energy, we are switching to clean energy from renewable sources. We believe that the energy transition will be made possible by a focus on core tasks for (future) grid management that delivers an excellent service for our customers. We have identified three strategic priorities: improved grid management, facilitating the energy transition and sustainable business operations.

Strategic challenges

The energy and heat transition entails an increase in work for gas and electricity fitters and growing complexity in the coordination with stakeholders. Due to the energy transition and economic growth, we are receiving more requests for construction and expansion of grids and maintenance of existing grids than had been anticipated. As a result, there is a greater need for fitters, site managers, engineers and project leaders. At the same time, fewer and fewer people with technical training are entering the labour market and many technical staff at Stedin are nearing their retirement.

‘We can work faster and more efficiently by organising our services more intelligently.’

We receive a great deal of appreciation for the work we do and for the high reliability of our grids. But we also have our critics. We remain in contact with our customers and stakeholders to look at the areas where improvements need to be made. One example is the time it takes to connect new customers to our grids. Communication regarding schedules or changes concerning connections is another area requiring improvement. For more information about the improvements we have carried out, see the section on Results.

Heat grids

Heat grids are part of the solution for achieving the climate goals. In the built environment in particular, we see heat grids as an opportunity that needs to utilised. Potentially, heat can provide a significant contribution to the transition for many homes. In the service area of Stedin Group, heat grids near Rotterdam, The Hague, Utrecht and Goes play an important part in further sustainability increases, but heat grids are also arising in other places. Stedin Group therefore considers it important to examine its potential role with regard to heat. In the long term, an affordable and reliable heat system can best be realised if the heat infrastructure passes into public hands. We would be pleased to take on that role and become the grid operator for electricity, gas and heat.

Sufficient financial resources

The energy transition must remain affordable. This starts with financially robust and sustainable business operations, which ensure that we have the required financial strength. We need to operate more efficiently and with greater focus if we are to retain our financial health and our ability to fund the investments required by the energy transition. That transition leads to new (financial and other) risks for the grid operator (See Strategic risks and opportunities of the energy transition).

Situations in which the infrastructure is used less optimally than anticipated will become more frequent. The accelerated decommissioning of our gas grid provides an illustrative example of this. Society expects the available infrastructure to anticipate developments in supply and demand that are not yet certain at the time when the investment is made. In addition, both wind farms and solar farms have useful lives that are shorter than those of the infrastructure required to be constructed for them. We are seeing that the present regulatory model does not stimulate pro-active investing and insufficiently takes these new risks into account. In conjunction with the government, we must develop a model that provides the grid operators with sufficient financial resources to make the necessary investments while at the same time ensuring that the energy transition remains affordable.

Culture values and customer values

Our culture and customer values contribute to achieving our mission: *Working together to create an environment filled with new energy. Inspired, committed* and *future-oriented* means that employees take responsibility for their own performance and development. In customer contacts, we are *clear* and *nearby* and *always deliver* on our promises.

Developments within society and the energy market

Various developments have an effect on Stedin Group. In this report, we describe the principal influences and trends that play a part in our strategic choices and business operations.

Climate Agreement

Stedin Group plays a significant part in the transition to an economy that is based on renewable sources of energy. Around a hundred organisations worked on a Dutch Climate Agreement in 2018 to accelerate that transition. Stedin Group took part in the climate tables for this, both in its own name with regard to industry in Rotterdam and on behalf of the other grid operators in the talks about electricity, the built environment and mobility. The Climate Agreement will be finalised and signed, and its implementation will start, in 2019. Thus far, analyses show that the measures in the Climate Agreement will increase our challenges and underline our strategic choices. Stedin Group sees the Climate Agreement as an opportunity to accelerate the changes that are necessary for a sustainable future.

Gas connection no longer obligatory

In anticipation of the Climate Agreement, the Dutch government took a significant step in 2018 towards improving the sustainability of the built environment. The obligation to connect new-build areas to natural gas was abolished on 1 July 2018. Stedin Group was one of the drivers of this decision, which was made to avoid the high cost to society of the removal of gas grids in the future. More information on this is provided in Future-proof grids.

Trends

The share of energy generated using renewable sources is continually growing in the Netherlands. In addition to being more sustainable, these new sources of energy are increasingly available at a non-central level.

> ‘This means that large power generation facilities are making way for a substantial number of smaller facilities in many different locations.’

Society is also digitalising rapidly, as part of which more and more data are becoming available. This offers opportunities: with the aid of big data, we can better predict and match electricity supply and demand. As a result, the grids will be used with maximum efficiency.

Solar panels, wind turbines and improved sustainability of housing and transport have a direct impact on citizens in their local community. With a view to creating support, it is essential for customers to be involved in implementing the changing energy system. This is also reflected in the number of energy collectives that have been launched. New technology is making it increasingly easy for citizens to take part and play a role in the energy system, for instance through the option of trading their electricity themselves.

The Climate Agreement

Through the Climate Agreement, the Netherlands is contributing to the international goal of limiting global warming to 2 degrees and aiming for no more than 1.5 degrees. For the Netherlands, the 2-degrees goal means that emissions of greenhouse gases, such as CO_2, must have been reduced by at least 49% by 2030 compared to 1990. That requires a fundamental reconsideration of how we work, live and move from one place to another.

Working together to create an environment filled with new energy

More than 2.2 million customers rely on us. Day and night. Because energy is indispensable in the world in which we live. The energy transition will require major adjustments to the energy grid, or rather our energy system. New technologies can help, as can good collaboration between all the people and organisations involved in our energy supply. If we really roll up our sleeves together with a lot of energy, we will succeed. The availability of energy in our environment will then be just as much a matter of course in future as it is today.

Challenges for Stedin Group

- The energy transition is going to present Stedin Group with an increase in our workload.
- We face significant challenges to improve the quality of our services.
- In addition, we have to contend with ageing and with increasing scarcity in the labour market, especially for technical staff.
- We need to operating more efficiently if we are to retain our financial health and our ability to fund the investments required by the energy transition in the long term.

Required focus and making choices

The challenges call for focus. That focus also enables us to be an independent partner in dialogue. To this end, we make choices. In weighing up whether activities are suited to us, we ask ourselves the following questions:

- Is the activity part of our statutory duties?
- Does the activity help to increase the quality of grid management and to reduce its costs? And does that contribution outweigh the extent to which the market is disrupted?
- Is there a gap in the market, while the activity is important for the energy transition and we are uniquely positioned for this activity?

Our three strategic priorities

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

- Reliable grids
- Affordable and efficient services
- High-quality products and services

We intend to facilitate the energy transition through innovation and by collaborating closely with partners.

- Future-proof grids
- Making grid information available
- Accelerating through cooperation

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

- Safe working conditions
- Professionally competent employees now and in the future
- Positive environmental impact (One Planet)
- Financial health

‘The availability of energy in our environment will then be just as much a matter of course in future as it is today.’

Strategic risks and opportunities of the energy transition

We are aware of the risks and opportunities in energy supply, both in the short and the long term. We must control and capitalise on those risks to deliver the energy transition for our environment in a responsible manner.

The risks and opportunities were an integral part of the annual planning cycle in 2018. This approach helps Stedin Group to purposefully deal with uncertainties in attaining its objectives.

Significant risks and opportunities connected with Stedin Group's strategy are included in the Risk management section on page 77, which discusses risk governance, the process and the developments in the field of integral risk management.

Connection of risks and opportunities to strategic priorities and material topics

Risk	Category	Material topics	Strategic priorities: Improved grid management	Strategic priorities: Facilitating the energy transition	Strategic priorities: Sustainable business operations	Change from 2017
Cyberattack	Operational	Data security, privacy and cybersecurity – Supply security – Reputation	•		•	=
Unavailability of enough employees with the required technical competencies	Operational	Sufficient technical/IT staff – Training and development		•	•	=
IT landscape insufficiently prepared for the future	Strategic	Smart grids, data technology and innovation		•	•	=
Agility of the organisation	Strategic	Organisation's capacity for change – Reputation	•	•	•	↓
Compromising information and information systems	Operational	Data security, privacy and cybersecurity – Reputation	•		•	+
Uncertainties due to changes in legislation and regulation	Compliance	Stakeholder dialogue and environment:	•			=
Uncertainties of long-term financial funding	Financial	Economic, financial performance – Investments in infrastructure, reliability of energy supply, availability of grid		•	•	↑
Impact of accidents	Safety	Safety at work and in the environment – Reputation			•	↓
Excessive own environmental impact	Strategic	Contributing to the energy transition – Improving sustainability of purchasing activities			•	↑
Loss of communication network	Operational	Contributing to the energy transition – Reputation		•	•	+
Opportunity						
Product and service development for the energy transition		Contributing to the energy transition – Heat transition – Customer satisfaction	•	•		=
Strategic supplier relationships		Stakeholder dialogue and environment – Improving sustainability of purchasing activities		•		=
Disruptive technologies		Smart grids, data technology and innovation – Reliability of energy supply, availability of grid		•		=
Partnerships and collaborations		Stakeholder dialogue and environment – Reputation		•		=
Provide stakeholders and customers with more self-services		Stakeholder dialogue and environment – Reputation	•	•		↑
Development of the potential of employees		Organisation's capacity for change – Training and development			•	=
Building a future-proof IT landscape		Smart grids, data technology and innovation – Data security, privacy and cybersecurity	•	•		=

↑ Increased compared to 2017 ↓ Decreased compared to 2017 = Equal to 2017 + New in 2018

Stakeholders and materiality

In 2018, we recalibrated our materiality assessment of 2017. This produced the following list of material topics, which are directly related to our strategy, our control framework and our risk management.

Our stakeholders have stated how important each topic is to them, which is reflected the materiality matrix in this section. Each of these topics is discussed in this annual report. Next, the connectivity table shows the correlation between these 16 material topics, our strategy, the risks and opportunities and our targets and KPIs.

We used the following steps to arrive at the material topics for 2018:

Step 1: Determining a 'longlist' of relevant material topics on the basis of the materiality analysis for 2017, our strategy, the business plans and KPIs, desk research, media analysis, the applicable laws and regulations, the strategic risks and opportunities and the results of customer surveys .

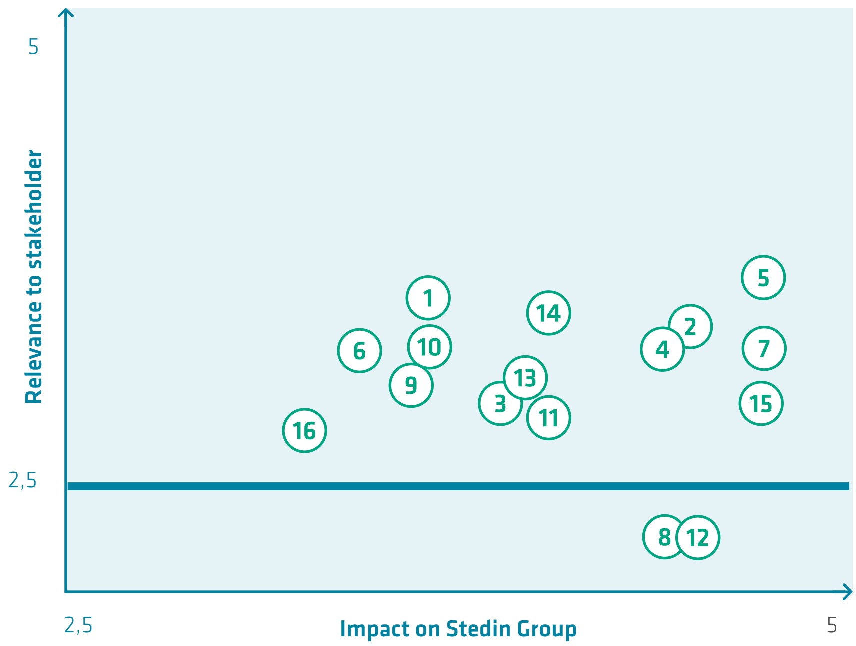
Step 2: Prioritisation by the Board of Management and the management team based on sixteen topics that are of great importance for our strategy. We discuss each of these material topics in this annual report; they are linked to our risks and opportunities (see Risk management).

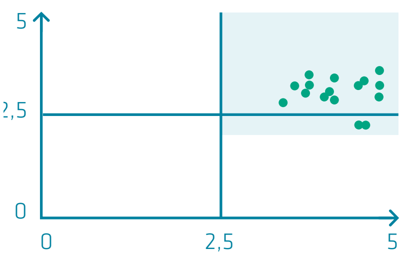
Step 3: The impact of these material topics on stakeholders was determined by means of twelve interviews with the works council, shareholders, customers, partners, TenneT, a water company, a contractor, an energy collective and an NGO. This ranking was also done by nine employees who are in close contact with these stakeholders.

The topics 'Public task/Compliance with (changing) laws and regulations' and 'Risk management' were featured in our materiality matrix in 2017. Although both were ranked lower in the list of the material topics than those currently shown, our focus on them remains undiminished.

Materiality matrix

1. Economic, financial performance
2. Investing in infrastructure
3. Organisation's capacity for change
4. Smart grids, data technology and innovation
5. Reliability of energy supply, availability of grid
6. Heat transition (discontinue use of Groningen natural gas)
7. Supply security
8. Data security, privacy and cybersecurity
9. Customer satisfaction
10. Stakeholder dialogue and environment
11. Stedin Group's reputation
12. Sufficient technical staff, IT staff, ...
13. Training and development
14. Safety at work and in the environment
15. Contributing to the energy transition
16. Improving sustainability of purchasing activities





Connectivity, KPIs and targets

This section focuses on the connections between our strategy, the 16 numbered material topics, risks and opportunities and KPIs and targets. We apply six categories for that purpose.

Financial, economic ① ② ③

Material topic
① Economic, financial performance

Strategic priority
Improved grid management; Facilitating the energy transition

Why is this topic relevant?
Stedin Group has a public task. We treat our social capital prudently and intelligently. A financially healthy Stedin Group has the necessary strength to facilitate the energy transition.

Connection to risks (R) and opportunities (O)
R: Uncertainties of long-term financial funding

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
FFO/ Net debt position	> 12%	12.3%	> 12%	Results: - Financial results Governance: - Risk management Financial statements
Solvency	30%	43.3%	40%	
Efficiency / saving	€ 36 million	€ 40 million	Part of 5-year efficiency programme[1]	

Material topic
② Investments in infrastructure

Strategic priority
Improved grid management; Facilitating the energy transition

Why is this topic relevant?
In our view, it is important that the energy transition is achieved at the lowest public cost. We measure the investments in our networks against the objective of ensuring that the Netherlands is climate-neutral by 2050.

Connection to risks (R) and opportunities (O)
R: Uncertainties of long-term financial funding

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Completion rate of smart meter installations	≥ 80% of offers	80.6% of offers	≥ 80% of offers[2]	Stedin Group's Strategy Results: - Improved grid management - Facilitating the energy transition Governance: - Risk management
Number of smart meter offers	368,400	377,906	369,400	
Investments in future-proof energy infrastructure	€ 560 million	€ 602 million	€ 650 million	

Material topic
③ Organisation's capacity for change*

Strategic priority
Improved grid management

Why is this topic relevant?
The environment in which we operate calls for flexibility, agile organisation and continual development of our talent and professional expertise. This calls for leadership.

Connection to risks (R) and opportunities (O)
R: Agility of the organisation
O: Development of the potential of employees

KPI	Target for 2018	Implementation in 2018	Target 2019	Where can you read more about this topic?
Leadership programme	All 150 managers start programme	Achieved	Complete and continue development of leadership programme	Results: - Professionally competent employees

Improved grid management | Facilitating the energy transition | Sustainable business operations | * Added as material topic

Infrastructure ④ ⑤ ⑥

Material topic	Why is this topic relevant?
④ Smart grids, data technology and innovation **Strategic priority**	We require smart grids and we deploy data technology in order to balance energy supply as well as demand both now and in the future. By means of innovations, we contribute to facilitating the energy transition. **Connection to risks (R) and opportunities (O)** R: IT landscape insufficiently prepared for the future O: Disruptive technologies, Building a future-proof IT landscape

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Availability of smart meter data	98%	94%	97%	Results: - Facilitating the energy transition

Material topic	Why is this topic relevant?
⑤ Reliability of energy supply, availability of grid* **Strategic priority**	Stedin Group is responsible for the safe, reliable and affordable energy supply to its 2.2 million customers. **Connection to risks (R) and opportunities (O)** R: Uncertainties of long-term financial funding O: Disruptive technologies

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Average duration of interruption low-voltage/medium-voltage (SAIDI) in minutes	≤ 17	17.01	≤ 17	Results: - Improved grid management Governance: - Risk management

Material topic	Why is this topic relevant?
⑥ Heat transition (discontinue use of Groningen natural gas)* **Strategic priority**	The heat transition in the built environment as well as the necessary storage and energy infrastructure entail an increase in work and a greater complexity in coordination as well as consultation with stakeholders, including municipalities. **Connection to risks (R) and opportunities (O)** O: Product and service development for the energy transition

KPI	Target for 2018	Implementation in 2018	Target for2019	Where can you read more about this topic?
The financial implications of the future energy system in districts and housing association properties have been quantified for the investment portfolio			50	Stedin Group's Strategy Results: - Facilitating the energy transition Governance: - Risk management
% of new-build projects requested are natural gas-free – in collabora-tion with stakeholders	50%	56%	80%	

[1] Stedin Group is faced with the challenge of continuing to provide affordable and efficient services as well as maintaining its financial health. Stedin Group started a 5-year efficiency programme in 2018, setting year-on-year efficiency targets until the end of 2022. In addition, we defined savings from synergies between Stedin and DNWG for the coming years, and achieved the first results in 2018 (see previous page).

[2] We report on the number of offers and the completion rate of smart meters in the usual way in the sector (see previous page).

Customers and service provision ⑦ ⑧ ⑨

Material topic	Why is this topic relevant?
⑦ Security of supply **Strategic priority**	We aim to improve supply security by taking initiatives aimed at reducing downtime and at preventing interruptions. **Connection to risks (R) and opportunities (O)** R: Cyberattack

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Average duration of interruption low-voltage/medium-voltage (SAIDI) in minutes	≤ 17	17.01	≤ 17	Results: - Improved grid management Governance: - Risk management

Material topic	Why is this topic relevant?
⑧ Data security, privacy and cybersecurity* **Strategic priority**	Security is essential for the continuity of our activities. We are working on integral security that connects the related areas of expertise. We are working on the continuity of energy supply in an efficient manner. **Connection to risks (R) and opportunities (O)** R: Cyberattack, Compromising information and information systems O: Building a future-proof IT landscape

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Number of data breaches		91 reports: 61 followed by measures, 1 reported to Dutch Data Protection Authority		Results: - Safety and security Governance: - Integrity - Risk management

Material topic	Why is this topic relevant?
⑨ Customer satisfaction **Strategic priority**	As we want to be a reliable partner for customers in the energy transition, the quality of our service provision and the resulting satisfaction of our customers are important. **Connection to risks (R) and opportunities (O)** O: Product and service development for the energy transition

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Satisfied customers (Stedin) - higher than 8 - lower than 5	 67% 12%	 69% 13%	 69% 10%	Results: - Improved grid management
Satisfied customers (DNWG)	> 7.2	7.8	7.5	
Completion time for connections within 18 weeks or on date preferred by customer	≥ 55%	58%	≥ 85%	

Improved grid management   Facilitating the energy transition   Sustainable business operations

* Added as material topic

Social, relational ⑩ ⑪

Material topic	Why is this topic relevant?
⑩ Stakeholder dialogue and environment* **Strategic priority**	As an organisation with a public role, Stedin Group is firmly rooted in society. Dialogue with our stakeholders is essential to achieving sound coordination on our mutual interests. **Connection to risks (R) and opportunities (O)** R: Uncertainties due to changes in legislation and regulation O: Strategic supplier relationships, Partnerships and alliances

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
% of new-build projects requested are natural gas-free – in collaboration with stakeholders	50%	56%	80%	Results: - Facilitating the energy transition Strategy: - Stakeholders and materiality
Materiality analysis	Determine in conjunction with stakeholders	Achieved	Material topics are discussed annually with stakeholders	

Material topic	Why is this topic relevant?
⑪ Reputation of Stedin Group* **Strategic priority**	Stedin Group is becoming increasingly visible. Because we are an important link in the energy transition as grid manager, an increasing number of organisations such as energy collectives, administrators and citizens are forming an opinion about our role as well as our services. Our role is changing from that of a utility company which is invisible and taken for granted to that of a vital link as well as a partner in the lives of people and the operations of organisations. As a result, Stedin Group's reputation is critically important. **Connection to risks (R) and opportunities (O)** R: Cyberattack, Agility of the organisation, Compromising information and information systems, Impact of incidents, Loss of communication network O: Partnerships and alliances, Provide stakeholders and customers with more self-services.

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Weighted average for Stedin's reputation: - consumers - business		Scale of 1 to 5 3.27 3.45	Scale of 1 to 5[3] 3.30 3.48	Governance: - Risk management

3 We will formulate a KPI for the reputation of Stedin Group for 2019. Reputation management is becoming increasingly important for our organisation and requires greater attention. As our reputation is formed by all experiences of customers and stakeholders with Stedin Group, we will set up comprehensive reputation management in 2019.

Employees and intellectual capital ⑫ ⑬ ⑭

Material topic	Why is this topic relevant?
⑫ Sufficient technical staff, IT staff* **Strategic priority**	Increasing scarcity in the labour market and ageing within Stedin Group make it necessary to train existing or new staff ourselves in order to absorb the outflow. We invest in strategic personnel planning, have an in-house training facility and seek staff in unconventional places. **Connection to risks (R) and opportunities (O)** R: Unavailability of enough people with the required technical competencies

Material topic	Why is this topic relevant?
⑬ Training and development **Strategic priority**	The changes in the energy landscape are far-reaching and proceed rapidly. As a result, it is important that we continue to learn and develop, in order to ensure that our employees are and remain professionally competent or continue to develop, so they can contribute to achieving our mission. We promote a culture in which learning can take place continually and at any time. **Connection to risks (R) and opportunities (O)** R: Unavailability of enough people with the required technical competencies O: Development of the potential of employees

KPI	Target for 2018	Implementation in 2018	Target for 2019	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 7.5 Committed 7.8 Training programme intake 10 residence permit holders 106 work placements	Inspired 7.5 Committed 7.7 Training programme intake 10 residence permit holders > 1% of workforce	Results: - Professionally competent employees - One Planet Thinking Governance: - Risk management

Material topic	Why is this topic relevant?
⑭ Safety at work and in the environment **Strategic priority**	Working on the energy infrastructure involves numerous risks, which is why safety remains a priority, and why Stedin Group invests in knowledge, professional competence, safety measures and a good safety culture. This way, we ensure the safety of our customers, employees, contractors and external staff. **Connection to risks (R) and opportunities (O)** R: Impact of accidents

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Lost Time Injury Rate (LTIR)	≤ 1.90	3.00	≤ 1.95	Results: - Safety and security Governance: - Risk management
Recordable Incident Frequency (RIF)	≤ 0.90	1.00	≤ 0.90	

Improved grid management Facilitating the energy transition Sustainable business operations

* Added as material topic

Climate, nature and environment ⑮ ⑯

Material topic	**Why is this topic relevant?**
⑮ Contributing to the energy transition **Strategic priority**	We facilitate the energy transition through innovation and by cooperating with partners. We also ensure that our grids are and continue to be suitable for transmitting energy during the energy transition. We assist stakeholders by providing information about the grid. We also support energy collectives in the sustainable generation of energy. **Connection to risks (R) and opportunities (O)** R: Excessive (own) environmental impact, Loss of communication network O: Product and service development for the energy transition, Provide stakeholders and customers with more self-services

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Completion rate of smart meter installations	80% of offers	80.6% of offers	≥ 80% of offers[2]	Results: - Improved grid management - Facilitating the energy transition - One Planet Thinking Governance: - Risk management
CO_2 emissions in internal business operations (accommodation, mobility, business travel for which expenses are claimed, commuting traffic)	-14%	-2%	-9%	
Compensation of electricity network losses	100%	100%	100%	

Material topic	**Why is this topic relevant?**
⑯ Improving sustainability of purchasing activities* **Strategic priority**	Stedin Group wants to improve the sustainability of its supply chain as much as possible. To this end, we are in continuous dialogue with our suppliers on topics such as child labour, human rights, corruption, use of sustainable materials, origin of raw materials, circularity and the greening of grid losses; this enables us to develop sustainable and socially responsible products and services. **Connection to risks (R) and opportunities (O)** R: Excessive own environmental impact O: Strategic supplier relationships

KPI	Target for 2018	Implementation in 2018	Target for 2019	Where can you read more about this topic?
Circular purchasing: - Raw materials passport available for tendering process for primary assets	Develop KPI for Circular purchasing	Achieved	100%	Results: - One Planet Thinking Governance: - Integrity
- Purchasing volume of primary assets transparent via raw materials passport			> 18%	

[2] We report on the number of offers and the completion rate of smart meters in the usual way in the sector.

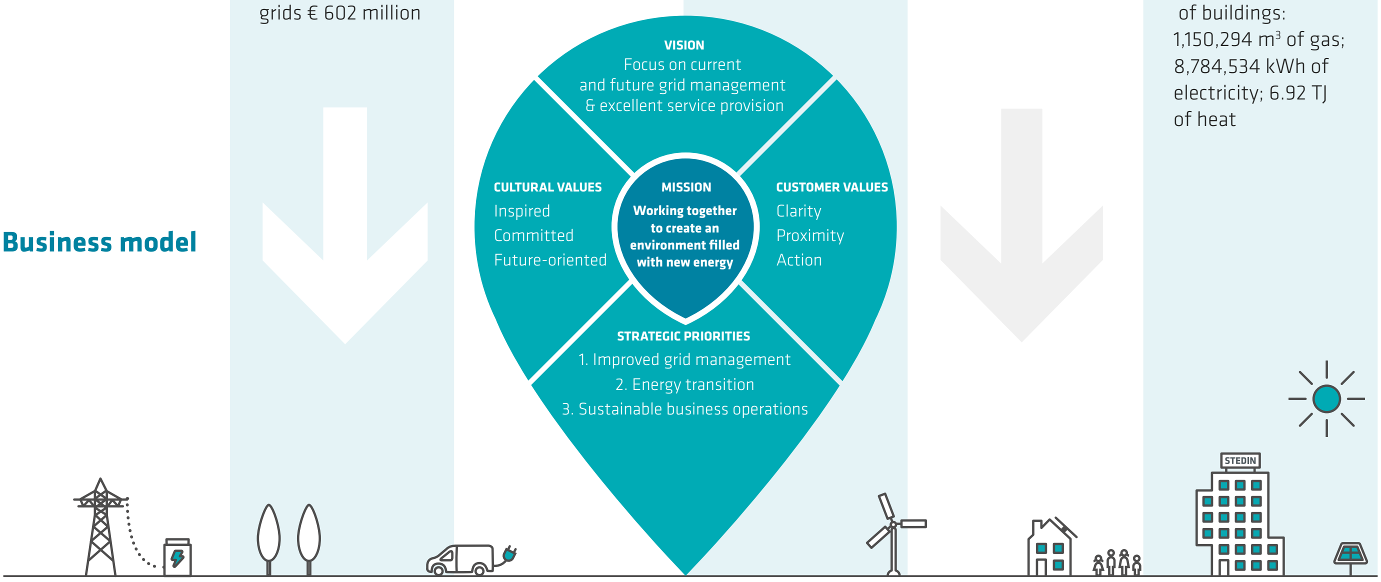
Value creation model

We have developed a value creation model to ensure that the social value Stedin Group creates and the input required to create it are visible and transparent for us and for our stakeholders.

Input

Financial, economic	Infrastructure	Customers and service provision	Social, relational	Employees and intellectual capital	Climate, nature and environment
• Net book value of grids € 6,349 million • Group equity € 2,699 million • Interest-bearing debt € 3,044 million • Regulated tasks • Financial policy	• 55,604 km of electricity cables • 28,190 km of gas mains • 4,400,636 connections • 38,143 stations • Investments in the grids € 602 million	• Shareholders (53 municipalities) • Customers (2.2 million) • Contractors and suppliers • Partners • Local authorities	• Talks with stake-holders about materiality • 7 environmental managers and 3 area directors	• 4,470 employees • Specific knowledge and expertise • Training and education	• Paris Climate Agreement • Purchasing of materials • 3,958,176 litres of fuel consumption by vehicle fleet • Energy consumption of buildings: 1,150,294 m^3 of gas; 8,784,534 kWh of electricity; 6.92 TJ of heat

Business model



Output

Financial, economic	Infrastructure	Customers and service provision	Social, relational	Employees and intellectual capital	Climate, nature and environment
• Net profit € 118 million • Operating profit € 212 million	• 377,906 smart meters offered • Quantity of electricity transmitted 21,330 GWh and gas 4,852 million m^3	• Customer satisfaction • Payments to suppliers • Data available	• Externally reviewed materiality assessment • 23 Green Deals • Involved in 9 Regional Energy Strategies	• Salary payment • 5.0% absence through illness • Gender ratio male 83%/female 17% • 19 FTE employees under the Participation Act	• 329 Ktonnes of CO_2 emissions (scope 1, 2 and 3) • Recycling of materials • Making the built environment more sustainable • Making industry more sustainable

Impact

Financial, economic	Infrastructure	Customers and service provision	Social, relational	Employees and intellectual capital	Climate, nature and environment
• Dividend distribution in 2018 € 28 million • Net financial expenses € 72 million • Tax on profits € 22 million • Solvency 43.3%	• 80.6% smart meters installed • Average downtime 17.01 minutes for electricity and 69 seconds for gas • Supply reliability of 99.996% • Sustainable, safe networks	• Collaborative ventures with partners • Memberships • Green Deals	• Implementation of stakeholder value • Good and attractive employer and crucial partner in discussion on energy transition	• Employment • Income tax deducted at source • Employment practices • Our contribution towards an inclusive society	• 100% compensation of CO_2 footprint electricity grid losses by GVOs results in approximately 500 Ktonnes of CO_2 compensation

Sustainable Development Goals

Stedin Group contributes to attaining several of the Sustainable Development Goals (SDGs) defined by the United Nations in order to end poverty, inequality and climate change by 2030. Below we describe how we work to achieve goals 7, 9, 11, 12 and 13; these are the goals on which we have an impact.

SDC	Description	Application to Stedin	Link in annual report
7 AFFORDABLE AND CLEAN ENERGY	Energy is essential for almost all major challenges and opportunities in today's world.	Via our grids, we provide our customers with the energy they need to live, work and do business. Jointly with our stakeholders we work on innovations that are necessary for a future-proof grid, ensuring that it remains affordable and reliable.	Future-proof grids One Planet Thinking
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Investments in infrastructure are crucial to make sustainable development possible.	Stedin Group fulfils a facilitating role for the sustainable development of the industrial cluster in the Port of Rotterdam, for instance, and has developed a vision for a future electrical infrastructure in conjunction with the stakeholders.	Future-proof grids Making industry more sustainable Improved grid management
11 SUSTAINABLE CITIES AND COMMUNITIES	The cities and communities of the future must offer opportunities to everyone through innovation and progress, including access to basic facilities such as energy.	Stedin Group helps ensure pleasant and sustainable urban environments by building and maintaining networks. Stedin Group is committed to the goals in the Climate Agreement and works towards them with its stakeholders.	Future-proof grids Making the built environment more sustainable One Planet Thinking
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Sustainable consumption and production means promoting efforts to save raw materials and energy, and supporting sustainable infrastructure, appropriate working conditions and a higher quality of life for everyone.	Stedin Group devises and implements solutions to reduce its own energy consumption and to improve the sustainability of its grid. These include intelligently balancing supply and demand and combating wastage.	One Planet Thinking Professionally competent employees now and in the future Inclusive society
13 CLIMATE ACTION	Climate change impacts all countries on all continents. It disrupts national economies and endangers lives. Without intervention, the temperature on earth is likely to rise by more than three degrees this century.	Stedin Group conforms to the international climate goal of limiting the average temperature increase on the planet to two degrees. We want to keep the impact of our activities within these limits. Through sustainable innovations, Stedin Group contributes to technologies and systems that combat climate change.	One Planet Thinking Future-proof grids

The world of the energy collective Buurtstroom

‘Unfortunately, our houses are not all that suited to solar panels. As a result, investment is not cost-effective for us. However, what could be better than to install solar panels on the large, flat roof of primary school De Wissel in our district?’

Sustainability goes hand in hand with connection across the district

'By installing solar panels on the large, flat roof of primary school De Wissel, we can generate solar power across the road from our house', says Marlies Willemen, who initiated the project 'District electricity from De Wissel' in Utrecht together with a neighbour.

Learning experience for children

Marlies believes that we need to make better use of our roofs for solar power. 'Wind turbines cannot be used everywhere or be easily integrated in the landscape without becoming an eyesore. Surely, we do not want to fill up all of our precious land in the Netherlands with solar farms either', she opines. In fact, generating sustainable energy on the roof of a primary school also has several important added benefits: 'It is passed on to children as a learning experience and it connects the district through greater cohesion, as we work jointly towards a shared goal.'

Tax credits for district residents

De Wissel's roof is large and strong enough for at least 150 solar panels. In other words, it is a viable business case, which also returns the energy generated to Stedin's network. Residents of the Noordoost, Binnenstad and Oost districts can invest in the panels. Such investment does not just feel like doing the right thing, it is also financially advantageous for district residents, as they benefit from the electricity generated via a tax credit on their energy bill: the Reduced Rate Scheme (Regeling Verlaagd Tarief). Marlies Willemen: 'This way, you can invest in solar power and sustainability, even if your own roof is not suitable.'

Five projects successfully completed

Buurtstroom is a cooperative that has acquired extensive experience with district solar power projects. Five projects have already been successfully completed 'They include the nearby districts Griftkwartier 1 and 2, for instance. More than a thousand solar panels have already been invested in on this basis in Utrecht. A start was made in February 2019 on seeking investors for Buurtstroom De Wissel. We expect that 30 district residents will take part, with five solar panels each on average. It feels good to invest in this project together. Of course, we will organise a party when the panels have been installed. We expect this event will take place before the summer of 2019', Marlies says enthusiastically.

Results

Nobody can do without energy. That is why we are working on a sustainable energy system that is reliable today and will remain so in the future. The results we have achieved are described in this section. We link these results to our three strategic priorities: improving grid management, facilitating the energy transition and sustainable business operations.

1. Improved grid management

We want to perform better by increasing the reliability of our grids, improving our service provision and enhancing the quality of our products and services.

Reliability of our grids

Average downtime for electricity and gas in 2018

It is essential that our grids are reliable. On average, customers were not supplied with electricity for 17.01 minutes in 2018 - a slight deterioration compared with 2017, when downtime averaged 16.44 minutes. The 2018 figure equates to a supply reliability of 99.996%. The average downtime for gas was 69 seconds in 2018, compared with 40 seconds in 2017.

Many failures are due to our cables and pipelines being hit during excavation activities. In the past few years, we have worked to prevent damage during excavation activities and this is producing results. The number of incidents with a major impact is falling. However, we saw an increased incidence of excavation damage in the low-voltage grid, which slightly pushed up our downtime.

Maintenance

Each year, we carry out an extensive maintenance programme in our electricity and gas grids in order to guarantee supply security.

> 'There was a shift in 2018 from time-based maintenance to more risk-based maintenance.'

Time-based maintenance means, for instance, that we perform periodic maintenance on a medium-voltage station (for example, every five years). In a risk-based maintenance programme, we consider the condition of the medium-voltage station and carry out maintenance on that basis.

Process improvement with contractors

We concluded master agreements with our principal contractors three years ago. At the end of 2018, the agreements were extended by two years and we commenced preparations for process improvements. This will allow us to better match capacity supply and demand, and contractors will now perform a larger portion of the preparatory activities. We are also improving the quality of delivery, meaning that contractors can be paid sooner. Implementation commenced on 1 January 2019.

Grid solutions

Insight into our grids

We completed two major projects in 2018, which improved both insight into and control of our grids. This is necessary for failure prevention and detection, screening for maintenance and fraud detection. The Distribution Management System (DMS) helps us to monitor the status of the grid in real-time and thus increase our supply security. We have been working with a newer version of our DMS since October 2018. Since the end of 2018 we have also been working, as required by law, with the modernised Transmission Forecast. This ensures that supply and demand in our high-voltage grid are matched as closely as possible. It also provides a basis for preparing reliable forecasts in lower voltage levels as well. We have completed the Intelligent Failure Tracers programme, which allows us to establish the location of failures more accurately and our fitters to get there sooner.

Fibre-optic network STN2020

The first part of the new Stedin Telecom Network, STN2020, was taken into use in October 2018. This is Europe's first full fibre-optic network for a grid operator. It eliminates copper connections between stations and will replace the old network. It is more affordable and reliable, easier to protect against cyber attacks and capable of responding flexibly to the new requirements entailed by making the infrastructure more intelligent. In constructing STN2020, we use existing piping systems or lay our cabling simultaneously with that of other routes, for instance those of drinking water companies. This significantly reduces costs as well as inconvenience for local residents and traffic.

After two years of laying hundreds of kilometres of fibre-optic cables and testing of equipment, the data traffic between the regions of Rotterdam, The Hague, Utrecht and Dordrecht and the datacenters was transferred to the new infrastructure. In three years, the entire area served by Stedin will be connected to STN2020. Stedin manages this fibre-optic network itself.

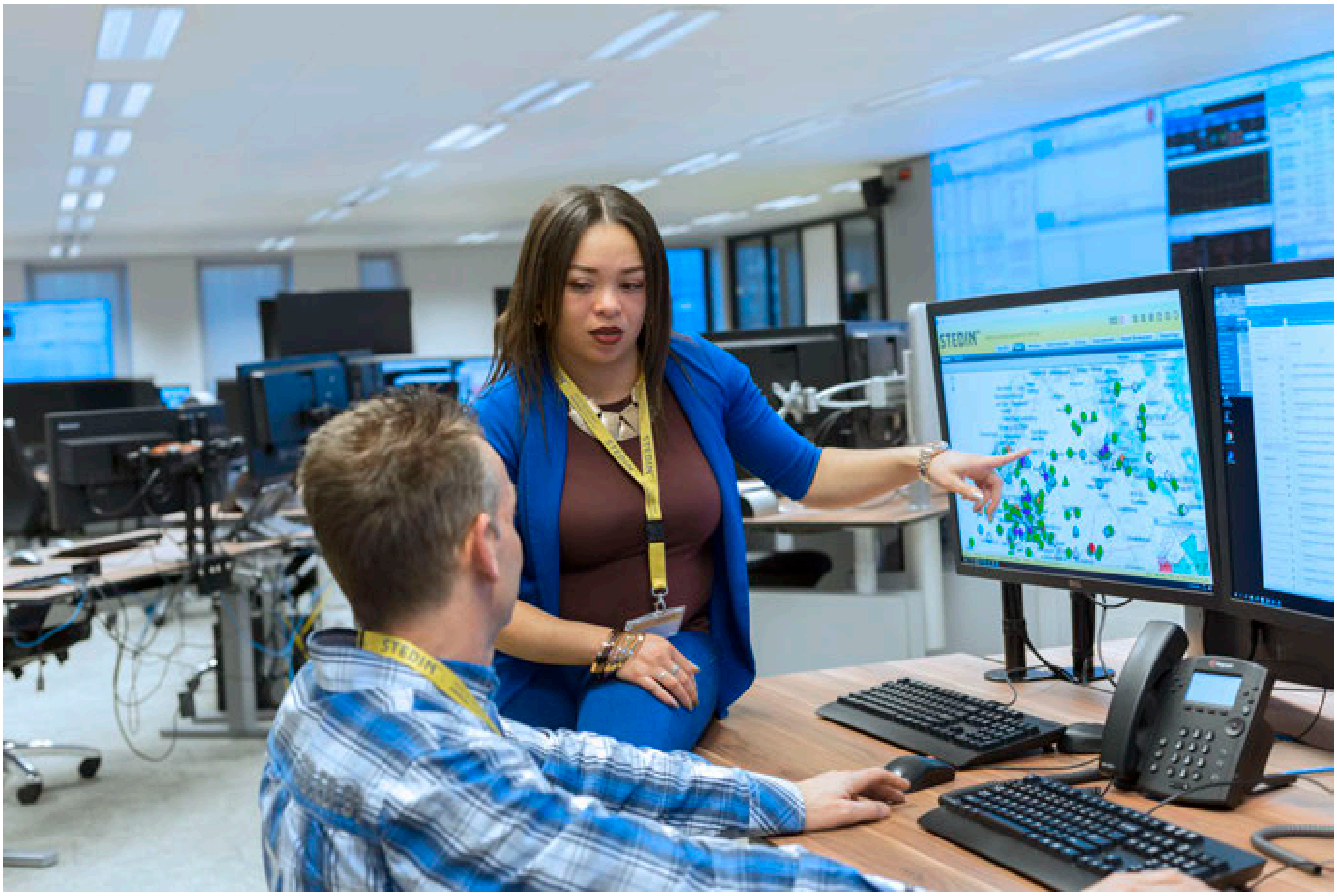
Stedin High-Voltage obtained cybersecurity certification in 2018. Accordingly, the Stedin division that carries out Station Automation and Security and implements telecom fibre-optic is cyberproof.

Grid strategy and grid control

Each day, we process data from our grids and assets. The insights provided by those data enable us to ensure effective, safe and reliable business operations as well as to plan and carry out investments, maintenance and other work.

Given the changes in the energy landscape and innovations, grid control is becoming increasingly important. Local generation and electrification are making the grid more and more complex. The need for local insight, digital controllability and data exchanges with other parties is increasing very sharply.

We are continually building our digital platform to provide services and data for better grid management and the new energy system. We continued to invest in grid control technology and the required competencies in 2018.



The Network Operations Center is Stedin's modernised control centre that monitors Stedin's service area 24/7.

Investments in our grids

Investments in our grids in 2018 were up around 17% from 2017. Economic growth drove up demand for new connections by 15%. We also saw strong growth in reconstructions that are necessary for executing large projects, e.g. for motorways such as the A13/A16 and A27/A12/A1.

We largely achieved our grid-driven targets in line with the budget. Regarding gas replacements, more than 25,000 primary gas connections and over 120 kilometres of brittle pipelines were replaced; both of these results are above target. We also largely attained our target as regards electricity replacements. This relates to replacing stations and grids and to energy transition support activities, such as increasing grid capacity and investing in intelligent grids.

These investments in grid capacity for the energy transition involve long lead times and significant amounts of money. Ideally, we would in fact want to plan ahead and invest even before there is direct demand from the market. The problem with this is that such advance investments are not directly eligible for reimbursement. We would like to see that the regulatory model does make that possible. We also advocate a regulatory system that is far more forward-looking and takes account of the substantial financing issues facing the grid operators.

Switching station Klaaswaal turned into park

A new park called the Schakeltuin was opened at the end of 2018 in Klaaswaal, a village in the municipality of Cromstrijen. The park was created at the site of Stedin's old switching station. Stedin started to construct a new 50/13 kV electricity distribution substation besides the old one at Julianalaan in Klaaswaal in 2015.

The distribution substation is essential for electricity supply in Hoeksche Waard and forms a crucial connection for the island of Goeree-Overflakkee. As large quantities of sustainable energy are generated there, it is important for the station in Klaaswaal to be completely future-proof. The new station was already taken into use in 2017. As Stedin now no longer needs all of the land, it provided part of this site on loan to the municipality to enable it to create a park at this location.

Affordable and efficient services

Customer-oriented connections

Customers usually want a new connection as soon as possible or in any case on the agreed date. We are insufficiently delivering on our customers' expectations in this respect.

