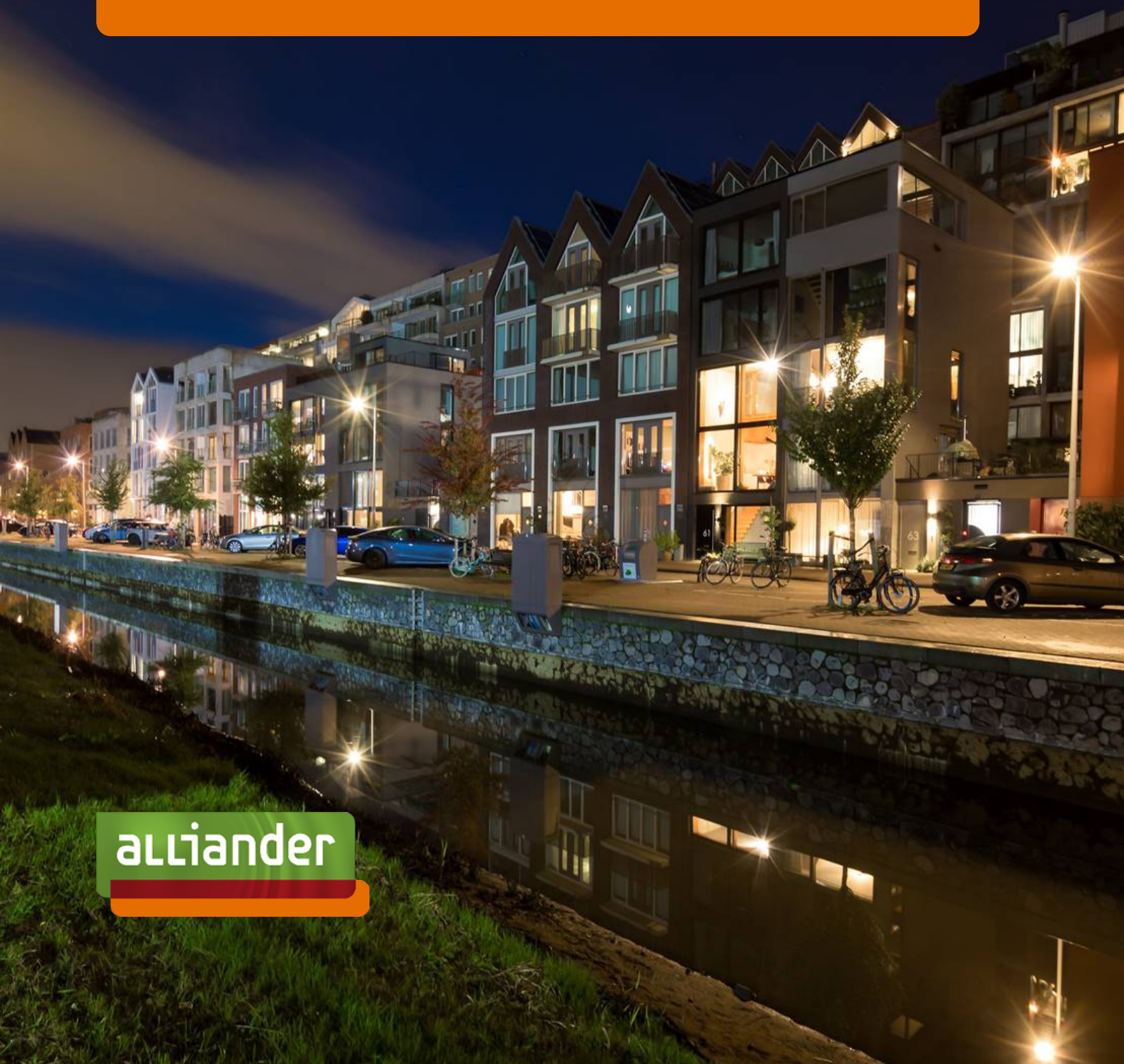
Annual report 2019

Working together on transition



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About this report

About this report

The Alliander annual report provides an account of our activities from 1 January 2019 to 31 December 2019. Starting points for our integrated reporting are transparency, the dialogue with stakeholders and the impact and value of our activities. We report transparently, based on the value we offer society and the matters our stakeholders find relevant. The annual report was published on 18 February 2020.

Guide to this annual report: a foundation of creating long-term value

Creating value for society is Alliander's key objective. We accomplish this through our daily activities, by innovating, and by investing. Accordingly, Alliander's value creation model is the recurring theme in this annual report. By following the value creation model, we explicitly show the relationship between social developments, our goals, our strategy, and how we maximise our contribution to society while minimising any adverse side effects. To this end, in 2019 we assessed and detailed our value creation process once more.

In the first section of this annual report, we discuss our role and the choices we make in the energy supply chain. Our mission, our trends and developments, and our strategy all form an integral part of this.

In the second section, we report on our activities in terms of the value we create in the long term, i.e.:

1. Ensuring a high level of supply reliability for a low cost
2. Being a credit-worthy company with solid returns
3. Making the energy supply and our operations sustainable
4. Ensuring a safe energy network, a safe working environment, and a safe data environment
5. Being an attractive, inclusive employer with equal opportunities for all

The final part of the report details the key effects of our activities on society and explains our contribution to the United Nations Sustainable Development Goals (SDGs). Here, we also explain our corporate governance structure.

Stakeholder dialogue

Our key stakeholders are our customers, employees, local and regional public authorities in our service areas, and the shareholders/investors. We also work closely with industry partners, national government authorities, supervisory bodies, social sector organisations, and knowledge centres. By maintaining an ongoing dialogue with the stakeholders, we stay informed of the trends in society, expectations regarding Alliander, and how we can work in unison to achieve a timely and successful energy transition at the lowest cost to society. We exchange thoughts and use these stakeholders as a sounding board for our policy choices and decisions. One example from 2019 is the session we organised for members of the new Provincial Councils in our service areas to engage on the impact the energy transition is having on energy infrastructure. We discussed the sustainable energy system and the role of the network operator.

Stakeholder panel

In keeping with last year, a stakeholder panel read the report at an early stage in its preparation. In December 2019, the dialogue we had with the panel centred on Alliander's vision on and role in the energy transition, on transparency in the report, and on adding climate risks to the report. The panel also mentioned a number of topics it felt were not adequately covered in the report. An account of the opinion of the stakeholder panel is included in the report. At the start of each chapter we state for which stakeholders the chapter is relevant.

Material issues

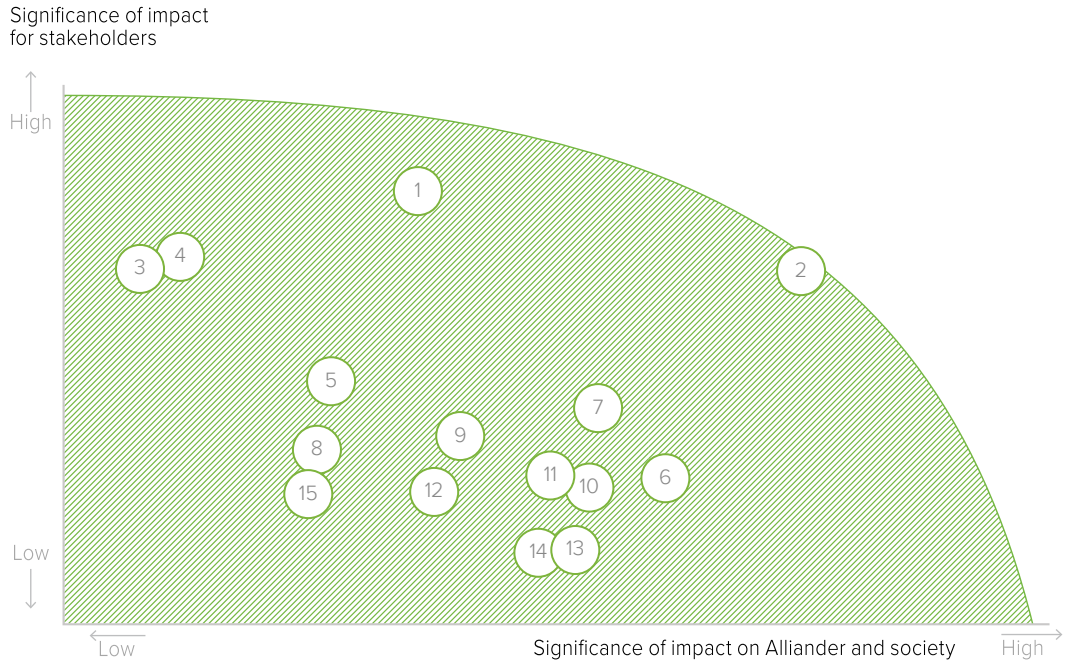
We ask our stakeholders to tell us what topics they would like to see included in the annual report. We report on the 15 highest scoring topics ('material issues') in this annual report. These topics are shown in the following materiality matrix.
In 2019, after an extensive analysis in 2018, we reassessed the topics based on desk research consisting of a media analysis, research into equivalent organisations, and a review of industry reports, supplemented with the input we received from our stakeholders during the year. Based on our findings, we have combined the topics 'Safe and healthy working practices' and 'Safe infrastructure' into a single topic 'Safe working practices and safe infrastructure'. Based on the research we also added two new topics: 'Company's adaptability' and 'A future-proof network'. Although, unlike last year, the topic 'Responsible communication and information' did not make it to the list of material issues, it is a topic that remains relevant for Alliander.

The introduction to each chapter of the annual report states which material issues are covered in the chapter. You can also click the materiality matrix online for more information and references. The complete materiality matrix showing all the issues is included in the appendices under Other information.

Numbering of material issues

We did not make any changes in 2019 in terms of the extent of the impact of material issues on the stakeholders and the extent of Alliander's impact on the material issues. The number assigned to each topic indicates the extent to which attention has been focused on that topic over the last year. From the desk research we conducted it emerged that 'Reliability of supply' was the topic that drew the most attention in 2019.

Materiality chart



1 Reliability of supply
2 Safe working practices and infrastructure
3 Promoting renewable energy generation
4 Working together on innovative solutions
5 Data-driven network management
6 Talent acquisition and development
7 Customer satisfaction
8 Responsible investment policy
9 Organisational capacity for change
10 Future-proof network
11 Corporate social responsibility in the supply chain
12 Corporate Governance and business ethics
13 Workplace well-being
14 Data security, privacy, and cybersecurity
15 Access to affordable energy

Integrated report

This annual report presents financial, operational and corporate social responsibility (CSR) information in an integrated manner, based on the following:

- Relevant provisions in the Dutch Civil Code
- International Financial Reporting Standards (IFRS)
- Revised Dutch Corporate Governance Code 2016
- GRI SRS reporting guidelines ('Comprehensive' option), Electric Utilities Sector Supplement
- EU Directive on disclosure of non-financial information and diversity
- International Integrated Reporting Council (IIRC)

The online annual report includes the GRI Content Index, which lists the relevant GRI indicators and allows easy navigation to the relevant pages in the report.

Consolidation

The financial and non-financial information in the report has been consolidated for Alliander and the subsidiaries that have a significant impact on the material aspects. Where information has not been consolidated, this is explicitly stated. In addition, we have included information on other Alliander business operations that are mainly dedicated to the energy transition. The information-gathering process was largely guided by the material issues.

In accordance with the Disclosure of Non-Financial Information Decree and the Disclosure of Diversity Policy Decree, Alliander provides information about certain non-financial and diversity aspects. For more information on the material aspects of the human rights topic, please refer to the relevant provisions in our Supplier Code of Conduct. Information about ethical business practices is provided in the 'Integrity' section of the Corporate governance chapter.

Transparency

Alliander operates in the complex dynamics of a rapidly changing energy sector. Like our shareholders, we place great value on transparency. We comply with the Transparency Guideline, the revised Dutch Corporate Governance Code 2016, and the Decree on Corporate Governance 2009. We also make it clear how we contribute to achieving the United Nation's Sustainable Development Goals (UN Global Goals). In 2019, Alliander won the FD Henri Sijthoff Award in the non-listed companies category for its 2018 annual report. This award is presented by Dutch national financial newspaper *Het Financieele Dagblad* to companies that excel in their financial reporting. In addition, with our report for 2018 we came second in the running for the Ministry of Economic Affairs and Climate Policy's Crystal Award (*Kristalprijs*) 2019 for the company with the best CSR reporting.

Invitation to stakeholders and readers

To involve our partners in the energy transition agenda at an early stage, we want to discuss with them their primary energy requirements and the best route forward to meeting these. To this end, Alliander is keen to engage with stakeholders about transitioning to the new energy system. We form coalitions to address the society-wide problem of the shortage of technicians in the labour market. We cordially invite readers of our annual report who wish to discuss topics like the energy transition or a natural-gas-free future, or who have any questions, suggestions, or tips for us, to contact us at communicatie@alliander.com.

Our story in 2019

Our story in 2019

As in 2018, the economy grew in 2019 and the energy transition has moved up a gear. The number of requests for connections for large companies has increased seven-fold in just a few years, we laid over 200 kilometres more medium-voltage cable than in 2018 (+38%), we connected 721MW of solar power (+48%) to the grid, and 1,712 public charging points for electric cars were installed in our service area (+39%). And, during all of this, we (and our contractors) were faced with a serious shortage of technicians in the Netherlands.

As we look back over 2019 we have a double message to pass on. On the one hand, we are proud of our employees because we achieved our highest production level ever. Moreover, we worked on putting important innovations into practice, such as the flex-market in the Zuidplaspolder area. On the other hand, in 2019 it became abundantly clear that, in the Netherlands, there are limits to what the electricity grid can handle. It is now so busy in parts of our network that our customers are unable to get new connections or additional capacity; before this can happen, existing power stations will need to be expanded or new ones built. Unfortunately, due to lengthy permit procedures and the acute shortage of technicians in the Netherlands, that takes time. We find this a very unfortunate situation for our customers. We devote a lot of attention to our dialogue with them and, fortunately, the effects of this are reflected in the low number of complaints and high customer satisfaction.

Dutch Climate Agreement and RES

There will continue to be a great deal of work to be done over the coming decade as well: in the Climate Agreement drawn up in the Netherlands in 2019 (referred to as the 'Climate Agreement' in this report), it was agreed that, throughout the Netherlands, 35 terrawatt hours of renewable solar and wind power produced onshore would be fed into the grid by 2030. In addition, by 2030 more than 1.5 million homes must be removed from the gas grid and heated differently, and 1.8 million additional charging points for electric cars are also needed. The Dutch electricity grid was never designed for all those wind turbines, solar panels, charging stations, and heat pumps; nonetheless, the infrastructure must be ready on time. Studies that we performed after completion of the Climate Agreement showed that, roughly speaking, demand for electricity will have at least doubled by 2050. That will put greater demands on our network. In Amsterdam alone, we need six to eight new electrical substations by 2030 to facilitate growth and sustainability, while permit processes can take years, physical space is scarce, and the Netherlands is grappling with a shortage of technicians.

It is therefore essential that we know what work needs to be done on the energy infrastructure, where it needs to happen, and when. The Regional Energy Strategies (RES), which the municipalities and provinces started developing last year, are crucial in doing just this. With our knowledge and expertise, we contribute very actively to the formation of these RES. In addition, we are consulting with stakeholders with the aim of bringing laws and regulations that date back to a time when there was hardly any decentralised generation of energy into the 21st century, with a view to bringing about the energy transition. One example is the introduction of the transmission capacity statement (*transportindicatie*), a measure aimed at ensuring that there is sufficient network capacity to transmit sustainably generated energy.

Recruiting technicians

As in previous years, in 2019 we devoted a lot of energy to recruiting technically-minded colleagues, and we are pleased to report that we were able to welcome an additional 262 specialist technicians to the company last year. However, it takes years to train the technicians and training facilities are in scarce supply: in 2019, we were already stretched to the limit in terms of training resources and opportunities. Currently, 34% of our service technicians are in training. We work in close collaboration with the industry and regional educational institutions to spark the interest in more young people for a job in the technical sector. We also develop innovative collaboration concepts with contractors with the aim of increasing the number of technicians in the Netherlands.

Safety

Safety is a key priority at Alliander. This applies to our employees, people in the surrounding community, customers, and contractors. Unfortunately, our Lost Time Injury Frequency (LTIF) increased to 2.1 from 1.4 in 2018; fortunately, no serious accidents occurred. We have, however, commissioned research into the exposure of our employees to hazardous substances such as benzene, asbestos and chromium-6, and revised the work instructions where necessary. We also directed our attention to environmental issues like PFAS and nitrogen.

Reliable grids

The Netherlands boasts one of the most reliable power grids in the world, with a 99.99% availability rate. In 2019, customers were, on average, without electricity for 21.9 minutes (2018: 30.6 minutes) and without gas for 40 seconds (2018: 39 seconds). We also used the Smart Cable Guard – a monitoring tool that anticipates disruptions – in our electricity grid on a larger scale. Moreover, in 2019 we started locating weak spots in the grid with the help of data and AI, enabling us to replace these components before they can cause a power outage.

Highly effective organisation

The energy transition is presenting Alliander with the biggest job it has ever faced in its 100-year history. To be able to take on this challenge, it is essential that all employees have the same objectives in mind and that the organisation become more resolute and effective. Based on the results of a strategy alignment survey, all teams in the company have been discussing Alliander's core objectives. Moreover, we started a redesign of our organisation in 2019, which we expect to complete in 2020. Major steps in this regard have already been taken by our IT department and Qirion.

Sustainable business practices

Alliander is working towards having climate-neutral operations by 2023. We are increasingly focusing on reusing components and on recycling raw materials that are becoming ever more scarce. In 2019 we purchased 30% of our materials on a circular basis. We have decreased the energy consumption in our buildings, and a quarter of our lease cars are now electric. In Groenlo, we installed a sustainable, energy-neutral and partly circular substation, and we have taken further steps towards 'greening' our network losses. In September 2019, we signed a contract with Danish power company Ørsted to reduce our carbon emissions by around 25% annually. Added to other measures, this new contract ensures that more than 95% of our network losses will be offset.

Financial results

Alliander's profit after tax came to €253 million (2018: €334 million). Profit excluding incidental items for 2019 worked out at €267 million, up €6 million on 2018. Total expenses showed a limited increase to €1,591 million (2018: €1,572 million) and Alliander's total investments ran to €834 million in 2019 (2018: €731 million). Alliander's high creditworthiness was reaffirmed by rating agencies S&P and Moody's.

Changes to the Management Board

As the energy transition, new technologies, and digitalisation are accelerating and having an ever greater impact, we need additional focus in how we run Alliander. With this in mind, Daan Schut joined Alliander's Management Board on 1 April 2019 as the Chief Transition Officer (CTO). His main focus is the completion of the energy transition and digitalisation measures. With Walter Bien joining us as our new Chief Financial Officer (CFO) on 7 October, we were able to welcome a director with the financial background needed to deal with the issues posed by the energy transition. He succeeded Mark van Lieshout, who stepped down as Alliander's CFO on 1 March. We would like to thank Mark for the many years he has dedicated to building the company we know today.

Outlook

Although economic growth is expected to slow down, the energy transition is exponentially increasing in intensity. This means that a number of fundamental issues lie ahead of us in 2020: doubling production in the coming years, the long-term financing of the company, and intensifying collaboration with partners like other network companies, contractors, installers, and municipal and provincial authorities.

Thousands of employees work with Alliander and our contractors every day to get the job done. They are our most important asset and resource. It is these people who are in contact with our customers each day and who work together on our mission: ensuring that the lights are on, homes are heated, and businesses can keep operating, even in these complex times, as we transition to a new, sustainable energy system. We would like to extend our special thanks to these people for their contribution.

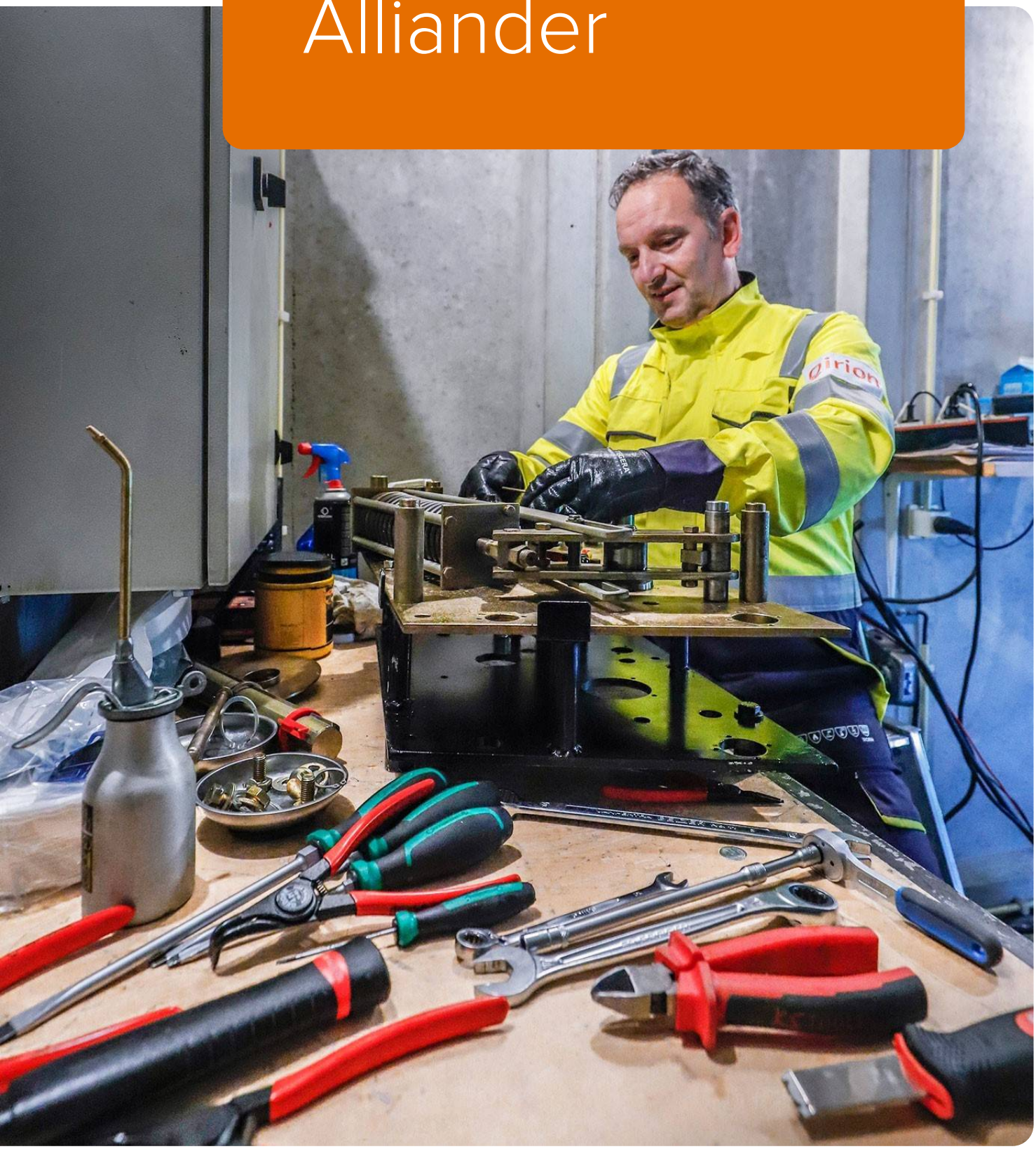
Together with our stakeholders, in 2020 we will continue to work on our biggest challenge, the one that faces us all: ensuring an energy supply that gives everyone access to reliable, affordable and renewable energy on equal terms.

Ingrid Thijssen, Walter Bien, Daan Schut

Alliander Management Board

From left to right: Walter Bien, Ingrid Thijssen, Daan Schut

Profile of Alliander



Profile of Alliander

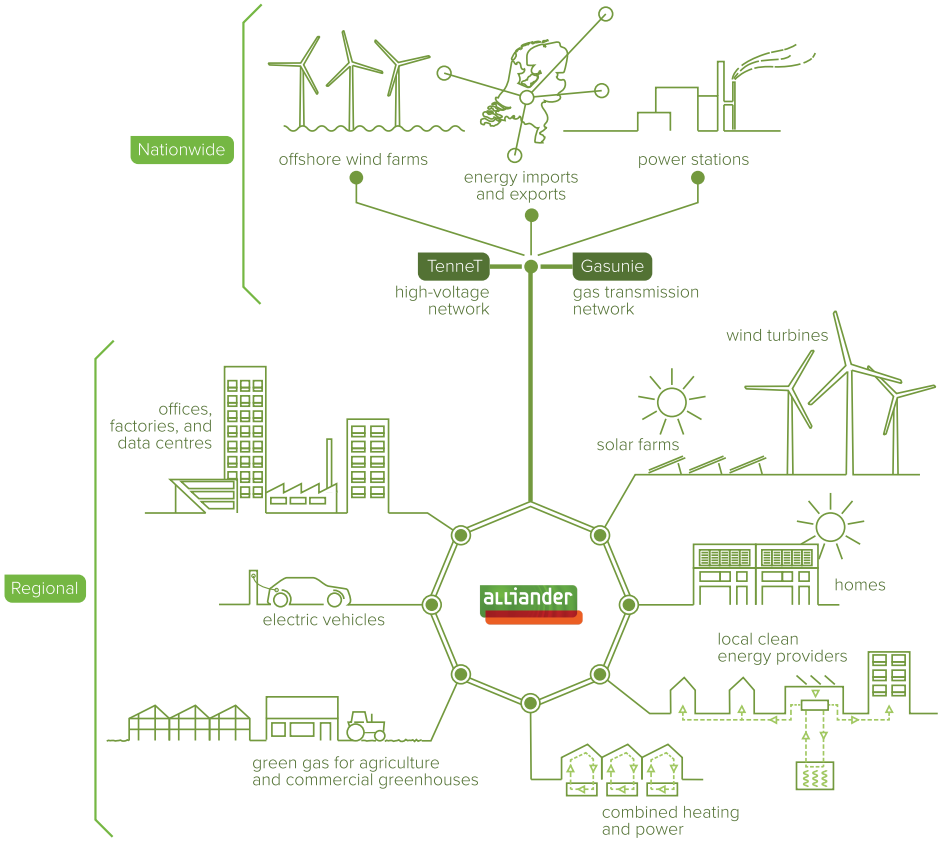
What we have at our disposal → Our role and the choices we have made → What our stakeholders notice in the short term → The value we create for the long term → The key social impacts → The global goals we help to achieve

Alliander is working on creating a future-proof energy network. We are driven by the social importance of keeping energy reliable, affordable and accessible for everyone. With our knowledge and skills, we are helping the Netherlands make the right choices in the energy transition.

Alliander N.V. is a network company comprising a group of companies employing some 7,300 people (6,800 FTEs) in all, including agency workers. Together, we stand for high-quality knowledge of energy networks, energy technology and technical innovation. With our partners and shareholders, we discuss our plans for the future and offer solutions to complex energy transition issues. The shares are held by Dutch provinces and municipalities.

Our role in the energy chain

We have been statutorily tasked with managing and further developing the gas and electricity grid. We also actively facilitate markets in the provision of products and services that help create a future-proof energy network. We are building and maintaining the infrastructure, and we manage energy flows. We track who produces or consumes energy: when, where, and how much. We are on hand 24/7 to deal with outages; after all, without energy everything comes to a standstill.



As an independent party, we give customers the kind of insights that help them develop their energy supply. We show them exactly what the energy network can handle and are clear on the social expenditure involved in different choices. We conceive and implement innovative solutions for the future-proofing of the energy network. Sustainability plays a key role in the choices we make. This is how we are working together on an energy network that is right for everyone.

How we are organised

Liander

Liander manages and develops the energy grid in its service area. The network operator has the social responsibility of seeing that gas and electricity is distributed to millions of consumers and businesses every day. There is an increasing demand for large-scale feed-in of electricity. To address this demand, Liander is upgrading the power grid and implementing innovative solutions.

Qirion

Qirion is a specialist in power grids and the go-to knowledge centre for complex energy issues. Qirion designs, builds, and maintains power networks, taking on a unique service role. Qirion focuses on the high-voltage domain and increasingly supports the development of new networks.

Kenter

Kenter supplies innovative solutions for energy metering and energy management. This includes installing meters, supplying metering data, and providing insight into energy usage via online analyses. Kenter is responsible for the sale, construction, and management of mid-voltage installations in the free domain.

Firan

Firan develops, builds and manages alternative energy infrastructures, such as district heating and biogas networks. It connects landowners, public authorities, energy providers and users to help them achieve their sustainability ambitions.

Alliander Telecom and Utility Connect (in collaboration with Stedin)

Alliander Telecom supplies reliable telecommunication systems used to control and protect critical infrastructures (including electricity and gas networks). Telecommunications are of paramount importance, for instance for securing, controlling and reading data from critical network elements and communicating with control centres. Utility Connect (in collaboration with Stedin) offers a wireless data communication network with optimum coverage and capacity for the smart meter and for distribution automation applications.

Alliander AG, Germany

As a small-scale service provider operating in Germany, Alliander AG manages electricity and gas grids, public lighting, and traffic lights in Berlin, North Rhine-Westphalia, Hessen and other areas. 450connect, which operates a wireless telecommunications network for the control of vital infrastructure, is a subsidiary of Alliander AG.

Other activities

Read more about our other activities on www.alliander.com. A full list of our subsidiaries is included in the financial statements under Principal subsidiaries and other participations.

Facts and figures regarding our network

2019 in figures

Number of customer connections

5.8 mln

5.7 mln in 2018

Number of employees in FTEs

5,703

5,669 in 2018

Electricity outage duration

21.9 minutes

30.6 minutes in 2018

CO_2 emissions

264 kton

288 kton in 2018

Net revenue

1.9 € bn

1.9 € bn in 2018

Investments in property, plant and equipment

834 € m

731 € m in 2018

Total assets

8.8 € bn

8.3 € bn in 2018

Profit

253 € m

334 € m in 2018

Our service area

Grid length (in kilometres)

ELECTRICITY

91,000 km

91,000 km in 2018

GAS

42,000 km

42,000 km in 2018

Our mission

Energy is essential for our well-being and our prosperity. Energy enables us to heat our homes, cook, and communicate. It keeps our roads safe, our trains moving, and financial systems up and running. Energy, in short, enables us to live, work and travel. Without energy everything would come to a standstill.

Our mission

We stand for an energy supply where everyone has access to reliable, affordable and renewable energy on equal terms. This is a mission we work towards every day. It is our job to make sure the lights are on, homes are heated, and businesses can keep operating – not just today, but in a sustainable tomorrow too.

How we make a difference

Reliability
Our customers need to be able to rely on maximum safety and continuity in the supply of their energy, 24 hours a day, 7 days a week. That is why we adhere to safe working practices and avoid scheduled and unscheduled power cuts wherever possible.

Affordability
Our consumers want to pay as little as possible for their reliable energy supply, and so we work ceaselessly every day to improve the effectiveness and efficiency of our operations.

Accessibility
Our consumers must have access to the energy supply on equal terms, which is why we enable customers to choose their own energy supplier and service providers and to feed in energy.

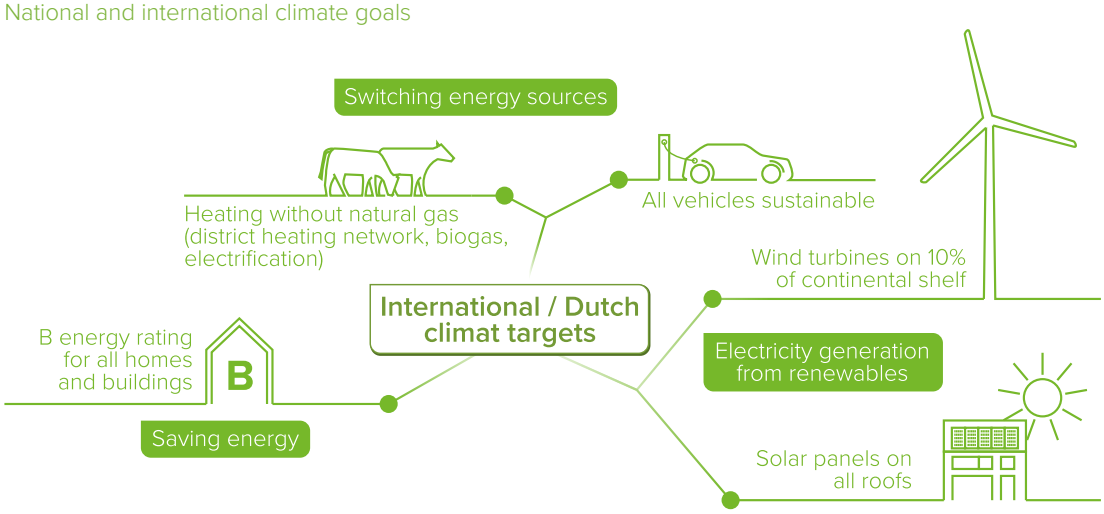
Trends and developments

In implementing our task, it is important that we know which factors can influence our activities. In this chapter, we describe key trends and developments taking place around us and what we must do in response.

What we see around us

The world around us is changing. The economy is growing and customer expectations are rising. This is nothing new. But what is different this time is the accelerating energy transition. The Netherlands aims to reduce national carbon emissions by 49% compared with 1990 levels by 2030. In 2019, the Dutch Climate Act was adopted and, as part of this act, public sector bodies, businesses, and social sector organisations presented the Climate Agreement. The Climate Agreement sets out agreements on the feed-in of 35 terrawatt hours of renewable energy produced onshore, taking millions of homes off the gas grid and heating these differently, and installing additional charging points for electric vehicles. Our biggest challenge is to ensure that the power infrastructure is ready on time.

National and international climate goals



Economic growth

The economy is growing. The implication for Alliander is that more new houses, businesses, and buildings need to be connected to the grid. Moreover, greater power capacity is required to facilitate the considerable growth of businesses, which can be seen, for example, in the sharp increase in the number of data centres, the growing demand for larger connections, and the surge in demand for expanded capacity from our current customers.

Energy transition

In practice, we are seeing that the energy transition is leading to more local energy generation and consumption: solar energy is becoming increasingly affordable, and, partly as the result of the Dutch subsidy scheme designed to promote the production of sustainable energy (SDE+), many large-scale solar farms have been built in the regions in which Alliander operates. Furthermore, various wind farms are being built, and electric transport and the associated charging infrastructure are becoming a familiar sight: in 2019 we connected 1,700 public charging points (more than twice as many as in 2018). A huge amount of work awaits us in the coming ten years to fulfil the agreements in the Climate Agreement. System studies show that the electricity demand will have at least doubled by 2050. We cannot afford not to see that the required work gets done. We want the Netherlands to achieve the climate goals, and for customers to get the capacity and energy they want.

In addition to the major focus on reducing CO_2 emissions, the nitrogen and PFAS issues also played a role in 2019. At the end of 2019, the government took measures to get construction projects that had been brought to a halt going again, including lowering the maximum speed on motorways and raising the PFAS standard. However, it will take until 2024 before new construction is brought back up to speed: until 2023 fewer homes than planned will be delivered in our service area due to the temporary shutdown (or continuing standstill) of construction projects.

Shortage of technical staff

A vast amount of electrical engineering work is required to bring about the energy transition and meet the growing number of applications for connections and extra power. Tens of thousands of extra technical specialists are needed in the Netherlands. Filling the vacancies is a major challenge for the construction industry, installation sector, and network operators.

Farewell to natural gas and coal

The Netherlands wants to stop using natural gas from the Groningen gas field by 2030. All coal-fired power stations need to be shut down by then too. Initiatives to phase out fossil fuels like natural gas are springing up around the country. For example, the obligation to connect new buildings to the gas grid has already been repealed, and 69% of applications for new construction and renovations are now 'natural gas-free'. All municipalities are working on their own transition vision statement for heating, in which they describe how they intend to wean each district off natural gas and which alternative will take its place. Alliander is assisting the municipalities and provinces with knowledge and experience. The transition vision statements will be ready in 2021.

Rising costs of the energy supply

As a result of the major investments that will be made in the energy networks, the costs for network management will increase, which will, in turn, make it increasingly difficult for more and more households to pay their energy bill.

Digitalisation

Digitalisation opens up new opportunities for consumers and businesses to manage their utility bills and conserve energy. Network operators can benefit from digitalisation by gaining a better understanding of the consequences of the energy transition, the condition of the grids, and the investment opportunities. In addition, digitalisation offers the market new opportunities for the procurement, trade, and exchange of energy.

Impact on Alliander

The developments require substantial investments in our networks, and it also means a vast amount of work.
In parts of our networks use is approaching the maximum capacity. The capacity that an average solar farm supplies, for example, is comparable to the electricity consumption of a medium-sized city. Liander has many applications from solar farms, especially those in rural areas where the cables are thin because the demand for electricity was traditionally low. The cause is the sharp increase in subsidies for solar farms in the past two years. We are working hard on solving these bottlenecks by upgrading networks and applying innovative solutions. This takes time however. Until these issues are addressed, there is a chance that in some areas we will not yet be able to supply the capacity that the customer demands.

For network operators to make the right investment decisions in good time, it is essential that they know well in advance what needs to be done to the infrastructure and where this needs to happen. It is with this in mind that the network operators want the transition to sustainable energy to be brought about in a well-considered, manageable way. The arrangements in the Climate Agreement and the development of the Regional Energy Strategies are crucial in this respect. Alliander (and network operator Liander in particular) are assisting municipalities and provinces with knowledge and expertise.

Our mandate for society

The trends, developments and issues in the world around us constitute the basis for the formulation of our strategy, which describes how we as a company deal with the challenges of the changing energy system. Our strategy outlines how we respond to these new demands, while our SWOT analysis sets out where the opportunities and threats lie for our organisation.

Our strategy

The foremost development has been and is the drive towards making the energy supply more sustainable, and the pace of this change will continue to accelerate. Our stakeholders expect us to pursue a strategy that sees us making a substantial contribution towards the new energy landscape. To absorb the effects of the energy transition Alliander applies a four-pillar strategy.

1. We support customers in making choices that work for them as well as for the energy system as a whole.

We want to make it attractive for customers to consume energy when supplies are plentiful, feed power back into the grid when supplies are low, and use the energy network as little as possible during times of peak load. For this, we are rolling out the smart meter and working on different tariffs for the use of the electricity grid so that we can make better use of our current grid.

2. Investing in new open networks

New energy networks are being created that are not accessible to everyone under the same conditions. We prefer, however, to develop new open networks, such as open district heating networks, to make it possible in every local situation to choose the best option in terms of sustainability and (minimising) costs to society.

3. Digitalisation

New technology, both hardware and software, is an unprecedented enabler in operating our networks, and in preventing or troubleshooting outages. It also enables us to fine tune our investments in the networks, gearing these to the actual condition of our networks rather than blindly applying standard rules.

4. Excellent network management

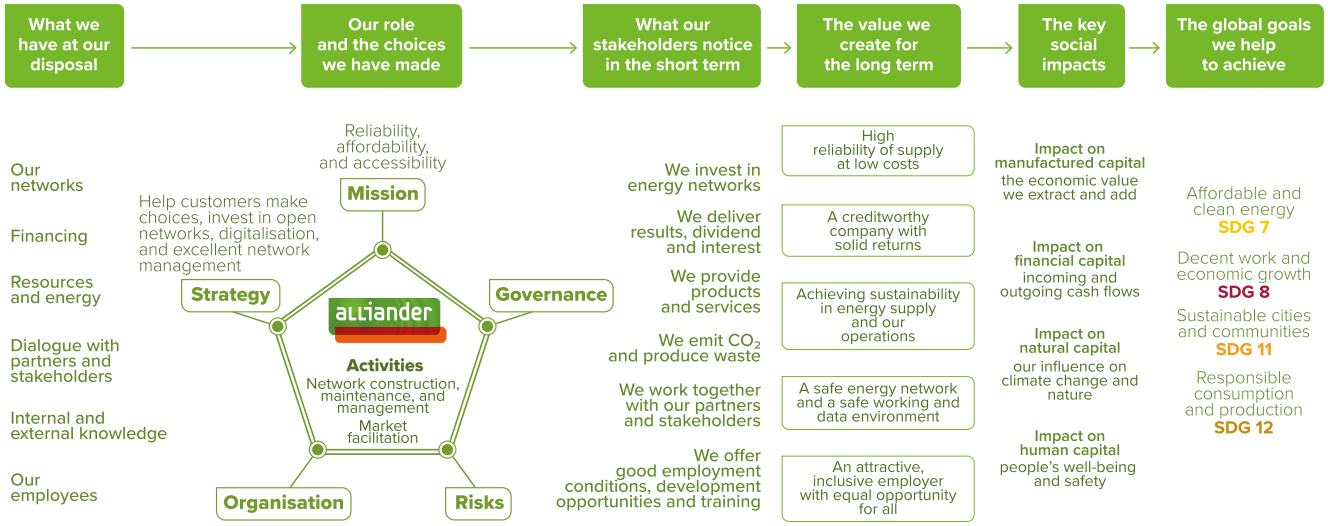
The reason for our existence is to ensure that our energy networks remain among the most reliable in the world. Safety is the number one priority, closely followed by the highest level of reliability possible. The reliability of supply via our networks is 99.99%. We also work towards providing the highest level of customer convenience possible.

How we create value

Our value creation process is aimed at maximising the positive impact of our business operations for all our stakeholders.

We use the resources and capital available to us as efficiently as possible, while focusing on making the greatest possible contribution to society. In order to determine the social effects of our actions, we updated the value chain in 2019. Among other things, this has led to the reformulation of our outputs (what our stakeholders notice), outcomes (the long-term value we create), and impacts (key effects on society). The outcomes are formulated in such a way that they represent real value for our stakeholders. An explanation of the long-term value we create can be found in the relevant chapters in this annual report. A complete overview of the social impact of Alliander can be found in the chapter Key social impacts.

Value creation model



In the connectivity matrix, we show how the elements like value, material issues, indicators, objectives and results, strategy, and the contribution to the Sustainable Development Goals are connected.

Objectives and results

What we have at our disposal → Our role and the choices we have made → What our stakeholders notice in the short term → The value we create for the long term → The key social impacts → The global goals we help to achieve

Ensuring a high level of supply reliability for a low cost

Objectives 2019	Result 2019	Objective 2020	Strategic objective	Principal risks[10]
Customer convenience Customer convenience measured by the NES score is higher than 50% (consumer market) and 40% (business market).	Consumer: 55% Business: 33%	Customer convenience measured by the NES score is higher than 53% (consumer market) and 32% (business market)[1].	Customer convenience measured by the NES score will increase in the upcoming years.	Realisation of work package
Electricity outage duration Maintain low outage duration.The objective is a maximum of 22 minutes.	21,9[2]	Maintain low outage duration. The objective is a maximum of 23 minutes[1].	The objective is to have a high reliability of supply.	Cybersecurity Capacity for change
Repeat outages The number of unique cable numbers with more than five interruptions is 17 or lower.	17	The number of unique cable numbers with more than five interruptions is 17 or lower.	The number of unique cable numbers with more than five interruptions is a maximum of 17 in the coming years.	Future-proof IT Landscape
Smart meter offering We offer smart meters to 585,000 addresses.	624,000	We offer smart meters to 375,000 addresses.	By 2020, everyone has been offered a smart meter.	Long-term regulatory focus

Being a credit-worthy company with solid returns

Objectives 2019	Result 2019	Objective 2020	Strategic objective	Principal risks[10]
Retention of solid rating Maintain solid A rating profile.	S&P AA-/A-1+/stable outlook Moody's Aa2/P-1/stable outlook	Maintain solid A-rating profile	Our objective is to remain a creditworthy company. Continuously outperform the sector in terms of costs and operational excellence. Solid results compatible with the regulated permitted return.	
FFO/Net debt Objective >20%	29.0%	FFO/net debt objective > 20%		Long-term regulatory focus
Interest cover Objective >3.5	13.3	Interest Cover Objective >3.5		
Net debt/(Net debt + equity) Objective < 60%	36.5%	(net debt/ (net debt + equity) Objective < 60%		Financeability Capacity for change
Solvency; Objective >30%	55.6%	Solvency Objective: >30%.		

Making the energy supply and our operations sustainable

Objectives 2019	Result 2019	Objective 2020	Strategic objective	Principal risks[10]
CO_2 emissions from business operations[3] CO2 emissions are a maximum of 271 ktonnes (according to a sector-wide calculation method).	264 kton	CO_2 emissions are a maximum of 207 ktonnes (according to a sector-wide calculation method).	We strive for climate-neutral operations in 2023.	Long-term regulatory focus Future-proof IT Landscape Capacity for change
Circular procurement[4] 25% of all our primary assets are purchased on the basis of circular procurement.	30%[5]	40% of all our primary assets are purchased on the basis of circular procurement.	In 2025, 60% of our primary assets are purchased on the basis of circular procurement.	

Ensuring a safe network, a safe working environment, and a safe data environment

Objectives 2019	Result 2019	Objective 2020	Strategic objective	Principal risks[10]
LTIF (lost time injury frequency)	LTIF 2.1	None[6]	Safety is a precondition for our business operations. We create a proactive safety culture.	Safety Privacy energydata Cybersecurity

Being an attractive, inclusive employer who offers equal opportunities to everyone

Objectives 2019	Result 2019	Objective 2020	Strategic objective	Principal risks[10]
Employee survey score on a scale of 100 In 2019, we aim for a score of 71 in the Great Place to Work employee surveys.	70 (2018)[7]	In 2020, we aim for a score of 71 in the Great Place to Work employee surveys.	Top-class employer; an innovative and successful company where we develop future-oriented knowledge and competences.	Capacity for change
Employee absenteeism Absenteeism score is 4.3% or lower.	4.2%	Absenteeism score is 4.3% or lower.	The maximum employee absenteeism rate is 4.3% in the coming years	
Women in leadership positions At least 29.3% of all leadership positions are filled by women.	26.9%	At least 30% of all leadership positions are filled by women.	At least 33% of our leadership positions will be filled by women by 2024.	
Employees at a distance from the labour market Offering 100 apprenticeships to people at a distance to the labor market. At least 58 of these places comply with the Labor Participation Act[8].	101[9]	Offering 108 apprenticeships to people at a distance to the labor market. At least 83 of these places comply with the Labor Participation Act.	We offer long-term work for people at a distance to the labor market who meet the criteria of the Labour Participation Act. In addition, we also offer work experience placements, internships and other learning experiences for a broad target group. We will meet the requirements of the Dutch Labour Participation Quota Act by 2024.	

This topic is explained in the online annual report along with the objectives and results.

1 As a result of the re-prioritisation of the work, with a focus on investments in the network and the resolution of transmission restrictions, the Net Effect Score (NES) and the Customer Minutes Lost (CML) will not improve.

2 The figure for electricity outage duration differs from the figure stated in the regulatory report, because interruptions in the high-voltage network (CBL assets) owned by Alliander are taken into consideration in the regulatory report.

3 The CO_2 emission target for 2019 was recalculated according to the most recent emission factors.

4 The scope of the KPI comprises primary assets: low and medium voltage cables, gas pipes, distribution and power transformers, and legacy and smart electricity & gas meters.

5 From 2019 the target and the score are rounded off to whole numbers.

6 No target is set for the Lost Time Incident Frequency (LTIF) performance indicator, because the number of accidents leading to sickness absence should be zero.

7 We did not conduct an employee survey in 2019. Instead, the focus was on the strategy alignment survey and discussing the outcomes of this with all employees. This is discussed in more detail later in the report. Due to this the figure from the end of 2018 has been used. Alliander has the ambition to be a top-class employer and will launch a new employee survey in 2020.

8 From 2019 Alliander is taking measures in accordance with the Dutch Participation Act.

9 The figure for employees at a distance from the labour market comprises 64 employees working for us under the Dutch Participation Act and another 37 with a work experience placement.

10 The Risks chapter explains the risks in detail.

The value that we create

Ensuring a high level of supply reliability for a low cost

What we have at our disposal → Our role and the choices we have made → What our stakeholders notice in the short term → **The value we create for the long term** → The key social impacts → The global goals we help to achieve

In the coming years, a lot of work needs to be done to advance the energy transition. At the same time, the quality of our energy supply must remain high at the lowest possible cost to society; at a 99.99% availability rate, our power grid is among the most reliable in the world.

Related topics

This chapter is about our measures in the area of reliability of supply and customer convenience. The information relates to several topics the stakeholders feel are important. Furthermore, these activities contribute to achieving an SDG:

Related material issues

① Reliability of supply
④ Working together on innovative solutions
⑤ Data-driven network management
⑦ Satisfied customers
⑨ Company's adaptability
⑩ Future-proof network
⑮ Access to affordable energy

Contribution to SDG

Related stakeholder groups

Customers, shareholders and investors

Objectives and results reliability of supply

Customer convenience

OBJECTIVE 2019

Customer satisfaction measured by NES score above 50% (Consumers) and 40% (Business).

RESULT 2019 CONSUMERS
55 %
50% in 2018

RESULT 2019 BUSINESS
33 %
38% in 2018

Electricity outage duration [1]

OBJECTIVE 2019
22 minutes

RESULT 2019
21.9 minutes
30.6 minutes in 2018

Realisation of planned smart meter offering

OBJECTIVE 2019
585,000 minimum

RESULT 2019
624,000
644,000 in 2018

Cable numbers with >5 interruptions

OBJECTIVE 2019
17 maximum

RESULT 2019
17
17 in 2018

1 The figure for electricity outage duration differs from the figure stated in the regulatory report, because interruptions in the high-voltage network (CBL assets) owned by Alliander are taken into consideration in the regulatory report.

Pressure on the power grid

The reliability of supply in our electricity grid was again very high in 2019. All the same, the acceleration of the energy transition, the growth of the economy, and the shortage of technicians have together put the reliability of the grid under pressure. Expansion, upgrades, and smart solutions have alleviated the shortage of transmission capacity in some locations, but these measures are not sufficient to meet the rising demand for energy. Since 2019, an increasing number of bottlenecks have been occurring in the power grid in the Netherlands, posing an obstacle to the energy transition and to the further economic development in the Netherlands. The electricity grid is busy with delivering power, but also with the feed-in of electricity. Expanding the grid is a process that will take many years, which is why we are also taking another approach with regard to the energy transition, i.e. applying smart solutions and innovations where possible. In some instances, laws and regulations need to be amended before we can apply innovations on a larger scale.

Insufficient transmission capacity

Network operators are having to deal with a rapidly expanding work package. For example, the demand for the highest capacity connections, used for connecting large solar farms and data centres, has increased sevenfold in just a few years. A large solar farm makes a claim on the electricity grid comparable to a small city like Weesp, and a data centre draws about double that amount. To continue to meet demand, we are expanding the electricity grid in many locations. This is a long process, however, partly due to the lengthy permit procedures. We are working hard to upgrade and expand our electricity grid, and over the last year we exerted even more effort in this area. Despite these efforts, owing to the skills shortages combined with the growing economy, we are increasingly unable to implement connections or network upgrades as quickly as the customer wants or within the statutory 18-week term. More and more often, businesses that want to generate or buy more electricity in areas where there is insufficient network capacity will have to wait until we have upgraded the network there.

In advance of the expansion of the power grid in these locations, we have investigated whether congestion management – the coordination of supply and demand for electricity in an area – is an option, which it is not in virtually all areas facing capacity constraints. As a result, ‘transmission restrictions’ are placed on businesses in these areas, with the effect that if they need more electricity or want to feed in more electricity than a given amount, they will generally have to wait until the grid has been expanded. This measure is needed to prevent power cables from being overloaded resulting in district-wide power outages.

Transmission capacity statement

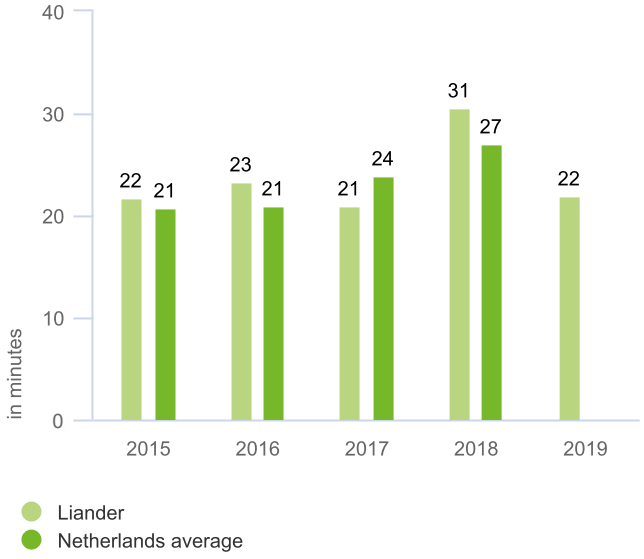
Since 1 October 2019, after consultation between network operators and various stakeholders, the transmission capacity statement (*transportindicatie*) has been part of the application procedure for the Dutch subsidy scheme designed to promote the production of sustainable energy (SDE+). Without a positive statement, the application cannot be accepted. The intention is to prevent subsidies for renewable power generation going to areas where the electricity grid does not have sufficient transmission capacity for this, nor will have this within the next few years. Power producers can request the statement from their network operator prior to applying for the subsidy. A positive transmission capacity statement indicates that, at that moment, the grid has sufficient capacity to transmit the electricity generated by the project. During the autumn SDE+ subsidy round, we received 3,869 requests for a transmission capacity statement, mainly for connecting solar farms to the grid. We provided a positive statement for 86.9% of the requests, i.e. a total of 3,361.

Excellent network management

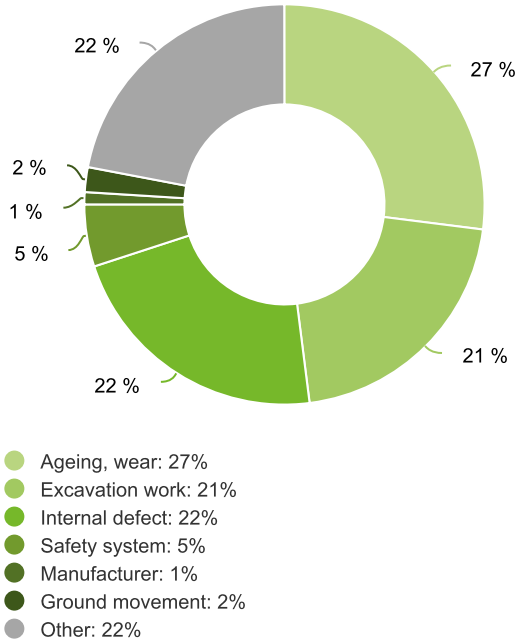
Supply reliability of the electricity grid

In 2019, our customers were without electricity for an average of 21.9 minutes, a big improvement over last year (2018: 30.6 minutes), which can mainly be attributed to the lack of major outages in 2019 (2018: 4). Besides this, there were fewer outages in the summer period than last year. This was thanks, in part, to our use of new digital tools that enable us to better monitor components that are sensitive to sustained periods of heat: we can localise imminent disruptions faster and guide our service technicians more effectively. Components are replaced preventively where necessary. It is worth noting that 21% of the power disruptions were caused by excavation works being carried out by outside parties.
The number of unique cable numbers with more than five interruptions per year was 17, the same as the target (maximum 17) and just as high as in 2018 (17), despite the sharper focus on repeat disruptions and smart technical adjustments in the network. An example of this is REZAP Fault Master, a device that can pinpoint the fault location at the next (dormant) fault.

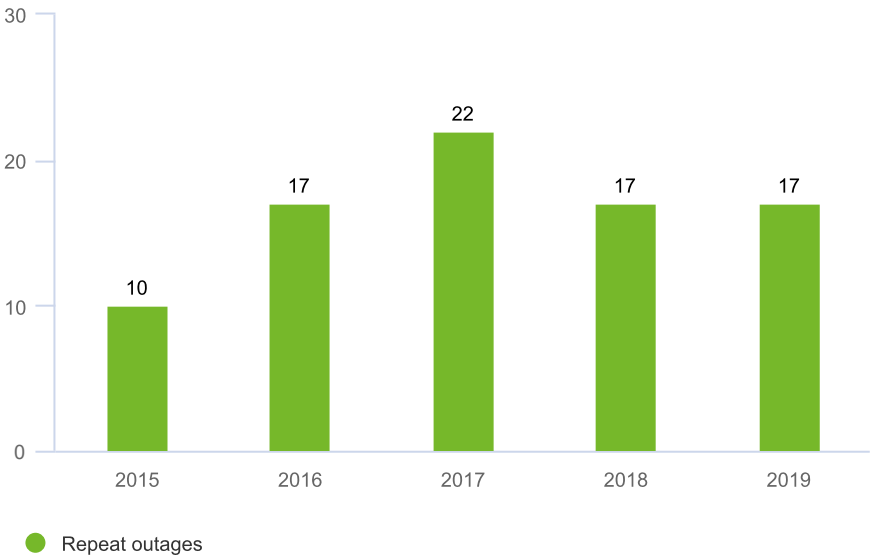
Outage duration of power grid and causes



The Dutch average for 2019 is not yet known.



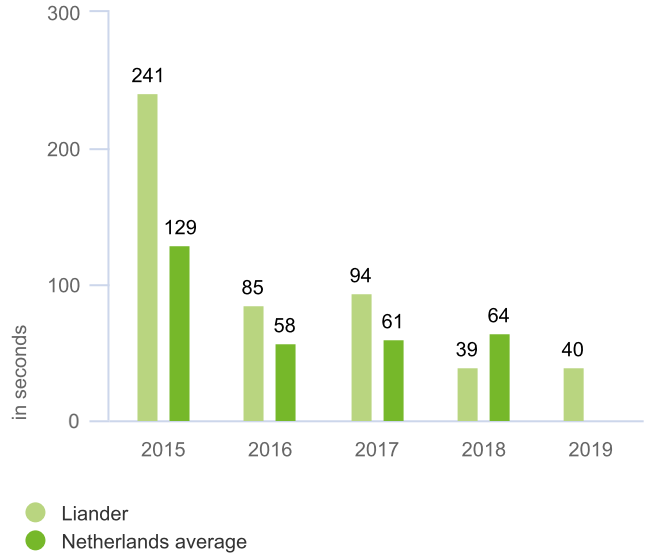
Repeat outages

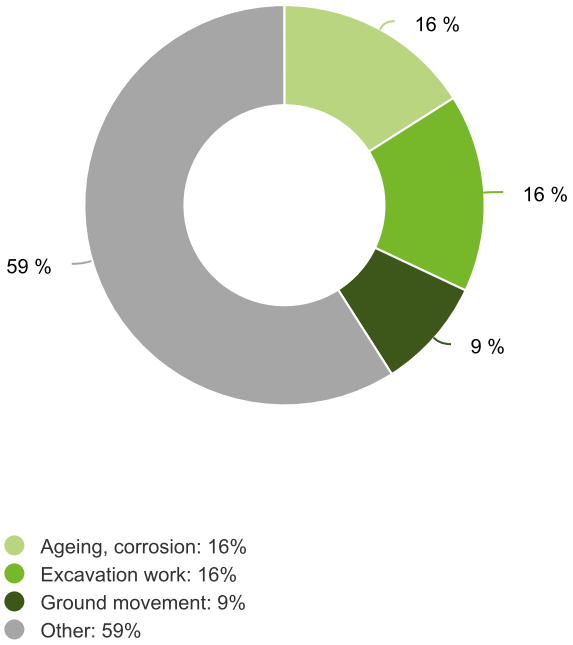


Supply reliability of the gas grid

Gas outages are relatively uncommon. The main cause of fluctuations in the gas outage duration are random outages caused by a third party and which leave customers without gas for a long time. In November, 63 homes in the village of Doorwerth were without gas for between a day and a day and a half. This was the result of water from a burst water main entering a damaged gas main, which then had to be cleaned (along with other local gas lines) and repaired before it could be brought back into use.

Outage duration of gas grid and causes





The Dutch average for 2019 is not yet known.

Infrastructure maintenance

In 2019, we spent €1,044 million on the maintenance, replacement and construction of our energy infrastructure (2018: €954 million).

Replacement of grey cast-iron and asbestos cement mains

Since 2009, a large-scale replacement programme for the replacement of grey cast-iron and asbestos cement mains has been under way. The programme is scheduled to be finished in 2040. In 2019, we met with representatives of ten municipalities (in which 70% of the mains concerned are buried) to discuss accelerating the programme, striving for completion by 2032. This move was prompted by the official recommendations of the Dutch State Supervision of Mines.

Our results by region

Gelderland

The Province of Gelderland covers a large, highly diverse area. Various major housing developments were under construction last year, and we saw an increasing demand for capacity in business parks and the commercial greenhouse sector. We also saw an increase in initiatives related to the production of renewable energy. These developments have had a huge impact on the grid. Based on dozens of talks with growers, we made an analysis of energy scenarios in the Bommelerwaard region, and worked on connecting renewable energy initiatives around the Deil interchange to the grid. For the solar initiatives in the Achterhoek region, we built a new substation in Laarberg, and we worked on upgrading the Borculo substation. In 2019, we ran a pilot in Wageningen with the first prefab substation. Despite the use of innovative approaches like the flex-market and the flexnet in Nijmegen-Noord, we still saw the demand for capacity exceeding the available capacity in a number of locations.

Friesland

In Friesland, the rapid growth of solar energy in particular means that the electricity networks are having to handle an increasingly heavier load. In 2019, a number of solar farms were connected to the grid, including close to Oosterwolde. We have also decided to start a pilot installation at a solar farm in Oosterwolde that will convert renewable energy from the solar farm into green hydrogen. These types of pilots contribute to the realisation of alternative solutions that enable the transport of renewable electricity from areas where the grid is under pressure.

Noord-Holland

The province of Noord-Holland has a major, accelerated new-build challenge: data centres want to establish themselves there, and a reliable power supply is essential for commercial greenhouse operators. The demand for electricity is ever increasing, while the grid does not have the capacity to meet this demand. To address this, we worked with TenneT on expanding the electricity grid, and in 2019 we completed the De Weel and Middenmeer substations. With regard to the heating transition, in Purmerend the first homes in the ‘test bed’ of the Ministry of the Interior and Kingdom Relations were made natural gas-free, and the first open district heating network in the Netherlands was launched in Zaanstad. In Haarlemmermeer we expanded the electricity grid to facilitate the connection of data centres. The installation of the second 50kV connection between the Haarlemmermeer electrical substation and Rozenburg is under way. Since 2015, together with TenneT we have been searching for a location in the region for a new Haarlemmermeer substation, as of yet without success, unfortunately.

Amsterdam

Liander and the City of Amsterdam collaborated in a thematic study on the energy transition in the city. As a result of the construction of new homes and data centres, as well as the electrification of vehicles, heating, industry and more, electricity consumption will rise rapidly in the coming years. These developments have had a huge impact on the grid. We also installed five smart medium-voltage stations to help resolve outages more quickly in the future. Liander has installed new networks so that new-build homes in the district of Amsterdam-Noord, for example, can be connected. In addition, more than 250 new charging points were connected, and we brought an underground gas distribution unit into operation. Under the Amsterdam Natural Gas-Free initiative, the first homes in the Gentiaanbuurt district were weaned off natural gas.

Zuid-Holland

Preparations were started in 2019 for the launch of a flex-market in the Zuidplaspolder area to reduce the pressure on the network as much as possible. In addition, Liander and the municipalities in the Holland Rijnland region conducted a scenario study to gain insight into where and when investments in the electricity grid are needed to facilitate economic developments and the energy transition. The first steps have been taken to integrate these grid investments in the region. We took the first steps towards implementing solutions to facilitate renewable energy initiatives in Boskoop.

Flevoland

Flevoland has a vast amount of rural land, perfect for renewable energy initiatives. This is already taking place on a large scale with the many wind turbines. In addition, the number of planning applications for solar farms is increasing. This presents our organisation with the major challenge of seeing that the infrastructure is ready to accommodate this, alongside facilitating large-scale generation of wind energy. For this, cooperation between government, business and Liander is needed. In 2019, we worked on connecting the solar farms in Luttelgeest (4MW) and Almere De Vaart (20MW).

Access to affordable energy

Thousands of households cannot or are barely able to pay their monthly energy bill. According to research agency Ecorys, this group may become larger if all homes are disconnected from the gas grid. This is alarming news. As a network operator, we stand behind the principle that energy should be accessible and affordable for everyone. Last year we completed a trial with prepaid energy. The pilot was carried out by Alliander, Stedin, Greenchoice, Vattenfall and Energiebank to make households more aware of their energy usage and offer them additional help so they can avoid being disconnected and accumulating new debts. From the pilot it emerged that prepaid energy gives consumers more control over their energy costs and helps them save money and prevent payment arrears. It also boosts the sense of self-reliance.

We prefer not to disconnect customers' power in the winter. In this context, we go further than the law requires. The law states that we must stop disconnecting customers if it freezes in De Bilt (the site of the Royal Netherlands Meteorological Institute) for 48 hours. Every week, we take a look ahead to determine whether the average temperature will be below zero in any 24-hour period. In cases of doubt, we decide in the customer's favour.

Online campaign helps prevent 'contractless' customers

Every year, Liander has to deal with customers who consume energy but do not pay for it since they do not have an energy contract. This can happen as the result of moving home for example. This type of administrative network loss costs us €16.9 million annually. Reducing the number of customers without a contract helps decrease network losses while increasing customer convenience. We launched an online campaign to inform customers who are in the process of moving about taking their energy contract along with them or concluding a new contract. In total we reached over 4.5 million people through social media and online ads, and the video was viewed almost 5 million times. The result is that more customers now know the importance of arranging a contract. The number of customers without a contract when they move home fell from nearly 39% to 35% during the campaign period. Seasonal influences also played a role in this.

How we are addressing the challenges

So that we can continue to ensure the reliability of the electricity grid, we take measures to gain insight into the bottlenecks in capacity in the grid. We do everything we can to expand the network where the bottlenecks are occurring, as well as at locations where we anticipate that demand will increase in the future. We are also looking for opportunities to make even better use of the cables and installations that are already in place.

Improving our operational processes

In response to the increased workload and the shortage of technicians, we made various changes in our operational processes in 2019. These changes have enabled us to continue to improve our performance in terms of promptness, increasing productivity, and cost-awareness.