> ‘We launched a series of projects in 2018 to shorten lead times for connections and we improved communication with our customers in this regard.’

This is reflected in rising customer satisfaction ratings. Satisfaction scores for 'connecting' have increased by 9% among Stedin customers: in 2017, 46% of all customers awarded a score of 8 or more, compared with 55% in 2018. This shows that we are on the right track, but also that we need to continue to raise our performance in this regard.

The Digital Public Lighting project provides a good example of customer-oriented connections. Together with our customers, contractors and employees, we examined how we could speed up the process for requesting connections for public lighting and make it more transparent. A joint portal was developed and put in place for this. The portal is practical and easy to use. The results have been so promising that we decided to deploy this approach for more products in 2019, such as for installing and moving connections.

Provision of information

We initiated a range of actions to raise customer satisfaction on the aspect ‘dissatisfied with the provision of information’. These actions included having trained employees telephone customers about the progress of their request for a connection, setting up a desk for energy collectives in particular (see box) and adapting means of communication and our web page on the basis of customer feedback. We also worked on improving the provision of information and the quality of customer data in the cooperation between grid operators and contractors. This will be implemented at every contractor in April 2019.

A time limit of 18 weeks applies to connecting a charging station for electric cars; the same period as for houses or businesses. That is too long for customers who have purchased an electric car; they want to be able to charge their vehicles immediately. Together with other grid operators, we are examining modifications that will help to speed up the process for installing a connection. ElaadNL supports the grid operators with its 'Toekomstgericht Aansluiten' (Future-oriented Connecting) programme. The time limit of eighteen weeks for connections also applies to large solar parks and wind farms. The capacity of the grid is not always suited to putting those connections in place quickly. Sometimes the grid needs to be reinforced first.
Activities for installing connections for low-use consumers on Goeree-Overflakkee have been transferred to DNWG since April 2018.

We will continue our efforts to raise customer satisfaction and shorten lead times for connections in 2019. The Digital Public Lighting project will also be continued. We are examining the possibilities for further integrating our capacity planning with contractors' construction planning for new-build projects. We are also following through on the successful pilot project in which we work from a single location with Evides and the contractor to ensure that new-build housing is connected on a timely basis. The connection and the meter are both installed in a single process.

Collectives desk

Energy collectives are drivers and sources of inspiration and information for residents in neighbourhoods where the municipality wants to start work on initiatives such as natural gas-free housing, sustainable production and sustainable mobility. Stedin Group sees this as an opportunity to give stakeholders and customers greater control. That is why we established a Collectives Desk to answer questions energy collectives may have on subsidy schemes, feed-in connections and smart meters.

In 2018, Stedin connected 23 projects of energy collectives, with feed-in connections for returning energy to the grid, compared with 15 such projects in 2017. That is a 65% increase. Enduris facilitated 17 collectives in the Province of Zeeland.

This concerns projects that were registered in 2018 with Certiq, the organisation appointed by the national government to certify energy generated from sustainable sources.

> ‘This pilot project has demonstrated that we can greatly improve customer satisfaction and promptness within a short period through intensified cooperation.’

Financially healthy

We need to operate more efficiently if we are to retain our financial health and our ability to fund the investments required by the energy transition in the long term. Thanks to the range of efficiency measures that we implemented in our business operations in 2018, costs did not increase in proportion to the higher levels of investment and activities. In addition, we identified a number of synergies and economies of scale when acquiring DNWG in 2017, which will be achieved over the course of several years. The efficiency and synergy measures, most of which are of a lasting nature, jointly produced savings of € 40 million in 2018 on the basis of comparable quantities of work.

Savings in business operations amounted to € 14 million, partly owing to more intelligent maintenance methods. There was a tighter focus on the risk profiles in maintenance and on condition-based maintenance, and we introduced a Maintenance Management System developed in-house. Business processes were optimised such that higher productivity was achieved in the maintenance teams and smart meter installation teams.

We saved € 26 million in investing activities, where we likewise optimised business processes. Within the connection chain, for instance, we started working in product groups and carried out more soil investigation activities ourselves. We also intensified cooperation with drinking water companies for laying and working on multi-utility cables and pipelines, resulting in cost savings. We introduced Systems Engineering and modular working within Station Automation. Lastly, our integral approach eliminated the need for a proposed investment in accommodation at DNWG.

High-quality products and services

Customer satisfaction

To be able to respond to customers' wishes, we need to know what they think of our services. To that end, Stedin arranges for customer satisfaction surveys to be carried out. The survey comprises five sub-surveys: the connection chain, failures and maintenance, the roll-out of the smart meter, the Customer Contact Centre and complaints management.

In 2018, all sub-surveys were converted into a method for direct feedback, which we now ask our customers to provide within one day after they are contacted. This gives employees immediate insight into how customers experience our services. We are reporting the figures earlier than in prior years, which allows us to respond more rapidly to developments.

Higher satisfaction rates

Each year, we raise the bar for customer satisfaction. We aimed for a score of 8 or better (on a scale of 1 to 10) from at least 67% of all Stedin customers. In the end, we beat our target and were rated 8 or better by 69% of our customers. The increase for the connection process is particularly significant: from 46% in 2017 to 55% in 2018.

We aim to continue this trend in 2019. Our ambition is to reduce the number of customers giving us a rating of 5 or lower to 10% (2018 13%). We will pursue this in various ways, for example by expanding the improvement initiatives already launched to shorten lead times and to provide active communication on progress.

Customer satisfaction overall

Implementation in 2017

66%

of our customers give us a score of 8 or higher and 15% a score of 5 or lower

Target for 2018

67%

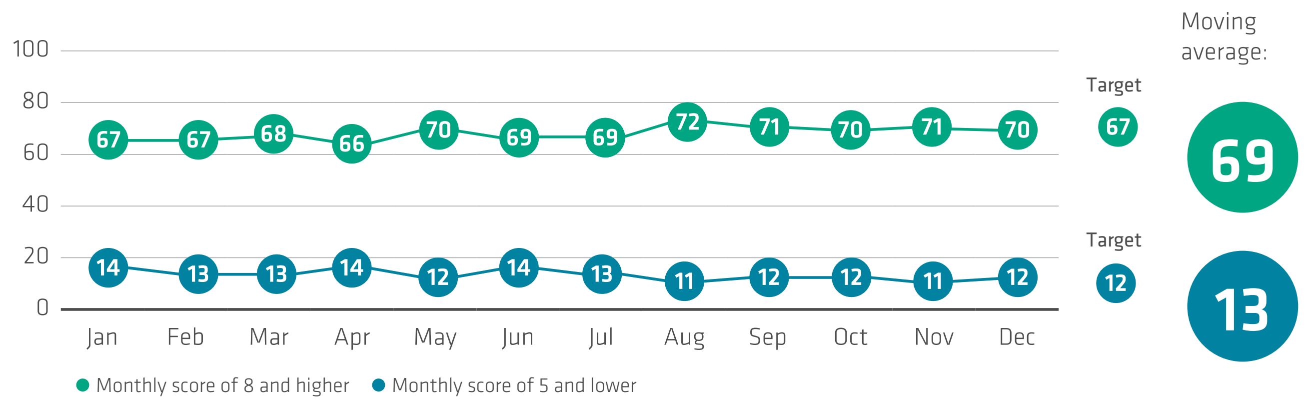
of our customers give us a score of 8 or higher and 12% give us a score of 5 or lower

Results in 2018

69%

of our customers give us a score of 8 or higher and 13% give us a score of 5 or lower

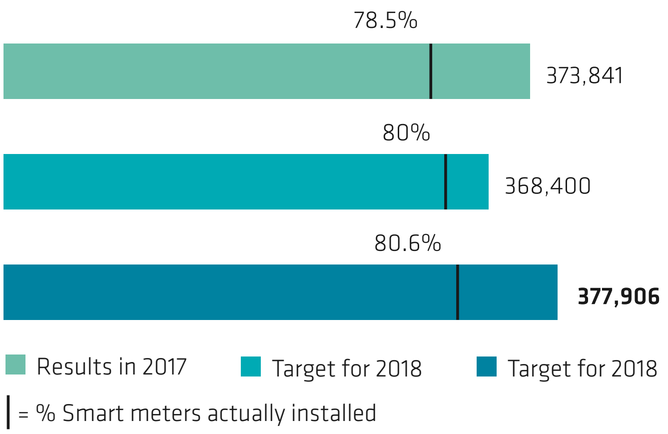
Customer satisfaction 2018



Smart meter

The smart meter, together with ancillary services of market parties, gives households and businesses increasing insight into their energy consumption. This can lead to substantial energy savings. We started the large-scale roll-out of smart meters in early 2015. Until the end of 2020, the grid operators are offering a smart electricity and gas meter to all customers with regulated low-use connections. The general aim is for at least 80% of all households to be equipped with a smart meter by the end of 2020.

Smart meter offers



This year, we offered a smart meter to 377,906 customers, which is slightly above the target. The smart meter was installed at 80.6% of these customers. The target of having installed a smart meter at 80% of our low-use customers by 2020 is still attainable. A further 369,400 offers are scheduled for 2019. Finding sufficient qualified staff is a challenge however in achieving these numbers (see the section on Professionally competent employees now and in the future).

Customer satisfaction with our smart meter offer

Our customers continue to be satisfied with the offer and installation of smart meters. We measure customer satisfaction on the basis of the percentages of respondents who give us a score of 8 or higher for installing the smart meter, or a score of 5 or lower. The latter is new this year. In 2018, 80% of our customers rated us 8 or higher (target: 74%) and 5% of our customers rated us 5 or lower (target: 5%). Customers are most satisfied by the friendliness of the fitter and the neat state of the meter cabinet after completion (91%). This is a compliment to Stedin's 400 fitters of smart meters.

Pilot project for self-scheduling by customers

Since August 2018, all customers to whom we offer a smart meter can schedule an appointment with our fitters at a time that suits them. This is an outcome of our 'self-scheduling' pilot project, which proved to be so successful that self-scheduling has now been introduced in all postcode areas covered by Stedin.

The region in which we tested self-scheduling scores better than average in several important respects. The percentage of customers who are not at home is 10% lower. We also install over 8% more smart meters as a result, while the number of telephone calls in this self-scheduling process is 9% lower.

Cooperation among grid operators

There are 'duo grid areas' in 10% of our service area, in which Stedin manages either solely the electricity grid or solely the gas grid. Sound cooperation with the other grid operator is of the essence in those areas. Jointly with Liander, we started offering smart meters in a duo grid area in 2018. We will continue to do so jointly in the coming years.

Customer satisfaction with smart meter

Implementation in 2017

76%

of our customers give us a score of 8 or higher and 5% give us a score of 5 or lower

Target for 2018

74%

of our customers give us a score of 8 or higher and 5% give us a score of 5 or lower

Results in 2018

80%

of our customers give us a score of 8 or higher and 5% give us a score of 5 or lower

New version of smart meters
We work continually to advance the development of our meters. In 2017, we announced that we would be taking a new version of the smart meter into use: the fair meter. This is the next stage in terms of fair production, lower costs and the appropriate functionalities required for the energy transition. We are now also installing fair meters in customers' homes.

Impediments to implementation
Our fitters are required to wear safety clothing and personal protective equipment during their work. With a view to their safety and well-being, we introduced a heat plan and a summer duty roster during the heatwave in the summer of 2018.

Vodafone experienced a number of network failures in 2018. As a result, fitters encountered problems in carrying out work orders and it was not always possible to cancel appointments with customers on time.

This had an impact on customer satisfaction and on the availability of smart meters in the period concerned, with availability at 94% in 2018, down 4% from 2017.

Stimulating use
We launched various initiatives at the end of 2017 to stimulate optimum use of the smart meter at customers so as to achieve the desired 3% energy saving by 2020. We followed through on this in 2018, for instance by providing more extensive information about energy saving options to customers after installing the smart meter. We will continue to step up these efforts in 2019.

Meter quality
A number of quality issues concerning smart meters came to light in the course of 2017. This entailed some negative news coverage of the smart meter in 2018. Although the safety risk is very small, Stedin and Enduris decided, together with other grid operators, to recall these meters. It was not possible to guarantee their service life in the long term as they were not up to specifications. Exercising great care and attention, we actively approached our customers and replaced all meters. This operation continued into 2018.

We are working very closely with meter suppliers on the quality of the smart meter. In order to assure quality and safety, each smart meter that we receive from the supplier is checked on all critical safety aspects in the production process. This intake inspection is only one of the safety and quality assurance inspections that are carried out during the life cycle of the smart meter.

2. Facilitating the energy transition

We are focusing on the grids of the future in order to make the energy transition and the switch to the new environment possible. This helps to facilitate the transition from natural gas and makes the electricity grid more flexible. We share information with parties in our environment, as we make the transition possible through cooperation.

Future-proof grids

We are vigorously pursuing innovation to ensure our grids remain ready for the future. In 2018, we formulated an innovation agenda centered on the following six innovation themes:

1. Increase the sustainability of the built environment
2. Sustainable gases and their impact on the infrastructure
3. Sustainable mobility and the impact on our infrastructure
4. Flexibility and market facilitation for the future
5. Insight and control in the grids
6. Digitalisation of work processes

1. Increase the sustainability of the built environment

The phase-out of the use of natural gas needs to be accelerated if the climate goals are to achieved. Developing innovative solutions in the built environment is a precondition for this.

Natural Gas-Free Newly Built Homes Covenant

The obligation to connect newly built homes to the natural gas grid was abolished with effect from 1 July 2018. Stedin Group had urged the government to do so. Municipalities, the provinces and Stedin already started work on this in the spring of 2018. The parties no longer wanted natural gas in their new-build projects and joined forces to persuade property developers to opt for a sustainable alternative. We entered into covenants for cooperation with dozens of municipalities and the provincial executives of Zuid-Holland and Utrecht. In addition, Stedin introduced a switch-over scheme offering clients the option of cancelling construction of already-contracted natural gas facilities in new-build projects. This scheme has been successfully utilised on many occasions.

Since 1 July 2018, gas connections are no longer requested in 56% of all new-build projects in the Provinces of Utrecht and Zuid-Holland.

> ‘This is the first time that we have received more requests for gas-free new-build homes than for homes with natural gas.’

In the whole of 2017, only 36% of all new-build projects were constructed without natural gas connections.

Phasing out natural gas

The decades ahead will see us switching from natural gas to other sources of thermal energy for residential properties and buildings, such as collective heat supply systems, heat pumps or sustainable gas. Effective insulation of homes and buildings is a precondition for this. The government aims to complete this heat transition by 2050 at the latest. This is coordinated by the municipalities. Together with municipalities, housing associations, residents' associations and the provincial executive, Stedin is preparing plans to make the first neighbourhoods gas-free. We recruited additional area managers in 2018 to aid municipalities in this transition.

Smart sustainability in Woerden

The process of making social rented accommodation more sustainable and gas-free should result in more comfortable homes for residents, while remaining financially viable for social housing. The Schilderskwartier area in Woerden is currently the national front runner in this field, thanks to its use of smart technology. The 39 homes of the GroenWest housing association have been renovated and equipped with electric heat pumps and solar panels. A neighbourhood battery is used for storage. This innovative housing renovation concept, in which Stedin is a partner, is called REnnovates. Jointly with BAM, Enervalis and VITO, Stedin analyses the relevant data to measure the effectiveness of the smart control technology.

2. Sustainable gases and the impact on our grids

Developing alternative products and services for the gas infrastructure is necessary if it is still to be used productively after natural gas has been phased out. Hydrogen gas is one of the options in the heat transition as a replacement for natural gas and as a fuel for vehicles. We are therefore continuing research into the use of hydrogen gas in the built environment.

The Green Village

The Green Village is a test bed for sustainable innovations, located at the campus of Delft University of Technology. A research experiment with a hydrogen gas grid, carried out jointly with the grid operators Alliander, Enexis Group and Stedin, has been started there. The pilot project focuses on developing suitable safety measures, standards, norms and quality certifications, and validation in practice for using hydrogen gas. The research is a preliminary stage for the roll-out in pilot areas in the Netherlands (see box on Rozenburg). It is also aligned with the Hydrogen Coalition Manifesto, which was signed by the grid operators and a number of knowledge institutions, including Delft University of Technology, and presented to Minister Wiebes on 1 June 2018.

3. Sustainable mobility and its impact on our infrastructure

In 2018, we installed 1,215 regular charging stations and 44 rapid chargers for electric cars. We expect these numbers to increase substantially in the coming years. By 2025, 1 million electric vehicles are expected to be in use in the Netherlands, and around 2.8 million by 2030. Bus companies are required to switch to zero emissions by 2030.

Smart charging and flexibility

ElaadNL is the knowledge and innovation centre launched by grid operators to examine the options for smart charging in combination with reliable, affordable and sustainable charging. Key aspects include technology, international standardisation of communication protocols, cybersecurity and regulatory aspects. Various pilot projects are being carried out, which include studying consumer behaviour.

Electric cars will increasingly be used as a flexibility resource for the energy balance, partly because Vehicle-to-Grid will become common practice in due course. ElaadNL also performs *power quality* measurements on various types of electric vehicles and charging stations. A proper understanding of this contributes to grid integrity.

Trial with hydrogen Rozenburg

A trial has been launched in the Rotterdam governing committee area of Rozenburg to use hydrogen to heat an existing apartment complex. The trial is being carried out by Bekaert Heating, Remeha, DNV GL, the Municipality of Rotterdam, the housing foundation Ressort Wonen and Stedin. Homes have never been heated by HR boilers using pure hydrogen in the Netherlands before. The combustion of hydrogen gas, unlike that of natural gas, does not release CO_2. From the start of 2019, hydrogen is produced locally with green electricity and transported to the boiler room of the apartment complex via a separate Stedin gas grid. The project is a continuation of the Power2Gas initiative, also in Rozenburg, which converts surplus sustainable electricity - via hydrogen and CO_2 - into synthetic natural gas.

4. Flexibilisation and market facilitation for the future

Managing with a focus on supply and demand is important for solving issues concerning capacity and balance in electricity grids. We aim to reduce peak loads in grids, defer grid reinforcement as much as possible and facilitate the exponential growth of sustainable transportation. In our view, local flexibility provides a major opportunity to ensure that the energy system remains reliable and affordable.

Position Paper on Flexibility

Together with various market parties we have acquired experience of flexible capacity, for instance in the test beds of Hoog Dalem, Lombok and Couperus and the Flex Acceleration Programme. In July, Stedin issued the Position Paper on Flexibility about these experiences, under the title *'Samen werk maken van een flexibel energysysteem'* (Jointly working towards a flexible energy system). In it, we explain the issue of flexibility in an accessible manner, describe the current status and identify the measures and resources required.

> 'We also call for the market to jointly take the step towards a broad application of flexibility.'

The Position Paper can be downloaded here.

Introduction of GOPACS trading platform
In 2018, Stedin intensified its cooperation with ETPA (Energy Trading Platform Amsterdam) and TenneT, with the aim of purchasing flexibility via the trading platform of ETPA to reduce congestion in Stedin's grid. The ETPA is an independent platform on which the parties that have joined it, such as horticulturists, waste processors, chemical companies and energy companies, can trade energy themselves. ETPA offers customers the option of trading themselves or via a third party.

A pilot project with various market parties (Agro Energy, BizzBest, Tennergy, horticulturists) was completed successfully in 2018. At the close of 2018, the continued development of ETPA led to the platform GOPACS (Grid Operator Platform for Congestion Solutions), through which Stedin and TenneT can purchase flexibility on all trading platforms (ETPA, APX and Nordpool). The other grid operators have joined this initiative. Accordingly, from the end of 2018 there has been a nationwide solution through which regional grid operators and TenneT can jointly become active at one level without any undesirable reciprocal impact as a result. The market introduction of GOPACS took place at the start of 2019. This is the first time, worldwide, that such a platform on which national and regional grid operators can cooperate is introduced. As a consequence, this initiative is attracting a great deal of attention internationally.

Zuidplaspolder
Several businesses aiming to generate energy themselves on a large scale, with the option of supplying energy back to the grid, wish to establish themselves in the Zuidplaspolder, a largely green, agricultural area between Rotterdam, Zoetermeer and Gouda. This has prompted us to reinforce the electricity grid in this area, in collaboration with TenneT and Liander. For example, we aim to take a new 150 kV/23 kV transformer station in the Zuidplaspolder into use in a few years. Until that time, we are looking for a solution in which an intermediary – the aggregator – reschedules the users' energy demand or in which the energy that is generated locally is also used locally.

Flexibility of customers is thus deployed to prevent bottlenecks in the electricity grid in the Zuidplaspolder. Talks with customers and an exploratory market survey have taught us that a significant portion of the large corporate customers in the area already have facilities to make flexible capacity available for a Flex market in the Zuidplaspolder. In the course of 2019, we will start the tendering procedure to actually contract this flexible capacity.

Local energy trading with blockchain

Stedin and technology company ABB, software supplier Enervalis and sixteen local residents started preparations for a new pilot project Hoog Dalem 2.0 in the Gorinchem area of Hoog Dalem. In this project, residents will directly trade the electricity they generate themselves with their solar panels with their neighbours in the area. This will be done via blockchain. We previously successfully completed a pilot project with a smart energy system in this area. The 2.0 pilot project is aimed at examining whether the local market meets customer wishes to use locally produced energy and whether there are also benefits for the electricity system. In addition, we want to establish whether this could serve as an alternative to the present netting arrangement, under which customers are allowed to set off the electricity yield of the solar panels against consumption. Another aim is to acquire knowledge and experience with blockchain.

5. Insight and control in our grids
We need new solutions to acquire greater insight into our low-voltage grids and to improve our performance in the grids. That will enable us to better serve our customers in the transition to the new environment.

Record growth of solar energy
The capacity of solar panels in households and businesses in the Provinces of Utrecht and Zuid-Holland increased by 49% in 2018. This is a new record and a clear increase compared with growth of 38% in 2017. In total, capacity of some 541 Megawatt peak (MW) of solar power has been registered with grid operator Stedin. Growth is increasing sharply not only at consumers, as the use of solar panels at stables and warehouses is also growing significantly, almost doubling (+89%) in 2018. In the past year, more than 30,000 households notified Stedin that they had installed solar panels on their roofs, bringing the total to more than 122,000 solar roofs. The average capacity of a solar roof is 3.5 kilowatts, compared with 2.5 kilowatts seven years ago.

In Zeeland, total solar power capacity rose by 133% to 212 megawatts, which is enough to supply 63,000 households with electricity. This record growth is partly due to the construction of three large solar farms, including Scaldia in Vlissingen. Scaldia has 140,000 solar panels and can generate around 54.5 MW of electricity annually, which is sufficient for 14,000 households.

Stedin not notified of one quarter of all solar panels
The Rotterdam start-up Sobolt took an automated sample based on satellite images of city districts in Rotterdam and Delft. A comparison of these data with the list of registered solar panels shows that 25% of the solar panels have not been notified to Stedin. If we extrapolate this conclusion to parts of Zuid-Holland and Utrecht, it would mean that solar energy capacity of 81.5 MW, or around 326,000 solar panels, has not been registered. We will repeat this sampling exercise at regular intervals to gain a better understanding of the capacity we need to keep available on our grid for future use and to monitor the grid more closely.

We wish to underline the importance of registering solar panels. The growth of solar panels is rapid and their impact on the electricity grid is continually increasing.

> ‘Accurate registration of the panels allows us to reliably monitor the effects of solar energy on the electricity grid.’

Stedin Innovation Lab
Opened on the site of the Stedin in-house training facility in November, the Stedin Innovation Lab will help us accelerate the uptake of innovations in our operations and in the management of our grids. The laboratory is available for employees, partners in the supply chain, interns, graduating students and businesses. Here they can develop, test and demonstrate innovations - with our close involvement but without rules, norms and frameworks.

A wide range of innovations are addressed, including a car that offers drive-by detection of gas leaks and the Magnifix, an automated device we use to detect short-circuits, measure voltage, temperature and humidity of a space and search for GPS locations. This provides more information for remedying failures and life cycle management of our grids. We also want to know how ‘dumb’ devices can be made ‘smart’, at low cost. Many sensors are cheap and can deliver extensive information, for instance for predicting maintenance requirements of our assets. In the laboratory, we are also looking for a bypass solution for gas supply, so that customers continue to receive gas during repairs or replacement.

6. Digitalisation
In order to better manage our grids and improve our internal processes, we are increasingly using customer data, consumption data, measurement data from the business segment and data concerning our infrastructure, for instance on the location of our cables and pipelines. Having sufficient IT staff for projects involving data science & analytics is a precondition for this. By actively approaching the labour market, we managed to attain our desired staffing level in 2018 with staff of our own and temporary hires. We have built up knowledge and skills and established a ‘data lake’ to gather the data that we need for data science & analytics cases.

Predicting
We have created data science models in order, for instance, to predict the number of telephone calls to our Customer Contact Centre, to detect fraud on the basis of signals from sensors in the grid, to predict the probability of excavation damage caused by earth movers and to diagnose causes of non-communication by smart meters. A model has also been developed to predict the grid load at the Schielandweg station (which feeds the Zuidplaspolder area) to determine the volume of flexibility to be purchased. We expect to be able to apply this model in other situations as well.

Making grid information available
A systematic approach is necessary in order to accelerate the process of increasing the sustainability of the built environment at acceptable social costs.

'This is embodied in various forms, including Regional Energy Strategies (RES) that are devised by municipalities, provinces and social partners, including Stedin.'

The measures to comply with the Climate Agreement per region are bundled in the RES. They spotlight topics such as energy savings, heat supply in the built environment, electricity generation, infrastructure for electricity and sustainable mobility. Stedin makes information about the grids accessible to stakeholders for the purpose of the RES, such as gas replacement data. Municipalities and other stakeholders can view these data via our website. Combining data concerning gas replacement with plans for housing construction or maintenance provides a basis for choices about increasing the sustainability of the built environment and the associated (alternative) energy infrastructures. We are now involved in nine of the thirteen Regional Energy Strategies.

Quantifying grids
Demand for electrical energy is growing significantly and is becoming increasingly complex, given the rising number of charging stations, solar poles and heat pumps. Those trends have an impact on the design and maintenance of our electricity grid. To enable us to assess this rapidly and reliably, we require an accurate, complete and up-to-date view of the capacity, quality and safety of the low-voltage and medium-voltage grids. In the Netrekenen project, we introduced a solution for this in 2018 that charts and quantifies, on an automated basis, all 17,000 low-voltage grids and the underlying 2.2 million customers. This provides quick insight into the grid capacity still available and any required reinforcements. We refresh this model every quarter. This solution enables us to save thousands of hours of drawing work.

We have now also started to extend this approach to the medium-voltage grid. In addition, we are advancing the development of this system to enhance grid designs with future scenarios. Netrekenen also provides insight into data quality, which stimulates improvements.

Making industry more sustainable
The Rotterdam port area is the largest industrial cluster in the Netherlands. A future-proof energy distribution infrastructure is crucial for industry in order to achieve its sustainability ambitions. For the Rotterdam industrial cluster, Stedin worked jointly with stakeholders to map challenges and to develop solution strategies, from an awareness that future grid management is a precondition for the energy and raw materials transition. We did this not only from the perspective of our regulated energy grids such as electricity and gas, but also in view of our role in developing non-regulated distribution networks such as steam.

In association with TenneT, as a participant in the regional sector body 'Industry' for the Rotterdam Moerdijk cluster, we prepared the contribution on the theme of energy infrastructure, in connection with the Climate Agreement. Partly as a result, the urgency of finding solutions for specific challenges for the infrastructure within the Rotterdam Port Industry Complex has grown. In response, a permanent Working Group ('Rotterdam Port Industry Complex Infrastructure') was established, whose members also include TenneT, Gasunie Transport Services, the Port of

Rotterdam Authority, the Province of Zuid-Holland, Deltalinqs and the Institute for Sustainable Process Technology.

Chaired by Stedin and the Port of Rotterdam Authority, this working group seeks to develop infrastructure solutions for the Rotterdam industry cluster within the frameworks of the Climate Agreement. Knowledge and progress of ongoing heat, steam and CO_2 transport projects are shared. The Windmaster study is among the first research projects launched by this working group. This study examines - in conjunction with Delft University of Technology and Siemens - the infrastructure options for transporting and distributing large volumes of offshore wind energy via various energy carriers. Mapping not just technical and economic criteria, it also considers the institutional changes that are necessary for those options to be put into practice.

Future prospects for Rotterdam electricity grid industrial cluster

The sustainability challenge in this region will be accompanied by the electrification of processes. There is uncertainty about the extent, the speed and the location of these disruptive changes and hence also about the future electricity supply required. Stedin and the Port of Rotterdam Authority, TenneT and the Wuppertal Institute have jointly developed the global visions for the future into specific prospects for the electricity grids in the port area. The greatest challenge, besides that of distributing electrical energy, is to make all infrastructures fit into the limited available space. Both challenges can only be resolved by an integral approach and intensive cooperation.

In our cooperation with Deltalinqs (the representative organisation of industrial businesses in the Rotterdam port area), our CTO David Peters is an ambassador for the electrification of industry theme within the Deltalinqs Climate Programme. This ambassadorship means we are more directly involved in the electrification plans of industrial players in Rotterdam and better able to design a pro-active response.

Accelerating through cooperation

Cooperation between grid operators: C-ARM

Together with Energie Data Services Nederland, the grid operators are developing a single central system for allocation, reconciliation and measurement data (C-ARM). The grid operators are migrating all their local processes to this shared system. As a result, the far-reaching changes entailed by the energy transition can be carried out within one system. This is targeted at more affordable and more flexible market facilitation. The processes between the grid operators will likewise be standardised. Enexis will be the first grid operator to join, in 2019, followed by Stedin in 2020.

Drinking water companies

DNWG has been working with Evides Waterbedrijf in the Province of Zeeland for a long time, to lay cables and pipelines jointly wherever possible. This multi-utility approach generates cost savings and reduces inconvenience in outdoor spaces. DNWG has demonstrated that greater efficiency can go hand in hand with higher quality and greater customer satisfaction. We are engaged in talks with the drinking water companies in Zuid-Holland and Utrecht to jointly apply this multi-utility approach. In the lead-up to this, Stedin has signed agreements with Evides, Dunea, Oasen and Vitens.

Stichting Zeeuwse Publieke Belangen (Zeeland Public Interest Foundation)

Stichting Zeeuwse Publieke Belangen focuses on matters such as the energy transition and active support for the Zeeland Energy Agreement. It supports a range of projects, including a feasibility study for making a residential district natural gas-free by using residual heat from industry, a pilot project at housing associations involving the large-scale application of new technology for residential heating, practical support in making school buildings more sustainable and a pilot project for storing tidal power.

Study by municipality, transport operator and Stedin

Jointly with the Municipality of Rotterdam and public transport operator RET, we are examining how we can use a smart grid to improve and future-proof electricity supply in Rotterdam. A smart grid aids better matching of electricity supply and demand. Here are some of the ideas and solutions put forward by the three parties: combine smart charging of electric buses with P+R locations and charging stations; electrification of the Rotterdam water taxi, ferry and water bus; and allowing emission-free emergency vehicles – such as fire engines – to plug in on the RET and Stedin grid anywhere in the city to charge up for pumping up water, for instance. The ideas are being examined in terms of their value and feasibility and then developed in more detail.

Vision & strategy of regional grid operators and TenneT for data governance

The energy transition and the digital transformation require that the regional grid operators and TenneT jointly develop and implement a vision for data and data governance. This vision must be aligned with the legislative framework for data and data sharing that is being developed. Stedin contributed to this vision in 2018, and the grid operators reached agreement in the fourth quarter of 2018. On that basis, they will submit proposals to the Ministry of Economic Affairs and Climate Policy in 2019 for the Energy Act 1.0.

Alliances and associations

Stedin Group is a member of the following associations and interest groups: Deltalinqs, Dutch Power, Cobouw, Digistaal, Holland Rail, Energia, UCA, Users Groups, WENB and NARIM.

Feyenoord City

Feyenoord City is meant to be the new destination for Feyenoord, and while the old 'Kuip' stadium will continue to exist as a symbol for the city it will be given new functions. The central axis of Feyenoord City is the 600-metre Strip lined with shops, cafes and restaurants and attractions that connects the Kuip with the new stadium. Stedin, as grid operator, is involved in implementing the overall design. This includes reconstructions of existing connections, connecting new-build projects and implementing the connection of the new stadium. We facilitate the sustainability goal of this master plan, which may lead to capacity expansion of the existing grid. We may, for example, opt for an all-electric approach, with large numbers of electric charging stations and solar panels on the new stadium. The success of this project depends on thorough preparation and on collaboration with the stakeholders, which include the Port of Rotterdam Authority, the Municipality of Rotterdam, Evides, NUON, DCMR, the Water Authority, the Directorate-General for Public Works and Water Management (Rijkswaterstaat) and Gasunie.

Partnership with Starthubs

Stedin has entered into an alliance with Starthubs in which we pose challenges to start-ups to pitch innovative applications. Three challenges have been issued thus far, two of which were concluded with a successful cooperation.

For the 'Cooking without gas' challenge, Kookers devised an attractive proposition for residents who have a natural gas connection only for cooking. The proposition is aimed at inducing them to switch to induction. We have signed an agreement with Kookers for a pilot project in an apartment building in the centre of Rotterdam.

We have also set the 'Predict failures of electricity grid' challenge to generate innovative applications to pro-actively predict failures and detect their location.

For the 'Closing a gas pipeline under pressure' challenge, we selected one of the submitters for a pilot project.

Strategic environmental management

Strategic environmental management is becoming ever more useful and indeed necessary. Cooperation between citizens and organisations is increasing, the power of social media is growing and, together with an incisive transformation of our energy supply, articulate citizens are demanding involvement from Stedin. Strategic environmental management means exchanging information with other organisations and stakeholders at the earliest possible stage in order to ensure effective coordination of plans. We do this in several ways, for example by making data on our grids publicly accessible and by concluding covenants and agreements for long-term cooperation with municipalities and other parties. In addition, Green Deals were signed in 23 municipalities on gas-free housing, so as to make at least one neighbourhood gas-free in each municipality. We formulate agreements about roles and responsibilities with these municipalities and the residents involved.

Environment and Planning Act

The Environment and Planning Act will come into force in 2021. The consequences for grid operators are not yet entirely clear, but things are set to change from a legal point of view and in the area of environmental management. Licensing for cables, pipelines and transformer stations will change. Additionally, it is important for us to be able to contribute to the environmental planning visions drawn up by local authorities. Cooperation between the various parties will become even more important in this area.

‘Grean Deals were signed in 23 municipalities on gas-free housing.’

3. Sustainable business operations

In our third strategic priority, we focus on safety both in our work and in our environment, on professional and competent employees now and in the future, and on the programme we have drawn up to keep our impact within the limits for our planet. One Planet Thinking.

Safety and security

We are set to witness the introduction of other energy sources and new technologies. Preparing for these developments in time, so as to ensure safety in our work and our environment, presents a challenge. This concerns safety aspects relating, for instance, to CO_2, biogas, the storage of electrical energy in huge batteries and policy for the maintenance of gas grids whose use is to be discontinued. Security considerations also require attention, such as the protection of medium and high-voltage stations, identity fraud and increased aggression.

Safety in our work and our environment

Working with electricity and gas involves risks for safety, health and the environment. These include risks for our employees, temporary external staff, bystanders, employees of partners and customers. In addition to safety at work and a safe grid, this relates to the safety of the environment we live in. Stedin Group creates safe working conditions by providing safety training, using high-quality equipment and making personal protective equipment available.

We link quality and safety to attitude and conduct, and also involve our principal partners in the energy supply chain in those efforts. We continually assess our partners by means of visits to work locations and audits of their management system and the design of their instructions framework. That was the basis for the first presentation of the Stedin Safety Award in June to our contractor Van Vulpen B.V. In November, we presented the first golden safety shoes for exceptional safety performance to five employees and to a team of the Failures & Maintenance department.

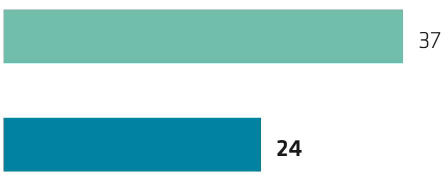
Safety goal not achieved

We continually aim to prevent occupational accidents. Despite our slightly improved results for work safety in 2018, we failed to achieve our target for 2018, which was a reduction from a maximum of 72 to a maximum of 68 accidents. Despite our efforts there were 81 accidents. We aimed to reduce the number of recordable incidents (with or without lost time, medical treatment or alternative work) to fewer than 35. Unfortunately, we eventually recorded 40 such incidents.

As shown in the table below, the RIF reached 1.00 compared with the target of 0.90. The LTIR of 3.00 in 2018 was higher than our target of a maximum of 1.90. Our target for 2019 is a maximum of 0.90 for the RIF and a maximum of 1.95 for the LTIR.

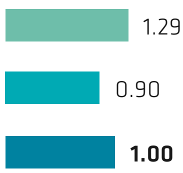
Number of recordable incidents

Number of lost-time injuries

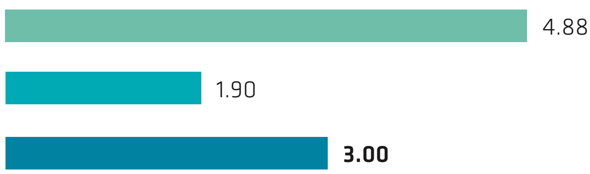


2017 | 2018

RIF



LTIR



Results in 2017 | Target for 2018 | Target for 2018

Type of incident (RIF)	2018	2017
Number of fatal accidents	**0**	0
Number of lost-time injuries (lost-time > 1 day) (LTI)	**24**	37
Number of incidents entailing alternative work (RWC)	**8**	5
Number of incidents without lost time requiring medical treatment (MTC)	**8**	7

Cause	LTIR 2018	LTIR 2017
At work	**1.25**	1.71
Falling, stumbling, slipping	**1.00**	1.98
Participation in traffic	**0.75**	1.19
Total LTIR	**3.00**	**4.88**

Studies show that fewer than half of occupational accidents are directly related to work, such as contact with electrical voltage or cuts. In fact the majority are attributable to falls, stumbling and traffic accidents. Many of the accidents relate to the fact that we are carrying out the large-scale smart meter programme ourselves. This has led to a substantial increase in the number of traffic movements, an influx of new staff and an increase in the number of activities. The table on this page shows how this affects the LTIR.

Safety awareness
In order to raise safety awareness on a lasting basis, the company-wide roll-out of the multi-year safety programme HRO (High Reliability Organisation) was continued in 2018. After the initial phase, which focused on raising awareness, we are now in the second part: the updating knowledge phase,which will be continued in 2019. This year we will also start with the third phase: embedding routines. HRO has five key 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

Environmental workshops support the HRO programme, broadening employees' knowledge in operations.

Reports
Overall, there has been a slight increase in the number of reports of unsafe situations. These mainly concern driving behaviour. This is attributable to the fact that, mainly due to work relating to smart meters, there are more traffic movements and more external reports are received about these.

Crisis management organisation
Our crisis management organisation prepares for new and unexpected crisis situations that might occur and with which we have little or no experience. The Stedin Crisis Management Plan was thoroughly updated in 2018 for that purpose.

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

RIF = Recordable Incident Frequency; the number of occupational accidents per 200,000 hours worked.

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

Professionally competent employees now and in the future

We need sufficient professional and competent employees to perform our duties as grid operator and make the energy transition possible. We cooperate with our fellow grid operators to that end. We devote much attention to training and to the vitality and sustainable employability of our employees, and also aim for as much inclusiveness as possible.

More hands on the grid

According to the National Energy Outlook 2017, the measures in the Energy Agreement will generate around 76,000 additional full-time jobs by 2020. That is both an opportunity and a challenge, given the tightness in the labour market and impact of ageing. The solution is training new people, but that is easier said than done: the influx in training programmes is not sufficiently large. In addition, employees are not always sufficiently matched to their roles. The execution of our work is under pressure as a result.

This is a problem facing all grid operators. To be able to resolve this faster and more efficiently, we joined forces with Alliander, Enexis and O&O Fonds (the training and development fund for our sector), bundling initiatives that were not previously coordinated centrally.

Our five ambitions:

1. Unlocking future talent

We advocate a revaluation of technical subjects. The influx of young people in technical training programmes is insufficient and there not enough of those programmes, for instance in heat engineering. The influx can grow by guiding pupils at all educational levels through the changes in our environment filled with new energy, making them curious about the energy transition and introducing them to technology. To that end we take part, as grid operators, in the Technology Pact, a collaboration between the government, educational institutions and the business community to promote the influx of young people in technical training programmes and achieve a better match between education and the labour market. We have been training students to become competent professionals at our Stedin in-house training facility for many years. (See *Training and development on the next page.)*

Stedin also approaches job-seekers, people aged 55 or over, residence permit holders and people coming from other professions. This achieves the twin goals of achieving greater diversity within the organisation and contributing to a more inclusive society, an element of our One Planet strategy (see *Inclusive society on page 57)*.

2. Remaining attractive for current employees

Making the energy transition possible is a momentous mission that offers plenty of opportunities for our employees. Not everyone is already experiencing these. We therefore remain keenly alert to the needs of our employees and act in response to them. If they enjoy doing their jobs, they are ambassadors for our organisation. At the same time, the grid operators do not wish to interfere in each other's talent pools but, by contrast, pursue a shared employment strategy.

3. Ensuring employees' long-term employability

We greatly value our employees. As we understand that they will be faced with major challenges, we invest in their personal development and an open culture. Vitality and long-term employability are also clearly important in a sector in which employees' average age is 47 years. This has an effect in numerous areas: enjoyment of work, cooperation, agility, productivity and the quality of the work. Together with employees, we consider, for instance, whether they might specialise in a specific part of their discipline. That will enable them to make the most of their potential and continue to develop. We provide support for ensuring they preserve their vitality and continue to have the required competencies. We stimulate employees to actively take responsibility for this as well.

4. Innovation of technical education

There is a manifest need for shortened, customised technical training programmes, aimed at professional expertise and future job content. However, existing programmes are inadequate and take too long to be able to provide appropriately trained employees in time and to retrain people. Examination requirements are based on the ‘old’ situation. In many cases the educational path can be simplified, without endangering safety.

> ‘To help bring about accelerated change, we contribute to creating innovative and attractive technical educational pathways, at both national and regional levels’

We also work with training and educational institutions in the market. We expect schools and educational institutions to respond flexibly to our requirements and are eager to work with them to achieve this.

5. Organising differently
The energy transition offers opportunities and possibilities that are sometimes not yet on our radar. We do not rely only on our present knowledge and expectations. Precisely because there is so little that we know for sure, agility is a necessary capability. This is why we place great emphasis on leadership.

Training and development

Leadership

In 2018, we started a new two-year programme targeted at leadership development: The Future is Now. Its aims include accelerating the development, mobility and influx of talented employees and the learning of skills and developing (personal) leadership.

We started this leadership programme for several reasons:

- We believe it is important for the vision on leadership and the associated profile to dovetail with Stedin Group's mission, vision and strategy formulated in 2017.
- The energy transition calls for agility and leadership, regardless of whether you have a management position or not.
- Attracting new, strong leaders requires a different approach to recruitment and justifies an investment in the present managerial staff.

Our 'Toekomstmakers' (Makers of the Future) traineeship is also directed towards this goal. In addition, we appoint a new group of PI leaders (PI is short for process improvement) every two years. During those two years, they work with colleagues on improving processes, while being trained as 'black belts' in the Lean method. This enables them to coordinate change processes.

DNWG is also working hard on training staff in order to absorb the outflow. For instance, ten new pupils started at its own DNWG Infra Vakopleiding (DNWG Infra Vocational Training Course) on 1 September . Also, more in-house technical training programmes were started and contacts with various educational institutions in the region were intensified.