For example, in 2019 it became possible for us to draw up quotations for large-user connections (such as requests for connecting solar farms) digitally and send these directly to the customer, whereas this process originally involved numerous manual steps and had a longer lead time. Stricter work agreements and tightened oversight also ensure that more projects start on time; this way, better use is made of the technical capacity, and customers and contractors can be assured of higher reliability in the planning.

Long-term and integrated outsourcing

During the year under review, we achieved positive results with outsourcing entire projects to contractors. The contractors handle both the preparations and implementation, which includes linking up to the networks, enabling us to handle more work together. In August, Liander signed a major contract with three contractors, who will carry out replacement and expansion work over the next ten years at around 4,500 medium-voltage stations in three regions. In October, Liander signed a four-year contract with contractors for work on the energy networks in Amsterdam. By outsourcing activities in full, our technicians can focus on other specialist work, troubleshooting, and maintenance on the power grid. Furthermore, because these long-term contracts provide contractors with more certainty about their work package, they can hire and train more people, meaning the Netherlands can rely on more technicians.

Work planning

Up to 2019, when planning our work we determined the amount of time our activities would take on the basis of fixed, average standard lead times. We analysed which factors affect these standard lead times, such as the presence of any soil contamination. Now, by using more precise standards in projects, we can plan our work more accurately, enabling us to handle more work. In 2019, we started managing large-user connection projects using this new standards approach.

Product innovation

We have been experimenting with production innovation in the implementation process, like with the prefab substation we developed with other parties. In Wageningen the first prefab substation was brought into operation. This solution reduces the installation time considerably and minimises interdependencies in the planning.

Recruitment, training and retention

With regard to our in-house technical staff, we have put considerable effort into increasing labour capacity by working on recruitment, training and retention. This includes special programmes for recruiting and training school-leavers and asylum status holders, as well as holding onto technical staff through retention measures and by offering career development paths. The training and development section provides more information.

Smart innovations

We are constantly investigating ways to make optimum use of the existing network using innovative solutions, including smart expansions and smart technical modifications to the electricity grid, for example, and initiatives to enhance collaboration between sectors and with supply chain partners and new energy carrier partners. The measure or solution chosen depends on the situation. Examples of technical innovations include 'cable pooling' (connecting solar farms and wind farms on a single cable) and non-redundant connections. Redundant power is a kind of reserve power that ensures that the electricity does not have to be switched off in the event of power interruptions or maintenance. By using this reserve capacity at stations, we have more capacity in the grid. In 2019, we set up pilots to investigate the possibilities of the new energy carrier hydrogen. We want to learn what the large-scale production of green hydrogen from wind and solar power can mean for affordable and reliable network management.

Increasing the company's effectiveness

To ensure that we make a successful contribution to the energy transition, it is essential that Alliander focus on meeting the challenges. It is important that we organise ourselves effectively and operate as one team. To find out whether all employees have the same goal in mind for Alliander, a strategy alignment survey was held at the end of June. From this survey, it was clear that managers and employees know the challenges Alliander is facing in order to continue to fulfil our task. We have also seen that there is room for further increasing our focus in how we take on challenges as an organisation, how teams contribute to the pursuit of our strategy, and which priorities they must set. There is also scope for better collaboration between Alliander teams on clear choices that we make as an organisation for Alliander's future. After the survey, each team met to discuss the direction Alliander is taking. Work is currently ongoing on an approach that will help us create an excellent organisation.

Organisational changes

To become more effective and agile, in 2019 various adjustments were made to Alliander's business units, like at Qirion, for example, which is working with a new classification of regions. The IT unit, too, launched a transformation programme in 2019. We also work with new methods that increase our agility and we continue to examine how we can organise and perform our tasks in the most effective way possible.

Digitalisation

Digital technologies and innovations are unlocking new opportunities for managing our networks. Alliander employs these new opportunities to more quickly detect and even prevent interruptions, make more targeted investments in the networks, and offer customers the data and services (including self-service) they need to make better energy choices and manage energy flows more effectively, allowing for better use of the current grid. This is how we can restrict the need for network upgrades.

With this in mind, in 2019 we continued work on the roll-out of digital components, i.e. devices that can monitor, detect and, in some cases, switch, such as the Smart Cable Guard (SCG), smart medium-voltage stations, and smart meters. The data from these smart devices are converted into valuable information for customers and employees using innovative algorithms and AI. This way we can ensure that the service technician is already close by when the customer reports a disruption, that outages are prevented, and that optimum use is made of the grid's capacity.

Because some customers request a large number of connections all at once, we have developed a customer integration tool. This allows us to quickly analyse multi-connection requests and make calculations to determine the impact on substations and the medium-voltage network.

Fewer and shorter disruptions

Smart Cable Guard (SCG) is a system that detects and pinpoints weak spots in the underground electricity network, ideally before these lead to outages. Using this system, in 2019 we prevented 40 power cuts and shortened the duration of 77 others. By the end of the year, we had over 900 SCGs monitoring our network, which is more than targeted (800). Smart meters installed in homes and small businesses also help to shorten the duration of power outages. These meters help us pinpoint faults so that the service technician can get to the location faster, and we do not have to ask customers all sorts of technical questions either: we already know the answers. This year, service technicians started working with an app that provides them with on-site information that was previously only available back at home base. If customers are entitled to financial compensation as a result of a low-voltage power outage, this is automatically calculated and paid out in more than 80% of the cases.

Targeted network investments

Digital installations can support traditional installations in order to shorten the outage duration as much as possible at the lowest costs possible. There are countless possibilities for combining digital with traditional installations. For this purpose, an optimisation model has been created that uses algorithms to automatically come up with the most cost-efficient proposal for the installation of smart medium-voltage stations, SCGs, and breakers, helping our network planners to make targeted investment decisions. With regard to the smart medium-voltage stations, the 127 we installed put us above the 100 targeted for the year under review.

Flex-market in the Zuidplaspolder area

Following the flex-market in Nijmegen-Noord, we started preparations for a flex-market in the Zuidplaspolder area. Due to the construction of new homes and the expansion of businesses in this area, we expect a shortage of distribution capacity (grid congestion). Together with TenneT and Stedin we are preparing for the construction of a new distribution substation, though it will be a few years before the substation is completed. One of the solutions to capacity problems in the meantime is a flex-market that matches supply of electricity to demand, by shifting electricity consumption to different times or storing energy temporarily for use during peak periods.

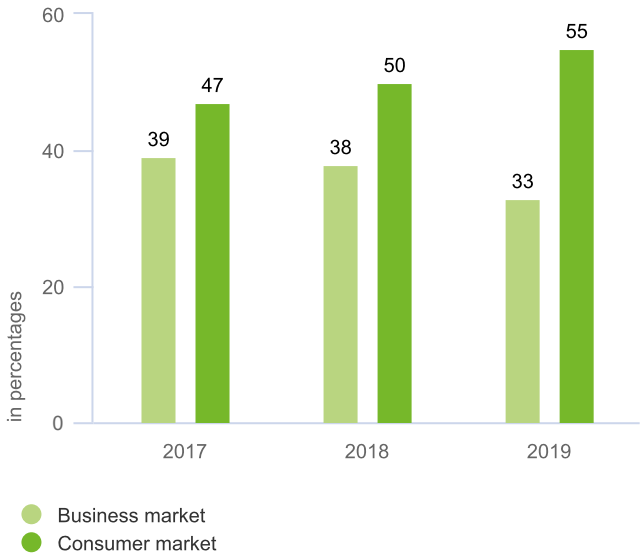
Offering smart meters

One crucial link in the creation of a smarter infrastructure is the smart meter. Customers are increasingly making their own energy decisions. Smart meters help customers to save energy, use energy when costs are low, or feed energy back into the grid when the price of electricity is high. Since the start of the roll-out of the smart meter, we have offered the device to 2.4 million customers. Each day, more than 2 million requests for data from the smart meter are now being processed. In 2019, we offered the smart meter to more than 600,000 customers and we are ahead of the schedule that was presented to the Ministry of Economic Affairs and Climate Policy. We achieved this result despite a prolonged production stop in October 2018 at one of the two suppliers of the smart meters, which was due to quality issues in the production process.

At the end of 2019, 107% of the work scheduled for 2019 had been carried out. The progress made each month is shown on Alliander.com. We intend to offer smart meters to all our customers by 2020, which means we still have 375,000 addresses to go in 2020. We expect to encounter many empty buildings and homes where adjustments to the meter cabinet or connection are required. We are working in close cooperation with our partners, such as contractors, to offer customers the smart meter.

Customer convenience

Customer convenience in consumer and business markets



The key determining factor of customer satisfaction is the convenience they experience. Immediately after we complete a job, we ask customers for feedback on our services. To express the amount of convenience experienced by customers, we calculate a score – the Net Effort Score, or NES. We calculate the NES by deducting the percentage of customers experiencing some or a lot of difficulty with the service from the percentage of customers finding it easy or very easy. This information gives us insight into the good results we achieve and the areas where improvements still need to be made. The Net Effort Score is updated on a monthly basis on our website at Alliander.com. Customer convenience can come under pressure owing to difficulties completing all the work we have to do, the long waiting times customers face, and the fact that we are not always able to provide the required capacity. Despite this, the figures remained fairly stable.

Customer convenience rated by business customers

In 2019, customer convenience based on the Net Effort Score (NES), as rated by business customers was 33%, compared with 38% in 2018. The connection times for customers are becoming longer, and requests for quotes for solar power generation and the associated feed-in requests are increasing sharply. The increasing number of transmission restrictions is also being met with a lack of understanding. Due to the increase in these requests, it is not possible to process them all within the prescribed deadline. Customers also state that they have to put a lot of effort into getting the answer they are seeking during the implementation process and the follow-up phase. Providing business customers with good service involves interacting with many other parties (municipalities, contractors, other business parties) and requires a lot of customisation. The associated processes are optimised and digitised; however, due to the fact that the work is more customised than standard, there are fewer opportunities for digitalisation.

Customer convenience rated by consumers

Our customer convenience score for the consumer market stood at 55% in 2019. Despite the problems with completing all the work in the work package, this is higher than in 2018 (50%). This increase is attributable in part to the accessibility of our customer contact centre, as well as the use of new communication channels. The most important points for attention in 2019 were communications in the period between applying for the work to be carried out and this being done, and the long lead times: this is where the customers experience the greatest inconvenience.

Sharp rise in number of customer queries

Customer queries were up 13% compared with 2018. The size and scope of the work package and the energy and heating transition have resulted in customers contacting us more frequently. The Customer Contact Centre mainly received questions about the application process, preventing disconnection, and information requests concerning the process for people without a contract. Customers consult the website primarily for information on outages and connections, or they visit the contact page.

Online customer service

The Liander.nl website was visited more than 2.4 million times in 2019. Satisfaction with our online services was 34%; the score is measured on a monthly basis and is, in general, increasing. The information on outages is especially appreciated. In 2019 we also worked on improving the self-service functions, including for customers who are moving home. We have seen that customers who move home do not always conclude a contract with an energy supplier. We now help these customers with customised advice to help them retain their energy supply, and we offer them real-time insight into the status of their contract request. Other changes on Liander.nl are:

- Expansion of the power cut overview to include planned power cuts (for maintenance purposes). The location of the power cut is now also shown on a map.
- Decision-making tool for customers considering getting a new connection. By entering a single-use verification code for this function, customers can see which connection they currently have and can compare it with a larger or smaller connection and see a cost estimate for each.
- Expanding the Liander webshop with the possibility of changing connections.

Being a credit-worthy company with solid returns

What we have at our disposal → Our role and the choices we have made → What our stakeholders notice in the short term → **The value we create for the long term** → The key social impacts → The global goals we help to achieve

As a major energy network company, we have an important social function in Dutch society. Consequently, our social, financial and sustainability performance plays a significant role in the considerations of shareholders and investors. Having a sound financial position enables us to perform accordingly.

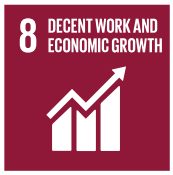
Related topics

This chapter details what we do to ensure that our financial position is sound and remains so in the future. The information relates to the topics the stakeholders feel are important. Furthermore, these activities contribute to achieving an SDG:

Related material issue

⑧ Responsible investment policy

Contribution to SDG



Related stakeholder groups

Shareholders and Investors

Objectives and results creditworthiness

Rating

OBJECTIVE 2019

To retain a solid A rating profile

RESULT 2019

S&P AA-/A-1+/stable outlook
Moody's Aa2/P-1/stable outlook

FFO/Net debt

OBJECTIVE 2019

>20.0%

RESULT 2019

29.0%

32.2 % in 2018

Interest cover

OBJECTIVE 2019

>3.5

RESULT 2019

13.3

12.9 in 2018

Net debt / (net debt + equity)

OBJECTIVE 2019

<60.0%

RESULT 2019

36.5%

33.8 % in 2018

Solvency ratio

OBJECTIVE 2019

>30.0%

RESULT 2019

55.6%

57.3 % in 2018

How finance and sustainability go hand in hand

Thanks to our financial position, we are able to continue to invest in our networks and grow the business. This enables us to pursue our strategy and play a facilitating role in the energy transition. Our financial policy is designed to allow us to maintain a solid A rating. We see that, alongside a sound financial policy, shareholders and other investors are increasingly focusing on sustainability performance. Alliander supports the significance of sustainability and so the company's sustainability targets play a prominent role in the management of the business and external financing. With this in mind, in 2019 Alliander issued a new green bond loan, our second to date. Our sustainability efforts have been rewarded with a sustainability classification of B by rating agency ISS-oekom.

Financial policy

Financial framework

Alliander's financial framework is formed by the FFO/net debt, interest cover, net debt/(net debt plus equity) and solvency ratios. These ratios, coupled with the norms against which they are measured, are crucial in obtaining and retaining a solid A rating profile on a standalone basis. In a departure from IFRS, when calculating the ratios, the subordinated perpetual bond loan is treated as 50% equity and 50% debt.

Ratios on the basis of Alliander's financial policy

	norm	31 December 2019	31 December 2018
FFO/net debt[1]	> 20%	29.0%	32.2%
Interest cover[2]	> 3.5	13.3	12.9
Net debt/(net debt + equity)	< 60%	36.5%	33.8%
Solvency[3]	> 30%	55.6%	57.3%

1. The funds from operations (FFO)/net debt ratio is the 12-month profit after tax adjusted for deferred tax movements and incidental items and fair value movements plus depreciation of property, plant and equipment and amortisation of intangible assets and accrued income, as a percentage of net debt.
2. The interest cover ratio concerns the 12-month profit after tax, adjusted for the movements in the deferred tax assets and liabilities, for the incidental items and fair value movements, plus the depreciation and amortisation of property, plant and equipment and intangible assets and the net amount of finance income and expense, divided by net finance income and expense adjusted for incidental items and fair value movements.
3. The solvency ratio is obtained by dividing equity including the profit for the period less the expected dividend distribution for the current financial year by total assets less deferred income.

As at 31 December 2019, the FFO/net debt ratio amounted to 29.0% (year-end 2018: 32.2%) compared with a required minimum of 20%. The decrease is the result of the increase in net debt with a relatively limited increase in the operating profit adjusted for incidental items.

As at 31 December 2019, the interest cover ratio worked out at 13.3 (year-end 2018: 12.9). This increase is mainly due to a slight increase in the operating profit adjusted for incidental items. Alliander's financial policy stipulates that this ratio should be a minimum of 3.5.

The ratio of net debt/(sum of net debt and equity) as at 31 December 2019 amounted to 36.5% (year-end 2018: 33.8%). Alliander's financial policy stipulates that this ratio should not exceed 60%. The increase came mainly from the increase in the net debt.

The solvency ratio as at 31 December 2019 amounted to 55.6% (year-end 2018: 57.3%) compared with a required minimum of 30%. The decrease compared with 2018 is mainly due to the increase in total assets.

Dividend policy

The dividend policy (as part of the financial policy) provides for distributions of up to 45% of the profit after tax, adjusted for non-cash incidental items, unless the investments required by regulators or financial criteria demand a higher profit retention percentage and unless the solvency ratio falls below 30% after payment of dividend. The proposed profit appropriation for 2019 is shown on page 180 of the financial statements.

Investment policy

The investment policy is consistent with the financial policy and is part of Alliander's strategy. Elements of investment policy include compliance with regulatory requirements relating to investments in the regulated domain, such as safety and reliability, and the generation of an adequate return on investment. Ordinary investment proposals are tested against minimum return requirements and criteria as set out in the financial policy. Innovative schemes require specific Management Board approval. As well as quantitative standards, investment proposals must also satisfy qualitative requirements. It should also be noted that, in principle, investments in the regulated domain arise from a network operator's statutory duties.

Economic performance

Alliander makes a major contribution to the prosperity of the Netherlands, indirectly through the considerable impact that the distribution of energy has for the Dutch economy and for the quality of life experienced through the permanent availability of energy. This is further explained in our impact model in the Contribution to Global Goals chapter. The dividend distributed to shareholders and payments to providers of capital and government authorities make an indirect contribution to social goals. The way these items are allocated and used is set out below.

Our financial stakeholders

Alliander pursues an active policy of maintaining an open and constructive dialogue with shareholders, bondholders, financial institutions, credit rating agencies, sustainability rating agencies, analysts, and the media. We try to provide all stakeholders with timely and accurate relevant information on finances, strategy, risks, sustainability and other matters, in reports, in press releases, and in meetings, as well as by other means.

Shareholders

All of Alliander's shares are held directly by Dutch provinces and municipalities. A full list of the shareholders can be found on www.alliander.com. The authorised share capital of Alliander N.V. is divided into 350 million shares with a nominal value of €5 each. All the shares are registered shares. As at 31 December 2019, there were 136,794,964 issued and paid-up shares. Contact with shareholders primarily takes place during the shareholders' meetings. The company and its shareholders also meet outside of the shareholders' meetings. A summary of the various shareholder dialogue structures can be found on the Alliander website.

Institutional investors

Institutional investors in our bond issues, such as asset managers, insurance companies, pension funds and banks, provide a large part of our financing in the form of debt. These are mostly Europe-based professional players on the international financial markets. We keep existing and potential bondholders informed of the company's financial position and results, as well as developments in the industry by actively engaging in investor relations activities in addition to complying with ordinary publication requirements. In this context, late in February 2019 we met with investors in Amsterdam, Frankfurt, Paris and London to discuss the 2018 figures. In September 2019, we held a conference call on the half-year figures. Various matters were covered on both occasions, including the issue of the second green bond, the major campaign to install smart meters, and the impacts that the phasing-out of natural gas and the growing number of electric vehicles will have on Alliander.

Banks

In July 2018, Alliander renewed its existing committed €600 million back-up credit facility for one year. The facility, which now runs to July 2023, has been entered into with six banks. As in previous years, this facility was not drawn on during the year.

Alliander has a loan from the European Investment Bank totalling €300 (with tranches received in 2017 and 2018). The loan becomes repayable in full in 2031.

Rating agencies

In order to retain ready access to the capital and money markets, it is important for existing and potential financiers to have an accurate picture of Alliander's creditworthiness. Alliander uses credit ratings for this. Having a credit rating is also an obligation under the terms of the cross-border lease contracts Alliander entered into at the end of the 1990s. Alliander has credit ratings from S&P and Moody's. These ratings comprise a long-term rating with an outlook, and a short-term rating. The outlook is an indication of the expected change in the long-term rating over the next few years. S&P and Moody's have kept both ratings and outlook unchanged. The credit ratings as at year-end 2019 were as follows:

	long term	short term
Standard & Poor's	AA- (stable outlook)	A-1+
Moody's	Aa2 (stable outlook)	P-1

During the reporting period, Alliander was in contact with the rating agencies on several occasions. Discussions included the shortage of technical staff, cost savings, the challenges of the climate change targets, and the energy transition. Based on the recent financial performance and forecast figures for Alliander presented on these occasions, S&P and Moody's reassessed Alliander's creditworthiness and confirmed the existing ratings and outlook.

We are being rewarded, too, for our sustainability efforts, as shown by the B sustainability classification awarded us by rating agency ISS-oekom; this is the highest rating ISS-oekom awarded to any company operating in the network sector.

Tax and subsidies

As a taxpaying company, Alliander is liable for various taxes, chief among which are corporate income tax, wage tax, and VAT. Dutch tax law applies to the largest share of this by far, with a small portion, namely our activities in Germany, falling under German tax law. The table below shows the totals per type of tax per country.

Tax payments in 2019

€ million	Netherlands	Germany
Corporate income tax	57	1
Dividend tax	23	-
Wage tax	170	2
Sufferance tax	148	-
VAT	240	2
Total	**638**	**5**

In the past, Alliander entered into an Enforcement Covenant with the Dutch Tax and Customs Administration under the 'Horizontal Supervision' arrangements. Where there is any doubt about the interpretation of tax law, we engage in advance in a constructive and transparent dialogue with the Dutch Tax and Customs Administration, and with the Netherlands Enterprise Agency where subsidies are concerned. Furthermore, Alliander's risk management model is reflected in the implementation of our tax strategy, and the Tax Control Framework is used to mitigate risk.

With regard to matters relating to tax and subsidies, we have set the following objectives:

- In our financial reporting – in the financial statements for example – we are transparent about the tax we pay.
- We are totally transparent vis-à-vis internal and external stakeholders with regard to all relevant records relating to tax and subsidies. Stakeholders include the Dutch Tax and Customs Administration, the Netherlands Enterprise Agency, the Supervisory Board, the Management Board, and internal departments like Human Resources, Regulation, Risk Management, Legal Affairs, and Internal Audit.
- For cross-border activities, the transfer pricing rules apply. In this context, a transfer pricing agreement has been drawn up for our activities under Alliander AG, which complies with the applicable rules.

Our focus with regard to subsidies is on schemes that are intended for large corporations rather than those for regional activities. This way, by only applying for such regional subsidies where appropriate, we deliberately leave the field open at regional level for other companies to develop smaller sustainability initiatives. In 2019, we received €1 million (2018: €2 million) in subsidies. We did not receive any subsidies in Germany.

Financial results in 2019

Financial flows within Alliander

Alliander's income is made up of approximately 85% income from the regulated activities of network operator Liander and 15% other income, the latter being income from rental of large-user meters, income related to new activities, and income from activities outside the Netherlands and from the activities of other companies outside the regulated energy sector. In the second quarter of 2020, network operator Liander will publish its own, separate annual report on its performance in 2019.

The main expenditure relates to maintenance work on the electricity and gas networks and the operating expenses connected with all other activities. We invested in excess of €800 million in 2019, mainly for the replacement and expansion of our networks, as well as the installation of smart meters. This investment equates to roughly 35% of our total expenditure. Additionally, there is the dividend payable to our shareholders and the interest payments to the holders of the subordinated perpetual bond loan and other financiers. The dividend and interest payments for 2019 together amounted to approximately 7% of our overall expenditure. Finally, we pay sufferance tax charges to municipal authorities and corporate income tax to the Dutch Tax & Customs Administration. This accounts for another 9% of our outgoings approximately.

Cost-effective and efficient operations

Alliander is committed to reducing costs to ensure that we have sufficient financial scope to continue to invest responsibly in the future as well. In 2019 we continued with the company-wide cost-saving programme launched in 2018.

The foundation of the programme is to pay ongoing attention to increasing cost awareness throughout the organisation and to critically consider which activities are really necessary for performing the job we do – without compromising safety or quality.

Furthermore, the programme focuses on simplifying and improving processes, by standardising and digitising the activities for example. We also focus on refining procurement agreements and reducing indirect costs, by adjusting internal and external policies and reducing the deployment of contract staff for example.

These measures saved the company €65 million at year-end 2019 compared to 2017.

Income statement for 2019

Net profit amounted to €253 million in 2019 compared with €334 million in 2018. In 2018, the profit after tax was high due to the profit on the sale of Allego. The resulting book profit of €105 million is the main reason for the lower profit in 2019.

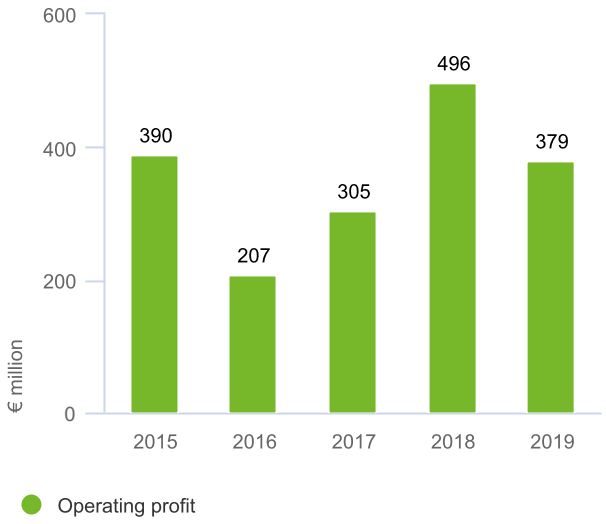
Total operating expenses for 2019 (€1,591 million) were almost €20 million higher than in 2018. This increase is mainly due to the higher depreciation costs due to the higher level of investment (€20 million) and the higher costs (€28 million) for procurement and subcontracted work as a consequence of the greater volume of work carried out. On the other hand, savings have resulted in a reduction of €21 million in costs for external staff compared to 2018.

Tax expenses were down €43 million on 2018, which can be explained by the changes in corporate income tax rates. These resulted in an incidental expense of €29 million in 2018 and an incidental income of €9 million in 2019.

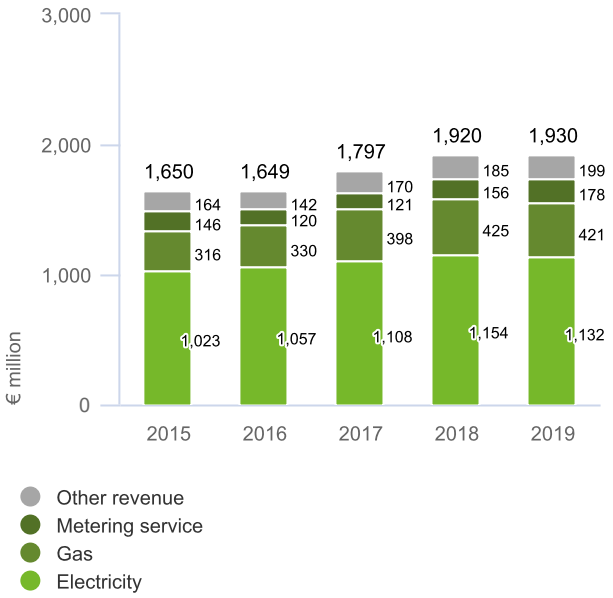
The net profit is affected every year by incidental items, which, in 2019, had a negative impact of €14 million on our profit. Profit excluding incidental items worked out at €267 million, €6 million higher than the comparable profit in 2018. These incidental items are explained in more detail later in this report.

The most significant trends in our profits/losses are discussed below in greater detail.

Operating profit



Revenue

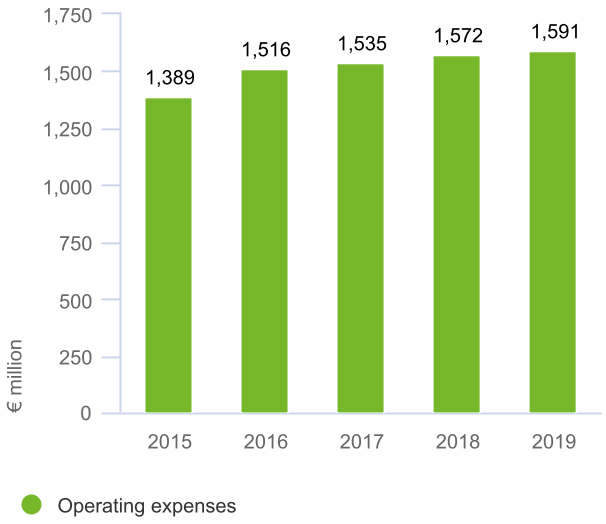


Revenue

Revenue in the 2019 financial year rose by €10 million compared with the previous year, from €1,920 million to €1,930 million. Regulated revenue from electricity and gas declined by €22 million and €4 million, respectively. This decrease is the result of lower regulated tariffs. For electricity, the lower tariffs were compensated to some extent by the increase in the number of connections. The metering service, on the other hand, had higher tariffs, thanks to which revenue increased by €22 million compared to 2018.

In addition to these regulated activities, Alliander has non-regulated activities, such as those of Qirion and Kenter. These activities accounted for an additional €14 million in revenue compared to 2018.

Operating expenses



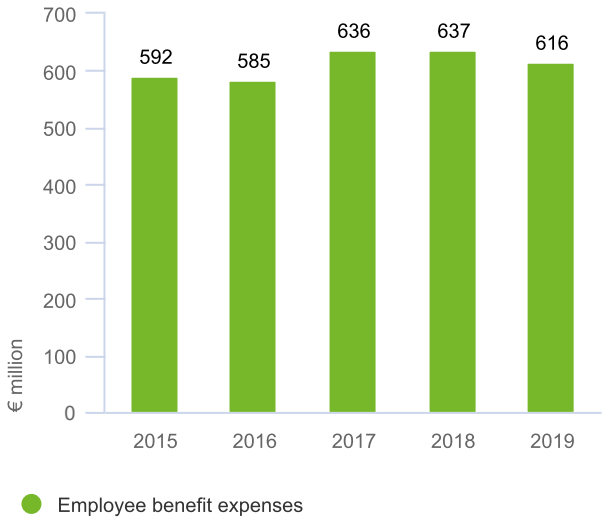
Operating expenses

Total operating expenses rose from €1,572 million in 2018 to €1,591 million in 2019. The increase was the net effect of:

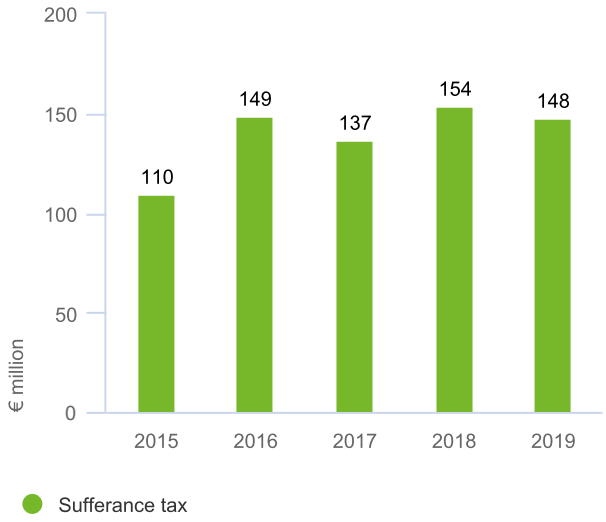
- an increase of €20 million in the costs of contractors and materials as a consequence of the larger work package combined with the price increases on the market;
- the increase in investments also resulted in a higher depreciation expense of €20 million. The total depreciation is €40 million higher than in 2018; of this, €20 million concerns a shift from other operating expenses as a result of the implementation of IFRS 16. Please see page 124 for further information;
- compared with 2018, there was a greater volume of investment projects, resulting in an increase of €16 million in capitalised production, to €257 million;
- the costs of agency workers were €21 million lower than in 2018 as a result of the cost-savings programme. The total wage bill for permanent staff has largely remained the same as in 2018.

The most significant trends in expenses are discussed below in greater detail.

Employee benefit expenses (permanent and temporary)



Sufferance tax



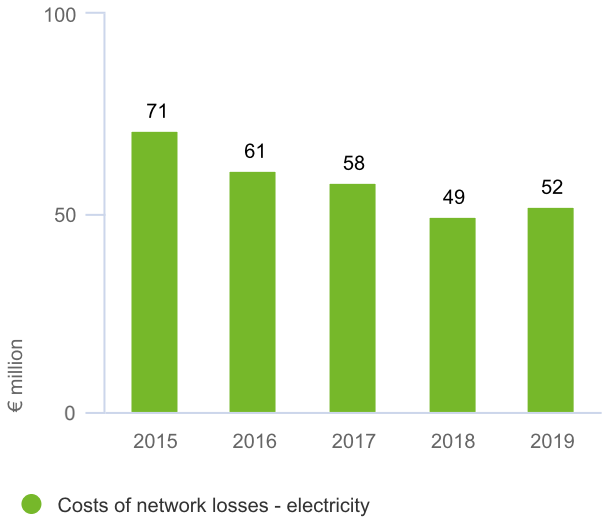
Employee benefit expenses

The total employee benefit expenses for both internal and external employees were €21 million lower than in 2018, mainly due to the reduction in the use of agency workers. At year-end 2019, the total number of agency workers expressed in FTEs was nearly 70 lower than at year-end 2018. Permanent employee numbers rose slightly compared to 2018.

Sufferance tax

The amount of sufferance tax charges rose by €6 million compared with 2018, to €148 million. The trend in the amount of sufferance tax payable over the past five years is illustrated in the graph above. In 2017, the costs were lower due to the release from provisions related to successful legal proceedings. On the other hand, expenses were higher in 2018 due to the fact that several municipal authorities in the former Enexis service area imposed retrospective tax charges over previous years. Because some of these charges are incidental, the costs were €6 million lower in 2019 compared with 2018.

Costs of network losses - electricity



Transmission capacity costs

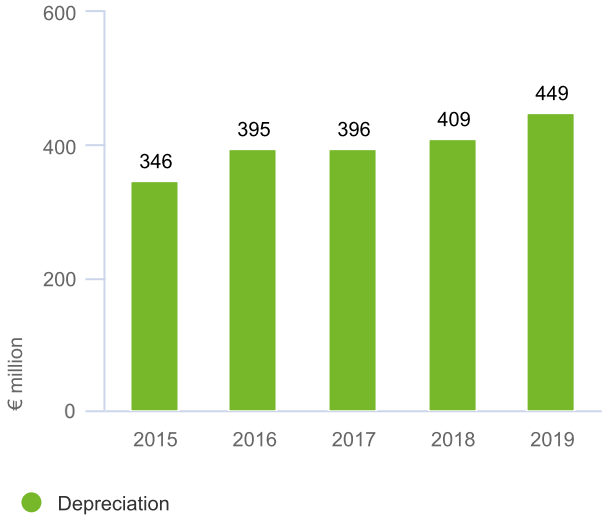
Costs of network losses - electricity

The costs of network losses, at €52 million, were up by €3 million compared with 2018. These higher costs are the result of the higher rates at which electricity was procured.

Transmission capacity costs

Transmission capacity costs in 2019 amounted to €190 million, virtually unchanged from last year (2018: €191 million). These costs mainly consist of the costs for transmission capacity charged by TenneT.

Depreciation



Depreciation

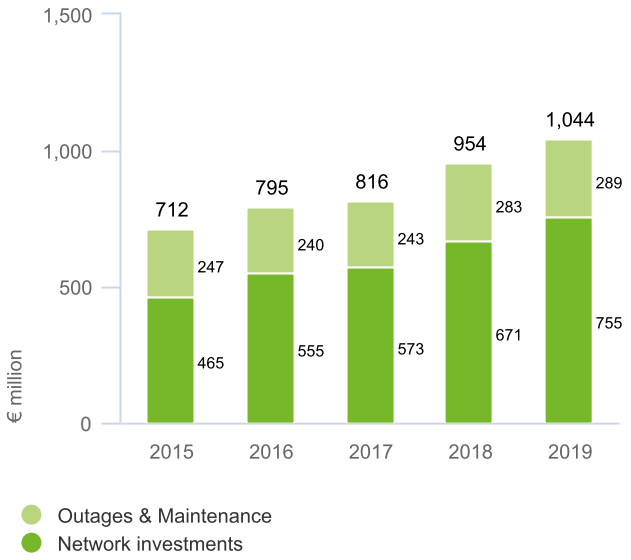
The depreciation charges and impairment losses on non-current assets amounted to €449 million, which is an increase of €40 million compared with the preceding year (2018: €409 million). This increase is partly due to the implementation of IFRS 16: as a result of this reporting directive, the depreciation costs increased by approximately €20 million. Please see page 124 for further information. Furthermore, a building was written down in 2019 and classified as a held-for-sale asset, resulting in an incidental expense of €4 million. The remainder of the increase can be explained mainly by the higher level of investment.

The construction of energy networks is a long-term investment for us, based on an estimated useful life of 40 to 50 years. The Netherlands wants to become climate neutral by 2050, and one of the measures to achieve this is to replace natural gas for heating with sustainable heating solutions over the next 35 years. Our question, therefore, is whether and, if so, which part of our gas distribution networks will remain of interest in the long term for the distribution of, e.g., alternative gases. Given the current useful life of 40 to 50 years, developments in the heating transition (such as natural gas-free districts) will also lead to part of the gas networks being taken out of use prematurely. Regulator ACM is holding discussions on the financial implications with Liander and the other network operators.

Network investments and maintenance costs

The graph below shows the expenditure on maintenance costs and network investments, including meters, over the past five years. Total expenditure on network investments and maintenance costs in 2019, at €1,044 million, was an increase of €90 million compared with 2018 (€954 million). The increase is mainly due to the fact that we invested more in the network. Maintenance costs increased by €6 compared to 2018.

Maintenance costs and network investments



Incidental items

Alliander's results can be affected by incidental items and fair value movements. Alliander defines incidental items as items that, in the management's opinion, do not derive directly from the ordinary activities and/or whose nature and size are so significant that they must be considered separately to permit proper analysis of the underlying results. In 2019, incidental items had a negative impact of €14 million on our net profit. In 2018, incidental items provided a gain of €73 million. This means that in 2019 the net profit, adjusted for these incidental items, was €6 million higher than in 2018. A table listing the incidental items is shown below, along with the notes to these.

Reported figures and figures excluding incidental items and fair value movements

€ million	Reported		Incidental items and fair value movements		Excluding incidental items and fair value movements	
	2019	2018	2019	2018	2019	2018
Revenue	1,930	1,920	-	-	1,930	1,920
Other income	40	148	-	105	40	43
Total purchase costs, costs of subcontracted work and operating expenses	-1,399	-1,404	-17	-3	-1,382	-1,401
Depreciation and impairments	-449	-409	-6	-	-443	-409
Own work capitalised	257	241	-	-	257	241
Operating profit	**379**	**496**	**-23**	**102**	**402**	**395**
Finance income/(expense)	-52	-46	-4	-	-48	-46
Result from associates and joint ventures	1	3	-	-	1	3
Profit before tax	**328**	**453**	**-27**	**102**	**355**	**351**
Tax	-76	-119	13	-29	-89	-90
Profit after tax from continuing operations	252	334	-14	73	266	261
Profit after tax from discontinued operations	-	-	-	-	-	-
Profit attributable to minority interests	1	-	-	-	1	-
Profit after tax	**253**	**334**	**-14**	**73**	**267**	**261**

Other Income

(2019: nil, 2018: €105 million income)

The incidental income in 2018 is related to the gain on the sale of Allego.

Total purchase costs, costs of subcontracted work and operating expenses

(2019: €17 million expense, 2018: €3 million expense)

The incidental expenses in 2019 consist of the costs for organisational changes (€9 million) and the costs of a provision for loss-making contracts in Germany of €8 million. The incidental expense in 2018 is made up of income of €5 million due to the impact of changes in the collective labour agreement and extra costs of €8 million arising from organisational changes.

Depreciation and impairment

(2019: €6 million expense, 2018: nil)

The incidental expenses in 2019 consist of impairment of assets, including for a company building (€4 million).

Total finance income/(expenses)

(2019: €4 million expense, 2018: nil)

The incidental expenses incurred in 2019 consist of the costs of the write-down on a long-term receivable (€4 million) relating to heating operations as a result of discontinuation of production.

Tax

(2019: €13 million income, 2018: €29 million expense)

The income in 2019 is the result of the impact of the previously mentioned incidental items on corporate income tax (€4 million), but also, in particular, changes in the government's plans to amend corporate income tax rates. In 2018, the corporate tax rate was expected to be lowered from 2020 onwards, but revised plans have now postponed this. The revaluation of deferred tax assets leads to income of €9 million in 2019, while in 2018 there was still an expense of €29 million.

Segment reporting

General

Alliander has applied IFRS 8 Operating Segments with effect from the 2010 financial year. Alliander distinguishes the following segments:

- Network operator Liander
- Other

The figures for each reporting segment, excluding incidental items and fair value movements, are shown in the following table. These figures are a direct reflection of the regular internal reporting. Detailed information on segment reporting can be found in note [2] of the financial statements.

Primary segmentation

	Network operator Liander		Other		Eliminations		Total	
€ million	2019	2018	2019	2018	2019	2018	2019	2018
Operating income								
External income	1,773	1,772	197	191	-	-	1,970	1,963
Internal income	10	10	336	313	-346	-323	-	-
Operating income	**1,783**	**1,782**	**533**	**504**	**-346**	**-323**	**1,970**	**1,963**
Operating expenses								
Operating expenses	1,375	1,337	539	555	-346	-323	1,568	1,569
Operating profit	**408**	**445**	**-6**	**-51**	**-**	**-**	**402**	**394**

Network operator Liander

The network operator Liander segment consists of the legal entity Liander N.V., which, as designated network operator within network company Alliander, has a statutory duty to manage the electricity and gas networks and related assets in the provinces of Gelderland and Flevoland, as well as in parts of Friesland, Noord-Holland, and Zuid-Holland. Liander connects customers to the energy infrastructure through which it distributes electricity and gas to those customers. Operating income in 2019 (€1,783 million) was virtually unchanged compared with 2018. The operating costs for Liander were up by €37 million, chiefly owing to higher purchase costs and the cost of subcontracted work as a result as of the greater work package. As a result, the operating profit of €408 million was €37 million lower than in 2018.

Other

The 'Other' segment covers the entirety of the other operating segments within the Alliander group, such as the activities of Kenter, Qirion, Stam, Alliander AG, Firan, the service units, corporate staff departments, and the new activities. At €197 million, external operating income in 2019 was up by €6 million compared with 2018. Operating profit for 2019 amounted to €6 million negative (2018: €51 million negative). This improvement is mainly accounted for by higher profits at Qirion and Kenter among others.

Balance sheet

The abridged balance sheet as at 31 December 2019 is shown below.

	Alliander N.V.	
€ million	31 December 2019	31 December 2018
Assets		
Non-current assets	8,241	7,790
Current assets	547	555
Assets held for sale	3	-
Total assets	**8,791**	**8,345**
Equity and liabilities		
Total equity	4,224	4,129
Non-current liabilities	3,768	3,363
Short-term liabilities	799	853
Total equity and liabilities	**8,791**	**8,345**

The following notes explain the significant changes in the balance sheet as at 31 December 2019 relative to the situation as at 31 December 2018. Detailed information on balance sheet items is given in the financial statements.

- The non-current assets increased by €451 million compared to the position at year-end 2018. This increase is mainly explained by the high level of investment, in particular in the networks and meters. Furthermore, IFRS 16 Leases applied from 1 January 2019, resulting in an increase in non-current assets of €63 million.
- Equity increased by €95 million as a result of the profit achieved in 2019 (€253 million) on the one hand and the dividend paid in 2018 (€150 million) on the other. A summary of the movements can be found in note [12] of the financial statements.
- The increase in non-current assets has been financed, in part, through external loans.
- Furthermore, debts have increased as a result of IFRS 16, which has led to an increase of €64 million in the finance lease obligations. Please see page 124 for further information.

Cash flow

Consolidated cash flow statement

Shown below is a summary of the cash flow statement for 2019.

€ million	2019	2018
Cash flow from operating activities	638	638
Cash flow from investing activities	-713	-496
Cash flow from financing activities	88	-103
Net cash flow	**13**	**39**

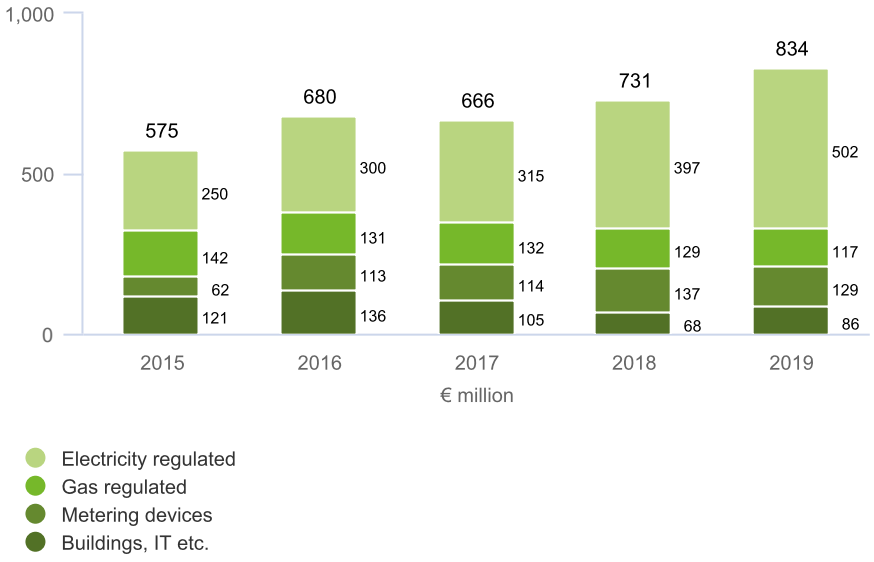
The cash flow from operating activities in 2019 amounted to €638 million (2018: €638 million). In this cash flow, the lower interest paid in 2019 compared to 2018 was offset by higher working capital.

The cash outflow from investing activities in 2019 amounted to €713 million, which is a €200 million improvement on 2018. This has two causes:

1. the increase of €103 million in investments. These are disclosed below;
2. the sale of Allego in 2018, which improved the cash flow from investing activities by €110 million in 2018.

Third-party contributions to investments in 2019 amounted to €124 million, comparable to those in 2018.

Investments



Despite a decrease in investments in gas networks, the total level of investments has risen by €257 million in the past five years, an increase of 45%. This is almost entirely due to the increased investments in the electricity networks to address the increasing demand for connections for solar farms and wind turbines. Besides rolling out new and heavier-duty cables, we are building new electrical substations and expanding existing ones. Investments in the gas networks show a decrease of 18% compared to 2015, which is largely in line with expectations. Investments in smart meters remain high as a result of the large-scale roll-out. In the 'Buildings, IT, etc. category', over the last two years, there has also been an increase in the investments in telecommunications networks (both fibre optic networks and mobile data communications). Furthermore, investments at Kenter and at our buildings increased in 2019 as a result of renovation work. The relatively high investment figures in the years 2015 to 2017 are the result of the renovation of the buildings in Duiven and Bellevue.

Free cash flow

€ million	2019	2018
Cash flow from operating activities	638	638
Cash flow from the the disposal of Allego	-	110
Investments and divestments in non-current assets	-837	-731
Construction contributions received	124	126
Free cash flow	**-75**	**142**

The free cash flow in 2019 totalled €75 million negative, compared with a free cash flow in 2018 of €142 million positive. In 2018, the free cash flow was positively affected by the sale of Allego. Moreover, Alliander stepped up its investments in 2019.

If we were to include the dividend payment in 2019 (€150 million) and the interest payments to the holders of the subordinated perpetual bond loan, the free cash flow in 2019 would amount to €233 million negative (2018: €29 million positive). This negative cash flow is being financed through the issue of short-term paper (ECP), which does entail an immediate increase in our net debt position.

At year-end 2019 the cash flow from financing activities was €88 million positive (2018: €103 million negative). Disregarding the dividend payment and the payment to bondholders (total: €158 million), financing amounts to €246 million (increase in net debt).

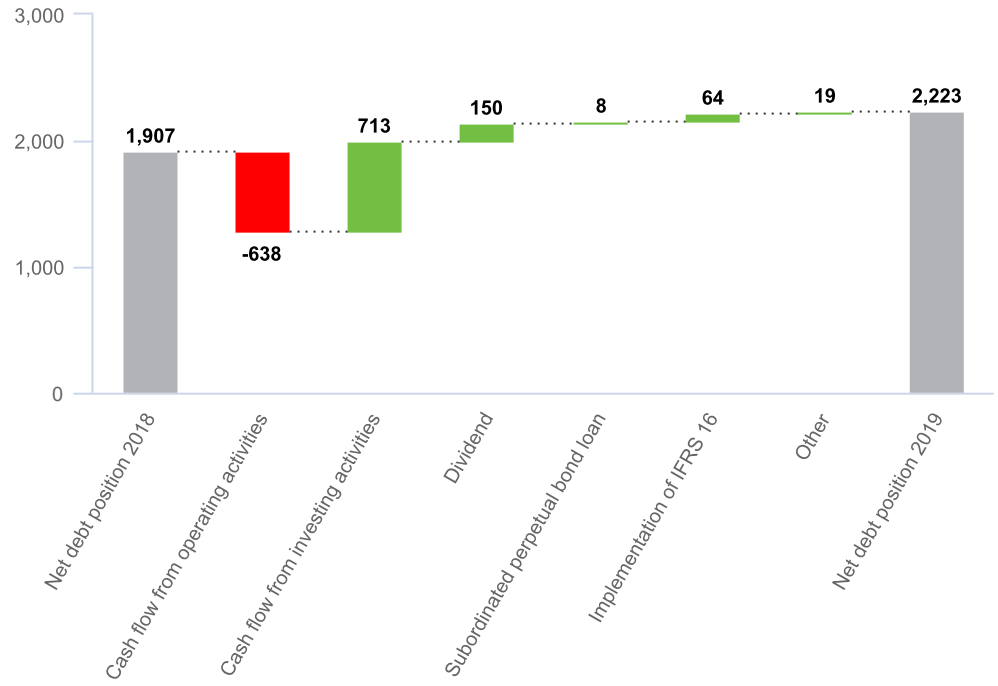
Part of the financing cash flow is the issue of a green bond. At the end of June 2019, Alliander issued a new green bond with a nominal value of €300 million and a term of 13 years. This was our second green bond issue to date; the first was issued in 2016. Revenue from the issue of this green bond will be used to invest in the smart meter, and in the 'fair meter' in particular. The fair meter is the result of a joint venture of network operator Liander and several parties from across the industry, aimed at making the smart meter more sustainable. The bonds were issued at a coupon rate of 0.875% and an issue price of 98.628%.

Financial position

Development in debt position

The development in the net debt position over 2019 is shown below.

Development in net debt position



The net debt position had risen by €300 million to €2,223 million at year-end 2019 (31 December 2018: €1,907 million). The main components of the net debt are the balance of free cash flow (minus €75 million), the dividend payment and payments to bondholders in 2019 (€158 million), and the independent increase in the debt position as a result of the implementation of IFRS 16 (€64 million). Please see page 124 for further information.

Net debt position

Net debt position

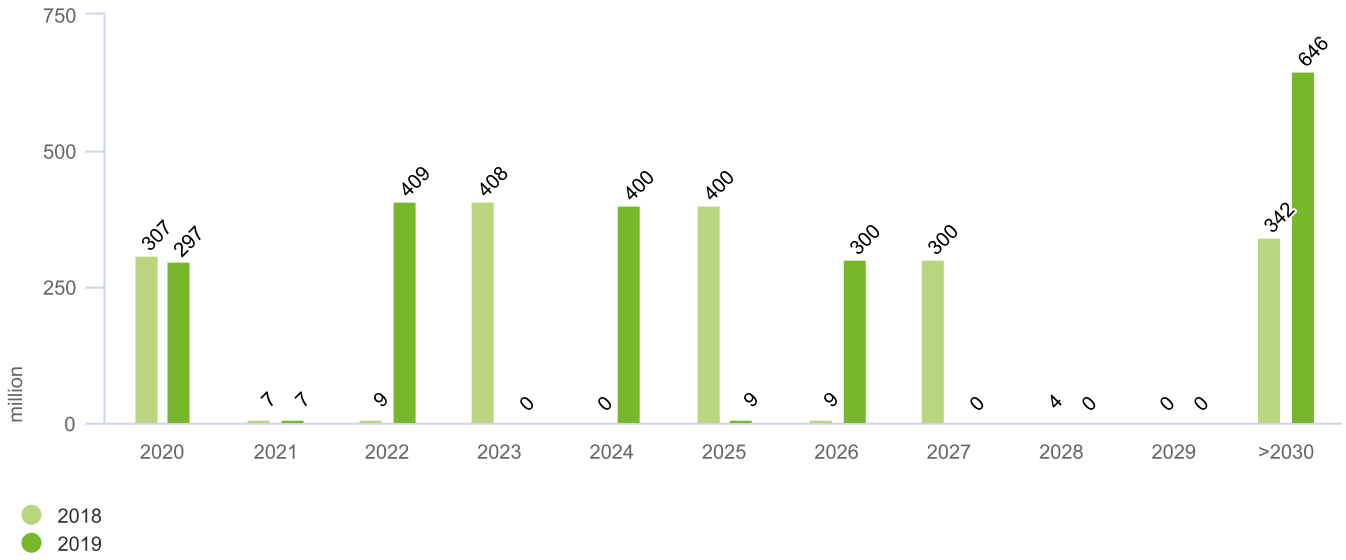
€ million	31 December 2019	31 December 2018
Long-term interest-bearing debt	1,765	1,475
Short-term interest-bearing debt	297	321
Lease liabilities	226	159
Gross debt	**2,288**	**1,955**
Cash and cash equivalents	153	140
Investments held for lease obligations related to cross-border leases	160	156
Total cash and cash equivalents and investments	**313**	**296**
Net debt in accordance with the annual financial statements (IFRS)	**1,975**	**1,659**
50% of the subordinated perpetual bond loan	248	248
Net debt on the basis of Alliander's financial policy	**2,223**	**1,907**

Alliander has a €3 billion EMTN programme. As at 31 December 2019, the carrying amount of the outstanding bonds was €1,392 million (nominal value €1,400 million). Alliander has an ECP programme totalling €1,500 million which can be used to issue short-term debt instruments. Alliander issued ECP loans at various times during the year; rounded off, €289 million in ECP loans were outstanding at year-end 2019 (year-end 2018: nil).

Interest-bearing debt

The repayment schedule for the interest-bearing debt as at year-end 2018 and 2019 was as follows:

Repayment schedule for interest-bearing debt



The amounts scheduled for repayment in 2022, 2024 and 2026 mainly relate to bond loans. The other amounts relate to the repayment of shareholder loans and other loans.

Events after the balance sheet date

On 8 January 2020, Alliander Corporate Ventures B.V. signed a share purchase agreement (SPA) for the purchase of 100% of the shares of both Twinning Research Network Twente B.V. and TReNT Infrastructuur B.V. from TReNT Holding B.V. as of the same date.

TReNT is an organisation with 18 employees that operates a fibre optic network of roughly 1,900km with approximately 650 connected customers through over 2,000 connections. Their annual revenue amounts to approximately €10 million. With the acquisition of TReNT, Alliander becomes the owner of its own telecommunications infrastructure in the service area of its network operator Liander in the eastern part of the Netherlands. It is Alliander's policy to own this telecommunications infrastructure, because it is crucial for Alliander's ability to safely operate its electricity and gas network. In a large part of the Liander service area, Alliander already owns the telecommunications infrastructure. And this will now also be the case in the eastern part of the Netherlands.

Given that recent financial figures are not available for TReNT at this point, the (provisional) Purchase Price Allocation (PPA) under IFRS 3 has not yet been finalised and the associated notes have not yet been included. It will be finalised at a later stage.

Our plans for 2020

Profit/loss

Given the regulated nature of the largest part of Alliander's operations, as well as the current regulatory methodology, the rate trend in 2020, and the increase in TenneT's rates in 2020, Alliander expects a lower operating profit in 2020 compared to 2019 (unforeseen and non-recurring developments excluded).

Investments

We anticipate that the gross investments for, mainly, replacing and expanding the networks, as well as those relating to the energy transition and to IT, will total more than €800 million in 2020. Alliander's work package is continuing to increase dramatically, in particular because both homes and businesses are increasingly using more electricity or want to feed their own sustainable electricity back to the grid. These investments are necessary to ensure a sustainable and reliable energy supply. As the energy transition continues to accelerate, this calls for a lot of extra work on our part. Due to the fast-growing demand from solar farms, data centres, and other rapidly developing energy-intensive sectors, like commercial greenhouses for example, the power grid is operating at full capacity in more and more locations. The projected investments will be made in regions experiencing a higher demand for capacity due to economic growth and the energy transition.

Cash flow

The higher level of investment in combination with the projected lower operating profit is expected to lead to a negative free cash flow in 2020. This, in combination with the dividend that will be paid in 2020 on the profit in 2019, will, as it did in 2019, result in a financing need on the part of Alliander.

Achieving sustainability in energy supply and operations

What we have at our disposal → Our role and the choices we have made → What our stakeholders notice in the short term → **The value we create for the long term** → The key social impacts → The global goals we help to achieve

The energy supply is well on its way to become more sustainable in our service area. The increasing demand for electricity and the rapid rise of large-scale feed-in are keeping the power grid under pressure. This results in bottlenecks. We cannot solve these bottlenecks on our own however: this requires collaboration between all parties at an early stage and a systematic approach. We participate in the Regional Energy Strategies (RES) ensuing from the Dutch Climate Agreement. We accept our responsibility towards society through initiatives to make our own operations environmentally sustainable.

Related topics

This chapter is about our measures to make the energy supply and our own operations more sustainable. The information relates to several topics the stakeholders feel are important. Furthermore, these activities contribute to achieve the SDGs:

Related material issues

③ Promoting renewable energy generation
④ Working together on innovative solutions
⑧ Responsible investment policy
⑩ Future-proof network
⑪ Corporate social responsibility in the supply chain
⑮ Access to affordable energy

Contribution to SDGs

Related stakeholder groups

Customers, Shareholders and Investors

Objectives and results sustainable operations

CO_2 emissions from business operations [1]

OBJECTIVE 2019

271 kton max

RESULT 2019

264 kton

288 kton in 2018

Circularity [2]

OBJECTIVE 2019

25 %

RESULT 2019 [3]

30 %

16.5 % in 2018

1 The CO_2 emission target for 2019 was recalculated according to the most recent emission factors.

2 The scope of the KPI comprises primary assets: low and medium cables, gas pipes, distribution and power transformers, and legacy and smart electricity & gas meters.

3 From 2019 the target and the score are rounded off to whole numbers.

Support for customers in making choices

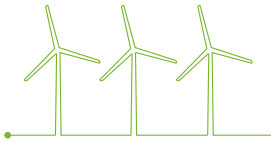
We enable customers to make choices that are not just good for them, but also for our energy supply as a whole. It should be attractive for customers to consume energy when supplies are plentiful, feed power back into the grid when demand is high, and use the energy network as little as possible during times of peak load. We connect supply and demand and help make the best social choices for advancing the new energy system. This includes flexible handling of energy supply and demand, options for smart charging of cars, technical innovation, and hydrogen pilots. The local renewable energy supply must be designed in a comprehensive, coordinated fashion. In view of our legal responsibility for the transmission of electricity and gas and our knowledge and expertise, we can make a major contribution to this. In this context, we work with other parties both within and outside the energy sector.

Progress energy transition in our service area

Solar energy installed capacity

2,222 MW

1,501 MW in 2018



Wind energy installed capacity

1,321 MW

1,246 MW in 2018

Quantity of green gas fed in

41.4 million m^3

33.0 million m^3 in 2018

Number of public charging points

6,066

4,354 in 2018

Rising number of renewable feed-in customers

We are connecting ever more charging points, wind turbines and solar farms to the power grid. Green gas producers are also increasingly turning to us for connections so that they can feed their renewable gas into the natural gas network. This trend continued in 2019, with the number of registered connections with an active feed-in installation in our service area increasing from around 271,000 to in the range of 381,000 (up 37%).

Transition to a new, sustainable heating supply

The transition to a new, sustainable heating supply is a major, complex task, which will affect all of the districts (some 1,000) within the 145 municipalities in our service area. In 2020, all municipalities must have produced a plan setting out how they intend to wean each district off natural gas. Alliander is assisting in the design of the solution with its knowledge and experience of energy networks in order to avoid suboptimal choices being made and unnecessary costs to society. Together with national, regional and local partners and initiatives, we always look for the best solution for the specific situation.

New open networks

Alliander sees district heating networks as one of the solutions that can facilitate the heating transition. With these systems, we can make optimum use of the potential of biomass, ground-coupled heat exchangers, aqua-thermal energy, geothermal heat, residual heat from data centres, etc. In 2019, we took steps towards the realisation of the district heating networks, including in municipalities in Noord-Holland, Gelderland, and Overijssel. We work together with initiatives such as Stichting Warmtenetwerk and WarmingUP to develop knowledge.

Zaanstad-Oost heating network

In December 2019, the Netherlands' first open district heating network, in the eastern part of the municipality of Zaanstad (Zaanstad-Oost), started supplying sustainable and affordable heating Built by Warmtenetwerk Zaanstad B.V., this network uses residual heat from various sources, including a new local biomass plant. A heating plan has been put together for Zaanstad-Oost to support the development of a sustainable heating network.

Greening the district heating networks in Amsterdam

Together with municipal authorities, housing associations, energy suppliers, and water companies, we explored the possibilities of making 2,000 homes in the borough of Nieuw-West natural gas-free using a district heating network to which various sources would be connected. A district heating network that makes use of ground-coupled heat exchangers is being built in the district of Buiksloterham. For each district, together with partners and residents, we look for solutions that best suit the wishes, needs and possibilities in the district. Attention is paid to networks that use, for example, heat from surface water and sewers. In the Middenmeer and Amstel III districts, plans are being drawn up for the build of future district heating networks that use residual heat from nearby data centres.

Twente district heating network

In Hengelo, the Decentrale Energiecentrale (DEC) power plant was commissioned to supply energy to the ROC van Twente regional training centre/community college and more than 500 homes in Hengelo. The DEC power plant uses residual heat from Nouryon's salt production process. The ambition is to eventually provide 5,000 homes and 500,000 square metres of business premises with industrial residual heat from the region.

Preparing for new networks

In collaboration with local partners such as municipalities and housing associations, Firan is exploring further options for sustainable heating solutions at various locations in the Netherlands. In 2019, this resulted in various new studies and partnerships in the municipalities of Lingewaard, Wageningen, Arnhem, and elsewhere.

Second round of 'testing grounds' announced

Twenty-seven Dutch municipalities are conducting a test on weaning a district off natural gas. These municipalities received a contribution from the government to make existing homes and buildings natural gas-free – or to ensure that they are ready to become natural gas-free – using a district-oriented ('test bed') approach. In our service area, this concerns districts in Amsterdam, Katwijk, Nijmegen, Noordoostpolder, Purmerend, Vlieland, and Wageningen. These test beds provide insight into what is involved in a gradual transition from natural gas to a sustainable alternative. To give more municipalities the opportunity to gain such experience, the second round for applying for a test bed started in December 2019.

Hydrogen pilots

At Alliander we see the potential of sustainably produced hydrogen, and we are taking into account that this will become part of the energy supply of the future. Accordingly, we want to learn what the large-scale production of hydrogen from wind and solar power can mean for affordable and reliable network management. After the summer, we started preparing pilots to learn, along with partners, what the use of hydrogen means in practice. In Lochem, for example, we will be providing homes with hydrogen instead of natural gas. And in the province of Gelderland, we are starting a pilot in a business park for the local production of green hydrogen. At a substation in Oterleek (Noord-Holland), we are set to launch a pilot, together with partners, to convert renewable energy into hydrogen. The same is being done in collaboration with the solar farm in Oosterwolde (Friesland). This could offer a solution during periods of high demand on the grid. The energy produced can be stored as hydrogen and later converted into electricity so that not all electricity needs to be fed into the grid immediately.

Systematically planning the energy transition

The transition to renewable energy must be fully completed by 2050. Alliander must look far ahead so that we know what is changing in the energy supply and where and when this will be happening; this way, we can ensure that the infrastructure is ready for this in good time. This means working methodically, setting priorities, and automating common tasks (such as carrying out district analyses, and sharing data and information). We are working with other parties at an early stage to facilitate the energy transition together. In 2019, this collaborative approach helped deliver, among other things, the Climate Agreement, thematic studies, and the development of Regional Energy Strategies.

Dutch Climate Agreement

Under the Climate Agreement, CO_2 emissions in the Netherlands need to be reduced by 49% compared with 1990 levels in 2030. Network operators participated in the Electricity and the Built Environment climate round tables. The aim is that these sectors, together, will be emitting around 24 megatons less CO_2 by 2030. At the suggestion of the network operators, the Climate Agreement includes agreements on carrying out forward-looking network expansions, reforming the rules governing connections, and bringing in network operators at an early stage when permits for renewable energy generation are granted. The prevention of transmission congestion (overloading the grid) and the imposition of requirements relating to the control functionalities of devices also remain points of attention for the network operators. It is important that these proposals be incorporated into legislation and regulations to keep the costs of the energy transition as low as possible. With improved forecasting of developments and smarter use of the existing power grid, unnecessary investment in the grid can be avoided. However, we need to look further than upgrading the power grid alone: we need to consider how, in the future, we want to combine electricity with renewables like biogas and green hydrogen. In the area of the built environment, the network operators expect a lot from the district-by-district approach, particularly as it will make the work easier to predict and manage.

A better overall view

Now that the energy transition is in full swing, we are seeing bottlenecks that can pose an obstacle to both the energy transition and to the further economic development of the Netherlands. Expanding the grid is a process that will take many years. For network operators, 2030 is actually already here today, and the day after tomorrow it will be 2050, which is why we have to look at the energy transition from a totally different perspective. A better overall view of the required infrastructure is needed at national, regional, and local level. Once we have this, direction and coordination of the transition will be needed so that we can make choices based on priorities and the order of work to be carried out; this way, besides seeing that permits are granted in good time, technicians, who are at a premium, can be deployed where they are needed most. With this approach, we can create the infrastructure needed for a climate-neutral energy supply in the Netherlands, and see that it is ready in good time.

Regional Energy Strategies

Regional Energy Strategies (RES) have been drawn up to implement agreements under the Dutch Climate Agreement. The RES programme divides the country into 30 regions, in which the local authorities work with us, social sector organisations, the business community and, where possible, local residents to make choices for the region. The focus of the RES is on integrating renewable sources of energy and on the heating transition and storage and energy infrastructure. All provinces and municipalities are required to have an RES in place by 2020, subsequently leading to the definition of a heating transition vision for each municipality. With its knowledge and experience, Alliander can play a crucial role in this process. We participate in steering and working groups in the twelve RES regions in our service area. Together with other network operators, we have developed a core document on the energy infrastructure that explains how the energy system works. For our regions, we have created a map showing the grid capacity in these regions. Together with other network operators, we have developed a working process we can use to demonstrate the impact of regional developments on the grid. The network operators are expecting a lot from this approach, particularly as it will make the work easier to predict and manage. It is therefore important that each municipality be considered from a long-term perspective.

Better energy choices thanks to new application

In anticipation of the RES, in 2019 we built an RES calculation module, which can quickly take municipal plans and determine what they will mean in terms of the load on our networks and the related costs. The model can also determine alternatives that can minimise the costs to society. It is essential that we know our customers' needs as early as possible. With this in mind, we developed the 'Inzicht in Omgeving' (Insight into the Local Community) application, where future customer needs can be visualised and shared. Insights can be gained into everything from housing to solar farms, and from ambitions to concrete projects, so that we can forecast the loads on our networks as accurately and as far ahead as possible. We can then use these forecasts to make decisions on long-term investments.

System studies

Many cities are up against a massive challenge. Issues these cities face include the number of electric vehicles they will need to accommodate, which districts to wean off natural gas first, and setting a realistic growth target for the number of solar panels. By conducting system studies throughout and getting a better handle on trends, we help municipalities and provinces to create an overview of these issues. For example, together with the Amsterdam local council we carried out a study of the growing city and energy transition to produce an accurate forecast of the impact on the electricity network. For the province of Noord-Holland, we collaborated with partners on a system study that examined the entire energy supply chain in the province. This study is not only the basis for the further elaboration of the RES, but has also, together with a theme study, served as a model for the approach network operators can use to interpret the impact of the RES on the grids. We intend to do similar studies in other regions as well.

Provincial Executive member for Noord-Holland Edward Stigter, responsible for Climate & Energy, discusses the system study that was carried out in his province in response to the pressure on the grid and transmission capacity statements. The study identified the bottlenecks on the increasingly busy electricity grid in Noord-Holland and proposed possible solutions. Watch the interview.

Changes to the law

Having the right legislation to bring about the energy transition is very important for Alliander; a network company is, after all, highly regulated by laws and regulations. However, the current laws and regulations date back to before the start of the energy transition, before there was any local production of renewables to speak of. Alliander is consulting with the relevant stakeholders to work out in more detail how the agreements from the Climate Agreement should be interpreted in laws and regulations. This elaboration is taking place through various law-making processes, like for the Energy Act, the Heating Act 2.0, and the Environment & Planning Act with the National Strategy on Spatial Planning and the Environment. In addition to these law-making processes, there are also a variety of programmes from national and regional government bodies to facilitate the transition to a sustainable energy system. These include the RES, the 'Aardgasvrije Wijken' (Natural Gas-Free Districts) programme, the 'Nationale Agenda Laadinfrastructuur' (National Agenda for Charging Infrastructure), and the Infrastructure Task Force. Although these are separate programmes, it is essential that the combined impact of all of these programmes on the energy infrastructure be considered. We are committed to seeing that network operators can continue to ensure that our energy supply remains affordable, reliable, and accessible to everyone.

Changes to laws and regulations relating to electricity

For optimum use of our electricity grid, the Dutch 1998 Electricity Act needs to be amended in the short term. Alliander is satisfied with the transmission capacity statement agreed in 2019 for projects that submit an SDE+ application. The transmission capacity statement increases the chance of success of projects for which an SDE+ subsidy has been granted and prevents subsidies from being tied up in projects that cannot be brought to fruition due to a shortage of network capacity.
The transmission capacity statement is part of a package of measures to ensure sufficient capacity for renewables on the grid. This requires that concrete, integrated energy plans be drawn up, that network operators be given the scope to make proactive investments, that the logic behind the order in which we connect customers be clarified, that the statutory connection deadline be adjusted, and that there be the possibility of using flexibility to solve capacity problems in the network and even of switching off customers in an emergency.

Changes to laws and regulations relating to gas

Using a district-oriented approach to wean an entire district off natural gas results in the lowest costs to society. To realise this, the municipal authorities need to be able to set a deadline by which the natural gas in a district will be turned off completely. In terms of actually being able to disconnect buildings, changes need to be made to the laws and regulations so that customers who remain on the gas grid do not have to bear a disproportionate share of the costs. Agreements are also needed on reimbursing network operators for costs they incur for the removal, modification, or early depreciation of existing gas networks.

New infrastructures

The energy transition requires new energy infrastructures. For instance, district heating networks are becoming part of the vital energy infrastructure, meaning that the installation of new district heating networks in the public space has a public dimension. As with the electricity and gas grids, municipalities and residents must be able to count on a public party for the construction and management of the local district heating infrastructure. Proper participation of Alliander in the large-scale roll-out of district heating networks and in hydrogen networks also requires changes to legislation and regulations.

Sustainable business practices

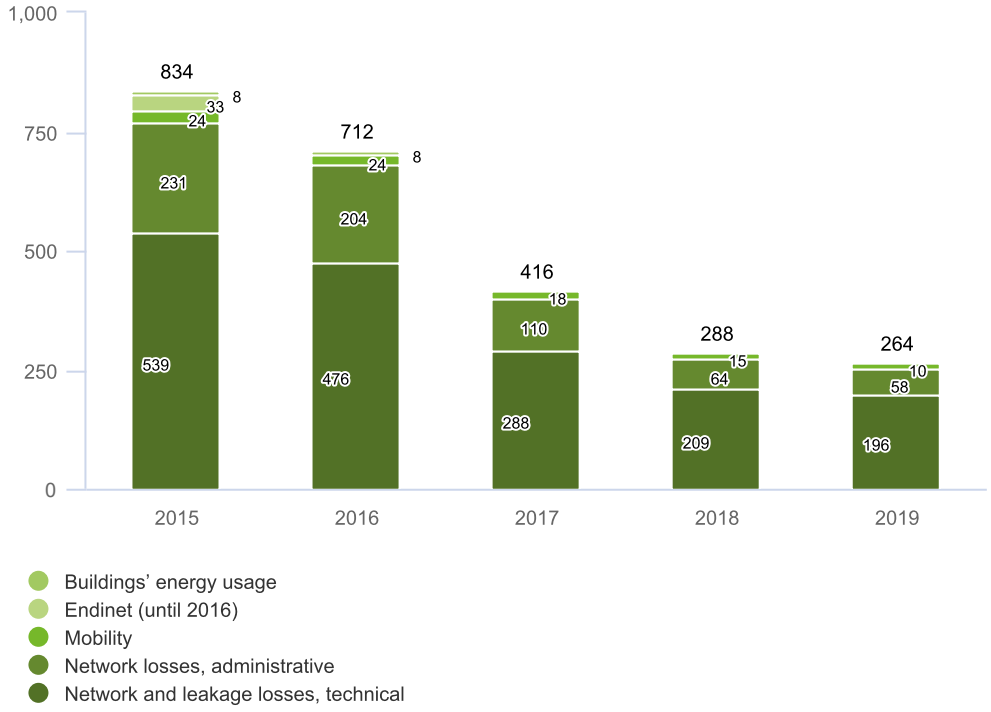
In 2019, we improved our sustainability performance in the area of reducing our carbon footprint and contributing to the circular economy. We saw the effects of our social programmes becoming properly embedded. We are on track for achieving climate-neutral operations by 2023. Additionally, we have established a link between our good results in progressing towards a circular economy and cost savings, with increased reuse of assets leading to lower costs. Along with other infrastructure operators, we have made a start on aligning policy with our internal carbon pricing.

Working towards climate-neutral operations by 2023

Alliander is working towards having climate-neutral operations by 2023; in other words, on balance Alliander will have zero carbon emissions as a result of our network activities, offices, and vehicles in 2023. Our programme for reducing and 'greening' (offsetting) our CO_2 emissions is bringing us step by step closer to this goal. Of the vehicles in our fleet with a yellow number plate 26% are now electric, the energy consumption of our buildings is decreasing, the network losses are showing a downward trend, and an increasing amount of the remaining losses are being offset.

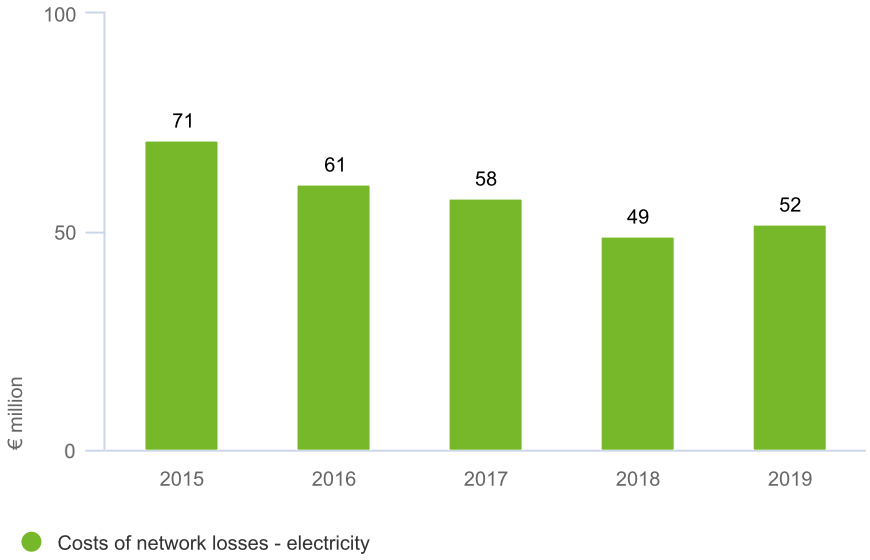
In 2019, our CO_2 emissions decreased by 24 kilotonnes compared to the previous year (8%), from 288 to 264 kilotonnes. With this, the effect of our greening policy was clear for the fourth successive year. With the greening of our buildings and vehicle fleet and a reduction in the network losses, the net emissions have dropped sharply in recent years. The gross emissions were also reduced as a result of the replacement of grey cast-iron gas mains and procuring green electricity to offset network losses.

Alliander's CO_2 emissions



Emissions from network and leakage losses

94% of our gross emissions are caused by network and leakage losses that arise mainly from the distribution of electricity and gas. Network losses cost us about €52 million in 2019 and can only be mitigated to a limited extent. Nevertheless, we are working to reduce our technical and administrative network losses each year.



Technical network losses

The absolute amount of the technical network losses decreased by 3.9% in 2019 compared to 2018. Where the technical network losses were previously always closely connected with the state of the economy, we are now seeing that economic growth does not necessarily result in more electricity and gas being carried by the systems and therefore greater network losses. In the current upswing, we are even seeing a decrease in our technical network losses. This is partly due to the improved efficiency of energy transmission.

Our reduction programme for technical network losses is still being pursued. To enhance safety and reduce gas leakages, each year we are replacing grey cast-iron gas pipes at various locations. This measure also helps to reduce energy loss and reduce our climate-impacting emissions.

We often base measures to reduce CO_2-related emissions in the networks on a further cost-benefit assessment. Setting a calculation price for carbon emissions helps in making a cost calculation for the reduction in carbon emissions. In 2019, Enexis, Stedin and Alliander decided to work together on setting an internal price on carbon emissions. The joint introduction of a higher carbon price will lead to effective reduction measures and prevent major financial differences between the network operators. This higher carbon price is expected to be introduced in 2020.

Administrative network losses

In absolute terms, our administrative network losses were down compared with 2018. Administrative network losses arise in part from fraud, including illegally drawing off energy to grow cannabis. We rely partly on the police and judiciary, with whom we work closely, to give us active and focused assistance in our efforts to fight fraud. In 2019, we continued to work on improvements in fraud detection and the collection of unpaid accounts, by digitalising our networks for example.

Greening network losses with renewable energy

Alliander is offsetting its network losses by generating additional renewable energy in the Netherlands. In 2019, we greened 202 kilotonnes of our total network losses with Guarantees of Origin. We have made a deliberate decision to shift the procurement of energy to meet our network losses to energy from new investments in renewable sources in the Netherlands. This will allow us to ensure that our network losses are low-carbon and we will be supporting the objectives of renewable energy generation in the Netherlands. In September 2019, Alliander signed a contract with power company Ørsted to reduce our carbon emissions by around 25% annually. The contract comes into effect in 2021 and has a term of 15 years. Alliander will purchase green certificates from Ørsted's offshore wind farm Borssele 1& 2. With this new contract, among other measures, more than 95% of the network losses will be offset over time.

Emissions from buildings

When adjusted for degree days, energy usage in our offices and other buildings has decreased. No major changes in our property portfolio occurred in 2019. Our CO_2 emissions from buildings decreased by 21% compared with 2018. The remaining emissions have been offset. With our energy-neutral offices in Arnhem and Duiven, we meet the highest standards.

Emissions from vehicle fleet

The kilometres driven decreased by 1.2% compared to 2018 and, as a result, our transport-related carbon emissions were down by 4% compared with 2018. We benefited from our new policy implemented in 2018. Under this policy, we have a different compensation system for the vehicle fleet, a stricter emission standard for CO_2 and nitrogen for lease cars applies (maximum 100g/km in emissions), we are moving towards a diesel-free fleet, and we are making electric driving more accessible. Like all Alliander staff, employees with a company car also get an annual train pass to encourage the use of public transport. In 2019, 26% of our vehicle fleet with a yellow number plate was electric.

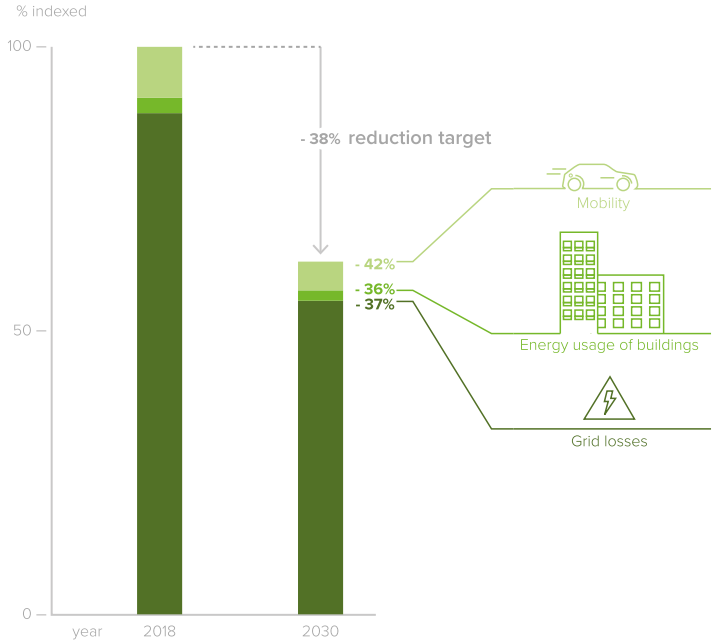
In 2019, we stopped the Ecodrive project for the service vans due to service technicians feeling unsafe driving with these speed limiters. Moreover, technological innovations in energy-efficient and safe driving were difficult to apply in vans with Ecodrive. However, we plan to add more electric vans to the fleet.

The top rung on the CO_2 performance ladder

Our CO_2 approach and methodology were externally assessed on the basis of the CO_2 performance ladder. Certification on the CO_2 performance ladder provides proof of insight into the company's own footprint (level 1), the possible reduction measures (level 2) and the competence to actually implement these measures (level 3), to make insights transparent (level 4), and to initiate innovations with supply chain partners (level 5). The CO_2 performance ladder is often used as a tender award criterion. In 2019, we maintained level 5 on the ladder. This means that we know the CO_2 emissions of our A-suppliers, have achieved the level 3 and 4 objectives, and are publicly committed to the government's carbon reduction programme. We are proud of this step, but to retain our excellent position on the CO_2 performance ladder we must continue mobilising and challenging our suppliers to reduce carbon emissions throughout the supply chain.

Science-based target

In 2019, on the basis of 2018 data it was determined that Alliander is operating within the 2°C pathway target set under the 2015 Paris Agreement; we are meeting our science-based target (SBT). This reporting year, all reduction targets have been met and no policy changes have been made that would require a new review in 2020. The SBT is based on achieving the IPCC target of 'well below 2°C' by 2050. This target can be broken down into the maximum CO_2 emissions per sector (agriculture, manufacturing, energy, etc.) and into maximum CO_2 emissions per company. This is known as the Sectoral Decarbonisation Approach. For Alliander, this means cutting total carbon emissions by approximately 38% by 2030. On the transport front we are lagging slightly behind. Overall, however, we are comfortably on track to meet the SBT, with our policy of becoming climate-neutral by 2023 and with the results achieved so far. The review validates the course we have set as a company for our climate-impacting emissions.



Climate risk and adaptation

Alliander is a member of the Delta programme. This is a Dutch government initiative for examining climate change risks at national level and for coordinating the approach to these risks. Effects and risks are assessed and action is focused on adaptation and management by our crisis and disaster organisation. Risks to existing and planned assets from such things as floods, wildfires and storms are examined. We are aware that business risks relating to the effects of climate change require attention. In line with the development in transparency guidelines relating to this issue, such as those of the Task Force on Climate-related Financial Disclosures, in 2020 we intend to conduct a targeted study of the effects of climate change on our company.

Supply chain responsibility with partners

We achieve a considerable part of our CSR performance by working with partners, conscientiously managing the value chain and product supply chain where we have impact as a result of our financial expenditure or the existence of specific risks. We aim to make a net positive contribution to SDG 12 (Responsible Production and Consumption) so that we can contribute to the positive social and environmental effects in our supply chains. Our procurement policy contributes directly to Alliander's sustainability pillars: access to clean and affordable energy, climate, raw materials, and being an inclusive employer.

A sustainable relationship with our suppliers

With an annual procurement volume of about €1 billion, we are a major purchaser of products and services in the Netherlands. Together with our suppliers, we can make a major contribution to sustainability. Sustainable procurement is an integral part of our tender invitation/ evaluation criteria. Our outsourcing policy incorporates provisions relating to human rights, working conditions, use of raw materials, recycling, and carbon emissions. Alliander requires work to be performed in line with safety protocols and standards for working with the gas and electricity infrastructure, such as VIAG and BEI. Suppliers' staff must comply with these protocols and standards as well.

All contracted suppliers of Alliander have committed to the 'Alliander Supplier Code of Conduct'. This code is based on OECD guidelines and requires suppliers as well as their suppliers and manufacturers to adhere to ethical and fair business practices. Infringements of the code can lead to the imposition on our part of sanctions such as termination of the contract or temporary suspension of work with or without notice of default.

Eleven supplier audits carried out

In 2019, a total of 11 audits at suppliers were carried out into the quality of the products and services supplied. No critical deficiencies in these aspects have been reported. During the audits, compliance with the Code of Conduct and with the supply chain responsibility aspects are discussed, as well as the actions taken or to be taken in relation to any issues discussed. On top of the customary quality and product checks, we look at elements of CSR such as compliance with universal human rights, working conditions, health and safety, and their environment management system. Outsourcing, investments and production in other countries sometimes lead to an increased risk regarding these aspects and for the recognition and observance of fundamental human rights. An organisation can involuntarily become involved in dubious practices such as child labour. As well as advance checks, we also carry out on-site audits at contract parties. Findings are shared with the supplier. We did not take any measures with regard to suppliers in 2019.

CO_2 measurement in the supply chain

Alliander has a lot of suppliers. Procurement has worked with an outside agency to develop a model enabling carbon emissions in the supply chain and on the part of suppliers to be measured as objectively as possible. The insight that this information provides allows us to segment procurement categories on the basis of carbon emissions and the potential for Alliander to influence the suppliers. We will be launching a pilot involving suppliers to check the validity of the model outputs.

Circular operations

As a network operator, we use large quantities of materials and, indirectly, of raw materials. We have a responsibility to do the best we can when it comes to the sourcing and use of our materials. For a few years now we have been integrating circular procurement into our purchasing processes. Each quarter we report on the percentage of circular procurement and recycling. Our aim is to source 60% of our primary assets via circular procurement in 2025. This means that all raw materials we use are recycled and nothing is wasted. To do this, our management focus is along four lines:

- We make the best possible use of the materials we have.
- Where possible we make circular purchases of our main materials.
- We avoid wasting materials in our operations.
- We recycle 100% of the remaining waste using high-grade recycling methods.

In 2019, circular procurement and recycling accounted for 30% of our materials (2018: 16.5%), mainly attributable to 'raw material passports' for our cables, meters, and power transformers; these passports show that these items include recycled materials and can be recycled. The existence of raw materials passports gives us a good idea of the origins of 62% of our procurement. Within the Green Networks coalition, the coalition members (regional network operators, TenneT, GTS, ProRail, Rijkswaterstaat, and KPN) share their experiences with raw materials passports. The intention is to make the raw materials passport a standard part of every RFT/RFP from 2020 onwards.

Circular procurement demands intensive co-operation with our suppliers. To assure this, for years we have been using the guidance of the Circular Procurement Green Deal, the aim of which is to learn from each other's experiences when starting up circular procurement processes and accelerate circular purchasing. The more than sixty participants have a great deal of knowledge and experience. Alliander makes a major contribution to the Green Deal, involving such things as protective clothing, transformers, redeveloping office space, coffee cups, furniture and fair meters.

'Circular' cables and workwear

RFPs for low-voltage and medium-voltage cables have placed extra emphasis on the development of a 'circular' cable, and the suppliers have responded to that in their designs. We continue to consult with our suppliers on the further development of a circular cable. In addition, in 2019 we completed the tender process for circular safety workwear, company clothing and PPE, and we awarded the contract. With this, we are making a visible contribution to circularity both at product and process level. The first step is to use the workwear and clothing for as long as possible and to ensure that all raw materials we use for the workwear and clothing come back into the cycle and nothing is lost.

Making the best use of what already exists: reuse

The efficient use of material is in keeping with a circular economy approach and supports the principles of excellent network management. Reuse of network components limits the use of new raw materials and reduces carbon emissions. In 2019 we successfully continued our Reuse programme. We optimise reuse by embedding it in our logistics systems and processes: reuse of components is seen as the first procurement channel. Thanks to our increasing reuse of components (such as 10kV/50kV transformers, legacy and smart meters, magnefix installations, and cables), we achieved a cost saving of €3.5 million in 2019, besides this making a substantial contribution to a sustainable Alliander.

Ensuring a safe energy network, a safe working environment, and a safe data environment

What we have at our disposal → Our role and the choices we have made → What our stakeholders notice in the short term → The value we create for the long term → The key social impacts → The global goals we help to achieve

Our ambition at Alliander is ‘everyone safely home’. This applies to Alliander employees, but also to customers, people in the local community, and employees of external parties with which we work. That is why safety is a permanent priority throughout our organisation, from the shop floor to the Management Board. We do our utmost to manage risks when it comes to technology, our work processes, data security, and our behaviour. At Alliander, a safety mindset and safe working practices are a given part of working here.

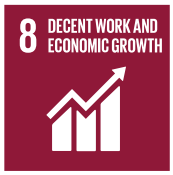
Related topics

This chapter describes what we do in the area of safety, security, privacy and cybersecurity. The information relates to several topics the stakeholders feel are important. Furthermore, these activities contribute to achieving an SDG:

Related material issues

② Safe working practices and safe infrastructure
⑭ Data security, privacy and cybersecurity

Contribution to SDG



Related stakeholder groups

Customers, Employees

Objective and result sustainable safe working environment

Lost Time Injury Frequency (LTIF) [1]

OBJECTIVE 2019

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RESULT 2019

2.1

1.4 in 2018

1 No target is set for the Lost Time Incident Frequency (LTIF) performance indicator, because the number of accidents leading to sickness absence should be zero.

Safe infrastructure

Customers expect us to ensure a safe infrastructure and guarantee their safety while we perform our work. The safety of our networks for everyone involved is then naturally our highest priority. We continuously invest in the reliability of our infrastructure based on information regarding the condition of our network. In addition, all network operators have drawn up a replacement plan for old gas pipes that are sensitive to ground movement.

Accelerating the replacement programme

On 27 January 2019, a gas explosion took place in The Hague in the gas network of Stedin. In 2019, in its report on this gas explosion, the Dutch State Supervision of Mines recommended accelerating the current programme for the replacement of grey cast iron and asbestos cement gas pipes. There are currently still around 1,300 kilometres of these grey cast iron pipes and 209 kilometres of asbestos cement pipes in our service area, comprising some 3% of our total gas pipelines network. In consultation with partners, we are acting on this recommendation and accelerating the programme so that all pipes of this nature are replaced by 2032. Until then, we will periodically inspect these pipes to ensure they are safe.

Besides replacing pipes, we also check daily for very small gas leaks using highly sensitive equipment so that we can address even the slightest gas escape at a very early stage, before this can pose a problem. As always, safety is our top priority. We remain alert to changing situations and new risks, and give high priority to the replacement of pipes wherever necessary.

Follow-up inspections of gas installations

With safety in mind, we do not make concessions when it comes to inspections. And yet it is sometimes difficult for us to gain entrance to homes. Last year, as a pilot, we went to court to be allowed to conduct a follow-up inspection of the gas installation in ten homes. This approach is new and is in line with the recommendations of the Dutch State Supervision of Mines, which urged network operators to make every effort to carry out inspections, communicate the importance of safety, and be transparent and open with customers. We are considering using this step more often in the future and also applying it in other situations where we are currently unable to gain access.

Resolving and preventing outages

We employ a targeted approach when dealing with incidents that arise in the gas or electricity network. In addition, we do everything we can to prevent unsafe situations for employees and others in the vicinity. For example, in 2019 we worked on replacing and closing medium-voltage substations that have limited or inadequate protection. As this will take some time, additional measures aimed at promoting safe working practices in such spaces will apply until this work has been completed.

Besides this, in 2019, together with Stedin and Enexis we started the *Veilig graven* (Know What's Below) campaign aimed at preventing outages and gas escapes and other unsafe situations. Around 10% of the damage arising from excavation work is caused by consumers. They often do not know that there can be underground cables and pipes in their garden, and they generally do not understand the risks they face when digging. The campaign is aimed at raising awareness about how to dig safely.

Safe working practices

A safe working environment is a prerequisite for a safe infrastructure. We work according to the protocols of the VIAG (safety instructions for energy companies when working with natural gas) and BEI (safety instructions for working on and close to electrical installations). Alliander ensures that its employees are fully aware of the role that safety plays in their work. In 2019, Alliander's Life Saving Rules were once again reviewed. To ensure that the same rules apply throughout the company, our updated Life Saving Rules were launched on our Safety Day, which was held on 20 March 2019. These rules provide clarity and consistency when it comes to safety and are aimed at preventing safety incidents.

New workwear

In 2019 our employees were issued new workwear. The new clothing is safer, more comfortable, and fully circular. The workwear meets the standard for arc flash resistance clothing, has uniform colours, and can be worn in different seasons and under various weather conditions. The clothing was tested and improved during a 'wear test', a period of several months during which fifty technicians worked wearing the new protective clothing.

Exposure to hazardous substances

Benzene

In our activities, there is the risk that employees may come into contact with hazardous substances. From a study conducted in 2018 by testing institute KIWA it emerged that gas escapes can result in soil becoming contaminated with benzene. We have since drawn up new work instructions aimed at protecting employees. In 2019, additional research was carried out on behalf of Netbeheer Nederland (the association of electricity and gas grid operators in the Netherlands) to further determine the risks for employees, the local community, and the environment. One of the findings of the study was that benzene is released more frequently in gas escapes than previously assumed, namely in eight out of ten of these escapes. The degree of contamination and exposure to benzene during gas leak repairs is limited and far below the regulatory levels. The study also shows that the contamination incidents do not lead to risks for the employees who repair the gas leaks nor for those in the vicinity of the gas escape.

Chromium-6

In 2018, it became clear that coating containing hexavalent chromium (chromium-6) had been used on a number of TenneT's high-voltage pylons, including on pylons on which Qirion employees work. We requested TenneT's cooperation in looking into this matter. We also set up a study group to determine which assets had been protected using coating containing chromium-6 as well as the measures that need to be taken to ensure employees can work on these assets safely. For the sake of the health of our employees, it is important to identify all assets on which coating containing chromium-6 was used. This has resulted in more rigorous work instructions. In 2019, we carried out additional testing and it emerged from various samples that coating containing chromium-6 had been used in the past, though we did not detect a trend in its use. Assets from a wide range of suppliers and from all periods were seen to contain chromium-6. In addition to testing for chromium-6, we tested for lead in the coatings. Repeated exposure to lead can also damage a person's health. Virtually all layers of coating contain lead to a greater or lesser extent. Employees are given access to information on where coatings containing lead and/or chromium-6 have been used and how to handle these assets safely.

Asbestos

In August 2019, asbestos was found in the meter closets in the common areas of six connected flat complexes in Rotterdam. The asbestos likely came from the sealant used by fitters in the 1960s to make steel threaded joints for pipework gas-tight. It is possible that this type of fitters' sealant was also used in Liander's service area. We have prepared a work instruction stating how field engineers are to handle joints where hemp-sealant dating from before 1978 has been used. In order to ensure that our engineers are not exposed to asbestos, the old joints are not loosened as long as these may possibly be contaminated with asbestos. It has also been decided that pipework with these joints may no longer be brushed or sanded. Scheduled work on older gas pipelines will be delayed. Thanks to a (temporary) alternative method, indoor gas pipework can be repaired without this requiring sanding or sawing the joints.

Impact of environmental issues

In 2019, environmental issues arose at national level that impacted our work and our ability to complete our work package, most notably the issues of nitrogen and PFAS.

PFAS

PFAS (per- and polyfluoroalkyl substances) is the collective name for thousands of man-made substances that do not occur naturally. If the concentration of these substances in soil is above a certain level, measures must be taken and the soil may not simply be transported, dumped or used on land. This complicates all sorts of earth-moving activities. This issue has hardly had any impact on our projects since the permitted level of PFAS was increased. Liander always works carefully with regard to earth-moving activities and early in 2019 had already taken internal precautionary measures around PFAS, setting up soil sampling to test for PFAS in order to protect employees working with soil for example.

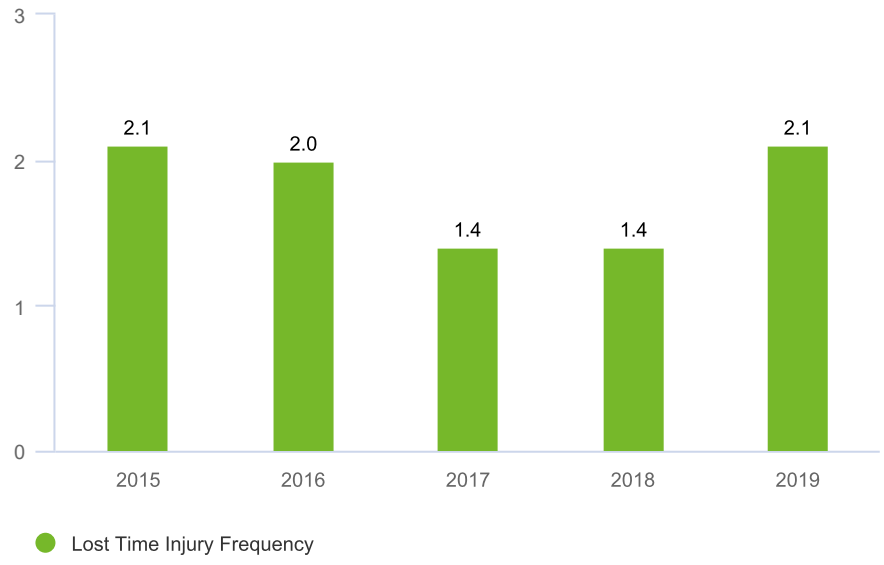
Nitrogen

In 2019, eight projects related to the construction, replacement or maintenance of our networks were affected by the Dutch nitrogen crisis. Besides this, the crisis has had an indirect impact, because new construction projects have come to a halt for example. We are particularly concerned about this indirect impact. To determine the impact of the nitrogen issue on Alliander projects and to provide an action framework for the future, an 'issue team' was formed at Alliander in October 2019.

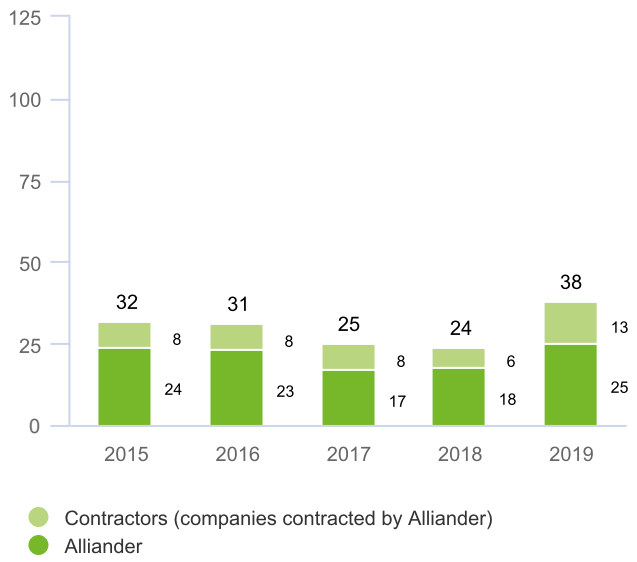
Lost Time Injury Frequency

Lost Time Injury Frequency (LTIF) expresses the number of accidents resulting in sickness absence per one million worked hours. The LTIF in 2019 was 2.1, meaning higher than the LTIF in 2018 (1.4). The largest part of the increase compared with 2018 can be attributed to the number of traffic accidents that occurred in the reporting year (2019: 9, 2018: 0). In 2019 there were no major safety incidents involving electricity and gas.

LTIF



Lost Time Accidents



Accidents with no lost time

Privacy

The right to privacy is a fundamental right, a right that gives people control over their personal information. Many companies and organisations process personal data as part of their operations. Society must then be able to trust that these entities will handle their personal data with care. Alliander, too, processes personal data. If adequate measures to protect privacy are not in place, this can adversely affect the privacy of our customers, and could damage our image as well. The General Data Protection Regulation (GDPR), which was implemented in 2018, requires companies and organisations to take appropriate measures to protect personal data, such as taking technical security measures to ensure that unauthorised persons cannot gain access to personal data held in IT systems. Furthermore, organisational measures need to be taken as well, like drawing up guidelines for accessing and processing personal data.

In 2018 we appointed a Data Protection Officer (DPO) for data held by Liander; in 2019 the DPO was appointed to oversee the protection of all Alliander data. Together with other network operators, we are also working on updating the code of conduct for handling energy data from smart meters. We are also working together on the responsible use of the energy data of our customers. Customers can go to our websites to exercise their data subject rights, such as the right of access, right to erasure, and right to restriction of processing.

In 2019 we received and investigated 37 complaints from customers about breaches of their privacy; we received an additional 3 complaints from the Dutch Data Protection Authority (DPA). On investigation and further action, it was determined in four cases that this concerned data breaches subject to the obligation to notify the DPA pursuant to the GDPR and the Dutch law implementing the GDPR. Of these breaches, network operator Liander also reported one breach to the customers concerned. In three of the four data breaches reported to the Dutch Data Protection Authority, these were situations where the network operators had joint responsibility, given that the breaches concerned centralised processing.

Cybersecurity

If vital infrastructure, such as power grids, were to fail, this could result in serious, widespread disruption in society. We therefore do all we can to prevent this from happening. Cybersecurity includes all measures (on the fronts of technology, people, and the organisation) to prevent, detect, and limit losses and damage caused by cybercrime. We use professional, modern security systems for example. In addition, our employees play a key role in ensuring our IT systems are safe at all times, for example by constantly monitoring and analysing cyberrisks to determine how these could impact Alliander. They determine how we may be affected by a cyberattack, and the action we need to take. We have modern defences, which means that, besides setting up firewalls to avoid being hacked, we are also able to detect hackers who have penetrated our office and process infrastructure and take appropriate action. In addition to this, in recent years we have paid attention to ensuring our office automation is sufficiently separate from our process automation. Alliander has hundreds of employees who use IT systems and data not directly related to the transmission of electricity and gas. The information security management system implemented by our IT department gives us even better insight into the security risks at the various business units.

A trend we noticed last year was the increase in incidents of ‘CEO phishing’, a form of fraud where employees receive an email that appears to have been sent by the CEO of the company, asking for money to be transferred for example. All employees must be aware of this threat and stay alert at all times; the company intensified its efforts to raise awareness in this regard.

Being an attractive, inclusive employer with equal opportunities for all

What we have at our disposal → Our role and the choices we have made → What our stakeholders notice in the short term → The value we create for the long term → The key social impacts → The global goals we help to achieve

Alliander employs about 7,300 people (6,800 FTEs), including agency/contract workers, who all work together to ensure a reliable, affordable and accessible energy supply. These people are an indispensable link in the daily performance of our tasks.

Alliander acknowledges the importance of good employment practices and has the ambition to be a top-class employer, i.e. an inclusive place of employment where employees trust the people they work with, have opportunities for personal development, are proud of what they do, and work in a pleasant atmosphere with colleagues, customers, suppliers and partners to ensure the energy supply for a sustainable tomorrow.

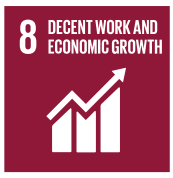
Related topics

This chapter describes what we do in the area of recruitment and the composition of our company. The information relates to several topics the stakeholders feel are important. Furthermore, these activities contribute to achieving an SDG:

Related material issues

⑥ Talent acquisition and development
⑨ Company's adaptability
⑬ Workplace well-being

Contribution to SDG



Related stakeholder groups

Employees

Objectives and results employees

Employee absenteeism

OBJECTIVE 2019

4.3 % maximum

RESULT 2019

4.2 %

4.7 % in 2018

Employee survey score

OBJECTIVE 2019

71 % minimum

RESULT 2019

70 %[1]

70 % in 2018

Women in leadership positions

OBJECTIVE 2019

29.3 % minimum

RESULT 2019

26.9 %

28.8 % in 2018

People with a distance from the labour market[2]

OBJECTIVE 2019

100 minimum

RESULT 2019

101[3]

95 in 2018

1 We did not conduct an employee survey in 2019. Instead, the focus was on the strategy alignment survey and discussing the outcomes of this with all employees. Due to this the figure from the end of 2018 has been used. Alliander has the ambition to be a top-class employer and will launch a new employee survey in 2020.

2 From 2019 Alliander is taking measures in accordance with the Dutch Participation Act.

3 The figure for employees at a distance from the labour market comprises 64 employees working for us under the Dutch Participation Act and another 37 employees with a work experience placement.

Getting the job done

The Netherlands continued to have an acute shortage of experienced technicians in 2019. Thanks to the economic growth and the acceleration of the energy transition, our work has increased dramatically and with this the number of vacancies and the high vacancies per candidate ratio. Where, at the start of 2017, this was 1 to 7, it had become 1 to 20 at the start of 2018; by September 2019 the figure had climbed to 1 to 39, meaning a service technician can choose from among 39 job openings. Predictions for the coming years also point to significant demand in terms of capacity. After the service technician, the bottleneck is shifting more and more towards the site supervisor, civil engineer, and project manager, and it is becoming increasingly difficult to fill these positions. The pool of technicians has been exhausted and the number of people completing their training and entering the trade is too low to meet the demand. We focus on people with a profile that includes practical and theoretical education and a technical background, but we also approach candidates who are willing to retrain. Though we do everything we can to recruit and train new employees, we know that these efforts are not enough to see that all the work in our work package gets done.

It does not end with finding the right personnel either: virtually all new recruits need to be trained by an experienced technician. In 2019, we were already stretched to the limit in terms of training resources and opportunities. Since last year, we have had three ‘practice fields’ – locations where the power grid and various installations have been recreated to present trainees with real-life situations – in operation. At these locations in Duiven, Haarlem, and Leeuwarden, a single student supervisor can instruct a whole group of service-engineers-in-training at once. This is a nice solution given our need to properly train a lot of new employees as quickly as possible.

Getting young people interested in technology

In Noord-Holland, Friesland and Gelderland, our technical college Alliander Technische Bedrijfsschool is involved in the Sterk Technisch Onderwijs (Strong Technical Education) plans. The 'co-financing' that the technical college offers to educational institutions is not in money, but rather in kind: the doors at the locations in Haarlem, Duiven and Leeuwarden are open to the schools there. From next year, students can have part of their studies, shadowing placements, excursions, guest lessons, and open days arranged together with the technical college. This initiative works both ways: the schools do not have to make major investments in expensive installations, and Alliander can attract young people, introducing them to work in network management and infrastructure technology.

In November Alliander Technische Bedrijfsschool was present at a technology event in Friesland attended by hundreds of youngsters aged 10 to 16 (and their parents), who could see first-hand the various facets of the technical trades. At the Alliander stand, the young visitors could view 360-degree videos wearing VR glasses, learn about the principles of electrical engineering (demonstrated using a sausage-making machine), and see various cables and sleeves. When works were being carried out in Leeuwarden, dozens of electrical and installation engineering students and teachers from a nearby college were invited to come and have a look.

Labour market for technical talent

In 2019, we filled 262 technical specialist vacancies. Finding suitable candidates is becoming increasingly difficult. Moreover, training people to carry out our specific work takes a long time and puts great pressure on experienced operational staff. We believe it is our task to ensure a growing job market for technicians in the next few years. We are doing this by, for example, demonstrating how interesting and challenging our work is, on social media and elsewhere. We offer training opportunities to newcomers to our sector, young people, and people at a distance from the labour market, and we work with the education sector to increase interest in technology among young people, their parents and teachers.

Twenty-year-old Stijn de Groot from Diepenveen talks about the training programme at Alliander, which he started following in 2019. Over a period of two years, Stijn and his fellow students are being prepared for a higher professional technical position, first gaining work experience at Alliander before getting an accredited diploma in electrical engineering. Watch the interview.

Alliander is Hiring!

For several years, we have been conducting an intensive recruitment campaign on several fronts (both internal and external) to highlight the shortage of technicians within our company. The website werkenbij.alliander.com was revamped in 2019. On this site, videos and stories help to spark interest in Alliander among various target groups. The stories and videos have also been used in print and online channels to interest potential employees in a job at Alliander. Alliander has been present at various events at colleges and universities as well as at career fairs and trade fairs (Nationale Carrière Beurs, Elektro2019!). In addition, a pilot has been started with PlaytoWork, where young people with a secondary vocational education can learn about career opportunities at Alliander via online games.
In 2019, employees were once again invited to introduce new technicians to Alliander through the internal referral programme 'Alliander Werft!' ('Alliander is Hiring!'). Jobs in the IT department were added to this programme in 2019. More than 250 potential candidates were introduced through the programme in 2019, and 49 of them were offered a contract.

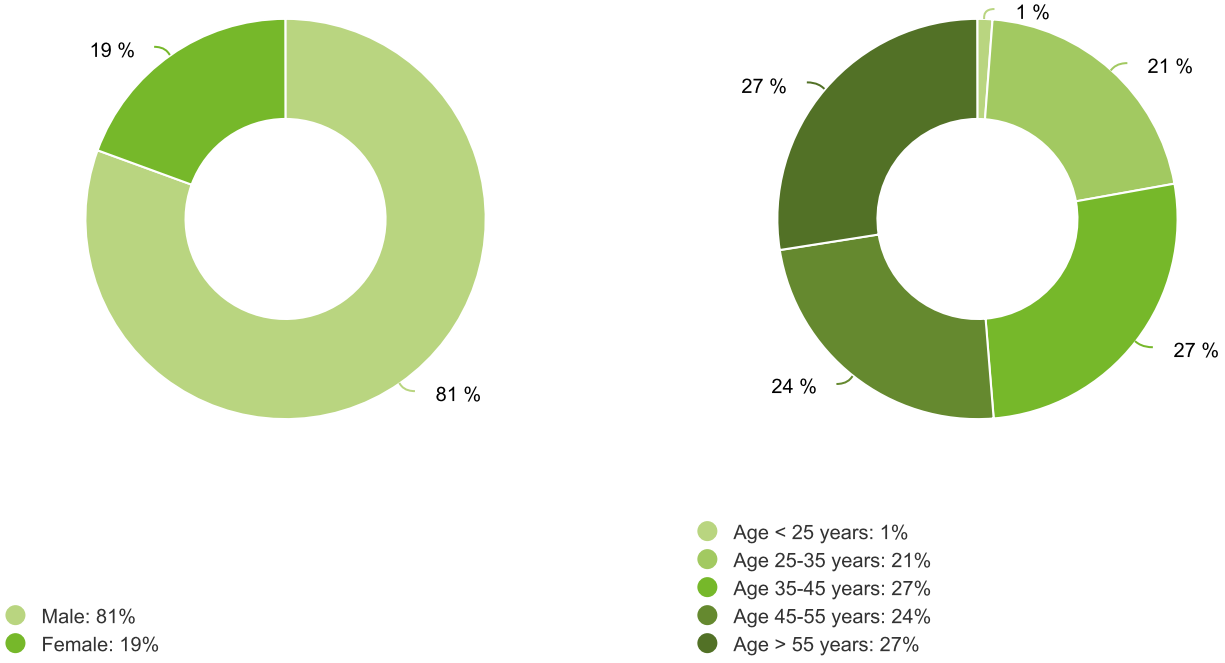
Service technician training for asylum status holders

In March 2019, ten asylum status holders successfully completed the training programme at Alliander that leads to a senior secondary vocational education (MBO) qualification in electricity network installation and maintenance. A new group of ten asylum status holders started training in May. Alliander is the client, while contractors and the relevant municipalities are co-investors in this project. Those who complete the programme are guaranteed a permanent contract at Liander. The Foundation for Refugee Students (UAF) shared its knowledge and experience to help us develop this training programme. We expect that the second group will have gained their diplomas by the end of 2020.

Composition of the organisation

Alliander has a diverse workforce, both in terms of competencies (in addition to our many technicians and IT staff, we have experts in change management and finance) and in terms of age, gender and cultural background. We believe that we need diversity to fulfil our mission – ensuring everyone has access to reliable, affordable and sustainable energy – during the challenging energy transition of today. Within our company, we need to reflect the level of diversity within society, among our customers, and in the labour market. Having a policy on diversity and inclusion forms part of our corporate social responsibility.

Employee breakdown by gender and age

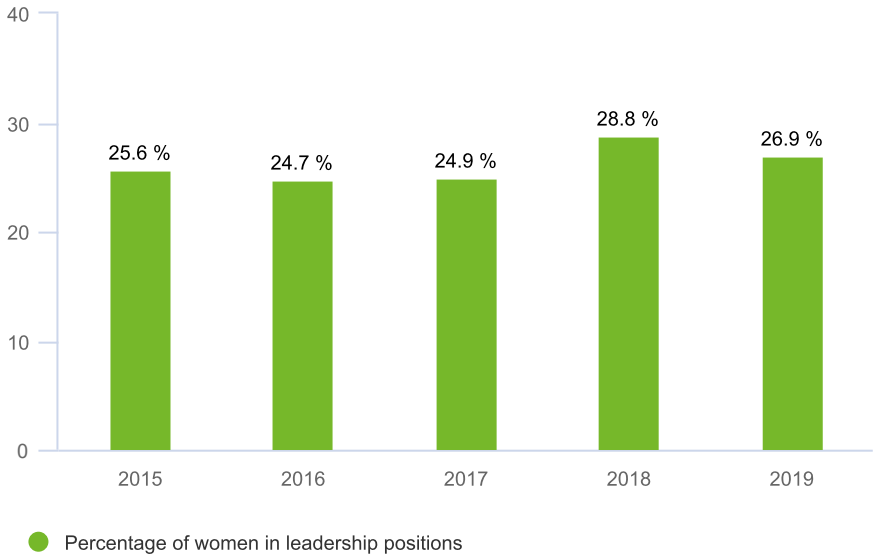


An organisation where everyone feels at home

Alliander aims to be a diverse company, where everyone counts, feels at home and can use their talents to the full. Although energy-related jobs are regarded as typical men's work, we try to build and maintain a varied workforce. We are convinced that diversity makes us an attractive employer for talent, gives everyone the opportunity to show their best side, and contributes to the quality of our decision-making and innovative capacity. That is why we encourage the recruitment of women in leadership positions, employees with an immigration background, and people at a distance from the labour market. On 1 October we celebrated Diversity Day, and we talked about diversity during the team leaders' day on 10 December. In 2019 we started collaborating with ECHO, the Centre for Diversity Policy. A plan for a multicultural employee network has been drawn up. In the coming years, this network will serve as a meeting place and as a source of inspiration to guide us to better ethnic diversity.

Percentage of women in leadership positions

The percentage of women in leadership roles decreased to 26.9% at year-end 2019 (2018: 28.8%). The general trend is upwards, however, with fluctuations over the years due to changes in the organisation and staffing. This score is attributable to the diversity policy pursued by Alliander in recent years. The main key points of this policy are demonstrating exemplary behaviour and explicit support at the top of the organisation, setting specific targets, and ensuring equal opportunities for women in selection procedures. Our target is to have women in 33% of leadership positions by 2024. At the end of 2019, this percentage was 33% for the Management Board and 50% for the Supervisory Board.



Employees with a migrant background

To introduce ourselves to potential employees with a migrant background, last year we made a job market video about diversity. We also participate in the mentoring program of ECHO, the Centre for Diversity Policy. Though these measures are aimed at attracting and retaining talent, they are also intended to help us re-examine any biases/prejudices we may have, no matter our background.

Offering opportunities to people at a distance from the labour market

Alliander believes that people in work feel more engaged with society. This is why we have been helping people at a distance from the labour market to find work since 2009. Every year we help people increase their chances of finding a job through the work experience programme Step2Work. In 2019 the programme was given a new mission: giving people with a disability that limits their ability to perform work a genuine position at Alliander. Last year, we offered 101 people with a work disability a work experience placement. At year-end 2019, we had 64 people (51 FTEs) in positions coming within the scope of the Dutch Participation Act, as well as 37 employees with a work experience placement.

‘The employee participation process is an integral component of the company´s operations’

Almost halved in size compared to the previous Workers Council, we have been active as the newly elected Workers Council since January 2019. And active we are! We were directly involved in various changes to the composition of the Management Board, Supervisory Board, and in director positions. The participation in the process and the opportunity to get to know each other were pleasant and we are enthusiastic about the new members. We also presented our recommendations on the matters of privatisation, demergers, acquisitions and the sale of companies/BUs such as the Soil Survey Desk, Zown and Entrnce. And, naturally, we provided our formal opinion on reorganisations like the ones at Qirion and in the IT department, as well as the proposed phase-out of the activities of the Architectural and Installation Advice department.

The Workers Council aims to help Alliander achieve good, sustainable changes that will enable the company to focus as much as possible on the performance of its core tasks, not being disrupted by too many changes. We believe in the power of diversity and equality of employees in achieving optimum changes and optimum results. We would like to see that everyone has the opportunity to contribute their best and share in good results based on their professionalism and vision. This requires more than a Workers Council alone: it requires that the employee participation process be an integral component of the company´s operations. This is what we, as ‘drivers of employee participation’, want to stimulate.

We know that we have the support of all our colleagues and, in particular, those in the Workers Council study groups, sounding board groups, and the Knowledge Centre for Employee Participation – colleagues who, driven by their commitment and enthusiasm, often also spend their own time on employee participation activities. Together we strive to provide genuine advice during requests for advice procedures so that we can pass on the knowledge and wisdom of the ‘shop floor’ to the Board.

2020 will be no less challenging than 2019 was. There is an enormous amount of work to complete, and Alliander has to attract – and retain – good people to get this all done. The company needs to do this by ensuring that, despite the pressure, working at Alliander remains safe and enjoyable. By encouraging and appreciating each other, this can be achieved. This requires that Alliander be an excellent employer with excellent employee participation.

On behalf of the Workers Council, the Workers Council study groups, and the sounding board groups,

Aart Smittenberg, chair

Attractive employer

Fit and healthy employees

It is important to Alliander that our employees can remain sufficiently fit, motivated and skilled for their work, both now and in the future. In addition to a dialogue between managers and employees, Alliander promotes the long-term employability of its people through a special budget and a vitality programme. These investments serve to keep our people in good shape and ready for the work of the future.

Long-term employability

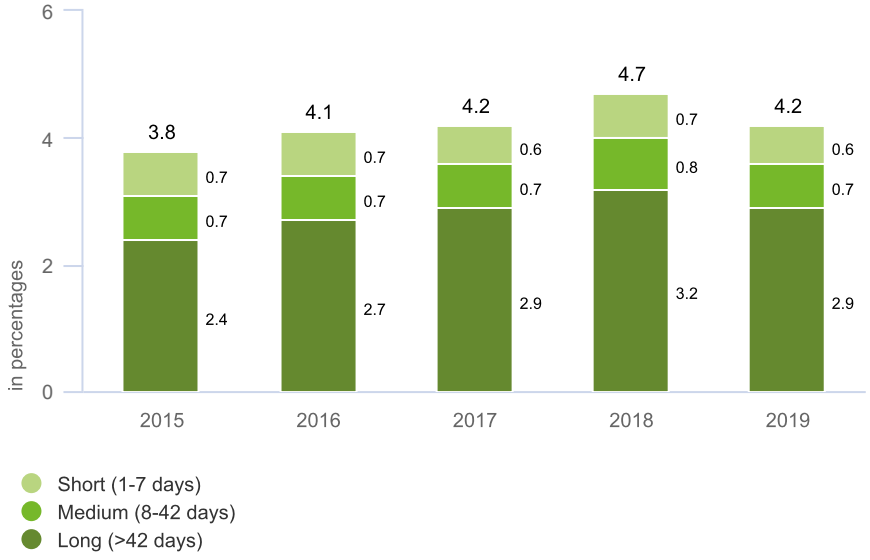
We constantly assess whether our employees have the knowledge and competencies that are needed today and in the years to come. We are working on creating a culture in which it is normal to continue to invest in yourself, irrespective of your age, work experience or training. Every employee makes his or her own decisions in this regard. To raise awareness in this area, we organised a long-term employability event in September, where employees could take workshops with career counsellors, for instance, and take a fitness test. Moreover, employees at various business units were offered the opportunity of using the so called "*Koersplan*" career path planning tool to work out which investments need to be made to ensure they remain highly employable, both today and in the future. The employees were guided in the use of the tool during a special workshop.

We also take measures to increase long-term employability, for instance by offering training, internships and other learning experiences, and by getting employees and managers to discuss what the employee can do to remain employable in the future too. To resource this, since mid-2019 we have had a Long-term Employability portal, which is available to all employees, and we offer tips to managers on how to talk to employees about long-term employability. To help guide such a conversation – which involves discussing the skills the employee will need to continue working in the future – a 'work landscape' has been developed, which provides insight into jobs that are likely to become obsolete (very soon or in the future) and the opportunities for work in our own company and beyond. We are seeing that employees think about what is expected of them and what they need to achieve their ambitions. With these resources and measures, we are working together to ensure career continuity and the continuation of Alliander as a going concern.

Sickness absence

In 2019, the sickness absence rate was 4.2% (2018: 4.7%). The average for our sector in the Netherlands is 4.8%. The rate of long-term sickness absence in particular has fallen in recent years. Together with our occupational health and safety service, we made plans to improve the prevention and reduction of sickness absence. We also looked at best practices within Alliander. We will continue to invest heavily in reducing sickness absence in the years ahead.

Sickness absence



Employee satisfaction

Over the last few years, we have conducted our annual Great Place to Work employee survey to measure how our employees rate our culture and how satisfied they are with aspects of their work and working environment. We did not conduct such a survey in 2019 however. The reason for this is that we carried out a strategy alignment survey and did not want to ask our employees to complete two surveys so close to each other. The aim of the strategy alignment survey was to assess whether all employees have the same goal in mind for Alliander. After all, if you want to really achieve something it is important to have a shared goal. Based on the findings, we discussed Alliander's strategy and objectives with the employees. The various departments also had the opportunity to conduct a team barometer survey.

Training and development

Alliander has a training centre to help employees develop their skills in key areas such as technology, safety and leadership. We ensure that, as far as possible, all employees are (and will be) equipped to rise to the challenges that the energy transition brings, which is why we want to invest in our employees and work together on further developing their vitally important trade professionalism. To this end, we offered training and other learning experiences in 2019. Supporting the development of our employees and finding high-quality staff also poses a challenge from a risk management perspective. Alliander therefore actively develops competencies through trainee and talent management programmes.
In order to enable everyone to learn at any time, regardless of their age, Alliander Opleidingen, the company's training department, has established two training programmes. Alliander College offers various non-technical courses as well as advice in the area of training. And through the company's own technical college (Alliander Technische Bedrijfsschool), which offers a wide range of skills-oriented work-study programmes at all levels of education, Alliander Opleidingen makes a sizeable dent in the shortage of technicians. We trained a total of 1,500 people at our technical college during the year under review. In 2019, Alliander invested 2.7% of its wage bill in employee training (2018: 3.4%).

Collective labour agreement for network companies

A new collective labour agreement for network companies came into effect from 1 January 2019. Significant changes are the introduction of an à la carte budget scheme, which allows employees to choose to receive the budget in cash and/or in time off as they see fit, and a vitality scheme for employees aged 62 and older, enabling these employees to work fewer hours before retiring while keeping their original level of pension accrual.

Career centre

The career centre supports all Alliander employees who are reviewing their employment options, either to make the next step in their career or because their work has been, or may be, redefined or terminated. During the year under review, 290 employees requested support from the career centre (2018: 308). A total of 75 colleagues became redundant in 2019 (2018: 67), and 295 (2018: 241) people to whom redundancy did not apply (or not immediately) also made use of our career centre. Thanks to this assistance, 107 employees managed to find a new job or an appropriate alternative (2018: 94).
Career counsellors help employees to discover their talents and find the most suitable role for them, either inside or outside Alliander. We believe that everyone is worth investing in, and we do this by offering internships, secondments, and training. We talk to employees about their future development in their current role or elsewhere. By making timely investments in our employees, we try to avoid redundancies wherever possible.

Alliander Foundation

The Alliander Foundation encourages and helps our employees to engage in volunteering. In 2019, 862 volunteers took part in activities organised by or in cooperation with the Foundation, and the Foundation gave financial support to 82 employee-supported projects. A total of €194,000 was spent on these projects and activities. Alliander employees can request support for their own volunteer work or organise, on their own or with assistance, a team activity that benefits society. Examples of such activities include teams who accompany elderly wheelchair users for a day, or fix up the garden in a residential group for people with disabilities.

To raise money for charities, employees can request an amount of up to €500 (an 'Event Budget'), which can be used to organise an event for a charity, like a sponsored run or a benefit dinner for example. And under the 'Reach out to another' initiative, employees can request a small amount to treat someone in their local community, like someone who is lonely or who for some other reason could use a little extra attention. Alliander is proud that the Foundation supports employee volunteering. In turn, the employees experience benefits such as an opportunity to broaden their horizons. The emphasis in the voluntary work is on independent organisation and on involving other colleagues in the initiative.

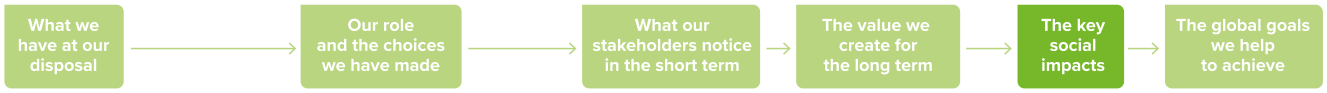
Internal compensation ratio

The transparency of compensation ratios within organisations is the subject of global debate. Alliander aims to report openly on this issue. The total income of the CEO is 3.6 times the median salary of all Alliander employees in the Netherlands.

Our plans for 2020

The number of FTEs in 2020 is expected to remain virtually the same, though, in view of the changing work package, the percentage of technical positions is expected to increase.

Key social impacts



As an energy network company, Alliander contributes significantly to the prosperity and well-being of millions of people. Our activities have significant impacts on society: on the economic development of regions and stakeholders, on greenhouse gas emissions, on knowledge development, and on the well-being of employees. We have a positive impact, for instance by improving the well-being of customers and making the energy system more sustainable. We want to increase this impact. In addition, we seek to minimise our negative impacts, such as greenhouse gas emissions and waste. In order to explain the nature and extent of our impact, we express the positive and negative effects on society and the environment in terms of euros wherever possible. The calculations for this 'monetisation' are based on robust assumptions to approximate the actual value as closely as possible. All principles applied and calculations used are included in the appendix to this annual report.

Impact measurements

Impact measurements allow us to present a balanced, quantitative picture of the significance of our activities. We are constantly working on improving the impact model and our social impact. The insights we gain through these measurements give us a more accurate idea of our social performance and the extent to which we are achieving our objectives. With this, within the company we can improve our decision-making, and outside the company we can show the added value of our choices for society. We have reported on our social impacts since 2015. Transparency allows stakeholders to gain a better understanding of our contribution to social developments, and it enables us to make better decisions about projects and activities.

Why quantify impact?

A reliable, affordable and sustainable energy supply is of great social and economic significance. For this reason, our choices for today and the future must be made with great care. When assessing the social contribution of activities, our main focus has traditionally been on inputs (costs) and outputs (direct results). Now we also use impact measurements to calculate to what extent these activities affect society (our 'social impact'). Traditionally, our main impacts have concerned economic added value, prosperity, well-being, the environment, and employment. Impact measurements cast light on the relative scope of the impacts and present us with ways that we can increase our beneficial contribution to society. Impact measurements also give us greater insight into our contribution to the global Sustainable Development Goals.

Our steps in quantifying impact

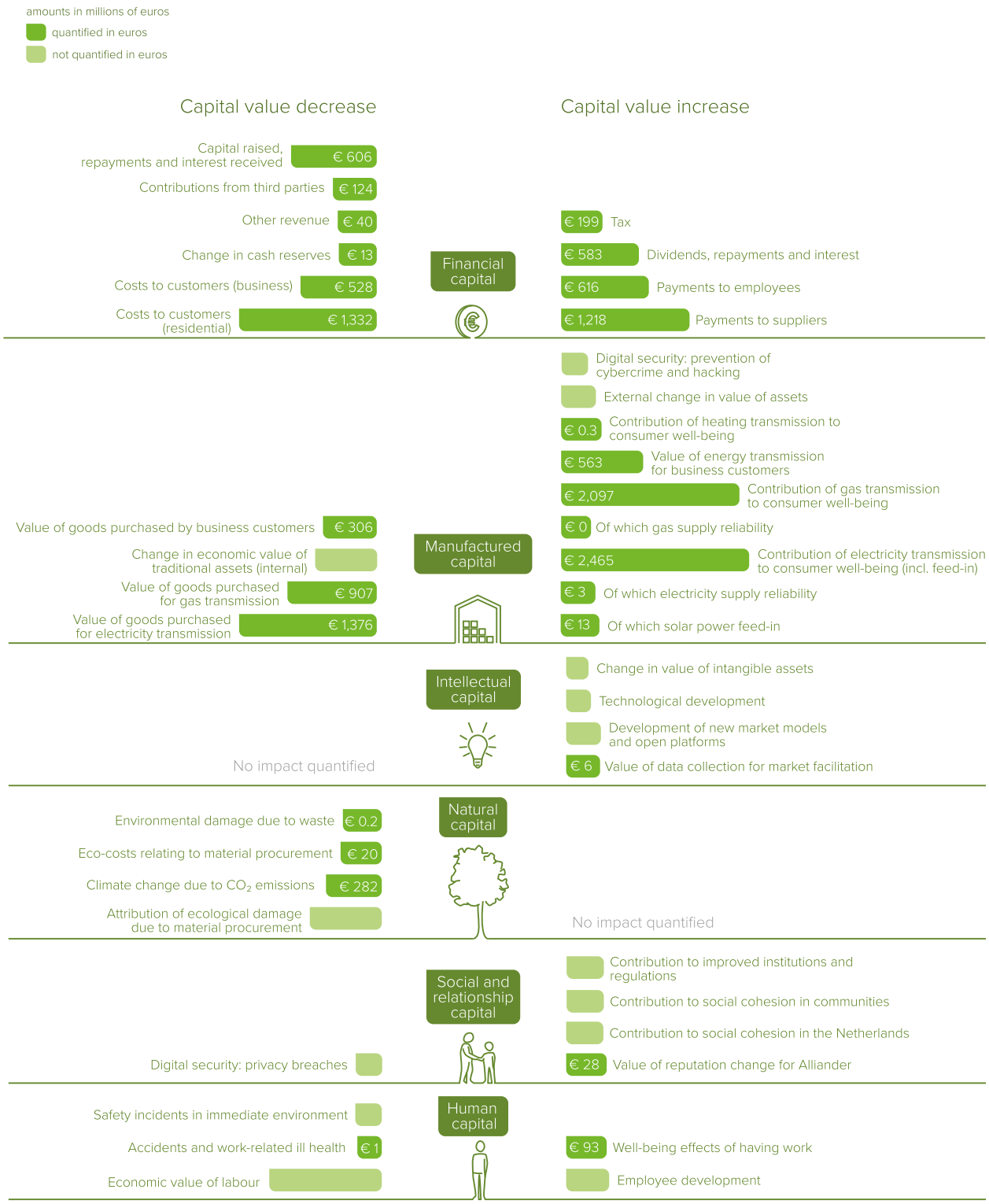
Quantifying impact is an important link in our endeavours to create long-term value across the board. We further refined our impact model in 2019. During this procedure, we also looked closer at the significance of making energy-related data available to market parties and partners; the availability of data makes a positive contribution to the creation of new market models and open platforms. Reporting on this impact on 'intellectual capital' is new in our model. Besides this, we place great value on how our stakeholders see and appreciate us. 'Value of Alliander's change in reputation' based on the perceptions of stakeholders provides us insight into our reputation compared to similar companies. We disclose the result of this comparison as part of the social capital component in the impact model.

Sector model

Since 2018, we have been working in a coalition of network and infrastructure companies on the development of a sector model for impact measurements. In 2019 we concentrated on quantifying shared impacts. Dutch infrastructure companies share knowledge on underlying principles and aims. We coordinate methods and key figures and are working together on a guide that describes the key areas of impact for the national infrastructure sector as a whole. Thanks to the work put into this by the coalition, we now have a firm foundation for the further development of joint infrastructure impact measurements.

2019 impact at a glance

Alliander follows the 'six capitals model' of the International Integrated Reporting Council (IIRC). The illustration shows the relative size of Alliander's social impact. In the model, we mainly quantify and monetise the impacts where we can make the largest contribution to society. The model recognises both direct and indirect impacts. Direct impacts occur entirely due to the activities of Alliander: the impact of grid losses, our own emissions, and the well-being of our employees. Then there are supply chain effects, that's to say impacts for which parties in the chain are jointly responsible. One example would be the impact of energy transmission on the well-being of consumers, or emissions from the consumption of electricity, gas and heating.