The two training facilities of DNWG and Stedin have actively embarked on their first collaboration. Owing to the large number of pupils in the Stedin area, some of the pupils are now attending their programmes via DNWG.

Stedin in-house training facility

We trained around 300 pupils ourselves as fitters in our in-house training facility in 2018. That is why, even in these years of a shortage of technical staff, we still have a substantial influx of new technically trained colleagues. The in-house training facility offers senior secondary vocational (MBO) level and other training programmes in our fields of expertise and also provides the mandatory safety training. We recorded 27,411 enrolments in 2018 (2017: 33,509). These are applications for technical training, safety training such as BEI and VIAG, and in-house safety training.

On average, the in-house training facility numbered 305 MBO students in 2018 (2017: 275). This led to the award of 73 MBO diplomas in 2018 (2017: 89). The Technology & Safety budget totalled € 10 million in 2018 (2017: € 8.2 million).

In addition to the shortage of technical staff, the Stedin in-house facility is responding to two other trends: new forms of learning and changing education. In 2018, for instance, we successfully completed a pilot project using Virtual Reality as a teaching tool. We will add this to the portfolio in 2019. There is also a shift from traditional education, which is aimed at knowledge and skills, to courses directed at attitude and behaviour. Thus the in-house training facility plays a part in our development into an HRO organisation (High Reliability Organisation - see Safety and security). All new employees are given this course as part of the induction programme.

Training smart meter fitters
We already made a start in 2015 on training people coming from other professions to become smart meter fitters. Since then we have retrained over 300 people, 90 of whom were previously unemployed on a long-term basis. Many of them pursue further training. In 2018, almost 60 people started their training programmes to become fitters and technical specialists at the ROC Regional Training Centre. This means that no fewer than 105 fitters are being trained within the Meter Cabinet & Connection department. Many of them are working on remedial projects in order to broaden their experience. They can subsequently progress to other parts of the organisation. In 2018, 32 smart meter mechanics moved on to departments within Stedin.

In 2018, 75 fitters took the newly developed training programme in our Stedin in-house training facility for VP low-voltage meter cabinets, and 60 mechanics followed the training programme for VP gas meter cabinets.

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 the world we live in and want all employees to feel welcome and be treated equally, regardless of age, gender, religious beliefs, sexual orientation, background, level of education or disability. These standards are laid down in our code of conduct. By training job-seekers, people coming from other professions, people aged 55 or older and residence permit holders, we are creating greater diversity within the organisation and contributing to our goal of an inclusive society in practice.

Stedin Group aims to employ 100 people with an occupational disability (in accordance with the definition in the Participation Act) by 2020. We also aim to invite ten residence permit holders to start a work-study programme each year, meaning a total of 30 will have started such programmes by 2020.

We helped 109 young people to acquire relevant work experience by means of work placements. In addition, around 100 employees give guest lessons on sustainable energy at schools in the areas we serve, we are a partner of the JINC initiative in which young people are helped on their way to finding work and we stimulate voluntary work among our employees. And jointly with other organisations we combat energy poverty, for instance through our partnership with Energy Bank Rotterdam.

We created jobs in various places for people with an occupational disability, but the number of places created fell far short of our target in 2018 (see table below). It is difficult to find or create suitable work for this target group. These employees also require more support than regular employees. We are however succeeding in making better matches, given the number of people who remained with Stedin compared with 2017 and the higher achievement rate. Whereas in 2017 we saw a substantial outflow from the target group, only one candidate dropped out in 2018.

KPIs for Participation Act – Employees with an occupational disability in FTEs	2018	2017
Target	84.0	12.3
Actual vacancies at year-end 2018	2.0	8.0
Filled as at 31 December 2018	19.0	8.1
Started but left	1.0	6.4

Training residence permit holders

In 2018, a group of ten refugees with residence permits, many of whom have a technical background, started on a preliminary programme. In September, all candidates progressed to the 2- or 3-year training programme to qualify as first maintenance technician for low and medium voltage (level 3) at our in-house training facility. We provide this programme in cooperation with Techniek College Rotterdam (Zadkine). The (specialised professional) language proficiency of most candidates proved to be insufficient. In response, we organised additional language lessons and called on colleagues to become language buddies. This led to sufficient registrations within a single day.

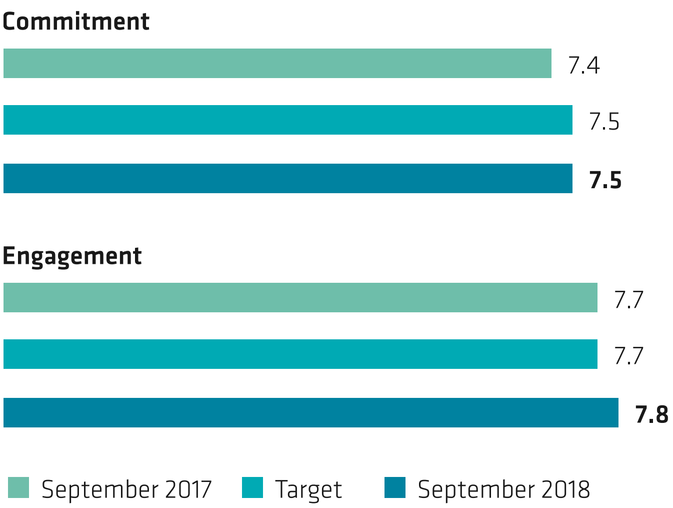
Stedin, the UAF (foundation for refugee students), Techniek College Rotterdam and the Municipality of Rotterdam cooperated on creating this training programme. In 2019, we will start a similar process with a new group of residence permit holders, with an even greater focus in the preliminary programme on Dutch language and technical language skills.

Employee motivation

Survey carried out by Effectory

In September 2018, Effectory carried out a motivation survey among employees who had been working for Stedin for longer than two months. With a response rate of almost 70%, the survey provides us with a reliable view. We compare the results with those of the survey performed in September 2017. This allows us to track whether policy and interventions have an effect in the longer term. It also serves to obtain feedback from our employees in order to achieve improvements. The feedback highlighted the cooperation between the various departments as the most important area for improvement. The greatest point of pride that is mentioned is the working atmosphere.

Stedin applies two KPIs: commitment and engagement, and scores higher than or on-target for both of them.



Sickness absence and vitality

Sickness absence

According to Statistics Netherlands (CBS), average sickness absence in the industry & energy sector was 4.5% in the third quarter of 2018. This was slightly higher at Stedin Group in 2018. At the end of December 2018, the sickness absence rate (moving average) was 5.0%. The reporting frequency (the number that reflects how often employees are absent due to illness on average) was 1.1. Our sickness absence edged down slightly compared with 2017. At a national level, there is a rising trend in sickness absence. Stedin scores slightly better than the national level, as sickness absence is not rising. The flu epidemic in early 2018 led to above-average sickness absence at a national level. This is also reflected in our own sickness absence rate, which was well above 6% in that period.

Vitality, sickness absence and employability: actions initiated

Employability, health, engagement and development of employees are very important to us. They produce job satisfaction, good cooperation, agility, labour productivity and quality. We offer a vitality programme, for instance, in which all employees can take part. We also organise Talent markets to help employees gain insight into their strengths and find out how they can continue to develop, whether they are still in the right place and how to maintain their vitality. Reduced employability can result in sickness absence, which has been comparatively high for several years. Our sickness absence rate therefore continues to require attention and we are fully committed to reducing it further. We focus on what people can still do rather than on what they cannot do, so as to promote re-integration.

To reduce sickness absence, we have for instance trained managers in holding sickness absence talks. We have also updated the sickness absence protocol and formulated clear step-by-step plans for employees. Case managers support managers on complex cases of sickness absence.

A new working conditions service and a new sickness absence registration system applicable from 1 January 2019 are intended to further reduce sickness absence levels and increase the long-term employability of our employees.

Roster for on-call shifts and emergency repair shifts
The introduction of a new roster for on-call shifts and emergency repair shifts was a milestone in 2018. We are ready to serve our customers 24/7. Preventing excessive stress and preserving the vitality of our employees are important in this connection. The workload for employees was excessive in the old roster. We discussed various scenarios with the Works Council and an arrangement was jointly agreed. The new roster took effect in January 2019. More fitters from all operational departments are also involved now, so that the workload per individual is lower.

Collective Labour Agreement for Grid Companies

With effect from 1 May 2018, All employees of DNWG were transferred from the Collective Labour Agreement for Production and Supply Companies (cao voor Productie- en Leveringsbedrijven) to the Collective Labour Agreement for Grid Companies (cao voor Netwerkbedrijven). The differences between the two collective labour agreements are small, and sound arrangements are in place to ensure that the package of employment terms under the agreements remains equivalent. The transitional protocol was formulated together with the trade unions and in close cooperation with the Works Council.

Moreover, the Collective Labour Agreement for Grid Companies Expired on 1 May. At the end of November, the parties involved reached a negotiated outcome that was approved by a large majority of trade union members. Agreement was reached concerning a one-off payment of € 1,000 and a systematic wage increase totalling 8% over a period of 36 months. Further agreements reached included adjustment of the Personal Budget in addition to the salary, adjustment of the long-service anniversary scheme and a vitality scheme for employees aged 62 years and older to aid them in continuing to work on a lasting basis. Work will continue until 1 May 2019 on the detailed implementation of the agreements reached.

Change of remuneration policy

The world around us is ceaselessly changing. This prompted us to review the Stedin remuneration policy by asking ourselves, 'Which elements do and which perhaps do not contribute to achieving our priorities?' and 'Which other developments have an impact on our remuneration policy?'. The outcome is that, with effect from 2019, we will no longer award performance bonuses and have converted these into additional fixed salary. In our view, performance bonuses cannot be reconciled with our societal role as a grid operator. Besides, individual bonuses often fail to stimulate the types of conduct and capabilities that we urgently need for our role in the energy transition, such as innovation and creativity.

In connection with the Executive Pay (Standards) Act (Wet normering topinkomens - WNT) we also completely revised the remuneration package for Stedin employees directly under the level of the Board of Management. The employment terms were simplified wherever possible and variable remuneration components that are difficult to predict reliably were converted into fixed salary. We entered into new employment contracts with the employees concerned.

Employee participation

The Stedin Group Works Council was involved in a series of important events and decisions in 2018.

Sale of part of Joulz Energy Solutions

In connection with our strategy (focus on grid management), we reviewed the position of Joulz Energy Solutions, which partly operated commercially and partly worked for grid management. There were two possible scenarios: splitting up and retaining part of the company at Stedin, or keeping it intact and outsourcing the services for Stedin as grid operator. Eventually the first option was chosen, partly on the Works Council's advice. The processes of diligently implementing the split-up and determining the criteria for its implementation among the workforce was carried out in conjunction with the Works Council.

Tripartite consultation with Supervisory Board and Board of Management

Since the end of 2017, we have conducted tripartite consultations twice a year in which a delegation from the Board of Management, the Works Council and the full Supervisory Board meet to discuss one or more topics. Consultation is constructive, with mutual respect for the parties' positions. The Board of Management serves as organiser and CEO Marc van der Linden is the chair. The agenda is prepared jointly and the documents are shared. The evaluations of these consultations have been favourable. The participants get to know each other more thoroughly, which can be of great use during challenging times.

Cooperation with DNWG

DNWG was acquired by Stedin Holding in June 2017. Stedin Group aims to achieve synergy and scale benefits with this acquisition. In accordance with the purchase arrangements, these benefits are discussed with both works councils.

Works Council is part of Strategic Coalition

Represented by its chair, the Works Council takes part in the Strategic Coalition of Stedin Group. In this body, more than twenty directors and managers and the chair of the Works Council elaborate the strategy of Stedin Group and its practical implementation. At one of the meetings, the Works Council, together with the HR director, organised a workshop on the procedures of Modern Employee Participation we apply within Stedin Group.

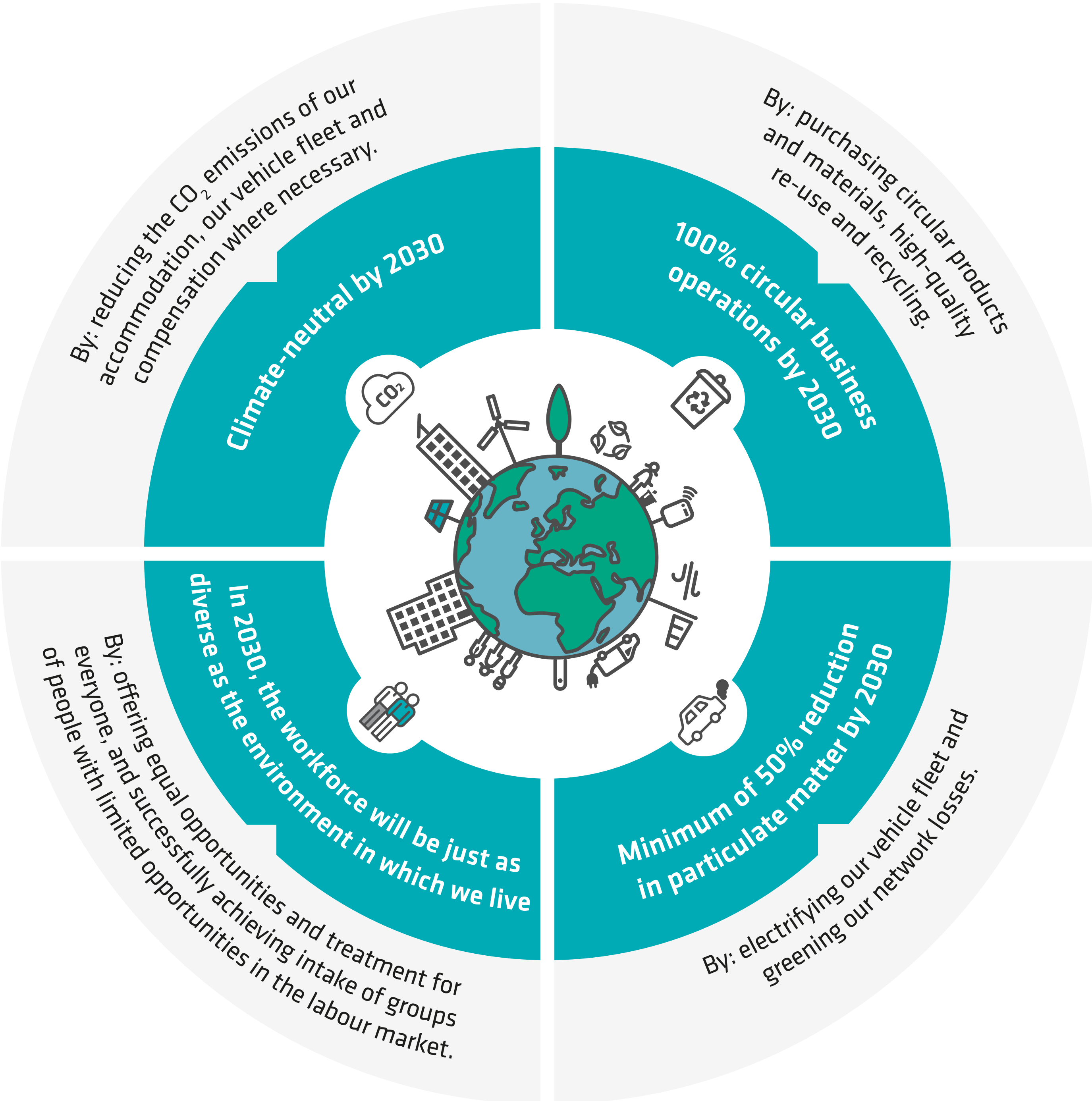
Roster for on-call shifts and emergency repair shifts

The Works Council has been indicating for years that the roster system is no longer adequate. We introduced a new roster in 2018 (see 'Sickness absence and vitality' on the previous page). We now jointly face the task of promoting and implementing the new roster.

The Stedin Groups Works Council with from left to right: Willem Groeneweg, Ben de Haas, Jorian Gauw, Theo Nieuwburg, Arjan van Voorden (chair), Leo van den Ende, Rik Bakker, Marcel Steinz, Bert Schouten, Mohamed Talhaoui, Richard Buijtenhek, Ineke Kuijpers (official secretary), Wendy Sinnema, Nicole Monteiro, Jack Steijger, Harrie Martens, Yeffrey van der Ven and Adri de Bruijne (deputy chair). Alco de Lange is not included in this photograph.

One Planet Thinking

We formulated the One Planet strategy to reduce our environmental impact. We concentrate our efforts on those areas in which our impact is greatest: CO_2 emissions and use of raw materials and an inclusive society. We are committed to reducing and where necessary compensating for our impact in those areas. At the same time, we seek to increase our positive impact with regard to an inclusive society.



One Planet KPIs

Stedin Group manages its One Planet strategy through key performance indicators (KPIs). The table below shows the KPIs for 2018 and the corresponding results.

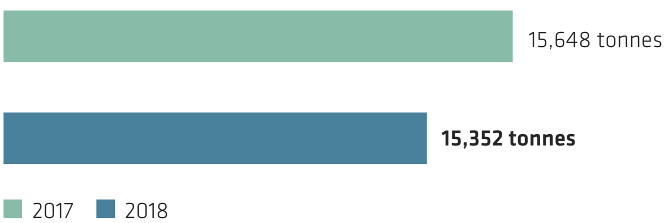
	One Planet KPIs for 2018	Target for 2018	Realisation in 2018
CO_2 and particulate matter emissions	Compensation of network losses	100%	100%
	Reduction of CO_2 emissions	-14%	-2%
Materials	Develop & calibrate KPI circular including raw materials passport	100%	100%
Inclusive society	Inclusive society:		
	• Influx of residence permit holders in work-study programmes for fitters	10	100%
	• Filling of jobs under Participation Act	84.5	18%
	• Work placement posts for young people	>1% of workforce	100%
	Inclusive society: • Help for households to achieve energy savings (Via Energy Bank Rotterdam)	100	10%

CO_2 and particulate matter emissions

Reduction of CO_2 emissions generated by internal business operations

We aim to reduce our CO_2 emissions as much as possible and where necessary offset them. Stedin Group aims to be climate neutral by 2030. By 2030, our use of electricity will be entirely sustainable and our vehicle fleet will have switched to either electricity or sustainable hydrogen. In 2018, Stedin Group's internal business operations generated CO_2 emissions of 15,352 tonnes (15.4 Ktonnes). Compared with 2017, our CO_2 emissions decreased by 296 tonnes, or 2%. Those emissions arose due to the consumption of electricity, gas and heat in our accommodation; fuel consumption of our commercial and lease vehicle fleet; and the business travel and commuting of our employees. In 2017, CO_2 emissions in our internal business operations totalled 15,648 tonnes (15.6 Ktonnes).

CO_2 emissions generated by our internal business operations Stedin Group



In 2018, we professionalised and improved insight into our CO_2 performance, as a result of which our CO_2 data have become more complete. For that reason, it was not yet possible to set a relevant reduction target for 2018. The reduction target for 2019 is 9%. This year, we will define reduction pathways with all divisions concerned.

As our CO_2 data have been improved, we have also obtained a better understanding of the total CO_2 emissions of Stedin Group. These amounted to 329 Ktonnes in 2018 (2017: 279 Ktonnes). Besides the CO_2 emissions of our internal business operations (15.4 Ktonnes), that figure also includes the emissions from our gas grid (33.8 Ktonnes), generator units (1.6 Ktonnes), our electricity grid (0.5 Ktonnes), purchasing and investments (256.8 Ktonnes), upstream emissions of purchased fuels, electricity and heat (19.4 Ktonnes) and emissions from commuting from our externally hired staff (1.3 Ktonnes).

Grid losses

Our grid losses have the greatest negative impact by far on our total CO_2 emissions. Grid losses arise during the distribution of electricity. The greater the distance, the greater the loss. We also lose electricity because people fail to pay for their electricity, owing to fraud, for instance. We are trying to reduce this by means of various pilot projects.

We have to purchase electricity for electricity losses. If we purchased 'grey electricity' for this, we would emit 500,000 tonnes of CO_2 by doing so. This is why we purchase Dutch wind energy wherever possible and if necessary compensate by purchasing Guarantees of Origin. With effect from 2021, we will purchase 400 million kWh of wind energy from Eneco annually for a portion of our grid losses, under a 10-year agreement signed in July 2018.

Particulate matter

Although particulate matter is one of the four main topics of our One Planet strategy, it does not feature as a separate KPI in the overview. The reason is that particulate matter emissions are largely linked to our grid losses. If we raise the sustainability of our grid losses through Power Purchase Agreements and further electrify our vehicle fleet, we will automatically attain our 50% reduction target.

Accommodation

Increasing the sustainability of our real estate is part of our strategic accommodation plan. Measures have been taken or scheduled at all 32 locations. We increase the sustainability of our buildings at natural points in time. We continually improve accommodation management and facilities services, for instance by energy management, installing solar panels, applying circular products and conscious purchasing. A total of 797 solar panels were placed on the buildings in Goes, Vlissingen and Terneuzen, which generated 213,569 kWh. The roof of our building in Delft was fitted with 1,158 solar panels in 2018**.** These panels generate more than 310,000 green kWh annually. In total, this is roughly equivalent to the annual electricity consumption of 170 households. We pursued large-scale sustainability improvements during the renovation of our building in Utrecht (see box).

Renovation of Stedin Office in Utrecht

Stedin increased the sustainability of its outdated and energy-devouring building in Utrecht, which was reopened in mid-2018. The surface area of the office has been reduced by 7,000 m^2 but accommodates the same number of users. The office has received energy label A++ certification, uses LED lighting and demolition waste has been re-used on the site and in road construction. The core of the building is a large atrium, allowing the office floors to benefit optimally from daylight. The glass front has a coating that both insulates and keeps out heat. Hybrid cooling ceilings produce a pleasant climate and make intelligent use of the concrete elements of the building to retain cold and heat. The building also has 50 charging stations for electric cars.

Reduction of particulate matter

With 799 passenger cars, 662 small vans, 886 large vans and 18 trucks, Stedin Group has one of the largest commercial vehicle fleets in the Randstad conurbation plus the Province of Zeeland. These vehicles emit CO_2 and particulate matter.

> ‘We are targeting a reduction of particulate matter emissions of our whole organisation by at least 50% compared with our current emissions by 2030. ’

This represents a substantial challenge for the years ahead. By the end of 2020, we aim to achieve zero emissions for all cars with yellow registration plates, including lease cars. This is to be followed by the more than 1,500 large and small commercially registered vans.

At present, 27 and 143 of all our business vehicles are hybrid electric and fully electric, respectively.

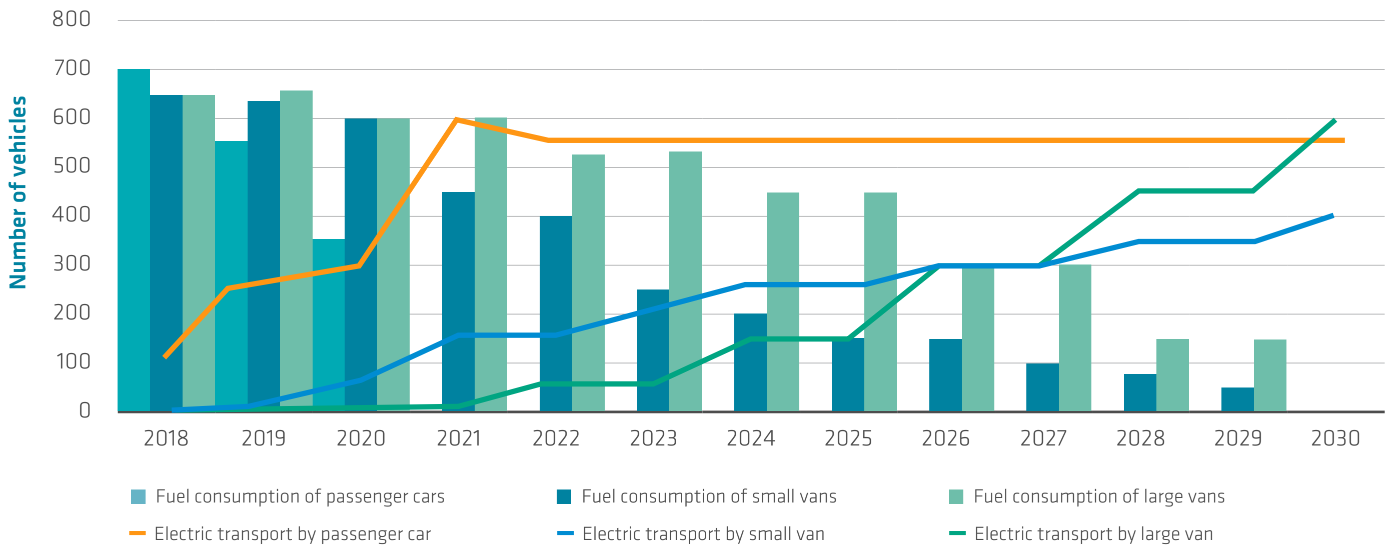
Mobility manager of the Year

On 29 May 2018, Gertjan Sybrandi, Head of Facilities Services & Mobility at Stedin, received the 2018 Mobility Manager of the Year award. The jury praised him for achieving results even in situations that engender resistance, and involving stakeholders in the process, step by step. The jury also singled out his clear vision on sustainable real estate choices and the associated parking policy.

In 2018, we used 152,359 litres less fossil fuels (petrol, diesel, LPG) for our commercial and lease vehicles than in 2017. Electric charging of our commercial and lease vehicles increased by 59,582 kWh.

Stedin Group participates in the 'Coalitie Anders Reizen' (Travelling Differently Coalition) for more sustainable business mobility and has signed the ‘mobility pledge’ in that connection. We also collaborate with the Natuur & Milieu environmental protection agency. For example, in 2018 we joined them in a survey of private lease arrangements for Stedin employees and a campaign that helps customers of Stedin in the transition to the natural gas-free environment. Together with Greenwheels, we replaced our shared cars with

Development of electrification of vehicle fleet



100% electric cars. We will increase the sustainability of our business mobility. Employees who have an OV vrij season ticket for public transport can travel by public transport for business as well as private purposes. We are also developing alternatives at the same time, such as private lease arrangements for electric cars and a bicycle scheme.

Use of raw materials

We purchase products such as pipes, cables, meters and transformers. Many raw materials for these products, such as copper, aluminum and plastics, are becoming increasingly scarce and their extraction or production often cause environmental harm. We aim to maximise recycling both from a sustainability perspective and for business reasons. Waste streams are redeployed to the highest grade possible or recycled. Before the end of 2020, we want to have comprehensive insight into all our raw materials streams and their impacts.

A socially responsible purchasing policy forms the basis for the selection of the most forward-looking suppliers. Where possible, we include circularity targets in tendering procedures. For instance, circularity was specifically requested in 2018 in the tendering procedure for transformers. We have agreements in place with service providers for the responsible treatment of residue streams; they collect and process these streams for us.

KPI for circular purchasing and the raw materials passport

We developed a KPI for circular purchasing in 2018 to gain insight into the degree of circularity of our business operations. We collaborated on this with fellow grid operators and our strategic suppliers. As from 2019, we will request suppliers to fill in a raw materials passport in tendering procedures for all our primary assets. This serves to ascertain the raw and other materials of which the product consists, how much recycled material it contains and the extent to which the product or material can be recycled after its useful life. We aim to have insight into these aspects for at least 18% of our primary assets in 2019.

Inclusive society

Stedin Group is committed to working for equal opportunities and long-term employability for all.

‘We want our workforce to reflect the world we live in. ’

This is described in the section Professionally competent employees now and in the future.

Green Grids Coalition

As the first sector in the Netherlands, the national infrastructure operators - which include Stedin - are disclosing their joint positive and negative impacts on society. The eight infrastructure operators are cooperating in the 'Coalitie Groene Netten' (Green Grids Coalition) of CSR Netherlands to accelerate increasing the sustainability of the joint infrastructure. The publication 'Bloedvaten van de maatschappij' (Blood vessels of society) sets out how the infrastructure sector wants to and can contribute to making the Dutch economy more sustainable and what kind of dilemmas they face. The infrastructure companies concerned are Stedin, Alliander, Enexis, Gasunie, KPN, ProRail, Rijkswaterstaat and TenneT.

One Planet governance

The Board of Management (BoM) is responsible for the ambitions and objectives that have been formulated for Stedin Group. In 2016, the BoM approved ambitions that provide direction for Stedin Group's sustainability policy towards becoming a climate-neutral organisation by 2030. KPIs have been formulated for the main impact categories - CO_2emissions, use of raw materials, particulate matter emissions and inclusive society - for the business units that have an influence on them. Results on the KPIs are reported to the BoM and the directors of the business units concerned every quarter. A periodic analysis is also carried out of strategic risks and opportunities, which includes the topic of sustainability. One full-time employee is available in the Strategy corporate services department for driving, monitoring and pursuing the continued development of the sustainability strategy within Stedin.

Charters and principles

Stedin Group endorsed the following external economic, environmental and social charters or principles in 2018: ISO 9001; ISO 14001; OHSAS 18001; ISO 27001; ISO 55001; NTA 8120; VCA**; CKB; BRL; Veiligheid Bewust Certificaat, CO_2-Bewust Certificaat, level 5; BRL SIKB 7000 and Safety Culture Ladder 3. The certificates that have a commercial purpose (CKB; BRL; Veiligheid Bewust Certificaat; CO_2-Bewust Certificaat, level 5; BRL SIKB 7000) were transferred to Visser & Smit Hanab as part of the sale of Joulz Energy Solutions.

Electric cargo bikes and folding bikes in the city centre

Electric cargo bikes in the city centre

From April 2018, six Stedin fitters used electric cargo bikes to replace around 4,000 meters in the city centre of Utrecht to avoid traffic and parking issues. The cycling fitters work much more efficiently: they reach their destination much faster and do not lose any time finding a space to park. The carrier cycle saves parking charges and prevents inconvenience caused by vans. The costs are half those of conventional vans. This also saves the CO_2 emissions of six diesel vans.

DNWG's meter readers use folding bikes as their means of transportation.

‘Stedin Group aims to be climate neutral by 2030.’

4. Financial results

Stedin Group achieved net profit of € 118 million in 2018. The 2018 earnings are in line with our expectations.

Financial results 2018

Total net revenue and other income

Net revenue and other income for 2018 amounted to € 1,286 million. This is € 92 million (7.7%) higher than in 2017.

On the one hand, net revenue and other income increased by € 91 million due to the acquisition of DNWG in June 2017 and by € 5 million due to revenue growth at Joulz Meetbedrijf & Infradiensten (non-regulated activities). On the other hand, our net revenue and other income decreased by € 31 million due to the sale of Joulz Energy Solutions B.V.

Our regulated grid management revenue was € 1,100 million, and increased by € 93 million compared with 2017. The acquisition of DNWG produced a positive effect of € 63 million. The remaining increase is attributable to the decision on rates (tariefbesluit) of the Netherlands Authority for Consumers and Markets (ACM).

Revenue in the metering domain decreased by € 20 million due to rate decreases and the sale of gas and electricity grids in Weert in 2017. Stedin applied the aforementioned rate decreases to compensate for the surplus profitability achieved in prior years.

Operating expenses

Our operating expenses increased by € 78 million (7.8%) in 2018 to € 1,074 million. Of the total increase, € 40 million (51.3%) was attributable to higher employee benefit expenses and € 38 million (48.7%) was due to a net increase in other cost categories.

Employee benefit expenses amounted to € 409 million in 2018 (2017: € 369 million). Employee benefit expenses decreased by € 23 million due to the sale of Joulz Energy Solutions. This was more than offset by a € 63 million increase in employee benefit expenses, of which € 33 million arose from the acquisition of DNWG. The remainder was attributable to growth of the number of FTEs as a result of increased investments and customer requests and the increase in average costs per FTE.

Purchase costs and costs of contracted work increased by € 51 million (18.5%) in 2018 to € 327 million. This is due both to the acquisition of DNWG and, in particular, to higher electricity prices.

The other operating expenses amounted to € 207 million in 2018, a decrease of € 6 million compared with 2017. This was mainly due to the costs of municipal sufferance taxes and concessions, which decreased by € 9 million.

Hours worked by own and externally hired staff allocated directly to own investment projects are deducted from operating expenses as capitalised production. Compared with the preceding financial year, the costs of capitalised hours increased by € 31 million (23.0%) to € 166 million. Of this increase, € 8 million arose from the acquisition of DNWG and the remainder is attributable to increased investment levels.

Investments

> ‘Investments in property, plant and equipment and intangible assets in 2018 amounted to € 607 million, an increase of 22.9% (2017: € 494 million).’

Investments in regulated networks rose from € 476 million in 2017 to € 589 million in 2018; they also relate to the large-scale provision and installation of smart meters.

Depreciation and amortisation

Depreciation charges and impairments of non-current assets amounted to € 297 million, an increase of € 24 million (8.8%) compared with the previous year. This increase was caused mainly by the acquisition of DNWG (€ 15 million) and accelerated depreciation of old meters.

Financing, financial income and expenses and liquidity

Our net financial expenses amounted to € 72 million in 2018 (2017: € 79 million) and relate mainly to the interest expense on long-term external loans. The decrease is mainly attributable to non-recurring interest income of € 10 million that relates to statutory interest on a payment received after a protracted dispute in which the Amsterdam court of appeal ruled in Stedin's favour.

The increasing investments led to a negative cash flow after operating and investment activities in 2018, which was further increased by the dividend paid. This led to a growing financing requirement, which was met by the issue of € 500 million in new bond loans in October 2018. A portion of these loans is intended to refinance existing loans required to be repaid no later than in the second quarter of 2019. In addition, early repayments of € 152 million were made in November 2018 to optimise returns on freely available funds compared with interest expense. On balance, interest-bearing debt increased by € 291 million to € 3,044 million as at 31 December 2018 (2017: € 2,753 million). Our cash and cash equivalents amounted to € 169 million as at 31 December 2018 (2017: € 73 million).

Income tax

Profit before tax was € 140 million for 2018 (2017: € 119 million). The tax expense fell by € 9 million in 2018 to € 22 million. The effective tax rate (as a percentage of profit before tax from continuing operations) in 2018 was 15.7% (2017: 24.9%). The low effective tax rate was mainly due to a future change of the corporate income tax rate. In December 2018, the Upper House of Dutch Parliament approved the bill to reduce the corporate income tax rate to 22.55% in 2020 and to 20.50% in 2021. This means that the deferred tax assets and liabilities will be settled with the tax authorities at lower rates. The measurement of the deferred tax assets and liabilities as at 31 December 2018 reflects those lower rates with a positive effect of € 14 million on corporate income tax.

Net profit

After deducting taxes, Stedin Group's net profit before profit appropriation was € 118 million (2017: € 423 million, including € 355 million directly related to the unbundling of Eneco Group).

Solvency and credit rating

Solvency at year-end 2018 was 43.3% (year-end 2017: 43.3%). Stedin Group's policy is aimed at achieving a minimum long-term solvency of 40%.

‘The Group's goal is to retain a long-term S&P A- credit rating. ’

Consequently, there is an adequate buffer for complying with the minimum credit rating requirement pursuant to the Network Operators Financial Management Decree (Besluit Financieel Beheer Netbeheerders) (a minimum rating of BBB/Baa2). S&P reconfirmed the A- credit rating as of 23 October 2018.

5. Non-regulated activities

Joulz Energy Solutions

Joulz Energy Solutions operates in the commercial business market and provides a range of products and services in the areas of devising, building and managing energy infrastructures, from advice and engineering to design, construction, maintenance and optimisation. Customers include grid operators, energy producers and industrial customers. The commercial operations of Joulz Energy Solutions were sold to Visser & Smit Hanab B.V., a group company of Koninklijke VolkerWessels, with effect from 1 September 2018.

High-voltage station Middenmeer ready for operations

In April 2017, Joulz Energy Solutions was officially commissioned by Reddyn for the project for the 150kV/20kV high-voltage station Middenmeer in Wieringermeer. The station was operational in August 2018.

Reddyn is the joint service provider of TenneT and Liander. The new-build substation was prompted by an upscaling of local wind energy generation in Wieringermeer from 110MW to 380MW. Joulz Energy Solutions was involved in this project as the main contractor.

Pilot project for energised working

Due to the importance of the availability of the high-voltage grid and the increase in volumes of sustainable energy, switching off connections is becoming increasingly difficult. As a consequence, some parts of the grid can no longer be maintained. Working 'live' is a safe alternative for this. In April, national grid operator TenneT and Joulz Energy Solutions worked on a high-voltage connection in Dedemsvaart – for the first time in the Netherlands, with the once-only permission of the government. In this project, TenneT and Joulz Energy Solutions wanted to demonstrate how working 'live' works and that this involves no more risks than working without voltage.

Joulz Stoomnetwerken

For almost six years, the steam network in Rotterdam Botlek has been doing what is expected of it, which is safely and reliably distributing steam and condensate from electricity producer AVR to the customer, EKC, both located in the Botlek area. This steam is sourced sustainably. There are also plans for a significant expansion of the steam network. Joulz Stoomnetwerken is engaged in extensive talks with other parties in the Botlek area, the Port of Rotterdam Authority and local authorities to jointly execute this project. In 2018, some 320,000 tonnes of steam were distributed using this steam network.

Joulz Diensten

Joulz Diensten operates in the non-regulated market and provides a range of products and services via Joulz Meetbedrijf and Joulz Infradiensten.

Energy transition and order intake

Thanks to the energy transition, the order intake of both Joulz Infradiensten and Joulz Meetbedrijf exceeded the budgeted amounts. There is an increase in demand for gross production meters that register the quantity of energy generated by customers. The number of requests has risen substantially owing to the increase in new-build activities and the growth of activities at existing customers.

More activities for Central Government Real Estate Agency (Rijksvastgoedbedrijf)

Joulz Diensten was awarded the Zuid-Holland lot in the tendering procedure of the Central Government Real Estate Agency. This concerns a 4-year maintenance and management contract for Joulz Infradiensten for around fifty locations and around seventy facilities. Thus Joulz Diensten managed to retain existing assignments at the Rijksvastgoedbedrijf and expand work in the region.

Reinforcement of Microsoft datacenter at TU Delft

Joulz Infradiensten built and substantially reinforced the energy infrastructure on the site of Delft University of Technology as a consequence of the construction of a Microsoft datacenter. The assignment comprised the engineering, construction and connection of three 10kV transformer stations and cabling from the grid and to the datacenter. Joulz Infradiensten also brought the energy supply of the datacenter on stream.

Contract with Eneco Solar renewed

The contract with Eneco Solar for the rental, purchase and read-out of meters was extended by ten years.

Hiving off of Joulz Diensten

In 2018, Stedin Group investigated the possibility of hiving off and selling Joulz Infradiensten and Joulz Meetbedrijf. The conditions for such a transaction were put in place in the past year. The employees employed at present by Stedin Group were transferred to Joulz Infradiensten as from 1 January 2019. The question of how a possible demerger might be implemented was also examined. These preparations led to a provisional purchase agreement with the British investment company 3i Infrastructure. The proposed transaction is subject to the approval of the shareholders and the regulator. The sales transaction is expected to be completed in the second quarter of 2019. Job security of the 150 employees has been guaranteed. Once it is hived off, Joulz Diensten will focus in full on the market. This offers opportunities for the organisation.

DNWG Infra

Within DNWG Group, DNWG Infra operates both in the regulated and the non-regulated markets. DNWG Infra is a 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 of other grid operators (e.g. Evides Waterbedrijf, Stedin and TenneT) entrusted to it, and industrial customers. DNWG Infra also supplies services in the area of metering technology in Zeeland and elsewhere, and is an approved party responsible for metering. The customer base is diverse and comprises distribution network operators, public authorities, industrial customers and business customers in the leisure and healthcare and other sectors.

High-voltage technology, Scaldia park IB-Vogt

In 2018, DNWG Infra's High-voltage technology division connected what was at the time the largest solar PV farm in the Netherlands, the Scaldia park. This facility was developed and completed by IB-Vogt. Scaldia has a capacity of 42 MW PV and some 160,000 panels, and is connected to the Enduris network. In addition, the high-voltage technology division was commissioned by IB-Vogt to supply and install the transformer as well as the switching system and the building for the cabling for the solar farm. The official opening of the Scaldia attracted a great deal of public interest.

DNWG Warmte - Ouverture

DNWG Infra incorporated DNWG Warmte B.V. in 2017 and, with effect from 1 January 2018, took on the operation of a thermal energy storagesystem in the Ouverture district in Goes. This system supplies heat and cold to around 240 homes, 2 apartment complexes with a total of 70 apartments and a comprehensive school. DNWG Warmte B.V. has a license as an energy supplier.

Meetbedrijf

In 2018, the contracts for metering services for gas, electricity and water for SNBV, the largest private grid operator at Schiphol Airport, were renewed for six years. The revenue of the Meetbedrijf increased further due to the delivery of gross production meters in connection with subsidy schemes for sustainable energy.

Cooperation between DNWG Infra and Evides Waterbedrijf

DNWG Infra has for several years been engaged in successful collaboration with Evides Waterbedrijf in the Province of Zeeland at Brabantse Wal and on Goeree-Overflakkee island.

> ‘The multi-utility approach is an important element of this collaboration, and involves the simultaneous building and maintenance of electricity, gas and water networks. ’

This approach facilitates effective and efficient service provision and operations. For the residents in Zeeland, this means roads and streets will need to be opened up only once. The technicians of DNWG Infra working on the drinking water network of Evides Waterbedrijf are G/W technicians. Their expertise therefore encompasses both the gas network and the water network. This benefits efficiency.

DNWG Infra coordinates Ziggo's cable connections on Goeree-Overflakkee.

With effect from 4 September 2018, DNWG Infra coordinates requests for multimedia cable connections on Goeree-Overflakkee on behalf of Ziggo. This also involves a multi-utility approach. Coordination by DNWG Infra is expected to boost customer satisfaction and reduce costs for Ziggo.

Certification

Joulz Diensten was recertified in 2018 for ISO 9001: 2015 and for VCA** Rev.2008 / 5.1. In addition, NMi Certin B.V. award a certification, Erkende Keurder -4523, to Joulz Meetbedrijf for carrying out certain activities in connection with kilowatt-hour meters and volume conversion instruments / EVCI.

DNWG Infra was recertified in 2018 for ISO 9001: 2015 and VCA**. In addition, a first follow-up audit took place in connection with the environmental standard ISO 14001: 2015. The certificate was renewed. DNWG Infra is 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.

Focus areas in 2019

We laid a sound basis in 2018 for achieving our new mission, vision and strategy. We are working in 2019 to tighten the focus on this and are concentrating on eight strategic initiatives directed at achieving our three strategic priorities: improved grid management, facilitating the energy transition, and sustainable business operations. Everything we do is governed by the need to ensure high-quality services, processes and systems.

Improved grid management

We ensure that our grids continue to be among the most reliable in the world and that customer satisfaction continues to rise.

> 'We will do this in 2019 by investing some € 650 million in readying our energy infrastructure for the future.'

We will keep the average downtime per customer below 17 minutes, improve the provision of information to customers and organise our services in a more customer-oriented way. These processes will produce positive results in connecting customers to our grids. In addition, we are providing better data quality and are working, together with other grid operators, on centralised systems.

Customer-oriented connections

In 2019, customers can visit mijnaansluiting.nl and state their preferred connection date. The customer will be connected on that date. Naturally we take account of the statutory time limit of 18 weeks. Through this approach, we seek to carry out more than 85% of our connections in accordance with the customer's preference and achieve a satisfactory score for more than 90% of the customers concerned.

Data management

We will lay down more clearly which data we store, and where we store them, when working on the grid, serving customers and collaborating with contractors. That will enable us to take better decisions and help the customer effectively at the first attempt. In 2019, we will train around 200 employees for this.

Multi-utility

We elaborate the cooperation agreements with water companies in a joint work procedure for, for instance, the execution of replacement investments. In practice, this means that we carry out work simultaneously in the same subsoil. This entails less inconvenience for the environment and results in a more efficient process. It also make data easier to locate, more accessible and more reliable.

Facilitating digitalisation

The first improvements effected with the aid of digitalisation have been successful. We will continue to build on this foundation in 2019. We will ensure, for instance, that 1,500 smart grid terminals can be read out to gain a better overview of the grid. Stedin is a business with high-grade knowledge not only of gas and electricity grids but also of IT. Our grids are equipped with advanced technology that delivers greater affordability and reliability for the customer.

Making the energy transition possible

We will continue to implement our innovation agenda. We are examining and experimenting with options for disconnecting homes from the gas grid more affordably and quickly and are looking at new possibilities for utilising the existing gas grid for hydrogen, for instance. We are experimenting with new technology and market models to improve flexibility so as to prevent bottlenecks in the grid. We do this, for instance, by developing an international standard for charging and discharging of cars, in collaboration with market parties. Electric cars will then be able to absorb any bottlenecks in the grid in the future.

> 'We will offer smart meters to 368,400 customers in 2019. '

Making the built environment more sustainable

The structure of our organisation is aligned with the wishes and requests of municipalities to facilitate the heat transition. Regional Energy Strategies, Environmental Planning Visions and Community Development are determined in cooperation. This approach provides us with a clear view of the path we have to travel to make 6,000 homes natural gas-free, every month, as from 2020.

Data-based insight into grids

To be even better prepared for energy that is generated on a fully sustainable basis, our grids are equipped with technology that enables us to perform remote metering and switching. In 2019, we will focus on obtaining more useful information from the huge amount of data that is available. We are investing in the knowledge, competencies and systems that are necessary for this.

Implementation of Climate Agreement
We are in extensive talks with the government and stakeholders about the Climate Agreement. This agreement largely determines how the energy transition will proceed in the Netherlands in the coming years. The real work however will start once it has been signed. In 2019, we know what the impact of the Climate Agreement will be and are converting that analysis into specific actions.

Sustainable business operations

As ambassadors for the energy transition, we are setting a sustainable example. This means that we have a much better understanding in 2019 of how much CO_2 we emit, so that we can further reduce our impact. In the meantime, we are continuing the electrification of our vehicle fleet.

> ‘We are jointly responsible for the safety of all those who cooperate on our projects and of our customers.’

We are accordingly continuing our HRO safety programme to attain our safety targets in 2019. We will also continue to recruit and train employees, such as young people without starting qualifications, people coming from other professions and residence permit holders. We invest in employees and in leadership.

Professionally competent employees
The work on the grids is both expanding and changing. We will put ourselves on the map as an employer in 2019 by means of a labour market campaign, so that people with a technical or IT background, for instance, know where to find us.

Financial health

We will continue our financial policy in 2019 and maintain the long-term objectives for solvency and credit rating, as stated in the Financial results section.

We expect to step up the level of investments at both Stedin and DNWG, as a consequence of the economic growth and the energy transition. These investments will be financed partly by raising funds externally and partly from cash flow from operating activities and from the proceeds from the intended sale of Joulz Diensten.

We will continue to execute and implement the 5-year efficiency programme defined last year and utilise the forecast synergy benefits resulting from the acquisition of DNWG in 2017.

We continue to engage in dialogue with the government, seeking to bring about a robust regulatory regime that sufficiently enables grid operators to continue making the necessary investments while at the same time ensuring that the energy transition remains affordable.

The world of students at senior secondary vocational school mboRijnland

‘It is necessary for the environment that the energy transition takes place. To this end, we must learn how we can install and use the new technologies. Better now than later’, is the firm belief of Jochem van de Ree, first-year student All-round Expert in Maintenance and Repairs at mboRijnland.

Energy transition in practice at Living Lab Palenstein

Jochem was there at the end of January 2019 when Minister of Education, Culture and Science Van Engelshoven and Minister of the Interior Ollongren signed the covenant for improved alignment of senior secondary vocational degree programmes with practice and the energy transition. This event took place in a Tango garage to be converted on an energy-neutral basis in the Palenstein district of Zoetermeer. In this Living Lab, students learn to work with businesses on solving issues that are relevant to society.

Natural gas-free and energy-neutral

Palenstein is being completely modernised: the district will be made energy-neutral and natural gas-free. Education is responding to this change with the Living Lab Palenstein Natural gas-free project. The educational programme maps a route to illustrate how a residential district from the 1960s is being transformed into a modern and sustainable Next-Generation District. Jochem's fellow student Robin van Mannekes says: 'I think that sustainable construction will produce very significant results in future.'

Complete modernisation of old district

Among other things, the pupils are shown how the district is being modernised step by step: old flats being demolished or renovated, newly built and converted zero-energy homes, and a new energy infrastructure. The programme is open to all technical students and pupils of affiliated educational organisations. Each degree programme offers a tailored approach in terms of level and field of study, such as Construction, Electrical Engineering and Fitting Techniques, Smart Technology, as well as the connection with the existing curriculum.

Learning why you are studying

The programme offers of a combination of theory and practice; for instance, when students accompany Stedin staff in charting the energy transition. By working in mixed groups, they learn how to convert a residential property into a zero-energy home, for instance. Matthijs Nieuwburg, third-year student of Smart Technology: 'We carry out many projects together with businesses. Many more degree programmes should take this approach.' Businesses can also make good use of multidisciplinary and multi-level student teams in finding smart solutions to the challenges of the energy transition. Anouschca ten Bosch, second-year student of Smart Technology: 'Projects of businesses are real. In other words, you learn why you are studying, which is genuinely important to prepare you for your career.'

Governance

In this section, we describe how the governance roles within Stedin Group are executed. The Dutch Corporate Governance Code is an important framework regulating matters such as the relationship between management and supervision. Partly in view of Stedin Group's societal role, it was decided to voluntarily apply the Dutch Corporate Governance Code, where possible and applicable, with effect from 1 January 2018.

Corporate Governance

The Corporate Governance Code and Stedin Group

Stedin Group sets great store by good corporate governance. The Group naturally complies with the governance requirements arising for the grid operator from the Electricity Act and the Gas Act. The Dutch Corporate Governance Code (CGC) was drawn up for listed companies. Stedin Group is therefore not obliged to comply with it, as its shares are held by 53 Dutch municipalities (owing to municipal redivision, we have 44 shareholding municipalities in 2019 instead of 53 as in 2018). Stedin Group however decided to voluntarily apply the CGC, where possible, with effect from 1 January 2018. By applying the CGC, we are emphasising our responsibility for the social aspects of doing business in the public domain. The 2018 Annual Report is the first annual report in which we report in accordance with the CGC.

The CGC is based on the ‘comply or explain’ principle. Accordingly, we explain which principles in the CGC are not (or cannot be) applicable to Stedin Group. The principal departures from the CGC are connected with the fact that Stedin Group is not listed, its shares are held by local and regional authorities and a large part of its business activities is regulated and subject to supervision by the ACM, as well as with its long-term strategy and the fact that the remuneration structure of the members of its Board of Management and Supervisory Board is regulated by the Executive Pay (Standards) Act (Wet normering topinkomens - WNT).

The CGC is applied at the level of Stedin Group.

Departures from the CGC

- *Provision 1.3.2 Assessment of the internal audit function:* The internal audit function was part of the CFO's portfolio in 2018. Owing to his expertise and interest, the CFO also assessed the internal audit function. The independence of the internal audit function is guaranteed by means of (the practical application of) safeguards included in the IA Charter and the BoM terms of reference. With effect from 1 January 2019 (the date on which the new CFO was appointed), the internal audit function operates under the responsibility of the CEO.
- *Provision 2.1.9 Independence of the chairman of the Supervisory Board:* The chair of the Supervisory Board (SB), Pieter Trienekens, served as acting director of Stedin Netbeheer B.V. for two years. In view of his expertise, Stedin Group and its shareholders see no impediment with regard to his position as chairman of the Supervisory Board.
- *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 period of four years. They can be reappointed for successive periods of up to four years. Such reappointments are not limited within Stedin Group. This longer term helps Stedin Group to ensure the continuity of the Board of Management.
- *Provision 2.2.2 Appointment of supervisory board members*: Within Stedin Group, Supervisory Board members are appointed for a term of four years and can be reappointed for a maximum of three additional 4-year terms. These longer periods of appointment and reappointment help to ensure the continuity of the Supervisory Board.
- *Provision 2.2.3 Publication of press release upon early retirement of supervisory board members*: Issuing a press release as standard practice does not serve a public interest. The Board of Management does so if required by circumstances. It goes without saying that Stedin Group regularly informs its shareholders about any early retirements.
- *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; they are held by 53 municipalities. However, Stedin Group has issued bonds that are listed on the stock exchanges of Luxembourg and Amsterdam. Once a year, after the publication of its full-year results, Stedin Group organises an analysts' meeting for its investors. This meeting is publicly announced in advance to the investors. After the meeting, the presentations are posted on Stedin Group's website. Stedin Group opts for transparent communication tailored to the target group and also does so in the field of financially driven analysts' information. Together with its shareholders, Stedin has also developed procedures in this field that match the information requirements of its shareholders. In addition to the publication of all analysts' meetings on Stedin Group's website, all information is available to shareholders via other consultative bodies.

We depart from the provisions referred to below because the two-tier board structure applies, because the shares of Stedin Group are held by 53 Dutch municipalities and are therefore not listed, and because the governance structure of Stedin is 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

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

Stedin Group

Stedin Group is the name of the Group comprising, among others, Stedin Netbeheer B.V., Joulz Diensten B.V. and DNWG Groep N.V. and, until 1 September 2018, Joulz Energy Solutions B.V. Stedin Holding N.V. heads the group structure and is, directly or indirectly, the director under the articles of association of all its subsidiaries. Stedin Holding N.V. has a full two-tier board structure consisting of a Board of Management and a Supervisory Board. The Board of Management manages the Group; the Supervisory Board exercises supervision. The two boards act independently of each other.

The grid operators Stedin and Enduris act on a non-discriminatory basis, meaning that they do not favour one particular party over another.

Governance roles

Board of Management

Stedin Group's Board of Management is responsible for the performance of Stedin Group and all subsidiaries within the group structure. Thus the Board of Management defines the long-term strategy and the company's operational and financial objectives and designates the preconditions for delivering the strategy. In performing its duties, the Board of Management carefully 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, notwithstanding the collective responsibility of the Board of Management as a whole. The Board of Management remains collectively responsible for all decisions. The division of duties within the Board of Management is decided, and if necessary changed, by the Board of Management, subject to approval by the Supervisory Board. Both the Board of Management as a whole and its individual members are authorised to represent the company. The internal *Governance and Authority Manual* sets out the procedure for obtaining mandates to represent Stedin Group and its subsidiaries externally. It also includes, for instance, threshold amounts for the performance of legal acts and other acts on behalf of Stedin.

Terms of reference of Board of Management

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 as applicable from the date of the formation of Stedin Group as of 1 February 2017. These terms of reference complement those requirements and include the division of duties, responsibilities and procedures of the Board of Management. The terms of reference reflect the principles and best practices of the Dutch Corporate Governance Code, insofar as they are applied by Stedin Group. The most recent version of the terms of reference of the Board of Management, of 3 July 2018, has been posted on the website of Stedin Group. The same applies to the terms of reference of the Supervisory Board and its committees. Their publication is required by the CGC.

Appointment and dismissal

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

Strategy Management Team

Apart from the members of the Board of Management, the members of the Strategy Management Team (MT) also include the Asset Management, HR and Strategy directors. Together with the General Counsel (Suzanne van Nieuwen-huijzen-Ruitenberg, who also serves as company secretary), the Strategy MT advises the Board of Management on monitoring and delivering the organisation's strategic objectives. Unlike the Board of Management, the Strategy MT is not a decision-making body itself. A favourable opinion issued by the Strategy MT in a meeting will, as a rule, be endorsed in a BoM meeting by a decision of the BoM.

Strategic Coalition

In addition, there is a Strategic Coalition, in which more than twenty directors, managers and members of a Works Council delegation develop the strategy and its implementation. They meet six to eight times a year in 1- and 2-day sessions for that purpose. In 2018, these meetings focused on inspiring examples from other businesses or sectors and on the business and control cycle. Various strategic topics were also considered in greater depth. The Strategic Coalition consists of nine women and thirteen men.

Composition

In 2018, 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). By adding a fourth member (CTO) to the Board of Management as from January 2018, Stedin Group is underlining the importance of the energy transition for the Group. This also affords the Board of Management additional scope to manage with a tighter focus and reflect on strategic themes.

The Board of Management consists of three male members and one female member (the COO). This means that women make up 25% of the Board of Management. At present, the ratio between male and female members of the Board of Management does not comply with the statutory requirement, applying since 13 April 2017, of at least 30% men and at least 30% women. It is assumed that as soon as a vacancy arises on the Board of Management, this will provide an opportunity for a more balanced representation of men and women. This opportunity in fact occurred in connection with the impending departure of Gerard Vesseur, our CFO. He will be leaving us in the course of 2019. Diversity was specifically considered in the search for a new CFO, both in drawing up the job profile and in selecting a recruitment and selection agency. In the end, we did not manage to fill this position with a female candidate. Danny Benima took up the position of CFO on 1 January 2019. In him, we have found a successor in whom we have great confidence.

Supervisory Board

Stedin Holding N.V.'s Supervisory Board advises the Board of Management and exercises supervision on the policy of the Board of Management and the general performance of the company and its affiliates. The Supervisory Board also acts as employer of the Board of Management. Members of the Board of Management are accordingly appointed by the Supervisory Board and can be suspended or dismissed by the Supervisory Board (in consultation with the General Meeting of Shareholders). This also follows from the company's articles of association. The Supervisory Board of Stedin Holding N.V. also serves as Supervisory Board of the grid operators within the group, i.e. of Stedin Netbeheer B.V. and Enduris B.V. This has been formalised in the articles of association of both grid operators (and those of Stedin Holding).

Upon taking office, the Supervisory Board drew up terms of reference for its functioning. These apply in addition to the legal requirements and requirements under the articles of association. The terms of reference include provisions on the Supervisory Board's composition, committees, duties and powers, meetings and decision-making.

The Supervisory Board has two permanent committees, composed as follows as of 21 September 2018:
• A combined Selection, Remuneration and Appointments Committee (SRA Committee). This committee consists of Pieter Trienekens, Hanne Buis (as from 21 September 2018), Jules Kortenhorst (until 1 February 2019) and Dick van Well. Dick van Well is the chair.
• An Audit Committee, consisting of Theo Eysink and Annie Krist (as from 13 April 2018). Theo Eysink is the chair. Tineke Bahlmann was a member until she retired as of 13 April 2018.

The committees have their own meetings in preparation for the full Supervisory Board meetings. The committees report verbally in the Supervisory Board meetings, when they also present their (draft) minutes. The recommendations of the committees form the basis for decision-making in the meetings of the Supervisory Board. The Audit Committee and the SRA Committee each have separate terms of reference, setting out provisions on their functioning. The terms of reference can be consulted on the Stedin Group website.

The members of the Supervisory Board are appointed by the General Meeting of Shareholders, after being nominated by the Supervisory Board. The Supervisory Board has drawn up a profile for its size and composition, taking account of the nature of the company, its activities and the desired expertise and background of its Supervisory Board members. Supervisory Board members are appointed for a term of four years and can be reappointed for a maximum of two additional 4-year terms. Supervisory Board members can be suspended by the Supervisory Board, and can be dismissed by the Enterprise Division of the Amsterdam Court of Appeal. 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 in order to avoid, as much as possible, Supervisory Board members retiring simultaneously. The retirement schedule below applies as from 21 September 2018.

Composition

The Supervisory Board has temporarily consisted of six members since September 2018, two of whom are women; from February 2019, the Supervisory Board consists of five members and the ratio of men to women is 3:2. With this ratio of men to women, the Supervisory Board complies with the diversity requirement. In addition, a variety of age categories are represented in the Supervisory Board. The search for new Supervisory Board members deliberately targeted greater diversity in terms of gender, partly by expressly designating this in the profile in advance and by incorporating this aim in the assignment given to the recruitment and selection agency. Lastly, diversity in the composition of the board is also included in the annual evaluation of the Board of Management and the Supervisory Board.

Schedule of appointments and retirements

Name	Appointed as of	Due to retire in
drs. P.E.G. (Pieter) Trienekens	1 February 2017	February 2020
drs. H.L. (Hanne) Buis	21 September 2018	September 2022
drs. A.J. (Annie) Krist	13 April 2018	April 2022
T.W. (Theo) Eysink RA	1 February 2017	February 2021
drs. J.T.H.M. (Jules) Kortenhorst MBA	1 February 2017	February 2019
ing. D. (Dick) van Well	1 February 2017	February 2021

Internal audit function

The internal audit function (IA function) is performed within Stedin Group by independent internal auditors. Internal Audit supports Stedin Group in achieving its objectives and in improving and protecting the organisation, by providing insight, advice and (supplementary) assurance on the extent of risk management achieved.

The IA function came under the responsibility of the CFO in 2018, whose portfolio includes Risk & Control. Given the CFO's expertise and experience, it was logical not to assign the IA function to the CEO's responsibilities as yet. With effect from the appointment of the new CFO (as from 1 January 2019), the IA function has been part of the CEO's responsibilities. The Board of Management and the Supervisory Board have safeguarded the independence of the

IA function by means of a number of measures initiated, approved and applied in practice by the Board of Management and Supervisory Board. Thus the CFO involves the entire Board of Management (and the Audit Committee) in the assessment of the IA function and possibilities were created for separate notification of the CEO, the chairman of the Audit Committee, the full Supervisory Board and the external auditor. Those safeguards are also incorporated in the IA charter and the terms of reference of the Board of Management.

The Audit Committee supervises the IA function and advises the Supervisory Board on the role and performance of the IA function. Each quarter, the IA function reports to the Board of Management and Supervisory Board on new findings, the progress of ongoing audits and the main findings arising from them. A risk-based audit plan is drawn up annually, which reviews the audits performed and looks ahead to those of the coming year. The Supervisory Board adopts the audit plan. The external auditor also takes note of the findings of the audits performed.

The external auditor

Deloitte Accountants N.V. is the external auditor of Stedin Group and attended all meetings of the Audit Committee. The external auditor also annually attends the Annual General Meeting in which the financial statements are adopted.

Integrity

Code of conduct

A safe working environment and ethical behaviour among employers and employees are highly important to Stedin Group, and we have laid down our standards and values in this regard in a Code of conduct (in Dutch only). The code covers conduct between employees themselves, but also in contacts with external parties such as customers, shareholders or regulators. Violations of human rights, bribery and other forms of corruption will not be tolerated. The code of conduct has been elaborated in guidelines for a range of specific topics, including competition, privacy and social media. The code of conduct of Stedin Group and the guidelines are available on the Group's website, in line with the Corporate Governance Code. DNWG Group applies its own code of conduct based on similar principles.

The Compliance Officer organises annual integrity sessions at various locations. Various articles are published on the Intranet each year with a focus on integrity risks.

Reporting Facilities

Stedin Group has separate reporting facilities for security and integrity incidents. This is where employees can report actual or suspected instances of non-ethical behaviour or security incidents in the work environment. Non-ethical conduct is also understood to comprise issues concerning bribery, other forms of corruption or human rights violations. Security incidents in a work setting may concern both data protection and physical security. Integrity incidents are handled on the basis of the Guideline for Integrity Incidents and Abuses.

Confidential advisers

Employees with integrity issues can also contact one of the organisation's confidential advisers. As in 2017, there were three confidential advisers at Stedin in 2018; DNWG has four. Confidential advisers have an obligation of confidentiality and never act on their own initiative or without the approval of the employee concerned. A confidential adviser receives a fee for this work.

External report

If an employee believes that an abuse within the company has not been eliminated or not been handled adequately in accordance with the internal whistleblower procedure, and if the abuse concerned is relevant to society in general, the employee can opt to report it externally to the House for Whistleblowers. The whistleblower procedure has been posted on Stedin Group's website.

Supplier Code of Conduct

Stedin Group attaches great importance to corporate social responsibility and expects its suppliers to demonstrate an ethically responsible attitude in dealing with resources and people alike. By means of purchase conditions, framework contracts and the Supplier Code of Conduct (in Dutch only). Stedin Group safeguards compliance with laws and regulations in the field of Socially Responsible Purchasing at its suppliers. The Supplier Code of Conduct refers to the Universal Declaration of Human Rights and requires suppliers to act in accordance with it. By signing it, suppliers guarantee that their chains are free from child labour, forced labour and discrimination.

Stedin Group incorporated Socially Responsible Purchasing in its purchasing policy in 2018. Circularity, the source of raw materials, waste prevention and sustainability are integrated in the specific information requested from suppliers in tendering procedures.

Biographical details of members of the Board of Management of Stedin Group

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

Marc van der Linden (b. 1972) was appointed chair of the Board of Management with effect from 1-2-2017. Prior to that he had been a member of the Board of Management of Eneco Holding N.V. since 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. Previously Marc worked at Van Gansewinkel Group. He studied Economics at Tilburg University.

Areas of responsibility: Strategy, Corporate Affairs, HR, Communication, Joulz Infra- en Meetdiensten, Joulz Energy Solutions (until 1-9-2018), Internal Audit (from 1-1-2019).
Other positions: Chairman of Netbeheer Nederland, member of Cyber Security Board Netherlands, member of the Economic Board for South Holland, member of the Advisory Board of Technisch College Rotterdam.

Mr D. (Danny) Benima
Member / CFO (from 1 January 2019)

Danny Benima (b. 1978) was appointed as CFO and member of the Board of Management of Stedin Group with effect from 1-1-2019. Prior to that date, he worked at Arcadis as CFO for Southern Europe. In the past years, he held various financial positions at Arcadis and Stork. Danny studied International Management (HES Amsterdam) and Business Administration with Financial Management as specialisation (Nyenrode). Danny is a Registered Controller (Dutch 'Registercontroller', Tilburg University).

Areas of responsibility: Control & Risk, Finance & Accounting, Purchasing, Treasury.

Ms J.A.M. (Judith) Koole
Member / COO

Judith Koole (b. 1969) was appointed member of the Board of Management with effect from 1-2-2017. Prior to that she was Customer and Market Director at Stedin Netbeheer B.V. She joined Stedin in 2012 and held positions including Programme Coordination Manager and manager of ReVisie (integration of Stedin/Joulz). Previously she worked at Delta and at SITA (SUEZ) in line management positions with final accountability. She studied both French and Business Administration at Radboud University Nijmegen.

Areas of responsibility: Malfunctions & Maintenance, Construction & Replacement, Meter Cabinet & Connection, Customer & Market, VGMK (Safety, Health, Environment and Quality), DNWG (until 1-9-2018).
Other positions: Board member of Stichting Zeeuwse Publieke Belangen (until 15-11-2018).

Mr D. (David) Peters
Member / CTO

David Peters (b. 1980) was appointed member of the Board of Management as Chief Transition Officer with effect from 1-1-2018. Since May 2015, he held the position of Strategy Director at Stedin and was responsible for strategy and innovation. Until May 2015, he worked at Boston Consulting Group in the Netherlands and 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 and New Business, DNWG (from 1-9- 2018), IT (from 1-1-2019).
Other positions: Board member of Stichting Zeeuwse Publieke Belangen (from 15-11-2018), chairman of RVT USEF, governing board member of Elaad, board member of EDSO.

Mr G. (Gerard) Vesseur
Member / CFO (until 1 January 2019)

Gerard Vesseur (b. 1954) was appointed member of the Board of Management with effect from 1-2-2017. Prior to that he held the position of Finance Director at Stedin Netbeheer B.V. He joined Eneco Group in 1998, working first as Finance Director, thereafter as Director Control & Risk and subsequently as Finance Director at Joulz B.V. Previously Gerard worked at Global Knowledge and Arthur Andersen. Gerard is a chartered accountant (Dutch 'registeraccountant') and studied Business Economics at a HEAO (school for higher education in economics and management).

Areas of responsibility: Control & Risk, Finance & Accounting, IT, Purchasing, Treasury, Internal Audit.
Other positions: Board member of Stichting Beheer Oikocredit Nederland Fonds, board member of Oikocredit Nederland and board member of Stichting Zeeuwse Publieke Belangen .

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

Biographical details of members of the Supervisory Board

Mr P.E.G. (Pieter) Trienekens (chairman)

Pieter Trienekens (b. 1950) was acting managing director at Stedin Netbeheer B.V. from 2014 to 2017. Prior to this, he worked as a self-employed consultant. From 1986 to 2011, he worked at Nederlandse Gasunie, holding various positions including that of member of the Management Board. His previous positions included that of policy advisor at the Ministry of Economic Affairs. He also chairs the Supervisory Board of Cuculus GMbH in Ilmenau, Germany and is a member of the Supervisory Board of DNV Kema in Arnhem.

Ms J.P. (Tineke) Bahlmann (until 13 April 2018)

Tineke Bahlmann (b. 1950) was a member of the Supervisory Board of Stedin Netbeheer B.V. from 2012 to 2017, and subsequently of Stedin Group. Since 1991, she has worked part-time as professor of Business Economics at Utrecht University. Until September 2012, she chaired the Dutch Media Authority (from 2004) and before that she was Strategy Director at Rabobank. Tineke also worked as a management consultant. She held and still holds various management and supervisory board positions, for instance as member of the Supervisory Board of ING, chair of the Supervisory Board of Maasstad Hospital Rotterdam, the Centre for Visual Arts in Rotterdam and Max Havelaar. She is also a member of the Advisory Board of Social Insurance Bank SVB and was appointed chair of the Supervisory Board of public transport organisation RET in 2015.

Mr T.W. (Theo) Eysink

Theo Eijsink (b. 1966) started his career at Arthur Andersen, after which he worked in financial positions at KLM Catering, Spuigroep 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. In 2012, he became EVP Corporate Control at KPN and with effect from 1-5-2018 he was appointed CFO of the Business Market division of KPN. He has supervisory experience in the public and semi-public sector.

Ms H.L. (Hanne) Buis

Hanne Buis (b. 1976) is Managing Director of Lelystad Airport, which is part of Royal Schiphol Group. Before being appointed in that role, she held various positions at Amsterdam Airport Schiphol, where she managed complex operational processes. As director of an airport, she knows what it takes to manage a company that is at the centre of attention of society and, like Stedin Group, is on the eve of far-reaching changes with an impact on its social and natural environment. She also has extensive experience of working with various local and regional authorities and with the central government.

Mr J.T.H.M. (Jules) Kortenhorst (until 1 February 2019)

Jules Kortenhorst (b. 1961) was a member of the Supervisory Board of Stedin Netbeheer B.V. from 2013 to 2017. He was a member of the House of Representatives for the Christian Democrats (CDA) from 2006 to 2008. Previously he worked in international business, including for Shell. As a member of the House of Representatives, Jules worked on innovation policy and other areas. After leaving the House, he served as director of the European Climate Foundation until 2011. In 2012, he resumed his entrepreneurial activities. Since September 2013 he has been CEO of the Rocky Mountain Institute, a think tank in the US that focuses on the energy transition.

Ms A.J. (Annie) Krist (from 13 April 2018)

Annie Krist (b. 1960) commenced her career at N.V. Nederlandse Gasunie in 1987. She subsequently held various positions within the sales department and headed several account management teams. At the end of the 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. From 2008 to 2011, she was Director Strategy and Participations and on 1-7-2011, she was appointed as Managing Director. From 1-5-2016 to 1-4-2017, Annie was a member of the Executive Board and CEO of Gasunie Transport Services. She was appointed as CEO of GasTerra with effect from 1-4-2017.

Mr D. (Dick) van Well

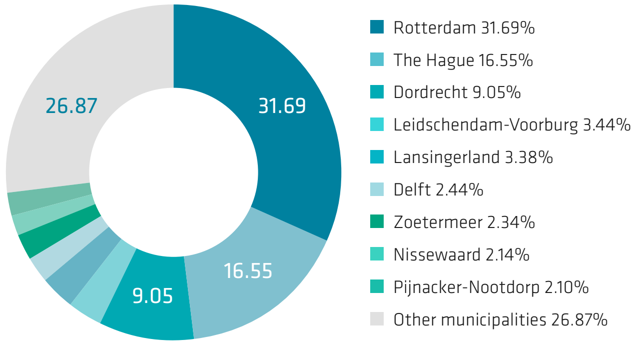
Dick van Well (b. 1948) served as member of the Supervisory Board of Stedin Netbeheer B.V. from 2012 to 2017. From 1998 to October 2010, he chaired the Management Board of construction company Dura Vermeer, where he had worked since 1973 and had held various positions. His other positions include that of member of the Supervisory Board of Dura Vermeer Groep N.V. and of APG Groep N.V.

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

Shareholders

We are connected with and focused on society. Together with our customers, shareholders and partners, we strive to foster sustainability in our social environment. With the support of our shareholders (53 Dutch municipalities in 2018), Stedin Group is able to dedicate its attention to its sustainable course.

Stedin Holding N.V.'s authorised share capital is divided into 20 million ordinary shares. No preference shares have been issued. Each share entitles its holder to one vote. No depositary receipts for shares have been issued. There are no usufructuaries or pledgees of shares with voting rights.



Municipalities holding less than 2% of the shares

Aalsmeer	Giessenlanden	Oud-Beijerland
Achtkarspelen	Goeree-Overflakkee	Papendrecht
Alblasserdam	Gorinchem	Ridderkerk
Albrandswaard	Haarlemmerliede & Spaarnwoude	Rijswijk
Ameland	Hardinxveld-Giessendam	Schiedam
Amstelveen	Heemstede	Schiermonnikoog
Barendrecht	Hellevoetsluis	Sliedrecht
Binnenmaas	Hendrik Ido Ambacht	Strijen
Bloemendaal	Kollumerland c.a.	Uithoorn
Brielle	Korendijk	Vianen
Capelle aan den IJssel	Krimpen aan den IJssel	Westvoorne
Castricum	Krimpenerwaard	Zandvoort
Cromstrijen	Leerdam	Zederik
Dongeradeel	Lingewaal	Zwijndrecht
Ferwerderadiel	Molenwaard	

Owing to a municipal redivision which came into effect on 1 January 2019, Stedin Group now has 44 shareholding municipalities instead of the 53 in 2018. Five new municipalities were created as part of this process in our area of operations: Molenlanden, Noardeast-Fryslân, Vijfherenlanden, West-Betuwe and Haarlemmermeer.

Risk management

Stedin Group regards managing risks and opportunities in order to achieve its strategic objectives as a significant line responsibility.

Risk governance

In developing and executing Stedin Group's strategy, the Board of Management devotes extensive attention to the uncertainties (both opportunities and risks) associated with that strategy. The Board of Management has final responsibility for the execution of risk management, together with the management of the various business units. They are supported by support departments specialising in functional areas, such as Risk & Control; Safety, Health, Environment and Quality (VGMK); Business Continuity Management; Stedin Security Office, Corporate Affairs and Compliance & Integrity. In addition, the Asset Management line department is tasked with preparing proposals for (replacement) investments based on risk analyses, for which the ISO-NTA 8120 (ISO 55000) standard is applied. Internal Audit performs audits and reports on the results to the Board of Management and the Supervisory Board's Audit Committee.

Risk & Control (Corporate Risk Management)

Corporate Risk Management is responsible for the policy frameworks, the coordination and reporting of the risk management process (see Risk management process).

VGMK (Quality management)

Stedin Group applies various ISO standards for the certification of the management system. The standards are aimed at managing and improving various aspects and processes within our organisation. Designing, maintaining and external auditing of the management system by certifying institutions helps us manage risks effectively (see also Safety and security)

VGMK (Business Continuity Management, BCM)

BCM prepares policy and procedures for preventing and combating undesirable (crisis) situations, such as emergencies concerning electricity or gas and IT and telecom failures. It does this by linking the various risk aspects with each other, such as crisis management with information security (ISO 27002).

Stedin Security Office

The Stedin Group Security Office is responsible for ensuring an integral approach to physical and digital security. This improves our defences against physical and digital threats to our grids. The Security Office also contributes to the availability and safety of the services provided by Stedin Group, helping us to comply with the applicable laws and regulations.

Corporate Affairs (Privacy)

The implementation of European privacy legislation was a prime focus in 2018. This is reflected in elements such as the records of processing activities, raising privacy awareness and the appointment of a data protection officer.

Corporate Affairs (Compliance & Integrity)

The Compliance & Integrity (C&I) function is tasked with ensuring that the organisation complies with external and internal laws and regulations. C&I provides the organisation with instruments in the shape of a framework of standards (code of conduct and guidelines), a reporting centre and training (including training in raising awareness). The C&I is also tasked with handling incidents reported and occurring within the organisation.

Treasury

The Treasury department is responsible for capital management and for the management of financial risks including market risks, credit risks and liquidity risks of Stedin Group. The Treasury department also handles the internal financing of wholly-owned subsidiaries. The control principles for those 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. For more information, see the Management of financial risks section of the Financial Statements.

Risk management process

Stedin Group's Enterprise Risk Management (ERM) framework covers both long-term and short-term uncertainties. We based the design of this framework on the COSO-ERM framework and the ISO 31000 standard. The risk management process is a permanent part of the annual standard business planning and control cycle.

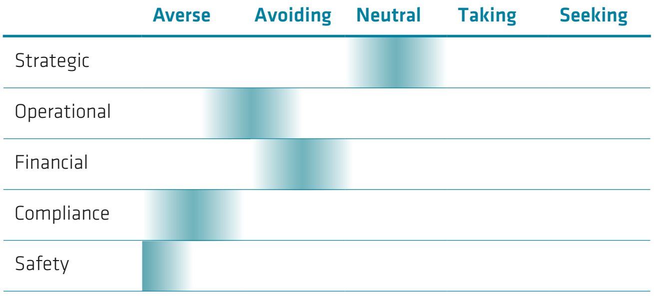
Long-term developments

The risk management process regarding long-term uncertainties encompasses both risks and opportunities that constitute uncertainties in delivering the long-term strategy. Developments with regard to these uncertainties are covered by updates and reports once every quarter. These long-term uncertainties also serve as input in the selection of strategic initiatives, are part of the financial-strategic forecasts and are incorporated in the annual planning process. In this process, the long-term uncertainties are translated as much as possible into short-term uncertainties.

Short-term developments
Risks and the associated controls in connection with short-term uncertainties are identified. These are linked to the business and departmental objectives set out in the departmental plans for the coming year. This information is gathered and updated at least once a year. Developments in these risks and the effectiveness of the controls applied are reported to the Board of Management via monthly business unit reviews. Twice a year, the departmental management teams review by means of a self-assessment whether the controls applied to those risks are effective. In addition, potential improvements are identified and actions are defined. The outcomes of these self-assessments are reported to the Board of Management in a Letter of Representation. They are one of the inputs that form the basis for the in-control statement of the Board of Management (see In-Control statement).

Risk tolerance

Risk tolerance comprises defining and identifying in advance the nature and the extent of risks that an organisation is prepared to accept in achieving its objectives. The extent to which we are prepared to be exposed to risks differs for each risk category:



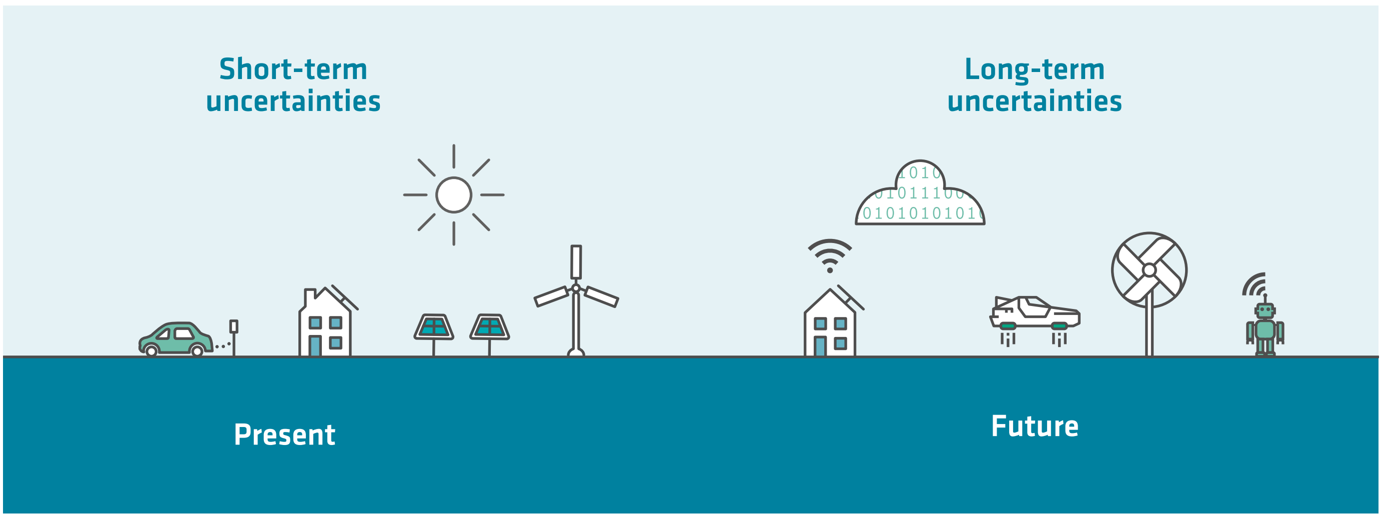
Strategic: Neutral
Stedin Group is prepared to take moderate risks to achieve its mission, vision and strategic objectives. In doing so, Stedin Group seeks a balance between its role in society and the environment.

Operational: Avoid
Stedin Group avoids risks concerning supply security, seeking a balance between supply security and (social) affordability.

Financial (including financial reporting risks): Avoid
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 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 involve potentially life-threatening risks. We are not prepared to take any risk



whatsoever that could threaten the safety of our employees and our environment.

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

Developments in 2018

In 2018 Stedin Group drew up a new vision for integral risk management, stating its ambition to organise its risk and opportunities management as an integral part of the regular management, control and accountability cycle and the regular supervision of the organisation. This can be achieved by ensuring that the strategy, plans and budgets are based in part on the current risks and opportunities relating to the changing context in which Stedin Group operates.

> ‘All risk management disciplines support operations on the basis of their own expertise.’

However, they do so on the basis of one central vision for risk management that is centred on a cooperative and integrative approach across adjoining departments.

Risk & Control (Corporate Risk Management)

In 2018, the management of long-term uncertainties and opportunities was safeguarded in the annual planning process and management's planning and control meetings. The possible implications of the Climate Agreement were also charted.

Risk and control workshops on managing short-term risks were given at the department level. These are aimed at updating the short-term risk registers and the measures formulated for them. The approach of the workshops has been changed, with a greater focus on raising awareness and on ownership.

An evaluation of the term 'risk tolerance' was carried out in 2018 in order to further professionalise our approach in this regard. Several of the outcomes of this evaluation have since been put into practice (see the *Risk tolerance* section in Risk governance)

On the basis of the periodic evaluation of the risk framework, the Board of Management established that, partly as a result of the unbundling from Eneco in 2017, the risks and controls in respect of financial reporting have not yet been formalised and documented in full and in all respects. The Board of Management reported and discussed this finding in the Audit Committee (see *Audit Committee in* Report of the Supervisory Board). An improvement process for this was proposed and initiated in 2018. This process works, step by step, towards a more formalised Internal Control Framework for all material processes that contribute to the integrity and quality of financial reporting. We expect to complete this process in 2020.

VGMK (Quality management and Business Continuity Management)

In 2018, we conducted a campaign to raise awareness concerning the High Reliability Organisation concept (see Safety and security).

The importance and the added value of business continuity management have continued to grow. In 2018, business impact analyses were prepared in conjunction with various departments and the critical business activities were designated.

Stedin Security Office

In 2018, the Security Office further professionalised the identification, analysis of and response to cyber-related threats and the measures taken to combat them. In addition, a cyberimpact analysis is to be carried out in conjunction with Corporate Risk Management and Insurance.

Corporate Affairs (Privacy)

Stedin Group has established a Privacy Office in order to promote privacy awareness among employees on the shop floor. At DNWG, this has been organised in the form of a privacy triangle. In both cases, the data protection officer has a pivotal function in this process.

Corporate Affairs (Compliance & Integrity)

In 2018, Compliance & Integrity was developed into a small coordinating organisation that works closely with other departments.

Risks and uncertainties that had a major impact in 2018

No risks occurred in 2018 that had a major impact on the business operations of Stedin Group.

For a description of the accidents in 2018, 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 of products and services.

Outlook for 2019

In 2019, we will continue to advance the implementation of our risk tolerance model and supplement our risk instruments. In addition, we are implementing a new risk management application, which will be used by all risk management disciplines. The process for further formalising the risks and controls relating to the integrity and quality of financial reporting will be continued in 2019.

Main risks in 2018

Risk	Category
Cyberattack	Operational
Unavailability of enough employees with the required technical competencies	Operational
IT landscape insufficiently prepared for the future	Strategic
Agility of the organisation	Strategic
Compromising information and information systems	Operational
Uncertainties due to changes in legislation and regulation	Compliance
Uncertainties of long-term financial funding	Financial
Impact of accidents	Safety
Excessive environmental impact	Strategic
Loss of communication network	Operational

Most important risks and opportunities for Stedin Group

This section describes the most important risks and opportunities for Stedin Group. For information about our financial reporting risks, see Judgements, estimates and assumptions and Management of financial risks in the Financial Statements.

Assessment of risks and opportunities

In assessing the risks and opportunities, the likelihood of their occurrence is compared with their potential impact. The impact categories are linked to the three strategic priorities of Stedin Group. The table below describes the impact category for each priority.

Strategic priority	Impact category
Improved grid management	• Quality and efficiency of our service
Facilitating the energy transition	• Role as enabler
Sustainable business operations	• Safety and environment • Development of the organisation and motivation of the employees • Finance

Risks

Title of risk:

Cyberattack

Relation to strategic priority:

Improved grid management | Sustainable business operations

Description of risk:

As a result of its strategic location and its social and economic importance, the Stedin Group infrastructure is an attractive target for cyberattacks. A cyberattack can endanger the continuity of Stedin Group and society.

How did we respond to this fact in 2018:

The Stedin Office of Security was established in 2017 to manage security risks across the Stedin Group. We are continuously learning by means of periodic self-assessments. We use a Plan-Do-Check-Act cycle, as required under the Networks and Information Systems Security Act. Pursuant to this Act, Stedin Group has been designated as a Provider of an Essential Service and is therefore subject to strict supervision by the Telecom Authority. We collaborate sector-wide in this area with public and private parties.

Category and risk appetite:

	Avers	Avoiding	Neutral	Taking	Seeking
Operational		■			

Change from 2017	Low	Moderate	High	Top
=				•

Title of risk:

Unavailability of enough employees with the required technical competencies

Relation to strategic priority:

Facilitating the energy transition | Sustainable business operations

Description of risk:

Due to demographic ageing and a challenging labour market, there is a risk that we will no longer have enough staff with the required technical competencies.

How did we respond to this fact in 2018:

We use a strategic personnel plan to map where this risk will materialise in order to take action accordingly. We are addressing this challenge jointly with our industry peers; for instance, by fostering enthusiasm among young people for technology, carrying out pilot projects to unleash the potential of new target groups (such as residence permit holders), and offering traineeships and work placements.