Impact measurement results in 2019

The results of the impact calculation show the (approximate) size of our impacts for 38 indicators. The size of 24 indicators was calculated and expressed in monetary terms. For comparative figures, we refer to Comparative figures for impacts in the Other information chapter. Our four most significant impacts are connected to financial, manufactured, natural and human capital. For the other indicators, we made a qualitative description and an estimate based on external sources. We would like to point out that, in all cases, the size referred to is relative, i.e. the impact may be small at group level but large at individual level, such as with an accident involving a person.

Financial capital

Financial capital impacts indicate the funds flows of our stakeholders. The change for stakeholders is shown as incoming and outgoing cash flows. Regulated tariffs, other income and revenue give us the financial resources for investments in and maintenance of our energy networks. We thus withdraw capital from society to finance our activities. There is a difference of €108 million in other income, of which €105 million is explained by the sale of the Allego business unit in 2018. Repayments and the successful issuance of a green bond in 2019 have led to a substantial decrease in the impact of dividends, repayments and interest, €341 million in total. Through our role and position in the energy supply chain, we feed value back into society. We pay our suppliers for goods, services and assets. We generate work and income for other parties. In 2019, our impact increased by €120 million through investments at our suppliers and supply chain partners. Our employees receive a salary for their effort and time. On balance, our work stimulates the economy and generates long-term employment, income and prosperity.

Manufactured capital

Prosperity and well-being are largely affected by the availability of energy and heat. Energy transmission and distribution has a high prosperity value for society. The value for manufactured capital is made up of two components. The first consists of regulated tariffs for transmission and connection services and the metering services for small users. These have been designated as exclusive statutory tasks of network operators. The second consists of the consumer surplus, i.e. the added value that customers are in theory prepared to pay above the price for a service or product. The prosperity value of energy transmission relates to all price elements in the energy supply chain, including taxes and the (partly regulated) prices for the supply and transmission of energy. The amounts presented as manufactured capital indicate the economic part of the energy supply chain that is attributable to Alliander. The consumer surplus is currently the most common method for determining economic value, both for liberalised and regulated markets.

Energy transmission has a high prosperity value for society. Alliander's share in the value for consumers amounted to €4.6 billion in 2019. More and more consumers are feeding renewable electricity back into the grid; the number of households with a solar panel installation that feeds electricity into our network increased from 6% in 2018 to 9% in 2019. According to our calculation, consumer feed-in had a positive prosperity effect of €13 million. Alliander's share in the value for business customers for electricity and gas transmission amounted to €563 million. In 2019, we were confronted with an average of 0.306 power outages per household, which translates as, on average, homes being 21.9 minutes without electricity in 2019. Because this interruption duration is lower than the national average, the result is a positive effect of €31 million. The impact of unregulated heating transmission on consumer well-being is modest. The number of heating connections for small consumption has increased by 25%, resulting in an added value for consumers of €0.3 million.

Intellectual capital

Alliander invests time, attention and money in the network management of the future, developing knowledge in conjunction with digitalising energy grids, using data and applying new business and market models, and developing alternatives to natural gas. By acquiring and applying knowledge, intellectual value is developed, for Alliander and for the community at large. This intellectual capital comprises the stock of immaterial man-made goods. We measured the benefits of the use and availability of data for stakeholders for the first time in 2019. Alliander makes data available through multiple channels: we share open data directly on the network operator's website, and certain other data can be provided on request. The quality and usage value of this data can add social value through the data-based applications made available to users. Making data available also offers market opportunities for other companies. In 2019, the 'market-facilitation data' represented a value of €6 million. With this first measurement of intellectual capital we can present an initial, tailored image. Given that Alliander has much more data at its disposal, in our estimate, the value is considerably greater than the figure that has emerged using the current calculation parameters. The quantification and monetisation of intellectual capital calls for reliable historical data and informed choices.

Natural capital

The burden the world population places on the stock of natural capital is enormous. The day each year on which humanity has exhausted more biological resources than the planet can renew in a year, Earth Overshoot Day, is moving to an earlier date each year. Alliander is working hard to strictly limit the negative impact on this shared natural capital. The impact on the climate due to carbon emissions from our activities in 2019 decreased by €6 million compared to 2018, to €280 million. This includes pro-rated emissions from the Dutch energy supply chain for Alliander. The Dutch energy supply chain still contains a large component of energy generated from fossil fuel. By reducing the negative impact of greenhouse gas emissions, we make a long-term contribution to national and international climate commitments. On balance, the monetised climate impact decreased in 2019. The monetised impact of Alliander's carbon footprint came to €30 million in 2019, mainly due to our grid losses. For more information, see Achieving sustainability in the energy supply and our operations. Another challenge is reducing the ecological damage that arises through the purchase of raw materials, especially through the consumption of scarce raw materials or the use of toxic materials. The purchase of our key assets caused €20 million in ecological damage in 2019, an amount significantly absorbed through our use of recycled materials, which resulted in an avoided impact of €4.2 million, or approximately 18% of the total eco costs. Aluminium (6,014 tonnes) and PVC (3,452 tonnes) account for the biggest volumes of our materials procurement. Because a large part of the waste is recycled or reused, the negative impact from the processing of waste is

minor. Only a small part is dumped or incinerated, translating to €182,000 in ecological damage caused by waste. With these figures, we have quantified the largest part of our material impacts. We are looking into whether it would be desirable to expand the parameters of our measurement, by including the impact of our drinking water use for example. Despite the changes in our networks due to the energy transition and the increase in the procurement of materials, our footprint for raw and other materials has only increased to a limited extent thanks to the increased purchasing of recycled materials, while the impact of our carbon-related emissions has decreased.

Social capital

The perception and appreciation of our performance by stakeholders is part of our social capital. 'Value of Alliander's change in reputation' based on the perceptions of stakeholders provides us insight into our reputation compared to similar companies. Making this impact more specifically quantifiable will increase the transparency and clarity of the impact. In 2019, the impact was calculated as representing a value of €28 million. A favourable outcome for our reputation translates into more opportunities for collaboration and for employee recruitment, and higher customer satisfaction. We never lose sight of the fact that the bottlenecks in the feed-in of locally generated energy and connecting customers to our networks affect the perception and appreciation of customers who are confronted with this.
One important impact of an energy network operator is the contribution towards social cohesion in residential areas. High social cohesion ensures that local energy initiatives are broadly supported and meet the needs as perceived by the local community.
Losses resulting from the unsecured exchange of privacy-sensitive information must be avoided in order to limit the risk of negative social impacts. We have been successful in preventing unsought data exchange. Although it is possible that a data-related incident has occurred, we have not yet quantified any losses caused by this.

Human capital

On average, people who are in work tend to experience a greater sense of well-being than those who are unemployed. Alliander contributes to the well-being of employees by offering rewarding and fulfilling work. Work is not just about earning money: work offers immaterial benefits as well. Since 2017, we have been reporting the well-being effect of having work. This concerns the direct non-financial benefits that employees derive from having paid work. The analysis shows that immaterial factors such as appreciation, contact with colleagues and customers, and the structuring effect of work represent a positive impact value of €93 million. We have been measuring the value of immaterial factors for a number of years now and are seeing that these have a substantial long-term social effect. This comes on top of compensation in terms of salary and benefits, which are included under financial capital in the graph. As the result of international research carried out over the long term, we have adjusted our calculation method, for which reason it is no longer possible to compare our figures for this reporting year with those of 2018. On balance, as a result of the new coefficient arising from the research, the figure has declined.

The analysis shows that the loss of well-being and happiness due to work-related accidents and sickness amounts to about €1 million (2018: €1 million). This impact value is relatively small compared to the positive impact of having work. No major changes in the data occurred in 2019. Safety and prevention of work-related complaints are a constant priority for Alliander. As an employer, we aim to make a positive contribution to the well-being of our employees.

What have we learned?

In conclusion, even with an increase in the impact of investments and purchasing volumes, in 2019 our footprint for raw and other materials did not increase as much, and, on balance, we limited the impact of our carbon-related emissions. From this it can be seen that our policy of moving towards being a circular business and having climate-neutral processes is bearing fruit. At the same time, higher investments result in our operations having a greater impact on society. In short, we have achieved a higher level of manufactured capital through our spending without this equating to a much higher impact on natural capital. In 2019, we intensified our collaboration with knowledge partners and infrastructure-oriented companies to develop and refine impact measurements. These efforts have resulted in the emergence of new methods and insights. In the area of natural capital, the Laarberg substation impact case study gave us a different view on biodiversity and the possibilities a technical installation site has to offer. We have seen from the impact case study on the application of flexible solutions to deal with grid congestion that the use of temporary alternatives has varying costs and benefits, and in any case that the network operator incurs higher costs. These case studies, which we developed with the input of various stakeholders, are described elsewhere in this annual report.

Reliable network management is a source of great and constant financial and economic value for Alliander. The impact of making data available for market facilitation appears to be greater than originally expected. From a social point of view, our efforts in this area have added to the intellectual capital. Alliander appears to have a stable reputation in comparison with other energy network operators: this emerged from the value of our reputation as an indicator for social capital.

The impact measurements continuously force us to make robust assumptions about such aspects as expected carbon impacts. This is the way to deal with uncertainties that inevitably arise when making estimates of indirect and complex impacts. In 2019 we started on an 'impact journey' with a wider group of infrastructure-related companies.

Our plans for 2020

Alliander is continuing to improve its impact model in order to increase its positive social impact in the future. Alongside collaborating with infrastructure companies, we are working on expanding intellectual capital. We also want to more often use our impact model to make better-informed choices regarding new developments and have this be a part of our decision-making process. Lastly, we will continue the dialogue with stakeholder representatives with the aim of improving our methodology.

Impact case study: increasing transmission capacity by using flexible energy solutions

The time involved in expanding the grid by conventional means is now sometimes such that the needs of the customer are not always being met. As a result of the procedures involved during the design phase and when commissioning new capacity, expanding the infrastructure can in some cases take up to five years. Until the new capacity becomes available, businesses with a growing demand for electricity are unable to expand. One way of addressing this issue is to use flexible solutions, such as deploying local combined heat and power (CHP) systems in a local flex-market. The flexible procurement of available local capacity can serve as a stopgap until new substations can be brought into operation. This case study involved investigating the social impacts of offering a stopgap solution, i.e. using existing CHP systems to power and heat commercial greenhouses in the Zuidplas region (Zuid-Holland) and switching off lighting in the area to bridge a maximum period of 5 years until capacity expansion can be completed. Alliander wanted to determine whether it was worthwhile, from a social perspective, to invest in the use of flexible solutions.

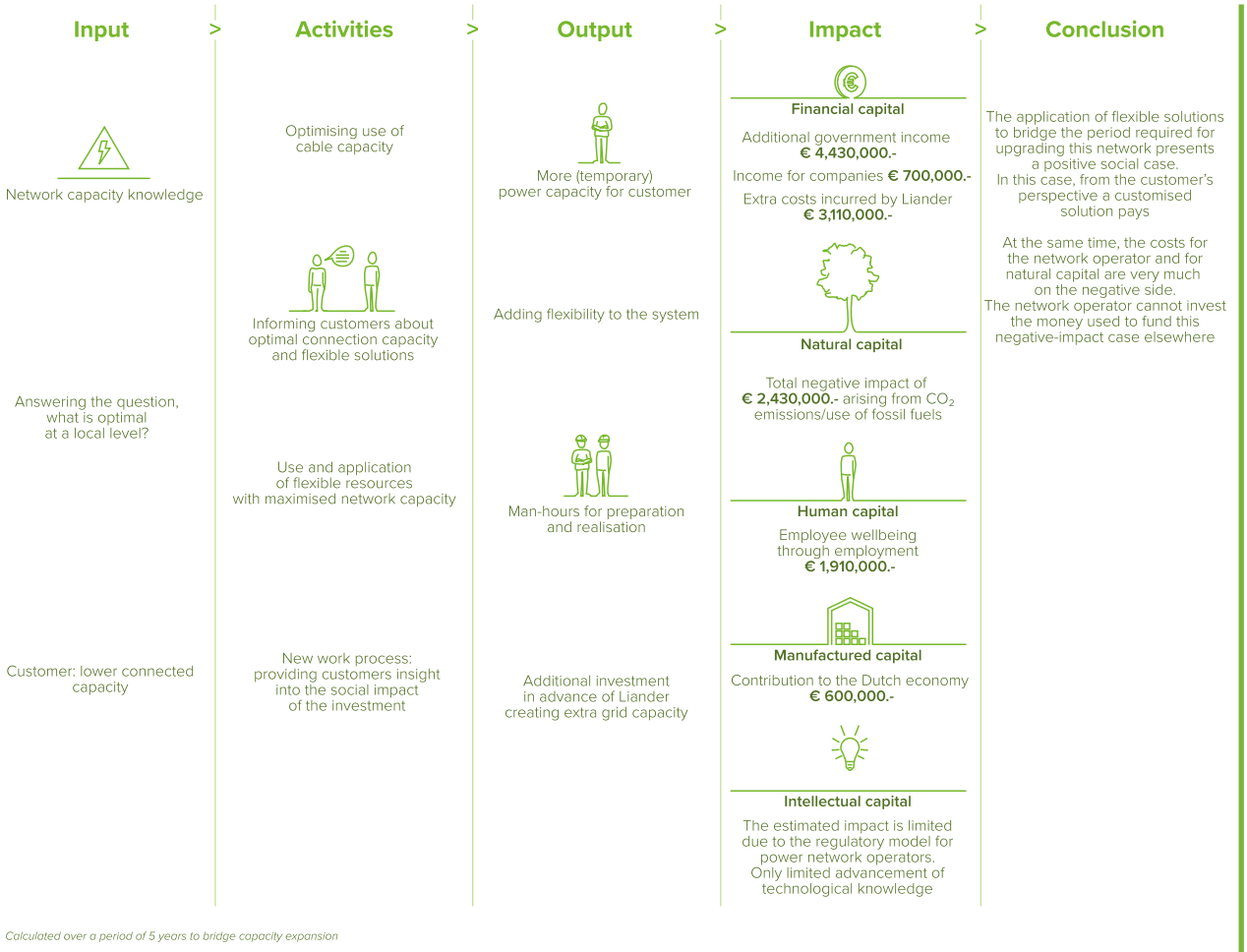
Dilemma

The question in this case study was whether, in addition to investing in the standard network expansions, additional investment in a local stopgap solution to address the capacity problem of a few businesses outweighs the costs that Alliander and, indirectly, all who are connected incur. From a direct-cost perspective, the local flex-market is more expensive because the network operator spends extra money. On the other hand, however, purchasing flexibility and connecting customers earlier can also prevent customers from suffering financial losses and damage to the Dutch economy. So, the local impact needs to be weighed against the question of whether the network operator can facilitate the local stopgap solution in exchange for the social return.

Impact calculation

In this case, the impact on financial capital is positive for businesses in the area and for the government. Expansion of the growers' businesses saves on social benefits and increases tax revenues on profits and salaries, while the companies generate more sales and profits. The network operator is faced with a negative financial impact of €3.1 million due to the costs of the flexibility solutions: the CHP, temporarily switching off lights, the payment to the high-voltage network operator TenneT, and deferred income from new connections. The creation of jobs has a positive impact of €1.9 million on human capital because of the increase in well-being that comes along with the extra jobs. The use of the flex solutions results in a €2.4 million negative impact on natural capital. Thanks to Alliander's activities, regular power consumption, the use of CHP systems, and the use of lighting are all changing. Using CHP systems causes production to increase, and emissions change thanks to switching off lighting. The result is extra power consumption and higher carbon emissions. The carbon-related costs are an estimate based on the total economic costs associated with damage caused by an increase in CO_2 emissions. The flex solutions have a positive impact of €600,000 on social capital due to the extra income through the spending by companies and employees. This new injection of spending then results in more sales and more income elsewhere, i.e. the 'multiplier effect'. The impact of this case on intellectual capital in the form of technological advancement and Alliander's reputation is considered to be minimal.

This case shows that a stopgap flexibility solution for bottlenecks in the electrical infrastructure has additional social costs and benefits. In this case, the network operator incurs additional costs that are not reimbursed. The use of the CHP system results in a negative impact on natural capital. Part of the effects are shifts: the wages of the new employees at the businesses in the area supplant social benefits, and many of the costs Alliander incurs are on balance benefits gained by commercial growers and aggregators in the area.



Calculated over a period of 5 years to bridge capacity expansion

Impact case study: the impact of circular construction of the Laarberg substation

In 2019, we investigated the impact of a new type of substation based on circular construction principles. This building has a more favourable impact on the natural environment than a traditional structure: savings of around 50% on the costs of using materials for natural capital. The investment compared to using a traditional construction method is higher. Taken as a whole, the Laarberg substation presents a slightly negative case for financial and natural capital combined. The new construction of the Laarberg substation in Groenlo is our first experience with 'circular new build' for a technical installation.

Project

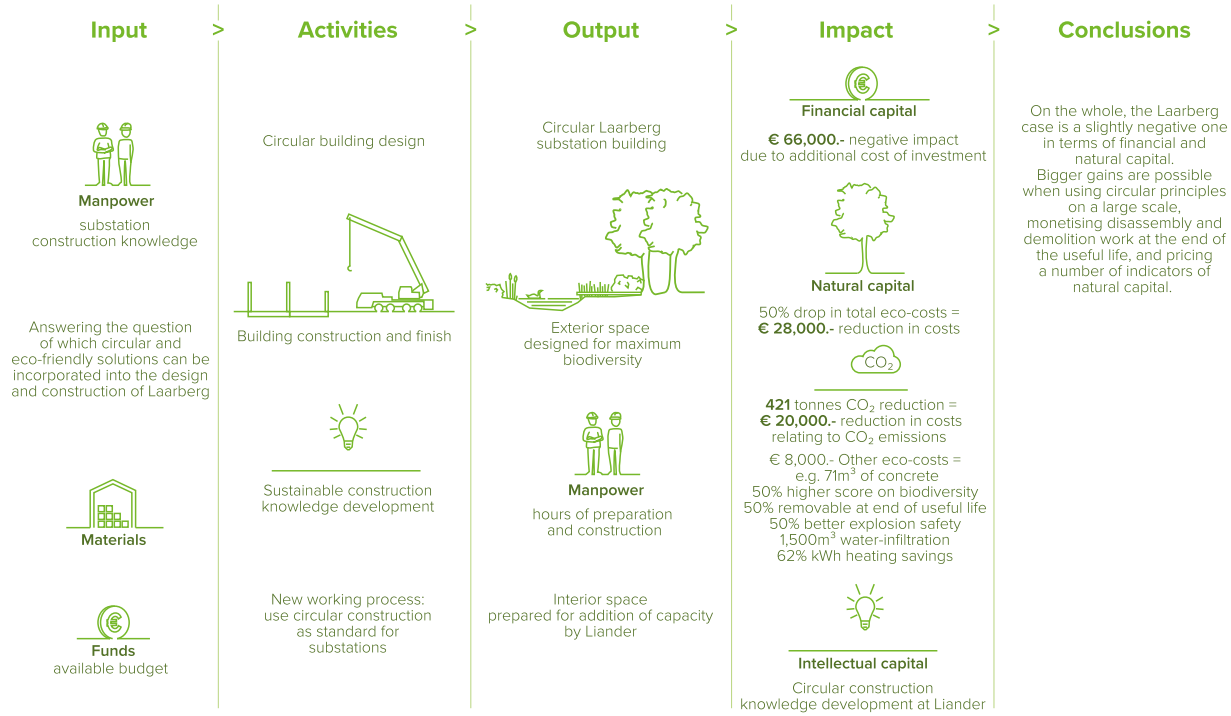
Compared to designing a structure to house a technical installation based on traditional construction methods, designing one based on circular principles involves considering many more and different aspects. In addition to complying with all the standard technical and installation requirements, the substation needs to blend in with the environment and be built with a minimal ecological impact. To achieve this, we worked together with an architect and a technical installation business. Knowledge institutes contributed to the impact study. The central question was: What is the impact of all the circular measures, taken as a whole, applied in the build of this new substation? The questions for the network operator were: How does the circular design affect the design of the interior technical space, how does it affect costs, and which economies of scale can be gained with repeated application? From a social perspective, this concerns how circular buildings and structures can be used within a larger planning area, as well as how this method contributes to the social goals for the circular use of raw and other materials and reduction of carbon-related emissions.

Impact calculation

In this case study, the impact on financial and natural capital was calculated (over a period of sixty years) based on the completion of a structure built on circular principles to house a 20MVA transformer installation compared to a traditionally built structure. In this case study, the impact on financial capital is negative. Given the investments in hours and materials, the cost price for the build of the substation structure via tender was, on balance, €66,000 higher than it would be if it had been built on non-circular principles. The impact on the natural capital is positive. By applying energy-saving measures, a net amount of 148MWh less energy is required over the useful life. This is mainly thanks to the use of an earthen wall built up

against the long side of the station, which both insulates the interior against heat and cold while also saving on exterior wall material. An additional advantage of this solution is that no soil had to be supplied or removed. The avoided eco-costs for the energy and materials are positive, and amount to €28,000, of which approximately €20,000 can be attributed to lower costs for CO_2 emissions. The reduction in the carbon footprint from heating and electricity thanks to the installation of solar panels results in a net positive effect of 421 tonnes in carbon emission savings. To strengthen biodiversity, more than three times as many measures were taken in the plan than called for in the reference (i.e. a traditionally built substation). It was not possible to assign a monetary value to the impact of these measures; the investment costs were minimal.

What emerged from this case study is that there is a lack of good impact data for the demolition/deconstruction costs for traditional substations. This data is important, however, for making an objective cost comparison. After all, with circular construction considerable benefits can be expected at the end of the useful life of the materials. In monetary terms, the avoided impact on natural capital appears to be less than the additional costs for the one-off construction of the circular-design substation.



Contribution to Global Goals (SDGs)

What we have at our disposal → Our role and the choices we have made → What our stakeholders notice in the short term → The value we create for the long term → The key social impacts → **The global goals we help to achieve**

In 2015, the Member States of the United Nations adopted a new global agenda to end poverty, inequality, injustice and climate change by 2030. At the heart of this agenda are 17 Sustainable Development Goals (SDGs).

The Netherlands has endorsed these global goals for sustainable development. Government, politicians and companies are currently working out their contribution in more concrete detail. Statistics Netherlands reports from time to time on the progress made on the global goals. Energy network operators play an essential role in assuring safe, affordable, and continuous availability of energy as set out in SDG 7 (affordable and clean energy).

Alliander and global goals: influence is key

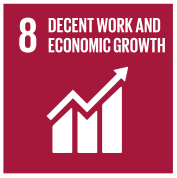
In 2018, we analysed how Alliander, as a company, can best contribute towards the achievement of the SDGs. Where is our greatest impact and where can we achieve the greatest gains? To this end, we reviewed our operations, core activities, and entire value creation process to ascertain which SDGs best match both our own initiatives, objectives and strategy, and our stakeholders' expectations. We identified four development goals, which Alliander is focusing on and actively pursuing.

Our contribution to SDGs: impact-driven strategy

Alliander's mission

Reliable, Affordable and Accessible energy for everyone

We stand for an energy supply system where everyone has access to reliable, affordable and renewable energy on equal terms.



Safe and inclusive employer

Our employees ensure reliable energy supply. We offer them a safe and healthy working environment that they can be proud of.

Energy and heating transition

We support our customers in the built environment in switching to a sustainable energy system.

Sustainable operations

Alliander pursues socially responsible operations (also in the supply chain) and supports sustainable area development.

The result of this process is recorded in our connectivity matrix, in which the connection between our process of value creation, our material issues, performance, and the SDGs becomes clear. For a more detailed overview of our contribution to the SDGs, see the explanation of the SDGs.

Affordable and clean energy (SDG 7)

Affordable and clean energy is the most important SDG for our company. This goal largely coincides with our mission and strategy. For us, goal 7.1 (ensure universal access to affordable, reliable and modern energy services) and goal 7.2 (increase substantially the share of renewable energy in the global energy mix) are especially important. That is why we have linked a number of indicators to these two goals (see also our connectivity matrix) so that we can monitor our progress.

In this report, you can read how we work every day to keep pace with the energy transition by facilitating customer choices, making maximum use of digital opportunities, creating open networks (i.e. efficient markets) and operating efficiently while simultaneously ensuring that we invest smartly and keep costs as low as possible. This has a direct correlation with the economic value of our infrastructure for our customers (manufactured capital) and our chain emissions (natural capital).

Performance in 2019

In 2019, we made progress in the area of the reliability of supply in our own network; we were able to reduce the average outage duration (to 21.9 minutes) for example. The number of cable numbers with more than five interruptions was 17. We have also made agreements with local councils about how we can guide them in the coming years to shape the energy transition. We have also taken steps to identify our impact in relation to SDG 7.

Decent work and economic growth (SDG 8)

We work non-stop on ensuring a safe and fair working environment for all our employees as well as an inclusive corporate culture. Our activities thus contribute to SDG 8.8 (protect labour rights and promote safe and secure working environments). We want Alliander to reflect a representative cross-section of society, which is why SDG 8.5 (achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value) is crucial for us and why we have launched a number of actions to help us increase our contribution to this goal. We agree arrangements on employees at a distance from the labour market and have set a target for the number of women in leadership positions in our company. This has a direct correlation with the well-being effects for our employees and is included in our impact calculation (human capital).

Performance in 2019

In 2019 we took steps towards achieving our goals relating to SDG 8. We offered 101 apprenticeships to people at a distance from the labour market. The percentage of women in leadership positions has remained relatively stable, i.e. 26.9% at year-end 2019 compared with 27.8% at year-end 2018.

Sustainable cities and communities (SDG 11)

In the Netherlands, municipalities play an important role in the transition to a sustainable energy supply. The agreements in the Regional Energy Strategies and the development of the Dutch Climate Agreement in combination with social initiatives motivate the creation of concrete strategies and district plans. Our task is to assist municipalities in this process and to programme and implement changes as well as possible. By enabling energy feed-in and connecting a growing number of charging points for electric mobility, we are also contributing to the sustainability of our cities, towns and communities. All these actions support the achievement of SDG 11.6 (reduce the adverse per capita environmental impact of cities). These activities have a direct correlation with our chain emissions (natural capital) and the well-being in districts and neighbourhoods (social capital). In 2019, we investigated the effect the introduction of sustainable decentralised generation of energy at local level would have in terms of making the energy supply more sustainable as well as its impact on natural capital. This is detailed in the Key Social Impacts chapter.

Performance in 2019

In 2019, we met with representatives of almost all our municipalities and of numerous housing associations to make agreements about the heating transition, to ensure this can be implemented without negative consequences for citizens.

Responsible consumption and production (SDG 12)

We are acutely aware of the impact of our operations on the planet, which is why we target having climate-neutral and circular business operations, in line with SDG 12.2 (by 2030, achieve the sustainable management and efficient use of natural resources) and SDG 12.5 (by 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse). We invest in having low grid losses, sustainable buildings, and a clean vehicle fleet. Transparency and circularity are key elements in our procurement process (see the Sustainable business practices section). This has a direct relationship with our ecological and climate change costs (natural capital). This year, we monetised both impacts for the first time.

Performance in 2019

We also made progress in 2019 in making our company more sustainable. For example, in 2019 30% of our primary assets were already purchased in a circular fashion and our carbon footprint decreased by 8%.

Ambitions for the coming years

Serving society is at the heart of our mission and strategy. The energy transition forms a key part of this: we are working on the 'sustainable tomorrow'. Our operations are in line with this sustainable course, and the global goals form a navigational tool. The further operational integration and implementation of SDGs is fundamental to our mission, as is rigorous monitoring, measurement and reporting to ensure adequate compliance. To keep our focus on achieving the SDG goals, we have linked these to our own goals in the connectivity matrix. We have also agreed on long-term goals, which we will further explain in this chapter.

Affordable and clean energy and sustainable cities and communities (SDG 7 & 11)

We actively contribute to the national Climate Agreement based on our role in the energy transition. Our role in the built-up environment and beyond is changing. But our crucial mission remains to ensure reliable, affordable, accessible and, increasingly, renewable energy. We see opportunities and challenges for the proper regulation of the heating and energy storage market, flex-markets, the technical and regulatory feasibility of smart connections, further system integration, and the prevention of network problems. Via our chain partners, we want to continue making a contribution to a sustainable energy system at low costs.

For 2020, we aim to make agreements with our customers about the heating transition. We believe it is our task to assist municipalities in bringing about the heating transition and to programme and implement changes as well as possible.

Decent work (SDG 8)

Our efforts for SDG 8 (decent work) are aimed at reinforcing and retaining access to work for all groups. Inclusive employment – aimed at diversity, appreciation, division of and access to work, safe conditions and full use of talent – is an important theme for us. We are working on sector-wide arrangements within the infrastructure sector to ensure equal access to the labour market. We aim to be able to offer 100 learning places each year to people who meet the criteria of the Dutch Participation Act or who are at a distance from the labour market. We anticipate that we will be able to meet this goal sooner than agreed. We are also aiming to have women in 33% of leadership positions by 2024.

Responsible consumption and production (SDG 12)

Our economy is entirely modelled along linear lines: take, make, waste. Despite certain shifts, global production still revolves largely around new commodities, mainly from Asia and South America. Owing to reverse logistics and the composition of products, 'new' is even cheaper than 'used'. We also see that scarcity is beginning to arise in materials that are critical to our operations, like copper for example. Another challenge in many production chains is transparency. Within the Green Networks Project, we are working to make the resource passport obligatory in the infrastructure sector by 2020. The accessibility and improvement of materials information in the sector contribute to the circular economy. Regarding energy usage, we see a movement towards the voluntary adoption of carbon pricing among companies and sectors. This applies to many network operators, but the chosen carbon price is still arbitrary. Our ambition is to have a harmonised policy for fair carbon pricing among network operators. For Alliander, our goal is to achieve 100% climate-neutral and circular operations in the company by 2030. To become climate neutral, we want to get our energy exclusively from renewables.

In 2020, we will expand our priority SDGs by two, both of which are an extension of our core activities: SDG 9 (industry, innovation and infrastructure) and SDG 13 (climate action). This will enable us to make even more of a difference.

Dilemmas and lessons learned

Alliander always aims to perform its duties and carry out its activities to the best of its ability. However, we are faced with dilemmas that can influence the way we plan to carry out our work. Moreover, certain incidents, developments and events can have unforeseen consequences. By being aware of this and learning from it, we can continue to enhance the quality of our company. In this chapter, we present a few of the dilemmas and events we encountered in 2019.

Our dilemmas

Tight control versus flexibility

The support for the energy transition and the chance of it succeeding increases when customers can make their own plans and choices. However, to ensure the energy infrastructure is ready in time and keep the costs as low as possible, systematic planning and coordination between the municipalities, provinces and network operators is essential. But how do we achieve a balance between flexibility for customers and municipalities (bottom up) and strict management from municipalities, provinces and network operators (top down)?

Existing legislation versus the new reality

Alliander, together with fellow network operators, plays a crucial role in achieving the climate goals for the Netherlands. For example, investment in grid expansions and innovations needs to be made on a large scale, completely new partnerships need to be set up, and people who are even better-skilled need to be recruited. At the same time, the strict legal frameworks and public opinion we face make it difficult for us to operate in this new reality. Changing this is a long-term process however. The question is, how can we ensure that we do not slow down the energy transition despite these obstacles?

Where should we deploy our valuable supply of trade professionals?

The amount of work that we, along with our contractors, need to get done over the next decade, on the power grid in particular, is enormous. At the same time, there is a huge shortage of technicians on the Dutch labour market, meaning we have to set priorities and decide which work should be handled first. If the Netherlands wants to achieve its climate goals, we need to figure out how we can most quickly achieve the greatest reduction in carbon emissions, and then act accordingly. However, network operators are currently required to process customer requests and applications in the order they are received (non-discriminatory allocation). So, the question is, when will this issue be settled in the Netherlands and by whom?

What have we learned?

Better information on defective street lighting

What happened?

Street lighting contributes significantly to public safety on a street or in a neighbourhood. Municipalities and Liander are jointly responsible for ensuring the streetlights stay on: if a streetlight is not working properly, the local council will see that this gets fixed; if the problem is in the electrical system they will call in Liander to take care of it. Especially in the autumn, when it gets dark earlier, the number of faults reported increases. The place for residents to report broken streetlights is the local council; however, not all residents know this and this results in a lot of complaints, on social media for example.

What have we learned?

To improve the handling of fault reporting, we have opted to provide the public with additional information about the division of roles in fixing streetlights via social media and the Liander website. In this information, we also explain how Liander deals with repairing the fault. For the service technicians to do their work safely, it is sometimes necessary to cut the power on the cable. Local residents are informed about this in advance since they will not have any power either during the operation. Liander will often also need permission to dig from the local council. While waiting for this we make sure everything else is ready to go. Providing good information helps to cut back on reports incorrectly being sent to us, but it does not stop these altogether. Complaints still arise, and local council call centres still incorrectly redirect residents' calls to Liander. Local councils and Liander increasingly proactively consult to improve this situation a bit more each day.

Solving the Nijmegen-Noord capacity puzzle

What happened?

The demand for capacity is high in Nijmegen-Noord. Thousands of homes and a large industrial park have been built in the district in a short period of time. The Nijmegen-Betuwe wind farm is ready, and more solar fields and wind turbines will follow. The demand for capacity exceeds the supply. Because the Nijmegen-Noord substation has almost reached full capacity, we will be building a new substation. To bridge the period until the station is brought into operation, at the end of 2018 we introduced the flex-market as a stopgap solution. Though this market functions well, it does not provide sufficient flexible capacity to keep pace with the growth of the business park.

To address this situation, in 2019 we applied a 'seasonal switch' for the first time: a part of the load is transferred to a nearby electricity distribution substation. This prevents an excess of electricity being generated at a substation in the summer and an excessive load in the winter. We have also prepared reserve capacity, which can be used in the network as well.

What have we learned?

Thanks to this 'stacking' of innovative solutions in Nijmegen, we can make better use of the grid. These innovations are being worked out further for application elsewhere. For example, the procurement process for the flex-market in Nijmegen is also being used now in the Zuidplaspolder region. We are also investigating whether we can switch loads more often. In 2020, we will be able to make better use of the grid because we have made agreements with customers for shutting off grid tie solar power. In parallel, we are working towards a policy to apply these techniques in our entire service area and to have this entire process run automatically.

Statement by the Management Board

In Control Statement

As the Management Board, we are responsible for the adequate design and effectiveness of our risk management and control system. In 2019, we evaluated the design and effectiveness of this framework, based in part on the business control information, the Internal Audit reports and the management letter from the external auditor. The outcomes of this evaluation were periodically discussed with the Supervisory Board.

The risk management and control system cannot provide absolute assurance that the corporate objectives will be achieved, nor can it give any absolute guarantee that material errors, losses, fraud or violations of legislation and regulations will not occur in the processes or in the financial reporting.

With due regard to the above, the Management Board is of the opinion that the report provides sufficient insights into any failings in the effectiveness of Alliander's internal risk management and control system. The aforementioned system provides reasonable assurance that the financial reporting does not contain any material misstatements. Moreover, the Management Board is of the opinion that, 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.

Statement of Responsibility by the Management Board

We state that:

- the financial statements provide a true and fair view of the assets, liabilities, financial position and profit of Alliander N.V. and its consolidated companies;
- the additional information provided by the Management Board, as included in this annual report, provides a true and fair view of the position as at 31 December 2019 and of the business during the 2019 financial year of Alliander N.V. and its group companies, the results of which are included in the financial statements; and
- the key risks to which Alliander N.V. is exposed are described in the annual report.

Arnhem, Netherlands, 14 February 2020

Ingrid Thijssen, Management Board chair/CEO
Walter Bien, Management Board member/CFO
Daan Schut, Management Board member/CTO

Corporate governance

Corporate governance

Corporate governance is about the Management Board's direction of Alliander, the supervision of the Management Board, and about how we report on our performance and compliance. Alliander attaches great importance to good corporate governance. It is a prerequisite for the efficient and effective achievement of the objectives we have set and ensures adequate management of risks and careful consideration of the interests of all stakeholders of Alliander.

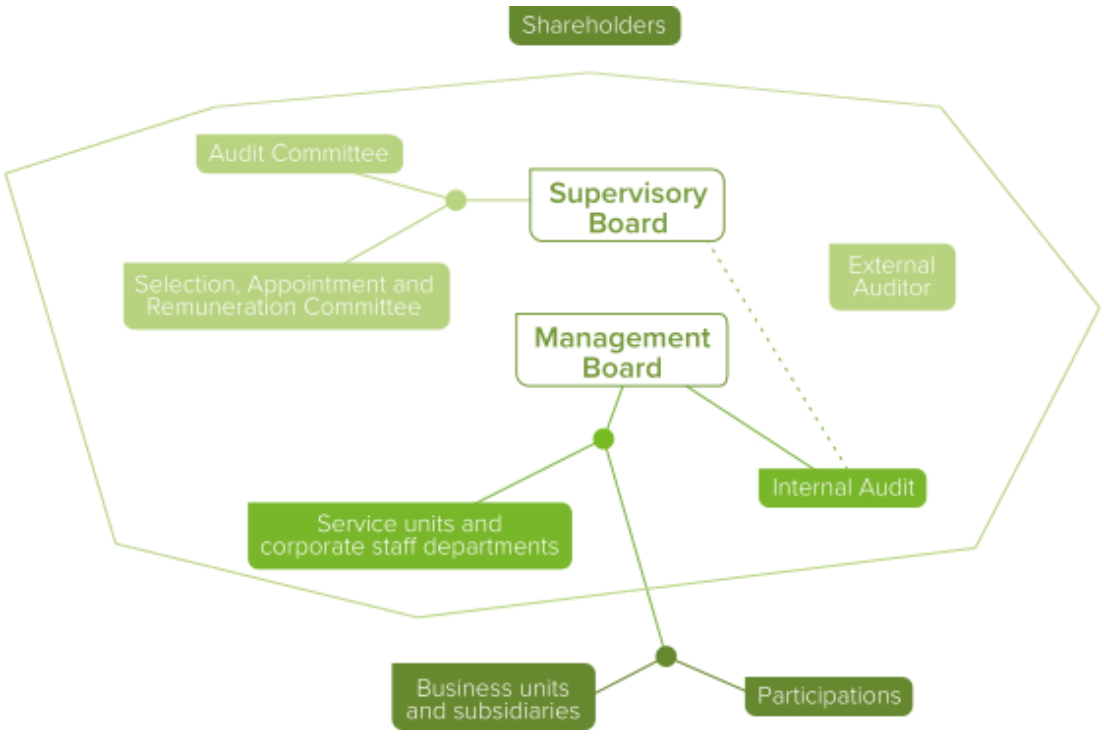
Related material issues in this chapter
⑫ Corporate governance and business ethics

The Dutch Corporate Governance Code (the 'CG Code') contains governance rules for listed companies. Since all shares in the company are held by Dutch provinces and municipalities, Alliander is not required to comply with the CG Code. Nevertheless, given that concepts such as long-term value creation, transparency and integrity are central to the CG Code, Alliander attaches great importance to it, which is why the company complies with the code voluntarily.

Corporate governance structure in outline

Alliander is a company with full statutory two-tier status. All shares are held by four Dutch provinces and 72 Dutch municipalities. Alliander has a two-tier management structure, with a Management Board and a Supervisory Board. The Management Board directs Alliander in its day-to-day operations; the Supervisory Board oversees the Management Board and its management of the company's business. Each board operates independently of the other and each is accountable for the performance of its duties to the General Meeting of Shareholders.

Governance structure



Alliander's corporate governance is based on Book 2 of the Dutch Civil Code, the CG Code, Alliander's articles of association, and various sets of internal rules and by-laws. The Dutch Gas Act and the Dutch Electricity Act 1998 also contain various provisions that influence the governance of Alliander and its affiliated enterprises. In addition, based on its core values, Alliander has formalised a number of key rules of behaviour and requirements in a code of conduct (including the Guideline for the Prevention of Market Abuse) and a whistleblower policy.

The articles of association, various sets of rules and by-laws and other corporate governance documentation have been posted on the Alliander website. The website also offers a complete summary of Alliander's standpoints relating to all principles and best practices from the CG Code (the 'comply or explain' summary).

Management Board

Tasks and responsibilities

The Management Board is responsible for directing and managing Alliander and thus for achieving the corporate objectives and for the strategy and policy, financing, development in results, and the social aspects of doing business. In addition, the Management Board is responsible for compliance with all relevant legislation and regulations and for controlling the risks associated with the business activities through the operation of adequate internal risk management and control systems. With Alliander's strategy, the Management Board focuses on long-term value creation, taking into account the interests of stakeholders. The Management Board has set out values that contribute to a culture that focuses on long-term value creation.

In addition to their collective responsibility for the management of the company, individual members of the Management Board are assigned specific tasks and responsibilities. The division of duties is determined (and revised if necessary) by the Management Board, subject to approval by the Supervisory Board. The Management Board as a whole and the individual Management Board members have the authority to represent the company.

By-laws

In addition to the statutory regulations and articles of association, the Management Board must comply with its own by-laws, which set out the rules regarding the divisions of duties, procedures and decision-making, among other matters. The by-laws furthermore contain provisions with regard to conduct and culture, the handling of information and the manner in which this is provided to the Supervisory Board, and on how to deal with existing or potential conflicts of interest.

Appointment and dismissal

The members of the Management Board are appointed by the Supervisory Board for an indefinite period. The Supervisory Board also has the power to suspend or dismiss members of the Management Board.

Supervisory Board

Tasks and responsibilities

The Supervisory Board supervises the manner in which the Management Board pursues the strategy on long-term value creation. The Supervisory Board regularly discusses the strategy, its implementation, and the main risks, while also explicitly examining the effectiveness of the company's internal risk management and control systems and the integrity and quality of financial reporting. Furthermore, the Supervisory Board supervises the policy of the Management Board and the general course of affairs within Alliander and its affiliated companies, and it fulfils the role of adviser and employer of the Management Board. The Supervisory Board of Alliander also acts as the Supervisory Board of network operator Liander N.V.

In the performance of its duties, the Supervisory Board – like the Management Board – is led by the creation of long-term value at Alliander and the affiliated enterprises and carefully weighs up the interests of the stakeholders. The Supervisory Board also gives due consideration to the social aspects of entrepreneurship that are relevant to the company. The Supervisory Board is jointly responsible for the performance of its duties.

By-laws

In addition to the statutory regulations and articles of association, the Supervisory Board must comply with its own by-laws, which set out the board's duties and powers, composition, and procedures, among other matters. The by-laws furthermore contain provisions with regard to the Supervisory Board's interactions with the Management Board, the shareholders and the Works Council, and on how to deal with existing or potential conflicts of interest.

Appointment and dismissal

New members of the Supervisory Board are nominated by the Supervisory Board and appointed by the General Meeting of Shareholders, taking into account the profile. In its nominations, the Supervisory Board aims to align the experience and expertise of its members with the nature, activities and strategy of Alliander. The composition of the Supervisory Board is such that the members are able to operate independently and critically vis-à-vis one another, the Management Board and any particular interests involved.

The Committee of Shareholders and the Works Council can nominate members to the Supervisory Board. For one-third of the Supervisory Board members, the Works Council and the Committee of Shareholders have an 'enhanced right of recommendation', i.e. the person nominated by the Works Council or Committee of Shareholders will be included on the Supervisory Board's list of nominees, unless the Supervisory Board objects to this nomination, stating the reasons for its objection.

A Supervisory Board member is appointed for a period of four years, after which he or she can be reappointed, once only, for a further four-year period. Thereafter, reappointment for a two-year period is possible, with a possible extension of no more than two years. Reappointment after a period of eight years must be reported and explained in the report of the Supervisory Board. The Supervisory Board may suspend any one of its members, but the Enterprise Section of the Amsterdam Court of Appeal is the only competent party to dismiss a Supervisory Board member. The General Meeting of Shareholders can withdraw its confidence in the Supervisory Board; such resolution will result in the immediate dismissal of the Supervisory Board members.

Supervisory Board Committees

The Supervisory Board has set up two committees from among its members, an Audit Committee and a combined Selection, Appointment and Remuneration Committee. The committees have their own meetings, which are in preparation for the plenary Supervisory Board meetings. In the Supervisory Board meeting, the committees report orally, and draft minutes of the committee meetings are distributed. The recommendations of the committees form the basis for decision-making during the Supervisory Board meeting. The Supervisory Board remains collectively responsible for the decisions prepared by a committee. Each committee has its own by-laws that set out the committee's organisation, procedures, and duties and responsibilities.

The Audit Committee advises the Supervisory Board and prepares material to help the Supervisory Board in its decision-making on matters such as the supervision of the design and effectiveness of the internal risk management and control systems, the integrity and quality of financial reporting, the financing policy and financing, and the interactions with the internal and external auditor.

The Selection, Appointment and Remuneration Committee prepares material to help the Supervisory Board in its decision-making on matters such as the selection criteria and appointment procedures for Supervisory Board and Management Board members and the remuneration policy for the Management Board and the Supervisory Board. Once a year, the committee also assesses the performance of the members of the Management Board and prepares the annual Remuneration Report.

General Meeting of Shareholders

The Annual General Meeting of Shareholders (AGM) is held within five months of the end of the financial year. The key powers of the shareholders at the AGM include adoption of the financial statements and the dividend, discharging the members of the Management Board and the Supervisory Board from responsibility for their management and supervision respectively, adoption of the remuneration policy for the Management Board and of the remuneration of the Supervisory Board members, and the appointment or reappointment of the external auditor and the Supervisory Board members. In addition to these agenda items, the AGM agenda includes key board decisions that, in accordance with the law and the articles of association, must be submitted to the AGM (such as decisions about a major change in the identity or character of Alliander, an amendment to the articles of association, a legal merger or demerger, or large-scale investments) as well as any other investment proposals by the Supervisory Board or the Management Board.

All resolutions are passed on the basis of the 'one share, one vote' principle. Resolutions are adopted by an absolute majority of votes, unless the law or the company's articles of association prescribe a larger majority. A shareholder can be represented by proxy at the AGM. Extraordinary General Meetings are held as often as the Management Board or the Supervisory Board deem desirable. The agenda of the AGM is set by the Management Board and the Supervisory Board. Shareholders can also convene meetings and/or put items on the agenda, as provided for in the law and the articles of association.

Internal audit function

Within Alliander, the Internal Audit department performs the internal audit function. Internal Audit has an independent, objective role that provides assurance and performs advisory engagements in order to deliver added value and improve the operational activities of Alliander. The department supports Alliander in achieving its corporate objectives through the systematic evaluation and improvement of the effectiveness of the risk management, control and governance processes.

Every year, Internal Audit draws up an audit plan based on risk reports and the audit findings in consultation with the Management Board, the Audit Committee and the external auditor. This plan describes the proposed audit engagements for the coming year. In addition, the plan devotes attention to the interaction with the external auditor. The annual audit plan is submitted to the Management Board and then to the Supervisory Board for approval. Internal Audit reports the audit results to the management and the Management Board and the essence of its audit findings to the Audit Committee and informs the external auditor. The audit findings will address, as a minimum:

- drawing up an annual audit plan;
- flaws in the effectiveness of the internal risk management and control systems;

- any findings and observations with a material impact on the risk profile of Alliander and its affiliated enterprises;
- any failings in the follow-up on recommendations of the internal audit function.

Internal Audit is an independent corporate support department operating under the responsibility of the Management Board. The Internal Audit Manager reports to the chair of the Management Board and also has direct access to the Audit Committee and the external auditor and attends meetings of the Audit Committee. The Management Board appoints and removes the Internal Auditor Manager. Both the appointment and the removal of the Internal Audit Manager is submitted to the Supervisory Board for approval, together with a recommendation from the Audit Committee.

External auditor

The external auditor is appointed by the General Meeting of Shareholders upon the nomination of the Supervisory Board. Deloitte Accountants B.V. has been the external auditor of Alliander and its affiliated enterprises since the 2016 financial year. The external auditor audits the financial statements and reports the findings of the annual audit to the Management Board and the Supervisory Board. The conclusion from the findings is set out in a report. The General Meeting of Shareholders can ask the auditor questions about the findings. The auditor attends the General Meeting of Shareholders for this purpose. He is authorised to speak at this meeting.

The Audit Committee reports annually to the Supervisory Board on the performance of, and relationship with, the external auditor. The Management Board gives the Audit Committee, and by extension the Supervisory Board, an opportunity to examine the most important points of discussion arising between the external auditor and the Management Board based on the draft management letter or the draft board report.

The external auditor attends the meetings of the Supervisory Board in which the external auditors' report on the audit of the financial statements is discussed. The auditor also attends the meeting of the Supervisory Board in which the half-year figures are discussed. The external auditor attends the meetings of the Audit Committee, unless the Audit Committee decides otherwise. The external auditor immediately informs the chair of the Audit Committee of an actual or suspected abuse or irregularity that is uncovered during the audit. If this actual or suspected abuse or irregularity concerns a member of the Management Board, the external auditor reports this to the chair of the Supervisory Board.

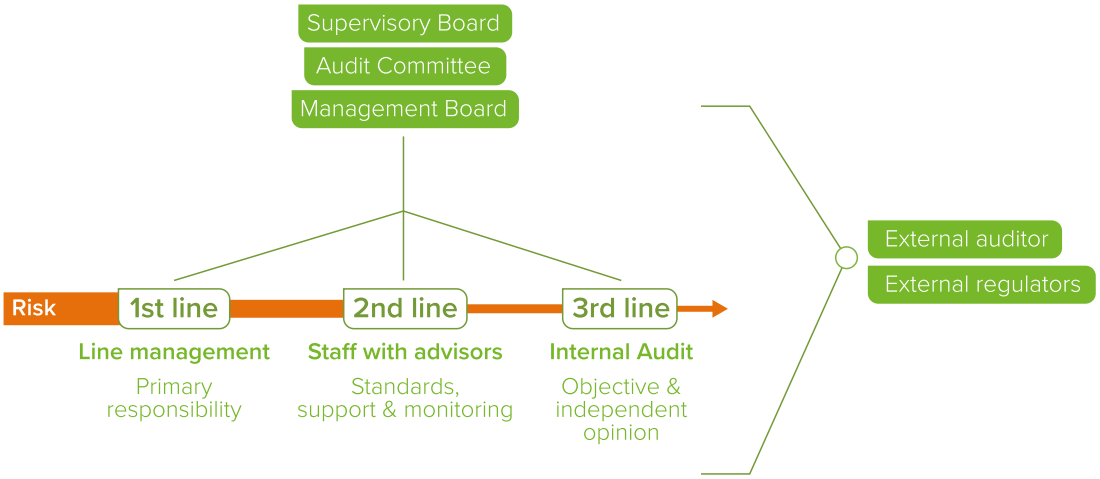
Other regulators

External organisations supervise Liander in its capacity as a network operator that is active in a regulated environment. They supervise such aspects as compliance with specific legislation and regulations.

Risk management and control

Risk management is the deliberate handling of uncertainties that can have a negative impact on the achievement of the strategy as adopted by the Management Board. An effective risk management and internal control system is therefore important. The risk management and internal control system is updated in line with internal and external developments. We apply the 'three lines of defence' model for risk management purposes. Each line of defence has its own responsibility in the management and control process:

- The first line is primarily responsible for the identification, management and monitoring of the risks within its processes and for an effective risk management and control system.
- The second line supports, advises, coordinates and sets frameworks to ensure that the management genuinely takes responsibility. It thus provides additional assurance within Alliander.
- The third line provides additional assurance about the question whether the first and second lines can jointly manage the risks, so that the organisational objectives are achieved. They give an objective and independent opinion on this matter, including suggestions for possible improvements. The third line operates objectively and independently from all other parts of the organisation.



In addition, various other controls are in place to manage our risks, such as the Planning & Control Cycle, the Risk Management Framework, the Business Control Framework and the Alliander Accounting Manual. These controls are discussed in other parts of this report. Management responsibility for supervising the quality of the management of our top risks also consists of three layers.

- **Alliander Resilience Committee:** this Committee has the CFO as chair, issues recommendations to the Management Board on privacy & security, compliance, risk acceptance, risk profile, external risk reporting requirements, exceptions of a temporary nature or events that diverge from the applicable risk policy and acceptance. The Committee also discusses risk reports and monitors and advises on the follow-up actions arising from the internal and external audits. Finally, it also promotes the embedding of risk management and internal control processes within the business units and supply chains of Alliander.
- **Management Board:** the Management Board plays a proactive role in managing attitudes and behaviours regarding risk management and internal control. Every six months, the portfolio of top risks is discussed by the Management Board and the discussion of specific risks is frequently on the agenda. If necessary, the Management Board initiates the implementation of additional measures. Moreover, the Management Board monitors the risk management and control system, which it regularly tests against the expectations of, and developments at, our key stakeholders. The principal risks are set out in this annual report under Risks.
- **Supervisory Board:** the Supervisory Board supervises the design and effectiveness of the risk management and control system. The portfolio of principal risks is discussed in the Audit Committee every six months. A summary of the discussion is given to the full Supervisory Board. The Management Board provides an explanation of the risk report, which the Audit Committee takes on board in its supervision. Proposed adjustments to the risk management policy are put to the Audit Committee before being introduced.

Integrity

Alliander attaches great importance to integrity and having an open, honest culture. Such a culture reduces the chance of abuses and irregularities. There are various regulations within Alliander related to the subject of integrity.

Codes of conduct

Alliander has drawn up an internal Code of Conduct setting out the standards and values. The Alliander Code of Conduct, which applies to all employees, including agency/contract workers, sets out how we deal with each other, business partners, company and personal interests, business assets, confidential and non-confidential corporate information, security, and health, safety and the environment. In this way, we protect customers, associates and the reputation of Alliander, and jointly safeguard a pleasant and safe working environment. Failure to adhere to the code can have serious consequences and may even lead to dismissal.

The Management Board monitors the effectiveness of, and compliance with, the Alliander Code of Conduct. Every six months, the Management Board informs the Supervisory Board via the Audit Committee of its findings and observations in relation to the effectiveness and compliance. These reports are based on investigations into suspected violations of the Alliander Code of Conduct. The Internal Audit department acts as a Fraud Disclosure Desk and has specialist expertise to investigate reported incidents. One officer of the Fraud Disclosure Desk is a member of the association of certified fraud examiners (ACFE) with a continuing professional education obligation.

The Fraud Disclosure Desk completed 31 investigations into fraud and incident reports in the year under review. In ten cases, the management involved decided to impose a measure or sanction.

Every new employee is given information about the Alliander Code of Conduct. In addition, employees take a mandatory e-learning course dealing with subjects relating to the Code of Conduct. The e-learning course helps employees to become even more conscious of integrity requirements and challenges. Integrity issues and ways of dealing with dilemmas in this field are also discussed in team meetings. This concerns such aspects as anti-corruption measures, prevention of conflicts of interest, dealing with gifts, and handling confidential information. In addition, articles are regularly published on the intranet that focus on integrity risks and on employees who have acted contrary to the Alliander Code of Conduct.

In carrying out our business activities, we want to ensure that we comply with all applicable laws, rules and regulations, and we constantly strive to improve our social and environmental performance throughout the value chain. Ethical and honest business practices are our guiding principle when purchasing products and services. We have a dedicated code of conduct specifying what we require from suppliers and other parties, the Alliander Supplier Code of Conduct. This Code of Conduct covers matters like the ban on child labour and the use of forced labour, non-discrimination, and requirements regarding safety, environmental protection, and working conditions. Alliander expects suppliers to comply with this Code of Conduct in their own business operations and in their dealings with their own suppliers upstream. Non-compliance with the Code of Conduct can lead to the imposition of sanctions such as termination of the contract or temporary suspension of work with or without notice of default.

Handling complaints

The integrity policy includes a Complaints Procedure for Inappropriate Behaviour and a Whistleblower Policy so that employees can report suspicion of abuse or an irregularity in a safe and structured way. Employees can also raise concerns in confidence with nominated officers within Alliander. This guarantees that every employee can report actual or suspected abuses of a general, operational and financial nature within Alliander. The Whistleblower Policy encourages employees to report every complaint or inappropriate situation within the organisation. They can do so internally to their manager, the Fraud Disclosure Desk or the nominated officer for whistleblowers. Incidents can also be reported to an external party under the protection of the Whistleblower Policy.

Once every six months, the nominated officer for whistleblowers provides the Management Board and the Audit Committee of the Supervisory Board with a list of whistleblowing reports received and the actions taken in response to these reports. All actual and suspected abuses and irregularities are immediately reported to the chair of the Supervisory Board.

Guideline for the Prevention of Market Abuse

The Guideline for the Prevention of Market Abuse draws on the Alliander Code of Conduct and the European Market Abuse Regulation. The aim of the Guideline for the Prevention of Market Abuse is to set out in clear terms that employees are not permitted to share inside knowledge or use inside knowledge to conduct personal trading transactions in financial instruments of Alliander. The Guideline for the Prevention of Market Abuse describes the rules of conduct. This Guideline is also applicable to the members of the Management Board and the Supervisory Board.

The by-laws of the Management Board and the Supervisory Board stipulate that members of the Management Board and the Supervisory Board must adhere to disclosure and insider trading requirements that apply pursuant to the law or stock exchange regulations with regard to the ownership of or transactions in securities in listed companies.

Compliance with the Code

Several provisions of the CG Code do not apply to Alliander given that all shares in Alliander are held by Dutch provinces and municipalities and are not listed on a stock exchange. Furthermore, Alliander does not have a one-tier management structure nor an executive committee in its management model, and the Management Board does not participate in any variable remuneration scheme. Moreover, Alliander has an internal audit department. The following is a list of the best practice provisions of the CG Code that do not apply to Alliander. For the full content of these best practice provisions, we refer the reader to the Dutch Corporate Governance Code.

- 1.3.6: Absence of an internal audit department
- 2.1.3: Executive committee
- 2.1.8 vi and vii, and 3.3.2 and 3.3.3: Remuneration of Supervisory Board members in shares/shareholding by Supervisory Board members
- 2.8.2 and 2.8.3: Takeover bid
- 3.1.2 ii and iv to vii: Remuneration policy
- 3.1.3: Remuneration of executive committee
- 3.4.1 iii and v Remuneration report
- 4.2.6: Anti-takeover measures
- 4.3.3: Cancelling the binding nature of a nomination or dismissal
- 4.3.4: Voting rights on financing preference shares
- 4.3.5 to 4.3.6: Publication of institutional investors' voting policy
- 4.4: Issuing depositary receipts for shares
- 5: One-tier governance structure

Deviations from the CG Code

Where applicable, Alliander complies virtually fully with the principles and best practice provisions of the CG Code. Alliander deviates from the code on just a few points. Below we specify on which points Alliander deviates from the CG Code and explain the reasons for this. For the full content of these best practice provisions, we refer the reader to the Dutch Corporate Governance Code.

- **Principle 2.2.1**: appointment and reappointment periods: management board member – A member of the Management Board is appointed for an indefinite period. As the members of the Management Board act from a strategic long-term perspective, a limited appointment period would not be appropriate.
- **Principle 2.3.2**: establishment of committees – The Remuneration Committee and the Selection and Appointment Committee have, for practical reasons, been combined in the Selection, Appointment and Remuneration Committee.
- **Principle 2.3.7**: vice-chair of the supervisory board – No vice-chair has been appointed within the Supervisory Board. The meetings of the Supervisory Board are led by the chair or, in the chair's absence, by one of the other members of the Supervisory Board who is designated for this role by majority vote by the members of the Supervisory Board who are present or represented at the meeting.
- **Principle 2.4.3**: point of contact for the performance of supervisory board and management board members – No vice-chair has been appointed within the Supervisory Board. Each individual Supervisory Board member acts as a point of contact for individual members of the Supervisory Board and Management Board regarding the performance of the chair of the Supervisory Board.
- **Principle 3.2.3**: severance payments – Under certain conditions and if and insofar as this has been contractually agreed, this one-off payment is also made if a member of the Management Board resigns and cannot be reasonably required to continue the employment contract, such as in the case of a permanent change in policy regarding the function of a member of the Management Board, for example as the result of a merger, take-over, or reorganisation.
- **Principle 3.4.2**: contract for a management board member – At Alliander, management board members are appointed by the Supervisory Board. The Supervisory Board notifies the General Meeting of Shareholders – or the Committee of Shareholders – of a proposed appointment. The salary components of the management board members are transparently reported and published in the Remuneration Report.
- **Principle 4.1.10**: AGM report – Alliander sends the report proactively to all shareholders within three months of the AGM.
- **Principle 4.2.3**: meetings and presentations – Alliander shares are not listed on a stock exchange, but Alliander has issued five stock exchange-listed bonds. These are listed on the Amsterdam stock exchange. Alliander communicates in a transparent manner that is tailored to the target group. Alliander does not organise analysts' meetings, though the company does organise meetings with investors and shareholders after publication of the half-year and annual figures. Alliander also organises a press conference after the publication of its half-year and annual figures, at which the Management Board explains the company's performance over that period. The presentations given by the Management Board members are available online on Alliander's website. In addition, Alliander organises annual (and, if necessary, ad hoc) one-to-ones with rating agencies after the publication of the annual figures. These meetings and presentations cannot be followed by all shareholders in real time via webcasting. In 2019, however, a webcast replay of the conference call with investors on the 2018 figures was made available via the Alliander website for the first time.
- **Principle 4.3**: casting votes – The shareholders of Alliander are not given an opportunity to vote remotely or to communicate with all other shareholders. There is little need for this, in view of the high attendance at the AGM (on average more than 80% of the issued capital is represented at the meeting). In addition, proxy voting forms are enclosed in the convocation to the meeting. Moreover, Alliander would like to see the General Meeting of Shareholders remain an opportunity for direct contact with the shareholders.

Corporate Governance Statement

The Corporate Governance Statement is a statement about corporate governance as referred to in Article 2a of the Decree on the content of the Management Board Report of 1 January 2018 ('the Decree'). The information that is required to be included in this Corporate Governance Statement pursuant to Article 3a(a) and (d) of the Decree can be found in the chapters, sections and pages of this Report of the Management Board and should be considered as inserted and reiterated here.

- The main features of the internal risk management and control system relating to the financial reporting process of the Alliander group (Article 3a[a] of the Decree) are set out in the Risks section.
- The diversity policy relating to the composition of the Management Board and the Supervisory Board stating the objectives of the policy, the method of implementation, and the results of this policy in the past financial year (Article 3a[d] of the Decree) is set out in the Report of the Supervisory Board.

Risks

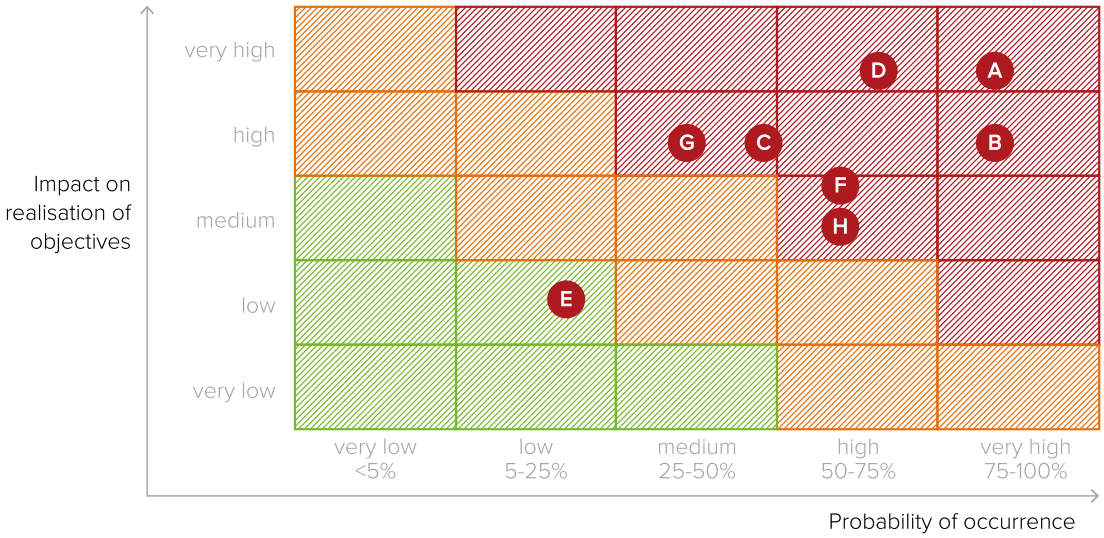
Alliander works hard to keep energy reliable, affordable and accessible for everyone. This work involves risks, including safety and financial risks. These risks cannot be entirely eliminated. However, risk management does provide insight into these risks, so that we can take informed decisions about these risks and risk management measures. In addition, risk management helps us refine Alliander's strategy. Alliander uses a single risk management method. This ensures that the risk management process takes place in accordance with the same steps everywhere in the organisation.

Risk levels

Risks can be subdivided into five categories, ranging from very low to very high. The risk category depends on two factors: the probability of occurrence and the impact on the achievement of our strategic objectives. The potential impact on our objectives is assessed based on various aspects. Based on their probability and impact, each risk is assigned a place in the risk matrix.

Our most important current risks (click an item in the online report for an explanation)

A Completion of work package →
B Capacity for change (new in 2019)
C Safety →
D Long-term regulatory focus →
E Privacy of energy data ↓
F Future-proof IT landscape (new in 2019)
G Cybersecurity →
H Financeability (new in 2019)



Risk awareness

The management of risks forms part of our governance and decision-making. The Management Board and Supervisory Board of Alliander regularly discuss the principal risks. They assess what effects the risks can have on the strategic objectives, the operations and our reputation. In 2019, Alliander's strategic risks were recalibrated in a session with the Alliander management team. Risk management is also a permanent item on the agenda for the other executive and management layers within Alliander.

Alliander is committed to complying with the guidelines from the revised Corporate Governance Code. The Corporate governance, Statement by the Management Board and Other information chapters provide more information on how risk management has explicitly been embedded in the company's governance and decision-making procedures. For more general information about risk management, go to www.alliander.com.