Category and risk appetite:

	Avers	Avoiding	Neutral	Taking	Seeking
Operational		■			

Change from 2017	Low	Moderate	High	Top
=				•

↑ Increased compared to 2017 ↓ Decreased compared to 2017 = Equal to 2017 + New in 2018

Title of risk:
IT landscape insufficiently prepared for the future

Relation to strategic priority:

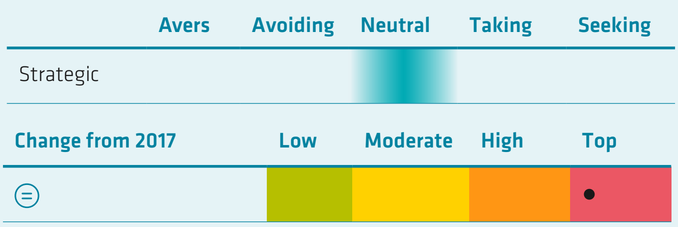
Facilitating the energy transition

Sustainable business operations

Description of risk:
Stedin Group needs an integral IT architecture in order to support the future primary processes and facilitate the energy transition.

How did we respond to this fact in 2018:
We formulated a long-term vision for a future-proof ICT infrastructure. We started setting up the Hybrid IT Competence Center to that end and implementing a cloud roadmap. This way, we are implementing new and critical capabilities as well as optimising the existing IT landscape.

Category and risk appetite:



Title of risk:
Agility of the organisation

Relation to strategic priority:

Improved grid management

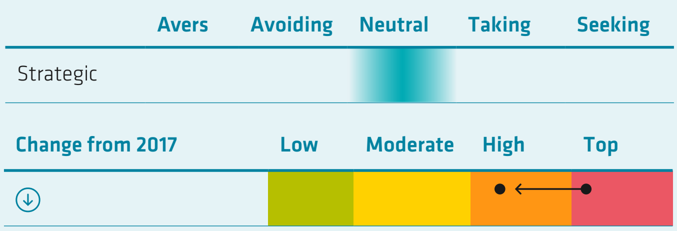
Sustainable business operations

Facilitating the energy transition

Description of risk:
The culture and conduct of Stedin Group must change in accordance with the changes in the energy landscape in order to fulfil its role in the energy transition.

How did we respond to this fact in 2018:
We started to improve managerial qualities by hiring new employees with different profiles, launching a trainee programme 'Stedin makers of the Future', developing as well as refocusing our leadership and talent programmes, and supporting managerial staff in performance management. The strategy and cultural values formulated in 2017 were translated into what is necessary for departments and teams. We also introduced cultural values that are aligned with the process of change at Stedin Group and the skills that we need.

Category and risk appetite:



Title of risk:
Compromising information and information systems

Relation to strategic priority:

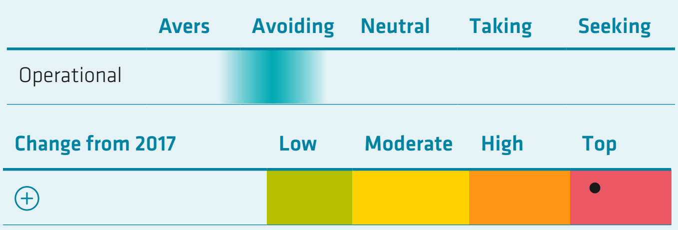
Improved grid management

Sustainable business operations

Description of risk:
Stedin Group is increasingly dependent on information and information systems. This dependence results in a growing complexity of data governance and handling. The availability, integrity and confidentiality of information and information systems is fundamental for day-to-day business operations.

How did we respond to this fact in 2018:
The continual development of technologies, working methods and information-sharing practices entails risks. The Stedin Office of Security was set up to manage these security risks. We protect data against both internal (compromising information systems) and external parties (cyberattack). The Stedin Office of Security ensures that these risks are accurately assessed, and that the confidentiality, integrity, as well as availability (CIA), of processes and data remain assured. Security requirements can derive from sector policy, laws and regulations or our own policy. Employees are a key link in this connection. We are learning continually by carrying out periodic self-assessments.

Category and risk appetite:



Increased compared to 2017 · Decreased compared to 2017 · Equal to 2017 · New in 2018

Title of risk:

Uncertainties due to changes in legislation and regulation

Relation to strategic priority:

Improved grid management

Description of risk:
There is a risk that national or European governments will take undesirable decisions concerning the role of regional grid managers. This situation can lead to uncertainty about the implementation of our strategy.

How did we respond to this fact in 2018:
Stedin Group closely follows developments in Europe and The Hague, and it is represented in the national lobby, preferably through the industry association Netbeheer Nederland. Our regulation department participates in the European lobby. Stedin Group is aware of amendments to existing laws and new laws well in advance. An example is our participation in new European legislation (Clean Energy Package, CEP), both by participation in lobbying activities of European umbrella organisations and through direct participation of experts in working parties established by the European Commission.

Category and risk appetite:

	Avers	Avoiding	Neutral	Taking	Seeking
Compliance					

Change from 2017	Low	Moderate	Hing	Top
⊜			●	

Title of risk:

Uncertainties of long-term financial funding

Relation to strategic priority:

Facilitating the energy transition

Sustainable business operations

Description of risk:
A regulation model that is not aligned with the financial challenges of the grid managers in the energy transition entails a risk of further cost increases and unchanged regulated revenue. This can endanger the availability of long-term financing.

How did we respond to this fact in 2018:
To ensure that grid managers can continue to undertake the required investments during the energy transition, a critical assessment of and response to the development of financial markets as well as laws and regulations remain necessary. This needs to be complemented by a continual focus on effectiveness measures to reduce the costs of our products and services. This risk has also been discussed with our stakeholders (See Report of the Supervisory Board, Audit Committee). The direction and speed of the energy transition became clearer in 2018, particularly due to dialogues about the Climate Agreement. Despite the uncertainties with regard to the projected development of costs in relation to the energy transition, initial calculations show that a continuation of the present regulatory regime will compel the grid managers to take incisive measures, which is undesirable. Consultations on this matter are in progress with all parties concerned.

Category and risk appetite:

	Avers	Avoiding	Neutral	Taking	Seeking
Financial					

Change from 2017	Low	Moderate	High	Top
⊕↑			●—→	●

Title of risk:

Impact of accidents

Relation to strategic priority:

Sustainable business operations

Description of risk:
Due to insufficient safety awareness and a low learning capacity, there is a risk of unsafe situations. As a consequence, Stedin Group could suffer reputational damage and be subject to sanctions imposed by regulators.

How did we respond to this fact in 2018:
Our multi-year safety programme is based on the principles of the High Reliability Organisation (HRO). The development of the HRO version of the Safety Culture Ladder was initiated jointly with Lloyd's Register in 2018. Our aim for 2019 is to obtain certification on the 'traditional' Safety Culture Ladder for level 3 and to obtain results with the new HRO Maturity Model (which is comparable to level 4 of the Safety Culture Ladder).

Category and risk appetite:

	Avers	Avoiding	Neutral	Taking	Seeking
Safety					

Change from 2017	Low	Moderate	High	Top
↓			●←—●	

↑ Increased compared to 2017 ↓ Decreased compared to 2017 ⊜ Equal to 2017 ⊕ New in 2018

Title of risk:

Excessive environmental impact

Relation to strategic priority:

Sustainable business operations

Description of risk:

We will not achieve our sustainability targets if we are insufficiently aware of our environmental footprint.

How did we respond to this fact in 2018:

We have a sustainability strategy that is based on One Planet Thinking to reduce our environmental impact. We focus on areas in which we have an impact such as: emissions of CO_2 and fine particulate matter, use of raw materials and an inclusive society. We are committed to reducing and where necessary compensating for our impact in those areas. We aim to increase our positive impact with regard to an inclusive society.

Category and risk appetite:

	Avers	Avoiding	Neutral	Taking	Seeking
Strategic					

Change from 2017	Low	Moderate	High	Top
↑				

Title of risk:

Loss of communication network

Relation to strategic priority:

Facilitating the energy transition

Sustainable business operations

Description of risk:

Due to uncertainties concerning the availability of our communication networks (GPRS and CDMA), there is a risk that we will be unable to read out information from the smart meters.

How did we respond to this fact in 2018:

Stedin Group develops a range of scenarios to reduce these uncertainties.

Category and risk appetite:

	Avers	Avoiding	Neutral	Taking	Seeking
Operational					

Change from 2017	Low	Moderate	High	Top
+				

Opportunities

Title of opportunity:

Product and service development for the energy transition

Relation to strategic priority:

Improved grid management

Facilitating the energy transition

Description of opportunity:

As a result of a changing energy landscape and related policies, stakeholders expect new roles and services from Stedin Group. We are part of a changing society: the transition to an economy that is based predominantly on renewable energy sources.

How did we respond to this fact in 2018:

By continuing the dialogue and collaborating with stakeholders, we are contributing to future policies. Stedin Group participates in discussions on the Climate Agreement in the sector platform negotiations, both in its own name with regard to industry in Rotterdam and on behalf of the other grid managers in the talks about electricity, the built environment as well as mobility. Analyses so far make clear that the arrangements in the Climate Agreement increase our challenges and underline our strategic choices. Stedin Group sees the Climate Agreement as an opportunity to help shape the changes that are required for a sustainable future.

Change from 2017	Low	Moderate	High	Top
=				

Title of opportunity:

Strategic supplier relationships

Relation to strategic priority:

Improved grid management

Description of opportunity:

Strategic relationships with suppliers increase our responsiveness and improve our cost-effectiveness.

How did we respond to this fact in 2018:

We are moving forward in the area of supplier and contract management; for instance, by outcome-based contracting, performance management, cooperation and joint improvements. We do so with suppliers that contribute directly to our objectives and that want to help resolve the challenges facing us together.

Change from 2017	Low	Moderate	High	Top
=				

↑ Increased compared to 2017 ↓ Decreased compared to 2017 = Equal to 2017 + New in 2018

Title of opportunity:
Disruptive technologies

Relation to strategic priority:
Facilitating the energy transition

Description of opportunity:
We see an opportunity to apply new technologies and utilise data effectively in order to improve the performance of our task within the energy system, boost our innovative potential, work more efficiently and facilitate the energy transition.

How did we respond to this fact in 2018:
We built up knowledge and skills, and we established a "data lake" in 2018, which pools all our data. We have formed a "community of practice" with people who focus on data quality in their work and we have created data science models.

Change from 2017	Low	Matig	High	Top
=			•	

Title of opportunity:
Partnerships and collaborations

Relation to strategic priority:
Facilitating the energy transition

Description of opportunity:
We see an opportunity to enter into partnerships and collaborations in order to deliver the energy transition. This opportunity will enable us to increase our innovative potential, share and obtain knowledge, facilitate the energy transition and manage the costs involved.

How did we respond to this fact in 2018:
Stedin Group entered into a partnership with Starthubs, a platform for innovation challenges to which start-ups and other parties respond with their solutions. We issued three challenges, of which two resulted in collaborations/pilot projects and one in a collaboration with a start-up. This approach provides us with new insights into our challenges.

Change from 2017	Low	Moderate	High	Top
=			•	

Title of opportunity:
Provide stakeholders and customers with more self-services

Relation to strategic priority:
Improved grid management
Facilitating the energy transition

Description of opportunity:
By assisting stakeholders and customers, and by giving them control, we enable them to improve the sustainability of the energy system.

How did we respond to this fact in 2018:
We collaborate more intensively with customers, municipalities, housing associations, water companies and heating companies to improve the sustainability of the built environment. Stedin Group is aiming for a shared plan at a regional, urban and district level. In addition, we are digitising customer processes, as a result of which customers can take the helm themselves and acquire better insight into the progress of activities. Our environment needs more information about our assets. To this end, we provide customers and other stakeholders with access to our data. This process enables our environment to increase the sustainability of the energy system.

Change from 2017	Low	Moderate	High	Top
↑			• → •	

Title of opportunity:
Development of the potential of employees

Relation to strategic priority:
Sustainable business operations

Description of opportunity:
Our employees are our most valuable 'capital'. Employees who have room to do what they are good at and to develop themselves are customer-oriented as well as committed to achieving the objectives of Stedin Group.

How did we respond to this fact in 2018:
There is ample scope at Stedin for job-specific, personal and team development. This scope is demonstrated in our talent and development programmes, which are aligned with our recalibrated capabilities. Our in-house training facility offers a broad range of programmes for technical staff in particular. We stimulate internal advancement. The Talent Market is known throughout our organisation. In the Talent Market, we help employees to obtain insight into their talents and ambitions as well as the way in which they can utilise them even better.

Change from 2017	Low	Moderate	High	Top
=			•	

Title of opportunity:
Building a future-proof IT landscape

Relation to strategic priority:
Improved grid management
Facilitating the energy transition

Description of opportunity:
Stedin Group is increasingly becoming a data- and IT-driven organisation. By building a future-proof IT landscape, we are increasing our flexibility and our innovative potential.

How did we respond to this fact in 2018:
Stedin Group continues to grow in the areas of data and ICT. This growth is implemented by means of a technology roadmap. Setting up a data competence centre in which Stedin Group's data ambitions are given shape is part of this roadmap.

Change from 2017	Low	Moderate	High	Top
=			•	

↑ Increased compared to 2017 ↓ Decreased compared to 2017 = Equal to 2017 + New in 20

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 evaluated the design and operating effectiveness of the system during 2018 and discussed this with the senior leadership team, the Board of Management and the Supervisory Board. Monitoring and evaluation took place based on 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. Also information from reports from Internal Audit and the external auditor were taken into account. Despite the fact that the quality of our system of internal controls has increased, in particular with respect to the IT environment, we acknowledge the need for further improvements to our system of internal controls as detailed in the Corporate Governance section and Risk management section of this report.

We declare that:

- the report provides sufficient insights 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; and
- the report states those material risks and uncertainties that are relevant to the expectation of the company’s continuity for the period of twelve months after the preparation of the report.

Rotterdam, 26 March 2019

Board of Management,

Marc van der Linden, CEO (chair)
Danny Benima, CFO
Judith Koole, COO
David Peters, CTO

‘Working together
to create a environment
filled with new energy.’

The world of Richard and Ada Hensen

Zero-energy. That marks the environment filled with new energy of the married couple Hensen in the Schilderskwartier district of Woerden. Their home's energy system comprises a heat pump, solar panels, insulation, new window frames with triple-glazing, an insulated floor and an insulated roof.

Zero-energy in Woerden district

Reverse refrigerator

'We live in an water extraction area, so it was not possible to drill in the ground for geothermal energy. To heat our house, the heat pump uses outside air under high pressure. even when it's freezing outside. It's a kind of reverse refrigerator, which produces a pleasantly warm environment inside. The heat from the filtered, extracted air is also fed back', Richard Hensen says enthusiastically.

The rented houses, which were built after the Second World War, are now around 60 years old. Few things had really changed during all those years. Woerden aims to be climate-neutral by 2030. To this end, the municipality, Stedin and the GroenWest housing association have worked hard since 2015 to make this residential district the first to be disconnected from natural gas. The concurrent timing of investments by Stedin and GroenWest enabled this change. 'Stedin did a good job and also provided us with a modern meter. We can accurately monitor energy consumption', comments Hensen.

The way forward

Now that 39 homes have since been converted, the next steps for the rest of the district are currently considered. 'This trend really is the way forward in my opinion. Had they done so 40 years ago, there would not have been all those problems with houses in Groningen now. I'm sorry for the people there. Perhaps the technologies were not yet available or too expensive at that time', says Hensen.

He continues: 'Although our monthly fixed costs have remained roughly the same due to a contribution for all these systems and the modification of the house, the system is much more sustainable. We no longer use fossil fuels. Now that we also hear far less of the noise produced by Schiphol airport, our well-being has improved significantly as well.'

While led lighting and an electric car would complete the energy wish list for Richard Hensen, the latter is still too expensive for him. 'I cannot afford it on my pension.'

Report of the Supervisory Board

Report of the Supervisory Board

In this report, the Supervisory Board renders account on the performance of its activities in 2018, the first full year in which Stedin Holding N.V. operated as an independent entity after the unbundling from Eneco.

During this year, Stedin Group clearly moved forward with regard to its intended strategic role in the energy transition. While we are seeing more (external) representation by members of the Board of Management (for instance in developments concerning the Climate Agreement), external awareness is also present within the organisation on a broader basis. In addition, it is evident that the strategic choice for a 'focus on grid management' demands considerable management attention for operations. Due to that combination, 2018 was an intense year - including for the members of the Supervisory Board.

Topics

Disposal of commercial activities

Besides a range of regular topics, there were various developments in 2018 that are worthy of note. One of these was the sale of Joulz Energy Solutions. The commercial activities within that part of the organisation are no longer aligned with the new strategy of Stedin Group, whose focus has shifted to grid management activities. In a diligent manner, which was coordinated with the Supervisory Board, it was established exactly which activities this concerned, how these could be unbundled, how the interests of customers and employees could be respected and which parties would be suitable takeover candidates. The Supervisory Board is also thoroughly involved in the process for the sale of Joulz Diensten, a decision that derives from the same strategy.

Treasury and remuneration policy

Both the Audit Committee and the Supervisory Board regularly devoted attention to treasury-related matters, such as renewing the Revolving Credit Facility and issuing a bond loan. The Supervisory Board is very pleased with the way in which Stedin Group quickly familiarised itself with these matters, which were new to it. The new remuneration policy for the Board of Management and the Supervisory Board, based on the Executive Pay (Standards) Act (Wet normering topinkomens - WNT), was adopted in the Annual General Meeting of 13 April. The Supervisory Board devoted considerable time in 2018 to the search for a successor for the CFO.

New governance agreements

A diligent, constructive and joint governance process was completed early in 2018. The shareholders and the company agreed on a number of amendments to the articles of association and the covenant, and adopted these during the Annual General Meeting of 13 April. The amendments to the articles of association relate to three main topics: 1. making it easier to transfer shares between the public shareholders; 2. greater influence of the shareholders on the company's strategy; and 3. greater say of the shareholders on disposals and investments and entering into or disposing of participating interests.

Other important topics

Other noteworthy topics that required attention from the Supervisory Board in 2018 included the exploratory surveys carried out in the areas of heat and the heat transition. Topics in the industry that called for attention included the large-scale ICT project known as Centralisation Allocation Reconciliation and Measurement Data (C-ARM) and related developments. Safety was also regularly discussed. Despite the extensive efforts and attention directed towards this, it continues to be difficult for Stedin to improve its safety performance.

In addition to the topics mentioned, the Supervisory Board is systematically updated on progress on the strategy of Stedin Group and the strategic KPIs; this relates to both financial and non-financial KPIs and objectives. The Supervisory Board approved that strategy, including the strategic plan for 2017-2022, on 14 December 2017. Information was provided in the Supervisory Board meeting of 13 April 2018 on the Business plan OPS (Operations), as part of which the key initiatives within OPS were discussed, as well as other matters. In the in-depth session on 28 June, the following specific strategic topics were discussed with the Supervisory Board: leadership development within Stedin Group, both for the development of higher management and of leadership within the organisation in a broader sense; developments in the energy transition, and more specifically a briefing on the Climate Agreement and its expected consequences for Stedin Group; developments in the fields of ICT and cybersecurity, and Stedin Group's vision of ICT for the future. The Supervisory Board sees numerous challenges facing the organisation; applying focus, making choices and managing the strategic initiatives are regular topics of discussion between the Supervisory Board and the Board of Management.

Lastly, in December 2018, the Supervisory Board considered in detail the financial multi-year planning for the long-term. The Supervisory Board shares the concerns of the Board of Management with regard to this topic. Our financial ratios will be subject to substantial pressure in the long term owing to the costs of the energy transition and the prefinancing required from Stedin Group in the present regulation model.

Overall, 2018 was another year of intense activity and effort for the Supervisory Board, in which the Supervisory Board felt that it was being sufficiently involved in the developments in the business and the challenges facing Stedin Group. The Supervisory Board would like to express its appreciation for this to the Board of Management and the employees.

Working method and meetings

Six regular meetings of the Supervisory Board were held in 2018, one of which was held by telephone. On several occasions, decisions were taken outside a regular meeting, which were always confirmed at the next regular meeting, as prescribed in the Supervisory Board's terms of reference. The Supervisory Board held brief consultations, behind closed doors, before the regular meetings; as a standard procedure, there was always room for evaluation after the meeting in the presence of the CEO. In addition, the chairpersons of the Board of Management and the Supervisory Board held regular consultations on the main issues in 2018.

The full Board of Management attended the Supervisory Board meetings, with the exception of one occasion, when one member of the Board of Management was absent. In addition, various members of management attended Supervisory Board meetings as guests. If a Supervisory Board member was unable to attend a meeting, this was due to other commitments and the member concerned provided his or her input in advance.

From left to right: Theo Eysink, Hanne Buis, Dick van Well, Annie Krist, Pieter Trienekens

Attendance of Supervisory Board members at meetings in 2018

date	type	Pieter Trienekens	Theo Eysink	Dick van Well	Jules Kortenhorst	Tineke Bahlmann	Annie Krist	Hanne Buis
6 March	SB	yes	yes	no	yes	yes		
13 April	SB	yes	yes	yes	yes	yes	-	
29 June	SB	yes	yes	yes	yes		no	
31 July	SB	yes	no	no	no		yes	
21 Sept	SB	yes	yes	yes	yes		yes	(guest)
14 Dec	SB	yes	yes	no	yes		yes	yes

Suzanne van Nieuwenhuijzen-Ruijtenberg serves as company secretary. She has delegated part of her duties with regard to the Audit Committee to Jaap Versluis, Manager Risk & Control at Stedin. Some of the duties for the Selection, Remuneration and Appointments Committee were delegated to Elise Reedeker, Corporate Affairs department. The agendas of the Supervisory Board meetings were prepared by the company secretary, in consultation with the chairs of the Board of Management and the Supervisory Board.

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. Decision-making takes place in a Supervisory Board meeting in which all members are present. All members of the Supervisory Board have access to the documents of the committees, and the (draft) minutes of committee meetings are distributed in the next Supervisory Board meeting to be held, where they are discussed orally by the chair of the committee.

Audit Committee

The Audit Committee held four regular meetings in 2018. Those meetings are always attended by the CFO, the Internal Audit manager and the external auditor. The Compliance Officer attends as a guest at least twice a year. In addition to the regular topics, in 2018 specific attention was devoted to various internal audits, corporate risks & opportunities and financing.

Selection, Remuneration and Appointments Committee

The Selection, Remuneration and Appointments Committee mainly held meetings by telephone in 2018 or consulted by e-mail. There were three formal moments of consultation with the delegation of shareholders, which concerned the remuneration policy and the recruitment and selection of two members of the Supervisory Board and one new member of the Board of Management (CFO). The remuneration of the Board of Management members and Supervisory Board members for 2018, which is in accordance with the adopted remuneration policy and respects the limits of the Executive Pay (Standards) Act (Wet normering topinkomens - WNT), is described in the Remuneration report for 2018 section.

Two new members of the Supervisory Board

Due to the expiry of the term of office of one member of the Supervisory Board, the committee worked on the selection and nomination of two new members. This was done in consultation with the Works Council and – in accordance with the shareholders covenant – with a delegation from the shareholders' committee. The meetings with the shareholders' committee delegation were led by Supervisory Board member Dick Van Well (who also chairs the Selection, Remuneration and Appointments Committee), assisted by the HR Director and the Administrative Affairs department. The composition of the Supervisory Board, also with regard to expertise and diversity, was emphatically considered in both recruitment processes. In the person of Annie Krist we found a worthy successor to Tineke Bahlmann. Hanne Buis was appointed in anticipation of the departure of Jules Kortenhorst, as a result of which the Supervisory Board will temporarily (until 1 February 2019) have six members.

Successor to CFO

In addition, and always in preparation for the meetings of the full Supervisory Board, the committee devoted a great deal of attention to finding a suitable successor to the incumbent CFO. This was found to be a challenging position to fill, partly due to the applicability of the WNT. Following two rounds at a renowned recruitment and selection agency, the assignment was placed with another agency, which presented a highly suitable candidate. The decisions to that effect were made in close consultation with relevant stakeholders, in accordance with the procedures agreed. Danny Benima was appointed CFO with effect from 1 January 2019.

Self-assessment and education

Unlike the Supervisory Board's self-assessment in 2017, which it carried out without the support of external parties, the Supervisory Board did opt for external support in 2018. In connection with this assessment, all members of the Board of Management and the Supervisory Board filled in questionnaires and individual talks were conducted with them. This assessment and the interviews focused on the performance of the Supervisory Board as a whole, that of its individual members and that of its committees: the Audit Committee and the Selection, Remuneration and Appointments Committee. The result of this self-assessment was discussed in the Supervisory Board meeting of 6 February 2019. While the overall trend was positive, it was agreed to step up the focus on risk management and its follow-up and to tighten the focus in the company's strategy. Points requiring attention were also identified for individual Supervisory Board members, and a number of areas for improvement were designated that relate to the communication between the Supervisory Board and the Board of Management.

The two new Supervisory Board members, Annie Krist and Hanne Buis, attended an induction programme. In that connection, they spoke with various line managers and support department managers and were given a tour of the Network Operations Centre (NOC). In an in-depth session, the Supervisory Board was extensively updated, by John Kerkhoven van Kalavasta amongst others, on the energy transition (including the sector bodies) and its impact on Stedin Group. In addition, various Supervisory Board members individually engaged in walkabouts and/or held talks with employees in the organisation.

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 vis-à-vis one another, the Board of Management and any particular interests involved. Virtually all members of the Supervisory Board are also independent within the meaning of the Electricity Act and the Gas Act. This means that they have no direct or indirect ties with any producer, supplier or trader of electricity or gas. This does not apply to Annie Krist, who also serves as the CEO of GasTerra. Ancillary positions are reported 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.

There were no material transactions in 2018 that involved conflicts of interests between the company and Supervisory Board members.

Contacts with shareholders

The good contacts established in 2017 between the shareholders and the Supervisory Board and the Board of Management were continued in 2018. After the municipal elections in March 2018, around half of the portfolio holders at the shareholders had changed. This provided an occasion to conduct new introductory meetings with shareholders. Extensive attention was devoted to this, both at the level of members of the Board of Management and Supervisory Board and by the Administrative Affairs team. In addition, various opportunities for informal contacts were deliberately organised in connection with the meetings of shareholders. These informal meetings were well attended by members of the Supervisory Board. In December, Stedin Group organised an extensive and informative introductory meeting for shareholders about the energy transition. The meeting focused mainly on the impact of the energy transition on Stedin Group and our electricity and gas grids, and on where and how we can help each other in this regard. The meeting was also attended by a delegation from the Supervisory Board.

The Supervisory Board welcomes the continuation of the good relationship and constructive cooperation with the shareholders in the past year, for which a sound basis had already been created in 2017.

Contacts with the Works Council

We set great store by a good relationship with the Works Council, as this helps us remain in touch with current developments and concerns within the organisation. To that end, the Supervisory Board, the Board of Management and the Works Council met twice in 2018 in what is known as the tripartite consultation. The June meeting devoted extensive attention to the (practical implementation of the) strategy of Stedin Group, on the basis of a paper prepared by the Works Council. The December meeting focused mainly on efficiency and how this is addressed in the Stedin organisation. In addition, one meeting of the Works Council is attended by a Supervisory Board member each year. This will occur more frequently in 2019. Consultation also takes place with the Works Council on the selection of new members of the Board of Management. The chair of the Supervisory Board also played a part in the training programme for various members of the Works Council.

The Supervisory Board wishes to thank the employees, management, the Works Council and the Board of Management for their considerable involvement and commitment. Each and every day, our organisation is working on one of the most reliable grids in the world. Customer satisfaction increased and substantial progress was made on implementing Stedin Group's strategic agenda.

Rotterdam, 26 March 2019

The Supervisory Board

Pieter Trienekens (chair)
Hanne Buis
Theo Eysink
Annie Krist
Dick van Well

Remuneration report for 2018

The General Meeting of Shareholders adopted a new remuneration policy in 2018 for both the Supervisory Board and the Board of Management.

The reasons for the new policy were the unbundling from Eneco Holding N.V. in 2017 and the Executive Pay (Standards) Act (Wet normering topinkomens - WNT), which applies to Stedin Netbeheer B.V. The policy was prepared in 2017 and approved by the General Meeting of Shareholders in April 2018.

Board of Management

The members of the Board of Management of Stedin Holding N.V. qualify as senior executives pursuant to the WNT. The remuneration policy sets the maximum remuneration of the Board of Management of Stedin Holding N.V. at the level of the general maximum remuneration of the WNT. That maximum was € 189,000 in 2018.

As regards the Board of Management, a distinction is applied between the fixed annual salary including holiday allowance and other elements of remuneration. Those other elements of remuneration consist of:

- employer's pension contribution;
- contribution to group health insurance and group disability insurance;
- net expense allowance;
- lease car.

No variable remuneration is included in the remuneration package for members of the Board of Management. Stedin takes the view that this form of remuneration is consistent neither with its role in society as grid operator nor with the vision that has been placed at the centre of its strategy for the coming years. It was therefore decided to discontinue the performance bonus scheme for all employees of Stedin with effect from 2019.

The maximum permitted remuneration under the WNT and the composition of the individual employee benefits package in terms of other elements of remuneration determine the ceiling for the fixed annual salary. Within that ceiling, the Supervisory Board determines the fixed annual salary of the members of the Board of Management on the basis of their performance, the company's results, developments in society and the remaining headroom up to the ceiling.

With effect from 1 January 2018, David Peters took up his position as Chief Transition Officer (CTO) on the Board of Management, as its fourth member. Like the remuneration of Marc van der Linden (CEO) and Judith Koole (COO), his remuneration is capped by the standards of the WNT and no transitional rules apply. Transitional rules do apply however to the remuneration of Gerard Vesseur (CFO).

Supervisory Board

The new remuneration policy for the Supervisory Board applied with effect from 1 January 2018. The new policy was introduced in response to the sharply increased complexity of the independent Stedin organisation that arose after the unbundling. The time spent by the members of the Supervisory Board and their individual responsibilities have increased, and the remuneration has been brought into line with that changed, more onerous role.

The members of the Supervisory Board qualify as senior supervisory directors pursuant to the WNT. The remuneration of the members of the Supervisory Board is equal to the maximum permitted remuneration under to the WNT. For the chair and members of the Supervisory Board, this is 15% and 10%, respectively, of the applicable WNT standard.

Disclosures on remuneration

Section 7 on Employee benefit expenses in the Notes to the consolidated financial statements provides detailed information on the remuneration under the WNT of the Supervisory Board and the Board of Management and the senior executives of Enduris B.V., to whom the WNT also applies. Pursuant to 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 and 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 for 2018 is 4.67. This 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 2018. The pay ratio decreased by 16% in 2018 compared with 2017 (5.56). The annual pay for pension purposes is a uniform and objective remuneration concept that facilitates good comparisons of remuneration. It includes, among other things, 12 months' full-time salary, 8% holiday allowance and variable payments, such as payments for on-call shifts and emergency repair shifts, collective profit sharing and one-off payments for service anniversary bonuses and at the end of the employment. Compared with the WNT-based remuneration concept, which was used last year, yielding a pay ratio of 5.38, the annual pay for pension purposes produces a more objective comparison.

Financial statements

Financial statements

These financial statements present the financial information of Stedin Holding N.V. for the full year 2018, with comparative figures for 2017.

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

Consolidated income statement

x € 1 million	Note	2018	2017 (restated)*
Net revenue	5	1,270	1,154
Other income	6	16	40
Total net revenue and other income		**1,286**	**1,194**
Personnel expenses	7	409	369
Cost of sales and contracted work	8	327	276
Other operating expenses	9	207	213
Less: Capitalised own production	10	-166	-135
		777	**723**
Depreciation, amortisation and impairment of non-current assets	11	297	273
Total operating expenses		**1,074**	**996**
Operating profit		**212**	**198**
Financial income and expenses	12	-72	-79
Profit before income tax		**140**	**119**
Income tax	13	-22	-31
Profit after income tax from continuing operations		**118**	**88**
Profit after income tax from discontinued operations	14	-	335
Result after income tax		**118**	**423**
Profit distribution:			
Profit after income tax attributable to holders of Stedin Holding N.V. perpetual subordinated bonds (after income tax)		12	12
Profit after income tax attributable to the shareholders of Stedin Holding N.V.	14	106	411
Result after income tax		**118**	**423**

* See note 3 on the adjustment as a result of differences between the finalised and the provisional fair value measurement of the identifiable assets and liabilities relating to the acquisition of DNWG. As stated in note 2.4, the adoption of IFRS 9 and IFRS 15 did not lead to a restatement of the comparative figures for 2017.

Consolidated statement of comprehensive income

x € 1 million	Note	2018	2017 (restated)*
Result after income tax		**118**	**423**
Unrealised gains and losses that will not be reclassified to the income statement (net of tax effects)			
Adjustment for fair value of regulated networks	15, 23	-	86
Effect of changes in tax rate on revaluation reserve	18, 23	40	-
Other unrealised gains and losses from discontinued operations		-	-4
Unrealised gains and losses that may be reclassified to the income statement			
Recycling terminated cash flow hedges of Eneco	23	-	-32
Recycling terminated translation differences of Eneco	23	-	-6
Unrealised gains and losses on cash flow hedges	23	-2	-4
Recycling cash flow hedge reserve to income statement		4	-
Deferred tax liabilities on cash flow hedges / cost of hedging	18	-	1
Effect of change in tax rate on cash flow hedge reserve / cost of hedging	18	-3	-
Total other comprehensive income		**39**	**41**
Total comprehensive income		**157**	**464**
Profit distribution:			
Holders of Stedin Holding N.V. perpetual bond loan (after income tax)		12	12
Shareholders of Stedin Holding N.V.		145	452
Total comprehensive income		**157**	**464**

* See note 3 on the adjustment as a result of differences between the finalised and the provisional fair value measurement of the identifiable assets and liabilities relating to the acquisition of DNWG.

Consolidated balance sheet

x € 1 million	Note	31 December 2018	31 December 2017 (adjusted)*
ASSETS			
Non-current assets			
Property , plant and equipment	15	6,406	6,140
Intangible assets	16	97	96
Associates and joint ventures	17	5	5
Financial assets			
- Derivative financial instruments	19	15	9
- Other non-current financial assets		13	9
Total non-current assets		**6,536**	**6,259**
Current assets			
Assets held for sale	14	63	-
Inventories	20	36	38
Current tax assets	29	21	-
Trade and other receivables	21	155	181
Derivative financial instruments	19	11	-
Cash and cash equivalents	22	169	73
Total current assets		**455**	**292**
TOTAL ASSETS		**6,991**	**6,551**
LIABILITIES			
Group equity			
Equity attributable to Stedin Holding N.V. shareholders	23	2,198	2,081
Perpetual subordinated bond loan	23	501	501
Total group equity		**2,699**	**2,582**
Non-current liabilities			
Provisions for employee benefits	24	13	21
Other provisions	25	22	22
Deferred tax liabilities	18	212	257
Derivative financial instruments	19	56	71
Interest-bearing debt	26	2,548	2,674
Deferred income	27	632	538
Other liabilities	28	1	2
Total non-current liabilities		**3,484**	**3,585**
Current liabilities			
Liabilities held for sale	14	7	-
Provisions for employee benefits	24	4	2
Other provisions	25	2	1
Interest-bearing debt	26	496	79
Current tax liabilities	29	-	8
Trade and other liabilities	28	299	294
Total current liabilities		**808**	**384**
TOTAL LIABILITIES		**6,991**	**6,551**

* The comparative figures have been adjusted. Refer to note 3 for the adjustment as a result of changes between the finalised and the provisional accounting for the acquisition of DNWG.

Consolidated cash flow statement

x € 1 million	Note	2018	2017 (restated)*
Profit after income tax		**118**	**423**
Adjusted for:			
· Financial income and expenses recognised in the income statement	12	72	77
· Income tax recognised in the income statement	13	22	48
· Revaluations from discontinued operations	14	-	-290
· Depreciation, amortisation and impairments of property, plant and equipment and intangible assets	11	297	293
· Result on sale of property, plant and equipment and intangible assets		-4	-4
· Movements in working capital	36	18	-55
· Amortisation of customer construction contributions received		-18	-14
· Movements in provisions, derivative financial instruments and other		84	-118
Cash flow from business operations		**589**	**360**
Interest paid		-84	-79
Interest received		10	1
Corporate income tax paid / received		-54	-4
Cash flow from operating activities		**461**	**278**
New loans issued		-6	-6
Repayments of loans granted		-	2
Acquisition of subsidiaries	3	-	-442
Disposal of subsidiaries		18	-376
Investments in property, plant and equipment		-599	-494
Disposal of property, plant and equipment		5	4
Investments in intangible assets		-5	-5
Cash flow from investing activities		**-587**	**-1,317**
Dividend payments		-28	-99
Coupon on perpetual subordinated bonds	23	-16	-16
Repayment of non-current interest-bearing debt	26	-202	-210
Repayment of current interest-bearing debt	26	-905	-1,140
Non-current interest-bearing debt newly issued	26	493	1,042
Current interest-bearing debt newly issued	26	880	1,115
Cash flow from financing activities		**222**	**692**
Movements in cash and cash equivalents		**96**	**-347**
Balance of cash and cash equivalents as at 1 January		73	420
Balance of cash and cash equivalents as at 31 December		**169**	**73**

* See note 3 on the adjustment as a result of differences between the finalised and the provisional fair value measurement of the identifiable assets and liabilities relating to the acquisition of DNWG. The cash flows for 2017 of Eneco Group N.V. and CityTec B.V. are recognised for the period during which they were part of Stedin Group.

Consolidated statement of changes in group equity

	Equity attributable to Stedin Holding N.V. shareholders											
x € 1 million	Paid up and called-up share capital	Share premium	Revaluation reserve	Translation differences reserve	Cash flow hedge reserve	Cost of hedging reserve	Retained earnings*	Undistributed profit	Total	Perpetual subordinated bond loan	Non-controlling interests	Total group equity
As at 1 January 2017	**497**	**381**	**702**	**6**	**-30**	**-**	**3,063**	**187**	**4,806**	**501**	**3**	**5,310**
Total other comprehensive income after income tax	-	-	86	-6	-35	-	-4	-	**41**	-	-	**41**
Profit after income tax 2017	-	-	-	-	-	-	-	411	**411**	12	-	**423**
Total comprehensive income	**-**	**-**	**86**	**-6**	**-35**	**-**	**-4**	**411**	**452**	**12**	**-**	**464**
Transactions with shareholders	-	-	-	-	-	-	-	-	**-**	-	-	**-**
Dividend payments relating to 2016	-	-	-	-	-	-	-100	-	**-100**	-	-	**-100**
Disposal of interest held for distribution to shareholders	-	-381	-	-	-	-	-2,696	-	**-3,077**	-	-3	**-3,080**
Coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	-16	-	**-16**
Tax on coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	4	-	**4**
Total transactions with shareholders	**-**	**-381**	**-**	**-**	**-**	**-**	**-2,796**	**-**	**-3,177**	**-12**	**-3**	**-3,192**
Other	-	-	-	-	-	-	-	-	**-**	-	-	**-**
Profit appropriation 2016	-	-	-	-	-	-	187	-187	**-**	-	-	**-**
Release from revaluation reserve due to depreciation of regulated networks	-	-	-44	-	-	-	44	-	**-**	-	-	**-**
Total other	**-**	**-**	**-44**	**-**	**-**	**-**	**231**	**-187**	**-**	**-**	**-**	**-**
As at 31 December 2017	497	-	744	-	-65	-	494	411	**2,081**	501	-	**2,582**
Total other comprehensive income	-	-	40	-	-	-1	-	-	**39**	-	-	**39**
Profit after income tax 2018	-	-	-	-	-	-	-	106	**106**	12	-	**118**
Total comprehensive income	**-**	**-**	**40**	**-**	**-**	**-1**	**-**	**106**	**145**	**12**	**-**	**157**
Transactions with shareholders	-	-	-	-	-	-	-	-	**-**	-	-	**-**
Dividend payments relating to 2017	-	-	-	-	-	-	-	-28	**-28**	-	-	**-28**
Coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	-16	-	**-16**
Tax on coupon on perpetual subordinated bond loan	-	-	-	-	-	-	-	-	**-**	4	-	**4**
Total transactions with shareholders	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-28**	**-28**	**-12**	**-**	**-40**
Other	-	-	-	-	-	-	-	-	**-**	-	-	**-**
Profit appropriation 2017	-	-	-	-	-	-	383	-383	**-**	-	-	**-**
Release from revaluation reserve due to depreciation of regulated networks	-	-	-30	-	-	-	30	-	**-**	-	-	**-**
Total other	**-**	**-**	**-30**	**-**	**-**	**-**	**413**	**-383**	**-**	**-**	**-**	**-**
	-	-	-	-	-	-	-	-	**-**	-	-	**-**
As at 31 December 2018	**497**	**-**	**754**	**-**	**-65**	**-1**	**907**	**106**	**2,198**	**501**	-	**2,699**

* The comparative figures have been adjusted. Refer to note 3 for the adjustment as a result of changes between the finalised and the provisional accounting for the acquisition of DNWG.

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. (below: Stedin Group) is a public limited liability company under Dutch law, with its registered office in Rotterdam, 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 operators 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 Netbeheer operates in the Provinces of Zuid-Holland and Utrecht and parts of the North-East Friesland and Kennemerland regions. Enduris operates in the Province of Zeeland. The subsidiaries Joulz Infradiensten, Joulz Meetbedrijf and DNWG Infra provide energy infrastructure services to business customers. Utility Connect is a joint operation with Alliander that focuses on data communication for smart meters.

Stedin Netbeheer and Enduris operate alongside five other Dutch regional grid operators in a regulated market. Each regional grid operator is a monopolist within its own catchment area. Regulation means that the work performed by the grid operator is set out in law and the rates are set by the Netherlands Authority for Consumers and Markets (ACM). The regulatory model encourages grid operators 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 note 4 Operating segments and the list 37 List of subsidiaries.

The consolidated financial statements have been prepared by the Board of Management of Stedin Group. The 2018 financial statements have been signed by both the Board of Management and the Supervisory Board of the company in the meeting of 26 March 2019 and will be presented for adoption to the General Meeting of Shareholders on 10 May 2019.

Unless otherwise stated, all amounts in this annual report are in millions of euros.

1.2. Key events in 2018

Disposal of commercial activities

Stedin Group revised its strategy in 2018. The Group will increase its focus on grid management as a core activity. To that end, the Board of Management decided to proceed to a phased disposal of all commercial activities. As a first step, this new strategy led to the sale of the commercial activities of Joulz Energy Solutions B.V. (JES) to a group company of Koninklijke VolkerWessels in September 2018. The negotiations on the final sale price are still ongoing. The high-voltage activities of JES, which are part of the regulated domain, were transferred to Stedin Netbeheer B.V. on 1 July 2018.

On 12 March 2019 Stedin Group and 3i Infrastructure signed a provisional purchase agreement for the acquisition of Joulz Infradiensten B.V. (Joulz Infra) and Joulz Meetbedrijf B.V. (Joulz Meet). The transaction is subject to the approval of the shareholders and the regulator. On 1 January 2019, prior to the sale, Stedin Groep Personeels B.V. legally split off the employees working for the benefit of the activities of the respective companies into Joulz Infradiensten B.V.

Joulz Meet and Joulz Infra qualify as 'held for sale' under IFRS 5 as at the end of December of 2018. The assets and liabilities of these companies are accounted for as current assets and liabilities held for sale in the balance sheet as at 31 December 2018. Further information on this is provided in note 14 Discontinued operations and assets and liabilities held for sale .

Changes in corporate income tax rate

In December 2018, the Upper House of Dutch Parliament approved the bill to reduce the corporate income tax rate to 22.55% in 2020 and to 20.50% in 2021. This means that the deferred tax assets and liabilities will be settled with the tax authorities at lower rates in the future. The measurement of the deferred tax assets and liabilities as at 31 December 2018 reflects those lower rates. The positive effects on group equity and net profit are € 37 million and € 14 million respectively and are explained in detail in note 18 Deferred tax assets and liabilities.

Acquisition of Zeeuwse Netwerkholding N.V.

Stedin Group completed its Purchase Price Allocation (PPA) analyses as well as the analysis of the synergy benefits in the first half of 2018. More information is provided in note 3 Business combinations.

Internal restructuring

With effect from 1 January 2018, the employees of Stedin Netbeheer B.V. were transferred to Stedin Groep Personeels B.V. (formerly Stedin Operations B.V.). This transfer ensures that the employees who work in the regulated activities have an employment contract with Stedin Groep Personeels B.V. On the one hand, this achieves economies of scale and on the other, it ensures a clearer separation between regulated and non-regulated activities.

In December 2017, Stedin Operations B.V. changed its name to Stedin Groep Personeels B.V. and simultaneously effected the legal transfer of its non-regulated activities (including employees) into a newly incorporated company under the name Stedin Operations B.V., which then merged as of 1 April 2018, by universal title, with Stedin Netbeheer B.V. In addition, Stedin Netbeheer B.V. transferred the shares in Stedin Groep Personeels B.V. to Stedin Holding N.V. with effect from 1 December 2017.

This internal restructuring had no consequences for the financial information presented for the financial years ending on 31 December 2017 and 2018.

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 2018 and as adopted by the European Union (EU), and the definitions of Part 9 Book 2 of the Dutch Civil Code. IFRS comprises both the IFRS standards and the International Accounting Standards issued by the International Accounting Standards Board (IASB) and the interpretations of IFRS and IAS standards by the IFRS Interpretations Committee (IFRIC) and the Standing Interpretations Committee (SIC) respectively. Where necessary, the accounting policies of joint operations and associates have been aligned with those of Stedin Holding N.V. The consolidated financial statements have been prepared using the going concern and accruals concepts.

Amended IFRS standards and interpretations

The following amendments to IFRS standards that have been adopted by the European Commission with effect from the financial year 2018 are relevant to Stedin Group and have been applied where appropriate when preparing this annual report:

IFRS 9 Financial Instruments

IFRS 9 'Financial instruments': this standard sets a comprehensive framework for the classification, presentation, recognition and measurement of all financial assets and liabilities and replaces the existing regulations in IAS 39 'Financial instruments: Recognition and measurement'. This standard includes amended provisions on the classification of financial assets and liabilities that are closer to the business model and on impairment of financial assets based on an 'expected loss' model rather than an 'incurred loss' model. The provisions on hedge accounting have also been amended to be more closely in line with businesses' risk policies.

The amended provisions on the classification of financial assets and liabilities do not lead to a change in valuation for Stedin Group. The transition from IAS 39 to IFRS 9 has no impact on the application and measurement of hedge accounting in the financial statements.

Also, with effect from 2018, Stedin Group prepares the disclosures for financial instruments in accordance with the requirements of standard IFRS 7 'Financial Instruments: Disclosures' as amended by IFRS 9.

Stedin Group utilises the transitional provisions to apply classification and measurement with effect from 1 January 2018 and not to restate comparative figures. The hedge accounting model according to IFRS 9 is applied from 2018. The effects of the adoption and application of IFRS 9 are included in note 2.4 Effects of the adoption of new IFRS Standards.

IFRS 15 Revenue from Contracts with Customers

General

Stedin Group applies IFRS 15 'Revenue from Contracts with Customers' with effect from 1 January 2018. IFRS 15 provides a five-step model for revenue recognition to be applied to contracts with customers. This starts with an assessment of whether there is a contract with a customer and what separate performance obligations can be identified. Next, the transaction price must be determined and allocated to each separate performance obligation. Revenue is required to be recognised when Stedin Group satisfies a performance obligation and the customer has obtained control over the assets concerned or the related services have been provided.

Revenue arising from contracts with customers is presented as net revenue in the income statement. All other revenue is recognised as other income. Depending on the situation and the contract with the customer, the revenue can be based on estimates. The revenue is largely invoiced on a monthly basis. The revenue has no significant financing component. In principle, payment takes place within the regular payment terms of Stedin Group.

The effects of the adoption and application of IFRS 15 are included in note 2.4 Effects of the adoption of new IFRS Standards.

Regulated services

The regulated services, i.e. connection, distribution and metering services of the grid management activities, are subject to the regulation framework of the Dutch regulator for the provision of energy services, the Netherlands Authority for Consumers and Markets (ACM). Contracts with customers for those services are entered into for an indefinite period; the customer pays an investment contribution upon inception of the contract and subsequently provides periodic payments for the service and/or periodic payments for the distribution provided of electricity and gas via the grid. The customer simultaneously receives and consumes all benefits of the performance provided by Stedin Group during the period. Accordingly, revenue is recognised over time, i.e. over the course of a year. Depending on the service, revenue is recognised in equal amounts or on the basis of the distributed volume during the year. The customer construction contributions and contributions for reconstructions are presented as amounts received in advance under liabilities in the balance sheet and qualify as contract liabilities. These amounts received in advance are released in net revenue in the period to which they relate. More information is provided in note 2.2.7 Net revenues and other income.

Commercial services

The group uses the practical exemption allowing it to apply the portfolio approach for accounting for contracts for commercial services (in particular, metering and transformer services). Contracts with customers for commercial services are entered into for indefinite periods, with customers providing periodic payments for the services. These services relate to performance obligations that are satisfied during a period. The revenue is recognised in the period during which the customer receives the service. The total of amounts not yet invoiced or amounts invoiced in advance in comparison with the value of the performance obligations satisfied by Stedin Group (contract assets or contract liabilities, respectively) is recognised under other receivables or liabilities, respectively.

IFRIC 22 Foreign Currency Transactions and Advance Consideration

The new interpretation concerning IFRIC 22 on Foreign Currency Transactions and Advance Considerations has no impact on accounting for foreign currency transactions within Stedin Group.

New IFRS standards and interpretations relating to subsequent financial years

The following new IFRS standards are relevant to Stedin Group and have been adopted by the European Commission but are not mandatory for 2018. They will be applied from 1 January 2019:

IFRS 16 Leases

IFRS 16 Leases changes the presentation of leases in the financial statements. Stedin Group implements the new standard with effect from 1 January 2019. Stedin Group expects to present leases in the balance sheet, particularly those relating to land, buildings and lease vehicles stated in these financial statements in note 30 Contingent assets and liabilities. Stedin Group expects the following impact upon transition to IFRS 16:

- assets and liabilities will increase as a consequence of the recognition in the balance sheet of 'right-of-use assets' and the associated lease liabilities;
- the operational profit, operational cash flows, depreciation and financial expenses increase and the cash flow from investing activities decrease due to the change in presentation of the cost of lease and payables;
- no changes are expected in the business model with regard to lease or purchase decisions for assets;
- the impact on the adherence to loan covenants is expected to be limited given the existing headroom and the impact on Stedin's credit rating is limited since the used rating method is already lease-adjusted.

The group will apply the simple transition method and will account for any effect on group equity as at 1 January 2019. The comparative figures for 2018 will not be restated. Stedin Group also applies other exemptions, such as continuing to treat short-term leases and leases of low value assets as operational expenses.

Stedin does not expect significant changes in the accounting for leases in which Stedin is the lessor.

Stedin Group will complete its analyses, which will show the final impact of the aspects above, in 2019.

IFRIC 23 Uncertainty over Income Tax Treatments

The new interpretation of IFRIC 23 relates to uncertainty over income tax treatments under IAS 12. The following matters are addressed in this interpretation;

- collective tax treatments;
- assumptions for taxation authorities' examinations;
- determination of taxable profit (tax loss), tax bases, unused tax losses, and tax rates;
- effects of changes in facts and circumstances.

This interpretation will be effective as from 1 January 2019. The potential consequences for the financial statements are currently being examined by Stedin Group.

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 the joint operations, non-consolidated joint ventures, associates and other capital interests.

An overview of the entities included in the consolidation is provided in note 37 List of subsidiaries in the notes to these financial statements.

Subsidiaries

These financial statements comprise the financial reporting of Stedin Group and its subsidiaries. A subsidiary is an entity over which Stedin Group has control. This means that the company controls, directly or indirectly, that 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 the 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.

Non-controlling 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 non-controlling interest in subsequent changes to the equity. Non-controlling 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 carrying amount 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.

Business combinations

Business combinations are recognised using the acquisition method on the acquisition date (the date on which control transfers to Stedin Group) unless the period between the acquisition date and the start of recognition does not have a material impact on the group equity and consolidated results of Stedin Group. There is control when, on the basis of its involvement in the entity, Stedin Group is exposed, or has rights, to variable returns from the investment in the entity and has the ability to affect those returns through its control.

Goodwill is the difference between the cost of acquisition of the business and the fair value of the net identifiable assets and liabilities acquired. The cost of acquisition is measured as the sum of the fair value on the acquisition date of the consideration transferred and the amount of the non-controlling interests in the acquired entity. Goodwill is measured at cost less any impairment.

Allocated goodwill is tested for impairment each year and additionally if events or changes in circumstances indicate that the book value may have suffered impairment. Impairment of goodwill is not reversed once recognised. Where goodwill has been allocated to a cash-generating unit and forms part of activities for disposal within that unit, the goodwill relating to discontinued activities forms part of the book value of the activities for determining the book result on the disposal activities. Goodwill disposed of in these circumstances is measured on the basis of the relative values of the discontinued activities and the portion that remains in the cash-generating unit.

Transaction costs incurred by Stedin Group in connection with a business combination, other than costs related to the issue of shares or bonds, are recognised in the income statement when incurred.

The fair value of a contingent liability is recognised on the acquisition date. Changes after initial recognition are recognised through the income statement. Added interest and changes to the fair value as a result of changes in the interest addition period are recognised in financial income and expenses. Changes to the fair value as a result of other changes are recognised in other operating expenses or other income, respectively.

Any contingent consideration transferred by the acquirer is initially measured at fair value on the acquisition date. A contingent consideration classified as asset or liability and covered by the scope of IFRS 9 is measured as a financial instrument at fair value through profit or loss.

2.2. Accounting policies

2.2.1. General

The main accounting policies used in preparing the 2018 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 2017 financial statements, except for the effect of newly applied and amended standards as set out in the note 1.3 International Financial Reporting Standards (IFRS).

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 which reflects the time value of money and the specific risks of the asset. The recoverable amount of an asset which does not independently generate a cash flow and 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 and not 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 expense, the share of profit of associates and joint ventures or the tax charge.

2.2.6. Discontinued operations

A discontinued operation is a component of Stedin Group's operations that has been sold or disposed of or has been classified as 'held for sale' and whose activities and cash flows can be clearly distinguished from the rest of Stedin Group, and that meets one of the following conditions:

- it represents a separate major line of business or geographical area of operations;
- it is part of a separate major line of business or geographical area of operations; or
- it is a subsidiary acquired exclusively with a view to resale.

Classification as a discontinued operation takes place on the first date of sale/disposal of the business unit or when the operations meet the criteria for 'assets and liabilities held for sale'/'assets and liabilities held for distribution to shareholders'.

The net result on a discontinued operation is recognised in the income statement as a single amount as 'profit after income tax from discontinued operations' and consequently does not form part of the operating profit. The comparative figures in the income statement have been restated accordingly as if these operations had been discontinued at the start of the previous financial year.

Where necessary, eliminations for consolidation have been made when preparing the figures for the 'result from discontinued operations' compared with the 'result from continued operations'.

2.2.7. 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 and 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 and 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.

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 and 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, and are recognised as variable revenue. These adjustments are based on statutory rates. The related revenues classify as variable revenues. Variable revenue is recognised only to the extent that it is highly probable that this revenue will not be reversed.

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 and maintenance services 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.

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'.

Other income

Items recognised under other income include the following: services to third parties, sales proceeds from discontinued operations and government grants. In 2017, the amortisation of the customer construction contributions was also accounted for under other income. From 2018, the amortisation of customer construction contributions is accounted for under net revenue, in accordance with IFRS 15.

2.2.8. 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.

2.2.9. Financial income and expenses

Financial income comprises interest income from the financial assets, including loans issued, cash loans 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.

2.2.10. 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 profit or loss 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.

2.2.11. 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 in the interim period there are indications 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.

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.

See note 2.2.27 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 carrying amount of the replaced components.

Depreciation and amortisation

Depreciation is recognised in the consolidated income statement using the straight-line method based on estimated useful life, taking into account the estimated residual value. 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

2.2.12. Leases

Stedin Group has entered into operating leases for the rental of buildings and land, lease vehicles and ICT facilities. The risks and rewards incidental to ownership of the assets concerned have not, or not substantially all, been transferred to Stedin Group. The costs relating to operating leases are linearly recognised in profit or loss over the term of the lease. In addition, Stedin Group leases transformers to third parties. The assets are recognised by Stedin Group in property, plant and equipment. Operating lease revenues are recognised in equal amounts through the income statement of Stedin Group as revenues over the term of the lease.

Also see the disclosures 1.3 International Financial Reporting Standards (IFRS) under IFRS 16 'Leases' for the impact analysis for this standard with effect from 1 January 2019.

2.2.13. 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 (bargain purchase) in profit or loss.

Goodwill is measured at cost less impairment, and 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 3 Business combinations.

2.2.14. Other intangible assets

Other intangible assets comprise customer databases acquired with acquisitions, software and licences, concessions, permits, rights and development costs. The related costs are capitalised if it is probable that these assets will generate economic benefits and their costs can be reliably measured. Other intangible assets have a finite useful life and are recognised at cost less accumulated amortisation and impairment.

Software

Software is capitalised at cost. Cost of standard and customised software comprises the one-time costs of licences. 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 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
Licences	3 - 30
Software	3 - 5
Concessions, permits and rights	3 - 30
Development costs	5 - 15

2.2.15. 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 it is probable that future taxable profit will be available against which unused tax losses and unused tax credits can be utilised.

Deferred tax assets for all deductible temporary differences relating to investments in subsidiaries, joint operations and interests in associates and joint ventures are only recognised if it is probable that the temporary difference will reverse in the near future and that future taxable profit will be available against which the deductible temporary difference can be utilised.

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

Deferred tax assets and liabilities are offset if there is a legally enforceable right to set off tax assets against tax liabilities and where the deferred tax assets and liabilities relate to taxes levied by the same tax authority on the same fiscal unity.

2.2.16. 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, which could affect the result, 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 non-current and current assets in the consolidated balance sheet. The negative book values of the derivative financial instruments are recognised in the non-current and 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, 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.

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.

2.2.17. 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.

2.2.18. 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.

2.2.19. 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 and 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.

2.2.20. 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.

2.2.21. Cash and cash equivalents

Cash and cash equivalents comprise cash and bank balances and deposits with a maturity of no more than three months.

2.2.22. 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 the general reserve 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.

2.2.23. Provisions for employee benefits

Pensions

The pension liabilities of almost all business units have been placed with the industry-wide pension funds: Stichting Pensioenfonds ABP (ABP) and Stichting Pensioenfonds Metaal en Techniek (PMT). A limited number of employees have individual plans insured with various insurance companies.

The amount of the pension depends on age, salary and years of service. Employees may opt to retire earlier or later than the state retirement age, in which case their pension is adjusted accordingly. Retiring later than the state retirement age is only possible with Stedin's consent. At ABP, employees can retire between 60 and the state retirement age plus five 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 employee benefits

A provision is recognised for the obligation of Stedin Group to pay out amounts related to long-service benefits and on the retirement of employees. A provision is also recognised for the obligation of Stedin Group to contribute towards the health insurance premiums of retired employees, salary payments in the event of illness and the employer’s risk under the Unemployment Act. Where appropriate, these liabilities are calculated at the reporting date using the projected unit credit method and a pre-tax discount rate which reflects the current market assessment of the time value of money.

2.2.24. Other provisions

A provision is recognised when, due to a past event, there is a present legal or constructive obligation that is of an uncertain amount or timing, 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 which 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.

Restructuring
A restructuring provision is recognised if a formal plan for the restructuring has been approved and its main features have been announced to those affected by it and there is a valid expectation that the restructuring will be carried out. A restructuring provision only includes the expenditures necessarily entailed by the restructuring and not those relating to continuing activities.

2.2.25. 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.

2.2.26. 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.

2.2.27. Fair value
Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value can be measured in various ways and, depending on the use of observable inputs, the value is classified into the following categories:

Level 1
Level 1 recognises financial instruments whose fair value is measured using unadjusted quoted prices in active markets for identical instruments.

Level 2
Level 2 recognises financial instruments whose fair value is measured using market prices or pricing statements and other available information. Where possible, the measurement method uses observable market prices. Contracts for 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 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 which affect the reported amounts and rights and obligations not disclosed in the balance sheet. In particular, they relate to the revenues from supplies to retail customers, the useful life of property, plant and equipment, the fair value of the relevant assets and liabilities, impairment of assets and the amount of provisions. The judgements, estimates and assumptions that have been made are based on market information, knowledge, historical experience and 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 on-going 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.

Except in connection with IFRS 9, no changes in accounting estimates were applied in the 2018 financial statements of Stedin Group.

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 further details, see note 15 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 further details, see note 15 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, and is tested for impairment annually. If the goodwill allocation has not been completed yet, this item will not be tested for impairment annually.

For further details, see notes 3 Business combinations and 16 Intangible assets.

Grid 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 grid 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 grid losses not yet settled is part of 'Other liabilities and deferred income' as stated in note 28 Trade and other liabilities'.

2.4. Effects of the adoption of new IFRS Standards

2.4.1 IFRS 15 Revenue from Contracts with Customers - Impact on the recognition, measurement and presentation of contracts with customers

Stedin Group applies IFRS 15 with effect from 1 January 2018. The adoption of the new standard was effected in accordance with the modified retrospective approach. Under this method, Stedin Group reviewed all current contracts with customers as at 1 January 2018 and concluded that the adoption of the standard requires no adjustment of group equity as at 1 January 2018. The main basis for that conclusion is the fact that the allocation of the transaction price to the various performance obligations identified does not differ significantly from the relatively independent selling prices of the performance obligations identified. This was partly due to the absence of bundled goods and services in combination with discounts and/or significant financing components. In addition, to a significant extent, revenue recognition takes place over a period. At the same time, the measurement and presentation of the contract assets and liabilities remains unchanged.

The presentation of revenue remains unchanged, except for the realisation of the customer construction contributions received in advance and the amounts payable to customers on the basis of statutory regulations.

Up to and including 2017, the realisation of the customer construction contributions received in advance was presented under other income (2017: € 14 million). Under statutory regulations, amounts payable to customers in the event of failures in the distribution of electricity and gas are deducted from net revenue in 2018. In 2017, these amounts were accounted for under other operating expenses (€ 2 million).

The incremental costs connected with concluding agreements with contract parties are minimal and are therefore not capitalised.

Detailed disclosures on the contract assets and liabilities as at the end of 2018 are included in note 21 Trade and other receivables and note 28 Trade and other liabilities, respectively.

2.4.2. IFRS 9 Financial Instruments – Accounting policies

Classification and measurement

Stedin Group applies IFRS 9 with effect from 1 January 2018. The adoption of IFRS 9 means that the cumulative effect of the transition to the balance as at 1 January 2018 is accounted for as a change in accounting policy via group equity. The adoption of the standard provides no reason for adjusting group equity as at 1 January 2018 and the comparative figures for 2017 were not restated.

The main effects of the adoption of IFRS 9 are as follows:

Balance sheet item	x € 1 million	Classification and measurement based on IFRS 9	Classification and measurement based on IAS 39
Trade receivables	132	Financial asset / Amortised cost	Loans and receivables / Amortised cost
Trade liabilities	73	Debt instrument / Amortised cost	Loans and receivables / Amortised cost
Interest-bearing debt	2,753	Debt instrument / Amortised cost	Loans and receivables / Amortised cost
Derivative financial instruments	65	Derivative / Fair value through equity or profit and loss	Fair value option / Fair value through equity or profit and loss

Trade receivables are all held to receive the principal amount, and any interest due, over their term. Therefore these receivables continue to be measured at cost under IFSR 9. The adoption of IFRS 9 has no impact on the measurement of the trade liabilities and interest-bearing liabilities. Derivative financial instruments continue to be measured, unchanged, at fair value through profit and loss.

Impairments of receivables

IFRS 9 contains an 'expected loss' model for impairments of financial assets. Under this model, when the financial asset arises, an impairment is recognised based on the credit quality and future expectations for credit risk. The impairments in IAS 39 were applied on the basis of an 'incurred loss' model under which impairments are required to be recognised as soon as an indication for them has been identified. Stedin Group has carried out an analysis for the transition to the 'expected loss' model which shows that the amount of the existing provision for impairments of financial assets will not change significantly.

Cash flow hedge accounting

Cash flow hedge accounting under IFRS 9 is applied on the basis of Stedin Group's risk management strategies and the existing future risks (uncertain cash flows) and hedging instruments (derivative financial instruments). Stedin Group has brought its hedge documentation as at 1 January 2018 in line with the requirements under IFRS 9.

On the adoption of IFRS 9, Stedin Group opted for application of the 'cost-of-hedging' concept as a consequence of which earnings volatility is limited. The changes in fair value resulting from the 'cross currency basis spread' component are recognised as a separate equity instrument and amortised on a straight-line basis over the term of the corresponding hedging relationship. The adjustment leads to a split of the cash flow hedge reserve on 1 January 2018 for the formation of the reserve for cost of hedging of € 1 million.

3. Business combinations

Acquisition of Zeeuwse Netwerkholding N.V.

On 13 June 2017, Stedin Holding N.V. purchased the entire share capital of Zeeuwse Netwerkholding N.V. (now called DNWG Groep N.V. and also referred to as DNWG below) and thus obtained control. Stedin Group paid the full acquisition price in cash. The employees of DNWG are employed in the Enduris B.V. (regional grid operator) and DNWG Infra B.V. business units. DNWG is positioned as a separate segment within Stedin Group.

The measurement of the assets and liabilities was included in the 2017 consolidated financial statements on a provisional basis. At that time, the provisional goodwill was not yet allocated to cash-generating units. The reason for this is that Stedin Group had not yet fully completed its analysis of the synergy benefits and the measurement of the fair value of all identifiable assets and liabilities.

These analyses were eventually completed in the first half of 2018. The finalised goodwill was allocated to Stedin (€ 30 million) and DNWG (€ 47 million). The adjustments relative to the provisional accounting treatment in the 2017 financial statements were retrospectively applied in the comparable figures in accordance with the requirements of IFRS 3. The effect of the retrospective recognition is a € 1 million reduction of net profit for 2017 in connection with a € 1 million increase in corporate income tax paid.

The table below shows the differences between the provisional and the finalised accounting treatment:

Purchase price allocation for Zeeuwse Netwerkholding N.V. x € million	Final	Provisional	Difference
Assets			
Property, plant and equipment: grids, connections and smart meters	627	621	6
Intangible assets	9	10	-1
Deferred tax assets	9	8	1
Financial assets	5	4	1
Cash and cash equivalents	13	13	-
Total assets	**663**	**656**	**7**
Liabilities			
Interest-bearing debt	150	150	0
Deferred tax liabilities	33	28	5
Provisions	15	15	0
Deferred income	71	71	0
Working capital	16	20	-4
Total liabilites	**285**	**284**	**1**
Net assets acquired	378	372	6
Total acquisition price	**455**	**455**	**0**
Goodwill	**77**	**83**	**-6**

4. Operating segments

Business segments are based on Stedin Group's internal organisation and management reporting structure and have not changed in comparison with the 2017 financial statements of Stedin Group. The segments are:

Segment Stedin

The business segment Stedin comprises the regulated domain: the grid operator. Stedin manages the gas and electricity networks in its service area.

Segment Joulz

The Joulz segment consists of Joulz Energy Solutions B.V., an expert in designing, building and managing complex medium and high-voltage installations.

With effect from 1 September 2018, Stedin Group sold the commercial activities reported within the segment Joulz to Visser & Smit Hanab. In connection with this sale, the regulated activities of the segment Joulz were integrated within Stedin with effect from 1 July 2018. Therefore, the Joulz segment ceased to exist as of 1 September 2018. The results presented for 2018 accordingly relate to the period from 1 January up to and including 3 September 2018.

Segment DNWG

The business segment DNWG is the entity DNWG Groep N.V., consisting of the grid operator Enduris B.V. that 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. DNWG has been part of Stedin Group since 13 June 2017. The financial information of DNWG is included in the financial statements of Stedin Group with effect from 30 June 2017. The period between the acquisition date (13 June 2017) and the start of recognition (30 June 2017) did not materially affect the group equity or consolidated results of Stedin Group. There were no material or unusual events during the final two weeks of June 2017.

Segment 'Other and eliminations'

The main components of the 'Other and eliminations' segment are the infrastructure, metering and steam network services of Joulz Diensten, the activities of the holding company and the elimination of intragroup transactions. This segment also comprises the discontinued operations of CityTec (until the end of March 2017) and the unbundled energy company Eneco (up to and including 31 January 2017). 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.

4.1. 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 2018 into categories which 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:

2018 x € 1 million	Segment Stedin	Segment Joulz	Segment DNWG	Other and eliminations	Total
Net revenue					
- Regulated electricity transmission, connection and metering services	667	-	85	-	752
- Regulated gas distribution, connection and metering services	317	-	31	-	348
- Infrastructure services and other	40	30	51	49	170
Other income	27	46	5	-62	16
Operating expenses	617	76	115	-31	777
Depreciation, amortisation and impairments of property, plant and equipment and intangible assets	254	-	35	8	297
Total operating expenses	871	76	150	-23	**1,074**
Operating profit	**180**	**-**	**22**	**10**	**212**
Financial income and expenses	-23	-	-4	-45	-72
Profit before income tax	**157**	**-**	**18**	**-35**	**140**
Income tax	-20	-	1	-3	-22
Result after income tax	**137**	**-**	**19**	**-38**	**118**

Investments in 2018 based on the internal organisation and management reporting structure were as follows:

2018 x € 1 miljoen	Segment Stedin	Segment Joulz	Segment DNWG	Other and eliminations	Total
Investments in property, plant and equipment and intangible assets	538	-	61	8	607

Revenue and results for and investments in 2017 based on the internal organisation and management reporting structure were as follows:

2017 x € 1 million	Segment Stedin	Segment Joulz	Segment DNWG	Other eliminations	Total
Net revenue	973	60	78	43	1,154
Other income	49	113	2	-124	40
Operating expenses	606	165	53	-101	723
Depreciation, amortisation and impairments of property, plant and equipment and intangible assets	246	1	14	12	273
Total operating expenses	852	166	67	-89	996
Operating profit	**170**	**7**	**13**	**8**	**198**
Financial income and expenses	-42	-	-3	-34	-79
Profit before income tax from continuing operations	**128**	**7**	**10**	**-26**	**119**
Income tax	-28	-2	-2	1	-31
Profit after income tax from continuing operations	**100**	**5**	**8**	**-25**	**88**
Profit after income tax from discontinued operations	-	-	-	335	335
Result after income tax	**100**	**5**	**8**	**310**	**423**

2017 x € 1 miljoen	Segment Stedin	Segment Joulz	Segment DNWG	Other and eliminations	Total
Investments in property, plant and equipment & intangible assets	456	1	30	7	494

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.

5. Net revenue

x € 1 million	2018	2017
Electricity transmission and connection services	703	619
Gas distribution and connection services	309	286
Metering services	88	102
Infrastructure services and other	170	147
Total	**1,270**	**1,154**

Net revenue for 2018 increased by € 116 million compared with the preceding financial year. This increase is mainly attributable to the fact that DNWG was part of Stedin Group for a full year (€ 63 million impact on the electricity distribution and gas distribution, connection and metering services).

In addition, higher regulated rates for distribution and connection services contributed € 49 million to higher net revenue. In 2018, a rate reduction amounting to € 20 million was applied in the metering domain. The aggregate price effect lifted revenue by € 29 million. The number of low-use connections increased for both gas and electricity at Stedin.

Other net revenue includes € 2 million for the 'Receivable from the municipality of Rotterdam' concerning 'Verlegregeling' bij de 'Leidingverordening Rotterdam' accounted for as a contingent asset at year-end 2017. This income relates to the amortisation in 2018 of the receivable of € 21 million paid by the Municipality of Rotterdam in 2018, of which € 12 million is reported in "Deferred income" on the balance sheet.

6. Other income

Other income increased by € 24 million compared with the preceding financial year to € 16 million.

This is attributable to accounting for the realised customer contributions as revenue rather than as other income (2018: € 18 million).

7. Personnel expenses

x € 1 million	2018	2017
Wages and salaries	252	223
Social security contributions	33	31
Pension contributions	34	27
External staff	58	55
Other employee benefit expenses	32	33
Total	**409**	**369**

Personnel expenses increased by € 40 million compared with the preceding year.

This increase was mainly due to the fact that DNWG was part of Stedin Group for a full year in 2018 (€ 33 million). Employee benefit expenses also increased by € 6 million as a result of the new Collective Labour Agreement and the increase in the RAB CRD (profit-related remuneration, collective profit-sharing). Social security contributions and pensions increased with the growth in the number of FTEs; pension contributions also increased.

Hours worked by hired external staff and directly attributed to own investment projects are deducted from costs of external staff as capitalised production. The amount concerned is € 17 million (2017: € 11 million).

7.1. Number of employees

Average workforce (in FTEs)	2018	2017
Stedin	3,335	3,068
Joulz	268	487
DNWG	621	312*
Overig	146	144
Total continuing operations	**4,370**	**4,011**
Discontinued operations	-	257**
Total discontinued operations	**-**	**257**
Total average no. of fte	**4,370**	**4,268**
Employed outside the Netherlands	-	20***
Male	84%	82%
Female	16%	18%

* On average, DNWG employed 624 FTEs in the months from July (from the date of acquisition) to the end of December. The table above shows the average number of FTEs for Stedin Group as a whole in 2017.

** The discontinued operations include the FTEs of Energiebedijf and CityTec. Energiebedrijf 2017 includes only the month of January, and CityTec 2017 includes the months from January to the end of March.

*** Employees outside the Netherlands relates to discontinued operations.

7.2. Remuneration of members of the Board of Management

The Executive Pay (Standards) Act (Wet normering topinkomens - WNT) is applicable to the remuneration of the members of the Board of Management. The WNT sets clear restrictions for the remuneration policy that applies to the Board of Management.

The maximum remuneration on the basis of the remuneration policy is equal to the general maximum remuneration under the WNT. No variable remuneration is included in the remuneration package. The pension plan applicable to the other employees of Stedin Group also applies to the members of the Board of Management.

Each year, the Supervisory Board sets the fixed annual salary including holiday allowance of the members of the Board of Management. Each year, the Remuneration Committee evaluates the performance of the members of the Board of Management and formulates a proposal for the Supervisory Board to adjust, if applicable, the fixed annual salary, including indexation. The remuneration policy was approved in the General Meeting of Shareholders of 13 April 2018.

With effect from 1 January 2018, the Board of Management of Stedin Group comprises four members. All four members of the Board of Management have an employment contract for an indefinite period with Stedin Netbeheer B.V., under which Stedin Group will observe a four-month period of notice.

7.3. Remuneration of members of the Supervisory Board

The Stedin organisation that arose following the unbundling from Eneco Group in 2017 is a more complex organisation with greater responsibilities and more time required to be spent by the Supervisory Board members. This prompted a review in 2017 of the remuneration of the members of the Supervisory Board of Stedin Holding N.V. As is the case for the remuneration of the members of the Board of Management, the WNT also applies to that of the Supervisory Board members. The new remuneration policy for the members of the Supervisory Board was set at the maximum remuneration permitted under the WNT. This means that the remuneration for the Chairman of the Supervisory Board is 15% and that of each of the members is 10% of the applicable WNT standard. The Supervisory Board members do not receive a fixed expense allowance. The new remuneration policy for the Supervisory Board was approved in the General Meeting of Shareholders on 13 April 2018.

7.4.1 WNT compliance for 2018 by Stedin Netbeheer B.V. and Enduris B.V.

The WNT is applicable to Stedin Netbeheer B.V. and Enduris B.V. The maximum remuneration applicable to Stedin Netbeheer B.V. and Enduris B.V. in 2018 is € 189,000. This is the general maximum remuneration.

7.4.2 Remuneration of senior executives

The four members of the Board of Management of Stedin Group are employed by Stedin Netbeheer B.V. and all qualify as senior executives pursuant to the WNT. Marc van der Linden, Judith Koole and David Peters were appointed after 2013. Therefore the general maximum remuneration applies to them. Transitional rules apply to the remuneration of Gerard Vesseur. His remuneration was reduced in 2018 for the second successive year, in accordance with the transitional rules for remuneration arrangements agreed before 1 January 2013.

Table *Senior executives with employment and senior executives without employment after the 13th month of fulfilling their duties*

Data for 2018 x € 1	Marc van der Linden	Gerard Vesseur	Judith Koole	David Peters
Position details	CEO	CFO	COO	CTO
Start and end dates of duties in 2018	01/01-31/12	01/01-31/12	01/01-31/12	01/01-31/12
Scope of appointment (in FTEs)	1	1	1	1
Employment relationship	yes	yes	yes	yes
Remuneration				
Remuneration plus taxed expense allowances	169,704	234,010	169,521	179,181
Remuneration payable in future	19,296	21,346	19,479	19,823
Sub-total	*189,000*	*255,356*	*189,000*	*199,004*
Maximum remuneration for position holder	189,000	189,000	189,000	189,000
-/- Amount paid but not owed and not yet refunded	Not applicable	Not applicable	Not applicable	Not applicable
Total remuneration	**189,000**	**255,356**	**189,000**	**199,004**
Reason for (non-) allowability of excess	Not applicable	Excess permitted owing to existing agreements subject to transitional law	Not applicable	Excess permitted owing to payment of variable remuneration pertaining to previous position
Information on receivable due to amount paid but not owed	Not applicable	Not applicable	Not applicable	Not applicable
Data for 2017				
Position details	CEO	CFO	COO	-
Start and end dates of duties in 2017	01/02-31/12	01/01-31/12	01/02-31/12	-
Scope of appointment (in FTEs)	1	1	1	-
Employment relationship	yes	yes	yes	-
Remuneration				
Remuneration plus taxed expense allowances	148,983	246,618	177,538	-
Remuneration payable in future	16,644	21,180	15,761	-
Sub-total	*165,627*	*267,798*	*193,299*	-
Maximum remuneration for position holder	165,627	181,000	165,627	-
Total remuneration	**165,627**	**267,798**	**193,299**	**-**

In addition, the Board of Management of DNWG Groep N.V., of which the grid operator Enduris B.V. is part, also qualifies as senior executive pursuant to the WNT. The position of director was temporarily filled by Ad van Sluijs until 1 May 2018. The position was filled on a permanent basis as from that date, when he was succeeded by Koen Verbogt. Like all other employees of DNWG, Ad van Sluijs and Koen Verbogt are employed by DNWG Staff B.V. and therefore qualify as senior executive without employment for Enduris B.V.

Table *Senior executives without employment in the period calendar months 1 to 12*

x € 1	Koen Verbogt		Ad van Sluijs	
Position details	Director		Deputy Director	
Calendar year	**2018**	**2017**	**2018**	**2017**
Period of duties in the calendar year (start – end)	01/05-31/12	Not applicable	01/01-30/04	19/12-31/12
Number of calendar months of duties in the calendar year	8	0	4	1
Maximum remuneration for position holder				
Maximum hourly rate in the calendar year	182	Not applicable	182	176
Maximum based on standardised amounts per month	190,000	Not applicable	101,200	24,500
Maximum remuneration for position holder for entire period calendar month 1 to 12	190,000		125,700	
Remuneration				
Actual hourly rate lower than the (average) maximum hourly rate?	Yes		Yes	
Remuneration in the period concerned	61,168	Not applicable	31,657	2,367
Total remuneration for entire period calendar month 1 to 12	61,168		34,024	
-/- Amount paid but not owed and not yet refunded	Not applicable		Not applicable	
Total remuneration, excluding VAT	**61,168**		**34,024**	
Reason for (non-)allowability of excess	Not applicable		Not applicable	
Information on receivable due to amount paid but not owed	Not applicable		Not applicable	

7.4.3 Remuneration of senior supervisory directors

In 2018, with the approval of the General Meeting of Shareholders, the remuneration for the members of the Supervisory Board was set at the WNT standard for the highest supervisory bodies. Tineke Bahlmann stepped down as a member of the Supervisory Board with effect from 13 April 2018 and was succeeded immediately thereafter by Annie Krist. Hanne Buis joined as a member of the Supervisory Board with effect from 21 September 2018.

x € 1	Pieter Trienekens	Tineke Bahlmann	Dick van Well	Theo Eysink	Jules Kortenhorst	Annie Krist	Hanne Buis
Position details	Chairman	Member	Member	Member	Member	Member	Member
Start and end dates of duties in 2018	01/01-31/12	01/01-13/04	01/01-31/12	01/01-31/12	01/01-31/12	14/04-31/12	21/09-31/12

Remuneration

Total remuneration	**28,350**	**5,333**	**18,900**	**18,900**	**18,900**	**13,567**	**5,282**
Maximum remuneration for position holder	28,350	5,333	18,900	18,900	18,900	13,567	5,282
-/- Amount paid but not owed and not yet refunded	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Reason for (non-)allowability of excess	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Information on receivable due to amount paid but not owed	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Data for 2017

Position details	Chairman	Member	Member	Member	Member	-	-
Start and end dates of duties in 2017	01/02-31/12	01/01-31/12	01/01-31/12	01/02-31/12	01/01-31/12	-	-

Remuneration

Total remuneration	**16,969**	**12,500**	**15,000**	**11,458**	**10,109**	**-**	**-**
Maximum remuneration for position holder	24,844	18,100	18,100	16,563	18,100	-	-

8. Cost of sales and contracted work

x € 1 million	2018	2017
Cost of sales	180	159
Contracted work	147	117
Total	**327**	**276**

The cost of sales and contracted work increased by € 51 million compared with 2017.

Cost of sales rose by a total of € 21 million. This increase can be broken down into an increase of purchase costs for grid losses of € 17 million and a € 4 million increase in purchase costs for distribution capacity.

The increase in purchase costs for distribution capacity of € 4 million consisted of a € 6 million increase at DNWG due to the fact that DNWG was part of Stedin Group for a full year ,and a € 2 million decrease at Stedin. The decrease at Stedin was attributable to lower purchase costs at TenneT (€ 1 million), mainly due to lower purchasing of distribution capacity (volume) and decreased purchase costs for distribution capacity at the regional grid operators (€ 1 million), mainly due to the sale of Weert.

The € 17 million increase in grid losses consisted of a € 2 million increase at DNWG due to the inclusion of DNWG for a full year (2107: six months) and a € 15 million increase at Stedin. The increase at Stedin was caused mainly by higher purchase prices.

The costs of contracted work increased by € 30 million compared with the preceding year. This increase was mainly attributable to the fact that DNWG was part of Stedin Group for a full year. In addition, costs of contracted work rose due to increased levels of activity compared with 2017.

9. Other operating expenses

x € 1 million	2018	2017
Municipal sufferance taxes and concessions	71	80
IT costs	42	44
Lease expenses	24	23
Accommodation costs	21	17
Provisions	6	7
Other expenses	43	42
Total	**207**	**213**

Other operating expenses decreased by € 6 million compared with 2017, mainly due to a decrease in sufferance tax and concessions. Other operating expenses includes, under 'Provisions', € 2 million (2017: € 2 million) as an addition to the provision for expected credit loss.

10. Capitalised own production

Hours worked by own staff and directly attributed to own investment projects are deducted from operating expenses as capitalised production.

Compared with the preceding financial year, capitalised hours increased by € 31 million to € 166 million. Within that increase, € 8 million was due to the acquisition of DNWG and € 23 million to the increased investment levels (more customer-driven requests).

Hours worked by external staff attributed to own investment projects are deducted from personnel expenses (external staff), see note 7 Personnel expenses.

11. Depreciation, amortisation and impairment of non-current assets

2018 x € 1 million	Land and buildings, machinery and equipment	Networks	Other	Total
Depreciation and amortisation	7	261	9	277
Disposals	1	19	-	20
Total 2018	**8**	**280**	**9**	**297**

2017 x € 1 million	Land and buildings, machinery and equipment	Networks	Other	Total
Depreciation and amortisation	8	241	9	258
Disposals	-	11	4	15
Total 2017	**8**	**252**	**13**	**273**

Depreciation and amortisation and divestments relate to property, plant and equipment and intangible assets and increased by € 24 million compared with 2017.

Regular depreciation and amortisation increased by € 19 million, due to an increase in property, plant and equipment. Divestments increased by € 5 million. This was attributable in full to divestments of DNWG. The disposals of non-current assets excluding the result on divestments amount to € 23 million (2017: € 34 million).

12. Financial income and expenses

x € 1 million	2018	2017
Interest income	-10	-1
Interest expense	82	80
Total	**72**	**79**

The financial income and expenses in 2018 amounted to € 72 million (2017: € 79 million). The financial expenses relate mainly to the interest expense for external financing. In addition, interest was capitalised in 2018 on the assets under construction for an amount of € 3 million (2017: € 3 million).

The interest income of € 10 million was non-recurring and relates to the interest received in 2018 in connection with a settlement with the Municipality of Rotterdam for the 'Verlegregeling bij de Leidingverordening Rotterdam'.

13. Income tax

Income tax on the result from continuing operations is as follows:

x € 1 million	2018	2017*
Current tax expense and tax income for current year	30	29
Release of deferred taxation due to a change in corporate income tax rates	-14	-
Movements in deferred taxes	5	2
Movement in deferred taxes for prior years	1	-
Income taxes	**22**	**31**

* The comparative figures have been restated. See note 3 on the adjustment as a result of differences between the finalised and the provisional accounting for the acquisition of DNWG. See note 18 for the release of the deferred taxation due to a change in corporate income tax rates.

The current tax expense on the result from continuing operations is as follows:

x € 1 million	2018	2017
Profit before income tax	**140**	**119**
Participation exemption	-	2
Non tax-deductible expenses	2	4
Different depreciation methods for tax purposes	-19	-6
Taxable profit	**123**	**119**
Nominal tax rate	25%	25%
Current tax expense	**30**	**29**

The effective tax burden expressed as a percentage of the profit before income tax from continuing operations is as follows:

	2018	2017
Nominal tax rate	**25.0%**	**25.0%**
Effect of:		
- Participation exemption	0.0%	0.4%
- Non tax-deductible expenses	0.3%	0.8%
- Change in corporate income tax rates	-10.1%	0.0%
- Tax-exempt profit	0.0%	-1.3%
- Tax incentives (Energy Investment Allowance)	-0.1%	0.0%
- Other	0.6%	0.0%
Effective tax rate	**15.7%**	**24.9%**

The corporate income tax is settled between Stedin Holding N.V. and its subsidiaries as if the subsidiaries were independently liable to tax. A different settlement method was applied for Stedin Netbeheer B.V. until the end of 2017. This was changed in 2018.

14. Discontinued operations and assets and liabilities held for sale

Assets and liabilities held for sale

On 12 March 2019 Stedin Group and 3i Infrastructure signed a provisional purchase agreement for the acquisition of Joulz Infradiensten B.V. (Joulz Infra) and Joulz Meetbedrijf B.V. (Joulz Meet). The transaction is subject to the approval of the shareholders and the regulator. Prior to the sale, on 1 January 2019, Stedin Groep Personeels B.V. legally split off the employees working for the benefit of the activities of the respective companies into Joulz Infradiensten B.V.