Connecting risks to strategic pillars

	1 customer choice first	2 open networks	3 digitalisation	4 excellent network management
A: Completion of work in work package			•	•
B: Company's adaptability (new)	•	•	•	•
C: Safety				•
D: Long-term regulatory focus	•	•	•	•
E: Privacy of energy data	•		•	
F: Future-proof IT landscape (new)			•	
G: Cyber security			•	•
H: Financeability (new)				•

Risk appetite

To achieve the corporate objectives, we sometimes need to accept risks to a certain extent. The extent to which we are prepared to run risk in attaining our goals (i.e. our 'risk appetite') ranges from risk to risk.

- When it comes to the safety of our employees, our customers and our networks, we take no risk whatsoever. All risks are excluded, where possible and realistic.
- Our risk appetite is low when it comes to compliance. We are expected to comply with laws and regulations and are committed to acting in accordance with internal procedures and the Alliander Code of Conduct.
- Where strategic risks are concerned, we seek the right balance between the risks and our longer-term ambitions.
- We have a low appetite for financial risks. This ensures that we have a healthy financial basis and meet our key financial ratios.

Explanation of risks

The following provides details of each risk and how Alliander manages each of the risks listed, while also showing the development in each area over the past year in light of measures taken.

decreasing: ↓
neutral: →
increasing: ↑

Financial risks, including our credit risk, are explained in note 34 to the financial statements.

Completion of work package ➔

Probability
Very high.

Impact
Very high.

What is the risk?
Due to the current rapid economic growth and the energy transition, the work volume is developing explosively and more quickly than anticipated, especially in the electricity domain. At the same time, the tight labour market for technical staff (combined with the long training time) makes it difficult to scale up capacity at the same pace. As a consequence, we cannot do all the work that comes our way, or not within the desired time frame. As a result, some customers are connected later than hoped or we may be forced to impose transmission restrictions.

How is the risk managed?
Alliander is addressing the challenge surrounding the completion of its work package by preventing more work, capacitating more work, and managing the risks of incapacity. To prevent more work, we gain a better picture of the customer's needs at an earlier stage and influence the customer's choices. Where possible, we form coalitions in the sector and the supply chain. We capacitate more work by making our organisation smarter, improving our recruitment, training and retention of technical employees, outsourcing work, and using smarter working processes. Finally, we are managing the risks of incapacity by meeting our customers' requirements as much as possible and communicating proactively and transparently.

What is the risk trend?
Neutral. The risk is and remains very high.

Capacity for change (new in 2019)

Probability
Very high.

Impact
High.

What is the risk?
The world around us is changing rapidly and the energy transition is in full swing. The exact route and speed of the transition are uncertain. Alliander is committed to being up to the expectations of our customers and society as a whole, and so we have to be alert, resolute, and innovative. We also need to improve our forecasting accuracy to take measures. Change is needed to be able to do a lot more at greater pace and come up with and implement innovative solutions faster. If we fail to do so, we will not be able to achieve our strategic goals.

How is the risk managed?
Our stakeholders expect us to pursue a strategy that sees us substantially contribute to making energy supply more sustainable. It is essential, therefore, that we focus on our shared goal, organise ourselves more effectively, and that we operate as a team. Work is currently ongoing on an approach that will help us create an excellent organisation. We have seen that it is possible to further increase our focus in how we take on challenges as an organisation, how teams contribute to the pursuit of our strategy, and which priorities they must set. There is also scope for better collaboration between Alliander teams on clear choices that we make as an organisation for Alliander's future. Finally, we are making changes to parts of our organisational design to make the work easier to manage, allow employees to be more flexible, and ensure that work is completed on time.

What is the risk trend?
Not applicable: new risk.

Safety ➔

Probability
Medium/high.

Impact
High.

What is the risk?
As a network company, we are responsible for the regional distribution of energy, such as electricity, natural gas, biogas and heating. These activities involve health and safety risks for our employees, contractors, customers and local communities. Insufficient safety awareness and lack of knowledge of safe working instructions, quality and safety requirements and safety measures heighten the risk of accidents. Unsafe practices of third parties working on Alliander's behalf can also lead to safety risks. In addition, materials used in the past may pose more serious health and safety risks than initially assumed.

How is the risk managed?
Our safety efforts are based on three themes: network safety, safe working practices and safety awareness. We assure the safety of our networks by making the mitigation of safety risks an integral part of our network maintenance and replacement planning. We ensure safe working practices by preparing our employees for their work on operational assets with instructions and training and by requiring strict adherence to work instructions. We also ensure safe working practices are maintained at our contractors by performing audits of their quality system. Finally, safety awareness is promoted by making safety an inherent part of our mindset and actions at work.

What is the risk trend?
Neutral. Safety is prominently on the agenda within Alliander: various controls are in place. Nevertheless, due to the nature of our work, the trend for this risk is neutral.

Long-term regulatory focus ➔

Probability
High.

Impact
Very high.

What is the risk?
Policy and regulations within the energy domain have an impact on our activities and profitability. Owing to the energy transition policy, we are seeing a mismatch between regulations and reality. This may affect our ability to facilitate the energy transition and achieve the objectives of Alliander.

How is the risk managed?
This risk is basically managed by building long-term constructive relationships with the legislator and the regulator. Together with the legislator, we discuss developments that are important for Alliander and potential bottlenecks that Alliander may encounter in practice. We paint a picture of what is necessary for the adequate fulfilment of the network operator's responsibilities in the energy transition and seek official backing for a fitting role for our company in such developments as the transmission, distribution and metering of renewable gases and in heating. In addition, we actively make proposals for required adjustments to national and European laws and regulations. Where relevant, we address issues collectively with other network operators within the Association of Energy Network Operators (Netbeheer Nederland).

What is the risk trend?
Neutral. Policy involvement and regulations are increasing within the energy domain. Alliander is gradually gaining more clarity about the legislative agenda of authorities such as the Dutch Ministry of Economic Affairs and Climate Policy.

Privacy of energy data ↓

Probability
Low.

Impact
Low.

What is the risk?
As part of our energy network management activities, we have access to privacy-sensitive data. This includes, for example, data on connections, energy contracts, usage, and costs. Violation of the privacy of energy data leads to penalties and reputation loss.

How is the risk managed?
We work closely with the other parties in the energy sector to ensure the effective protection of privacy-sensitive data. Information is exchanged with the regulators, the Netherlands Authority for Consumers & Markets (ACM), the Dutch Data Protection Authority [DPA], industry organisations (Netbeheer Nederland and Energie-Nederland [E-NL]), and other relevant parties. Within its own organisation, Alliander has taken various initiatives to shield confidential data more effectively. The Alliander Code of Conduct, for instance, describes how we deal with confidential information, and an email address has been set up for the disclosure of data breaches. Controls have also been put in place for processes that have been outsourced to Energie Data Service Nederland (EDSN). These include the use of unique customer keys to protect customer data. A GDPR scan has been carried out in the sector to identify all existing risks at EDSN as well as at individual and collective regional network operators.

What is the risk trend?
The risk is decreasing due to the implementation of effective controls.

Future-proof IT landscape (new in 2019)

Probability
High.

Impact
Medium/high.

What is the risk?
Alliander needs an integrated IT architecture to be able to accommodate current and future primary processes and enable the energy transition. What's more, the current IT landscape is complex, which complicates the digital transformation to a data-driven network operator.

How is the risk managed?
We are focusing on creating clarity, refining our vision, and improving transparency. We are working on clarity by designing and implementing the kind of IT governance that is aligned with Alliander's business model. And we are putting together IT Guidelines & Principles that describe boundaries and freedoms for IT development to create a clear scope of action for the various teams. Aside from that, we are defining a long-term vision on our IT landscape and increasing IT transparency, both in terms of the entire IT landscape and individual IT building blocks. This will ultimately mean that business processes will have to be standardised to migrate to standard IT building blocks. And the redesign of our enterprise architecture will furthermore allow us to rationalise the application landscape.

What is the risk trend?
Not applicable: new risk.

Cybersecurity →

Probability
Medium.

Impact
High.

What is the risk?
Our energy networks and above-ground installations are increasingly being digitised. Cyberattacks with a political or terrorist motive are increasingly targeting vital infrastructure. Alliander is expected to respond in a proactive and timely manner to the rise and changes in cybercrime. This is how we can prevent a successful attack on our digitised networks from jeopardising the continuity of our services. For this reason, we are continuing to take above-average measures to protect and safeguard vital infrastructure.

How is the risk managed?
We protect our energy and data networks and computers against attacks at various levels. We make our employees aware of cybersecurity risks, with a strong focus on prevention, detection *and* response. Alliander's security function was expanded further with the creation of a fully fledged security domain within IT. We are also intensively addressing this issue together with other network operators within Netbeheer Nederland and maintain close contacts with the Dutch National Cybersecurity Centre and other parties. Together, we can keep up with rapidly evolving developments and identify external signals of attacks at an early stage.

What is the risk trend?
Neutral. The combination of evermore complex attacks and digitisation of our networks challenges Alliander's cyberresilience. Despite control measures that have already been implemented, the trend continues to be neutral.

Financeability (new in 2019)

Probability
High.

Impact
Medium.

What is the risk?
As the Climate Agreement was further fleshed out, greater clarity was created last year on the level of investment needed for the energy transition. Network operators will see their investments increase sharply. Current regulatory methods provide for compensation during the term of the asset in which an investment has been made, but not at the moment of investing. As investments rise, we are largely financing investments that we will only be able to recoup in 40 years' time, leading to a significant increase in our financing needs that may, in the long run, put pressure on our financing ratios and our credit rating.

How is the risk managed?
To manage this risk, Alliander has identified a number of solution approaches, namely to attract hybrid financing, within the available scope, and to achieve the targeted cost savings. Aside from that, changes to the dividend policy and seeking financing from existing and, if necessary, new shareholders are further possible solution approaches.

What is the risk trend?
Not applicable: new risk.

Report of the Supervisory Board

In our role as the Supervisory Board, we supervise the implementation of the strategy, the objectives, the policy of the Management Board, and the operations in general at Alliander. In addition, we offer the Management Board solicited and unsolicited advice. We also serve as the employer of the Management Board and maintain contacts with internal and external stakeholders. In this report, we render an account of how we performed our duties in 2019.

Topics

Strategy

The Supervisory Board supervises the manner in which the Management Board pursues the strategy, including long-term value creation. Social, economic and financial sustainability is essential for the achievement of long-term value creation. For this reason, the Sustainable Development Goals are integrated into the strategy and impact measurement is used as a key instrument. Balanced choices need to be made, taking account of the interests of all stakeholders. In April, the annual strategy session between the Supervisory Board and the Management Board was held, during which specific strategy-related topics were discussed, including developments in the field of hydrogen and heating, and the way in which culture and leadership contribute to implementing the strategy. Looking back on this session, the Supervisory Board feels positive about the open, lively discussions on these topics with the Management Board. We have also been regularly updated on the current status of significant strategic matters, such as the progress of the work in the work package, the energy transition portfolio, the heating transition, cost-conscious and efficient operations, and deploying knowledge and tools for use by customers and fellow network operators. The Supervisory Board is of the opinion that bringing about the energy transition – in combination with issues like the growing economy, the shortage of technicians, and the financeability of the major investments required in the context of the energy transition – is the most crucial task for Alliander so far.

Achievement of corporate objectives

Each year, Alliander draws up an integrated business plan in which the strategic objectives are translated into concrete and measurable operational corporate objectives. The specific corporate objectives that Alliander sets itself in a year are, as far as possible, defined in measurable financial and non-financial KPIs. Each quarter, the Management Board reports to the Supervisory Board on the interim results achieved in regard to these objectives. This enables the Supervisory Board to closely monitor the progress on the objectives, and adjustments can be made where necessary. We note with satisfaction that the present annual report shows that the objectives for 2019 have been achieved to a significant extent.

Acquisitions

The Supervisory Board approved the proposal to acquire Twinning Research Network Twente (TReNT), a fibre optic network provider. This acquisition, completed in January 2020, is in line with Alliander's strategy. With the acquisition of TReNT, Alliander becomes the owner of its own telecommunications infrastructure in the eastern part of the Netherlands. Alliander's policy is to own this telecom infrastructure, given its crucial importance in the safe operation of the electricity and gas grids. In a large part of the service area of network operator Liander, Alliander already owns the telecommunications infrastructure. And this will now also be the case in the eastern part of the Netherlands. With the acquisition of TReNT, Liander is less dependent on the lease of fibre optic lines from third parties in this region. Moreover, TReNT has a lot of experience in leasing 'dark fibre' (laid but unused fibre optic cable) to third parties. Alliander Telecom wants to use this 'dark fibre' knowledge in Alliander's current fibre optic network: this will save on the costs of managing the electricity and gas grids.

Internal risk management and control systems

The Supervisory Board (and the Audit Committee in particular) discussed the findings from the internal audits as well as the status of actions taken in response to findings from previous audits. The Supervisory Board monitors the progress of these actions based on the in control reports from the Internal Audit department. In addition, the report on the 2019 interim audit and the management letter from our external auditor Deloitte were discussed with the Audit Committee and the Supervisory Board in the presence of Deloitte. In their interim audit, the external auditor found Alliander's internal auditing practices to be of such quality that the auditor can largely rely on internal control measures for the most important processes of its audit of the financial statements. Deloitte found no significant deficiencies. However, Deloitte did make specific recommendations that have been, or will be, acted on by Alliander. One aspect where (further) improvement is needed is the administrative control of projects at the Aanleg business unit and authorisations in IT systems. The Supervisory Board was pleased to see that Deloitte has made greater use of data analytics this year compared to previous years, including for the part of their audit that looked at investments and sufferance tax.
Based partly on the reports of Deloitte and Internal Audit, the Supervisory Board is of the opinion that the internal risk management and

control systems operated at an adequate level. These provide reasonable assurance that the financial reporting of Alliander contains no material misstatements.
Aside from that, risk management reports were discussed, which report on the management of the main risks to which Alliander is exposed. The Supervisory Board is of the opinion that Alliander pursues a balanced risk policy and keeps the Supervisory Board adequately informed of risk-related issues. For a description of the principal risks, see the Risks chapter.

Financial reporting

The Supervisory Board discussed the 2018 annual report and the financial statements at length, including the accompanying audit report, in the presence of Deloitte. Throughout 2019, the Management Board provided the Supervisory Board with quarterly reports in which Alliander's most recent financial results were set out and compared with the 2019 budget, the most recent estimate for 2019 and the results for 2018. In addition, we discussed Alliander's 2019 half-year report, including the accompanying report by Deloitte. We furthermore discussed and approved the 2020-2024 financial plan and the operational year plan 2020. The Audit Committee of the Supervisory Board carried out intensive preparatory work on all these matters. We are of the opinion that the financial reporting is adequate and presents a realistic picture of the company's financial position and financial performance.

Long-term financing

The Supervisory Board was happy to find that the credit ratings of Standard & Poor's (AA-/A-1+ with stable outlook) and Moody's (Aa2/P-1 with stable outlook) were reaffirmed in 2019. We see that, alongside a sound financial policy, shareholders and other investors are increasingly focusing on sustainability performance. ISS-oekom, a leading sustainability ratings agency, has awarded Alliander a Prime B rating. These ratings are testimony to Alliander's strong creditworthiness. This is important as the rating influences our borrowing costs and facilitates our access to the different financial markets. The Supervisory Board realises that increasing investments on account of the energy transition and the current regulatory model will in the long term make our financeability a bottleneck. The long-term financing needs are increasing sharply, while borrowing costs are also set to rise. Without additional measures, this could lead to Alliander no longer being able to meet its standards for the financial ratios, which would jeopardise the rating. Measures are needed to create financing capacity for the required investments, while maintaining an acceptable financial position. Possible measures include cost-cutting measures, the use of hybrid financing instruments, lowering the dividend, seeking financing from current shareholders, and admitting a new type of shareholder. The possibilities in this respect will be discussed over the coming period.

Safety

Safety is a priority for Alliander, both for its own employees and the employees of the contractors working for Alliander, and we, as the Supervisory Board, emphatically endorse this. Based on the quarterly reports, we monitor accidents that lead to sickness absence and the safety culture within the company. In addition, the Management Board regularly informs us about safety issues and incidents with dangerous materials that pose a potential health hazard and about measures taken or to be taken. The network operators have in 2019, for example, started to check for asbestos in joints sealed with 'fitters' sealant', which was used well into the 1970s to seal pipe joints. This type of joint was also used in Liander's service area. All technicians have meanwhile been issued with amended work instructions to enable them to work safely.

Culture and leadership

Given the direct line to strategy realisation, the development of leadership and culture was discussed at length at the annual strategy day. Alliander is in the middle of the energy transition, meaning that it not only has an increased workload, but also faces greater challenges and uncertainty than before. Never before has the company faced such a massive challenge. To rise to this challenge, it is essential that all employees be aligned on the course we have charted together (strategy), that the organisation be efficient and effective, and that employees work as a team. To assess whether all employees are pursuing the same goal for Alliander, a strategy alignment survey was conducted across the organisation in June 2019, which ultimately led to the decision not to conduct a Great-Place-to-Work survey at the end of 2019.
Alliander is engaged in a major cost-cutting operation. We received regular progress updates on cost-cutting measures. Given the increasing level of investment in the networks, it is important to bring costs down permanently. The organisation is increasingly aware of the need for cost awareness.
Additionally, the Management Board's succession planning and direct reports were also explained, and we looked at efforts in the area of potential and talent development across Alliander.

Second green bond issue

The Supervisory Board approved a green bond issue with a total value of €300 million. Revenue from the issue of green bonds was used to refinance investments in the smart meter, and in the 'fair meter' in particular. The fair meter is the result of a joint venture of network operator Liander and several parties from across the industry, aimed at making the smart meter more sustainable. It is the second green bond that Alliander has issued; the first was issued in 2016.

Corporate Social Responsibility

Corporate Social Responsibility (CSR) is an integral part of Alliander's strategy and its day-to-day operations. Alliander takes responsibility for a sustainable society, with a particular focus on the interests of the generations coming after us. The Supervisory Board has identified three primary challenges for Alliander:

- ensuring that the transition to renewable energy is realised in a controlled manner so that the energy system of the future remains affordable, reliable and accessible to everyone on equal terms;
- pursuing sustainable business practices;
- operating as a good corporate citizen.

More information on sustainability initiatives can be found in the report of the management board. We support these initiatives which, in our opinion, contribute to long-term value creation.

In 2019, Alliander once again won the Het Financieele Dagblad newspaper's Henri Sijthoff Award in the category of non-listed companies for its 2018 annual report (it also won this award in 2017). And Alliander came second in the running for the Dutch Ministry of Economic Affairs and Climate Policy's Kristal Award for the organisation with the best CSR reporting, which Alliander won in 2017. We have complimented the Management Board on this great achievement. Alliander is persistently among the frontrunners in the use of impact measurement and in how Alliander reports on its efforts in the realm of CSR. In 2019, the impact measurements were extended further. The Supervisory Board sets great store by Alliander, as a socially relevant enterprise, being transparent on how its operations impact on society. For more information on this subject, see the Key social impacts section.

Change to senior management structure and strengthening of the Management Board

The Supervisory Board has evaluated the company's senior management structure. As we see the energy transition, new technology and digitalisation accelerate and have an ever greater impact, we need to have additional focus in how we run the company. A decision was therefore made to strengthen the Management Board (made up of Chief Executive Officer [CEO] and a Chief Financial Officer [CFO]) by adding the position of Chief Transition Officer (CTO). With the addition of the CTO role, Alliander underlines the importance of developments in the area of the energy transition and digitalisation, while at the same time ensuring a more balanced division of tasks that gives the Management Board scope to step up the focus and pace in other key areas that are relevant to Alliander. The Supervisory Board has appointed Daan Schut to the Management Board as the company's CTO as of 1 April 2019. The Supervisory Board is delighted that someone from within our own ranks could be appointed to this key position. The Supervisory Board has furthermore appointed Walter Bien to the Management Board as the company's CFO as of 7 October 2019, succeeding Mark van Lieshout, who stepped down as Alliander's CFO on 1 March 2019.

Other subjects

Other subjects that received attention over the past year include:

- preparations for the Annual General Meeting of Shareholders;
- important court rulings in cases in which Alliander was involved, and new legislation and regulations that are relevant to Alliander;
- the impact of the Dutch government's Integrated Approach to Nitrogen (*Programma Aanpak Stikstof* [PAS]) and PFASs on Liander's work package;
- Alliander's external and internal communication strategy;
- developments in the area of providing network operator software to third parties;
- our operational strategy for Germany and the specifics thereof;
- the approval of the Internal Audit year plan for 2020.

Composition of the Supervisory Board

Name	Position	First appointed	Reappointment	Outgoing
Annemarie Jorritsma	chair	2016	n/a	2020 (eligible for reappointment)
Frits Eulderink (as of 26 September)	member	2019	n/a	2023 (eligible for reappointment)
Govert Hamers	member	2016	n/a	2020 (eligible for reappointment)
Thessa Menssen (as of 26 September)	member	2019	n/a	2023 (eligible for reappointment)
Coby van der Linde (until 1 July)	member	2009	2013, 2017	2021 (stepped down early on 1 July; at own initiative)
Bert Roetert	member	2015	2019	2023 (not eligible for reappointment)
Ada van der Veer	member	2009	2012, 2016	2020 (not eligible for reappointment)

The composition of the Supervisory Board changed in 2019. On 1 July 2019, Coby van der Linde stepped down from the Supervisory Board before the end of her term. She had been a member of the Supervisory Board and the Audit Committee since 2009. Supervisory Board member Ada van der Veer (who also chairs the Audit Committee) will step down after the 2020 Annual General Meeting. Given that she has reached the end of the maximum tenure of three four-year terms, she is not up for reappointment. For reasons of continuity and with a view to maintaining the desired level of financial knowledge and allowing a thorough induction period for new Audit Committee members, in the presence of the current Audit Committee chair, the Supervisory Board has opted to conduct the respective recruitment and selection procedures for both vacancies simultaneously.
At the Extraordinary General Meeting of Shareholders of 26 September 2019, Frits Eulderink, based on the Works Council's enhanced right of recommendation, and Thessa Menssen were appointed to the Supervisory Board. The Supervisory Board welcomes these two new members, who temporarily increase the number of Supervisory Board members to six. The Supervisory Board will go back to five members again after the 2020 Annual General Meeting.

Procedures and meetings

In 2019, the Supervisory Board convened ten times: eight of these were scheduled meetings and two were additional conference calls. Prior to each of the scheduled meetings, the Supervisory Board held closed consultations. Supervisory Board meetings were attended by all members of the Management Board, only on one occasion there was one Management Board member who was unable to attend. Aside from that, various members of the management team have sat in on Supervisory Board meetings. Whenever a Supervisory Board member was unable to attend a meeting, the member in question submitted his or her input beforehand. The Audit Committee met seven times in 2019, and the Selection, Appointment and Remuneration Committee held two meetings. The table below shows the Supervisory Board members' meeting attendance rates.

Name	Supervisory Board (10)	Audit Committee (7)	Selection, Appointment and Remuneration Committee (2)
Annemarie Jorritsma (chair)	80%		100%
Frits Eulderink (from 26 September)	100%	100%	
Govert Hamers	80%	57%	
Thessa Menssen (from 26 September)	100%	100%	
Coby van der Linde (until 1 July)	80%	75%	
Bert Roetert	90%		100%
Ada van der Veer	100%	100%	

In 2019, Maarten Otto and Miranda de Bliek were the Supervisory Board's secretary and deputy secretary respectively. The secretary prepared the Supervisory Board meeting agendas, liaising with the chairpersons of the Management Board and the Supervisory Board.

Committees

The Audit Committee and the combined Selection, Appointment and Remuneration Committee prepare the decision-making of the Supervisory Board in the relevant fields, while also fulfilling an advisory role to the Supervisory Board. Decisions are made by the full Supervisory Board. In principle, the committees meet ahead of a scheduled Supervisory Board meeting. The committees submit a written report on their deliberations and findings to the Supervisory Board. In addition, the respective committee chairpersons provide verbal feedback at Supervisory Board meetings.

Audit Committee

In 2019, the Audit Committee was made up of Ada van der Veer (chair), Govert Hamers, Coby van der Linde (until 1 July 2019), Frits Eulderink (as of 26 September 2019) and Thessa Menssen (as of 26 September 2019). The committee had seven meetings. As standard, Audit Committee meetings are attended by the CFO, the Internal Audit manager, the Business Control member, the Corporate Control manager, and the external auditor (Deloitte). When dealing with specific subjects, the committee may invite specialists to attend part of a meeting. The Audit Committee held one meeting in private with the external auditor.
Important subjects discussed by the Audit Committee were the financial statements, the Report of the Management Board, the interim and quarterly figures, the external auditor's half-year review report, the management letter, the long-term financial plan, the operational year plan, and the risk management and internal control framework. The committee discussed the audit plans of both the external auditor and the Internal Audit department, and endorsed both for the purpose of decision-making by the Supervisory Board. Furthermore, the Audit Committee discussed the Fraud & Incidents Reports, which report on fraud, theft and embezzlement as well as on disclosures under the Whistleblower Policy and the Alliander Code of Conduct and the actions taken in response. The Audit Committee also focused on issues relating to Cross-Border Leases, the financing policy, tax planning and the status of tax returns, impairment testing, position papers, and the impact of IFRS 16 (the new financial reporting standard for leases that came into effect on 1 January 2019).
The Audit Committee issued a positive recommendation to the Supervisory Board with respect to the green bond issue of €300 million under the existing €3 billion EMTN programme. Furthermore, the Audit Committee was briefed on the rise in costs at TenneT and the impact this may have. Audit activities in Germany were also discussed. In addition, attention was devoted to IT risk management during the year. IT and digitalisation are impactful drivers of changes to the energy system, whereby effectiveness, efficiency, cybersecurity, privacy, and continuity are key focus areas. On the most important risks, significant progress has been made compared to 2018. Finally, the Supervisory Board discussed renewal of the engagement of the external auditor, which included an evaluation based on input from the Audit Committee, the Management Board, and directly involved managers and employees. The Audit Committee issued a positive recommendation to the Supervisory Board on the renewal of the audit engagement of Deloitte for the financial years of 2020 and 2021. In accordance with the Netherlands Institute of Chartered Accountants' current independence requirements, the external auditor is engaged solely to conduct audits and not to provide advisory services.

Selection, Appointment and Remuneration Committee

In 2019, the Selection, Appointment and Remuneration Committee was made up of Bert Roetert (chair) and Annemarie Jorritsma (member), and met twice. A number of these meetings were attended by the chair of the Management Board and the HRM Director.

Due to the leaving of Mark van Lieshout (CFO) and the decision to strengthen the Management Board by adding the CTO role, the composition of the Management Board was a key priority in 2019. The committee's involvement consisted mainly in engaging an external search firm, discussing the long list and narrowing it down to a short list of candidates, as well as interviewing potential (internal and external) candidates. For the CFO position, the chair of the Audit Committee was also involved in the process. The committee advised the Supervisory Board on the appointments, whereby the committee looked specifically at the required level of diversity and complementarity of the Management Board team. The decision-making on these appointments involved close consultation with the Works Council and the Committee of Shareholders, in accordance with the pertinent procedures. On 1 April 2019, Daan Schut became Alliander's CTO, while Walter Bien became the company's CFO on 7 October 2019.
Other than that, the committee also worked on the selection and nomination of two new Supervisory Board members, for which it engaged an external search firm. The committee's involvement consisted mainly in narrowing the long list down to a short list and interviewing potential candidates. The composition of the Supervisory Board, also in terms of expertise and diversity, was a key focus in these recruitment processes. In Frits Eulderink, we have found a successor to Coby van der Linde. Thessa Menssen was appointed in anticipation of Ada van der Veer's leaving.

The Committee furthermore carried out preparatory tasks for the Remuneration Report and the annual remuneration meeting between the Selection, Appointment and Remuneration Committee and the Committee of Shareholders. And the committee was informed about the outcomes of the Internal Audit department's audit of the Management Board's expense claims. Finally, the Committee devoted attention to the developments surrounding the Public and Semi-Public Sector Executives Pay (Standards) Act and conducted the annual performance appraisal interviews with the Management Board members.

Evaluation and education

Every year, the Supervisory Board evaluates the performance of the Supervisory Board as a whole, as well as that of individual Supervisory Board members and the two Supervisory Board committees: the Audit Committee and the Selection, Appointment and Remuneration Committee. While the evaluation was conducted with the help of an external consultant in 2018, the Supervisory Board conducted the evaluation itself without such assistance in 2019.
On the whole, the evaluation showed that many of the points highlighted in last year's evaluation were dealt with or fulfilled adequately. There was extra focus on succession planning and further extending the Supervisory Board's advisory role, partly by stepping up the dialogue with the Management Board on strategic developments and associated dilemmas and long-term value creation. The general picture to emerge from the evaluation is a positive one, and the Supervisory Board will be continue along the course that has been adopted. The atmosphere on the Supervisory Board is open and pleasant, and there is room for debate, differences of opinion and discussion of sensitive issues. The Supervisory Board's support and contact with the Management Board and staff executives (on content,

processes, and a relational level) are experienced as pleasant. The composition of the Supervisory Board is balanced and covers sufficient different relevant perspectives.
A point of improvement to emerge from the evaluation is that adequate selection of subjects for Audit Committee meetings should be a more prominent aspect in putting together the agenda for meetings, so as to raise the efficiency of Supervisory Board meetings. The Supervisory Board furthermore highlights the importance of a continued focus on lifelong learning, including through working visits, organising a risk session, and inviting external speakers to speak on subjects that are relevant to Alliander.
The full Supervisory Board went on a working visit to the *Test Faciliteit Gas* test lab in Amsterdam, gaining insight into a wide range of tests that are conducted there, including the testing of a new type of smart gas meter, a new type of gas sensor that measures gas composition, and the transport of hydrogen through existing natural gas pipes. The Supervisory Board stresses the importance of Alliander experimenting with digitalisation and alternative energy carriers, such as renewable hydrogen and green gas, and would like to see existing natural gas infrastructure - where possible - used for such alternatives to cut social expenditure. Both newly appointed Supervisory Board members, Thessa Menssen and Frits Eulderink, completed an introduction programme, which included them speaking to various line and staff directors and getting a tour of the 150kV Kattenberg electrical substation in the North Arnhem.

Independence of the Supervisory Board

The composition of the Supervisory Board is such that the members are able to operate independently and critically vis-à-vis one another, the Management Board and any particular interests involved. This is laid down in the by-laws of the Supervisory Board. In the opinion of the Supervisory Board, the independence requirements within the meaning of best practice provisions 2.1.7, 2.1.8 and 2.1.9 of the Dutch Corporate Governance Code were complied with.
Owing to her supervisory board memberships at Wintershall Nederland B.V. and Wintershall Noordzee B.V., Ms Van der Linde is not independent as prescribed in the Dutch Electricity Act 1998 and the Dutch Gas Act. All other members of the Supervisory Board are independent within the meaning of these Acts. This means that none of them has a direct or indirect connection with an electricity or gas producer, supplier or trader.
Any positions held outside the companies must be reported to the Supervisory Board beforehand and specified in the annual report. No Supervisory Board members hold a position outside the company that is in conflict with their Supervisory Board membership at Alliander. No Supervisory Board members are members of more than five Supervisory Boards at Dutch listed companies. And no Supervisory Board member holds more than five supervisory positions ‘with responsibility’ as specified in the Dutch Management and Supervision Act [*Wet bestuur en toezicht*].
In 2019, there were no material transactions involving conflicting interests of Supervisory Board members.

Diversity

Board diversity makes us better attuned to society, creating a broader frame of reference within which we can better weigh up our decisions. Supervisory Board members are selected on the basis of a profile describing their required professional background, experience, skills, diversity and independence. The Supervisory Board has adopted a diversity policy for the composition of both the Management Board and the Supervisory Board, which puts the emphasis on the following:

- a balanced gender ratio on the Management Board and the Supervisory Board with a target ratio of at least 30% female and at least 30% male;
- a complementary composition in terms of experience and professional background;
- a balanced age structure.

When a Supervisory Board member steps down, a successor will be recruited based on the diversity policy. There were several changes on the Supervisory Board in 2019. Coby van der Linde stepped down and Thessa Menssen and Frits Eulderink were appointed to the Supervisory Board. Both new members have excellent qualifications. Frits Eulderink’s competencies lie mainly in the field of energy, infrastructure, technology, sustainability and safety, and the environment. Thessa Menssen boasts in-depth expertise in the area of finance and experience with the nature and context of a semi-public company. The recruitment and selection process was focused specifically on these competencies, given their importance for the composition of the Supervisory Board. Aside from that, the aim was to ensure that at least one of the appointees was a woman. At the end of 2019, the gender ratio of the Management Board was 2/1, while that of the Supervisory Board was 3/3, meaning that the balanced gender ratio target has been achieved for both the Management Board and Supervisory Board.

Contact with the Works Council

The Supervisory Board has a good working relationship with the Works Council. After all, the Works Council is the representative body for the company's employees, i.e. the people with whom we ultimately have to achieve our results. Partly given the fact that Alliander qualifies as a two-tier company, the Works Council's involvement is fundamental in many areas.
After the elections for Alliander's employee participation body in late 2018, an introductory lunch was held in April 2019 for the new Works Council and the Supervisory Board. And in September, the Supervisory Board and the Works Council had their annual joint meeting, discussing matters such as the energy transition, being an employer of choice, and the corporate culture. Aside from that, the Supervisory Board liaised with the Works Council on the appointment of new Supervisory Board and Management Board members.

Contact with shareholders

Barring the General Meeting of Shareholders, the Supervisory Board has limited contact with the shareholders in its official capacity. The Management Board, however, does hold regular consultations with the major shareholders, addressing relevant (strategic) developments in areas such as legislation and regulations, Alliander's role in the energy transition, and the pursuit of our strategy. The Supervisory Board was consistently kept informed of these contacts. In 2019, consultations were held with major shareholders on five occasions.
In addition, the Selection, Appointment and Remuneration Committee consulted with the Committee of Shareholders on three occasions about the implementation of the remuneration policy of the Management Board and about the appointment of the two new Management Board members and two new Supervisory Board members. The Supervisory Board considers it important to maintain good relations with shareholders and is of the opinion that the shareholders' interests were served in a constructive and careful manner in 2019.

Recommendation on the financial statements for 2019

The Supervisory Board puts the financial statements as prepared by the Management Board to the General Meeting of Shareholders for adoption. The financial statements were audited by Deloitte Accountants B.V., which issued an unqualified opinion. The members of the Management Board and Supervisory Board signed the financial statements.

We recommend that the shareholders adopt the 2019 financial statements and the dividend proposal for the 2019 financial year at the General Meeting of Shareholders to be held on 8 April 2020. Furthermore, we propose that the General Meeting of Shareholders discharge the members of the Management Board and the Supervisory Board from responsibility for their management and supervision, respectively, in the 2019 financial year.

Word of appreciation

The Supervisory Board would like to thank the employees, management, Works Council, and the Management Board for their hard work, motivation, and professionalism, and compliment them on the results achieved in 2019. We want to thank the shareholders for their support and trust in Alliander.

Our thanks also go out to Mark van Lieshout, who stepped down from the Management Board and his position of CFO as of 1 March 2019. In his role as CFO since 2010, Mark van Lieshout has helped make Alliander become the organisation it is today. The Supervisory Board is extremely grateful to him for this. And finally, a word of thanks to Coby van der Linde, the Supervisory Board member who bowed out on 1 July 2019. We owe her a great debt of gratitude for her many years of expert work for and great commitment to Alliander.

Arnhem, the Netherlands, 14 February 2020

Supervisory Board
Annemarie Jorritsma (chair)
Frits Eulderink
Govert Hamers
Thessa Menssen
Bert Roetert
Ada van der Veer

Composition of the Management Board

Several changes were made to the Management Board of Alliander in 2019. Ingrid Thijssen is chair and Chief Executive Officer (CEO). Walter Bien is a member of the board and Chief Financial Officer (CFO). Daan Schut is a member of the board and Chief Transition Officer (CTO). They are all also responsible for the business and operations management of network operator Liander.

Ingrid Thijssen (1968, Dutch)

Chair and CEO

Ingrid Thijssen was appointed Chair of the Management Board and CEO on 1 September 2017. Prior to that, she was a member of the Management Board and COO, from March 2014. From 2011 to 2014, she chaired the Management Board of NS Reizigers and prior to that she held various executive and management roles at Nederlandse Spoorwegen (Dutch Railways).

Ingrid Thijssen earned a law degree from Utrecht University and completed various programmes, including a Strategy Programme at the International Institute for Management Development (IMD) in Lausanne, the Advanced Management Programme (AMP) of INSEAD in Fontainebleau, France, and the executive programme Climate Change and Energy: Policymaking for the long term at Harvard in Boston.

Supervisory Board memberships/relevant other positions

- Member of the Supervisory Board of VGZ (health insurance company) [1]
- Member of the Supervisory Board of the Port of Rotterdam Authority [1]
- Chair of Employers' Association WENB
- Board member of SchuldenlabNL
- Chair of Business Club D66

Walter Bien (1972, Dutch)

Member of the Board and CFO

Walter Bien joined the Management Board on 7 October 2019, on which date he was also appointed to the position of CFO. Before joining Alliander, he was CFO at Boskalis Dredging & Inland Infra and prior to that he held various board and management positions at Boskalis. Prior to Boskalis he worked at Ballast Nedam.

Walter Bien earned a degree in Business Economics at the University Amsterdam. He also completed the Senior Executive Programme at the London Business School and a postgraduate controllers programme at the University of Amsterdam.

Supervisory Board memberships/relevant other positions

- Member of the Board of Trustees of Stichting AAP (wild animal rescue foundation), chair of the Audit Committee
- Member of the Board of Trustees of Inloophuis Stichting Huis aan het Water (cancer recovery retreat)

1 *Supervisory position at a large legal entity within the meaning of Section 142a, Book 2 of the Dutch Civil Code*

Daan Schut (1974, Dutch)

Member of the Board and CTO

Daan Schut joined the Management Board on 1 April 2019, on which date he was also appointed to the position of CTO. Prior to joining the Board, he held the position of Director of Asset Management (from 2014) as well as various management positions between 2009 and 2014. Before Alliander, Daan Schut worked as an advisor at KPMG.

Daan Schut studied IT Auditing at Erasmus University Rotterdam, and Business Economics at HAN University of Applied Sciences.

Supervisory Board memberships/relevant other positions

- Member of the Management Board of Next Generation Infrastructures
- Member of the Board of Trustees of Stichting USEF (Universal Smart Energy Framework)
- Member of the Board of Trustees of Stichting ElaadNL (knowledge and innovation centre on EV infrastructure and smart charging)

Retired in 2019

Mark van Lieshout, member of the Board and CFO (up to 1 March 2019), (Dutch)

Mark Van Lieshout (1963) was a member of the Management Board/CFO of Alliander from 1 January 2010. From 2008 to 2010, he was Alliander's Director of Finance, Treasury and Tax Affairs. Between 2003 and 2008, he served as CFO of Nuon Business. Prior to 2003 he held various positions, including that of CFO of ABB Benelux. Mark van Lieshout earned a degree in Business Economics from VU University Amsterdam. He also completed various business programmes at the International Institute for Management Development (IMD) in Lausanne and the International Directors Programme (IDP) of INSEAD, in Fontainebleau, France.

Supervisory Board memberships/relevant other positions

Member of the Board of Trustees (and chair of the Audit Committee) of Canisius-Wilhelmina Hospital.

Composition of the Supervisory Board

From left to right: Govert Hamers, Thessa Menssen, Bert Roetert, Annemarie Jorritsma, Frits Eulderink, Ada van der Veer

Annemarie Jorritsma-Lebbink (1950), Chair

- Nationality: Dutch
- First appointed: 1 July 2016
- End of current term: 2020 (eligible for reappointment)
- Alliander committee: member of the Selection, Appointment and Remuneration Committee
- Background: Annemarie Jorritsma has been a Dutch Senate member for VVD (People's Party for Freedom and Democracy) since 9 June 2015 and has served as VVD Senate leader since 24 November 2015. After starting her national political career as a member of the Dutch House of Representatives in 1982, she served in two successive governments (Kok I and Kok II) as Minister of Transport, Public Works and Water Management, and Minister of Economic Affairs and Deputy Prime Minister respectively. Annemarie Jorritsma was Mayor of Almere from 2003 to 2015. She also chaired the Association of Dutch Municipalities (VNG) for seven years.
- Relevant other positions: member of the Supervisory Board of PricewaterhouseCoopers (PwC) Nederland[2], chair of the Netherlands Private Equity and Venture Capital Association (NVP), member of the Supervisory Board of HG International[2], member of the Dutch Senate.

Frits Eulderink (1961)

- Nationality: Dutch
- First appointed: 26 September 2019
- End of current term: 2023 (eligible for reappointment)
- Alliander committee: member of the Audit Committee
- Background: Frits Eulderink is COO and member of the Management Board of Royal Vopak. He previously held various technical and management positions at Shell, including Vice President, Unconventional Oil in Houston (US).
- Relevant other positions: chair of SmartPort Rotterdam, member of the Advisory Board of the Leiden Observatory research institute.

Govert Hamers (1952)

- Nationality: Dutch
- First appointed: 7 April 2016
- End of current term: 2020 (eligible for reappointment)
- Alliander committee: member of the Audit Committee

2 *Supervisory position at a large legal entity within the meaning of Section 142a, Book 2 of the Dutch Civil Code*

- Background: Govert Hamers served as CEO of Vanderlande Industries Holding from 2013 to mid-2017 and before that as CEO of international shipbuilder IHC Merwede (now Royal IC).
- Relevant other positions: member of the Advisory Committee of Airborne Oil & Gas (AOG) (and shareholder), chair of STAK EXA Holding (trust office for the BAS group), non-executive board member of Averys (Belgian company registered in France, owned by Blackstone), member of the Committee of Depositary Receipt Holders for Royal IHC (and shareholder), member of the Advisory Committee for Capvis (Swiss private equity firm).

Thessa Menssen (1967)

- Nationality: Dutch
- First appointed: 26 September 2019
- End of current term: 2023 (eligible for reappointment)
- Alliander committee: member of the Audit Committee
- Background: Thessa Menssen was CFO and a member of the Management Board of BAM Group and before that she was CFO and COO of the Port of Rotterdam Authority.
- Relevant other positions: member of the Supervisory Board of PostNL [2] , member of the Supervisory Board of FMO [2] , member of the Board of Trustees of Stichting Topvrouw van het Jaar (organisers of the Dutch Top Woman of the Year election), member of the Board of Trustees of the Scheepvaartmuseum (National Maritime Museum), member of the Board of Trustees of the Kröller Müller Museum.

Bert Roetert (1956)

- Nationality: Dutch
- First appointed: 19 February 2015
- End of current term: 2023 (not eligible for reappointment)
- Alliander committee: chair of the Selection, Appointment and Remuneration Committee
- Background: Bert Roetert is Director/Owner of Advies, Bestuur en Toezicht (AB&T). Previously he served as CEO of Schuitema/C1000 and chair of the Board of Friesland Foods West Europe.
- Relevant other positions: chair of the Board of Centraal Bureau Levensmiddelen (CBL), chair of the Board of Food Valley NL, chair of the Supervisory Board of Zeeman Groep [2] , chair of the Supervisory Board of Jan Linders Supermarkten [2] , member of the Supervisory Board of Royal Smilde [2] , member of the Supervisory Board of Noviflora Beheer, chair of Afvalfonds Verpakkingen, chair of DDL/DDZ Duurzame Levensmiddelenketen.

Ada van der Veer-Vergeer (1959)

- Nationality: Dutch
- First appointed: 30 June 2009
- End of current term: 2020 (not eligible for reappointment)
- Alliander committee: chair of the Audit Committee
- Background: Ada van der Veer is director/owner of Stranergy, Boardroom consultancy. Previously she served as CEO of Currence Holding, CEO of KPN Business Solutions Division, member of the Executive Board of Achmea Bank Holding, and chair of the Board of Staalbankiers.
- Relevant other positions: chair of the Supervisory Board of Arcadis Nederland [2] , member of the Supervisory Board of DEGIRO [2] , member of the Board of Trustees of Data Privacy Stichting, adviser to the National Register of Members of Supervisory Boards/Boards of Trustees, member of the Board of Trustees of Stichting Preferente Aandelen Nedap, member of the Board of Trustees of Administratiekantoor Fugro (trust office), chair of the Accountancy Monitoring Committee.

Retired in 2019

Coby van der Linde (1957), member (up to 1 July)

- Nationality: Dutch
- First appointed: 29 October 2009
- Alliander committee: member of the Audit Committee
- Background: Coby van der Linde is Director of Clingendael International Energy Programme and part-time professor of Geopolitics and Energy Transition at the University of Groningen. In her previous career, she worked as a part-time professor of the international energy market at, successively, the University of Amsterdam and Leiden University.
- Relevant other positions: member of the Supervisory Board of Wintershall DEA Nederland [2] , member of the Supervisory Board of Wintershall Noordzee [2] , member of International Advisory Board KAPSARC

2 *Supervisory position at a large legal entity within the meaning of Section 142a, Book 2 of the Dutch Civil Code*

Remuneration report

Remuneration policy for the Management Board

General

The remuneration policy for the Management Board is based on the principle that the remuneration must be in line with market practices and that the policy must enable Alliander to recruit and retain qualified and expert Management Board members. The current remuneration policy was adopted by the General Meeting of Shareholders in May 2004 and was last amended in April 2006.

The Supervisory Board is responsible for the implementation of the adopted remuneration policy for the Management Board. The Public and Semi-Public Sector Executives Pay (Standards) Act (WNT), which sets limits for the remuneration of senior executives within the public and semi-public sector, is not applicable to Alliander. However, the Supervisory Board is acutely aware of the evolving perceptions within society regarding remuneration in the public and semi-public sector. Against this background, the Supervisory Board finds it acceptable to cap the remuneration at 130% of a minister's remuneration. It is expected that this level of remuneration will be sufficient to maintain the quality of the company's management, which is of vital importance in the light of the radical changes facing the company as a consequence of the energy transition.

The members of Alliander's Management Board are also responsible for the business and operations management of network operator Liander. In this latter capacity, the members of the Management Board qualify as senior executives of Liander under the WNT. In view of this, the remuneration package for Liander is subject to a statutory pay cap. Total remuneration for Management Board members does not exceed the pay cap that has been introduced for Alliander.

The foregoing did not apply to Mr Van Lieshout, who stepped down from Alliander's Management Board as of 1 March 2019 and was an employee of the company until 1 July 2019. Finally, the Supervisory Board advocates the introduction of a sector-wide, multi-category remuneration code. The aim is to create a level playing field and ensure that all companies can compete with their peers on equal terms in the relevant labour market in terms of technological developments, complexity and required knowledge.

Procedure

The Supervisory Board draws up the remuneration policy for the members of the Management Board, based on advice from the Selection, Appointment and Remuneration Committee. The General Meeting of Shareholders of Alliander adopts the remuneration policy. Within the set remuneration policy, the Supervisory Board, again acting on the advice of the Selection, Appointment and Remuneration Committee, sets the actual remuneration package for each individual Management Board member.

Remuneration components

The total remuneration package for the Management Board members for 2019 consists of the following components:

- annual gross base salary
- pension benefits
- social security contributions and other benefits

Re 1. Annual gross base salary

Management Board members receive an annual gross base salary, including holiday allowance. The annual gross base salary is adjusted each year, insofar as permitted based on (and in compliance with) the agreed remuneration arrangements and existing internal and external rules and regulations.

Re 2. Pension benefits

Management Board members participate in the pension scheme of Stichting Pensioenfonds ABP as referred to in the collective labour agreement for network companies and applicable to all employees of Alliander. Since 1 January 2004, this has consisted entirely of an average-pay scheme. Management Board members pay an individual contribution to participate in the pension scheme.

Effective from 1 January 2015, the maximum pensionable salary has been equal to the permitted maximum under tax rules (€107,593 for 2019). This implies that no further pension is accrued over the part of the salary that exceeds €107,593.

Re 3. Social security contributions and other benefits

In addition to the social security contributions that are normally paid by the company, Management Board members are entitled to an employer's contribution to the premium for the group health insurance plan, contributions to the personal employee benefits budget and the use of a company car. In addition, the company has arranged accident and liability insurance for the benefit of the Management Board members. The company does not provide loans, advances or guarantees to members of the Management Board.

A restrictive policy is in place for positions outside the company: the Supervisory Board must approve any supervisory board membership or other paid position, including positions of an advisory or supervisory nature, while other positions outside the company must be reported in advance to the Supervisory Board. A Management Board member cannot hold more than two supervisory positions in large Dutch companies or large foundations. In addition, a Management Board member cannot be the chair of a supervisory body of a large Dutch company or large foundation.

Any remuneration received for other positions held pursuant to membership of Alliander's Management Board accrues wholly to the company. Remuneration for other positions not held pursuant to membership of Alliander's Management Board accrues to the Management Board member concerned, who is also liable for any tax consequences.

Other principles

Term of service

All members of the Management Board are employed by Alliander N.V. on the basis of an indefinite contract of employment.

Notice period and severance policy

Notice periods of three months for the Management Board members and six months for the company have been agreed with the Management Board members. If the company terminates a Management Board member's employment contract, other than for a compelling reason, it is company policy to award a severance payment of no more than one gross annual salary.

Under certain conditions, this one-off payment, provided it is recognised as such, is also made if a member of the Management Board resigns and cannot be reasonably required to continue the employment contract. Relevant examples include a permanent change to the policy regarding the Management Board member's position as a result of, for example, a merger, takeover, or restructuring.

Implementation of remuneration policy for the Management Board in 2019

General

In drawing up its proposal for the remuneration of the individual Management Board members, the Selection, Appointment and Remuneration Committee also took note of the views of the individual members of the Management Board regarding the level and structure of their own remuneration.

Re 1. Annual gross base salary

In the 2019 calendar year, Ms Thijssen's base salary amounted to €225,000, including 8% holiday allowance. Mr Van Lieshout's base salary paid until his retirement on 1 July 2019 amounted to €122,000, including 8% holiday allowance. The base salary paid to Mr Schut from 1 April 2019 amounted to €165,000, including 8% holiday pay, while Mr Bien's base salary from 7 October 2019 amounted to €51,000, also including 8% holiday pay,

Re 2. Pension benefits

Pension costs relate to standard pension contributions, which are based on the annual gross base pensionable salary, up to the permitted maximum of €107,593 under tax rules. The total pension contributions paid in the reporting year were €23,000 for Ms Thijssen and €12,000, €17,000, and €3,000 for Messrs Van Lieshout (until 1 July 2019), Schut (from 1 April 2019), and Bien (from 7 October 2019) respectively.

Re 3. Social security contributions and other benefits

In 2019, the total amount of social security contributions, the employer's contribution towards the premium for the health insurance plan, contributions to the personal employee benefits budget amounted to €13,000 for Ms Thijssen and €7,000, €10,000, and €3,000 for Messrs Van Lieshout (until 1 July 2019), Schut (from 1 April 2019), and Bien (from 7 October 2019) respectively.

Remuneration ratio

The median of the remuneration of all employees of Alliander set against the remuneration of the chair of the Management Board[1] results in the following remuneration ratios:

Management Board members Ratio	Ingrid Thijssen 2019	Ingrid Thijssen 2018
Ratio	3.6	3.7

1 The other members of the Management Board were not included in this calculation because they were only in office for part of the year.

Principles:

- The calculation for both the chair of the Management Board and the employees was based on the following elements: base remuneration, employer's contribution towards pension, social security contributions and other applicable remuneration elements.

- Both full-time and part-time employees were included in the calculation.

Remuneration policy for the Supervisory Board

The remuneration of the Supervisory Board members is fixed and not dependent on the company's results. The remuneration was adopted by the General Meeting of Shareholders in 2011 and consists of a fixed annual gross amount for the chair and a fixed annual gross amount for the other members. The remunerations are adjusted yearly in line with the wage developments under the collective labour agreement for network companies. The members of the Supervisory Board are also entitled to an expense allowance. Alliander does not provide any personal loans, guarantees and so forth to the members of its Supervisory Board. Liability insurance has been taken out for the members of the Supervisory Board.

The WNT restricts the implementation of the remuneration policy as described above for the members of the Supervisory Board in their capacity as supervisors of the Liander network operator. Effective from 1 January 2015, the WNT has limited the maximum remuneration of the Supervisory Board chair and Supervisory Board members to 15% and 10% respectively of the maximum WNT limit applicable to Liander.

For an overview of the total remuneration awarded to the members of the Supervisory Board for 2019, see the notes to the consolidated financial statements.

WNT

Alliander is not governed by the WNT, but Liander N.V. is. The WNT requires companies to report on the remuneration of current and former senior executives. In addition, the WNT requests transparency on any remunerations of non-senior executive employees that exceed the set limit in the reporting year. The annual report of the network operator, which is to be published in the second quarter of 2020, will contain disclosures on the WNT requirements.

Financial statements

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Consolidated balance sheet

€ million	Note	2019	2018
Assets			
Non-current assets			
Property, plant and equipment	3	7,476	7,072
Right-of-use assets	3	63	-
Intangible assets	4	313	315
Investments in associates and joint ventures	5	6	4
Investments in bonds	6	160	156
Other financial assets	7	58	71
Deferred tax assets	17	165	172
Total non-current assets		8,241	7,790
Current assets			
Inventories	9	60	66
Trade and other receivables	10	334	349
Cash and cash equivalents	11	153	140
Total current assets		547	555
Assets held for sale	33	3	-
Total assets		**8,791**	**8,345**
Equity and liabilities			
Equity	12		
Share capital		684	684
Share premium		671	671
Subordinated perpetual bond loan		495	495
Hedge reserve		-2	-
Other reserves		2,123	1,945
Result for the year		253	334
Total equity		4,224	4,129
Liabilities			
Non-current liabilities			
Interest-bearing debt	13	1,765	1,475
Lease liabilities	19	209	159
Deferred income	14	1,737	1,682
Provisions for employee benefits	15	31	33
Deferred tax liabilities	17	3	4
Other provisions	16	23	10
Total non-current liabilities		3,768	3,363
Short-term liabilities			
Trade and other payables	18	151	150
Tax liabilities		90	96
Interest-bearing debt	13	297	321
Lease liabilities	19	17	-
Provisions for employee benefits	15	27	42
Accruals	8, 18	217	244
Total short-term liabilities		799	853
Total liabilities		4,567	4,216
Equity and liabilities		**8,791**	**8,345**

Consolidated income statement

€ million	Note	2019	2018
Revenue	21	1,930	1,920
Other Income	22	40	148
Total income		1,970	2,068
Operating expenses			
Purchase costs and costs of subcontracted work	23	-452	-424
Employee benefit expenses	24	-500	-500
External personnel expenses	24	-116	-137
Other operating expenses	25	-331	-343
Total purchase costs, costs of subcontracted work and operating expenses		-1,399	-1,404
Depreciation and impairments of non-current assets	26	-449	-409
Less: Own work capitalised		257	241
Total operating expenses		-1,591	-1,572
Operating profit		379	496
Finance income	27	17	20
Finance expense	28	-69	-66
Result from associates and joint ventures	5	1	3
Profit before tax		328	453
Tax	29	-76	-119
Profit after tax from continuing operations		252	334
Profit attributable to non-controlling interests		1	-
Profit after tax		**253**	**334**

The profit after tax for 2019 is almost entirely attributable to the shareholders of Alliander N.V.

Consolidated statement of comprehensive income

The comprehensive income was as follows:

€ million	2019	2018
Profit after tax	253	334
Other elements of comprehensive income		
Items that will be reclassified subsequently to profit or loss		
Movement in hedge reserve	-2	-
Comprehensive income after tax	**251**	**334**

The comprehensive income after tax is almost entirely attributable to the shareholders of Alliander N.V.

Consolidated cash flow statement

€ million	Note	2019	2018
Cash flow from operating activities	30		
Profit after tax		253	334
Adjustments for:			
- Finance income and expense	27, 28	52	46
- Tax	29	76	119
- Result after tax from associates and joint ventures	5	-2	-3
- Depreciation, amortisation and impairment	22, 26	378	338
- Book profit on sale of Allego	33	-	-105
Changes in working capital:			
- Inventories		6	8
- Trade and other receivables		12	-20
- Trade and other payables, accruals and deferred income		-32	20
Total changes in working capital		-14	8
Changes in deferred tax, provisions, derivatives and other		-1	10
Cash flow from operations		742	747
Interest paid		-48	-54
Interest received		1	2
Corporate income tax paid (received)		-57	-57
Total		-104	-109
Cash flow from operating activities		638	638
Cash flow from investing activities	30		
Investments in property, plant and equipment	3	-834	-731
Construction contributions received from third parties	14	124	126
Financial assets (associates and joint ventures) - Investments and divestments		-3	-1
Sale of Allego		-	110
Cash flow from investing activities		-713	-496
Cash flow from financing activities	30		
ECP financing issued (redeemed)	13	291	-224
Long-term debt issued	13	296	228
Long-term debt redeemed	14	-321	-3
Short-term debt issued	13	-	14
Loans granted	11	-	-14
Repayments of short-term debt	13	-	10
Redemption lease liabilities		-20	-
Issue of subordinated perpetual bond loan	12	-	495
Repayment of subordinated perpetual bond loan	12	-	-496
Reimbursement on subordinated perpetual bond loan	12	-8	-21
Dividend paid		-150	-92
Cash flow from financing activities		88	-103
Net cash flow		13	39
Cash and cash equivalents as at 1 January		140	101
Net cash flow		13	39
Cash and cash equivalents as at 31 December		**153**	**140**

Consolidated statement of changes in equity

		Equity attributable to shareholders and other providers of equity							
€ million	Note	Share capital	Share premium	Subordinated perpetual bond loan	Revaluation reserve	Hedge reserve	Other reserves	Profit for the year	Total
As at 1 January 2018		**684**	**671**	**496**	**38**	**-**	**1,850**	**203**	**3,942**
Profit after tax for 2018		-	-	-	-	-	-	334	334
Comprehensive income for 2018		**-**	**-**	**-**	**-**	**-**	**-**	**334**	**334**
Change in valuation on the basis of IFRS 9		-	-	-	-38	-	5	-	-33
Reimbursement subordinated perpetual bond loan after tax		-	-	-	-	-	-21	-	-21
Redemption subordinated perpetual bond loan		-	-	-496	-	-	-	-	-496
Issue subordinated perpetual bond loan		-	-	495	-	-	-	-	495
Dividend for 2017		-	-	-	-	-	-	-92	-92
Profit appropriation for 2017		-	-	-	-	-	111	-111	-
As at 31 December 2018		**684**	**671**	**495**	**-**	**-**	**1,945**	**334**	**4,129**
Profit after tax for 2019		-	-	-	-	-	-	253	253
Other movements		-	-	-	-	-2	-	-	-2
Comprehensive income for 2019		**-**	**-**	**-**	**-**	**-2**	**-**	**253**	**251**
Reimbursement subordinated perpetual bond loan after tax	12	-	-	-	-	-	-6	-	-6
Dividend for 2018		-	-	-	-	-	-	-150	-150
Profit appropriation for 2018		-	-	-	-	-	184	-184	-
As at 31 December 2019		**684**	**671**	**495**	**-**	**-2**	**2,123**	**253**	**4,224**

Notes to the consolidated financial statements

Accounting policies

Alliander N.V. is a public limited liability company, with registered offices in Arnhem, the Netherlands.

The 2019 financial statements were signed by the members of the Management Board and the members of the Supervisory Board on 14 February 2020. The Supervisory Board will submit the financial statements for adoption by the General Meeting of Shareholders on 8 April 2020. The accounting policies are based on the assumption of a going concern.

The Alliander group

Alliander N.V. is a public limited liability company, with registered offices in Arnhem, the Netherlands. The principal activities of Alliander and its wholly-owned subsidiaries (also referred to here as 'Alliander', 'the Alliander group', 'the group' or similar expressions) are the operation of electricity and gas networks covering roughly one-third of the Netherlands, and the provision of related services.

The subsidiary Liander owns and manages the regional gas and electricity networks in the provinces of Gelderland, Friesland, Noord-Holland and parts of Zuid-Holland, Flevoland and Noordoostpolder. Under the Electricity Act 1998 and the Gas Act the management of the networks and regional distribution of energy are the exclusive responsibility of the network operator. Qirion (formerly Liandon) provides services relating to the construction and maintenance of complex energy infrastructures. Alliander AG carries on network operation and public lighting activities in Germany. The subsidiary Stam is a medium-sized firm of contractors based in Noord-Holland, engaging in network construction and maintenance work. The activities of Alliander Telecom N.V. and the joint operation CDMA Utilities B.V. concern the group's data communications. Through its subsidiaries set up in recent years, including Firan and Energy Exchange Enablers, Alliander has taken the initiative in and is facilitating developments and activities aimed at creating a sustainable energy supply for the Netherlands. A review of 2019 can be found on our annual report website. The increase in sustainable forms of electricity generation on a more decentralised level places demands on the power distribution infrastructure and represents a challenge for network companies. Alliander sees it as its responsibility, together with other market participants, to facilitate this greater sustainability at an acceptable cost to society.

Non-controlling interests

There are third-party non-controlling interests in Alliander's activities. This concerns a 5% interest on the part of the Municipality of Nijmegen in Indigo B.V., a 5% interest on part of the Municipality of Hengelo in Warmtenetwerk Hengelo B.V. and a 25% interest in Warmte-Infrastructuur Limburg Geothermie B.V., all subsidiaries of Firan. See Note [12].

IFRS

Alliander's financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as at 31 December 2019, as adopted by the European Union (EU), and the provisions of Title 9, Book 2 BW. IFRS consists of the IFRS standards as well as the International Accounting Standards issued by the International Accounting Standards Board (IASB) and the interpretations of IFRS and IAS standards issued by the IFRS Reporting Interpretations Committee (IFRIC) and the Standing Interpretations Committee (SIC), respectively.

The significant accounting policies used in the preparation of the consolidated financial statements are set out below. The historical cost convention applies. However, certain assets and liabilities, including derivatives, are measured at fair value. Unless stated otherwise, these accounting policies have been applied consistently to the years covered in these financial statements.

The preparation of financial statements requires the use of estimates and assumptions based on experience and considered appropriate by management given the specific circumstances. These estimates and assumptions have an impact on the carrying amounts and presentation of the reported assets and liabilities, the off-balance-sheet rights and obligations and the reported income and expenditure during the year. The actual outcomes may differ from the estimates and assumptions used. Note [35] to the financial statements gives further information on the areas and items in the financial statements where estimates and assumptions are used. Unless stated otherwise, all amounts reported in these financial statements are in millions of euros.

Unrealised profits on transactions between the Alliander group and its associates or joint ventures are eliminated pro rata according to the group's interest in the entity concerned. Unrealised losses are also eliminated, unless the transaction gives rise to the recognition of impairment losses. If appropriate, the accounting policies of associates and joint ventures are adjusted to ensure the consistent application of accounting policies throughout the Alliander group.

New and/or amended IFRS standards applicable in 2019

The IASB and the IFRIC have issued new and/or amended standards and interpretations which are applicable to Alliander with effect from the 2019 financial year. The standards and interpretations below have been endorsed by the European Union.

IFRS 16 Leases

IFRS 16 replaces IAS 17, IFRIC 4, SIC 15 and SIC 27 as of 1 January 2019.

Alliander has implemented IFRS 16 with effect from 1 January 2019, using the modified retrospective approach. The comparative information for prior years has therefore, not been restated.

An important consequence of implementing IFRS 16 for Alliander as lessee is that rights and obligations under leases must be included in the balance sheet. The basis of measurement used as of 1 January 2019 is the net present value of future lease payments. This has resulted in a €58 million increase in the balance sheet total. There is also a shift in the income statement from operating expenses to depreciation and, to a very limited degree, to finance expenses. For 2019, there was consequently a shift of approximately €20 million from the other operating expenses to depreciation (€20 million) and to finance expenses (€0.2 million). For the statement of cash flows in 2019, application of IFRS 16 has led to a €20 million increase in operating cash flow, while cash outflow from financing activities rose by the same amount over the same period.

In determining the existence of a lease, the provisions of IFRS 16.9 apply. Additionally, use is made of the following exemptions where possible: leases of 12 months or shorter and leases relating to assets with a value of less than €5,000.

The following practical approaches have also been applied:

- For the current contracts as at 1 January 2019, the existing classification of leases based on IFRIC 4 is applied, meaning that the distinction between finance leases and operating leases in the financial reporting in relation to the existing leases as at 1 January 2019 where Alliander is lessee are not relevant anymore. New leases will, however, be treated in accordance with IFRS 16 with effect from 1 January 2019.
- Existing finance leases where the asset value is less than €5,000 are no longer recognised in the balance sheet as of 1 January 2019. The corresponding lease instalments are recognised directly in the income statement. As at 1 January 2019, this has led to a reduction of the balance sheet total by €1 million.
- The value of right-of-use assets for which the liability was classified as operational lease under IAS 17 prior to 1 January 2019 is equated with the lease liability based on IFRS 16.C8. There has therefore been no change in equity.

To measure the lease liabilities and the right-of-use assets as at 1 January 2019, use was made of the incremental borrowing rates as at that date. The incremental borrowing rate is determined on the basis of the risk-free market interest rate plus a risk markup specific to Alliander over a similar period and with the same type of security as the terms on which Alliander would be able to obtain finance to acquire a comparable asset as at 1 January 2019. The weighted average incremental borrowing rate stood at 0.55% as at 1 January 2019.

Implementation of IFRS 16 has produced a €58 million increase in the balance sheet total as at 1 January 2019. This increase is made up of an increase in lease liabilities and an equal increase in right-of-use assets. By far the greatest part of these lease liabilities relates to business premises and lease vehicles. Ground lease contracts and the rental of telecommunication masts and connections are also accounted for in this amount.

The difference between the operating lease liability of €134 million as at year-end 2018 and the recognition of €58 million as at 1 January 2019 under IFRS 16 is largely explained by the fact that the lease obligations for contracted leases where the actual right to control the use of the assets concerned does not commence until after 1 January 2019 are included in the lease obligations disclosed under the previous standard.

The new standard does not affect the way in which the cross-border leases are accounted for, however. As determined by IFRS 16.B2, these fall outside the scope of IFRS 16.

IFRS 16 has not been adopted for tax accounting purposes, meaning that the current tax accounting method will be continued.

As at 31 December 2019, the carrying amount for right-of-use assets totalled €63 million, while lease liabilities stood at €64 million, which breaks down into €47 million in non-current liabilities and €17 million in current liabilities. An impairment totalling €1 million on the right-of-use assets was furthermore recognised in 2019. Right-of-use assets have been recognised separately in the balance sheet under right-of-use assets and lease liabilities under leases.

Implementation of IFRS 16 as of 1 January 2019 has only had a minor impact on ratios.

Other changes in 2019

In addition to the implementation of IFRS 16 with effect from 1 January 2019, the following changes are applicable in 2019:

- 'IFRS annual improvements 2015–2017';
  - IFRS 3 'Business Combinations';
  - IFRS 11 'Joint Arrangements';
  - IAS 12 'Income Taxes';
  - IAS 23 'Borrowing Costs'.
- IFRS 9: 'Prepayment features with negative compensation';
- IAS 19: 'Plan amendment, curtailment or settlement';
- IAS 28: 'Long-term interests in associates and joint ventures';
- IFRIC 23: 'Uncertainty over income tax treatments'.

None of these changes have material impact on Alliander and they will therefore not be discussed further in these financial statements.

Expected changes in accounting policies

In addition to the aforementioned new and amended standards, the IASB and the IFRIC have issued new and/or amended standards and/or interpretations, which will be applicable to Alliander in subsequent financial years. These standards and interpretations can only be applied if adopted by the European Union.

The future new and/or amended standards and interpretations are the following:

- IFRS 17 'Insurance Contracts';
- 'Amendment of references to the conceptual framework in IFRS standards';
- IFRS 3: 'Definition of a Business';
- IAS 1 and IAS 8: 'Definition of material';
- IFRS 9, IAS 39 and IFRS 7: 'Interest Rate Benchmark Reform'.

These published future amendments to standards and interpretations are not relevant to Alliander and/or do not have any material impact on Alliander so they will not be discussed further in these financial statements.

Basis of the consolidation

Subsidiaries

The consolidated financial statements comprise the financial data of Alliander and its subsidiaries. Subsidiaries are companies over which Alliander, either directly or indirectly, has the power to govern the financial and operating policies so as to obtain benefits from their activities. In determining whether Alliander has control, actual and potential voting rights that are currently exercisable or convertible are taken into account, along with the existence of other agreements enabling Alliander to control financial and operating policies.

The assets, liabilities and results of subsidiaries are fully consolidated. The results of consolidated subsidiaries that have been acquired during the year are consolidated from the date Alliander obtains control over those subsidiaries. Consolidation of subsidiaries ceases from the date Alliander no longer controls the subsidiary.

The acquisition method is used to account for acquisitions of subsidiaries by Alliander. The purchase price of an acquisition is determined by measuring the fair value of the acquired assets, the issued equity instruments and the assumed or acquired liabilities. The consideration paid includes the fair value of all assets or liabilities arising out of contingent consideration arrangements. The identifiable assets and liabilities and contingent liabilities that are acquired are initially measured at fair value at the date of acquisition, irrespective of the amount that is attributable to non-controlling interests (see also the accounting policies for goodwill). For each business combination, it is determined whether any non-controlling interest in the acquiree is measured at fair value or at the proportionate share of the non-controlling interest in the acquiree's identifiable net assets. The interests of third parties in group equity and the group's profit after tax are presented separately as non-controlling interests and profit after tax attributable to non-controlling interests.

Intercompany transactions, intercompany receivables and payables and unrealised gains on transactions between subsidiaries are eliminated. Unrealised losses are also eliminated, unless the transaction gives rise to the recognition of impairment losses. If appropriate, the accounting policies of subsidiaries are adjusted to ensure the consistent application of accounting policies throughout the Alliander group.

Associates and joint arrangements

Associates are entities where Alliander, directly or indirectly, exercises significant influence, but not control, over the financial and operational policies. Significant influence is assumed when Alliander can exercise between 20% and 50% of the voting rights.

Joint ventures are joint arrangements where the parties having joint control over the arrangement have rights to the net assets of the arrangement. These parties are referred to as investors in joint ventures.

A joint operation is a joint arrangement where the parties having joint control over the arrangement (including Alliander) have rights to the assets and obligations for the liabilities relating to the arrangement. These parties are referred to as participants in joint operations. In a joint operation, Alliander recognises its assets and liabilities and its revenue and expenses arising from the joint operation.

The 'Other information' section of this annual report contains a list of the associates and joint arrangements.

Investments in associates and interests in joint ventures are measured using the equity method. Initial measurement is at historical cost. The carrying amount of the associate or the joint venture includes the goodwill paid at the date of acquisition of the associate or entering into the joint venture and Alliander's share in the changes in the equity of the associate or joint venture after the date of the transaction. The share in the realised results of the entities concerned since the date on which they were acquired is recognised in the income statement and the share in the change in unrealised results of the entities concerned since acquisition date is included in the comprehensive income. If the accumulated losses exceed the carrying amount, they are not recognised unless Alliander has an obligation or has made payments to defray them, in which case, a provision is recognised and charged to income.

Unrealised profits on transactions between the Alliander group and its associates or joint ventures are eliminated pro rata according to the group's interest in the entity concerned. Unrealised losses are also eliminated, unless the transaction gives rise to the recognition of impairment losses. If appropriate, the accounting policies of associates and joint ventures are adjusted to ensure the consistent application of accounting policies throughout the Alliander group.

Scope of the consolidation

2019

There were no new consolidations in 2019. As of 31 December 2019, Alliander Participaties B.V. and non-controlling interest Innax Group B.V. have been transferred to Stichting Administratiekantoor Bellevue (STAK Bellevue) and are no longer part of Alliander.

2018

The comparative figures reflect that, effective 1 June 2018, the entire share capital of Allego was sold to Meridiam, a French investment company that specialises in the development, financing and management of long-term and sustainable infrastructure projects. Meridiam also obtained full control of Allego and its subsidiaries with effect from this date.
On 31 July 2018, Alliander increased its interest in Locamation B.V. (58%) to 100%. The purchase price was €1.5 million. In view of the trend in results at that time, this amount was immediately expensed to the income statement for 2018.

Segment reporting

The reporting of segment information reflects the basis on which management information is reported to the Chief Operating Decision-Maker (CODM). The Management Board is identified as the most senior officer (CODM) responsible for the allocation of resources and for evaluating segment performance. Internal reporting is based on the same accounting policies as are used for the consolidated financial statements. The internally reported results are on a comparable basis, i.e. excluding incidental items and fair value movements. The reconciliation with the reported figures is given in note [2].

Alliander distinguishes the following segments:

- Network operator Liander
- Other

Foreign currency translation

Functional and presentation currency

The items in the financial statements of the entities forming part of the Alliander group are recorded in the currency of the primary economic environment in which the entity operates (the 'functional currency'). The consolidated financial statements are prepared in euros, Alliander' s functional and presentation currency.

Translation of transactions and balance sheet items in foreign currencies

Amounts of transactions in foreign currencies are converted into the functional currency at the applicable exchange rate at the time. Monetary assets and liabilities denominated in foreign currency are translated at the exchange rates at the balance sheet date. Currency translation differences resulting from the settlement of transactions denominated in foreign currency or the translation at the balance sheet date are recognised in the income statement, unless these exchange gains or losses are recognised directly in comprehensive income as cash flow hedges or net investment hedges in a foreign entity.

Currency translation differences on monetary investments in bonds are recognised in income when they relate to the translation of the amortised cost in foreign currency.

Impairments

To measure impairments, assets are allocated to the lowest possible level at which they generate separately identifiable cash flows (cash-generating units). Goodwill is allocated to a level that is consistent with the manner in which goodwill is internally reviewed by management. Impairment of cash-generating units is initially allocated to the goodwill of the cash-generating unit (or group of cash-generating units) and is subsequently allocated proportionately to the carrying amount of the other assets of the cash-generating unit.

Under IFRS, goodwill is tested annually for impairment by comparing the recoverable amount and the carrying amount of the cash-generating unit (or group of cash-generating units) to which the goodwill has been allocated. Impairment losses – the difference between carrying amount and recoverable amount – are recognised in the income statement.

A similar calculation is only performed in the case of all other non-current assets if warranted by events or changes in circumstances (triggering event analysis). The results of this calculation determine whether the value of property, plant and equipment, intangible assets or financial assets has been impaired. Each year and when interim results are published, a test is carried out to establish whether such events or changes have occurred.

For Alliander's German operations, separate cash-generating units were defined for operations in the areas of traffic management systems and public lighting in 2019.

There was no change in the composition of the cash-generating units in 2018.

The recoverable amount is the higher of the fair value less costs to sell and the value in use. In measuring the value in use, the estimated future cash flows are discounted at a pre-tax discount rate. The discount rate reflects the time value of money and the specific risks that are associated with the assets involved. If certain assets do not generate cash flows independently, the value in use is measured for the cash-generating unit to which the asset involved belongs.

If a previously recognised impairment loss ceases to apply, it is reversed to the original carrying amount less regular depreciation and amortisation up to the date of reversal. Impairments of goodwill are not reversed.

Assets held for sale and discontinued operations

Fixed assets and assets forming part of significant activities that are held for sale, together with the associated liabilities, are presented separately in the balance sheet. Assets are designated as being held for sale if Alliander has committed itself to the sale of the asset involved, if the sales process has started and if the sale is expected to occur within one year of the asset being classified as held for sale. These assets are no longer depreciated, but are recognised at fair value less costs to sell if this amount is lower than the carrying amount. If the sale has not taken place within one year, the asset and associated liabilities are no longer presented separately in the balance sheet unless the failure to meet the one-year time limit is due to events or circumstances beyond Alliander's control and Alliander still intends to sell the asset in question.

Assets held for sale and the associated liabilities are presented as such in the balance sheet from the time that they are designated as held for sale. The comparative figures in the balance sheet are not restated. A discontinued operation is an activity of material significance which has been either discontinued or classified as held for sale. The results from discontinued operations comprise the results for the entire financial year up to the up to the close of the year. The comparative figures are restated in this case.

Tangible fixed assets

The tangible fixed assets item is subdivided into the following categories:

- land and buildings;
- networks;
- other plant and equipment;

- assets under construction/prepaid assets.

The tangible fixed assets are measured at historical cost, less accumulated depreciation and impairment. At the time of transition to IFRS on 1 January 2004, Alliander decided to use the option in IFRS 1 'First-Time Adoption of International Financial Reporting Standards' to recognise networks at their deemed cost on that date.

Historical cost includes all expenditure directly attributable to the purchase of an item of property, plant and equipment or the production of an item of property, plant and equipment for own use. The cost of production for the company's own use includes the direct costs of materials used, labour and other direct production costs attributable to the production of the item of property, plant and equipment and the costs required to bring it into its operational condition.

With effect from 1 January 2009, the costs of loans associated with the purchase of an item of property, plant and equipment or assets under construction are capitalised insofar as they can be directly attributed to the acquisition, production or construction of a qualifying asset. For Alliander, this entails the obligatory capitalisation of interest costs from all qualifying assets whose initial capitalisation date falls on or after 1 January 2009.

Costs incurred after the date on which an item of property, plant and equipment has been taken into use are only capitalised if it can be assumed that these costs will generate future economic benefits and if they can be measured reliably. Depending on the circumstances, these costs form part of the carrying amount of the asset involved or are capitalised separately. The carrying amount of the original asset is derecognised on replacement. Maintenance expenditure is charged directly to the income statement in the year these costs are incurred.

Historical cost also includes the net present value of the estimated dismantling and removal costs and, if applicable, the costs of restoring the site to its original condition insofar as there is a legal or constructive obligation to do so. These costs are capitalised at the time of acquisition or at a later date when the obligation arises. In both cases, the capitalised costs are depreciated over the expected remaining useful life of the asset concerned.

Property, plant and equipment is depreciated using the straight-line method over the expected useful lives of the various components of the asset concerned, taking account of the expected residual value.

The useful lives of the asset categories are as follows:

- land: not depreciated;
- buildings: 20-50 years;
- networks: 5-55 years;
- other plant and equipment; 3-60 years;
- assets under construction: not depreciated.

Assets with a short useful life (5 years) forming part of the networks mainly concern electronic equipment. The networks themselves (pipes and cables) generally have a useful life of 40 to 55 years. The expected useful lives, residual values, and depreciation methods are reviewed annually and adjusted as necessary. Gains or losses on disposal are determined from the sales proceeds and the carrying amount on the date of disposal. Gains are recognised in other income.

Changes in expected useful lives

There were no changes in estimates of expected useful lives in 2019 or 2018.

As of 1 January 2020, the depreciation periods for transformers, switchgear and electrical substations in the deregulated domain have been shortened following changes to the replacement policy in combination with legal requirements and technological developments, which will push depreciation costs up by €3 million in 2020.

Intangible assets

Goodwill

Goodwill is the amount by which the consideration paid on transfer of ownership exceeds the fair value of the identifiable assets, liabilities and contingent liabilities of the subsidiaries or associates acquired. Goodwill recognised on the acquisition of subsidiaries or associates is classified under intangible assets. Goodwill recognised on the acquisition of associates is included in the cost of the investment concerned. If the amount paid on transfer is lower than the fair value of the identifiable assets, liabilities and contingent liabilities (negative goodwill), this difference is recognised directly through the income statement.

The carrying amount of goodwill consists of historical cost less accumulated impairment. Impairment tests are performed annually in order to determine whether the carrying amount of the goodwill has been impaired. On the disposal of entities or cash-generating units, the goodwill attributable to the entity or unit is taken into account in determining the result on disposal.

Other

Purchased lease contracts are recognised in the balance sheet as other intangible assets, measured at the net present value of the future cash flows. Amortisation is calculated over the average period of the purchased contracts.

Financial assets

Classification and recognition

Financial assets – mostly investments in loans and shares – are classified into the categories described hereafter. Financial assets are classified as current if the remaining term to maturity is less than 12 months at the balance sheet date. They are classified as non-current if the remaining term to maturity is longer than 12 months. The category in which a financial asset is placed and measured depends on:

- the entity's business model for managing the financial assets
- and the contractual cash flow characteristics of the financial asset.

A financial asset is measured at amortised cost if both of the following conditions are satisfied:

- the financial asset is held as part of the business model whose objective is to hold financial assets in order to collect contractual cash flows, and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A financial asset is recognised at fair value through other comprehensive income if both of the following conditions are satisfied:

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A financial asset must be recognised at fair value through profit or loss unless, in accordance with the above paragraphs, it is recognised at amortised cost or at fair value through other comprehensive income.

On initial recognition, a financial asset is measured at fair value plus, in the case of a financial asset that is not recognised at fair value through profit or loss, the transaction costs directly attributable to the acquisition or issue of the financial asset.

Alliander does not employ any business models where the aim is achieved both by receiving contractual cash flows and by selling financial assets. Alliander’s financial assets are therefore measured after initial recognition either at amortised cost or at fair value through profit or loss.

If the fair value of financial assets measured at amortised cost has been hedged, the amortised cost is adjusted for the gain or loss attributable to the hedged risk. These adjustments are recognised in the income statement.

Impairments

A loss allowance is recognised for expected credit losses on financial assets that are measured at amortised cost or recognised at fair value through other comprehensive income.
Calculation of the impairment is based on the expected loss. This is assessed periodically. The general approach is that of the expected credit loss (ECL) model, which involves determining the 12-month expected credit loss. In the event of a significant increase in the credit risk on a financial asset, the lifetime expected credit loss is recognised.

The amount of the expected credit loss (or reversals) that is required to adjust the compensation for losses as at the reporting date is recognised as an impairment gain or loss in the income statement.

Derivatives and hedge accounting

Derivatives are measured at fair value. The fair values are either derived from quoted prices in active markets or obtained from recent market transactions of a similar nature or calculated using valuation methods such as discounted cash flow models and option valuation models when there is no active market for the instruments.

Derivatives are classified as current or non-current assets if the fair value is positive and as current or non-current liabilities if the fair value is negative. Derivative receivables and payables with the same counterparty are netted if there is a right to do so and Alliander has the intention to settle the transaction on a net basis.

Accounting for movements in fair value of derivatives

The accounting treatment for the movements in the fair value of derivatives depends on whether the derivative is designated as held for trading or as a hedge (and recognised as such for accounting purposes in an effective hedge), and if the latter is the case, the risk that is being hedged.

Commodity contracts intended for own-use by the company

Alliander may use energy commodity contracts for physical purchases of electricity and green certificates (renewable energy certificates – RECs) for network losses occurring in the distribution of electricity. For these contracts, transactions are recognised on the delivery date at the then applicable prices. Contracts are designated as own-use contracts, as contracts for trading or as hedges on the date on which they are entered into.

Hedge accounting

Alliander uses derivatives to hedge foreign exchange risks on assets and liabilities, interest rate risks on long-term loans and price risks arising from energy commodity contracts. These hedge transactions can be divided into two categories:

- Cash flow hedging: these are instruments hedging the risk of movements in future cash flows that may affect profit or loss. The hedges are attributable to a specific risk that is related to a balance sheet item or a future transaction that is highly probable. The effective part of the changes in the fair value of the hedge reserve is recognised in shareholders' equity under the hedge reserves. The non-effective part is taken to the income statement. The accumulated amounts recognised in equity are transferred to the income statement in the period in which the hedged transaction is recognised in the income statement. However, if a forecast transaction that is hedged leads to the recognition of a non-financial asset or liability, the accumulated gains and losses on the hedges are included in the initial measurement of the asset or liability involved. If a hedge ceases to exist or is sold, or when the criteria for hedge accounting are no longer being met, the accumulated fair value movements are held in equity until the forecast transaction is recognised in the income statement. If a forecast transaction is no longer expected to occur, the accumulated fair value movements that were recognised in equity are recognised through the income statement;
- fair value hedges: these are instruments hedging the risk of movements in the fair value of assets and/or liabilities, or a part thereof, carried on the face of the balance sheet, or firm commitments, or a part thereof, that may affect profit or loss. A firm commitment is a binding agreement for the exchange of a specified quantity of resources at a specified price on a specified future date or dates. Fair value movements of derivatives that are designated as fair value hedges are recognised in the income statement, together with the movements in the fair value of the assets or liabilities or groups thereof, that are attributable to the hedged risk.

At the start of a hedging relationship, and subsequently on an ongoing basis, an assessment is made to establish whether the hedging relationship satisfies the hedge effectiveness requirements. If a hedging relationship ceases to satisfy the hedge effectiveness requirements but the risk management objective of the hedging relationship is unchanged, rebalancing takes place by changing the terms of the hedging relationship in such a way that it again satisfies the criteria. This rebalancing is processed administratively as a continuation of the hedging relationship. Upon rebalancing, the hedge ineffectiveness of the hedging relationship is calculated and recognised.

Other derivatives

Fair value gains and losses on other derivatives are recognised in the income statement.

Leases where Alliander acts as lessor

Operating leases

Alliander has entered into operating leases for district heating networks and energy-related installations. Operating leases are leases that are not designated as finance leases. Risks and rewards incidental to ownership of the assets concerned are not, or not substantially, transferred to the lessee.

The assets that are leased to third parties under operating leases are classified as property, plant and equipment. The proceeds from operating leases are recognised through the income statement as operating income over the lease period.
To calculate the credit losses to be recognised in respect of outstanding receivables for operating leases, the simplified approach for trade receivables and contract assets is used. See also the policies for trade and other receivables.

Finance leases

Alliander has entered into a finance lease for a heat transport pipeline. Risks and rewards incidental to ownership of the assets concerned are entirely or almost entirely, transferred to the lessee.

Finance lease receivables are recognised in other financial assets. The finance benefits over the lease period from finance leases are recognised through the income statement as finance income.
For the determination of the credit losses to be recognised in respect of outstanding receivables for finance leases, the accounting policy for impairments on financial assets applies.

Inventories

Inventories are measured at the lower of cost and net realisable value. These inventories consist of raw materials and consumables, inventories in process of production and finished goods. The cost of inventories is determined using the FIFO (first-in, first-out) method. Net realisable value is measured using the estimated sales price in normal operating circumstances, less the estimated costs to sell.

Trade and other receivables

Trade and other receivables are initially measured at fair value and subsequently at amortised cost less impairment for the default risk. To calculate the amount, the simplified approach for trade receivables and contract assets is used, with the expected credit losses estimated on the basis of experience.

Cash and cash equivalents

Cash and cash equivalents comprise all liquid financial instruments with a maturity date at inception of less than three months. Cash and cash equivalents include cash in hand, bank balances, money market loans and short-term deposits. Overdrafts are only classified as cash and cash equivalents if Alliander has the right to net debit and credit balances, the debit and credit balances are held with the same bank and Alliander has the intention to exercise this right and also actually does so.

Cash and cash equivalents are measured at fair value on initial recognition and subsequently at amortised cost, which in general equals the face value. Cash and cash equivalents also include cash and cash equivalents to which Alliander does not have free access. Amounts owed to credit institutions are recognised as interest-bearing debt.

Interest-bearing debt

Interest-bearing debt consists primarily of loans and is initially measured in the balance sheet at the fair value of the consideration receivable, less transaction costs. With the exception of derivatives, it is subsequently measured at amortised cost. Where the interest-bearing debt is hedged by means of a fair value hedging instrument, the amortised cost of the interest-bearing debt is adjusted for the movement in fair value attributable to the hedged risk. These adjustments are recognised in the income statement.

Leases where Alliander acts as lessee (2019)

When entering into a contract, an assessment is made as to whether it is or contains a lease. A contract is or contains a lease if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration. In case of a contract that is or contains a lease, each lease component wthin the contract is accounted for as a lease, seperately from the contract's non-lease components

At the commencement date, the right-of-use asset is measured at cost. Cost is made up of the amount of the first measurement of the lease liability, the initial direct costs incurred, lease payments made at or before the commencement date, less all lease incentives received.

At the commencement date, the lease liability is measured at the present value of the lease payments that are not paid at that date. The lease payments are discounted based on the lease’s imputed rate of interest, provided it can be estimated reliably. If not, the incremental borrowing rate of interest is used. The incremental borrowing rate is determined on the basis of the risk-free market interest rate plus a risk markup specific to Alliander over a similar period and with the same type of security as the terms on which Alliander would be able to obtain finance to acquire a comparable asset.

Right-of-use assets are measured at historical cost, less accumulated depreciation and impairment.

After initial recognition, the lease liabilities are measured by increasing the carrying amount to reflect the interest on the lease liabilities and by reducing the carrying amounts to reflect lease payments made.

Alliander uses the exemptions for short-term and low-value leases offered by IFRS.

Leases where Alliander acts as lessee (2018)

Finance leases

Alliander has concluded a number of leases. If substantially all risks and rewards incidental to ownership of the assets are transferred to Alliander, the lease is recognised as a finance lease. In that case, an asset and a liability are recognised equal to the lower of the fair value and the net present value of the related future lease obligations when the lease is entered into.
The asset is depreciated over the shorter of the useful life of the asset and the term of the lease contract.
Consequently, the lease instalments are treated as the repayment of principal and interest to the counterparty (lessor). The interest expenses reflect the effective interest o the investment made by the lessor.

The assets that Alliander holds under finance leases are classified under the item property, plant and equipment. The corresponding lease obligations are recognised as current and non-current liabilities, depending on whether the lease instalments are due within or after 12 months of the balance sheet date.

Operating leases

Operating leases are leases that are not classified as finance leases and where the risks and rewards incidental to ownership of the assets have not, or not substantially, been transferred to the lessee. The cost of operating leases is recognised through the income statement in equal instalments over the lease period.

Construction contributions, government and investment grants

Construction contributions

Construction contributions from customers in connection with investments in the electricity and gas infrastructure for the provision of connection and distribution services are recognised in the balance sheet as contract liabilities (deferred income). Deferred income is amortised over the expected useful lives of the assets involved. The amortisation is recognised through the income statement as revenue.

Government subsidies and investment grants

Government subsidies and investment grants are recognised if there is reasonable certainty that the criteria for receiving the grant are or will be met, and that the grant will be received. Grants received for investments in property, plant and equipment are recognised as deferred income in the balance sheet and are amortised over the expected useful lives of the assets involved. The amortisation is recognised through the income statement as other income.

Government grants and operating subsidies that do not relate to investments in property, plant and equipment or other non-current assets are taken to income when the associated costs are incurred.

Tax

Deferred tax assets and liabilities that arise from taxable temporary differences between the carrying amount in the financial statements and the carrying amount for tax purposes are determined using the corporate income tax rates that are currently applicable or will be applicable, under current legislation, at the time of settlement of the deferred tax asset or liability.
Deferred tax assets, arising, for example, from operating losses, are only recognised if it is probable that sufficient future taxable profits will be available – accounting for them at tax group level. Deferred tax assets and liabilities are only set off if Alliander has a legal right to offset and the assets and liabilities relate to taxes that are levied by the same authority. Deferred tax assets and liabilities are measured at face value.

The corporate income tax charge is determined using the applicable rates for corporate income tax and are recognised at face value. Permanent differences between the results for tax purposes and financial reporting purposes and the ability to utilise tax losses carried forward are taken into account if deferred tax assets have not been recognised for these tax losses.

Provisions for employee benefits

Multi-employer plans

Alliander has a number of defined benefit plans and defined contribution plans for which contributions are generally paid to pension funds or insurance companies. The main pension schemes, which are administered by ABP, take the form of multi-employer plans. Although the pension plans offered by these arrangements are, in fact, defined benefit plans, these plans are treated as defined contribution plans as Alliander does not have access to the required information *and* because its participation in the multi-employer plans exposes it to actuarial risks that relate to the present and former employees of other entities. The pension contributions due for the financial year are accounted

for as pension costs in the financial statements. Where there is an agreement for a multi-employer plan that specifies how a surplus is distributed to the participants or a deficit is to be financed and where the plan is accounted for as a defined contribution plan, a receivable or payable arising from the agreement is recognised in the balance sheet. The resulting gains or losses are recognised in the income statement. The pensions of by far the majority of Alliander's workforce are managed by the ABP pension fund and do not have such contractual agreements.

As a result, no asset or liability has been recognised in the balance sheet. The contributions paid during the year are recognised in the income statement. The same applies to the pensions administered by BPF Bouw and Pensioenfonds voor Metaal en Techniek.

In addition to the above multi-employer pension plans in the Netherlands, Alliander has two defined benefit plans relating to subsidiaries in Germany, although these are not of material importance. These plans are accounted for in accordance with the amended IAS 19.

Pensions and other post-employment benefits

Pensions and other post-employment benefits include, among other things, the medical benefit scheme for retired employees. This scheme has not been transferred to an external insurance company or pension fund. The amount of the liability carried on the face of the balance sheet in respect of the medical and other post-employment benefits is made up of the net present value of the gross liability in respect of the defined medical benefit obligation plus or less actuarial gains and losses and less past-service costs not yet recognised as at balance sheet date. These components are computed actuarially.

The present value of the medical benefit obligation is determined using the projected unit credit method, which takes into account the accrued entitlements at the balance sheet date and changes in the entitlements. The costs for the medical benefit scheme attributable to the year of service and the accretion of interest to the provision are recognised in employee benefits in the income statement.

Other long-term employee benefits

Other long-term employee benefits include plans, other than pension plans, in which payment does not occur within 12 months after the end of the period in which the employees render the related service. These plans consist of long-term sickness benefits, long-service benefits, payments on reaching retirement age and incapacity benefits for former employees, and additional annual leave for older employees. These obligations have not been transferred to pension funds or insurance companies. The obligation for other long-term employee benefits in the balance sheet consists of the net present value of the vested benefits. If appropriate, estimates are made of future salary rises, employee turnover and similar factors. These factors form part of the calculation of the provision. Changes in the provision resulting from changes in actuarial assumptions and benefits are taken directly to the income statement. The service costs attributable to the year of service and the accretion of interest to the provision are recognised in employee benefits in the income statement.

Termination benefits/restructuring

Termination benefits are benefits resulting from a decision by Alliander to terminate the employment contract before the normal retirement date or the voluntary decision of an employee to agree to the termination of the employment contract. The nature and the amount of the termination benefits are laid down in the Social Plan. The Social Plan is renegotiated periodically. A provision is only recognised if Alliander has drawn up a detailed restructuring plan which has been approved and communicated and it is not probable that the plan will be withdrawn at a later date.
The amount of the provision is measured at the best estimate of the amount needed to settle the obligation. If the payment is expected to occur more than 12 months after the balance sheet date, the provision is stated at net present value.

Other provisions

Provisions are recognised when:

- there is a legal and/or constructive obligation at the balance sheet date arising from events that occurred before the balance sheet date;
- it can be reasonably assumed that an outflow of economic resources will be required to settle the obligation and a reliable estimate of the obligation can be made.

Provisions are measured at the face value of the amounts deemed necessary to settle the obligation, unless the time value of money is significant. In that case, the provision is stated at net present value. The accretion of interest is recognised as finance expense in the income statement.

Trade and other payables

Trade and other payables are initially recognised at fair value and subsequently at amortised cost. Due to the usually short term of these liabilities, the fair value and amortised cost are generally equal to the face value.

Income recognition

A distinction is made between revenue and other income. All income from contracts with customers is recognised as revenue and all remaining income as other income.
Income is measured on the basis of the performance obligations in the contract with the customer. This excludes amounts received on behalf of third parties. The income is recognised at the moment control of the product or service is transferred.

In assessing the customer contracts, separate portfolio-based approaches are used for matters such as the connection, transport and metering services of the distribution system operating activities. Customer contracts for these services are entered into indefinitely, with the customer paying an investment contribution at the inception of the contract, followed by periodical payments for the service provided. The provision of these services concerns performance obligations satisfied over time. The related revenue is recognised over the period in which the customer receives the service. The upfront investment contribution concerns a payment for a performance obligation to be satisfied over the duration of the contract by providing the connection and distribution service. The contribution received is recognised in the balance sheet as a performance obligation to be satisfied – deferred income – which is amortised over the useful life of the assets concerned.

Revenue

Revenue is made up of:

- regulated revenue. This is revenue from the distribution of electricity and gas to customers and from connecting customers, including, on the one hand, fixed components, referred to as the capacity tariff and, on the other hand, the amortisation of the deferred income from customers. Also included is the revenue from providing electricity and gas metering services for small-scale users. For the provision of these various services in the retail market in the period from the final statement for the year up to the balance sheet date, estimates are made of revenue to be billed;
- deregulated revenue such as from large-user metering services, the service component of leased installations and maintenance of complex energy infrastructures.

Other Income

Other operating income consists of the following and items, among others:

- rental income (the lease component of rented assets);
- amortisation of government and investment grants recognised as liabilities; for details, reference is made to the relevant accounting policies;
- results on the disposal of property, plant and equipment, i.e. the balance of the net proceeds from the sale and the carrying amounts of the assets disposed of. Gains and losses on the disposal of assets are presented net.

Purchase costs and costs of subcontracted work

This includes the costs of network losses, including the expected effects of reconciliation, the costs of distribution capacity and distribution restrictions and the costs of compensation payments. It also includes the costs of raw materials, consumables and supplies used for the supply of goods and services and the cost of subcontracted work such as billing and payment collection and engagement of subcontractors.

Own work capitalised

This item includes the costs of Alliander staff incurred on investment projects.

Finance income

This item consists of the interest income on financial interest-bearing assets, i.e. loans, receivables, money market loans and deposits, measured using the effective interest method, and income from foreign currency results and movements in the fair value of interest rate derivatives.

Finance expense

This item consists of the following:

- interest expenses; this includes the interest expenses on interest-bearing liabilities, measured using the effective interest method. Interest-bearing liabilities consist of loans, liabilities under the Euro Medium Term Notes programme, subordinated and green loans and commercial paper, with the exception of the subordinated perpetual bond loan. Also included with interest expenses are other finance-related costs, such as commitment fees and premium paid in connection with the early redemption of corporate bonds issued by the company etc.;
- foreign exchange differences arising from the translation of transactions denominated in foreign currencies, financial assets and liabilities and derivatives in foreign currencies, except for the results of cash flow hedges, which are initially recognised in equity;
- fair value movements on interest rate derivatives that are used to hedge future cash flows and the corresponding adjustment of the amortised cost of hedged financial assets and liabilities for the movement in the value of the hedged risk; and
- results on terminating cross-border leases or other financing contracts.

Policies for the consolidated cash flow statement

The cash flow statement is prepared using the indirect method. The movement in cash and cash equivalents is derived from profit after tax according to the income statement. Exchange differences and all other movements not resulting in cash flows are eliminated. The same applies to the finance income and expense and the corporate income tax recognised in the income statement. These items are replaced in the cash flow from operating activities by the interest paid/received and the tax paid/received, respectively. The financial consequences of the acquisition or sale of associates and subsidiaries are shown separately in the cash flow from investing activities. As a result, the cash flows presented are not reconcilable with the changes in the consolidated balance sheets.

The definition of cash and cash equivalents in the cash flow statement is the same as that used in the balance sheet.

Note 1 Business combinations

There were no new business combinations of material importance in either 2019 or 2018.

Note 2 Segment information

Alliander distinguishes the following reporting segments in 2019:

- Network operator Liander
- Other

This segmentation reflects the internal reporting structure, specifically the internal consolidated and segmented monthly reports, the annual plan and the business plan.

Network operator Liander forms the largest company within the Alliander group and is responsible for providing gas and electricity connections and for distributing gas and electricity in Gelderland and parts of Noord-Holland, Flevoland, Friesland and Zuid-Holland and is with over 85% of the revenue the largest business unit of Alliander.

The Other segment covers the entirety of the other operating segments within the Alliander group, such as the activities of Qirion, Stam and Alliander AG, new activities, the corporate staff departments and the service units. Qirion provides services relating to the construction and maintenance of complex energy infrastructures, on behalf of Liander as well as third parties. Alliander AG carries on network operation and public lighting activities in Germany. Stam is a medium-sized firm of contractors based in Noord-Holland, engaging in network construction and maintenance work. These activities are undertaken on behalf of third parties as well as on contract to Liander. Established as well as new activities include targeted investments in the infrastructure for electric vehicles, sustainable area development and sustainable housing. The corporate staff departments and service units include Shared Services and IT, which perform activities on behalf of Liander among others. All these activities can be combined into a single segment inasmuch as they do not satisfy the quantitative criteria in order to qualify separately as reporting segments.

Except for the corporate staff and service units, the business of the other operating segments exhibits similar characteristics, depending on the nature of the products and services and the nature of the production processes, viz.: supply, construction, management and maintenance of energy-related products and services. Given the scale of these other operating segments, other characteristics in the sense of customers and distribution channels are not relevant segment reporting distinctions. Furthermore, these operating segments have been aggregated in the Other segment since none of them satisfies the quantitative criteria that would qualify them as separate reporting segments.

Reporting

Alliander produces monthly management reports for the Management Board, with quarterly reports for the Supervisory Board as well. As regards both balance sheet and income statement, these reports use the same accounting policies and classification as the financial information contained in the financial statements. The Management Board assesses the performance of the business on the basis of these reports. The financial reports focus on the consolidated and segment information concerning operating expenses. The operating result is also included on a comparable basis, i.e. excluding incidental items and fair value movements. The operating result is total income less total expenses.

A statement showing the primary segmentation analysis is presented below, including reconciliation with the reported figures.

Notes

The external revenue of Liander mainly comprises income from energy transport, connection and metering services. In the Other segment, external revenue mainly derives from the services provided by Qirion, new activities and Stam and the income from network operation activities in Germany. The eliminations result from the internal services provided by corporate staff departments, service units (such as IT and Shared Services) and Stam to Liander. These internal supplies are made at cost.

Primary Segmentation

€ million	Network operator Liander		Other		Eliminations		Total		Reclassification to reported and incidental items		Reported	
Income statement	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Operating income												
External income	1,773	1,772	197	191	-	-	1,970	1,963	-	105	1,970	2,068
Internal income	10	10	336	313	-346	-323	-	-	-	-	-	-
Total income	1,783	1,782	533	504	-346	-323	1,970	1,963	-	105	1,970	2,068
Operating expenses												
Purchase costs and costs of subcontracted work	514	484	80	73	-142	-133	452	424	-	-	452	424
Operating expenses	714	703	420	464	-204	-190	930	977	17	3	947	980
Depreciation and impairments	334	327	109	82	-	-	443	409	6	-	449	409
Own work capitalised	-187	-177	-70	-64	-	-	-257	-241	-	-	-257	-241
Total operating expenses	1,375	1,337	539	555	-346	-323	1,568	1,569	23	3	1,591	1,572
Operating profit	408	445	-6	-51	-	-	402	394	-23	102	379	496
Finance income	14	10	79	83	-76	-73	17	20	-	-	17	20
Finance expense	-91	-92	-50	-47	76	73	-65	-66	-4	-	-69	-66
Share in results of associates and joint ventures after tax	1	3	-	-	-	-	1	3	-	-	1	3
Tax	-74	-117	-15	27	-	-	-89	-90	13	-29	-76	-119
Profit after tax from continuing operations	258	249	8	12	-	-	266	261	-14	73	252	334
Profit attributable to non-controlling interests	-	-	1	-	-	-	1	-	-	-	1	-
Profit after tax	258	249	9	12	-	-	267	261	-14	73	253	334
Segment assets and liabilities												
Total assets	7,810	7,413	3,205	3,157	-2,224	-2,225	8,791	8,345	-	-	8,791	8,345
Non-consolidated investments in associates	-	-	1	2	-	-	1	2	-	-	1	2
Non-consolidated investments in joint ventures	2	2	3	-	-	-	5	2	-	-	5	2
Liabilities (non-current and current)	5,330	4,941	2,415	2,077	-3,178	-2,802	4,567	4,216	-	-	4,567	4,216
Other segment items												
Investments in property, plant and equipment	746	659	88	72	-	-	834	731	-	-	834	731
Number of permanent staff at year-end	3,043	3,064	2,660	2,605	-	-	5,703	5,669	-	-	5,703	5,669

The profit after tax for 2019, like that for 2018, is almost entirely attributable to the shareholders of Alliander N.V.

Reclassification to reported and incidental items

In 2019 there are some incidental items in the column headed 'Reclassification to reported and incidental items'. The incidental expenses included in operating expenses relate to organisational changes (€9 million) and a provision for loss-making contracts in Germany (€8 million). Aside from that, the depreciation and impairments relate to things such as buildings (€4 million) and assets in Germany (€2 million).

The incidental financial expenses incurred in 2019 consist of the costs of the write-down on a long-term receivable relating to heating operations as a result of discontinuation of production (€4 million).

The income in 2019 comes as a result of the impact of the aforementioned incidental items on the corporate tax bill (€4 million), but particularly also on the back of changes to government plans with respect to the corporate income tax (€9 million). In 2018, the corporate tax rate was expected to be lowered from 2020 onwards, but revised plans have now postponed this.

Segment assets

The amounts in the eliminations column against total assets mainly concern the eliminations of the investments in the subsidiaries of Alliander. The eliminations against the liabilities relate to the current-account positions between the subsidiaries and Alliander. Within the Alliander group, there are group financing arrangements, involving central administration of external accounts. All the subsidiaries maintain a current account with Alliander. There are no assets or equity and liabilities that are not allocated.

Product segmentation

In compliance with IFRS 15, the following table discloses net revenue according to distinct products (product segmentation).

€ million	Segmentation of consolidated revenue by product						
	Total	Transport and connection service Electricity	Transport service Gas	Connection service Gas	Metering Service small consumers Electricity	Metering Service small consumers Gas	Other activities
Revenue 2019	**1,930**	1,132	333	88	113	65	199
Revenue 2018	**1,920**	1,154	326	99	93	63	185

Net revenue in 2019 amounted to €1,930 million (2018: €1,920 million), with other income of €40 million (2018: €148 million). In total, external income came in at €1,970 million (2018: €2,068 million).

Seasonal influences

Alliander's results are not materially affected by seasonal influences.

Geographical segmentation

	External income		Property, plant and equipment		Intangible assets		Non-consolidated associates and joint ventures	
€ million	2019	2018	2019	2018	2019	2018	2019	2018
The Netherlands	1,922	2,021	7,427	7,023	289	290	6	4
Rest of the world	48	47	49	49	24	25	-	-
Total	**1,970**	**2,068**	**7,476**	**7,072**	**313**	**315**	**6**	**4**

'Rest of the world' relates entirely to the activities in Germany.

Note 3 Property, plant and equipment, and right-of-use assets

Property, plant and equipment

€ million	Land and buildings	Networks	Other plant and equipment	Assets under construction	Total
As at 1 January 2018					
Historical cost	273	10,242	1,771	200	12,486
Accumulated depreciation and impairments	-101	-4,626	-966	-	-5,693
Carrying amount as at 1 January 2018	172	5,616	805	200	6,793
Movements 2018					
Investments	-	417	167	147	731
Divestments	-3	-14	-16	-	-33
Depreciation	-11	-251	-111	-	-373
Reclassifications and other movements	4	76	45	-125	-
Discontinued consolidations	-	-	-44	-2	-46
Total	-10	228	41	20	279
As at 31 December 2018					
Historical cost	265	10,682	1,806	220	12,974
Accumulated depreciation and impairments	-103	-4,838	-960	-	-5,902
Carrying amount as at 31 December 2018	162	5,844	846	220	7,072
Movements 2019					
Investments	2	467	165	200	834
Divestments	-7	-18	-19	-	-44
Depreciation	-7	-257	-112	-	-376
Impairments	-4	-	-2	-	-6
Reclassification to assets held for sale	-3	-	-	-	-3
Reclassifications and other movements	-	70	64	-135	-1
Total	-19	262	96	65	404
As at 31 December 2019					
Historical cost	237	11,160	1,883	285	13,565
Accumulated depreciation and impairments	-94	-5,054	-941	-	-6,089
Carrying amount as at 31 December 2019	**143**	**6,106**	**942**	**285**	**7,476**

Investments

Investments in property, plant and equipment totalled €834 million (2018: €731 million).

Divestments

Divestment in 2018 and 2019 related to decommissioning of network and other assets.

Discontinued consolidations

There were no discontinued consolidations in 2019. The discontinued consolidations in 2018 relate to the property, plant and equipment of Allego.

Impairments

Impairments of property, plant and equipment in 2019 totalled €6 million and related to business premises (€4 million) and a write-down on assets in Germany (€2 million). For further details of the business premises, reference is made to note [33]. The write-down in Germany relates to operations in the area of public lighting and traffic management systems, for which an impairment test was performed based on the value in use. The value in use was measured on the basis of the most recent business plans. The pre-tax discount rate used is 6.7%. The outcome of the impairment test led to a €2 million write-down on property, plant and equipment.

There were no impairments in 2018.

Reclassification to assets held for sale

For further disclosures with respect to this item, reference is made to note [33].

Cross-border lease transactions

In the period 1998 to 2000, subsidiaries of Alliander N.V. entered into US cross-border leases for networks, in the form of LILO (lease-in lease-out) and SILO (sale-in lease-out) structures.

There were no changes in the existing CBL portfolio in 2019. The three transactions currently remaining relate to gas networks in Friesland, Gelderland, Flevoland, Noord-Holland and Utrecht, district heating networks in Almere and Duiven/Westervoort and the electricity network in the Randmeren region. The networks have been leased for a long period to US parties (head lease), which have in turn subleased the assets to the various Alliander subsidiaries (sublease). At the end of the sublease, there is the option of purchasing the rights of the US counterparty under the head lease, thus ending the transaction. The terms agreed for the subleases expire between 2022 and 2028. The fees earned on the cross-border leases were recognised in the year in which the transaction in question was concluded. There are conditional and unconditional contractual rights and obligations relating to the cross-border leases.

The total net carrying amount of the networks covered by cross-border leases at year-end 2019 was approximately €660 million (year-end 2018: €650 million). At the end of 2019, a total of $2,664 million (2018: $2,786 million) was held on deposit with several financial institutions or invested in securities in connection with these transactions.

Since no powers of disposal exist over the majority of the investments concerned and associated liabilities, these are not regarded as assets and liabilities of Alliander and the respective amounts are not recognised in Alliander's consolidated financial statements. The investments in securities over which Alliander does have powers of disposal are recognised as financial assets. The associated lease obligations are recognised in lease liabilities.

At the end of 2019, the 'strip risk' (the portion of the 'termination value' – the possible compensation payable to the American counterparty in the event of premature termination of the transaction – which cannot be settled from the deposits and investments held for this purpose) for all transactions together was $140 million (2018: $200 million). The strip risk is affected to a great extent by market developments.

In connection with the implementation of the Dutch Independent Network Operation Act, the district heating networks belonging to Liander Infra N.V. that had been covered by a cross-border lease were subleased in mid-2008 to Vattenfall Warmte N.V., part of Vattenfall N.V. These operating leases have a term of 12.5 years (term runs to 31 December 2020). The total carrying amount of the subleased heating networks and associated meters as at 31 December 2019 was €87 million (2018: €90 million).

Right-of-use assets

€ million	Land and buildings	Other plant and equipment	Total
As at 1 January 2019			
Historical cost	10	49	59
Accumulated depreciation and impairments	-	-	-
Carrying amount as at 1 January 2019	10	49	59
Movements 2019			
Investments	3	20	23
Divestments	-	-1	-1
Depreciation	-5	-16	-21
Reclassifications and other movements	-1	4	3
Total	-3	7	4
As at 31 December 2019			
Historical cost	12	72	84
Accumulated depreciation and impairments	-5	-16	-21
Carrying amount as at 31 December 2019	**7**	**56**	**63**

The biggest part of these assets relates to business premises and lease vehicles. Ground rents and the rental of telecommunication masts and connections are also accounted for in this amount.

Note 4 Intangible assets

€ million	Goodwill	Other intangible assets	Total
As at 1 January 2018			
Historical cost	477	33	510
Accumulated depreciation and impairments	-188	-5	-193
Carrying amount as at 1 January 2018	289	28	317
Movements 2018			
Depreciation	-	-2	-2
Total	-	-2	-2
As at 31 December 2018			
Historical cost	477	33	510
Accumulated depreciation and impairments	-188	-7	-195
Carrying amount as at 31 December 2018	289	26	315
Movements 2019			
Depreciation	-	-2	-2
Total	-	-2	-2
As at 31 December 2019			
Historical cost	477	33	510
Accumulated depreciation and impairments	-188	-9	-197
Carrying amount as at 31 December 2019	**289**	**24**	**313**

There were no investments in intangible assets in 2019 or 2018. The annual amortisation charge of €2 million mainly relates to the intangible assets of 450connect.

Goodwill allocation by segment

€ million	2019	2018
Liander	286	286
Other	3	3
Total	**289**	**289**

Of the total amount of goodwill allocated to Liander as at year-end 2019, €209 million (2018: €209 million) relates to electricity and gas networks and dates from the contribution of the networks when N.V. Nuon was created in 1999. Of the remainder, amounting to €77 million (2018: €77 million), €61 million relates to the purchase of Endinet in 2010, €7 million to Stam and €9 million to the purchase of AEF B.V. in 2016. The goodwill item in the other line concerns the investment relating to 450connect.

At year-end 2019, impairment tests were performed on the carrying amounts of the networks of Liander and the German networks, including the associated goodwill recognised. The value in use was taken as the basis for this calculation. The value in use was measured on the basis of the most recent business plans.

In the 2019 reporting period, Liander used a pre-tax discount rate of 8.1% (2018: 6.9%). From 2020 onwards, the figure will drop to 4.5% up to 2023. The main assumptions on which these business plans are based are the number of connections, the most recent tariff estimates and estimates of operating expenses and other costs. To a large extent, these assumptions are based on past experience, coupled with the latest information on tariff regulation. The business plans cover a period of five years and the terminal value is calculated using the projected cash flows at the end of that period. A zero growth rate has been applied. The terminal value for the regulated activities is based on achieving the 'reasonable return' that a network operator can expect to achieve on its standardised asset value.

Where appropriate, account is also taken of temporary or structural synergistic effects or other departures from the reasonable return. There is such a margin between the value in use and the carrying amount of the Liander networks that the sensitivity to changes in the estimates and assumptions used is limited.

As regards the networks in Germany, the discount rate used has been arrived at using the calculation method adopted by the German regulator, which gives a pre-tax discount rate of 5.1% in 2019 (2018: 5.1%). For the period 2020 to 2023, the rate remains 5.1%. Otherwise the underlying assumptions were the same as for Liander.

Note 5 Investments in associates and joint ventures

€ million	Associates 2019	Associates 2018	Joint ventures 2019	Joint ventures 2018	Total 2019	Total 2018
Carrying amount as at 1 January	**2**	**1**	**2**	**2**	**4**	**3**
Movements						
Investments	-	-	3	-	3	-
Share in results	-	4	2	-	2	4
Dividend and other movements	-1	-3	-2	-	-3	-3
Total	-1	1	3	-	2	1
Carrying amount as at 31 December	**1**	**2**	**5**	**2**	**6**	**4**

In 2019, Alliander made a €3 million capital contribution to the Duurzame Energie Netwerken Noord-Holland [Sustainable Energy Networks North Holland province] joint venture.

In the case of a number of associates, Alliander's interest is less than 20%. For details, see the list of principal subsidiaries, associates and joint arrangements in the 'Other information' part of the report. In view of the degree of control in relation to the associates concerned, however, it has been determined that there is significant influence and the investments have been included in the investments in associates.

Share in results of associates and joint ventures

€ million	Associates 2019	Associates 2018	Joint ventures 2019	Joint ventures 2018	Total result 2019	Total result 2018
Share in						
Profit or loss from continuing activities	-	3	2	-	2	3
Profit or loss from discontinued activities	-	-	-	-	-	-
Other comprehensive income	-	-	-	-	-	-
Total comprehensive income	**-**	**3**	**2**	**-**	**2**	**3**

Alliander has concluded arrangements with associates and joint ventures for granting finance and credit facilities totalling €29 million as at year-end 2019 (2018: €30 million). Under these facilities, an amount of €20 million was drawn down as at 31 December 2019 (2018: €23 million). Additionally, as at year-end 2019, there was also a liability under this heading amounting to €3 million in relation to an overdraft facility (2018: a liability of €17 million).

Note 6 Investments in bonds

€ million	
Carrying amount as at 1 January 2018	**193**
Movements 2018	
Currency translation differences	8
Value adjustment due to IFRS 9, including expected credit loss	-45
Total	-37
Carrying amount as at 31 December 2018	**156**
Movements 2019	
Currency translation differences	3
Adjustment expected credit loss	1
Total	4
Carrying amount as at 31 December 2019	**160**

Investments in bonds as at year-end 2019 comprises investments in a debt instrument issued by a large financial institution which serves to cover obligations arising from two cross-border lease contracts (2019: €160 million). The carrying amount of the related lease liabilities was €162 million at year-end 2019 (2018: €157 million). The carrying amount of the investments as at year-end 2019 includes a €1 million provision for credit risk (2018: €2 million).

With the application of IFRS 9 in 2018, the bond investments item underwent a change in the recognition and measurement of the assets concerned. Given the business model, i.e. 'hold to maturity', the bonds are carried at amortised cost under IFRS 9. This change means that the carrying amount of the bonds was reduced by €43 million, charged to other reserves. The original recognition in equity of a revaluation reserve of €38 million and the associated deferred tax of €13 million ceases to apply, this change likewise being accounted for in other reserves. This resulted in a net increase in other reserves of €8 million, recognised in the opening balance as at 1 January 2018. The impact of the new impairment model was analysed and the result is a write-down of €2 million. Together with the movement of €43 million connected with the change in the basis of measurement, this makes up the changes in carrying amount due to IFRS 9, including credit losses, totalling €45 million.

Note 7 Other financial assets (including current portion)

€ million	Loans, receivables and other
Carrying amount as at 1 January 2018	**41**
Effective interest rate 2018	1%
Movements 2018	
Loans granted	40
Loans and interest repaid	-10
Investments	1
New consolidation	-1
Total	30
Carrying amount as at 31 December 2018	**71**
Effective interest rate 2019	1%
Movements 2019	
Loans granted	5
Loans and interest repaid	-4
Impairments	-4
Investments	1
Discontinued consolidations	-1
Total	-3
Carrying amount as at 31 December 2019	**68**
Non-current portion of other financial assets	**58**
Current portion of other financial assets	**10**

The loans granted in 2018 include a receivable from Meridiam amounting to €26 million. For further disclosures, reference is made to note [22]. The impairments in 2019 related to a write-down on a long-term receivable for heating operations.

The carrying amount of the other financial assets as at year-end 2019, in addition to the above item, was made up of a long-term receivable of €19 million from the City of Amsterdam relating to the Spaklerweg site, of which €6 million was current, and other receivables, loans and capitalised costs denominated in euros.

Note 8 Derivatives

	Current assets		Non-current assets		Short-term liabilities		Non-current liabilities	
€ million	2019	2018	2019	2018	2019	2018	2019	2018
Foreign exchange contracts	-	-	-	-	2	-	-	-
Carrying amount as at 31 December	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**-**

Derivatives are measured at fair value.

Financing was raised in 2019 under the Euro Commercial Paper Programme, denominated in foreign currency. In order to eliminate currency risks, the foreign currency was immediately converted into euros by means of two foreign exchange swaps. As at year-end 2019, these had a value of €2 million (2018: nil).

Note 9 Inventories

€ million	2019	2018
Raw materials and consumables	29	33
Finished goods	31	33
Carrying amount as at 31 December	**60**	**66**

The impairment of inventories in 2019 was €1 million (2018: €1 million).

Note 10 Trade and other receivables

€ million	2019	2018
Trade receivables	78	83
Impairment of trade receivables	-10	-9
Trade receivables net	68	74
Corporate income tax	18	26
Other receivables	44	54
Current financial assets	10	-
Accrued income and prepayments	194	195
Carrying amount as at 31 December	**334**	**349**

At the end of 2019, impairment of trade receivables totalled €10 million (2018: €9 million). The impairment loss on trade receivables recognised in the income statement in 2019 amounted to €1 million (2018: €2 million). For further information, see the credit risk section of note [34].

The other receivables include an amount of €8 million (2018: €17 million) for non-controlling interests.

The current financial assets concern the current portion of long-term receivables, which are made up primarily of a receivable from the City of Amsterdam relating to the Spaklerweg site. See note [7].

In November 2010, Alliander issued a subordinated perpetual bond loan with a nominal value of €500 million. In the closing two months of 2013, this subordinated perpetual bond loan was redeemed. Under IFRS, an instrument of this kind qualifies as equity. It was assumed that the periodic payments made to the holders of the bonds issued in 2010 would count as a deductible interest expense for the purposes of corporate income tax. No agreement has been reached with the Dutch Tax & Customs Administration concerning the tax treatment of these loans. In the appeal proceedings, the District Court at Arnhem declared Alliander's appeal well-founded in a ruling dated 20 December 2016. The case was taken to the Arnhem-Leeuwarden Court of Appeal that upheld the District Court's decision in a ruling given on 12 June 2018. The Dutch Tax & Customs Administration is seeking to have the Appeal Court ruling overturned in cassation by the Supreme Court. A decision by the Supreme Court is expected in early 2020.

In 2016 and 2017, Alliander paid its corporate income tax bills for the 2010-2013 period, not factoring in the aforementioned deductible interest expense. Aside from that, the outcome of the dispute with the Dutch Tax & Customs Administration has an impact on the timeliness of the offset of losses. Based on the advice of external consultants, the Management Board has decided to recognise a receivable in respect of the disputed corporate income tax paid in 2016 and 2017. A similar question hangs over the withholding tax payable on dividends. No withholding tax assessments (final or provisional) have been paid. Having again consulted outside experts, the Management Board decided not to recognise a provision in this respect. Total maximum exposure for Alliander is approximately €38 million.

Note 11 Cash and cash equivalents

€ million	2019	2018
Cash held at banks	79	80
Deposits	74	60
Carrying amount as at 31 December	**153**	**140**

The effective interest rate on cash and cash equivalents ranged from -0.57% to 0.00% (2018: -0.54% to -0.41%). Cash and cash equivalents are held almost entirely in euros. In 2019, there were amounts of cash and deposits which were not at the unrestricted disposal of Alliander. This concerns a blocked bank account with a balance of €1 million (2018: €1 million).

Note 12 Equity

Authorised capital

The company's authorised capital is divided into 350 million shares of €5 nominal value. As at year-end 2019, 136,794,964 shares were in issue (2018: 136,794,964).

Subordinated perpetual bond loan

In 2018, Alliander announced the intention to issue a new subordinated perpetual bond loan. At the same time, an offer was made for all the outstanding bonds of the €500 million perpetual bond loan bearing the coupon interest rate of 3.25% issued in 2013, conditional upon the successful issue of the new loan. Subsequently, on 30 January 2018, €500 million in new subordinated perpetual bonds was successfully issued at a coupon rate of 1.625% and an issue price of 99.144%. The bonds issued in 2013, with a carrying amount of €496 million, have thus been redeemed. As a result of this transaction, including paid surplus and expenses, equity has decreased by €1 million in 2018.

This subordinated perpetual bond loan is treated as equity. Alliander does not have any contractual obligation to repay the loan. Any periodical payments on the loan are conditional and depend on payments to shareholders. As and when resolutions are passed making distributions to shareholders, the Management Board will also pay any arrears of the contractual coupon rate to the holders of the subordinated perpetual bond loan out of other reserves. The annual amount of the interest payable is €8 million.

Revaluation reserve

The revaluation reserve is connected with the bond investments. Following the implementation of IFRS 9, the revaluation reserve ceased to be applicable with effect from 1 January 2018.

Hedge reserve

In line with Alliander's risk management policy, Alliander has taken measures to mitigate the interest rate risk attached to the new EMTN financing of €300 million in mid-2019. For this purpose, two forward starting interest rate swaps were entered into in the run-up to the bond issue. When the bond loan was issued, both the interest rate swaps were settled. As a result, the interest rate risk was mitigated to a large degree in the run-up to the bond issue. The loss on the settlement totalling €3 million has, after deducting deferred tax, been recognised in the hedge reserve in equity. The resulting hedge reserve will be released in the income statement over the term of the EMTN (up to 24 June 2032).

Other

The other reserve includes an amount of €1 million after tax relating to a defined-benefit pension plan for employees of our activities in Germany. The hedge reserve and the subordinated perpetual bond loan are not freely distributable.

Non-controlling interest

On 10 July 2012, Alliander acquired a 95% interest in Indigo B.V. This company is a partnership between Alliander and the City of Nijmegen (which has an interest of 5%) to construct a heat transport pipeline from the regional waste-to-energy plant Afvalverwerking Regio Nijmegen (ARN) to the district heating network of Vattenfall N.V. As at the end of the reporting period, the shareholders' equity of Indigo BV amounted to €3.4 million. In accordance with the basis of Alliander's consolidation, Indigo BV has been consolidated in full with separate disclosure of a non-controlling interest in the consolidated equity. In 2016, Alliander acquired a 95% interest in Warmtenet Hengelo B.V., a company which is developing a district heating system, the first phase of which was commissioned in 2017. The shareholders' equity of this company as at year-end 2019 amounted to €0.5 million negative. In 2017, Alliander acquired a 75% interest in Warmte-Infrastructuur Limburg Geothermie B.V. As at the end of 2019, the shareholders' equity of this company amounted to €0.9 million negative. Given the size of these non-controlling interests, they are not visibly accounted for on the face of the balance sheet as at year-end 2019.

Note 13 Interest-bearing debt

The movements in new loans and loan repayments during the year resulted in cash flows; the currency translation differences and other movements did not result in cash flows during the year.

The carrying amount of long- and short-term interest-bearing debt is as follows:

€ million	2019	2018
Carrying amount as at 1 January	**1,796**	**1,784**
Movements		
New loans	989	854
Loans repaid	-721	-841
Currency translation differences	-2	-1
Total	266	12
Carrying amount as at 31 December	**2,062**	**1,796**

Short and long-term interest-bearing debt

€ million	Effective interest rate 2019	Effective interest rate 2018	Current portion 2019	Current portion 2018	Non-current portion 2019	Non-current portion 2018
Subordinated loans	8.5%	8.5%	7	7	59	65
Private and green loans	1.4%	1.4%	1	-	311	312
Euro Medium Term Notes	1.8%	2.6%	-	300	1,392	1,096
Euro Commercial Paper	-0.3%	0.0%	289	-	-	-
Other	0.0%	0.0%	-	14	3	2
Carrying amount as at 31 December			**297**	**321**	**1,765**	**1,475**

Short-term interest-bearing debt, amounting to €297 million as at year-end 2019 (2018: €321 million), is made up of the current portion of the long-term debt (€8 million) and a commercial paper that is due for redemption (€289 million).

The subordinated loans carry interest at rates of 8% to 10%. These loans are subordinated to other liabilities.

On 17 June 2019, Alliander issued green bonds with a total value of €300 million and a term of 13 years. Bonds were issued at a price of 98.628% and a coupon rate of 0.875%. Revenue from the issue of green bonds was used to refinance investments in the smart meter, and in the 'fair meter' in particular. The fair meter is the result of a joint effort of network operator Liander and several parties from across the industry, aimed at making the smart meter more sustainable. In developing a new and sustainable meter, the parties have looked at the sustainability and origins of materials used, the meter's circularity and working conditions across the production chain, including the exclusion of child labour. It is the second green bond that Alliander has issued. The first was issued in 2016 to refinance smart networks (including smart meters) and a sustainable new building in Duiven.

As at year-end 2019, a carrying amount of €1,392 million (face value €1,400 million) had been issued under the EMTN programme. The notes issued under the EMTN programme are listed on the Amsterdam and Luxembourg stock exchanges. At the end of 2019, an amount of €289 million had been raised under the ECP programme (2018: nil).

Maturities of interest-bearing debt

€ million	2019	2018
Less than 1 year	297	321
Between 1 and 2 years	8	7
Between 2 and 3 years	408	9
Between 3 and 4 years	1	407
Between 4 and 5 years	399	-
Over 5 years	949	1,052
Carrying amount as at 31 December	**2,062**	**1,796**

Note 14 Deferred income

Deferred income relates to construction contributions, investment grants and subsidies received. The amortisation periods of the construction contributions, investment grants and subsidies are equal to the depreciation periods of the underlying assets (ranging from 10 to 50 years).

€ million	2019			2018		
	Contributions	Subsidies	Total	Contributions	Subsidies	Total
Carrying amount as at 1 January	**1,667**	**15**	**1,682**	**1,608**	**21**	**1,629**
Contributions received	126	-	126	130	-	130
Amortisation recognised as income	-70	-1	-71	-68	-2	-70
Deconsolidations	-	-	-	-3	-4	-7
Carrying amount as at 31 December	**1,723**	**14**	**1,737**	**1,667**	**15**	**1,682**

Note 15 Provisions for employee benefits

€ million	Current portion		Non-current portion		Total	
	2019	2018	2019	2018	2019	2018
Long-term employee benefits						
Post-employment benefits	-	-	2	2	2	2
Other long-term employee benefits	8	10	24	23	32	33
Termination/reorganisation benefits	5	5	5	8	10	13
Total	13	15	31	33	44	48
Short-term employee benefits						
Short-term employee benefits	14	27	-	-	14	27
Carrying amount as at 31 December	**27**	**42**	**31**	**33**	**58**	**75**

Post-employment benefits

Prompted by the deterioration of the funding ratio in 2008, ABP introduced a recovery plan in 2009. At the start of each year ABP evaluates the progress of the recovery on the basis of the actual funding ratio at the end of the preceding year. The policy funding ratio came in at 95.8% at the end of December 2019; the current funding ratio is 97.8%, while the contribution rate for the retirement and dependants' pension was 24.9% of pensionable pay in 2019. The contribution rate for the retirement and dependants' pension will continue to be 24.9% in 2020. The premium for the ABP incapacity pension (AOP) will rise by 0.4% in 2020. ABP deems this premium increase necessary 'because the chance of incapacity increases with age and because ABP expects to see enrolment numbers rise because it has started to proactively make participants aware of their possible entitlement to an incapacity pension.' ABP expects interest rates to stay low for a long time to come and to need more premium income from 2021 onwards to be able to pay the pensions. The outlook is that premiums will rise considerably after 2020.

Alliander's relative share in the ABP pension scheme based on numbers of participants is approximately 0.5%. The pension contributions payable for the multi-employer plans in 2020 are expected to total €73 million (of which an expected €54 million will be borne by the company).

In addition to the multi-employer pension plans in the Netherlands, Alliander has two defined benefit plans relating to subsidiaries in Germany, although these are not of material importance. These plans are accounted for in accordance with the amended IAS 19. This means that, with effect from 2013, actuarial gains and losses and remeasurements are recognised directly. Because of the small amounts involved, however, this is not visible in the consolidated financial statements. The post-employment benefits provision totalled €2 million at the end of 2019 (2018: €2 million), made up as follows:

€ million	Current portion		Non-current portion		Total	
	2019	2018	2019	2018	2019	2018
Liability for pensions and post-employment healtcare insurance for retired employees	-	-	2	2	2	2
Actuarial value of obligations as at 31 December	**-**	**-**	**2**	**2**	**2**	**2**

Other long-term employee benefits

€ million	Current Portion		Non-current portion		Total	
	2019	2018	2019	2018	2019	2018
Long-service benefits	1	1	15	14	16	15
Long-term sickness leave and disability benefits	4	6	8	7	12	13
Unemployment benefits	3	3	1	2	4	5
Carrying amount as at 31 December	**8**	**10**	**24**	**23**	**32**	**33**

Alliander offers a number of other long-term employee benefits. The provision covers the following types of benefit:

- Long-term sickness benefits; this benefit covers the obligation to continue paying all or part of an employee's salary during the first two years of sick leave;
- Incapacity benefit; Alliander bears the risk for benefits payable under the Work and Income (Ability to Work) Act (WIA) – the relevant provision covers the obligations towards Alliander employees who become wholly or partially unfit for work;
- Unemployment benefits; Alliander is the risk-bearer within the meaning of the Unemployment Act (WW); if an Alliander employee becomes unemployed, the unemployment benefit is borne by Alliander for a period of between three months and 38 months, depending on the employee's employment history; and
- Long-service benefits; these are built up in advance through this provision for all Alliander permanent staff. Network Operators reached agreement with the unions on a new collective labour agreement at the end of 2018. The new collective labour agreement includes changes to the long-service benefits scheme: the existing long-service benefits payable at 10, 20, 30, 40, and 50 years of service and the proportionate long-service benefits scheme are being discontinued. Furthermore, the benefit payable on retirement (1.5 times monthly salary) ceases at the end of 2019. The revised long-service benefits scheme covers long-service benefits payable on attaining 25 and 40 years of service. In addition, employees born before 1 January 1963 (aged 57 or older) and in the company's employment on 31 December 2019 retain their right to the benefit on retirement. Also, the 50-year long-service benefit will continue for five years as from 1 January 2020.