The companies meet the criteria under IFRS 5 to be classified as 'held for sale' as at 31 October 2018. The assets and liabilities to be sold are therefore presented in the balance sheet as current assets and current liabilities. Stedin Group expects the actual hiving off to take place in 2019. The effect on the income statement is that depreciation and amortisation is € 0.6 million lower than if Joulz Meet and Joulz Infra had not been accounted for as held for sale.

The table below shows the relevant assets and liabilities held for sale:

x € 1 million	As at 31 December 2018	As at 31 December 2017
Assets		
Machinery and equipment	42	-
Assets for dispoaal	21	-
Total	**63**	**-**
Liabilities		
Liabilities for disposal	7	-
Total	**7**	**-**

Discontinued operations

There were no transactions in 2018 that qualify as discontinued operations.

The table below provides a breakdown of results after income tax from discontinued operations for 2017.

x € 1 million	2017*
Profit before income tax	**98**
Income tax	-17
Result of revaluation to fair value	254
Profit after income tax from discontinued operations	**335**
Profit attributable to shareholders of Stedin Holding N.V.	
From discontinued operations	335
From continuing operations	76
Total attributable to shareholders of Stedin Holding N.V.	**411**
Total comprehensive income attributable to shareholders of Stedin Holding N.V.	
From discontinued operations	293
From continuing operations	159
Total attributable to shareholders of Stedin Holding N.V.	**452**

* See note 3 on the adjustment as a result of differences between the finalised and the provisional fair value measurement of the identifiable assets and liabilities relating to the acquisition of DNWG.

The results from discontinued operations for 2017 include the results pursuant to the unbundling of the integrated company Eneco Holding N.V. into Eneco Groep and Stedin Group as of 31 January 2017 and the sale of CityTec as of 31 March 2017. Both entities were revalued to fair value before the respective transactions. For a full overview of the results from discontinued operations for 2017, Stedin refers to note 14 'Discontinued operations and assets and liabilities held for sale' in the 2017 financial statements.

15. 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 2017	**31**	**109**	**8,277**	**122**	**2**	**8,541**
Investments	1	8	476	1	4	**490**
Acquisitions**	7	4	615	-	1	**627**
Disposals	-2	-14	-51	-76	-1	**-144**
Fair value adjustment for regulated networks	-	-	192	-	-	**192**
Reclassification from / to assets held for sale	-	-	-3	-	-	**-3**
Reclassification other	-	-3	-1	1	-2	**-5**
Historical cost as at 31 December 2017	**37**	**104**	**9,505**	**48**	**4**	**9,698**
Investments	1	3	589	-	9	**602**
Disposals	-	-5	-108	-1	-	**-114**
Reclassification from / to assets held for sale	-	-69	-	-	-	**-69**
Reclassification other	-9	8	65	2	-7	**59**
Historical cost as at 31 December 2018	**29**	**41**	**10,051**	**49**	**6**	**10,176**
Accumulated depreciation and impairment as at 1 January 2017	**15**	**41**	**3,192**	**88**	**-**	**3,336**
Annual depreciation and impairment	2	6	241	5	-	**254**
Disposals	-2	-10	-41	-57	-	**-110**
Fair value adjustment for regulated networks	-	-	78	-	-	**78**
Reclassification other	-	-1	1	-	-	**-**
Accumulated depreciation and impairment as at 31 December 2017	**15**	**36**	**3,471**	**36**	**-**	**3,558**
Annual depreciation and impairment	1	6	261	5	-	**273**
Disposals	-	-3	-88	-1	-	**-92**
Reclassification from / to assets held for sale	-	-27	-	-	-	**-27**
Reclassification other	-4	4	58	-	-	**58**
Accumulated depreciation and impairment as at 31 December 2018	**12**	**16**	**3,702**	**40**	**-**	**3,770**
Net book value as at 31 December 2017	**22**	**68**	**6,034**	**12**	**4**	**6,140**
Net book value as at 31 December 2018	**17**	**25**	**6,349**	**9**	**6**	**6,406**

* Regulated grids also comprises assets under construction.
** The comparative figures have been restated. See note 3 on the adjustment as a result of differences between the finalised and the provisional accounting for the acquisition of DNWG.

The net book value of property, plant and equipment increased by € 266 million compared with the preceding year. Stedin Group's investments amounted to € 602 million and related mainly to the regulated gas and electricity grids and to the large-scale offer and installation of smart meters. The divestments related to asset retirements (especially the machinery and equipment in the regulated domain).

Regulated grids also comprise assets under construction. An amount of € 3 million in interest was capitalised on the assets under construction, applying an interest rate of 3.0% (2017: € 3 million, at 3.8%).

Regulated networks are measured at the revalued amount, i.e. the fair value at the date of the revaluation less accumulated depreciation and impairment.

Other property, plant and equipment is recognised at cost less accumulated depreciation and impairment.

In 2017, the following adjustments were accounted for in the measurement of property, plant and equipment:

- a change in accounting estimate of the useful life of commercial meters to ten years;
- an improvement of the method of calculation of the fair value of the regulated grids, resulting in a change in accounting estimate. Improvement was achieved by closer alignment with the expected payment methodology of the regulator (Netherlands Authority for Consumers and Markets). An important valuation parameter used with effect from 2017 is the indexed standardised asset value of the grids. In combination with the permitted yield, the indexed standardised asset value is de basis for the cost of capital for the grids. Stedin Group carried out the revaluation arising from this independently on 1 January 2017 without engaging an external valuation expert. The change of depreciation and amortisation and release

from the revaluation reserve will reoccur annually until the grids are revalued, which will take place in 2021 at the beginning of the new regulation period.

The main data used to measure fair value are:

Parameters for measuring fair value of regulated networks

Valuation method (ACM)	Income approach derived from indexed value of regulated assets
Cash flow horizon for networks in years	Remaining term of regulated networks
WACC (ACM) applied in percent	4.04%
Date of change of WACC (ACM)	2021
Market share of Stedin Group in the Netherlands (ACM) in percent	Electricity transmission 24% and gas disttibution 26%

There were no changes in the valuation methodology in 2018. The fair value of the grids will be reassessed in 2021, when the new regulation information from the ACM will be available. In 2021, the ACM will publicly disclose this information again, as a result of which the unobservable parameters for fair value measurement of 'level 3' in IFRS 13 will be 'objective market data' again for Stedin Group for that moment.

There were no impairments in 2018.

As at 31 December 2018, the book value of regulated grids at historical cost was € 5,475 million (31 December 2017: € 5,167 million).

16. Intangible assets

The movements in intangible assets in 2018 were as follows:

x € 1 million	Goodwill	Licences and software	Concessions, permits and rights	Total
Historical cost as at 1 January 2017	**-**	**19**	**9**	**28**
Investments	-	3	1	**4**
Acquisitions*	77	9	-	**86**
Reclassification other	-	-5	-	**-5**
Historical cost as at 31 December 2017	**77**	**26**	**10**	**113**
Investments	-	4	1	**5**
Desinvesteringen	-	-1	-	**-1**
Reclassification other	-	2	-	**2**
Historical cost as at 31 December 2018	**77**	**31**	**11**	**119**
Accumulated amortisation and impairments as at 1 January 2017	**-**	**16**	**2**	**18**
Annual amortisation and impairment	-	3	1	**4**
Reclassification other	-	-5	-	**-5**
Accumulated amortisation and impairments as at 31 December 2017	**-**	**14**	**3**	**17**
Annual amortisation and impairment	-	4	1	**5**
Accumulated amortisation and impairments as at 31 December 2018	**-**	**18**	**4**	**22**
Net book value as at 31 December 2017	**77**	**12**	**7**	**96**
Net book value as at 31 December 2018	**77**	**13**	**7**	**97**

* The comparative figures have been restated. See note 3 on the adjustment as a result of differences between the finalised and the provisional accounting for the acquisition of DNWG.

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 (€ 30 million) and DNWG (€ 47 million).

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 2018 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 September 2018. This involves a comparison between the recoverable amount of the CGU and its book value. The fair value is determined based on the recoverable amount. Due to the lack of observable market data, the valuation method is a level 3 fair value with the fair value hierarchy. The recoverable amount functions, where appropriate, as an approximation of the realizable value. In principle the recoverable amount is based on pre-tax cash flow projections, discounted using a pre-tax weighted average cost of capital (pre-tax WACC).

The estimated projected cash flows for the period 2019-2038 are, amongst others, derived from the 'Financial Strategic Plan (FSP) of Stedin Group as approved by Board of Management and Supervisory Board. The budgets for the CGUs Stedin and DNWG are distinctly included in the FSP, covering the period 2019-2023. The period 2024-2038 is derived from the extrapolation of the FSP based projections. Importantly, the projected investments reflected in the Strategic Investment Plan (SIP) were also considered. The SIP covers a twenty-year projection period (2018-2038). Therefore, 2038 is regarded as a natural starting point for the residual value period.

The following items are the most important factors and assumptions used in the impairment test:

- the estimated fair value of the regulated assets (the so-called normalised regulated asset value, or in other words the NRAV);
- the market shares of Stedin and DNWG, respectively;
- the 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 long-term inflation forecasts and the long-term growth rate;
- the synergies expected to be realised from the DNWG acquisition;
- the weighted average cost of capital (WACC).

Regarding above mentioned 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 book value of the regulated assets for both CGU's Stedin and DNWG is limited. Accordingly, by definition, there is an increased risk of goodwill impairment.

- The market shares of the CGUs of Stedin and DNWG are based on the relative market shares of Stedin and DNWG in the combined output ("SO") of the sector as a whole. The market shares are based on 2015 data as published by the ACM. It is assumed that both the Stedin and DNWG market shares remain constant in the future. The profitability of Stedin and DNWG partly depends on the instrument of "yardstick competition". The allowed revenue which the ACM grants to the Dutch grid operators for their regulated activities depends on the sector-average costs and the market share of each grid operator. Stedin's market share is approximately 24% for electricity distribution and 26% for gas distribution. DNWG's market share is approximately 2% for electricity distribution and 2% for gas distribution.
  The system of "yardstick competition" means that the revenues and future cash flows of Stedin and DNWG are impacted by both its own performance and that of other grid operators. The allowable income is revisited by the ACM at the beginning of each five-year regulation period. The underlying data is also published once every five years. As a result, during a regulatory period, grid operators cannot reliably estimate over- or underperformance compared to other regional grid operators, nor the potential impact on their future cash flows.

- In view of the deviations between the individual performance of Stedin and DNWG compared to the benchmark, a convergence assumption of 8 years was used in the determination of the realisable value of both CGUs. This means that as of 2027, the performance of Stedin and DNWG is deemed to be the same as that of other grid operators.

- 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 utilized by Stedin Group management for its projections are derived from the

WACC published by the ACM, with the exception of inflation assumptions. With regard to the latter, management's own estimates have been used. For the next regulation periods as of 2022 onwards, Stedin Group management made its own estimate for the (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 utilized 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 implicit weighted average pre-tax WACCs used for the goodwill impairment tests of Stedin and DNWG amount to 3.6% and 4.4% respectively. The pre-tax WACC for DNWG is based on a weighted average pre-tax WACC for the regulated activities (3.8%) and non-regulated activities (11.1%).

- 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 till 2038, a growth rate has been used that is equal to the expected inflation (2%). This has been chosen to remain consistent with the SIP period, which ends in 2038.

- The synergies expected to be realised from the DNWG acquisition are equal to the amounts reflected in the FSP.

For both Stedin and DNWG, the buffer between the net book value and the net realisable value is relatively small due to the fact that the fair value is used as the valuation principle for regulated assets. Based on the above assumptions, the buffer for Stedin and DNWG is estimated at approximately € 350 million (7%) and € 35 million (6%) respectively.
Based on the impairment test carried out on 30 September 2018 as well as additional analysis, there is no indication that the goodwill associated with both CGUs is impaired.

The outcome of the impairment test depends on changes in certain key estimates and assumptions. The most important ones are:

- the investment levels;
- the market share;
- the convergence assumption;
- the WACC;
- the long-term growth rate.

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 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 € 28 million and of DNWG by € 3 million.
- A decrease in the expected market share, resulting from a decrease in efficient investments by 5%, results in a decrease in the realisable value of Stedin by € 9 million and of DNWG by € 1 million.
- A one-year delay in the convergence assumption results in a decrease in the realisable value of Stedin by € 93 million and of DNWG by € 18 million.
- An increase in the (regulated) discount rate of 0.1% results in a decrease in the realisable value of Stedin by € 114 million and of DNWG by € 13 million.
- A decrease of the long-term growth rate by 0.5% results in a decrease in the realisable value of Stedin by € 63 million and of DNWG by € 9 million.

None of the above sensitivities result in a negative buffer nor an impairment indication.

17. Associates and joint ventures

x € 1 million	2018	2017*
Book value as at 1 January	**5**	**-**
Acquisitions	-	5
Book value as at 31 December	**5**	**5**

* The comparative figures have been adjusted. Refer to note 3 for the adjustment as a result of changes between the finalised and the provisional accounting for the acquisition of DNWG.

Through the acquisition of DNWG, Stedin Group acquired a 33.3% interest in Zebra Gasnetwerk B.V. in 2017. (below: Zebra). Zebra is the grid operator of the main distribution pipeline for high-calorific gas from Zelzate to Moerdijk. Zebra is classified as an associate.

18. Deferred tax assets and liabilities

Deferred tax assets and liabilities are as follows.

x € 1 million	Assets as at 31 December 2018	Assets as at 31 December 2018	Liabilities as at 31 December 2017	Liabilities as at 31 December 2017 (adjusted)*
Property, plant and equipment	-	-	229	277
Intangible assets	1	1	-	-
Cash flow hedges	17	21	-	-
Provisions	2	2	-	-
Interest-bearing debt	-	-	3	4
Total	**20**	**24**	**232**	**281**

* The comparative figures have been adjusted. Refer to note 3 for the adjustment as a result of changes between the finalised and the provisional accounting for the acquisition of DNWG.

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 2018 are as follows:

x € 1 million	Net balance as at 1 January 2018	Recognised in profit or loss	Recognised in other comprehensive income	Net balance as at 31 December 2018	Assets	Liabilities
Property, plant and equipment	277	-7	-41	229	-	229
Intangible assets	-1	-	-	-1	1	-
Cash flow hedges	-21	-	4	-17	17	-
Provisions	-2	-	-	-2	2	-
Interest-bearing debt	4	-1	-	3	-	3
Deferred income tax liabilities (assets) for netting	**257**	**-8**	**-37**	**212**	**20**	**232**
Netting off					-20	-20
Total					**-**	**212**

The major portion of the deferred tax on property, plant and equipment relates to the difference between the carrying amounts 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.

In December 2018, the Upper House of Dutch Parliament approved the bill to reduce the corporate income tax rate from 25.00% to 22.55% in 2020 and then to 20.50% in 2021 and subsequent years. This means that, depending on the expected time of realisation, the deferred tax assets and liabilities will be settled at different rates. The valuation of the deferred tax assets and liabilities as at 31 December 2018 is based on the rates applicable at the estimated times of realisation.

	As at 31 December 2018	As at 31 December 2018	
	old rates	new rates	Difference
Deferred tax assets	-147	-129	-18
Deferred tax liabilities	410	341	69
Netted	**263**	**212**	**51**

Released to income statement	14
Addition charged to cash flow hedge reserve	-3
Released to the revaluation reserve in equity	40
Total	**51**

Movements in deferred taxes during 2017 are as follows:

x € 1 million	Net balance as at 1 January 2017	Recognised in profit or loss	Recognised in other comprehensive income	Obtained via acquisitions of businesses*	Net balance as at 31 December 2017**	Assets	Liabilities
Property, plant and equipment	226	-1	31	21	277	-	277
Intangible assets	-1	-	-	-	-1	1	-
Cash flow hedges	-20	-	-1	-	-21	21	-
Provisions	-2	-	-	-	-2	2	-
Interest-bearing debt	4	-	-	-	4	-	4
Deferred tax liabilities (assets) before netting	**207**	**-1**	**30**	**21**	**257**	**24**	**281**
Netting						-24	-24
Total						**-**	**257**

* This relates to the acquisition of DNWG.
** The comparative figures have been adjusted. Refer to note 3 for the adjustment as a result of changes between the finalised and the provisional accounting for the acquisition of DNWG.

Expiration periods for deductible temporary differences as at 31 December 2018 are as follows:

Category	Period
Property, plant and equipment	1 - 50 yrs
Intangible assets	1 - 25 yrs
Cash flow hedges	1 - 30 yrs
Provisions	1 - 10 yrs

19. Derivative financial instruments

Fair value of derivative financial instruments:

x € 1 million	Assets as at 31 December 2018	Liabilities as at 31 December 2018	Assets as at 31 December 2017	Liabilities as at 31 December 2017
Currency swap and forward contracts	26	56	9	71
Total	**26**	**56**	**9**	**71**

The classification by maturity is set out below:

x € 1 million	Assets as at 31 December 2018	Liabilities as at 31 December 2018	Assets as at 31 December 2017	Liabilities as at 31 December 2017
Classification				
Current / short term	11	-	-	-
Non-current / long term	15	56	9	71
Total	**26**	**56**	**9**	**71**

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. 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 decreased by € 2 million compared with the preceding financial year. An obsolescence allowance of € 3 million has been deducted from the value of inventories (2017: € 4 million).

An amount of € 1 million within the obsolescence allowance relates to meters (2017: € 3 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 2018	As at 31 December 2017*
Trade receivables	115	132
To be invoiced	37	40
Other receivables and accruals	3	9
Total	**155**	**181**

* The comparative figures have been restated for presentation purposes

Note 33.2 Credit risk states the age and impairments of the trade receivables and contract assets. Stedin uses the transitional arrangement with regard to IFRS 9, and therefore the bad debt provision in 2017 was based on 'incurred losses'.

Trade receivables decreased by € 17 million compared with the preceding year. This decrease is mainly attributable to the presentation of the receivables of Joulz Diensten, which are accounted for as assets held for sale.

22. Cash and cash equivalents

At 31 December 2018, cash and cash equivalents comprised bank balances of € 49 million and short-term cash loans of € 120 million (2017: bank balances of € 43 million, short-term cash loans of € 30 million) Cash and cash equivalents are held mainly in euros. Cash and cash equivalents that are not freely available to Stedin Group amounted to € 0.1 million (2017: € 0.3 million) at year-end.

23. Group equity

Share capital

Stedin Holding N.V.'s authorised share capital is € 2 billion, divided into 20 million shares with a nominal value of € 100 each. At 31 December 2018 and 2017, 4,970,978 shares had been issued and fully paid.

Share premium

Stedin Holding N.V. (formerly Eneco Holding N.V.) was incorporated in 2000. At that time the shareholders of N.V. Eneco acquired a capital interest in the company by contributing their capital interests in N.V. Eneco to Stedin Holding N.V. Insofar as the value of that interest exceeded the nominal value of the shares, the excess value was taken to share premium. The share premium reserve can be regarded as paid-up share capital.

The share premium reserve was used for unbundling the energy company Eneco in the form of a repayment in kind to the shareholders.

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 € 754 million at year-end 2018 (2017: € 744 million). In 2018, € 40 million was added to the revaluation reserve (from the deferred tax liability) as a consequence of the adjustment of the corporate income tax rate.

Translation differences reserve

Stedin Group has no foreign group companies using foreign currencies and so it has not been necessary to use this reserve since the unbundling. The 2017 release of € 6 million from discontinued operations to profit or loss results from the distribution made by the energy company to the shareholders on 31 January 2017. The translation reserve is not freely at the disposal of the shareholders.

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 33.4 Derivative financial instruments and cash flow hedge reserve.

The settlement of the cash flow and translation reserves of the energy company is accounted for under discontinued operations 2017.

Retained earnings

The retained earnings were impacted significantly by a dividend distribution of € 2.7 billion in January 2017. That distribution was part of the total dividend distribution of € 3.1 billion and was connected with the unbundling of the energy company (see note 14 Discontinued operations and assets and liabilities held for sale).

Subordinated perpetual bond loan

On 1 December 2014, Stedin Holding N.V. issued a perpetual subordinated bond loan ('Perpetual Fixed Rate Reset Securities') with a total nominal amount of € 500 million at an annual coupon interest of 3.25% and an issue price of 99.232%. This resulted in net proceeds of € 496 million. Directly attributable costs of € 3 million were deducted from these proceeds, resulting in an addition of € 493 million to the group equity in 2014. The bonds are listed on the Euro MTF Market of the Luxembourg stock exchange. On 31 December 2018, the market value was € 513 million. The book value at year-end 2018 was € 501 million, which is the nominal principal amount including € 1 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.

24. Provisions for employee benefits

x € 1 million	Long-service benefits	Other	Total
As at 1 January 2017	**16**	**4**	**20**
Additions	2	3	5
Acquisitions	3	-	3
Reclassification to liabilities held for sale	-1	-	-1
Withdrawals	-1	-3	-4
As at 31 December 2017	**19**	**4**	**23**
Additions	2	1	3
Withdrawals	-1	-1	-2
Release	-6	-1	-7
As at 31 December 2018	**14**	**3**	**17**

Classification (x € 1 million)	As at 31 December 2018	As at 31 December 2017
Current	4	2
Non-current	13	21
Total	**17**	**23**

The amount of € 3 million included in 2017 in acquisitions under long-service benefits relates to the acquisition of DNWG. The reclassification to liabilities held for sale in 2017 relates to CityTec (€ 1 million).

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 2018	31 December 2017
Discount rate	1.6%	1.1%
Future salary increments	1,3% - 3,0%	1,0% - 1,9%
Mortality table	GBM & GBV 2012-2017	GBM & GBV 2010-2015

Long-service payments are made over the long term. The provision is remeasured annually using current employee information.

25. Other provisions

x € 1 million	Other provisions
As at 1 January 2017	**12**
Acquisitions	12
Additions	5
Withdrawals	-3
Release	-2
Reclassification to liabilities held for sale	-1
As at 31 December 2017	**23**
Additions	3
Withdrawals	1
Release	-3
Reclassification	-
As at 31 December 2018	**24**

Classification (x € 1 million)	As at 31 December 2018	As at 31 December 2017
Current	2	1
Non-current	22	22
Total	**24**	**23**

The other provisions amount to € 24 million (2017: € 23 million) and comprise several provisions of different kinds and are mainly of a long-term nature. They include, for instance, a provision for legal proceedings and claims of € 9 million (2017: € 7 million) and for obligations amounting to € 9 million entered into on behalf of Stichting Zeeuwse Publieke Belangen (2017: € 10 million). The expected period in which an outflow of resources from these provisions will occur exceeds one year.

The provisions were discounted using rates ranging up to 1,5% (2017: 2.5%).

26. Interest-bearing debt

Classification (x € 1 million)	As at 31 December 2018	As at 31 December 2017
Current	496	79
Non-current	2,548	2,674
Total	**3,044**	**2,753**

Movements in interest-bearing debt:

x € 1 million	2018	2017
As at 1 January	**2,753**	**1,644**
New non-current interest-bearing debt	493	1,042
New current interest-bearing debt	880	1,115
Repayments of non-current interest-bearing debt	-202	-210
Repayments of current interest-bearing debt	-905	-1,140
Foreign currency exchange differences	20	-53
Newly acquired loan from N.V. Eneco Beheer concerning the unbundling	-	200
Borrowings from business combinations	-	150
Other movements	5	5
As at 31 December	**3,044**	**2,753**

The maturities of the interest-bearing debts are presented below:

x € 1 miljoen	As at 31 December 2018	As at 31 December 2017
Within1 jaar	496	79
1 to 2 years	150	597
2 to 3 years	78	150
3 to 4 years	528	77
4 to 5 years	-	527
After 5 years	1,792	1,323
Total	**3,044**	**2,753**

All interest-bearing debts as at 31 December 2018 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 following significant financing transactions took place in 2018:

- In September 2018, a € 500 million bond loan was issued under the Euro Medium Term Note programme, bringing the total amount issued under this programme to € 1.3 billion as at 31 December 2018 (2017: € 800 million). The bond loan has a term of ten years and carries interest at 1.375%. In addition, € 200 million was converted to variable interest by means of an interest rate swap, with Stedin paying 6-month Euribor + 0.48% during the term;
- At the end of 2018, Stedin Group carried out early repayments of € 152 million for existing loans.

The loans are subject to various financial covenants; the most important of these are set out below:

- A gearing ratio (net debt / total equity) lower than 70%;
- An interest coverage ratio higher than 3.

Stedin Holding N.V. complied with the conditions stated above during 2018.

27. Deferred income

x € 1 million	2018	2017
Book value at 1 January	554	403
Acquisitions	-	71
Customer construction contributions received	112	94
Income recognised	-18	-14
Book value at 31 December	**648**	**554**

Classification

Current	16	16
Non-current	632	538
Total	**648**	**554**

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 2018	As at 31 December 2017*
Trade liabilities	66	73
Accrued and other liabilities	182	171
Contract liabilities	24	18
VAT	25	31
Pension contributions	3	3
Total	**300**	**296**

Classification

Current	299	294
Non-current	1	2
Total	**300**	**296**

* The comparative figures have been adjusted for presentation purposes.

Trade and other liabilities gestegen by € 4 million compared with 2017. The grid loss reserve amounted to € 10 million (2017: € 10 million) and is reported under 'Accrued and other liabilities'.

29. Current tax assets and liabilities

Current tax assets and liabilities are as follows:

x € 1 million	As at 31 December 2018	As at 31 December 2017
Corporate income tax	21	-
Total current tax assets	**21**	**-**

x € 1 million	As at 31 December 2018	As at 31 December 2017
Corporate income tax	-	8
Total current tax liabilities	**-**	**8**

30. Contingent assets and liabilities

Contingent 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.

Leases in which Stedin Group is the lessee

Stedin Group has entered into operating leases for IT facilities and the vehicle fleet. There are also rental agreements for land and a number of business premises. The risks and rewards incidental to ownership of the assets concerned have not, or not substantially all, been transferred to Stedin Group. The costs of operating leases are linearly recognised in profit or loss over the term of the lease. Costs of € 20 million have been recognised in this respect in 2018 (2017: € 26 million).

The total lease obligations amount to €134 million (2017: € 126 million). The minimum obligations under these agreements fall due as follows:

x € 1 million	As at 31 December 2018	As at 31 December 2017
Within 1 year	23	26
1 to 5 years	61	53
After 5 years	50	47
Total	**134**	**126**

Energy purchase commitments

Stedin Group has energy purchase commitments to offset administrative and technical grid losses. Based on the rates applicable in 2018, the obligation amounts to € 294 million (2017: € 97 million relating to the period 2019 till 2031).

Investment obligations

At 31 December 2018, Stedin Group had entered into investment obligations for a total amount of € 38 million (2017: 96 million). These investment obligations relate mainly to investments in smart meters. The investment obligations have been entered until 2020.

Other obligations

In addition, Stedin Group entered into contractual obligations for an amount of € 8 million (2017: € 9 million). These are mainly contractual obligations for maintenance.

Guarantees
Stedin Group has issued group and bank guarantees to third parties of € 34 million (2017: € 60 million). Of that total Stedin Holding N.V. issued € 28 million (2017: 54 million) of guarantees. This concerns € 27 million (2017: € 54 million) 'parent company guarantees' and € 1 million (2017: € 6 million) bank guarantees. The remaining guarantee has been issued 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.

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.

Stedin is involved with several municipalities in claims for municipal sufferance taxes. The potential impact for Stedin is a receivable ranging up to approximately € 19 million. Due to uncertainties this potential receivable is not recognized in the balance sheet as at 31 December 2018.

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 List 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. all its consolidated participating interests as included in note 37 List 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. Transactions with related parties take place on terms of business normally prevailing with independent third parties.

Receivables outstanding from associates concern loans granted for an amount of € 15 million (2017: € 10 million) and are mainly of a long-term nature. In 2018, € 6 million of loans were granted and € 1 million of repayments were received. The loans have a term of five years, at interest rates varying from 0.4% 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 (succeeded Judith Koole as of 15 November 2018 on

behalf of Stedin Group), Koen Verbogt (succeeded Gerard Vesseur as of 20 February 2019 on behalf of Stedin Group), Carla Schönknecht (Province of Zeeland) and Loes Meeuwisse (succeeded Ad Schenk as of 1 September 2018 on behalf of the Association of Municipalities in Zeeland). The fund is financed by Stedin up to a maximum of € 10 million. In 2018, the governing board of the foundation committed € 1.2 million to six approved project proposals and paid out € 0.2 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 and electricity grids to DKCN, Evides and Enduris to be able to carry out grid operator 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.
- Supervisory Board member Annie Krist is CEO of GasTerra, which engages in trading and supplying natural gas. Stedin has no direct relationship with GasTerra.
- Supervisory Board member Pieter Trienekens is a member of the Supervisory Board of DNV Kema in Arnhem. DNV is a supplier of Stedin Group.
- 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.
- Supervisory Board member Theo Eysink is CFO of the Business Market Division of KPN N.V. KPN is a supplier of Stedin Group.
- Danny Benima took up his position as CFO of Stedin Group as of 1 January 2019. In 2018, Danny was CFO Southern Europe of ARCADIS N.V. ARCADIS is a supplier of Stedin Group.

The above mentioned persons were not involved in commercial transactions between the named suppliers and Stedin Group. Contract reviews, negotiations or awards between the two companies were effected at arm's length terms and conditions.

Note 7 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.

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).
- 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 or USEF, in which Stedin can participate as a director. These parties are not related parties.

2018 x € 1 million	Purchased goods & services	Recharging of employee benefits, facilities and other expenses
Joint arrangements		
Utility Connect B.V.	6	1
TensZ B.V.	1	8
TeslaN B.V.	6	5
Infra Netwerkgroep Omexom VOF	-	-
Total	**13**	**14**
Associates		
Energie Data Services Nederland B.V.	9	-
Zebra Gasnetwerk B.V.	-	-
Total	**9**	**-**

2017 x € 1 million	Purchased goods & services	Recharging of employee benefits, facilities and other expenses
Joint arrangements		
Utility Connect B.V.	6	1
TensZ B.V.	2	16
TeslaN B.V.	5	4
Infra Netwerkgroep Omexom VOF	-	-
Total	**13**	**21**
Associates		
Energie Data Services Nederland B.V.	7	-
Zebra Gasnetwerk B.V.	1	-
Total	**8**	**-**

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	2018	2017
Audit of the financial statements	1,104	1,221
Other audit engagements	331	504
Other non-audit services	-	113
Totaal	**1,435**	**1,838**

The fee for the audit of the financial statements of Stedin Holding N.V. includes the work for the consolidated and the company financial statements.

The other audit engagements concern audits concerning the statutory financial statements of subsidiaries and related engagements.

Other non-audit services concern services permitted under the Wta and (partly) charged by entities associated with the Deloitte network. Since 24 October 2017, Stedin Holding N.V. is qualified as a public interest entity (Dutch: Organisatie van Openbaar Belang). 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 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 present interest-bearing debt was raised in roughly equal proportions in the US private placement market, the European bond market and the private loan 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, a Stedin Group financing strategy was formulated 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 2014 is classified by Standard & Poor's as an instrument with a 50% equity and a 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 non-current and current interest-bearing debt less cash and cash equivalents.

Financial risk management

The following financial risks can be identified in connection with the 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.

The **liquidity risk** is the risk that 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 management regularly review the results, key figures, the principal risks (or 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 and results.

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 this risk are laid down in the Treasury Charter, as adopted by the Board of Management. The Treasury Charter describes, amongst other things, the risk tolerance 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 for changes in fair value	Interest rate swap Hedge accounting for changes in fair value	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

Paragraphs 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: exposure to changes in value of 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 grid 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 € 2.5 billion are fixed rate (fair value risk). The other borrowings bear a variable interest rate which follows the development in market rates (cash flow/interest rate risk).

x € 1 million	Book value as at 31 December 2018	Fair value as at 31 December 2018	Book value as at 31 December 2017	Fair value as at 31 December 2017
Bond loans	1,293	1,288	798	802
Other loans	1,751	1,925	1,955	2,177
Total	**3,044**	**3,213**	**2,753**	**2,979**

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 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).

Companies included in the consolidation are not permitted to maintain substantial positions in foreign currencies without the Treasury department’s approval. Based upon the aggregate foreign currency position and the associated limit set for open positions, the Treasury department determines whether hedging is desirable and the strategy to be followed.

Cash flow hedges for foreign currency risks

At 31 December 2018, the foreign currency risks arising from these loans are 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 2018 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 121	USD 270	USD 391	1.340	292	284
	GBP 4	GBP 110	GBP 114	0.851	134	83
	JPY 510	JPY 30,200	JPY 30,710	132.188	232	158
Total					**658**	**525**

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:

x € 1 million	Changes in the cash flow hedge and the cost of hedging reserve comprise: Derivative financial instrument	The hedged risk	Derivative financial instrument recognised in other comprehensive income	Balance of the cash flow hegde reserve	Reclassification recognised in the income statement
Expected cash flows	-33	36	-33	60	-
Total	**-33**	**36**	**-33**	**60**	**-**

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 33.4 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 serves as the base tool. Stedin Group can use derivative financial instruments to achieve the desired risk profile.

	2018	2017
Average interest rate	2.9%	3.5%

The average interest rate is calculated as the weighted average of the monthly interest expense in 2018. If all other variables remain constant, it is estimated that a general increase of 1 percentage point in Euribor (for a period of twelve months) would lead to a decrease in profit before tax of € 5.0 million (at 31 December 2017: € 3.4 million).

Cash flow hedge for interest rate risk

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 milion	Balance of the cash flow hegde reserve	Reclassification recognised in the income statement
Change in cash flow hedge reserve for interest expense	5	1
Total	**5**	**1**

Fair value hedge

Stedin Group applies fair value hedges to convert part of its fixed-interest loans into variable-interest loans to achieve effective alignment with the strategic allocation between variable-interest and fixed-interest loans. The fair value hedging relationships for interest rate risks as at 31 December 2018 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	-	21	21	1.1%	200	203
Total					**200**	**203**

The table below shows details of the hedging relationship:

	Change in the fair value of:			
x € 1 million	Derivative financial instrument	The hedged risk	Derivative financial instrument recognised in other comprehensive income	Accumulated change in interest-bearing debt
Expected cash flows	3	3	-	3
Total	**3**	**3**	**-**	**3**

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 33.4 Derivative financial instruments and cash flow hedge reserve.

Commodity price risk

Stedin Group is faced with this type of risk mainly in connection with purchasing for grid losses. Stedin Group is exposed to the effect of market fluctuations in prices of various energy commodities, such as electricity and green certificates. Stedin has purchase contracts that provide access to the energy market for the expected purchase volumes. Stedin applies a policy of frequent purchasing for grid losses in line with actual consumption, which reduces its sensitivity to price fluctuations and targets an average price level. The remaining commodity price risk is not hedged by derivative financial instruments.

33.2. Credit risk

The maximum credit risk is equal to the book 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 thirty 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 high-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 high-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, to be invoiced and other receivables are as follows:

x € 1 million	As at 31 December 2018	As at 31 December 2017*
Trade receivables	115	132
To be invoiced	37	40
Other receivables and accruals	3	9
Total	**155**	**181**

* The comparative figures have been restated for presentation purposes

The breakdown of the outstanding trade receivables and bad debts provision by age is as follows:

		2018		2017	
x € 1 million	Expected loss %	Receivables	Provision / impairments	Receivables	Provision / impairments
Receivables from low-use customers	0.1% - 100%	70	1	73	-
Receivables from high-use customers, other receivables and to be invoiced					
Before maturity date	0.1% - 1%	58	1	72	1
After maturity date	-	-	-	-	-
- under 3 months	1% - 25%	17	-	20	-
- 3 to 6 months	1% - 100%	1	-	3	1
- 6 to 12 months	5% - 100%	5	-	4	2
- over 12 months	65% - 100%	11	8	11	7
Face value		162	10	183	11
Less: provison / impairments		**-10**		**-11**	
Total		**152**		**172**	

For more information on the impact of new IFRS standards on the measurement of provisions for financial assets, see note 2.4 Effects of the adoption of new IFRS Standards.

The table below presents the movements in the bad debts provision in detail:

x € 1 million	2018	2017
As at 1 January before the adoption of IFRS 9	**11**	**12**
Movement before adoption of IFRS 9	**-**	**-**
As at 1 January	**11**	**12**
Additions through income statement	2	2
Withdrawals	-2	-3
Reclassification to assets held for sale	-1	-
As at 31 December	**10**	**11**

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 creditworthiness. 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 cash flow forecasts incorporate operating and investing cash flows, dividends, interest payable and debt repayments. 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 and 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 € 0 million had been issued at year-end (2017: € 25 million) and a € 2 billion Euro Medium Term Note programme until 6 October 2018 under which € 1.3 billion had been issued at 31 December 2018 (2017: € 800 million).

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 2017, Stedin Group did not receive any margin calls in 2018.

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 2018 x € 1 million	Within 1 year	1 to 5 years	After 5 years	Total
Interest-bearing debt	564	929	2,094	3,587
Derivative financial instruments	11	9	-53	-33
Trade and other liabilities	299	1	-	300
Total	**874**	**939**	**2,041**	**3,854**

As at 31 December 2017 x € 1 million	Within 1 year	1 to 5 years	After 5 years	Total
Interest-bearing debt	148	1,535	1,592	3,275
Derivative financial instruments	4	15	17	36
Trade and other liabilities	294	2	-	296
Total	**446**	**1,552**	**1,609**	**3,607**

Trade and other liabilities include, in 'contract liabilities', deferred income of € 24 million (2017: € 18 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 2017, 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	Energy commodity risk	Interest rate risk	Foreign currency risk	Total
As at 1 january 2017	**40**	**-7**	**-63**	**-30**
Newly defined cash flow hedges in the financial year	-	-1	-1	-2
Movement in fair value of cash flow hedges	-	-	-2	-2
Deferred tax liabilities	-	-	1	1
Recycling terminated cash flow hedges of Eneco	-40	8	-	-32
As at 31 december 2017	**0**	**0**	**-65**	**-65**
Movement in fair value of cash flow hedges	-	-6	5	-1
Deferred tax liabilities	-	1	-4	-3
Reclassification cash flow hedge reserve to income statement	-	-	4	4
As at 31 december 2018	**0**	**-5**	**-60**	**-65**

The settlement of the cash flow and translation reserves of the Eneco energy company is accounted for under discontinued operations.

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 2018	**-60**	**-5**	**-65**
Movement in fair value of cash flow hedges	**6**	**-7**	-1
Deferred tax liabilities	**-4**	**1**	-3
Reclassification cash flow hedge reserve through income statement	**3**	**1**	4
As at 31 december 2018	**-55**	**-10**	**-65**

Periods in which the cash flows from the cash flow hedges are expected to be realised:

x € 1 million	As at 31 December 2018	As at 31 December 2017
Expected cash flows		
Within 1 year	11	-4
1 to 5 years	9	-15
After 5 years	-53	-17
Total	**-33**	**-36**

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 2018	As at 31 December 2017
Expected recognition through the income statement after income tax		
Within 1 year	-6	-4
1 to 5 years	-24	-29
After 5 years	-35	-32
Total	**-65**	**-65**

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 creditworthiness.

Stedin Holding N.V. and Stedin Netbeheer B.V. each have a credit rating with the rating agency Standard & Poor’s. 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 Standard & Poor's in October 2018 is A- with a stable outlook for the long term and A-2 for the short term.

There has been contact with Standard & Poor's on several occasions in the past year. The main topics discussed were the recent financial performance and forecasts for the next three years of Stedin Group. On that basis, Standard & Poor's reassessed Stedin Group's creditworthiness and reconfirmed the existing rating and outlook.

For the most recent rating reports, see our website: http://www.stedingroep.nl/investor-relations

35. Subsequent events

On 12 March 2019 Stedin Group and 3i Infrastructure signed a provisional purchase agreement for the acquisition of Joulz Infradiensten B.V. (Joulz Infra) and Joulz Meetbedrijf B.V. (Joulz Meet). The transaction is subject to the approval of the shareholders and the regulator. Prior to the sale, on 1 January 2019, Stedin Groep Personeels B.V. legally split off the employees working for the benefit of the activities of the respective companies into Joulz Infradiensten B.V.

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 result after tax is adjusted for items in the income statement and movements in the balance sheet that did not affect receipts and payments during the financial year 2018.

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 and interest and dividend receipts. Development costs, 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.

Cash flow from operating activities 2017

The cash flows in 2017 include the cash flows from assets and liabilities for distribution to shareholders and assets and liabilities held for sale. These are included in full in 'Movements in provisions, derivative financial instruments and other'. This also includes regular items of this category which relate to the regular activities of Stedin Group. Cash and cash equivalents of Eneco Group amounted to € 343 million at 1 January 2017 and € 443 million at 31 January 2017. These cash and cash equivalents are recognised in 'Disposal of subsidiaries' under 'Cash flow from investing activities'.

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	As at 31 December 2018	As at 31 December 2017
Movements in inventories	2	-11
Movements in trade and other receivables	-10	-56
Movement in trade and other liabilities	26	12
Total	**18**	**-55**

The movement in working capital does not include changes in respect of subsidiaries sold.

37. List of subsidiaries

	2018 %	2017 %	City
Consolidated participating interest			
Stedin Netbeheer B.V.*	100.00	100.00	Rotterdam
Stedin Operations B.V.	-	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
Joulz Energy Solutions B.V.	-	100.00	Rotterdam
Joulz Diensten B.V.	100.00	100.00	Rotterdam
Joulz Infradiensten B.V.*	100.00	100.00	Rotterdam
Joulz Meetbedrijf B.V.*	100.00	100.00	Rotterdam
Joulz Stoomnetwerken B.V.	100.00	100.00	Rotterdam
Stedin Groep Personeels B.V.*	100.00	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 *.

On 1 April 2018, Stedin Operations B.V. was legally merged, with retroactive effect to 1 January 2018, with Stedin Netbeheer B.V. (acquiring company). Joulz Energy Solutions B.V. was sold to Visser & Smit Hanab with effect from 1 September 2018.

Company income statement

x € 1 million	Note	2018	2017 (restated)*
Total net revenue and other income		**-**	**-**
Cost of sales, contracted work and operational expenses		-3	-1
Depreciation, amortisation and impairment of non-current assets		-1	-1
Total operating expenses		**-4**	**-2**
Operating profit		**-4**	**-2**
Financial income and expenses	43	-44	-33
Profit before income tax		**-48**	**-35**
Profit of participating interests	14, 40	165	457
		117	**422**
Income tax		1	1
Profit after income tax		**118**	**423**
Profit distribution:			
Profit after income tax attributable to holders of Stedin Holding N.V. perpetual subordinated bonds (after income tax)		12	12
Profit after income tax attributable to shareholders of Stedin Holding N.V.		106	411
Profit after income tax		**118**	**423**

* The comparative figures have been restated. See note 3 to the financial statements on the adjustment as a result of differences between the finalised and the provisional accounting for the acquisition of DNWG.