Termination/reorganisation benefits

This provision covers payments and/or supplements to benefits paid to employees whose employment contract has been or probably will be terminated. These benefits and supplements are based on the Social Plan operated by Alliander and individual arrangements. The Social Plan is periodically renegotiated and agreed. In 2019, an amount of €13 million was added to the reorganisation provision (2018: €12 million). The provision for termination payments/reorganisations totalled €10 million at the end of 2019 (2018: €13 million).

Movements in provisions for long-term employee benefits

The following table shows the movements in the provisions for post-employment benefits, other long-term employee benefits and the termination benefits/restructuring provision.

Movements in provisions for employee benefits

€ million	Post-employment benefits	Other long-term employee benefits	Termination/ reorganisation benefits	Total
Carrying amount as at 1 January 2018	**2**	**52**	**12**	**66**
Movements 2018				
Adjustment long-service benefit scheme	-	-9	-	-9
Released	-	-	-3	-3
Added	-	8	12	20
Benefits paid	-	-11	-8	-19
Reclassified to short-term liabilities	-	-7	-	-7
Total	**-**	**-19**	**1**	**-18**
Carrying amount as at 31 December 2018	**2**	**33**	**13**	**48**
Movements 2019				
Released	-	-	-4	-4
Added	-	7	13	20
Benefits paid	-	-8	-12	-20
Reclassified to short-term liabilities	-	-	-	-
Total	**-**	**-1**	**-3**	**-4**
Carrying amount as at 31 December 2019	**2**	**32**	**10**	**44**

Assumptions

The main assumptions used in determining the provisions are given below:

	2019	2018
Mortality tables	AG 2018 Mortality Table / Start year = 2020	AG 2018 Mortality Table / Start year = 2019
Discount rates	-0,29%-0,30%	-0,19% - 1,21%
Expected future salary increases	2.5%	2.5%
Expected increase in incapacity benefits	2.0%	2.0%

Short-term employee benefits

Short-term employee benefits relate to all obligations to employees, other than the current portion of long-term employee benefits, that are expected to be settled within 12 months after the balance sheet date. Short-term employee benefits include salaries still to be paid, accrued holiday entitlement, bonuses, and other staff costs still to be paid, which at year-end 2019 amounted to €14 million (2018: €27 million). This €13 million drop concerns the €7 million paid in long-service benefit rights in accordance with the agreements in the new collective labour agreement for Network Operators. It was further agreed in the new collective labour agreement that the paid leave in excess of the statutory minimum over and above the overtime limit will be discontinued. In 2019, employees with leave entitlement in excess of the overtime limit and still in the company's employ as at 31 December 2019 received a one-off payment for surrendering these rights, which totalled €4 million.

Note 16 Other provisions

€ million	Other provisions
Carrying amount as at 1 January 2018	**7**
Movements 2018	
Added	7
Utilised	-4
Total	3
Carrying amount as at 31 December 2018	**10**
Movements 2019	
Added	17
Utilised	-4
Total	13
Carrying amount as at 31 December 2019	**23**

The other provisions as at year-end 2019 amounted to €23 million (2018: €10 million) and, amongst other, related to loss-making contracts (€8 million) as part of Alliander AG's public lighting and traffic management system operations. The calculation has factored in inevitable costs, the Alliander yield curve as the discount rate, and possible surrender values.

Note 17 Deferred tax

The deferred tax item is made up as follows:

Deferred tax assets

€ million	2019	2018
Differences in valuation of property, plant and equipment	161	169
Other differences	4	3
Carrying amount as at 31 December	**165**	**172**

This item is made up of the differences between the reported carrying amounts of the items of property, plant and equipment and other balance sheet items, including investments and provisions, and the corresponding tax bases.

Gross movement in deferred tax assets

€ million	Property, plant and equipment	Other	Total
Carrying amount as at 1 January 2018	**213**	**-8**	**205**
Movements 2018			
Added directly via equity	-	13	13
Realised temporary differences	-16	-1	-17
Change in rate of corporate income tax	-28	**-1**	-29
Total	-44	11	-33
Carrying amount as at 31 December 2018	**169**	**3**	**172**
Movements 2019			
Added directly via equity	-	1	1
Realised temporary differences	-16	-1	-17
Change in rate of corporate income tax	8	1	9
Total	-8	1	-7
Carrying amount as at 31 December 2019	**161**	**4**	**165**

The deferred tax assets of €161 million in respect of property, plant and equipment (2018: €169 million) are the result of differences between the carrying amounts in the financial statements and the tax bases. Alliander became liable to corporate income tax on 1 January 1998 and the item of deferred tax arose on that date. The carrying amounts of the property, plant and equipment agreed with the Dutch Tax & Customs Administration as at 1 January 1998 have depreciation periods extending ahead as far as 2030. Realisation of the temporary difference relating to these assets is therefore spread out over this period. In addition, the item 'Property, plant and equipment' deferred tax refers to the general overhead surcharge that has been capitalised for tax purposes, the effects of implementing IFRS accounting policies in 2005, and the arbitrary amortisation tax break allowed in the past.

The decrease of €7 million in the amount of the deferred tax assets in 2019 has largely been recognised in the income statement (€8 million loss) and is partly accounted for by movements recognised directly in equity (€1 million gain). The item relating to the change in the rate of corporate income tax concerns the lowering of the existing 25% tax rate in the Netherlands to 21.7% from 2021 onwards.

The deferred tax liabilities as at year-end 2019 stood at €3 million (year-end 2018: €4 million). This item is accounted for by the net effect of tax loss carry-forwards of the 450connect GmbH tax group (deferred tax asset of €4 million) and the difference between the reported carrying amount of licences and their corresponding tax base (deferred tax liability of €7 million).

As at year-end 2019, there was a total unrecognised deferred tax asset of €21 million (year-end 2018: €17 million), made up of:

- Tax loss carry-forwards from our activities in Germany (€17 million, 2018: €15 million), which, in connection with the projected results in the medium term for the German entities, have not been recognised, apart from the losses reported by the entity 450connect GmbH.
- An amount of €2 million (2018: €2 million) relates to a Dutch subsidiary acquired in 2018;
- Temporary measurement differences totalling €2 million (2018: nil) at one of the German entities.

Note 18 Trade and other payables

€ million	2019	2018
Trade payables	85	96
Invoiced instalments on work in progress	5	6
Other payables	61	48
Carrying amount as at 31 December	**151**	**150**

Other debt includes €4 million (2018: €20 million) owed to a company in which Alliander has a non-controlling interest.

Accruals and deferred income

The accruals (2019: €217 million; 2018: €244 million) are made up of sufferance tax payable (2019: €91 million; 2018: €115 million), invoices still to be received for costs such as subcontracted work (2019: €71 million; 2018: €75 million) and anticipated amounts in respect of network losses and energy transport costs (2019: €13 million; 2018: €16 million).

Note 19 Leases

2019

Finance lease receivables

The receivables in respect of finance leases as at year-end 2019 were as follows:

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2019				
Future minimum lease receivables	-	2	3	5
Unearned finance income	-	-	-1	-1
Present value of finance lease receivables	**-**	**2**	**2**	**4**
As at 31 December 2018				
Future minimum lease receivables	-	2	3	5
Unearned finance income	-	-	-1	-1
Present value of finance lease receivables	**-**	**2**	**2**	**4**

The receivable relates to a heat transport connection. The future minimum lease receivables are equal on an annual basis between year 1 and year 5. The carrying amount of €4 million was written down to nil as at year-end 2019.

Off-balance sheet operating lease receivables

The total future minimum lease receivables from non-cancellable operating leases not shown on the face of the balance sheet are as follows:

€ million	2019	2018
Less than 1 year	22	23
Between 1 and 2 years	14	22
Between 2 and 3 years	14	13
Between 3 and 4 years	15	13
Between 4 and 5 years	14	13
Over 5 years	68	63
Total as at 31 December	**147**	**147**

At 31 December 2019, the operating leases related mainly to rental of transformers and the subleasing of two district heating networks to N.V. Vattenfall Warmte N.V., a subsidiary of Vattenfall N.V.

Lease liabilities

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2019				
Future lease payments of the on-balance lease liabilities	29	83	194	306
Future finance expenses on the on-balance lease liabilities	-12	-47	-21	-80
Present value of the on-balance lease liabilities	**17**	**36**	**173**	**226**

Alliander has lease liabilities in respect of buildings, areas, telecommunication connections, and company cars. Liabilities relating to two cross-border lease transactions are also recognised here. The movements in this part of the lease liabilities do not reflect cash flows but are made up of exchange differences totalling €3 million and other movements.

Besides the above lease liabilities, there is an undiscounted amount of €77 million in lease obligations to which Alliander has committed but that have not yet started, relating mainly to buildings and lease vehicles.

2018

IAS 17 was in effect until the end of 2018. The disclosures required for the 2018 figures under IAS 17 are specified below.

Lease obligations

Finance lease liabilities

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2018				
Future minimum lease obligations	11	45	192	248
Future finance expense on finance leases	-12	-40	-37	-89
Present value of finance lease obligations	**-1**	**5**	**155**	**159**

Finance lease payables at year-end 2018 mainly related to obligations in respect of two cross-border lease transactions (see note [3]). The movements in the finance lease payables in 2018 do not reflect cash flows but are made up of exchange differences totalling €9 million and other movements.

Operating lease liabilities

€ million	2018
Less than 1 year	20
Between 1 and 5 years	46
Over 5 years	68
Total as at 31 December	**134**

At year-end 2018, Alliander had operating lease payables in respect of buildings, spaces, telecommunication interconnections and company cars.

The following table presents the costs for 2018 connected with operating leases.

Operating lease costs

€ million	2018
Operating leases	22
Additional services	22
Total as at 31 December	**44**

The operating leases relate to the net amounts of minimum and contingent lease payments. The additional services relate to the services of maintenance, management, fuel, insurance and so on provided in connection with these contracts.

Note 20 Contingent assets and liabilities

Rights and obligations arising from leases

Please refer to note [19] to the consolidated financial statements for details of rights and obligations arising from leases.

Investment commitments

The outstanding investment commitments and other purchasing commitments at the end of the year were as follows:

Investment and purchasing commitments

€ million	2019	2018
Capital expenditure commitments regarding property, plant and equipment	125	135
Other purchasing commitments	346	270
Total as at 31 December	**471**	**405**

Contingent liabilities

On and immediately after the balance sheet date, a number of claims were made against Alliander. Alliander was also involved in a number of lawsuits at the balance sheet date, connected with normal business operations. These claims/lawsuits could have a material impact on Alliander's results, should the outcome not go in Alliander's favour. Provisions have been recognised as necessary. A number of important considerations are disclosed below.

Liander is involved in legal disputes with a number of municipal authorities relating to sufferance tax. Liander could potentially be reclaiming an amount of €1 million. However, given the uncertainties, these receivables have not been recognised in the balance sheet as at 31 December 2019.

As at year-end 2019, Alliander had issued parent company guarantees amounting to €33 million (2018: €34 million), including a parent company guarantee of €5.1 million (2018: €5.2 million) for non-controlling interests. Bank guarantees amounting to €0.9 million had been issued on Alliander's behalf as at year-end 2019 (2018: €0.6 million). As at year-end 2018, Alliander had issued guarantees totalling €27 million to the subsidiary Allego B.V. that was sold off in 2018. Under the terms of the sale and purchase agreement, Alliander is indemnified by the purchaser Meridiam in the event that these guarantees are invoked. In 2019, nearly all of these guarantees were taken over by Meridiam; as at year-end 2019, there was an amount of €0.1 million outstanding.

With respect to the Spaklerweg disposal, it has been agreed that the city authorities will have an option expiring on 30 June 2020 to acquire part of the site and the buildings for the sum of €13 million (to be paid in instalments of €6 million in 2025 and €7 million in 2028). If the option is exercised, conveyance of the property will take place in 2025 and Alliander will continue to have the use of the site until that date. The exercise of the option by the City of Amsterdam at some future date is not expected to affect profit or loss.

Alliander has taken out liability insurance in the form of a Directors and Officers policy covering the members of the Supervisory Board, the members of the Management Board, the operating company managers and other directors within the Alliander group. In addition to the cover provided by this liability insurance, the members of the Supervisory Board are also legally indemnified. As far as possible, the members of the Supervisory Board are also indemnified by Alliander subject to specific conditions and with strict limitations in respect of costs connected with legal proceedings brought under civil, penal or administrative law in which they could become involved by virtue of their membership of the Supervisory Board.

Alliander, together with its Dutch subsidiaries, forms a tax group for both corporate income tax and value added tax (VAT). Consequently, every legal entity forming part of the tax group bears joint and several liability for the tax liabilities of the legal entities included in the tax group. Alliander has also given a declaration of indemnity to network operator Liander under which its liability in this respect is restricted to the amount for which it itself would be liable if a tax group did not exist.

Convertible subordinated loans were contracted with the shareholders of Alliander in the past and relate to guarantees given on the sale of non-strategic interests. On expiry of these guarantees, the loans were released to income and shares in Alliander were issued in 2006. A number of guarantees are, however, for an indefinite period; in the event that there are any subsequent claims on guarantees in the future, the shareholders concerned have a duty to surrender all or part of their shares.

In 2006, following the declaration of the nullity of a claim, a guarantee provision for the sale of associates was released to income and additional shares in Alliander were issued in 2007. The guarantees which have been given are for an indefinite period. It is therefore still possible for claims to be made on these guarantees in the future. Alliander can again also require the shareholders to surrender some or all of their shares.

Note 21 Revenue

€ million	2019	2018
Electricity transport and connection services	1,132	1,154
Gas transport and connection services	421	425
Metering services	178	156
Other revenue	199	185
Total	**1,930**	**1,920**

Revenue for 2019 was up by €10 million compared with 2018, at €1,930 million. This increase mainly resulted from growth in the number of electricity connections (€11 million) and higher metering service rates (€20 million), along with lower transport and connection rates for gas and electricity in the regulated market (€20 million).

Note 22 Other income

€ million	2019	2018
Amortisation of subsidies	1	2
Operating contributions and other income	12	123
Lease income from operational leases	27	23
Total	**40**	**148**

Other income in 2019 came in at €40 million (2018: €148 million). The drop in the other income is mainly due to the book profit on the sale of Allego (€105 million) in 2018. Other income is also made up of compensation payments received and miscellaneous income.

Allego sale

Effective 1 June 2018, comparative figures for 2018 include the sale of the entire Allego share capital to Meridiam, a French investment company that specialises in the development, financing and management of long-term and sustainable infrastructure projects. Meridiam also obtained full control of Allego and its subsidiaries with effect from this date.

The purchase price is made up of a lump sum and a deferred payment (due 31 December 2023). The fair value of the deferred amount has been calculated at €26 million. The book profit of €105 million was recognised in other income in 2018.

Note 23 Purchase costs and costs of subcontracted work

€ million	2019	2018
Grid losses	52	49
Transport capacity and restrictions	190	191
Billing and payment collection	18	12
Contractors, materials and other	192	172
Total	**452**	**424**

The purchase costs and costs of subcontracted work were up by €28 million compared with the preceding year and amounted to €452 million. The costs of contractors and materials were up by €20 million, accounted for by the greater volume of work on the grid carried out in 2019. The costs of grid losses were up €3 million, primarily because of higher purchase tariffs.

Note 24 Employee benefit expense

€ million	2019	2018
Salaries	363	370
Social security premiums	44	44
Pension costs:		
- Contributions paid to multi-employer plans that are accounted for as defined-contribution plans	53	53
Termination benefit expenses	9	9
Other long-term employee benefit expenses	7	-1
Other staff costs	24	25
Total	**500**	**500**

The staff costs relating to pensions, reorganisations and other long-term employee benefits were as follows:

Employee benefit expense for pensions, reorganisation and other long-term employee benefits

€ million	Multi-employer plans	Termination/ reorganisation benefits	Other long-term employee benefits	Total
2018				
Contributions paid to multi-employer plans	52	-	-	52
Added to provision	-	12	8	20
Released from provision	-	-3	-9	-12
Total 2018	**52**	**9**	**-1**	**60**
2019				
Contributions paid to multi-employer plans	53	-	-	53
Added to provision	-	13	7	20
Released from provision	-	-4	-	-4
Total 2019	**53**	**9**	**7**	**69**

A note on the reorganisation costs is included in note [15] on provisions for employee benefits. For further details of the other long-term employee benefits, reference is made to the disclosures in note [15]. The external staff costs amounted to €116 million (2018: €137 million) and related to contract staff for specific projects and to fill vacancies. The number of staff employed by Alliander, based on a 38-hour working week (FTEs), is shown in the table below:

Number of permanent staff (FTEs)

	2019	2018
Employed in continuing operations		
-Average during the year	5,686	5,712
-As at 31 December	5,703	5,669
-Number of permanent staff outside the Netherlands	158	172

WNT

On 1 January 2013 the Act on the Standardisation of Remuneration of Senior Executives in the Public and Semi-Public Sector (WNT) came into operation. The act lays down rules governing the maximum remuneration of senior executives in the public and semi-public sector. The amount is set annually by a ministerial ruling.

WNT reporting

The WNT is applicable to network operator Liander N.V. The WNT requires disclosure of the remuneration of senior executives. Transparency is also required concerning the remuneration of other internal officers whose income exceeds a set level in the reporting period. Liander will be reporting on the WNT requirements applicable to the network operator in a separate annual report to be published in the second quarter of 2020.

Remuneration of the Management Board and the Supervisory Board

The Remuneration Report covers the remuneration policy, its implementation and the remuneration of the members of the Management Board and the Supervisory Board (key management). The three paragraphs concerned can be found in the 'Corporate governance' section of our 2019 annual report. The following tables disclose the remuneration of the members of the Management Board.

Total gross annual remuneration chargeable to the financial year

	Fixed salary	
€ thousand	2019	2018
I.D. Thijssen	225	222
F.D. Schut[1]	165	-
W.Th. Bien[2]	51	-
M.R. van Lieshout[3]	122	281
Total	**563**	**503**

1 Member of the Management Board as of 1 April 2019

2 Joined 7 October 2019.

3 Retired 1 July 2019.

The fixed salary concerns the actual amount paid each year; it does not include amounts set aside for other forms of remuneration.

Settlement of contract obligations

With regard to the departure of Mr Van Lieshout, the Supervisory Board acted in accordance with the contractual arrangements with Mr Van Lieshout. Mr Van Lieshout has accordingly received a payment of €310,000. This amount has been charged to 2018.

Pension contributions

€ thousand	2019	2018
I.D. Thijssen	23	21
F.D. Schut[1]	17	-
W.Th. Bien[2]	3	-
M.R. van Lieshout[3]	12	23
Total	**55**	**44**

1 Member of the Management Board as of 1 April 2019

2 Joined 7 October 2019.

3 Retired 1 July 2019.

Social security contributions and other benefits

€ thousand	2019	2018
I.D. Thijssen	13	12
F.D. Schut[1]	10	-
W.Th. Bien[2]	3	-
M.R. van Lieshout[3]	7	18
Total	**33**	**30**

1 Member of the Management Board as of 1 April 2019

2 Joined 7 October 2019.

3 Retired 1 July 2019.

In addition to the normal social security charges and contributions applicable to the company, the members of the Management Board are entitled to an employer's contribution to the group health insurance plan, to contributions connected with their 'personal budget' under the conditions of employment, and to the use of a company car.

Remuneration of the Supervisory Board

€ thousand	2019	2018
ms. A. Jorritsma-Lebbink, Chairman	29.1	28.4
ms. A.P.M. van der Veer-Vergeer	19.4	18.9
B. Roetert	19.4	18.9
G.L.M. Hamers	19.4	18.9
ms. T. Menssen[1]	5.2	-
F. Eulderink[2]	5.2	-
ms. J.G. van der Linde[3]	9.6	18.9
Total	**107.3**	**104.0**

1 Ms Menssen was appointed as of 26 September 2019.

2 Mr Eulderink was appointed as of 26 September 2019.

3 Ms Van Der Linde stepped down as of 1 July 2019.

Note 25 Other operating expenses

€ million	2019	2018
Added to/released from provisions	18	2
Premises and transport	15	21
Rent and leases	24	40
Corporate staff and IT	66	69
Sufferance tax and other tax	154	160
Other	54	51
Total	**331**	**343**

Other operating expenses amounted to €331 million in 2019 compared with €343 million in 2018. This €12 million decrease was mainly due to the implementation of IFRS 16, which led to a €20 million shift, compared to 2018, of other operating expenses to depreciation. The amount recognised for rent and leases includes €2 million in short-term leases and €0.2 million in low-value leases, while the remainder concerned service charges relating to leases.

Sufferance and other tax in 2019 amounted to €154 million compared with €160 million in 2018. This €6 million drop came as a result of a additional asessment of tax in 2018 on the part of several municipal authorities in respect of prior years.

The auditors' fees were as follows:

Auditors' fees

€ million	2019	2018
Description of services:		
Audit of the financial statements	0.7	0.7
Other assurance services	0.2	0.2
Total	**0.9**	**0.9**

The above fees relate to the activities carried out by the accountancy firms and external auditors in connection with the parent company and the companies included in the consolidation, as referred to in Section 1, subsection 1, of the Audit Firms Supervision Act (WTA), and the fees charged by the entire network of which the accountancy firm is part. These fees relate to the audit of the financial statements for 2018 and 2019.

Note 26 Depreciation/amortisation and impairment of non-current assets

The divestments include the accelerated depreciation of decommissioned assets.

€ million	Land and buildings	Networks	Right-of-use assets	Other	Total
2019					
Depreciation	7	257	21	114	399
Divestments	7	18	-	19	44
Impairments	4	2	-	2	6
Total 2019	**18**	**277**	**21**	**135**	**449**
2018					
Depreciation	11	251	-	113	375
Divestments	3	14	-	17	34
Total 2018	**14**	**265**	**-**	**130**	**409**

Implementation of IFRS 16 led to a €20 million shift, compared to 2018, of other operating expenses to depreciation.

Note 27 Finance income

€ million	2019	2018
Other finance income	12	11
Currency translation differences	5	9
Total	**17**	**20**

The other finance income largely concerns the bond investments relating to the cross-border lease contracts [note 6].

The currency translation differences result from the effect of the movements in the US dollar exchange rate against the euro on the bond investments related to the cross-border lease obligations [note 6] and the Euro Commercial Paper issued in US dollars.

Note 28 Finance expense

€ million	2019	2018
Loans from third parties	-50	-47
Currency translation differences	-5	-8
Other finance expense	-14	-11
Total	**-69**	**-66**

The currency translation differences result from the effect of the movements in the US dollar exchange rates against the euro on the finance lease obligations [note 19] and the Euro Commercial Paper issued in US dollars.

The other finance expenses mainly related to the finance lease obligations [note 19] Also included in the other finance expenses are the costs associated with credit facilities.

Note 29 Tax

€ million	2019	2018
Current tax expense	-70	-74
Movement in deferred taxes	-6	-45
Total	**-76**	**-119**

The recognised tax expense of €70 million relates to the 2019 financial year.

The corporate income tax charge on the taxable profit of the Alliander N.V. tax group for 2019 amounts to €67 million. This is the balance of the calculated corporate income tax on the profit for 2019 (€70 million) and the calculated corporate income tax on movements in balance sheet items recognised directly in equity (€3 million tax credit).

The change in deferred tax, which was down by €6 million, is the net effect of a change in deferred tax assets (€7 million) as well as in deferred tax liabilities (€1 million).

The table below provides a reconciliation between the corporate income tax rate in the Netherlands and the effective tax rate:

Reconciliation of effective corporate income tax rate

%	2019	2018
Enacted corporate income tax rate in the Netherlands	**25.0**	**25.0**
Impact of:		
Substantial holding privilege	-0.2	-5.8
Change in corporate income tax rate	-2.7	6.5
Losses not accounted for	1.2	0.5
Other permanent differences	-	0.3
Effective corporate income tax rate	**23.3**	**26.5**

The effective tax rate is the tax burden expressed as a percentage of the profit before tax excluding the profits after tax from associates and joint ventures. The effective tax rate in 2019 amounted to 23.3% (2018: 26.5%). The difference compared with the standard tax rate of 25% is mainly due to the effect of the change to the corporate income tax rate (downward effect of 2.7%) and the effect of unrecognised losses of our entities outside the Netherlands (upward effect of 1.2%). Aside from that, the substantial-holding privilege (downward effect of 0.2%) also impacts the effective tax rate.

Note 30 Notes to the consolidated cash flow statement

Cash flow from operating activities

The cash flow from operating activities in 2019 amounted to €638 million (2018: €638 million). In this cash flow, savings on interest paid in 2019 due to the lower rate compared to 2018 are compensated by the higher working capital.

Cash flow from investing activities

The cash outflow from investing activities in 2019 was €713 million, compared with €496 million in 2018. The higher cash outflow in 2019 came as a result of higher investments and non-recurring income from the sale of Allego in 2018. Third-party contributions to investments in 2019 amounted to €124 million, down slightly on 2018 (€126 million).

Cash flow from financing activities

The cash flow from financing activities in 2019 amounted to €88 million (2018: an outflow of €103 million). This €191 million rise came mainly as a result of ECP finance acquired and long-term loans totalling €587 million. This was partly compensated by a contractually repaid loan under the EMTN programme.

Note 31 Licences

Liander Infra N.V., a wholly-owned subsidiary of Liander, owns networks for the transportation of electricity and gas in the Netherlands. In accordance with the Electricity Act 1998 and the Gas Act, this subsidiary has appointed Liander as network operator for their gas and electricity networks for a ten-year period (expiry date: 2 May 2024). Liander N.V. executes the tasks incumbent on it under the Electricity Act and the Gas Act.

Note 32 Related parties

As holder of 45% of the shares in Alliander, the Province of Gelderland has significant influence over the company, qualifying the province as a related party. At year-end 2019, the remaining shares were held by 75 shareholders, none of whom are related parties.

The Alliander group has interests in various associates and joint ventures over which it has significant influence but not control or has joint control of operations and financial policy. Transactions with these parties, some of which are significant, are executed on market terms and at market prices that are not more favourable than those that would be negotiated with independent third parties. These associates and joint ventures are consequently designated as related parties.

The following transactions were entered into with related parties for the purchase and sale of goods and services:

Related party transactions

€ million	2019	2018
Sales of goods and services		
Associates	-	-
Joint ventures	93	93
Total	**93**	**93**
Purchase of goods and services		
Associates	17	14
Joint ventures	133	111
Total	**150**	**125**

The transactions involving the Province of Gelderland are not included in these disclosures, owing to the exemption applicable in the case of related parties that are public authorities (IAS24, paragraph 25). There were no material transactions with the Province of Gelderland. There were no material transactions with individuals who qualify as related parties. For disclosures relating to the remuneration of the members of the Management Board, who do qualify as related parties, reference is made to [note 24].

Outstanding accounts with related parties connected with purchase and sale transactions involving related parties are immaterial. As at year-end 2019, Alliander had assets of €20 million (2018: €21 million) in respect of loans granted to related parties and a liability of €3 million in respect of agreed borrowings on current accounts with related parties (2018: a receivable of €17 million).

Note 33 Assets and liabilities held for sale and discontinued operations

The assets held for sale item as at year-end 2019 (€3 million) relates to business premises. These assets are part of the Other segment. Based on the expected proceeds from the sale, an amount of €4 million has been recognised under impairments in the income statement. There are no long-term liabilities relating to the assets held for sale. As at year-end 2018, no assets and liabilities were held for sale. No operations were discontinued in 2019 and 2018.

Note 34 Information on risks and financial instruments

General

The following financial risks can be identified: market risk, credit risk and liquidity risk. Market risk is defined as the risk of loss due to an adverse change in market prices. Alliander's main exposure is to commodity price risk, currency risk and interest rate risk. The credit risk is the risk arising in connection with the default of counterparties to trading and sales transactions. The liquidity risk is the risk of the company being unable to meet its payment obligations as they fall due.

This note provides information on these financial risks to which Alliander is exposed, the objectives and policy for managing risks arising from financial instruments as well as the management of capital. Further quantitative information is provided in the various notes in the consolidated financial statements.

Market risk

Alliander is exposed to the following potential market risks:

- commodity price risk: the risk that the value of a financial instrument will fluctuate because of changes in commodity prices; this mainly affects the cost associated with network losses;
- currency risk: the risk that the value of a financial instrument will fluctuate because of changes in exchange rates;
- interest rate risk: the risk that the value of a financial instrument will fluctuate because of changes in market interest rates.

Alliander hedges market risks through the purchase and sale of derivatives and attempts to minimise income statement volatility as far as possible through the application of hedge accounting. All transactions are carried out within the guidelines approved by the Management Board.

Commodity price risk

As regards the cost of network losses, Alliander is sensitive to the effect of market fluctuations in the price of various energy commodities, including but not limited to electricity and green certificates (renewable energy certificates – RECs).

Currency risk

General

Alliander is exposed to currency risk on purchases, cash and cash equivalents, borrowings and other balance sheet positions denominated in a currency other than the euro. The currency risks concern transaction risks, i.e. risks relating to future cash flows in foreign currencies and balance sheet positions in foreign currencies. Currency risks as at 31 December 2019 mainly relate to balance sheet positions in USD. These risks are hedged as far as possible.
Subsidiaries report currency positions and risks to Alliander's Treasury department. These positions and risks are principally hedged back-to-back with external counterparties through spot and forward exchange contracts.

Exposure to currency risk and sensitivity analysis

Alliander operates mainly in the Netherlands and to a small extent in Germany and so has no currency risk on its normal operations. Non-operational risks of this nature as at year-end 2019 related to the assets and liabilities connected with two cross-border lease contracts disclosed in the financial statements.

Liander recognises USD investments and liabilities for two CBL contracts in the balance sheet. The table shows that currency risks do not directly affect the equity position. All currency translation gains and losses are recognised through the income statement.

Finance was raised in 2019 under the Euro Commercial Paper Programme, denominated in US Dollars (USD). As at year-end 2019, this item amounted to €289 million (2018: nil). The currency translation differences have been recognised through profit or loss and do not affect the equity position.

Currency risk sensitivity analysis

	Position	Income		Equity	
€ million		Decrease by 10% relative to the euro	Increase by 10% relative to the euro	Decrease by 10% relative to the euro	Increase by 10% relative to the euro
As at 31 December 2019					
Exposure in USD	100	-10	8	-	-
Hedged position in USD	-100	10	-8	-	-
Sensitivity of cash flow in USD (net)	**-**	**-**	**-**	**-**	**-**

The following important exchange rates were applicable as at the balance sheet date:

Exchange rates

EUR	2019	2018
USD	1.123	1.145

Interest rate risk

General

The following table provides information on the extent to which Alliander is exposed to changes in interest rates on financial instruments and shows the effective interest rate at the balance sheet date and the maturity date or, if earlier, the contractual interest repricing date.

In line with Alliander's risk management policy, Alliander has taken measures in 2019 to mitigate the interest rate risk attached to the new EMTN financing of €300 million. For this purpose, two forward starting interest rate swaps were entered into in the run-up to the bond issue. When the bond loan was issued, both the interest rate swaps were settled. As a result, the interest rate risk was mitigated to a large degree in the run-up to the bond issue. The loss on the settlement totalling €3 million has, after deducting deferred tax, been recognised in the cash flow hedge reserve in equity. The resulting cash flow hedge reserve will be released in the income statement over the term of the EMTN (up to 24 June 2032).

Alliander had no interest rate swaps outstanding as at year-end 2019 or 2018.

Maturity date or earlier contractual interest repricing date

€ million	Effective interest rate	Variable/ fixed	Carrying amounts Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2019						
Assets						
Investments in bonds	6.5%	Fixed / variable	-	42	118	**160**
Loans, receivables and other financial assets			5	48	9	**62**
Cash and cash equivalents		Variable	153	-	-	**153**
Total assets			**158**	**90**	**127**	**375**
Loans received						
Subordinated loans	8.5%	Fixed	-7	-15	-44	**-66**
Private and green loans	1.4%	Fixed	-1	-1	-310	**-312**
Euro Medium Term Notes	1.8%	Fixed	-	-798	-594	**-1,392**
Euro Commercial Paper	-0.3%	Fixed	-289	-	-	**-289**
Other		Variable	-	-	-3	**-3**
Lease liabilities	0,0-6,8%	Fixed	-17	-49	-237	**-303**
Total liabilities			**-314**	**-863**	**-1,188**	**-2,365**
As at 31 December 2018						
Assets						
Investments in bonds	6.2%	Fixed / variable	-	8	148	**156**
Loans and receivables			4	61	6	**71**
Cash and cash equivalents		Variable	140	-	-	**140**
Total assets			**144**	**69**	**154**	**367**
Loans received						
Subordinated loans	8.5%	Fixed	-7	-23	-42	**-72**
Private and green loans	1.4%	Fixed	-	-1	-311	**-312**
Euro Medium Term Notes	2.6%	Fixed	-300	-399	-697	**-1,396**
Euro Commercial Paper	0.0%	Fixed	-	-	-	**-**
Other		Variable	-14	-	-2	**-16**
Finance lease liabilities	6.8%	Fixed	1	-5	-155	**-159**
Total liabilities			**-320**	**-428**	**-1,207**	**-1,955**

Sensitivity analysis in relation to fixed-rate assets and liabilities

Alliander does not have any fixed-rate financial assets or liabilities carried at fair value through profit or loss.

Sensitivity analysis in relation to cash flows for variable-rate assets and liabilities

Alliander does not have any variable-rate financial assets or liabilities carried at fair value through profit or loss.

Hedging transactions

Fair value hedging

In order to provide a complete or partial hedge against risks of fluctuations in the fair value of financial assets and/or liabilities as well as commitments entered into, Alliander made use of derivative financial instruments in preceding years.

Credit risk

General

Credit risk is the risk of a loss being incurred because a counterparty is unable or unwilling to meet its obligations. Credit analysis and management are applied throughout the organisation, with the degree of review undertaken varying depending on the magnitude of the credit risk in a transaction.

Surpluses of cash and cash equivalents are placed in the money and capital markets on market terms and conditions with institutions satisfying a list of criteria drawn up by the Management Board, making them approved counterparties, up to the maximum limit set for the party in question. In addition, minimum requirements have been set for the credit ratings of such investments set by credit rating agencies. Changes in investments made by Alliander relating to the cross-border lease contracts require the individual approval of the Management Board. These investments were made for long terms, with the intention of generating sufficient returns to meet future lease obligations. The portfolio of investments on which Alliander is exposed to credit risks consists mainly of deposits and securities. Credit risk is managed through an established credit policy, regular monitoring of credit exposures and application of risk mitigation tools.

Credit quality

Treasury

The creditworthiness of financial institutions from which Alliander has a receivable is monitored using specific credit analyses, CDS data and credit ratings. The greater part of the cash and cash equivalents, as well as the CBL-related investments, is placed or invested with parties with a credit rating of A or higher. A percentage of 48% (2018: 43%) is placed with parties with an AA rating or higher.

Sales

Alliander is exposed to credit risk; this is the risk of non-payment by customers for services provided. The company has procedures to limit credit exposure to counterparties and to ensure that outstanding positions are covered by collateral, for example, in the form of bank guarantees.

Maximum credit risk

The maximum credit risk is the carrying amount of each financial asset, including derivative financial instruments. The maximum credit risk that Alliander is exposed to in respect of the cross-border lease transactions is $2.8 billion (2018: $2.8 billion). The carrying amount of the associated bond investments included in Alliander's balance sheet amounts to €160 million (2018: €156 million).

Overdue instalments

Receivables which are past due, but for which no provision has been recognised, are without exception trade receivables from normal sales. The provision for bad debts also exclusively concerns trade receivables from normal sales. The ageing analysis of trade receivables was as follows on the balance sheet date (gross amounts):

Ageing analysis of trade receivables

€ million	2019	2018
Not overdue	38	35
0-30 days	21	32
31-90 days	7	10
91-360 days	6	3
> 360 days	6	3
Carrying amount as at 31 December	**78**	**83**

The major part of the provision for bad debts is calculated using a graduated scale based on historical figures. The remainder is based on an assessment of individual accounts. The fair value of collateral obtained relating to overdue accounts and bad debts written off was nil (2018: nil).
The other receivables and the prepayments and accrued income do not contain any accounts older than one year.

Movements in the provision for bad debt

The movements in the provision for bad debts relating to trade receivables were as follows:

€ million	2019	2018
Carrying amount as at 1 January	9	10
Utilised (trade receivables written off)	-	-3
Released from / added to allowance account charged to income	1	2
Carrying amount as at 31 December	**10**	**9**

Liquidity risk

Liquidity risk is the risk that Alliander is unable to obtain the financial resources required to meet its financial obligations on time. In this connection, Alliander regularly assesses the expected cash flows over a period of several years. These cash flows include operating cash flows, dividends, interest payments and debt repayments, replacement investments and the effects of a change in Alliander's creditworthiness. The aim is to have sufficient funds available at all times to provide the required liquidity. Liquidity and capital requirement planning is performed with a four-year horizon as a minimum. As at year-end 2019 Alliander had a committed credit facility of €600 million (up to 28/07/2023). This facility can be used for general operating purposes, working capital financing or debt refinancing. In addition to this credit facility, which was not drawn on as at year-end 2019, Alliander has an ECP programme totalling €1.5 billion under which an amount of €289 million was outstanding as at year-end (2018: €0) and an EMTN programme of €3 billion under which an amount of €1.4 billion was outstanding as at 31 December 2019 (2018: €1.4 billion). To provide information on liquidity risk, the following table shows the contractual terms of the financial obligations (translated at the balance sheet rate), including interest payments.

The liquidity risk arising in connection with possible margin calls related to foreign currency and interest rate management transactions and commodity contracts intended for own use is closely monitored and limited by ensuring diversity in the number of counterparties with which transactions are entered into as well as ensuring that appropriate thresholds and other terms and conditions are included in ISDAs (International Swaps and Derivatives Association) and CSAs (Credit Support Annexes).

In 2019, as in the preceding year, Alliander did not receive any margin call requests. During the year, however, Alliander did make margin call requests on various occasions. As at year-end 2019, Alliander held margins totalling €0.4 million. These amounts are callable on a daily basis by the counterparties, depending on changes in the fair value of the underlying contracts.

Liquidity risk 2019 and 2018

€ million	Carrying amount	Contractual cash flows			
		Less than 1 year	1 - 5 years	Over 5 years	Total
As at 31 December 2019					
Loans received					
Principal amounts	-2,062	-298	-817	-955	-2,070
Interest	-	-36	-119	-318	-473
Lease liabilities	-226	-29	-83	-194	-306
Accounts payable	-151	-151	-	-	-151
Other payables	-334	-334	-	-	-334
Off balance sheet commitments					
Lease liabilities	-	-	-13	-64	-77
Total	**-2,773**	**-848**	**-1,032**	**-1,531**	**-3,411**
As at 31 December 2018					
Loans received					
Principal amounts	-1,796	-321	-425	-1,058	-1,804
Interest	-	-47	-117	-296	-460
Finance lease obligations	-159	-11	-45	-192	-248
Accounts payable	-164	-164	-	-	-164
Other payables	-368	-368	-	-	-368
Off balance sheet commitments					
Operating lease liabilities	-	-20	-46	-68	-134
Total	**-2,487**	**-931**	**-633**	**-1,614**	**-3,178**

Measurement of fair value

The following table lists the financial instruments measured at fair value in descending order of the fair value hierarchy. According to the fair value hierarchy, the input data levels for measuring fair value are defined as follows:

- level 1, quoted prices (unadjusted) on active markets for comparable assets or liabilities;
- level 2, inputs other than level 1 quoted prices observable for a particular asset or liability, either directly (i.e. in the form of actual prices) or indirectly (i.e. derived from prices);
- level 3, inputs not based on observable market data.

Fair value hierarchy

€ million	31 December 2019 Level 1	Level 2	Level 3	Total	31 December 2018 Level 1	Level 2	Level 3	Total
Assets								
Total Assets	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Liabilites								
Current derivatives	-	2	-	2	-	-	-	-
Total Liabilities	**-**	**2**	**-**	**2**	**-**	**-**	**-**	**-**

The hierarchical analysis of the instruments is arrived at as far as possible on the basis of the availability of quoted prices on active markets or other observable inputs. Changes are made only as necessary owing to changes in the availability of the relevant inputs. No such changes were made during the year and there were therefore no transfers from one level of the fair value hierarchy to another.

Methods used for level 2 fair value measurement

The current derivatives relate to two foreign currency swaps to hedge an USD-denominated ECP. The fair value is arrived at by discounting the future cash flows using the interbank interest rate as at the reporting date.

Fair value of other financial instruments

The following table lists the fair values of the financial instruments that are not recognised at fair value but at amortised cost. Also shown is the input data level according to the fair value hierarchy.

Fair value of financial assets and liabilities measured at amortised costs

€ million	Note	31 December 2019 Fair value	Level	31 December 2018 Fair value	Level
Non-current assets					
Investments in bonds and other financial assets	7	269	2	253	2
Liabilities					
Non-current liabilities					
Interest-bearing debt:					
Euro Medium Term Notes	13	-1,505	1	-1,184	1
Other interest-bearing debt	13	-507	2	-396	2
Total non-current liabilities		-2,012		-1,580	
Short-term liabilities					
Interest-bearing debt:					
Euro Medium Term Notes	13	-	1	-313	
Euro Commercial Paper	13	-289	2	-	2
Other interest-bearing debt	13	-16	2	-28	2
Total short-term liabilities		-305		-341	
Total liabilities		**-2,317**		**-1,921**	

Measurement of fair value

The fair value of these instruments is measured as follows:

Investments in bonds and other financial assets: The fair value of loans granted by Alliander is measured on the basis of the incoming cash flows discounted using risk-free interest rates plus credit spreads for these or similar investments. As regards the current portion of these assets, it is assumed that the fair value is more or less the same as the carrying amount.

Interest-bearing debt: The fair value of the Euro Medium Term Notes is measured on the basis of market prices quoted by Bloomberg. The fair value of the other loans received is measured on the basis of the outgoing cash flows discounted using risk-free interest rates plus credit spreads applicable to Alliander. As regards the current portion of these liabilities, it is assumed that the fair value is more or less the same as the carrying amount.

The fair value of the following financial assets and liabilities is more or less the same as the carrying amount:

- trade and other receivables;
- current tax assets;
- current other financial assets;
- cash and cash equivalents;
- trade and other payables;
- current tax liabilities.

Financial policy

Alliander's financial policy, which is part of its general policy and strategy, is to obtain an adequate return for shareholders and to protect the interests of bondholders and other providers of capital, while maintaining the flexibility to grow and invest in the business. As part of Alliander's financial framework, the subordinated perpetual bond loan issued in 2018 is treated as 50% equity and 50% borrowed capital. This is contrary to IFRS, under which the subordinated perpetual bond loan is considered to be 100% equity.

Finance income and expenses

The table below shows the income and expenses in respect of financial instruments recognised in the income statement:

Effect of financial instruments on income statement

€ million	2019	2018
Net result on derivatives held for trading:		
Fair value changes in currency instruments	-2	-
Net result on investments in bonds	3	-
Net result on financial liabilities at amortised cost:		
Interest charges on financial liabilities at amortised cost	-60	-58
Interest gains on cash equivalents, loans granted, trade receivables, other receivables and deposits	11	11
Currency translation differences	-	2
Fees paid and received other than for the calculation of the effective interest rate	-	-1
Net finance income and expense	**-48**	**-46**
Impairments of trade receivables	-1	-2
Other operating expenses	**-1**	**-2**

Note 35 Assumptions and estimates used in the financial statements (critical accounting policies)

Alliander prepares its financial statements in accordance with International Financial Reporting Standards that have been endorsed for use in the European Union by the European Commission. The preparation of financial statements and the measurement of items in the financial statements require the use of estimates and assumptions. These are mainly based on past experience and Alliander's management's best estimate of the specific circumstances that are, in the opinion of management, applicable in the given situation.

The assumptions and estimates used in the financial statements often relate to future developments. As a result, the actual outcome may differ significantly from the current measurement of a number of items in the financial statements. Consequently, the estimates and assumptions used may have a significant impact on equity and the results. The estimates and assumptions used are tested regularly and adjusted if necessary. Alliander is developing a number of new activities within the framework of its strategy. Due to the start-up nature of these activities, inherent uncertainties are attached to their valuation. This section sets out an analysis of the main areas where the measurement of assets, liabilities and the results is affected by the estimates and assumptions used.

Determination of the provision for employee benefits

The provision for post-employment benefits and other long-term employee benefits is determined on an actuarial basis, using assumptions on future salary levels, disability benefits (WAO/WIA), health insurance premiums, statistical assumptions on mortality rates, employee turnover and probability of disability. These assumptions, together with the discount rate used, influence the carrying amount of the provision for employee benefits and, consequently, the results. An increase in the discount rate of 1 percentage point, for example, has the effect of reducing the necessary carrying amount of the provision by €3 million.

Useful lives, residual values, and impairment of property, plant and equipment

The measurement of the carrying amount of property, plant and equipment uses estimates regarding depreciation rates derived from the expected technical and economic lives of the assets concerned, and estimates of their residual value. Technological developments, altered market circumstances and changes in the actual usage of the items of property, plant and equipment involved may lead to changes in the expected technical and economic lives and the estimated residual value of the assets.

These factors may also trigger recognition of impairment. In measuring the extent of the impairment, estimates are made of the fair value less costs to sell and the value in use. The fair value less costs to sell is derived from assumptions on the possible selling price of a particular item of property, plant and equipment. The actual sales proceeds in the case of a disposal may differ from the estimates used. The value in use is based on the present value of the expected future cash flows, which are derived from the business plans for the coming years relating to the assets concerned. Adverse developments affecting customers which could lead to the recognition of an impairment, such as court protection from creditors or bankruptcy/ insolvency, are also taken into account. It is possible that Alliander may be forced to recognise additional impairments in the future as a result of changes in market or other circumstances.

Impairment of goodwill and other assets

Goodwill is not amortised but impairment tests must be performed annually in order to ascertain whether the value of the goodwill has been impaired. Previously recognised impairments of goodwill are not reversed in future years if it is found that the impairment ceases to apply. Other assets are tested if events or changes have occurred that trigger an impairment test. The impairment tests use estimates and assumptions of the fair value less cost to sell and the value in use. The estimate of the fair value less costs to sell is derived from information on quoted prices on regulated markets and other market prices, recent transactions in comparable companies and bids and offers received. Actual proceeds and estimated costs to sell may differ from the estimates. Value in use is estimated using the present value of the expected future cash flows of the subsidiaries and associates involved. Actual cash flows may deviate from the cash flows in the business plans. The discount rates used also affect the ultimate value in use. It is possible that Alliander may be forced to recognise additional impairments in the future as a result of changes in market or other circumstances.

Measurement of trade and other receivables

Alliander regularly assesses the credit risk on its receivables, based on experience as well as developments affecting specific accounts. Impairment losses are recognised on account balances where indicated by this assessment. The actual situation may turn out to be different from the assumptions used in identifying impairment.

Provisions

A characteristic of provisions is that the obligations are spread over several years and management has to make estimates and assumptions at the balance sheet date on the probability that an obligation will arise and the magnitude of the amount that will have to be paid. Future developments, such as changes in market circumstances, changes in legislation and court rulings, may cause the actual obligation to differ from the provision. In addition, Alliander is involved in a number of legal proceedings. Management assesses each individual case and decides whether a provision is necessary, based on the facts. This assessment includes the probability that a claim will be successful and the amount that is likely to be paid.

Network losses; allocation and reconciliation

The allocation process serves to determine estimates of the quantities of electricity and gas supplied and the associated network losses on a daily basis, particularly where standard annual consumption patterns are used for the consumer and SME market. These estimates are reviewed regularly, and quantities allocated to customers are adjusted for actual quantities ascertained through meter readings as part of this process (reconciliation). The legal requirements on reconciliation prescribe settlement within 21 months after the end of the month of supply. The expected results of reconciliation have been estimated and recognised in the financial statements as accurately as possible, but the final settlement may affect future results.

Tax

When preparing the financial statements, Alliander devotes considerable attention to assessing all significant tax risks and the current tax position is reflected in the financial statements to the best of its knowledge. Changing insights, for example as a result of final tax assessments for previous years, may lead to additional tax expense or income. New tax risks may also arise. In the measurement of deferred tax assets, particularly those relating to the differences between the carrying amount in the financial statements and the valuation for tax purposes of property, plant and equipment, assumptions are made on the extent to which such tax assets can be realised, and at what point in time. This is based in part on business plans. In addition, assumptions on the temporary and permanent differences between measurement for financial reporting purposes and for tax purposes are used in preparing the financial statements. The actual situation may differ from the assumptions used in determining deferred tax positions, due to differences of opinion, changes in tax rules and so on.

Other

The assumptions with respect to risks and financial instruments are described in note [34].

Note 36 Events after balance sheet date

On 8 January 2020, Alliander Corporate Ventures B.V. signed a share purchase agreement (SPA) for the purchase of 100% of the shares of both Twinning Research Network Twente B.V. and TReNT Infrastructuur B.V. from TReNT Holding B.V. as of the same date.

TReNT is an organisation with 18 employees that operates a fibre optic network in the east of the Netherlands of roughly, 1,900km with approximately 650 connected customers through over 2,000 connections. Their annual revenue amounts to approximately €10 million. With the acquisition of TReNT, Alliander becomes the owner of its own telecommunications infrastructure in the service area of its network operator Liander in the eastern part of the Netherlands. It is Alliander's policy to own this telecommunications infrastructure, because it is crucial for Alliander’s ability to safely operate its electricity and gas network. In a large part of the Liander service area, Alliander already owns the telecommunications infrastructure. And this will now also be the case in the eastern part of the Netherlands.

Given that recent figures are not yet available for TReNT at this point, the (provisional) Purchase Price Allocation (PPA) under IFRS 3 has not yet been performed and the associated notes have not yet been included. It will be performed at a later stage.

Company financial statements

Company balance sheet (as at 31 December, before appropriation of profit)

€ million	Note	2019	2018
Non-current assets			
Property, plant and equipment	37	248	260
Right-of-use assets	37	48	-
Intangible assets	38	68	68
Investments in subsidiaries and associates	39	2,531	2,499
Other financial assets	40	2,643	2,642
Total non-current assets		5,538	5,469
Current assets			
Other receivables	41	39	51
Receivables from subsidiaries	41	795	454
Cash and cash equivalents	42	153	139
Total current assets		987	644
Assets held for sale		3	-
Total assets		**6,528**	**6,113**
Equity	43		
Share capital		684	684
Share premium		671	671
Subordinated perpetual bond loan[1]		495	495
Hedge reserve[1]		-2	-
Other reserves		2,123	1,945
Result for the year		253	334
Total equity		4,224	4,129
Non-current liabilities			
Interest-bearing debt	44	1,760	1,473
Lease liabilities	45	33	-
Total non-current liabilities		1,793	1,473
Provisions	46	32	30
Short-term liabilities			
Current and accrued liabilities	47	462	481
Lease liabilities	45	15	-
Derivatives	48	2	-
Total short-term liabilities		479	481
Total equity and liabilities		**6,528**	**6,113**

1 The hedge reserve and the subordinated perpetual bond loan are not freely distributable.

Company income statement

€ million	Note	2019	2018
Revenue		**28**	**27**
Own work capitalised		35	33
Other income		269	346
Total income	50	**332**	**406**
Costs of subcontracted work and other external expenses	51	-52	-60
Employee benefit expenses	52	-107	-107
Social security premiums	52	-9	-9
Depreciation and impairments of non-current assets	53	-81	-58
Other operating expenses	54	-94	-88
Total operating expenses		**-343**	**-322**
Operating profit		**-11**	**84**
Proceeds from receivables included in non-current assets and securities	55	85	94
Interest and similar expenses	56	-49	-47
Profit before tax		**25**	**131**
Tax	57	-6	-10
Share of profit/loss from investments in affiliated companies	58	234	213
Profit after tax		**253**	**334**

Company statement of comprehensive income

€ million	2019	2018
Net profit	253	334
Movement in hedge reserve	-2	-
Comprehensive income	**251**	**334**

Notes to the company financial statements

Accounting policies

The company financial statements of Alliander N.V. (Chamber of Commerce company reg. no. 34108286) have been prepared according to the provisions of Part 9, Book 2, of the Dutch Civil Code. The accounting policies used are the same as those used for the consolidated financial statements, in accordance with the provisions of Section 362, subsection 8 of Part 9, Book 2, of the Dutch Civil Code, with investments in group companies accounted for on the basis of net asset value.

The company financial statements of Alliander N.V. comprise the company balance sheet, the company income statement, and the company statement of comprehensive income. The notes to the company financial statements constitute an integral part of the company financial statements of Alliander N.V.

The measurement of the entities included in the consolidation is performed at net asset value, whereby the company's economic interest is measured at fair value on initial recognition, with the carrying amount subsequently increased or reduced by the company’s share in the results. Dividends received are deducted from the carrying amount.

The functional currency of Alliander N.V. is the euro. Unless otherwise stated, all amounts are in millions of euros. For the detailed policies, reference is made to the accounting policies for the consolidated financial statements.

Note 37 Property, plant and equipment, and right-of-use assets

Property, plant and equipment

€ million	Land and buildings	Other plant and equipment	Assets under construction	Total
As at 1 January 2018				
Historical cost	234	455	29	718
Accumulated depreciation and impairments	-80	-363	-	-443
Carrying amount as at 1 January 2018	**154**	**92**	**29**	**275**
Movements 2018				
Investments	-	9	35	44
Depreciation	-10	-47	-	-57
Reclassifications, transfers and other movements	2	30	-34	-2
Total	**-8**	**-8**	**1**	**-15**
As at 31 December 2018				
Historical cost	226	460	30	716
Accumulated depreciation and impairments	-80	-376	-	-456
Carrying amount as at 31 December 2018	**146**	**84**	**30**	**260**
Movements 2019				
Investments	2	7	46	55
Divestments	-7	-	1	-6
Depreciation	-6	-49	-	-55
Impairments	-4	-	-	-4
Reclassifications, transfers and other movements	-1	60	-58	1
Reclassification to assets held for sale	-3	-	-	-3
Total	**-19**	**18**	**-11**	**-12**
As at 31 December 2019				
Historical cost	198	472	19	689
Accumulated depreciation and impairments	-71	-370	-	-441
Carrying amount as at 31 December 2019	**127**	**102**	**19**	**248**

Investments

Investments in property, plant and equipment totalled €55 million (2018: €44 million). This mainly related to investments in hardware and software.

Right-of-use assets

€ million	Land and buildings	Other plant and equipment	Total
As at 1 January 2019			
Historical cost	7	35	42
Accumulated depreciation and impairments	-	-	-
Carrying amount as at 1 January 2019	**7**	**35**	**42**
Movements 2019			
Investments	-	19	19
Divestments	-	-	-
Depreciation	-2	-14	-16
Reclassifications, transfers and other movements	-1	4	3
Total	**-3**	**9**	**6**
As at 31 December 2019			
Historical cost	6	58	64
Accumulated depreciation and impairments	-2	-14	-16
Carrying amount as at 31 December 2019	**4**	**44**	**48**

These assets relate to business premises, lease vehicles, and rental of telecommunication mast sites.

Note 38 Intangible assets

€ million	Goodwill	Other intangible assets	Total
As at 1 January 2018			
Historical cost	68	4	72
Accumulated depreciation and impairments	-	-3	-3
Carrying amount as at 1 January 2018	68	1	69
Movements 2018			
Depreciation	-	-1	-1
Total	-	-1	-1
As at 31 December 2018			
Historical cost	68	4	72
Accumulated depreciation and impairments	-	-4	-4
Carrying amount as at 31 December 2018	68	-	68
Movements 2019			
Depreciation	-	-	-
Total	-	-	-
As at 31 December 2019			
Historical cost	68	4	72
Accumulated depreciation and impairments	-	-4	-4
Carrying amount as at 31 December 2019	**68**	**-**	**68**

Intangible assets as at year-end 2019 is largely made up of goodwill relating to the acquisition of Endinet (€61 million), which is allocated to Liander, and goodwill relating to Stam (€7 million), see note [4].

Note 39 Investments in subsidiaries and associates

€ million	Investments in subsidiaries	Investments in associates	Total
Carrying amount as at 1 January 2018	**2,479**	**1**	**2,480**
Movements 2018			
Dividends received	-185	-	-185
Result for the year	213	-	213
Issue of share capital	68	-	68
Movement in revaluation reserve	-38	-	-38
Sale of interest in Allego	-44	-	-44
Other changes	5	-	5
Total	19	-	19
Carrying amount as at 31 December 2018	2,498	1	2,499
Movements 2019			
Dividends received	-246	-	-246
Result for the year	234	-	234
Issue of share capital	31	-	31
Movement in revaluation reserve	-	-	-
Other changes	13	-	13
Total	32	-	32
Carrying amount as at 31 December 2019	**2,530**	**1**	**2,531**

In 2019, Alliander received €246 million (2018: €185 million) in dividend from its Liander N.V. subsidiary. The investments of €31 million in 2019 relate to payments of capital invested in the subsidiaries of Alliander N.V.

The dividends received from subsidiaries and payments of capital invested in them result from the capital restructuring of these companies in line with Alliander's policy. Utility Connect B.V. is included in the company financial statements as a joint operation, in which Alliander's share is 59.28%.

The various share capital investments are listed separately under the heading 'Subsidiaries, associates and joint arrangements' in the 'Other information' part of the report.

Note 40 Other financial assets

€ million	Deferred tax assets	Loans granted to subsidiaries	Other receivables	Total
Carrying amount as at 1 January 2018	**11**	**2,611**	**17**	**2,639**
Movements 2018				
New receivable	-	-	36	36
Loans paid	-	-26	-6	-32
Realised temporary differences	-1	-	-	-1
Total	**-1**	**-26**	**30**	**3**
Carrying amount as at 31 December 2018	**10**	**2,585**	**47**	**2,642**
Movements 2019				
New receivable	-	-	5	5
Loans paid	-	-1	-5	-6
Realised temporary differences	2	-	-	2
Total	**2**	**-1**	**-**	**1**
Carrying amount as at 31 December 2019	**12**	**2,584**	**47**	**2,643**

In June 2015, Alliander granted a long-term loan of €2,566 million to Liander, along with other lending. This amount was deducted from the current account in 2015. This means that there are two separate financing arrangements between Alliander and Liander, namely a long-term loan agreement, essentially for the purpose of financing network replacement and expansion investments, as well as the existing, separate current account agreement to finance working capital. This provides a closer match between the time horizons of the financing arrangements and the useful lives of the corresponding assets.

The long-term loan agreement with Liander runs for 10 years with automatic annual extension thereafter for periods of one year unless designated otherwise. The rate in 2019 amounted to 2.60% (2018: 2.95%). The interest rate is based on the average cost of borrowing on Alliander's lending portfolio, with a risk markup. The interest rate will be reviewed annually. The principal will be repayable at the latest on the conclusion of the arrangement. At year-end 2019 the fair value was €2,871 million (2018: €2,879 million).

Note 41 Other receivables and receivables from subsidiaries

The other receivables include an amount of €2 million (2018: €11 million) for non-controlling interests. For further disclosures, reference is made to the item of trade and other receivables in the consolidated financial statements.

There is group-wide financing for receivables from group companies within the Alliander group, meaning that the activities of the subsidiaries are part-financed through a current account facility with the holding company. External financing is arranged by the holding company itself. Each year, there is a capital restructuring of these companies in line with Alliander's policy, resulting in the distribution of dividends to the parent company or payments of share premium.

The current account facility is mainly for financing the working capital of Alliander's subsidiaries. All income and expenditure is accounted for through the current accounts with the subsidiaries. Differentiated interest rates are applied to this finance, of 2.35% (2018: 2.67%) for subsidiaries operating in the regulated market, 3.35% (2018: 3.67%) for 'Stable Business' subsidiaries and 4.35% (2018: 4.67%) for 'New Business & High Risk' subsidiaries. The interest rate is based on the average cost of borrowing on Alliander's lending portfolio as at year-end 2018, possibly with a risk markup. Current-account lending is treated as a demand deposit and counts as cash-equivalent.

Note 42 Cash and cash equivalents

The cash and cash equivalents balance at the end of 2019 did not include any restricted cash (2018: nil).

Note 43 Equity

The statement of changes in equity is included in the consolidated financial statements.

Note 44 Non-current liabilities

Interest-bearing debt

€ million	2019	2018
Carrying amount as at 1 January	**1,780**	**1,783**
Movements		
New loans	989	835
Loans repaid	-707	-838
Currency translation differences	-5	-
Total	277	-3
Carrying amount as at 31 December	**2,057**	**1,780**

Long-term interest-bearing debt including the current portion

	Effective interest rate		Current portion		Non-current portion	
€ million	2019	2018	2019	2018	2019	2018
Subordinated loans	8.7%	8.7%	7	7	57	65
Private and green loans	1.4%	1.4%	1	-	311	312
Euro Medium Term Notes	1.8%	2.6%	-	300	1,392	1,096
Euro Commercial Paper	-0.3%	0.0%	289	-	-	-
Other	0.0%	0.0%	-	-	-	-
Carrying amount as at 31 December			**297**	**307**	**1,760**	**1,473**

Subordinated loans

These loans have been made available by shareholders. They are subordinated to all other liabilities.

Maturities of interest-bearing debt

€ million	2019	2018
Less than 1 year	297	307
Between 1 and 2 years	8	7
Between 2 and 3 years	408	9
Between 3 and 4 years	-	407
Between 4 and 5 years	399	-
Over 5 years	945	1,050
Carrying amount as at 31 December	**2,057**	**1,780**

Note 45 Lease liabilities

The lease liabilities as at year-end 2019 were as follows:

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2019				
Future lease payments of the on-balance lease liabilities	15	29	4	48
Future finance expenses of the on-balance lease liabilities	-	-	-	-
Present value of the on-balance lease liabilities	**15**	**29**	**4**	**48**

This relates to lease liabilities for business premises, lease vehicles, and rental of telecommunication mast sites.

Besides the above lease liabilities, there is an undiscounted amount of €77 million in lease obligations to which Alliander has committed but that have not yet started, relating to buildings and lease vehicles.

Note 46 Provisions

€ million	Long-service benefits	Termination benefits	Other provisions	Total
Carrying amount as at 1 January 2018	**30**	**5**	**10**	**45**
Movements 2018				
Released	-9	-2	-	-11
Added	-	11	9	20
Utilised	-2	-7	-9	-18
Reclassification to short-term liabilities	-6	-	-	-6
Major curtailments and settlements	1	-1	-	-
Total	-16	1	-	-15
Carrying amount as at 31 December 2018	14	6	10	30
Movements 2019				
Released	-1	-4	-12	-17
Added	2	13	22	37
Utilised	-1	-11	-8	-20
Reclassification to short-term liabilities	-	-	1	1
Major curtailments and settlements	-	1	-	1
Total	-	-1	3	2
Carrying amount as at 31 December 2019	**14**	**5**	**13**	**32**

The Network Operators reached agreement with the unions on a new collective labour agreement at the end of 2018. The new collective labour agreement includes changes to the long-service benefits scheme: the existing long-service benefits payable at 10, 20, 30, 40 and 50 years of service are being discontinued. The revised long-service benefits scheme covers long-service benefits payable on attaining 25 and 40 years of service. The change resulted in the release of €11 million from the provision in 2018.

Note 47 Current and accrued liabilities

€ million	2019	2018
Amounts owed to suppliers and trade credits	23	13
Tax and social security contributions	86	92
Liabilities in respect of pensions	6	5
Interest-bearing debt	297	307
Other liabilities and accruals	50	64
Total short-term liabilities	**462**	**481**

The short-term liabilities, accruals and deferred income relate to trade payables, taxes payable and the other short-term liabilities. Amounts owed to suppliers and trade creditors include a debt of €10 million (2018: € nil) on non-controlling interests. As at year-end 2019, interest-bearing debt chiefly concerned debt under the ECP programme.

Note 48 Derivatives

Derivatives are measured at fair value.

Financing was raised in 2019 under the Euro Commercial Paper Programme, denominated in foreign currency. In order to eliminate currency risks, the foreign currency was immediately converted into euros by means of two foreign exchange swaps. As at year-end 2019, these had a value of €2 million (2018: nil)

Note 49 Contingent assets and liabilities

Lease liabilities

Please refer to note [45] to the company financial statements for details of lease liabilities.

Contingent liabilities

Pursuant to Section 403 Book 2 of the Dutch Civil Code, Alliander has assumed liability for the obligations arising from the legal acts of several of the subsidiaries listed in the other information. Alliander, together with its Dutch subsidiaries, forms a tax group for both corporate income tax and value added tax (VAT). Consequently, every legal entity forming part of the tax group bears joint and several liability for the tax liabilities of the legal entities included in the tax group. Alliander has also given a declaration of indemnity to network operator Liander under which its liability in this respect is restricted to the amount for which Liander itself would be liable if a tax group did not exist.

As at year-end 2019, Alliander had issued parent company guarantees amounting to €33 million (2018: €34 million), including a parent company guarantee of €5.1 million (2018: €5.2 million) for non-controlling interests. Bank guarantees amounting to €0.9 million had been issued on Alliander's behalf as at year-end 2019 (2018: €0.6 million). As at year-end 2018, Alliander had issued guarantees totalling €27 million to the subsidiary Allego B.V. that was sold off in 2018. Under the terms of the sale and purchase agreement, Alliander is indemnified by the purchaser Meridiam in the event that these guarantees are invoked. In 2019, nearly all of these guarantees were taken over by Meridiam; as at year-end 2019, there was an amount of €0.1 million outstanding.

Investment and purchasing commitments

The following table presents the existing investment commitments and other purchase commitments as at year-end.

€ million	2019	2018
Capital expenditure commitments regarding property, plant and equipment	3	-
Other purchasing commitments	98	70
Total	**101**	**70**

Note 50 Operating income

€ million	2019	2018
Revenue	28	27
Own work capitalised	35	33
Other income	269	346
Total	**332**	**406**

Revenue mainly comprises charges passed on for CDMA data communication network services. The other income chiefly relates to group-wide activities at holding company level. In 2018, other income included a non-recurring book profit on the sale of Allego (€105 million).