Company balance sheet

Before profit appropriation

x € 1 million	Note	As at 31 December 2018	As at 31 December 2017 (restated)*
ASSETS			
Non-current assets			
Property, plant and equipment		10	11
Intangible assets	39	77	77
Financial assets	40	5,265	5,092
Total non-current assets		**5,352**	**5,180**
Current assets			
Receivables from group companies	41	566	279
Current tax assets		21	-
Accruals and other receivables		23	1
Cash and cash equivalents		110	34
Total current assets		**720**	**314**
TOTAL ASSETS		**6,072**	**5,494**
LIABILITIES			
Equity			
Share capital	23	497	497
Revaluation reserve	23	754	744
Cash flow hedge reserve	23	-65	-65
Cost of hedging reserve		-1	-
Retained earnings	23	907	494
Undistributed profit for the year	23	106	411
Equity attributable to Stedin Holding N.V. shareholders		**2,198**	**2,081**
Perpetual subordinated bond loan	23	501	501
Total equity		**2,699**	**2,582**
Non-current liabilities			
Provisions		4	4
Deferred tax liabilities		30	30
Interest-bearing debt	26	2,548	2,674
Derivative financial instruments	19	56	71
Total non-current liabilities		**2,638**	**2,779**
Current liabilities			
Interest-bearing debt	26	496	79
Liabilities to group companies	41	192	3
Current tax liabilities		-	8
Other liabilities	42	47	43
Total current liabilities		**735**	**133**
TOTAL LIABILITIES		**6,072**	**5,494**

* The comparative figures have been restated. See note 3 to the financial statements on the adjustment as a result of differences between the finalised and the provisional accounting for the acquisition of DNWG.

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' 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.

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 where changes in value are taken to profit and loss and for which no regular market prices exist;
- 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 2.2.22 Perpetual subordinated bond loan to the consolidated financial statements.

39. Intangible assets

Intangible assets relates to the goodwill arising on the acquisition of DNWG. For more details, see note 16 Intangible assets to the consolidated financial statements.

40. Financial assets

x € 1 million	Subsidiaries	Receivables from subsidiaries	Other receivables	Derivative financial instruments	Total
Book value as at 1 January 2017	**6,346**	**1,170**	**1**	**42**	**7,559**
Result of subsidiaries*	203	-	-	-	**203**
Fair value adjustments for regulated grids	86	-	-	-	**86**
Dividend received	-366	-	-	-	**-366**
Disposals	-2,876	-	-	-	**-2,876**
Acquisitions	378	-	-	-	**378**
Movements in loans to subsidiaries	-	141	-	-	**141**
Movement in fair value of financial instruments	-	-	-	-33	**-33**
Book value as at 31 December 2017	**3,771**	**1,311**	**1**	**9**	**5,092**
Result of subsidiaries	165	-	-	-	**165**
Effect in corporate income tax changes	15	-	-	-	**15**
Disposals	-13	-	-	-	**-13**
Acquisitions	5	-	-	-	**5**
Movements in loans to subsidiaries	-	-4	-	-	**-4**
Movements in other loans	-	-	-1	-	**-1**
Movement in fair value of financial instruments	-	-	-	6	**6**
Book value as at 31 December 2018	**3,943**	**1,307**	**-**	**15**	**5,265**

* The comparative figures have been restated. See note 3 to the financial statements on the adjustment as a result of differences between the finalised and the provisional accounting for the acquisition of DNWG.

The 2017 disposals relate to the unbundling of Eneco Groep N.V. and the sale of CityTec B.V. The transfer and sale of these business units generated a profit on disposal of € 254 million; for details see note 14 'Discontinued operations and assets and liabilities held for sale' in the consolidated financial statements. This profit on disposal is recognised separately in the company financial statements.

In both 2018 and 2017, no depreciation and impairments were applied to the non-current financial assets.

For an overview of all capital interests, see note 37 List of subsidiaries to the consolidated financial statements.

41. Receivables from and liabilities to group companies

Receivables from and liabilities to group companies are all short term.

42. Other liabilities

Other liabilities can be specified as follows:

x € 1 million	As at 31 December 2018	As at 31 December 2017
VAT	20	21
Other	27	22
Total other liabilities	**47**	**43**

43. Financial income and expenses

The financial expenses relate mainly to the interest expense for external financing of Stedin Group. The financial expenses amount to € 84 million (2017: € 82 million) and the financial income to € 40 million (2017: € 49 million). The income concerns interest amounts recharged within the Group.

44. Contingent assets and liabilities

Leases with Stedin Holding N.V. acts as the lessee

Stedin Group has entered into operating leases. In a significant part of the relevant agreements, Stedin Holding N.V. is the legal contracting party. The costs arising from those agreements were not recognised as part of the profit of Stedin Holding N.V., but instead as part of the profit of the underlying subsidiaries (which also use the leased assets). Based on the above, for further details on lease costs and liabilities arising from the leases, Stedin refers to note 30 'Contingent assets and liabilities' in the consolidated financial statements.

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 'List 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. all its consolidated participating interests as included in note 37 'List 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 issued group, performance and bank guarantees to third parties of € 28 million (2017: € 54 million). Of that amount, € 27 million (2017: € 48 million) concern 'parent company guarantees' and € 1 million (2017: € 6 million) concern bank 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.

In addition to the contingent assets and liabilities for Stedin Holding N.V. above, for a comprehensive overview 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, Stedin Holding N.V. has issued a declaration of joint and several liability pursuant to Section 403(1) (f), Part 9, Book 2 of the Dutch Civil Code. This is included in the overview in note 37 'List 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.

45. Subsequent events

On 12 March 2019 Stedin Group and 3i Infrastructure signed a provisional purchase agreement for the acquisition of Joulz Infradiensten B.V. (Joulz Infra) and Joulz Meetbedrijf B.V. (Joulz Meet). The transaction is subject to the approval of the shareholders and the regulator. Prior to the sale, on 1 January 2019, Stedin Groep Personeels B.V. legally split off the employees working for the benefit of the activities of the respective companies into Joulz Infradiensten B.V.

46. Profit appropriation

Proposal for appropriation of profit for 2018

The articles of association of Stedin Holding N.V. contain provisions concerning profit appropriation. The articles of association state that, in principle, 50% of the profit is eligible for dividend distributions, excluding incidental income. Stedin Holding N.V. has designated the following income as incidental income:

x € 1 million	2018	2017
Profit after income tax	**118**	**423**
Result attributable to holders of Stedin Holding N.V. perpetual subordinated bonds	12	12
Incidental income:		
Release of deferred taxation due to future changes in the corporate income tax rate	14	-
Income arising from the unbundling from Eneco	-	355
Profit after income tax available for distribution to the shareholders	92	56
Proposed dividend	46	28
Increase of general reserve after proposed dividend distribution	**46**	**28**

A proposal will be put to the General Meeting of Shareholders to resolve to pay a dividend of € 46 million for the 2018 financial year and to add the remainder of €46 million to the general reserve.

This would represent a total dividend for 2018 of € 9.18 per share (2017: € 5.64 per share). The proposed profit appropriation has not been recognised in the balance sheet as at 31 December 2018.

Rotterdam, 26 March 2019

Stedin Holding N.V.

Board of Management

Marc van der Linden, CEO (Chair)
Danny Benima, CFO
Judith Koole, COO
David Peters, CTO

Supervisory Board

Pieter Trienekens (Chair)
Hanne Buis
Theo Eysink
Annie Krist
Dick van Well

Other information

Profit appropriation pursuant to the articles of association

According to the company's articles of association the Board of Management may, with the approval of the Supervisory Board, increase the reserves by an amount equal to, at most, half of the profit available for distribution. The remaining portion is at the disposal of the General Meeting of Shareholders. 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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Independent auditor's report

To the shareholders and the Supervisory Board of Stedin Holding N.V.

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS 2018 INCLUDED IN THE ANNUAL REPORT

Our opinion

We have audited the accompanying financial statements 2018 of Stedin Holding N.V., based in Rotterdam, The Netherlands. The financial statements include the consolidated financial statements and the company financial statements as included from 98 until 173 in the annual report.

In our opinion:

- The accompanying consolidated financial statements give a true and fair view of the financial position of Stedin Holding N.V. as at 31 December 2018, and of its result and its cash flows for 2018 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").

- The accompanying company financial statements give a true and fair view of the financial position of Stedin Holding N.V. as at 31 December 2018, and of its result for 2018 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

1. The consolidated balance sheet as at 31 December 2018.

2. The following statements for 2018: the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in group equity and the consolidated cash flow statement.

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 31 December 2018.

2. The company income statement for 2018.

3. The notes comprising a summary of the accounting policies and other explanatory information.

Deloitte.

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 statutory audit 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.

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 the result before interest, taxes, depreciation and amortisation. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

Materiality for the financial statements as a whole	EUR 15 million
Basis for materiality	Result before interest, taxes, depreciation and amortisation
Minimum amount for communicating identified findings	EUR 0,75 million

The audits of the components within the group have been performed with a materiality that is determined by the group audit team. For this we took into account the materiality of the financial statements as a whole and the (reporting) structure of the group, for which no component has had a materiality greater than EUR 13 million.

We agreed with the Supervisory Board that misstatements in excess of EUR 0,75 million, which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Scope of the group audit

Stedin Holding N.V. is at the head of a group of entities. The financial information of this group is included in the consolidated financial statements of Stedin Holding N.V.

Our group audit mainly focused on significant components. Our estimation of the significant components is based on our audit planning and is focused to obtain adequate and sufficient audit evidence with respect to the identified risks on a material misstatement in the significant account balances, classes of transactions or disclosures. In this, also qualitative factors have been taken into account.

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We have performed audit procedures for the components Stedin Netbeheer B.V., Stedin Groep Personeels B.V. en Joulz Energy Solutions B.V. (group component until 1 September 2018). We have used other Deloitte auditors to audit component DNWG Groep N.V. For the remaining components we have performed analytical procedures or performed specific audit procedures. For the audit of the DNWG Groep N.V. we have determined the work to be performed with regard to the financial information. 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 audit-instructions to the Deloitte auditor for the audit of DNWG Groep N.V. and we have had several meetings with the management of DNWG Groep N.V. and the audit team during the planning, interim and the year-end audit. During these meetings the findings of the Deloitte auditor were discussed. We also assessed the performed procedures and audit file of the auditor of DNWG Groep N.V.

For the significant components Stedin Holding N.V., Stedin Netbeheer B.V., Stedin Groep Personeels B.V., Joulz Energy Solutions B.V. and DNWG Groep N.V., we have performed audit procedures (full audit or specific audit procedures). Through this we have a coverage of 96% for total net revenue and other income and 99% of the total assets.

By performing the procedures mentioned above at group entities, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion about the consolidated financial statements.

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, but they are not a comprehensive reflection of all matters discussed.

We determined our audit procedures on the key audit matters within the context of our audit of the financial statements as a whole. These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters. We have selected te following matters as key audit matters.

Key Audit Matters Audit 2018

Key Audit Matter	
Valuation of Goodwill and Regulated Networks	
Description	*How the Key Audit Matter was addressed in our audit*
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 has been finally determined in 2018 and is allocated to the cash-generating units (CGU's) Stedin Netbeheer and DNWG for respectively EUR 30 million and EUR 47 million. Stedin	We audited management's impairment test for CGU's to which goodwill is allocated to assess whether goodwill might be subject to an impairment. This entails also that we have assessed the design and implementation of internal controls related to these impairment tests. Subsequently, we evaluated management's analysis of impairment indicators with

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Key Audit Matter	
Holding N.V. conducts yearly goodwill impairment tests for these CGU's in line with EU-IFRS. Stedin has engaged an external valuation specialist to assist in performing these impairment tests. The regulated networks of Stedin Holding N.V. amount to EUR 6.4 billion. These assets are valued based on the revaluation model in IAS 16. The fair value of the regulated networks is periodically assessed at inception of a new regulation period. Consequently, the headroom between between the realisable value and book value of the regulated networks is limited, therefore an increased risk of impairment of goodwill exists. In case intermediary indicators exists that the recoverable amount significantly differs from the book value, an adjustment of the revaluation will be booked. Additionally, Stedin performs an annual analysis of the presence of impairment indicators based on IAS 36. The goodwill impairment test contains significant estimates with regard to amongst others: • Future investments and fair value as valuation principle for regulated networks. • The marketshare and profitability of Stedin and DNWG, including their performance compared to other regional grid operators. • The weighted average cost of capital (WACC) of regulated networks as assessed by the Autoriteit Consument en Markt (ACM). • The discount rate. • The long-term growth rate. The assumptions are based on the regulation methodology of the current regulation period (2017–2021) and are, where of relevance, also included in the analysis of valuation of regulated networks. Significant estimates will be influenced by amongst others future rates for grid operators, the energy transition and the climate agreement, which can all entail far-reaching changes.	respect to regulated networks. The outcomes of this analysis are included in note 15 in the financial statements. With assistance of our valuation experts, we evaluated the realizable value of the CGU's to which goodwill has been allocated and assessed the significant assumptions. Specifically, we evaluated the forecast of cash flows in the valuation model and the sensitivity of significant assumptions as included in note 16 in the financial statements. We have reconciled the forecast of future cash flows with authorised budgets and have taken note of the internal procedures with respect to determining these budgets. Furthermore, we evaluated the competence and objectivity of management's expert. Finally, we evaluated whether the disclosures in the financial statement are in accordance with the requirements of IAS 36, are sufficient and provide appropriate insight in the valuation of goodwill and regulated networks.

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Key Audit Matter	
Based on the performed goodwill impairment test, the Board of Directors has established that the realizable value per CGU is higher than the carrying value as included in note 16 of the financial statements. The Board of Directors also established that there are no indicators for impairment of the regulated networks as elucidated in disclosure note 15.	
Reliability and continuity of automated data processing	
Description	*How the Key Audit Matter was addressed in our audit*
The reliability of automated data processing by Stedin Holding N.V. is dependent on the effectiveness of the IT controls. Among others, these controls relate to continuity, access security and change management. Various applications, databases and interfaces are used that are relevant to the primary processes and the preparation of the financial statements. For example, the IT-infrastructure, that processes measurement data for the purpose of high-use customers, processes significant data volumes. Damage to the integrity of this measurement data or outages could lead to incorrect, incomplete or untimely invoicing and revenue recognition and recovery might be complex and radical. Therefore, change & access management and information security were important areas of attention during our performed work.	We have tested the effectiveness of the IT controls to the extent necessary within the scope of our audit of the financial statements. This work was carried out by specialised IT-auditors in our audit team. Our work consisted of evaluating developments in the IT-infrastructure and subsequently testing the design, implementation and operating effectiveness of relevant IT controls. For the internal control deficiencies as identified, additional audit procedures were carried out. The deficiencies were addressed by testing alternative controls or by performing specific substantive procedures.

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Key audit matter

Revenue recognition

Description	*How the Key Audit Matter was addressed in our audit*
The net revenue of Stedin Holding N.V. amounts to EUR 1,270 million and is mainly related to the regulated activities of grid operator Stedin Netbeheer B.V. Management estimates are only used to a limited extent in revenue recognition. Nevertheless, the audit of revenue recognition and the relevant internal controls and IT systems constitute a significant part of our audit procedures, given the size of this transaction flow. Therefore, revenue recognition is identified as a key audit matter. The selected accounting principles are included in disclosure note 2 of the financial statement. Specific disclosure with respect to revenue recognition is included in disclosure note 5 of the financial statements. In addition, as of the first of January 2018 Stedin Holding N.V. applies IFRS 15 "Revenue from Contracts with Customers". In disclosure note 2.4 of the financial statements, the impact is disclosed.	As part of our audit procedures we have gained insight in the significant revenue streams and in relevant internal and external (regulatory) developments. Based on our risk assessment we have determined our audit procedures. For the material revenue streams, we have determined that the reporting principles, which are in line with (the new) International Financial Reporting Standards (IFRS) as approved by the EU, have been applied consistently. We have performed audit procedures on the relevant internal controls, especially for the component Stedin Netbeheer B.V. Furthermore, we have performed substantive procedures to assess that the recognized revenue is complete and accurate.

Key audit matters 2017

In the previous year the acquisition of DNWG Groep N.V. was classified as a key audit matter. The valuation of DNWG is in 2018 definitely established. Due to the limited adjustments in relation to the provisional valuation, this subject is not identified as a key audit matter for the audit of 2018. However, we do refer to the new key audit mater "Valuation of Goodwill and Regulated Networks" for the key audit matter regarding the valuation of the acquired goodwill.

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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:

- Foreword by the Board of Management.
- Report of the Board of Management.
- Report of the Supervisory Board.
- Other information as required by Part 9 of Book 2 of the Dutch Civil Code.
- Attachments.

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 Board of Management and the other information, in accordance with Part 9 of Book 2 of the Dutch Civil Code.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Engagement

We were engaged by the Supervisory Board as auditor of Stedin Holding N.V. as of the audit for the year 1997 and have operated as statutory auditor ever since that financial year.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audit of public-interest entities.

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DESCRIPTION OF RESPONSIBILITIES REGARDING THE FINANCIAL STATEMENTS

Responsibilities of the board of management and the Supervisory Board for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code and the provisions of and under the Public and Semi-public Sector Senior Officials (Standard Remuneration) Act ("Wet normering topinkomens").

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, 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.

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- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.

- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures.

- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identified during our audit. In this respect we also submit an additional report to the audit committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Supervisory Board, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Rotterdam, 26 March 2019

Deloitte Accountants B.V.

Signed on the original: B.C.J. Dielissen

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Attachments

Reporting policy

In this integrated 2018 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 2018 half-year report. This annual report of Stedin Group relates to the period 1 January 2018 to 31 December 2018. 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 2018 and comparative figures for 2017 are presented and accounted for in the financial statements. 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, municipalities/local residents, investors/capital providers, suppliers 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.

The consolidated financial statements of Stedin Group have been prepared in conformity with IFRS as applicable at 31 December 2017 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 and 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 2018 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. Stedin Group contributes to a limited extent to achieving those goals. We provide insight into this in the sections 'One Planet projects 2018 per impact area' and 'SDGs that impact Stedin (directly or 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 2018 to present the DNWG results, the Stedin result only is reported. To the best of our knowledge, the reported data fairly presents our performance.

Assurance non-financial information

This financial year no assurance was sought with regard to the reliability of the non-financial information. Possibly this will be done in financial year 2019 .

GRI Index

In our sustainability reporting we have adopted the GRI standards guidelines.

GRI Std.	GRI Indicators	Reference	Disclosure
	GENERAL DISCLOSURES		
102-1	Name of the organisation	About Stedin Group: Stedin Group's activities / Terminology	
102-2	Primary brands, products and/or services	About Stedin Group: Stedin Group's activities	
102-3	Location of headquarters	About Stedin Group: Profile	Blaak 8, 3001 TA Rotterdam
102-4	Number of countries where the organisation operates (that are relevant to sustainable development)	About Stedin Group: Profile	Stedin Groep opereert en is gevestigd in Nederland
102-5	Nature of ownership and legal form	Governance: Corporate Governance	
102-6	Major markets served (geographical distribution, sectors and types of customers)	About Stedin Group: Stedin Group's activities	
102-7	Scale of the reporting organisations	About Stedin Group: Key figures and key indicators for 2017	
102-8	Information on total number of employees	About Stedin Group: Key figures and key indicators for 2017 About Stedin Group: Stedin Group's activities	Number of employees of Stedin Group: 4,488 * Number of employees at Stedin: 3,665 * Number of employees at Joulz Diensten: 153 * Number of employees DNWG: 652 Number of employees at Stedin Group on a full-time contract: * Male employees: 3,517 * Female employees: 385 Number of employees at Stedin Group on a part-time contract: * Male employees: 184 * Female employees: 384 Number of employees at Stedin Group on a permanent contract: * Male employees: 3,457 * Female employees: 701 Number of employees at Stedin Group on a temporary contract: * Male employees: 244 * Female employees: 68

GRI Std.	GRI Indicators	Reference	Disclosure
401-1	Employee turnover	Disclosure column	We expect to be able to present this information for 2019.
405-1	Diversity of governance bodies and employees	Disclosure column	Number of employees at year-end: 4,470 Number of FTEs at year-end: 4,339 Male employees: 83% Female employees: 17% Younger than 25: 59 (1%) Between 25 and 34: 872 (20%) Between 35 and 44: 1,060 (24%) Between 45 and 54: 1,005 (23%) 55 and older: 1,474 (33%) Number of women in management positions: 64 (2017: 58) Number of men in management positions: 231 (2017: 235)
102-9	The organisation's value and supply chain	About Stedin Group: Profile About Stedin Group: Stedin Group's activities Stedin Group's Strategy: Mission, vision and strategy Stedin Group's Strategy: Value creation model	
102-10	Significant changes during the reporting period	About Stedin Group: Stedin Group's activities / Review of the portfolio	
102-11	Information on application of the precautionary principle	Stedin Group's Strategy: Strategic risks and opportunities of Stedin Group for the energy transition Governance: Risk management	
102-12	Externally developed economic, environmental and social charters or principles to which the organisation subscribes	Results: 3. Sustainable business operations / Charters and principles	ISO 9001; ISO 14001; OHSAS 18001; ISO 22301; ISO 27001; ISO 55001; NTA 8120; VCA**; CKB; BRL; BTR; Safety Awareness Certificate; CO2 Awareness Certificate, level 5; BRL SIKB 7000.
102-13	Memberships, alliances and associations	Results: 2. Facilitating the Energy transition	
102-14	A statement from the Executive Board about the relevance of sustainability to Stedin and its strategy for addressing sustainability.	Our community: Preface	
102-15	Key impacts, risks, and opportunities	Stedin Group's Strategy: Developments within society and the energy market Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Stedin Group's Strategy: Sustainable development goals	
EU3	Number of household, industrial en institutional customers	About Stedin Group: Key figures and key indicators for 2018 / Stedin Group's key indicators	

GRI Std.	GRI Indicators	Reference	Disclosure
EU4	Length of transmission and distribution networks per regulatory regime	About Stedin Group: Key figures and key indicators for 2018 / Stedin Group's key indicators	
	Ethics and Integrity		
102-16	The organisation’s values, principles, standards, and norms of behaviour	Goverance: Corporate Governance: Integrity: Code of conduct	
102-17	Procedure for advice about unethical or illegal practices	Governance: Corporate Governance / Integrity / Reporting Facility Governance: Corporate Governance / Integrity / Confidential advisers	
	Procedure for raising concerns about (suspected) unethical or illegal practices | whistleblower procedure	Governance: Corporate Governance / Integriteit / External report	House for Whistleblowers
	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	
102-20	Responsibility for ESG topics at executive level and/or post holders reporting to highest governance body	Governance: Corporate Governance / Governance roles	
102-21	Processes for consultation between stakeholders and the highest governance body on ESG topics	Governance: Corporate Governance / Governance roles	
102-22	Composition of the highest governance body	Governance: Corporate Governance: Biographical details of members of the Board of Management of Stedin Group	
102-23	Composition of the highest governance body	Governance: Corporate Governance: Biographical details of members of the Board of Management of Stedin Group Governance: Corporate Governance: Biographical details of members of the Supervisory Board	
102-24	Chair of the highest governance body	Report of the 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	Stedin Group's Strategy	
102-27	Actions taken to enhance knowledge of ESG topics	Stedin Group's Strategy: Developments within society and the energy market Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Stedin Group's Strategy: Sustainable development goals	
102-28	Evaluating the highest governance body’s ESG performance	Stedin Group's Strategy: Developments within society and the energy market	

GRI Std.	GRI Indicators	Reference	Disclosure
		Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Results: 3. Sustainable business operations / One Planet Thinking Report of the Supervisory Board	
102-29	Role in identifying and managing ESG impacts, risks, and opportunities	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition. Governance: Risk management	
102-30	Role in reviewing the effectiveness of risk management processes for ESG topics	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition. Governance: Risk management	
102-31	Frequency of review of ESG impacts, risks and opportunities	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition. Governance: Risk management	
102-32	The highest body that reviews and approves the sustainability report	Disclosure column	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 2018	
102-36	Process for determining remuneration	Report of the Supervisory Board: Remuneration report for 2018	
102-37	Stakeholders' involvement in remuneration	Report of the Supervisory Board: Remuneration report for 2018	
102-38	Ratio of top salary - median salary	Report of the Supervisory Board: Remuneration report for 2018	Ratio 2018: 4.67 (Ratio 2017: 5.56)
102-39	Ratio of the increase in top salary - average increase	Report of the Supervisory Board: Remuneration report for 2018	-16%
205-1	Operations assessed for risks related to corruption	Goverance: Corporate Governance: Integrity	Focus and alertness for combating corruption and/or bribery is covered by integrity.
205-2	Percentage of employees that receive training on anti-corruption policies	Goverance: Corporate Governance: Integrity	The Compliance Officer annually holds integrity Sessions on site, for instance MTs and work meetings. Various articles are published on the intranet each year in connection with the focus on integrity risks.
205-3	Action in response to incidents of corruption	Goverance: Corporate Governance: Integrity	We expect to be able to present this information for 2019.
206-1	Legal actions against unfair competition, cartels and monopolies	Goverance: Corporate Governance: Integrity	We expect to be able to present this information for 2019.
102-40	A list of stakeholder groups engaged by the organisation	Stedin Group's Strategy: Stakeholders and materiality	

GRI Std.	GRI Indicators	Reference	Disclosure
		Attachments: Reporting Policy / Stakeholder selection	
102-41	Percentage of employees covered by collective labour agreements	Disclosure column	At year-end 2018, 95.8% of the employees of Stedin Group were covered by a collective labour agreement (CAO). Individual job-related contracts were concluded with the other employees.
102-42	The basis for identifying and selecting stakeholders	Our community: Foreword	
102-43	Approach to and frequency of stakeholder engagement	Our community: Foreword	
102-44	Results of stakeholder management	Stedin Group's 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	Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Value creation model Attachments: Reporting Policy	
102-47	A list of all the material topics identified in the process for defining report content	Stedin Group's 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: Accounting and valuation policies: 2.3 Judgements, estimates and assumptions	
102-49	Significant changes from previous reporting periods	Financial statements: Notes to the consolidated financial statements: Accounting and valuation policies: 2.4 Change in presentation of the income statement	
102-50	Reporting period	Attachments: Reporting Policy	
102-51	Date of most recent report	Attachments: Reporting Policy	
102-52	Reporting cycle	Attachments: Reporting Policy	
102-53	Contact point for questions regarding the report or its contents	Colophon	
102-54	In accordance option	Attachments: Reporting Policy	
102-55	GRI content index	Attachments: GRI Index	
102-56	Policy with regard to external assurance	Governance: In control statement Other data: Control statement of the independent auditor Appendices: Reporting policy	
	SPECIFIC INFORMATION - SPECIFIC DISCLOSURES		
	Economic, financial performance		
103-1 103-2 103-3	Why is this topic relevant. Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Developments within society and the energy market Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets	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.

GRI Std.	GRI Indicators	Reference	Disclosure
		Results: 3. Sustainable business operations Report of the Supervisory Board	
201-1	Economic ratios (incl. accruals) 'for the community' in euros	Financial statements	
201-2	Financial implications and other risks and opportunities for Stedin's activities due to climate change	Stedin Group's Strategy Governance: Risk management	
201-3	Coverage of the organisation's defined benefit plan obligations	Financial statements: Notes to the consolidated financial statements: Accounting policies: 2.2.24 Provisions for employee benefits Financial statements: Notes to the consolidated financial statements: Accounting policies: 2.2.25 Other provisions	
	Investments in infrastructure		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	In our view, it is important that the energy transition is achieved at the lowest public cost. We measure the investments in our networks against the objective of ensuring that the Netherlands is climate-neutral by 2050.
	Organisation's capacity to change		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	The environment in which we operate calls for flexibility, an agile organisation and continual development of our talent and professional expertise. This calls for leadership.
	Smart grids, data technology and innovation		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	We require smart grids and we deploy data technology in order to balance energy supply as well as demand both now and in the future. By means of innovations, we contribute to facilitating the energy transition.
	Reliability of energy supply, availability of grid		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	Stedin Group is responsible for the safe, reliable and affordable energy supply to its 2.2 million customers.
EU 28	Interruption frequency electricity	About Stedin Group: Key figures and key indicators for 2018 / Stedin Group's key indicators	
EU 29	Average duration of interruption Annual average downtime	About Stedin Group: Key figures and key indicators for 2018 / Stedin Group's key indicators	
	Heat transition (discontinue use of Groningen natural gas)		

GRI Std.	GRI Indicators	Reference	Disclosure
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	The heat transition in the built environment as well as the necessary storage and energy infrastructure entail an increase in work and a greater complexity in coordination as well as consultation with stakeholders, including municipalities.
	Security of supply		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	We aim to improve supply security by taking initiatives aimed at reducing downtime and at preventing interruptions
EU 28	Interruption frequency electricity	About Stedin Group: Key figures and key indicators for 2018 / Stedin Group's key indicators	
EU 29	Average duration of interruption Annual average downtime	About Stedin Group: Key figures and key indicators for 2018 / Stedin Group's key indicators	
	Data security, privacy and cybersecurity		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	Security is essential for the continuity of our activities. We are working on integral security that connects the related areas of expertise. We are working on the continuity of energy supply in an efficient manner.
418-1	Total number of substantiated complaints concerning breaches of customer privacy and losses of customer data	Stedin Group's Strategy: Connectivity KPIs en targets	
	Customer satisfaction		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	As we want to be a reliable partner for customers in the energy transition, the quality of our service provision and the resulting satisfaction of our customers are important.
EU3	Number of household, industrial en institutional customers	About Stedin Group, Key figures and key indicators for 2018	
	Stakeholder dialogue and environment		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	As an organisation with a public role, Stedin Group is firmly rooted in society. Dialogue with our stakeholders is essential to achieving sound coordination on our mutual interests.
413-1	Degree of local community engagement in operations	Steding Group's strategy: Developments within society and the energy market	

GRI Std.	GRI Indicators	Reference	Disclosure
415-1	Financial or in-kind contributions to political parties, persons or institutions	Corporate Governance: Corporate Governance / Integrity	Stedin Group has no financial relations with political parties.
	Reputation Stedin Group		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	Stedin Group is becoming increasingly visible. Because we are an important link in the energy transition as grid manager, an increasing number of organisations such as energy collectives, administrators and citizens are forming an opinion about our role as well as our services. Our role is changing from that of a utility company which is invisible and taken for granted to that of a vital link as well as a partner in the lives of people and the operations of organisations. As a result, Stedin Group's reputation is critically important.
307-1	Monetary value of fines or sanctions for non-compliance with environmental laws and regulations	Disclosure column	We expect to be able to present this information for 2019.
406-1	Number of incidents of discrimination and corrective actions taken	Disclosure column	103 integrity notifications were made within Stedin Group (excl. DNWG) in 2018. One related to discrimination.
419-1	Monetary value of fines or sanctions for non-compliance with laws and/or regulations in the social and economic area	Disclosure column	We expect to be able to present this information for 2019.
	Sufficient and intellectual capital		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	Increasing scarcity in the labour market and ageing within Stedin Group make it necessary to train existing or new staff ourselves in order to absorb the outflow. We invest in strategic personnel planning, have an in-house training facility and seek staff in unconventional places.
	Training and development		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	The changes in the energy landscape are far-reaching and proceed rapidly. As a result, it is important that we continue to learn and develop, in order to ensure that our employees are and remain professionally competent or continue to develop, so they can contribute to achieving our mission. We promote a culture in which learning can take place continually and at any time.
404-1	Investments in training per employee per category	Results: 3. Sustainable business operations: Professionally competent employees now and in the future	
404-2	Programmes for skills management and lifelong learning that support the continued employability and facilitate career endings	Results: 3. Sustainable business operations: Professionally competent employees now and in the future	
404-3	Percentage of employees receiving regular performance and career development reviews	Results: 3. Sustainable business operations: Professionally competent employees now and in the future	

GRI Std.	GRI Indicators	Reference	Disclosure
	Health and safety		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	Working on the energy infrastructure involves numerous risks, which is why safety remains a priority, and why Stedin Group invests in knowledge, professional competence, safety measures and a good safety culture. This way, we ensure the safety of our customers, employees, contractors and external staff.
403-1	Workers' representation with regard to health and safety policies	Results 3. 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 by gender and region	Results 3. Sustainable business operations: Safety and security	
403-3	Health and safety topics covered in formal agreements with trade unions	Results 3. Sustainable business operations: Safety and security	
403-4	Health and safety topics covered in formal agreements with trade unions	Results 3. Sustainable business operations: Safety and security	
	Contributing to energy transition		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	We facilitate the energy transition through innovation and by cooperating with partners. We also ensure that our grids are and continue to be suitable for transmitting energy during the energy transition. We assist stakeholders by providing information about the grid. We also support energy collectives in the sustainable generation of energy.
301-1	Total weight or volume of materials used	Results: 3. Sustainable business operations: One Planet Thinking	
301-2	Percentage of input materials consisting of waste sourced externally	Results: 3. Sustainable business operations: One Planet Thinking	
302-1	Energy consumption inside the organisation	Results: 3. Sustainable business operations: One Planet Thinking	Gas consumption of buildings: 1,150,294 m3 Vehicle fleet fuel consumption: * Petrol: 704,386 litres * Diesel: 3,242,832 litres * CNG Grey: 10,878 litres * LPG: 80 litres * Electricity: 203,964 kWh Electricity consumption of buildings: 8,784,534 kWh
302-2	Energy consumption outside of the organisation	Results: 3. Sustainable business operations: One Planet Thinking	Transmitted/transported volumes: * electricity: 21,330 GWh * gas: 4,852 million m3
302-4	Reduction of energy consumption	Results: 3. Sustainable business operations: One Planet Thinking	

GRI Std.	GRI Indicators	Reference	Disclosure
302-5	Reductions in energy requirements of products and services	Results: 3. Sustainable business operations: One Planet Thinking	
305-1	Direct (Scope 1) GHG emissions by weight	Results: 3. Sustainable business operations: One Planet Thinking	Emissions grey gas: 638,506 kg CO2eq
			Emissions green gas: 2,993 kg CO2eq
			Emissions leakage loss gas: 33,769,418 kg CO2eq
			Emissions BW + PL (petrol): 1,551,812 kg CO2eq
			Emissions BW + PL (diesel): 8,518,726 kg CO2eq
			Emissions CNG Grey: 23,403 CO2eq
			Emissions LPG: 121 kg CO2eq
			Emissions Electricity: 0 kg CO2eq
			Emissions Generator units 1,613,922 kg CO2eq
305-2	Indirect (Scope 2) GHG emissions by weight	Results: 3. Sustainable business operations: One Planet Thinking	Emissions green electricity: 0 kg CO2eq
			Emissions grey electricity DNWG: 675,416 kg CO2eq
			Emissions network losses electricity: 478,536 kg CO2eq
			Emissions district heating: 171,799 kg CO2eq
305-3	Other indirect (Scope 3) GHG emissions by weight	Results: 3. Sustainable business operations: One Planet Thinking	Emissions business mileage: 722,749 kg CO2eq
			Emissions home-work commuting: 3,046,031 kg CO2eq
305-5	Reduction of GHG emissions	Results: 3. Sustainable business operations: One Planet Thinking	
305-6	Emissions of ozone-depleting substances	Disclosure column	Not applicable
305-7	NOx, SOx and other significant air emissions	Results: 3. Sustainable business operations: One Planet Thinking	
306-2	Total waste by type and disposal method	Results: 3. Sustainable business operations: One Planet Thinking	Total waste by type: 8,550,682 kg. Waste Disposal: recycled 84% / non-recycled 16%
306-4	Hazardous waste	Results: 3. Sustainable business operations: One Planet Thinking	Asbestos: 896,810 kg. This is 65% of the ‘Waste disposal non-recycled (16%)’
	Improving sustainability of purchasing activities		
103-1 103-2 103-3	Description and definition of material topics; (evaluation) management approach	Stedin Group's Strategy: Strategic risks and opportunities of the energy transition Stedin Group's Strategy: Stakeholders and materiality Stedin Group's Strategy: Connectivity, KPIs and targets Attachments: Reporting policy	Stedin Group wants to improve the sustainability of its supply chain as much as possible. To this end, we are in continuous dialogue with our suppliers on topics such as child labour, human rights, corruption, use of sustainable materials, origin of raw materials, circularity and the greening of grid losses; this enables us to develop

GRI Std.	GRI Indicators	Reference	Disclosure
			sustainable and socially responsible products and services.
308-1	Percentage of new suppliers screened using environmental criteria.		Stedin aims to prevent degradation and impact due to harmful substances in products, the production process and/or services wherever possible. In 2018, Stedin supplemented its purchasing policy with the One Planet Purchasing Policy, with the focus areas Climate Change, use of raw materials, healthy air and an inclusive society. The One Planet goals are an integral part of the Stedin procurement strategy and tender procedures.
414-1	Percentage of new suppliers that were screened using 'labour practices' criteria.	Disclosure column	There is a risk that Stedin Group will enter into contracts with suppliers that insufficiently safeguard labour practices in their (production) chain. Stedin Group's policy is that this is unacceptable. The Supplier Code of Conduct is an integral part of the contract documents in tender procedures. A supplier must endorse that code as a precondition for being able to conclude a contract with Stedin. A right to audit the chain can also be a part of the contract.
407-1	Identified significant risks of non-freedom and actions taken.	Disclosure column	There is a risk that Stedin Group will enter into contracts with suppliers where there is no freedom of association and collective bargaining in the (production) chain. Stedin Group's policy is that this is unacceptable. The Supplier Code of Conduct is an integral part of the contract documents in tender procedures. A supplier must endorse that code as a precondition for being able to conclude a contract with Stedin. A right to audit the chain can also be a part of the contract.
408-1	Identified significant risks of child labour and actions taken.	Disclosure column	There is a risk that Stedin Group will enter into contracts with suppliers where child labour occurs in the (production) chain. Stedin Group's policy is that this is unacceptable. The Supplier Code of Conduct is an integral part of the contract documents in tender procedures. A supplier must endorse that code as a precondition for being able to conclude a contract with Stedin. A right to audit the chain can also be a part of the contract.
409-1	Identified significant risks of forced or compulsory labour and actions taken.	Disclosure column	There is a risk that Stedin Group will enter into contracts with suppliers where forced or compulsory labour occurs in the (production) chain. Stedin Group's policy is that this is unacceptable. The Supplier Code of Conduct is an integral part of the contract documents in tender

GRI Std.	GRI Indicators	Reference	Disclosure
			procedures. A supplier must endorse that code as a precondition for being able to conclude a contract with Stedin. A right to audit the chain can also be a part of the contract.
412-1	Issue and risk management in the supply chain with regard to human rights.	Disclosure column	In addition to the SCoC, a start was also made in 2018 on defining criteria for the type of relationship concerning the suppliers of Stedin. Besides criteria such as spend and contribution to primary process and/or strategy, the criterion of risk was also added. This also includes risks related to violations of human rights, working conditions and/or the environment. Stedin is aiming for greater insight into its supplier base and will perform the analysis by reference to these criteria. This forms the basis for carrying out the screening of its suppliers.
414-1	Degree of screening of suppliers on human rights issues.	Disclosure column	In addition to the SCoC, a start was also made in 2018 on defining criteria for the type of relationship for the suppliers of Stedin. Besides criteria such as spend and contribution to primary process and/or strategy, the criterion of risk was also added. This also includes risks related to violations of human rights, working conditions and/or the environment. Stedin is aiming for greater insight into its supplier base and will perform the analysis by reference to these criteria. This forms the basis for carrying out the screening of its suppliers.
414-2	Negative impacts on human rights resulting from supply chain and actions taken.	Disclosure column	We expect to be able to present this information for 2019.

Three-year overview

The amounts under Result, Balance sheet and Cash flow 2016 relate to the integrated energy company Eneco (Eneco Holding N.V.). In 2017 the split-off energy company is presented separately under assets held for sale.

	Eenheid	2018	2017*	2016
Income statement				
Revenue	€ mln	1,270	1,154	1,087
Total operating income	€ mln	1,286	1,194	1,108
Total operating expenses	€ mln	1,074	996	896
EBITDA	€ mln	509	471	466
Operating profit	€ mln	212	198	212
Profit after income tax	€ mln	118	423	199
Balans				
Property, plant and equipment	€ mln	6,406	6,140	5,205
Total assets	€ mln	6,991	6,551	9,796
of which assets held for sale /shareholders	*€ mln*	63	-	4,298
Equity	€ mln	2,699	2,582	5,310
Total interest-bearing debt	€ mln	3,044	2,753	1,644
Investments in non-current assets	€ mln	607	494	532
Cash flows				
Cash flow from operating activities	€ mln	461	278	504
Cash flow from investing activities	€ mln	-587	-1,317	-536
Cash flow from financing activities	€ mln	222	692	88
Creditworthiness				
Long-term rating (S&P)	rating	A-	A-	A-
Solvency**	%	43.3	43.3	n/a
FFO/Net debt position***	ratio	12.2	12.2	n/a
Shares at 31 December				
Number of shares outstanding (x 1,000)	aantal	4,971	4,971	4,971
Overig				
Electricity				
Active connections	aantal	2,285,701	2,278,394	2,058,858
Installed cables	km	806	611	373
Gas				
Active connections	aantal	2,114,935	2,119,249	1,926,523

	Eenheid	2018	2017*	2016
Installed pipelines	km	250	210	150
Distributed volumes		-		
Electricity	GWh	21,330	21,893	20,270
Gas	mln m3	4,852	4,865	4,565
Other				
Average outage duration for electricity	minuten	17	16	17
Average outage duration for gas	seconden	69	40	52
Facilitated supplier switches	aantal	713	584	590

* The comparative figures have been adjusted. Refer to note 3 of the financial statements for the adjustment as a result of changes between the finalised and the provisional accounting for the acquisition of DNWG.

** 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 2017. S&P applies a multi-year weighting to determine this ratio when assessing the credit rating.

The comparative figures of the FFO/Net Debt and Solvency ratios are not included given the limited comparability between the grid operator Stedin Holding N.V. in 2018 and 2017 and Eneco Holding N.V. (including the energy company) in 2016.

Glossary

This section presents explanations of terms of abbreviations.

ACM
The Netherlands Authority for Consumers and Markets (ACM): 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 creditworthiness in the form of a 'mark'. Ratings are awarded by specialised agencies.

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

CAIDI
Customer Average Interruption Duration Index: the average duration of an unforeseen interruption of electricity supply per customer affected.

CDMA
Code Division Multiple Access is a telecommunications network for transmitting information across a wireless radio connection using spread spectrum techniques.

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
The activities of Stedin Group that are subject to competition and are offered at the customer's request.

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.

ETPA
Energy Trading Platform Amsterdam, an independententergy trading platform.

FFO - Net debt position
Funds from Operations (FFO) comprises revenue minus costs, taxes and interest expense, adjusted on the basis of the S&P method. Net debt position 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.

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 (IFRS) 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.

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 timeincidents per million hours worked.

Grid losses
Grid losses arise during the distribution of electricity. The greater the distance, the greater the loss. Gross losses can also be caused by fraud and administrative losses (inthe allocation and reconciliation process and 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 (Dutch: 'Organisatie van Openbaar Belang). These are organisations that, due to their size or function in social and economic life, affect the interests of comparatively large groups.

Regulated market
The activities of the grid operator that arise from the tasks that are exclusively reserved for the grid operator and for which maximum rates are set by the ACM. These 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 and 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 and gas;
- facilitating the free market to enable customers to switch to a different energy supplier.

Remuneration report
The remuneration report is a report on the remuneration of the Board of Management andthe Supervisory Board. The remuneration policy of Stedin Group is prepared by the Selection, Appointments and Remuneration Committee of the Supervisory Board.

RIF
Recordable Incident Frequency. The number of occupational accidents per 200,000 hours worked.

SAIDI
System Average Interruption Duration Index. The annual duration of interruptions: 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.

SB
Supervisory board. The supervisory board in the Netherlands is the supervisory body of public limited liability companies and private limited liability companies.

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 operator 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, connection contributions received and free cash and cash equivalents.

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.

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 operators.

Works Council
A body that consists of members of the works councils of the various business units of Stedin Group.

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 and the Euro MTF Market of the Luxembourg Stock Exchange.

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.

This annual report is published in Dutch and English language versions. In case of any discrepancy between both language versions, the Dutch version prevails.

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 reviewed, and how, by the independent auditor.

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