Note 51 Costs of subcontracted work and other external expense

€ million	2019	2018
Contractors, materials, external personnel and other	52	60
Total	**52**	**60**

Note 52 Employee benefit expense

€ million	2019	2018
Salaries	79	84
Social security premiums	9	9
Pension costs:		
- contributions paid to multi-employer plans that are accounted for as defined-contribution plans	13	13
Termination benefit expenses	5	6
Long-term employee benefit expenses	1	-3
	6	3
Other staff costs	9	7
Total	**116**	**116**

The employee benefit expense item mainly concerns the costs of group-wide activities at holding company level.

Nearly all the personnel are on the Alliander N.V. payroll. The staff costs are charged to the business units where the employees concerned work. Employee benefit expenses in the income statement totalled €116 million in 2019 (2018: €116 million), relating to Alliander N.V. corporate staff department and service unit staff.

The number of employees, based on a 38-hour week (FTE), at year-end 2019 was 1,092 (2018: 1,039).

Note 53 Depreciation and amortisation

€ million	Land and buildings	Other	Total
2019			
Depreciation	8	63	71
Divestments	6	-	6
Impairments	4	-	4
Total 2019	**18**	**63**	**81**
2018			
Depreciation	10	48	58
Total 2018	**10**	**48**	**58**

Amortisation of intangible assets and right-of-use assets are recognised in the Other column.

Note 54 Other operating expenses

€ million	2019	2018
Items charged by subsidiaries	7	6
Premises and transport	6	6
Rent and leases	8	10
Corporate staff and ICT	47	45
Accountancy, notary and consulting expenses	16	14
Sufferance tax and other tax	1	1
Other	9	6
Total	**94**	**88**

Costs passed on by group companies mainly concerns internal development projects at holding company level.

Note 55 Finance income

€ million	2019	2018
Interest income on money market loans and deposits	1	1
Finance income on loans from group companies	84	92
Currency translation differences	-	1
Total	**85**	**94**

Alliander uses FX swaps to hedge the currency risk. The exchange differences arise from the effect which the movements in the US dollar exchange rate against the euro have on the finance raised in foreign currencies under the Euro-Commercial Paper (ECP) Programme.

The finance income from loans to group companies was down by €8 million compared with 2018 as a result of changes in the interest rate charged and changes in the composition of group companies.

Note 56 Finance expense

€ million	2019	2018
Loans from third parties	49	47
Total	**49**	**47**

Note 57 Tax

€ million	2019	2018
Current tax expense	-7	-7
Movement in deferred tax	1	-3
Total	**-6**	**-10**

The effective tax rate was 24.5%. The recognised tax expense of €6 million is made up of tax charges of €7 million for 2019, less the downward change in deferred tax of €1 million.

Note 58 Share in profit/loss from investments in affiliated companies

€ million	2019	2018
Result from interests in subsidiaries and associates after tax	234	213
Share of profit/loss from investments in affiliated companies	**234**	**213**

The share in the profits of participations was up by €21 million, coming in at €234 million after tax, primarily on the back of higher profits at network operator Liander and Qirion.

Proposed profit appropriation for 2019

The Management Board has decided, with the approval of the Supervisory Board, to add €138.8 million of the profit to the Other reserves. The remaining profit of €113.6 million is at the disposal of the General Meeting of Shareholders. This equates to 45 percent of profit after tax, excluding incidental items after tax that did not generate cash flows in the 2019 financial year.

The dividend for 2019 was down by €36.4 million on 2018 owing to the lower net profit for 2019, which is mainly explained by the incidental book profit on the sale of Allego in 2018.

Events after the balance sheet date

On 8 January 2020, Alliander Corporate Ventures B.V. signed a share purchase agreement (SPA) with TReNT Holding B.V. for 100% of the shares of both Twinning Research Network Twente B.V. and TReNT Infrastructuur B.V., which saw these shares transferred to Alliander Corporate Ventures B.V. on that same date. TReNT is an organisation with 18 employees that operates an optic fibre network in the east of the Netherlands of roughly 1,900 km with approximately 650 connected customers through over 2,000 connections. Their annual revenue amounts to approximately €10 million. With the acquisition of TReNT, Alliander becomes the owner of its own telecommunications infrastructure in the service area of its network operator Liander in the eastern part of the Netherlands. It is Alliander's policy to own this telecommunications infrastructure, because it is crucial for Alliander’s ability to safely operate its electricity and gas network. Alliander already owned telecommunications infrastructure in a large part of the Liander service area. And this will now also be the case in the eastern part of the Netherlands.

Given that recent figures are not available yet for TReNT at this point, the (provisional) Purchase Price Allocation (PPA) under IFRS 3 has not yet been performed and the associated notes have not yet been included. It will be performed at a later stage.

Principal subsidiaries and other participations

As at 31 December 2019	Based in	%
Consolidated subsidiaries		
Liander N.V.*	Arnhem	100%
Liander Infra N.V.*	Arnhem	100%
Qirion B.V.*	Duiven	100%
Stam Heerhugowaard Holding B.V.*	Heerhugowaard	100%
Stam & Co. Materieel B.V.*	Heerhugowaard	100%
Telinfra Support B.V.*	Heerhugowaard	100%
Stam & Co. Leidingwerken B.V.*	Heerhugowaard	100%
Stam & Co. Infratechniek B.V.*	Heerhugowaard	100%
Sol Energy v.o.f.*	Heerhugowaard	67%
Alliander Telecom N.V.*	Amsterdam	100%
Kenter B.V.*	Arnhem	100%
Gamog Gasnetwerk Veluwe B.V.*	Arnhem	100%
Gamog Gasnetwerk Oost-Gelderland B.V.*	Arnhem	100%
Gamog gasnetwerk Flevoland B.V.*	Arnhem	100%
Nuon Warmtenetwerken I B.V.*	Amsterdam	100%
Nuon Warmtenetwerken II B.V.*	Amsterdam	100%
Nuon Elektriciteitsnetwerken I B.V.*	Amsterdam	100%
Nuon Elektriciteitsnetwerken II B.V.*	Amsterdam	100%
Nuon Gasnetwerken IV B.V.*	Amsterdam	100%
Nuon Gasnetwerken V B.V.*	Amsterdam	100%
Nuon Gasnetwerken VI B.V.*	Amsterdam	100%
Nuon Gasnetwerken VII B.V.*	Amsterdam	100%
Nuon Gasnetwerken VIII B.V.*	Amsterdam	100%
Alliander Corporate Ventures B.V.*	Arnhem	100%
BackHoom B.V.*	Arnhem	100%
Energy Exchange Enablers B.V.*	Arnhem	100%
QTERRA B.V.*	Arnhem	100%
Omons B.V.*	Arnhem	100%
Sim-Ci Holding B.V.*	Arnhem	100%
Locamation B.V.*	Enschede	100%
Entrnce Nederland B.V.	Arnhem	100%
Entrnce International Holding GmbH	Heinsberg	100%
Firan B.V.*	Amsterdam	100%
Indigo B.V.	Arnhem	95%
Warmtenetwerk Hengelo B.V.	Hengelo	95%
Warmte-Infrastructuur Limburg Geothermie B.V.	Venlo	75%
Alliander AG	Berlin	100%
Alliander Stadtlicht GmbH	Berlin	100%
2. Alliander Vorratsgesellschaft mbH	Osthavelland	100%
1. Alliander Vorratsgesellschaft mbH	Brandenburg	100%
Alliander Netz Heinsberg GmbH	Heinsberg	100%
Alliander Stadtlicht Rhein-Ruhr	Hagen	100%
Bietergemeinschaft Hagen GBR	Hagen	100%
450connect GmbH	Köln	100%
Joint operations		
Utility Connect B.V.	Arnhem	50%
Other associates and joint ventures		
Reddyn B.V.	Arnhem	50%
EDSN B.V.	Baarn	26%
Etriplus B.V.	Venlo	25%
Duurzame Energie Netwerken Gelderland B.V.	Arnhem	50%
Duurzame Energie Netwerken Noord-Holland B.V.	Zaanstad	50%
Stadtbeleuchtung Hagen GmbH	Hagen	49%

* Alliander N.V. has issued a Section 403 statement of liability for these subsidiaries.

Other information

Profit appropriation

The profit appropriation is governed by Article 40 of the Articles of Association. The text of this article is as follows: Article 40: Profit. Payment chargeable to the reserves.

- Subject to approval of the Supervisory Board, the Management Board determines every year which part of the profit available for distribution - the positive balance of the income statement - is added to the reserves.
- The profit remaining after the addition to the reserves under the previous paragraph is at the disposal of the General Meeting of Shareholders.
- Profit distributions are capped at the distributable part of the shareholders' equity,
- and made after adoption of the financial statements that authorise these distributions.
- The Management Board may decide to distribute an interim dividend, subject to approval of the Supervisory Board and with due observance of clause 3 above and any other provision laid down by law.
- The General Meeting of Shareholders may, following a proposal from the Management Board that has been approved by the Supervisory Board, resolve to make distributions to shareholders chargeable to the distributable part of the shareholders' equity.

Independent auditor's report and assurance report

Introduction

Dear shareholders and supervisory board of Alliander N.V.,

We were engaged by the supervisory board as auditor of Alliander N.V. as of the audit for year 2016 and have therefore audited the financial statements 2019. Furthermore the management board engaged us to provide assurance on a selection of non-financial information in the Annual Report 2019.

Our reports in relation to both assignments, namely the auditor's report on the financial statements 2019 and the assurance report on the non-financial information, are included below.

Independent auditor's report

To the shareholders and the Supervisory Board of Alliander N.V.

Report on the audit of the financial statements 2019 included in the annual report

Our opinion

We have audited the accompanying financial statements 2019 of Alliander N.V., based in Arnhem. The financial statements include the consolidated financial statements and the company financial statements.

In our opinion:

- The accompanying consolidated financial statements give a true and fair view of the financial position of Alliander N.V. as at 31 December 2019, and of its result and its cash flows for 2019 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.
- The accompanying company financial statements give a true and fair view of the financial position of Alliander N.V. as at 31 December 2019, and of its result for 2019 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

1. The consolidated statement of financial position as at 31 December 2019.
2. The following statements for 2019: the consolidated income statement, the consolidated statements of comprehensive income, changes in equity and cash flows.
3. The notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

1. The company balance sheet as at 31 December 2019.
2. The company income statement for 2019.
3. The notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of Alliander 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 €23 million. The materiality is based on 7% of profit before tax. 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.

We agreed with the Supervisory Board that misstatements in excess of €1.1 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

Alliander 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 Alliander N.V.

Our group audit mainly focused on significant group entities Alliander N.V. and Liander N.V. We have performed audit procedures ourselves at group entities Alliander N.V. and Liander N.V. At other group entities we performed review procedures or specific audit procedures.

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.

Scope of fraud and non-compliance with laws and regulations

In accordance with Dutch Standards on Auditing, we are responsible for obtaining a high (but not absolute) level of assurance that the financial statements taken as a whole are free from material misstatements, whether due to fraud or error.

We are not responsible for preventing and cannot be expected to detect non-compliance with all laws and regulations.

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. Our audit procedures differ from those performed as part of a specific forensic investigation, which often has a more in-depth scope.

In identifying the risks of material misstatement of the financial statements due to fraud or non-compliance, with laws and regulations, we evaluated management's fraud risk assessment and made inquiries with management, those charged with governance and others within the group. Following these procedures, and the presumed risks under the prevaling audit standards, we considered the fraud risk in relation to management override of controls.

As part of audit procedures to respond to the fraud risk, we evaluated the internal controls relevant to mitigate the fraud risk and performed supplementary substantive audit procedures, including detailed analyses of journal entries and supporting documentation in relation to post-closing adjustments. Data analytics, including testing journal entries based on certain risk-based characteristics, is part of our audit approach to address the fraud risk.

We assessed factors related to the risks of non-compliance with law and regulations that could reasonably be expected to have a material effect on the financial statements taken as a whole from our general and industry experience, through discussions with management and by the inspection of selected documents regarding compliance with law and regulations.

The potential effect of these laws and regulations on the financial statements varies considerably. Firstly, the company is subject to laws and regulations that directly affect the financial statements including corporate tax law, financial reporting regulations and requirements under Part 9 of Book 2 of the Dutch Civil Code. We assessed the compliance with these laws and regulations as part of our procedures on the related financial statements.

Secondly, the group is subject to many other (sector specific) laws and regulations where the consequences of non-compliance with these laws could have a material effect on amounts and/or disclosures in the financial statements, for instance through imposing fines or litigation. We identified the Electricity Act 1998, Gas Act, Independent Network Operation Act, Energy Transition (Progress) Act, General Data Protection Regulation and Tendering Act 2012 as those most likely to have such an effect.

As required by auditing standards, we performed certain audit procedures that address the risk of non-compliance with these laws and regulations, including inquiries of management, those charged with Governance and others within the group and inspecting (board) minutes, correspondence with relevant authorities and lawyers' letters. We also remained alert to indications of (suspected) non-compliance throughout the audit, both at component and group levels. Furthermore, we performed corroborative inquiry with Group legal counsel and Internal Audit.

Finally, we obtained written representations that all known instances of (suspected) non-compliance with laws and regulations have been disclosed to us.

Our key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements. We have communicated the key audit matters to the Supervisory Board.
The key audit matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters 2019

Property, plant and equipment

Description

In determining the carrying amount of property, plant and equipment, amounting to €7,476 million as at 31 December 2019, significant assumptions and judgments are applied, both in determining the amounts that should be capitalized and in assessing the useful lives of the assets. Furthermore property, plant and equipment require significant time and resource to audit due to their magnitude.

The disclosures regarding the accounting policies are included in page 127-128 of the financial statements. Specific disclosures regarding property, plant and equipment are included in Notes 3, 26, 37 and 53 of the financial statements.

Our audit procedures

Property, plant and equipment are measured at historical cost, less accumulated depreciation and impairment. These accounting policies are in line with International Financial Reporting Standards (IFRS) as adopted by the EU and have been applied consistently.

Our audit procedures included obtaining an understanding of internal and external developments that are applicable to Alliander specifically or to the sector at large. Based on our risk assessment, where we used data analytics, we determined the audit approach. We performed procedures to test key controls, particularly in relation to cost estimation and subsequent costing, the capitalization of projects, the processing of depreciation, the accounting for project-related hours and IT related controls for the relevant systems. We also performed substantive procedures regarding capitalized costs, divestments and depreciation.

Furthermore we specifically paid attention to the evaluation of the useful live of the gas network. In 2019 the Climate Act was passed and public authorities, businesses and civil society organizations presented the Climate Agreement, which is part of the implementation of the Act. The Climate Agreement states that the Netherlands must abandon natural gas in 2050. Based on the laws and regulations in place during 2019, except for new construction projects that do not fall under the applicable exemptions, the regional network operators are still required to connect customers to the gas network and to maintain the gas network. Also the regulatory useful live of the gas network remains unchanged. Consequently management concluded that there is no reason to shorten the economic useful live of the gas network at this moment and furthermore that (in view of the enormous impact to the general public) this discussion needs to be decided on for the sector at large.

Observation

Based on our audit procedures we noted no findings.

Revenue recognition

Description

The Company's net revenue for the year 2019 amounts to €1,930 million and its major part is related to the regulated activities of the network operator Liander N.V. The revenue recognition process involves only limited management's judgment. Nevertheless the revenue recognition and relevant internal controls and IT systems require significant time and resource to audit due to the magnitude. Therefore revenue recognition was identified as a key audit matter.

The disclosures regarding the accounting policies are included on page 134 of the financial statements. Specific disclosures regarding revenues are included in note 21 of the financial statements.

Our audit approach

Our audit procedures included obtaining an understanding of the significant revenue streams and of relevant internal and external developments. Based on our risk assessment we determined the audit approach. For the material revenue streams, we determined that the accounting policies, which are in line with International Financial Reporting Standards (IFRS) as adopted by the EU, have been applied consistently.

We tested the relevant key controls, particularly for the significant component Liander N.V. These key controls are mainly related to the processing of changes in contracts and rates, and reconciliations, but also to interfaces with external parties (including EDSN) that are used for the exchange of information regarding connections and measurement data relevant to the revenue recognition by Alliander. We also tested the operating effectiveness of IT related controls, to the extent necessary within the scope of the audit of the financial statements, and obtained and reviewed the ISAE 3402 report (type 2) regarding the internal controls of the service organization EDSN.

Finally we performed substantive procedures to test the complete recognition of revenue transactions at the appropriate rates.

Observation

Based on our audit procedures we noted no findings.

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:

- Management Board's Report (page 3-115)
- Other information.

Based on the following procedures performed, we conclude that the other information:

- Is consistent with the financial statements and does not contain material misstatements.
- Contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of other information, including the Management Board's Report in accordance with Part 9 of Book 2 of the Dutch Civil Code, and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Engagement

We were engaged by the Supervisory Board as auditor of Alliander N.V. on 29 July 2015, as of the audit for year 2016 and have operated as statutory auditor ever since that financial year. The Supervisory Board was given a mandate hereto by the shareholders.

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 audits of public-interest entities.

Description of responsibilities regarding the financial statements

Responsibilities of management and the Supervisory Board for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, management is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the financial statements using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

Management should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit assignment in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgement and have maintained professional 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.
- 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 management, audit committee and 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.

Amsterdam, 14 February 2020

Deloitte Accountants B.V.

Signed by J. Dalhuisen

Assurance report of the independent auditor

To: The management board of Alliander N.V.

The management board of Alliander N.V. ('the Company') engaged us to provide assurance on a selection of nonfinancial information in the Annual Report 2019 ('the Report'). Our engagement consisted of a combination of limited assurance (leading to a 'conclusion') and reasonable assurance (leading to an 'opinion').

We were engaged to provide limited assurance on the following chapters ('the reviewed information'):

- About this report (page 3-7)
- Our story in 2019 (page 8-11)
- Profile of Alliander (page 12-19)
- The value that we create in the chapters:
  - Ensuring a high level of supply reliability for a low cost (page 25-33)
  - Being a credit-worthy company with solid returns (page 34-49)
  - Achieving sustainability in energy supply and operations (page 50-60)
  - Ensuring a safe energy network, a safe woring environment, and a safe data environment (page 61-66)
  - Being an attractive, inclusive employer with equal opportunities for all (page 67-75)
  - Key social impacts, including impact cases (page 76-82)
  - Contribution to Global Goals (SDGs) (page 83-85)

Furthermore we were engaged to provide reasonable assurance on the following information ('the audited information'):

- The table "Objectives and results" in the chapter "How we create value" (page 21-23).
- The summarized materiality assessment presented in the chapter 'About this report' on (page 5-6) and the extensive materiality assessment presented in the chapter 'Other Information, Materiality Assessment' (page 196-197).

Our conclusion

Based on our review procedures performed, nothing has come to our attention that causes us to believe that the reviewed information is not prepared, in all material respects, in accordance with the Sustainability Reporting Guidelines version GRI Standards Comprehensive of GRI and the internally applied reporting criteria as disclosed in chapter 'Other Information' of the Report.

Our opinion

In our opinion, the audited information is prepared, in all material respects, in accordance with the Sustainability Reporting Guidelines version GRI Standards Comprehensive of GRI and the internally applied reporting criteria as disclosed in chapter 'Other Information' of the Report.

Reporting criteria

The sustainability information needs to be read and understood together with the reporting criteria. Alliander N.V. is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

The reporting criteria used for the preparation of the sustainability information are the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and the applied supplemental reporting criteria as disclosed on in chapter 'Other Information' of the Report.

Basis for our conclusion and our opinion

We conducted our review and our audit of the aforementioned information in accordance with Dutch law, including Dutch Standard 3810N 'Assurance engagements relating to sustainability reports'. A review is focused on obtaining limited assurance, while an audit engagement is focused on obtaining reasonable assurance. Our responsibilities under this standard are further described in the 'Our responsibilities' section of our report.

We are independent of Alliander in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for professional accountants, a regulation with respect to independence) 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 that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Areas of focus

Areas of focus are those matters that, in our professional judgement, were of most significance in our assurance engagement of the Report. We have communicated the areas of focus to the supervisory board and management board. The areas of focus are not a comprehensive reflection of all matters discussed.

Areas of focus

Description

One of the topics on which Alliander N.V. has been reporting since 2016 concerns the social impact of its activities on the environment as shown in the chapter "Key social impacts" on page 76-82.

Alliander applied the six capital model of the International Integrated Reporting Council (IIRC) as a basis for determining the relevant social impacts. Alliander has determined the social impacts based on the supply chain and has attempted to quantify these impacts in one unity (euro's) to the extent possible.

As indicated by Alliander the identification, quantification and monetization of social impacts is still in the early stages of development. Therefore Alliander is obliged to make assumptions.

We observe that the calculated consumer surplus as part of the capital produced in particular is strongly dependent on the assumptions used, the expertise contributed by the external advisors and is based on complex calculations. Furthermore the monetization of the impact on prosperity and well-being, the balance between social profit and loss and the attribution to the various participants in the energy supply chain, are not yet generally accepted. Therefore the public acceptance of the selected assumptions and calculation methods have been tested only in a limited manner.

The impact measurement was expanded in 2019 compared to last year with the impacts "Value of reputation change of Alliander" and "Value of data collection market facilitation".

A summary of the key assumptions is presented in the 'Other information' on pages 215-216 of the Report.

Procedures performed

Our procedures regarding the area of focus consisted of evaluating the social impact measurement in the chapter "Key social impacts" on page 76-82.

Based on interviews with employees and management of Alliander N.V. and the external advisors, we obtained an understanding of the methods and assumptions on which the calculations of the social impacts are based.

Where Alliander used external advisors for performing the impact calculations (ic Trueprice), we obtained an understanding of the competency and objectivity of those advisors.

We obtained an understanding of the calculations and performed recalculations for the key elements. For the reperformance of the consumer surplus calculation we used a model validation expert.

For key assumptions as presented in chapter 'Other Information' on page 215-216 of the Report we performed reconciliations with various sources such as subledgers, external reports and research results.

For prospective information or estimates we obtained an understanding of the underlying data.

Based on the procedures performed, we obtained an adequate understanding of the methods and assumptions used by management.

Observation

Based on our work we have no findings to report.

Unexamined prospective information

The Report includes prospective information such as ambitions, strategy, plans, expectations and risk assessments. Inherently, the actual future results will likely differ from these and are therefore uncertain. We do not provide any assurance on the assumptions and achievability of prospective information in the Report.

Responsibilities of the management board and the supervisory board

The management board of the entity is responsible for the preparation of the Report in accordance with the Sustainability Reporting Guidelines version GRI Standards Comprehensive of GRI and the internally applied reporting criteria as disclosed in chapter 'About this report' of the Report, including the identification of stakeholders and the definition of material matters. The choices made by the management board regarding the scope of the Report and the reporting policy are summarized in chapter 'Other Information' of the Report.

Management is also responsible for such internal control as management determines is necessary to enable the preparation of the sustainability information that is free from material misstatement, whether due to fraud or error.

The supervisory board is responsible for overseeing the company's reporting process.

Our responsibilities

Our responsibility is to plan and perform the assurance assignment in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion and our conclusion.

Procedures performed in an assurance engagement to obtain a limited level of assurance are aimed to determining the plausibility of information and are less extensive than a reasonable assurance engagement. The level of assurance obtained in assurance engagements with a limited level of assurance is therefore substantially less than the assurance obtained in audit engagements.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not have detected all material errors and fraud.

Misstatements can arise from fraud or errors and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users taken on the basis of this Report. 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 apply the 'Nadere voorschriften accountantskantoren ter zake van assurance opdrachten (RA/AA)' and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have exercised professional judgement and have maintained professional skepticism throughout our audit and our review, in accordance with the Dutch Standard 3810N, ethical requirements and independence requirements.

Limited assurance procedures

Our main procedures included the following:

- Performing an external environment analysis and obtaining insight into relevant social themes and issues, and the characteristics of the organisation.
- Evaluating the appropriateness of the reporting policy and its consistent application, including the evaluation of the results of the stakeholders' dialog and the reasonableness of management's estimates.
- Interviewing management (or relevant staff) responsible for the sustainability strategy and policy.
- Interviewing relevant staff responsible for providing the information in the Report, carrying out internal control procedures on the data and consolidating the data in the Report.
- An analytical review of the data and trends.
- Investigating internal and external documentation, including examination of information on a test basis, to determine whether the information in the Report is reliable.

Reasonable assurance procedures

Our audit included the following:

- Identifying and assessing the risks of material misstatement of the Report, whether due to errors or fraud, 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 errors, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Evaluating the design and implementation and testing the operating effectiveness of the reporting systems and processes related to the information in the Report.
- Evaluating the overall presentation, structure and content of the Report, including the disclosures.
- Evaluating internal and external documentation, on a test basis, to determine the reliability of the information in the Report.
- Evaluating the underlying transactions and events

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the audit and significant findings, including any significant findings in internal control that we identify during our audit.

From the matters communicated with the supervisory board we determine the areas of focus in the audit of the sustainability information. We describe these matters in our assurance report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not mentioning it is in the public interest.

Amsterdam, 14 February 2020

Deloitte Accountants B.V.

Signed by J. Dalhuisen

Opinion of the Alliander stakeholder panel

Dear reader,

For the fifth successive occasion, Alliander has organised a stakeholder panel to review its Annual Report. We are pleased with Alliander's invitation to its stakeholders to provide feedback on the annual report. In the following statement, we will summarise our feedback, which we believe will enable Alliander to gear the report more closely to the wishes and needs of the stakeholders.

General impression

Alliander is an organisation that faces a considerable challenge in the energy transition, and one with a unique social responsibility ensuing from its position as a regulated regional network monopoly company. These two facts combined make it extra important that Alliander engage in open and transparent dialogue with society. With this annual report, Alliander has chosen to clearly place the information presented in a context of value creation, which we welcome as a significant and exciting step. As a result, the information in the report provides a relevant and fascinating insight into Alliander's activities and challenges. That said, the panel feels that the value creation angle could be more prominent in some areas. Alliander is a crucial link in the value chain, which carries with it a unique social responsibility. We feel that Alliander could position itself more clearly in this respect, especially on the fundamental choices that we believe will have to be made in the medium term for the sustainability of the energy system. If Alliander fails to clearly define its position, nothing will change. Followers always lag behind. The section about the systematic approach, for example, is good, but overly descriptive. Highlight Alliander's contributions.

Recommendations

- Greater emphasis on and insight into role and vision

Following on from the foregoing, the panel would like to read more about how Alliander defines its position and its vision. In our view, Alliander is not only an asset manager and an enabler, but should aspire to a more leading role. Identify the inconvenient truths and impediments slowing down the energy transition: the battle for the public space, the huge leap in scale required for electric vehicle charging, the rapid growth of data centres, the shortage of technicians, and how legislation and regulations are struggling to keep up. Explain where these issues are restricting network operators, especially given the choice for the value creation approach. Make the link to the greater good. Aside from that, it may be an idea to plot developments on a broader timeline and throw light on the required changes to the energy system, such as the specifics of the switch to local energy generation or the impact of electrification or the growing number of data centres. These are things that are currently generally only implied between the lines.

- Selection of themes of material importance

In preparing the annual report, Alliander proceeds on the basis of the materiality analysis, which was made more restrictive last year. What stood out to us was that this more restrictive approach to the materiality analysis led to some of the themes selected being articulated differently, and that the focus is primarily an internal one. The theme of 'Responsible communication and information' just failed to make it into the top 15, while this is, in fact, a hugely important subject for customers if we consider it in light of the impact of the energy transition. Perhaps this can be covered in the report after all.

- Transparency

While Alliander is clearly committed to transparency, the stakeholder panel feels there is room for improvement here and there. With respect to certain activities, it is, for example, not always clear what role Alliander plays and whether or not partners play any kind of role, such as in the building of the prefab substation. It should, in our view, be possible to provide greater transparency on the safety risks to which contractors are exposed; Lost Time Injury Frequency (LTIF) data for contracted work and third parties are currently lacking. We would like to see that kind of data added. Furthermore, we feel that the activities are often described in a way that is overly focused on the process, without reporting on obstacles, solutions, or the desired perspective. Share the dilemmas and choices the organisation faces, such as by publishing projections on facts and myths surrounding the energy transition from the company's perspective.

- Climate risks

If there is one group of stakeholders who will actually read the annual report, it is the shareholders. What is missing from the report, according to the panel, is information about climate risks and the impact (direct and indirect) of this on Alliander. The annual report should include reporting on these risks in the spirit of the Task Force on Climate-related Financial Disclosure (TCFD). Although the report does cover the SDGs, it generally only goes into the positives, disregarding that some of Alliander's activities may have a negative impact and undermine the SDGs. The report goes into where Alliander is doing well in pursuing SDGs, but it would actually be more valuable – also in terms of transparency – to show where things are not yet going so well. There seems to be quite some room for improvement on this front.

Topics missing from the report

As Alliander's stakeholders, we are aware of several topics that are currently not or insufficiently covered in the report. Given the increase in localised energy generation, Alliander could be clearer on how the company gets customers involved in accelerating the energy transition. As far as the workforce is concerned, we understand that staffing is a challenge and that it has prompted Alliander to mount a major recruitment drive, but what is Alliander doing to retain staff? And what role does getting youngsters interested play in this context? Stepping up the focus on cybersecurity and privacy is also essential, as this is a rapidly emerging topic for governments. On a more detailed level, we would like to see more extensive notes on the impact on social capital. Legitimacy and social justice are important issues in the public debate around the energy transition: the current approach to the energy transition (and current legislation and regulations) and future gas-free heating supply will potentially lead to major price differences between cities and even between districts within cities, thus increasing social inequality.

A final word

Alliander strives for high quality in its reporting. Their reporting has improved significantly over the past years. We hope that our contribution will help to drive this improvement forward. Finally, we would like to thank Alliander for its attitude towards stakeholders, for giving us the opportunity to give meaningful feedback on the draft version of the annual report and for the substantive dialogue with the Management Board.

On behalf of the stakeholder panel,

Maarten Biermans – Sustainable Capital Markets Director at Rabobank, Lecturer at Webster University
Fries Heinis – General Manager of Bouwend Nederland
Yvonne Kemmerling – Chair of the FutureCity foundation, director and coach in the public domain, project consultant
Herman Mulder – Chair of the Impact Economy Foundation, Chair of SDG Charter, Chair of True Price Foundation, Ambassador of IIRC
Margot Weijnen – Scientific Director of Next Generation Infrastructures, Chair of Process and Energy Systems Engineering at Delft University of Technology

The stakeholder panel

The stakeholder panel that assists us with the annual report forms part of our ongoing stakeholder dialogue. We shared a draft version of the 2019 annual report with the panel members. The panel members responded in writing. Their input was discussed at greater length on 19 December 2019, in a meeting that was also attended by our CFO Walter Bien. The feedback was used to improve this report, and will also serve to further enhance the quality of our reporting. The stakeholder panel is independent.

Perhaps you, too, would like to talk to us about the annual report or the issues confronting Alliander. We are open to dialogue and also regularly organise roundtable sessions with our stakeholders. Please contact us on communicatie@alliander.com.

Materiality test

Each year, Alliander takes a structured approach to deciding what topics should be covered by the annual report as a minimum. To do this we use a materiality test. Assessment of the material issues forms the basis for the contents of the integrated annual report and takes place at an early stage in the reporting process. The materiality test depends on a dual assessment: on the one hand, various stakeholder groups assess the relevance of different themes and we, on the other hand, make an internal assessment of what the impact of these themes is on the business and on the wider world.

In 2019, the existing materiality test was reappraised based on stakeholder input, a media scan, a reputation survey, and other input. The short list of 56 socially relevant topics that was compiled in 2018 was revised for 2019 based on trend studies and talks with internal stakeholders. In doing so, we continuously took the materiality score from the preceding year into account, determining the potential magnitude and impact of these issues for Alliander and for society in general.

The results of the dialogues with stakeholders and the materiality test were then discussed with the Management Board. The conclusion was that the topics considered important by stakeholders are largely the same as the more important themes of concern to Alliander. Minor changes were made to the positioning of these topics. The fifteen most relevant issues were used as a guide in defining the content of the annual report, and they are covered at length in the stakeholder sections.

The process in five steps

In previous years, we performed the materiality test in full. For the 2019 annual report, we reappraised the test using the following process.

Step 1: identification of relevant aspects and issues

The first step consisted in putting together a list of social issues that are relevant to the organisation, using the list of aspects included in the GRI Standards guidelines and the Electric Utilities Sector Supplement as a guideline. This list is updated annually and, in addition to the GRI aspects, contains material issues from the preceding year, topics suggested by stakeholders and topics that are the concern of internal management. The list of issues from 2018 was used as the basis for the 2019 annual report.

Impact on stakeholders

In 2018, the social issues were rated for relevance on the basis of a digital poll conducted among the stakeholders. A reappraisal in 2018 saw Alliander review the relevance rating again. Based on this stakeholder input, the social issues were reappraised in 2019. The results of the reappraisal were grouped according to stakeholder group. The result is a summary prioritising the issues having the more significant impacts from the point of view of the stakeholders.

Impact on Alliander

An assessment was made in 2019 of all the social issues to determine the indicative impact they have on the organisation. The magnitude of such impact was assessed internally and subsequently validated across the organisation by relevant experts. The impact model used for the purposes of this method is made up of three aspects. For each topic, we determined its relevance with respect to:

- the economic, social, and economic impacts on the company
- the estimated impact on our immediate surroundings
- the relative magnitude of the impact.

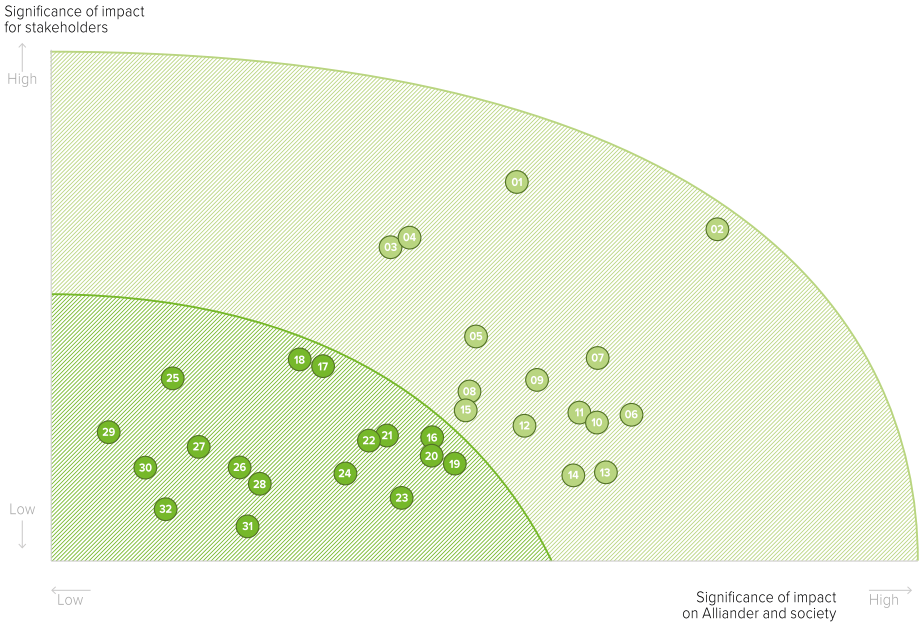
The impact analysis provides insight into opportunities and threats for the organisation, as well as into the level of priority that should be assigned to tackling each specific subject.

Step 2: weighting and comparison with 2018

For materiality testing purposes, Alliander uses a weighted average over multiple years. Apart from the greater reliability afforded by this approach and the reduced sensitivity to hypes and measurement errors, the aim is to identify trends in the materiality of issues.

Step 3: GRI aspects of relevance to Alliander

Issues that rate high on the materiality scale are associated with the summary of aspects in the GRI guidelines. This summary guides the composition of the information contained in this annual report.



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26 Responsible use of resources and circularity
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Step 4: materiality graph

The combination of the relevance of issues to stakeholders on the Y-axis and their impact on the organisation on the X-axis shows the impact of a particular issue on the organisation's social performance and therefore the priority accorded to it within the annual report. The materiality graph thus frames the more material issues for Alliander's annual report. Alliander groups the results of the materiality analysis into three categories:

Key issues

These are the 15 issues in the materiality matrix that stand out in the eyes of a large group of stakeholders and with respect to our performance. They are covered at length in the annual report.

Business themes

These are the topics considered not to have such high priority by a large group of stakeholders. They are matters that are relevant to just a few stakeholders or are reported because of their relevance to operations or because of legal requirements. They are not treated at length in the annual report but further information is disclosed in the GRI Content Index where necessary.

Potential issues

These are topics currently receiving a lower priority rating from the majority of stakeholders and having a lesser impact on the organisation. It is, however, quite possible for these topics to gain weight in the future so we monitor developments and keep tabs on them as necessary. In the case of a number of them, they are nevertheless included in the annual report for legal reasons or form part of the GRI index disclosures.

Step 5: implementation

The materiality of topics decided by the Management Board provides the basis for the organisation of the contents and for the overall management of the reporting process. Decisions are taken as to how the topics should be elaborated and what needs to be included in the information that is collected. The various parts of the business prepare the reporting process in conjunction with the responsible departments and agreements are reached on the validation and verification of data. For further disclosures regarding the reporting process, see 'About this report' and the GRI Content Index.

Material issues

This part of the report expands on the aspects relating to the material issues.

Reliability of supply

Input and correlations relevant to theme

Theme definition
Uninterrupted availability of energy through grids and installations that are keenly attuned to the needs of our customers and society as a whole.

Stakeholder expectation
Continuous supply of energy is of great social importance. Interruptions have a direct impact on the interests of our stakeholders. Customers demand immediate information about interruptions, as well as an indication of the estimated outage time.

Our long-term objective
Our objective is a high reliability of supply. Our target for repeat outages is that the number of unique cable numbers with more than five interruptions remains a maximum of 17 in the coming years.

Contribution from Alliander
We work daily to secure a continuous energy supply, both now and in preparation for the future. We invested €755 million in the quality of our networks to increase their reliability. Our outage duration was 21.9 minutes in 2019. The score for repeat outages was 17.

Relationship with Alliander impact model: manufactured capital
The prosperity value of energy transmission for society is high and makes a strong contribution to the well-being of customers. Interruptions in the availability of energy lead to a relatively strong impairment of customer well-being.

Correlation with strategy
Safety, long-term regulatory focus, required capacity and competences, anticipating and keeping up with the energy transition, cybercrime

Risks
Safety, availability of technical staff in labour market, insufficient long-term regulatory focus, required competences, facilitation of energy transition, cybercrime

Stakeholder information
- Reliability of supply in 'High reliability of supply at low costs' section

Safe working practices and infrastructure

Input and correlations relevant to theme

Theme definition
Work on gas and electricity infrastructure involves risks. Safe working practices without incidents are vital for all stakeholders. The safety of networks for everyone involved is our highest priority. The possibility that incidents could occur in the energy network means a targeted approach is even more crucial.

Stakeholder expectation
Safe working practices are vital for all stakeholders. Employees expect a working environment where they can concentrate and work safely. Customers expect us to guarantee their safety during the performance of our work.

Our long-term objective
Everyone safely home! That is Alliander's safety ambition. In addition, Alliander promotes a culture where safety comes first. This culture can be described as: 'Alliander wants to find out which safety rules are considered important, listen and learn, and take ownership. The responsibility for safety and regulatory compliance mainly rests with the senior management. Safety is a top-of-mind concern and that is appreciated.'

Contribution from Alliander
Alliander goes by the 'Life-Saving Rules'. A safe working environment and culture of safety help us raise safety awareness and ensure safer behaviour. In 2019, we investigated the exposure to hazardous substances, notably chromium-6-6 and benzene. In 2019, there were 25 lost-time accidents and 38 accidents that did not result in employees having to take time off work, which played a part in Alliander's LTIF rising to 2.1.

Relationship with Alliander impact model: human capital
Work-related accidents and sickness impair the well-being and happiness of those concerned. As an employer, Alliander always aims to make a positive contribution to the well-being of employees.

Correlation with strategy
Reliability

Risks
Safety, cybersecurity

Stakeholder information
- Safety in the 'A safe network and safe work and data environment' section
- Fit and healthy employees in the 'A safe network and safe work and data environment' section

Working together on innovative solutions

Input and correlations relevant to theme

Theme definition
To keep up with the changing energy landscape and be ready for future developments, it is vital that we be able to apply new technologies, working methods and solutions. With this in mind, we are teaming up with our primary partners in working on innovative solutions.

Stakeholder expectation
To keep up with the changing energy landscape and be ready for future developments, it is vital that we are able to apply new technologies, working methods and solutions. Customers expect flexible and reliable networks, enabling them to feed in energy whenever they want.

Our long-term objective
Technical and economic developments make new solutions both feasible and necessary. Alliander wants to do its bit by facilitating the energy transition. Our objective is to have offered all customers a smart energy meter by 2020.

Contribution from Alliander
The energy transition demands new and smart applications for the energy networks. Alliander invests in these smart technologies to facilitate the transition to a sustainable society, while continuing to guarantee reliability of supply. In 2019, the amount of solar and wind energy that customers fed into our network increased strongly. In addition, we started a major pilot for smart e-vehicle charging and made improvements for better network management. We also worked on a flexibility market in Nijmegen-Noord to gain experience matching the supply and demand of energy in case upgrading the network in the short term is not possible or recommended. Through our business operations, we are discovering new markets. Realisation of planned smart meter offering in 2019: 624,000 smart meters offered.

Relationship with Alliander impact model: intellectual capital
Technology, new market models and platforms contribute to positive intellectual capital. We want to track and analyse the exact social effects in greater detail.

Correlation with strategy
Accessibility

Risks
Long-term regulatory focus, capacity for change

Stakeholder information
- ‘Achieving sustainability in energy supply and operations’ section

Promoting renewable energy generation

Input and correlations relevant to theme

Theme definition
We are increasingly seeing that consumers and businesses are generating their own energy. As a result, network operators are facing numerous issues, such as their renewable energy feed-in capacity or their ability to take responsibility for the promotion of renewable energy.

Stakeholder expectation
Consumers and businesses are increasingly generating their own energy. Network operators are not permitted to distinguish by customers and their energy choices. As we advance towards the new energy system, energy generation based on fluctuating sources such as solar and wind is becoming increasingly important. In this context, we participate in pilots together with other parties, such as suppliers and consumers, in order to learn practical lessons. Customers expect us to help them make new energy choices.

Our long-term objective
All municipalities must complete their district-by-district plan for the transition from gas to clean energy by the end of 2021. Alliander is assisting in the problem-solving and planning process with its knowledge and experience of existing energy networks in order to avoid suboptimal choices and unnecessary costs for society. Alliander wants to connect all new local generation in our regions on a year-to-year basis.

Contribution from Alliander
Alliander wants to respond actively to the changing energy landscape and future developments. In 2019, we tried out smart charging and smart design solutions on 'test beds' in order to gain experience with these innovative technologies together with customers and other partners. We also engage in business activities in the field of heating and help customers make responsible energy choices.

Relationship with Alliander impact model: manufactured capital, natural capital
Renewable energy feed-in has a positive effect on customer well-being. An increasing share of renewable energy leads to a reduction of carbon emissions in the supply chain.

Correlation with strategy
Accessibility

Risks
Long-term regulatory focus

Stakeholder information
- Support for customers in making choices in ‘Achieving sustainability in energy supply and operations’ section

Data-driven network management

Input and correlations relevant to theme

Theme definition
The addition of IT makes it possible to manage fluctuations in energy supply and demand and respond to evolving market relationships in a reliable, efficient and safe manner.

Stakeholder expectation
The use of IT makes it possible to manage fluctuations in energy supply and demand and respond to evolving market relationships in a reliable, efficient and safe manner. Smart networks and data technology help us to make targeted and effective investments in networks as well as to prevent outages and repair faults faster. Customers expect a network that enables them to feed in energy without any problem. They also expect us to make the network more reliable and transparent by means of innovative technology.

Our long-term objective
Alliander is working on an integrated IT architecture to be able to accommodate future processes and enable the energy transition. One of the objectives is to articulate a vision on our IT landscape. Liander's activities plan includes digitalisation programmes.

Contribution from Alliander
We are working at various locations to make our energy networks smarter. These initiatives include the integration of smart technology into medium-voltage stations, the roll-out of a switching system for public lighting, the large-scale roll-out of smart meters and the implementation of ICT applications and sensors for managing the flexible flow of energy. Smart networks support a more efficient use of capacity and infrastructure, and are also more reliable. By expanding our smart energy networks, we are laying the groundwork for the digital services of the future.

Relationship with Alliander impact model: intellectual capital
The development of more and better data contributes to the social and intellectual capital as well as to more efficient and cleaner production.

Correlation with strategy
Accessibility, reliability

Risks
Privacy of energy data, cybersecurity

Stakeholder information
- Digitalisation in 'High reliability of supply at low costs' section

Talent acquisition and development

Input and correlations relevant to theme

Theme definition
Technology and organisations are changing continuously and at a rapid pace. Working has turned into lifelong learning. To be able to attract and further develop talent, we offer working conditions that give employees sufficient scope to advance in their career and encourage them to stay fit and healthy.

Stakeholder expectation
Technology and organisations are changing continuously and at a rapid pace. Working has turned into lifelong learning. Alliander offers education and training to enable employees to stay fit and on top of their job. Alliander is a company that works hard to promote training and development.

Our long-term objective
We aim to invest 3% of the wage bill in employee training. We offer long-term work to people with poor job prospects who meet the criteria of the Labour Participation Act. In addition, we offer work experience placements, internships and other learning experiences for a broad target group. We will meet the requirements of the Dutch Labour Participation Quota Act by 2024.

Contribution from Alliander
To find solutions for the energy issues of today and tomorrow, we invest a lot. In technology and, above all, in our people. We offer excellent compensation and benefits. To help our employees get the best out of themselves. That is good for them and good for the company. Employees are actively encouraged to develop their professional and personal skills with a range of training and development opportunities. Special attention is devoted to safety training for specialist roles or roles involving specific risks. Last year, Alliander welcomed 262 new specialist technicians. And ten recruits with asylum status received training to carry out installation and maintenance work on the electricity grid. In 2019, Alliander invested 2.7% of its wage bill in employee training (2018: 3.4%).

Relationship with Alliander impact model: human capital
Employee development has a positive impact on human capital, also outside Alliander.

Correlation with strategy
Accessibility, reliability

Risks
Safety, capacity for change

Stakeholder information
- Recruitment in 'An attractive, inclusive employer with opportunities for all' section

Customer satisfaction

Input and correlations relevant to theme

Theme definition
Customers count on excellence in our service, communications, and handling of interruptions and complaints. We respond adequately to customer needs and actively promote customer satisfaction.

Stakeholder expectation
Customers count on excellent service, communication and handling of interruptions, questions and complaints. Municipalities and business customers expect a clear point of contact and that we deliver on our commitments. We respond adequately to customer needs and actively promote customer satisfaction. Via Liander.nl and our telephone customer service, stakeholders can report complaints or malpractices relating to our company and activities carried out in our name.

Our long-term objective
Customer convenience will rise further in the coming years and will remain higher than the national benchmark of Dutch network operators.

Contribution from Alliander
We work daily to secure a continuous energy supply, both now and in preparation for the future. The quality of our services and communications vis-à-vis business customers and municipalities was improved. Our digital services were improved for all our customers thanks to our continuous online accessibility and short response times. The website experience for consumers and business customers was also further enhanced. Our performance was above the benchmark for business customers, and just below the benchmark for consumers. Customer convenience measured by the NES score is higher than 50% (consumer market) and 40% (business market). Result for consumers is 55% and business customers 33%.

Relationship with Alliander impact model: Manufactured capital
Satisfied customers strengthen the sense of well-being derived from the availability of energy. A decrease in satisfaction rating has an impact on the consumer surplus.

Correlation with strategy
Reliability

Risks
Completion of work package, privacy of energy data, cybersecurity, capacity for change

Stakeholder information
- Customer convenience in ‘High reliability of supply at low costs’ section

Responsible investment policy

Input and correlations relevant to theme

Theme definition
As a large company, we can support social developments through investments, for example in a sustainable energy system. In making investments, we take these aspects into account and use criteria that stimulate social development.

Stakeholder expectation
Stakeholders expect a clear picture of the value that Alliander realises and stable financial results. Sustainable value creation is an increasing priority for them. As a large company, we can support social developments through investments, for example in a sustainable energy system.

Our long-term objective
Our objective is to remain a creditworthy company. Continuously outperform the sector in terms of costs and operational excellence. Solid profits within the boundaries of what is permitted in the regulated domain. This is vital to implement our strategy and play a facilitating role in the energy transition.

Contribution from Alliander
In 2019, we invested a total of €755 million in our networks. In doing so, we created sustainable value for our stakeholders and retained our solid A rating. In the interests of our providers of capital, we seek to strike the right balance between an adequate shareholder return and the protection of bond holders and other providers of debt capital, while preserving the flexibility to invest and grow.

Relationship with Alliander impact model: financial capital
A high rating has a favourable impact on our investment costs such as interest rates and facilitates our access to the capital market.

Correlation with strategy
Affordability

Risks
Financeability, long-term regulatory focus

Stakeholder information
- Creditworthy company with solid returns
- Financial statements
- Regional information

Organisational capacity for change

Input and correlations relevant to theme

Theme definition
The extent to which Alliander and its employees are able to anticipate and respond to issues and solutions around the energy transition in a timely manner.

Stakeholder expectation
Stakeholders expect to be able to continue to rely on access to energy in the future. Alliander takes care of adjustments and innovations in its system that enable permanent access to energy for its customers.

Our long-term objective
To be an agile and flexible organisation that meets needs arising from the energy transition and a rapidly changing energy system.

Contribution from Alliander
All employees are equipped to rise to the challenges that the energy transition brings. We invest in our people and work together on vital professional skills.
We work with focus, set priorities, and adapt our organisation to changing needs and circumstances as and when necessary.

Relationship with Alliander impact model: manufactured capital
By working on being an excellent organisation and coordinating our activities effectively, we boost our execution capability and are able to get more work done and produce more.

Correlation with strategy
Excellent network management is the basis

Risks
Capacity for change

Stakeholder information
- Profile of Alliander: Our strategy
- Increasing organisation's efficiency in 'High reliability of supply at low costs' section

Future-proof network

Input and correlations relevant to theme

Theme definition
The energy system is changing at a great pace, which comes with different requirements for the energy network. To create a new energy system at low social costs, we must develop new infrastructures and make effective and efficient use of existing ones. It is crucial to ensure that infrastructures, both today and in the future, be 'open', i.e. accessible to everyone on equal terms.

Stakeholder expectation
Stakeholders expect to be able to continue to rely on access to energy in the future. Alliander takes care of adjustments and innovations in its system that enable permanent access to energy for its customers.

Our long-term objective
To create infrastructure to meet the Dutch Climate Agreement targets in 2030 and 2050.

Contribution from Alliander
Digital technology and technological innovations are paving the way for more efficient network management, reducing the need for upgrades. Digitalisation also produces data that enables customers to make energy choices that are right for them, as well as for the network. On top of that, we invest proactively in building and maintaining infrastructure to keep quality high. Together with our partners across the industry, we intend to compile a master plan that captures what needs to be done, as well as when and where. The Regional Energy Strategies to which we contribute knowledge and skills are crucial in this respect.

Relationship with Alliander impact model: manufactured capital
By investing in technology, new market models and platforms, we are preparing our networks for new requirements and continuing to create value for our customers.

Correlation with strategy
To help customers make energy choices, invest in open networks, digitalisation, and excellent network management.

Risks
Capacity for change

Stakeholder information
- Our strategy
- High reliability of supply at low costs

Corporate social responsibility in the supply chain

Input and correlations relevant to theme

Theme definition
Outsourcing, investments and production in other countries sometimes lead to an increased risk regarding the recognition and observance of norms in such areas as fundamental human rights, safety and the environment. Specifying procurement criteria and vetting suppliers in the product chain is instrumental in taking our corporate social responsibility.

Stakeholder expectation
With an annual procurement volume of about €1 billion, we are a major purchaser of products and services in the Netherlands. Stakeholders expect us, together with our suppliers, to ensure that our procurement is as sustainable as possible. If we can persuade our suppliers to take sustainability as seriously as we do ourselves, we can generate a significant positive impact through our supply chain.

Our long-term objective
We actively seek to improve our supply chain performance. This includes making plans with our suppliers to reduce carbon emissions and promote responsible operations. Our objective is to purchase at least 60% of our procurement volume based on circular principles by 2025. In addition, all suppliers must meet the Alliander Code of Conduct.

Contribution from Alliander
As well as maintaining continuous awareness of our compulsory Code of Conduct among all suppliers, we purchased 30% of our procurement volume based on circular principles in 2019. In doing so, we support the achievement of our socially responsible procurement objective in the Netherlands, while also promoting further sustainability among our suppliers through our Socially Responsible Procurement statements. Outsourcing, investments and production in other countries sometimes lead to an increased risk regarding the recognition and observance of norms in such areas as fundamental human rights, safety and the environment. The assessment of suppliers in the supply chain is part of our CSR and procurement policy.

Relationship with Alliander impact model
Manufactured capital, natural capital

Correlation with strategy
Reliability, affordability, accessibility

Risks
Capacity for change

Stakeholder information
- Supply chain responsibility in ‘Achieving sustainability in energy supply and operations’ section.

Corporate Governance and business ethics

Input and correlations relevant to theme

Corporate Governance and business ethics
Alliander is committed to good governance and to making choices in the interests of all our stakeholders. In this endeavour, we are guided by our mission, core values and code of conduct.

Stakeholder expectation
Stakeholders must be able to trust us to take their interests into consideration in a careful manner. Good corporate governance, adequate supervision and transparent accountability are essential to ensure stakeholders’ trust in the management and supervision. Accordingly, management must act with integrity and transparency and the Supervisory Board render account of its supervision. This is crucial in view of our vital role in society.

Our long-term objective
Our ‘together, smart and sensitive’ approach means that we must comply with the government’s rules. In addition, we, as Alliander, have drawn up additional guidelines to make it clear what we expect from employees. The ‘How we do things at Alliander’ e-learning programme helps employees to improve their integrity awareness. All employees are offered this programme in phases. To keep employees aware of and up-to-date on new cases, they are prompted from time to time to refresh their knowledge to a level of 70%.

Contribution from Alliander
Alliander is committed to good governance and to making choices in the interests of all our stakeholders. In this endeavour, we are guided by our mission, core values and code of conduct. Adequate and effective supervision is performed by the Supervisory Board based on clear guidelines. We comply with the Dutch Corporate Governance Code wherever possible and applicable. In doing so, we emphasise our responsibility for the social aspects of entrepreneurship.

Relationship with Alliander impact model: social capital
By working on better institutions and regulatory adjustments, we help to optimise the energy sector’s impact.

Correlation with strategy
Reliability

Risks
None

Stakeholder information
- Corporate Governance

Workplace well-being

Input and correlations relevant to theme

Theme definition
Alliander's employees must be able to carry out their work under pleasant, manageable and healthy conditions at all times.

Stakeholder expectation
Alliander's employees must be able to carry out their work under pleasant, manageable and healthy conditions.

Our long-term objective
Alliander employs about 6,800 FTEs. Together, they secure a reliable, affordable and accessible energy supply. We offer our employees a safe and healthy working environment that they can be proud of. We aim to be top-class employer: an innovative and successful company where we develop future-oriented knowledge and competences. And with an absence rate of under 4.3%.

Contribution from Alliander
We are aware that the energy transition and technological innovations such as robotisation and digitisation are advancing at an accelerating pace. As a result, roles change or disappear, while new ones emerge. This poses many challenges for our people. In 2019, our absence rate was 4.2%. For us, this confirms the need to maintain a constructive and frank conversation with our employees about long-term employability. Alongside this conversation, we offer other instruments such as the employability budget to help employees stay healthy and energetic for the long term. We did not conduct an employee survey in 2019. Instead, the focus was on the strategy alignment survey and discussing the outcomes of this with all employees. Alliander has the ambition to be a top-class employer and will launch a new employee survey in 2020.

Relationship with Alliander impact model: human capital
Workplace well-being is closely linked to the absence of sickness and work-related accidents. Being in work has a positive effect on the well-being of employees in terms of increased self-esteem, independence, social life and social status.

Correlation with strategy
Accessibility, affordability

Risks
None

Stakeholder information
- Attractive employer in 'An attractive, inclusive employer with opportunities for all' section

Data security, privacy, and cybersecurity

Input and correlations relevant to theme

Theme definition
Data exchange has become a permanent social and economic phenomenon. Data exchange and storage, and privacy-sensitive information, require maximum safeguards at all times.

Stakeholder expectation
Stakeholders expect us to use their data and personal details safely and carefully. Data exchange has become a permanent part of our social and economic system. Data exchange and storage of privacy-sensitive information require maximum protection at all times.

Our long-term objective
Alliander respects the privacy of employees and customers. This means that we exercise due care in using their personal data and treat them confidentially. We meet the requirements set out in the General Data Protection Regulation (GDPR). Customers and employees can trust Alliander to protect their personal data.

Contribution from Alliander
We are obliged to meet statutory requirements for all personal data that we process (or intend to process). Pursuant to the GDPR, we have appointed a Data Protection Officer for Alliander customer data, who is responsible for monitoring GDPR compliance within the organisation. In addition, we set up a data processing register in 2019 to document all our personal data processing activities. Finally, we use Data Protection Impact Assessments (DPIA) to perform prior risk assessments whenever necessary due to the quantity or sensitivity of the data being processed. Customers can go to liander.nl to exercise their associated rights, such as the right of access, right to erasure, and right to restriction of processing.

Relationship with Alliander impact model: social capital, manufactured capital
The safety and privacy risks inherent in the management of personal data by Alliander and the energy suppliers have a potentially negative impact on our social capital. The assets/systems for the mitigation of cybercrime and hacking risks make a positive contribution to our manufactured capital.

Correlation with strategy
Reliability

Risks
Financial risks, reputational risk, privacy of energy data

Stakeholder information
- Privacy and security in the 'A safe network and safe work and data environment' section

Access to affordable energy

Input and correlations relevant to theme

Theme definition

Energy is a basic need for our everyday lives. That is why being connected to energy is a major priority. Amidst the ongoing transformation of the energy system, it is vital to ensure that everyone retains access to affordable energy on equal terms.

Stakeholder expectation

Energy is a basic need for our everyday lives. That is why being connected to energy is a major priority. Amidst the ongoing transformation of the energy system, it is vital to ensure that everyone retains access on equal terms.

Our long-term objective

Ensuring that the transition to renewable energy is realised in a controlled manner so that the energy system of the future remains affordable, reliable and accessible to everyone on equal terms. We work hard to live up to our pledge to connect all customers within the statutory 18-week term. We are aiming to make heating transition arrangements with all municipalities and housing associations in our service areas by 2022.

Contribution from Alliander

We adhere to national arrangements not to disconnect households during wintry conditions. We work together with municipalities and partners on regional energy arrangements. Where gas-free solutions are chosen, alternatives are provided.

Relationship with Alliander impact model: Manufactured capital

Gas, heating and electricity transmission make a significant contribution to our social value by enhancing the well-being of consumers in multiple ways, such as the ability to heat their homes, use household appliances, and travel by electric car.

Correlation with strategy

Accessibility

Risks

Long-term regulatory focus, anticipating and keeping up with the energy transition

Stakeholder information

- Our strategy
- High reliability of supply at low costs

Explanation of SDG'S

Affordable and sustainable energy

Meaning

'Ensure access to affordable, reliable, sustainable energy for all'

Alliander's contribution to SDG 7 in the long term*

- Have the capacity each year to connect all the new decentralised generation capacity (distributed generation) in our areas
- Make heating transition arrangements with all municipal authorities and housing associations in our service areas by 2022
- We strive to have high reliability of supply
- Invest in flexible solutions to avoid investments on the network

Actions and policy

- Alliander aims to keep costs as low as possible for the customer and share costs as fairly as possible
- Alliander facilitates the energy transition, for instance by offering open and sustainable district heating networks
- Innovations that avoid investments on the network
- Actively improve the energy efficiency of our own operations
- Offer insight into energy usage with smart meter and options for meter applications
- Participation in international initiatives aimed at knowledge sharing and technology development and application

Financial results in 2019

- Average outage duration is 21.9 minutes for electricity and 40 seconds for gas
- Smart meters offered to 624,000 addresses (107%)

Impact

- Economic added value
- Climate change and resource depletion

*We, at Alliander, contribute mainly to the following SDG sub-targets: 7.1, 7.2, 7.3, 7.4 and 7.5.

GRI Standards - Climate change, energy consumption and CO_2 (GRI 302), Regulation and tariffs (own indicator) / Reliability of supply (own indicator)

Sustainable cities and communities

Meaning

'Make cities and communities inclusive, safe, resilient and sustainable'

Alliander's contribution to SDG 11 in the long term*

- Provide sufficient capacity to facilitate feed-in
- Provide underlying infrastructure and capacity for charging points for electric transport

Actions and policy

- Assist all municipalities in drawing up Regional Energy Strategies
- Improve air quality by facilitating clean electric transport
- Implement and apply flexible rates (e.g. pay per use)
- Make Alliander a zero-energy company
- Research into replacing gas

Financial results in 2019

- Offer all municipalities technical and strategic support for the drafting of Regional Energy Strategies

Impact

- Economic added value
- Climate change and resource depletion
- Cooperation in districts and neighbourhoods

*We, at Alliander, contribute mainly to the following SDG sub-targets: 11.3, 11.6, and 11.a.

GRI Standards - Safe infrastructure, GRI 201: Economic performance, Transparency (GRI 415) / Investment policy (EU6) / Role of energy generation (Own indicator)

Responsible production and consumption

Meaning

'Ensure sustainable consumption and production patterns'

Alliander's contribution to SDG 12 in the long term*

- Goal of achieving 100% climate-neutral and circular operations

Actions and policy

- Make use of existing assets for longer and replace assets using recycled materials where possible
- Circular network operator: draw up a definite roadmap for circular operations
- Expansion and further operational integration of resource passport
- Transparency on sustainability information
- Climate-neutral in 2023
- Cooperation and participation in Green networks and Dutch infrastructure companies
- Sustainable procurement

Financial results in 2019

- At least 30% of our procurement is based on circular principles
- Our carbon footprint fell from 288 to 264 kilotonnes

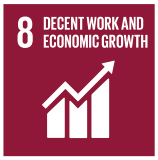
Impact

- Climate change and resource depletion

*We, at Alliander, contribute mainly to the following SDG sub-targets: 12.2, 12.5, and 12.6.

GRI Standards - Climate change, energy consumption and CO_2 (GRI 305), Supply chain responsibility (GRI 301/414, own indicator)

Decent work and economic growth



Meaning

'Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for everyone'

Alliander's contribution to SDG 8 in the long term*

- We offer long-term work to people with poor employment prospects who meet the criteria of the Dutch Participation Act. In addition, we offer work experience placements, internships and other learning experiences for a broad target group. We will meet the requirements of the Dutch Labour Participation Quota Act by 2024.
- 33% of our leadership positions will be filled by women by 2024
- Zero Lost-Time Accidents, and sickness absence ratio of less than 4.3%

Actions and policy

- Continuous training and development of all our employees
- High level on the Safety Ladder
- Labour participation via Step2Work programme
- Raise employee health and fitness awareness, with Alliander Fit for example
- Diversity and inclusion: promote appointing women to leadership positions and recruiting people with a non-western immigration background and people with poor employment prospects

Financial results in 2019

- Having 101 apprenticeships available to people with poor employment prospects
- 26.9% of all leadership positions are filled by women
- Sickness absence rate of 4.2%

Impact

- Welfare of our employees

*We, at Alliander, contribute mainly to the following SDG sub-targets: 8.2, 8.5, and 8.8.

GRI Standards - Safe infrastructure & Occupational health and safety (GRI 403), Training and Education (GRI 404), Economic performance (GRI 201)

Connectivity matrix

In the connectivity matrix, we show how the elements like value, material issues, indicators, objectives and results, strategy, and the contribution to the Sustainable Development Goals are connected.

Value stream	Material issues	Indicators	2018 results	2019 results	Objective for 2019	Long-term goal	Contribution to Sustainable Development Goals
High reliability of supply at low costs	Security of supply	Electricity outage duration (in minutes)	30.6	21.9 [1]	22	The objective is high reliability of supply.	SDG 7.1
		Gas outage duration (in seconds)	39	40			
		Unique cable number with more than five interruptions	17	17	17	The number of unique cable numbers with more than five interruptions will remain at 17 or lower in the coming years.	
	Innovative solutions	Smart meters offered	644,000	624,000	585,000	In 2020, all customers were offered a smart meter.	
	Access to energy	Number of customer connections	5.7 million	5.8 million			
	Satisfied customers	Customer satisfaction (NES score)	Consumer: 50% Business: 38%	Consumer: 55% Business: 33%	Consumer: 50% Business: 40%	Customer convenience for consumers in the business market to rise over the coming years.	N/A
Being a creditworthy company with solid returns	Responsible investment policy	Credit rating	S&P AA–/A-1+/stable outlook Moody's Aa2/P–1/stable outlook	S&P AA–/A–1+/stable outlook Moody's Aa2/P–1/stable outlook	Maintain solid A rating profile.	Our objective is to remain a creditworthy company. Continuously outperform the sector in terms of costs and operational excellence. Solid profits within the boundaries of what is permitted in the regulated domain.	N/A
		FFO/Net debt	32.2%	29.0%	Target: > 20%		N/A
		Interest cover	12.9	13.3	Target: > 3.5		N/A
		Net debt / (net debt + equity)	33.8%	36.5%	Target: < 60%		N/A
		Solvency ratio	57.3%	55.6%	Target: > 30%		N/A
Achieving sustainability in energy supply and operations	Facilitating renewable energy generation	Number of feed-in installations at our customers	270,646	381,429	The capacity to connect all the new decentralised generation capacity (distributed generation) in our areas	The capacity to connect all the new decentralised generation capacity (distributed generation) in our areas every year.	SDG 7.2 SDG 11.3
		CO_2 emissions (in kilotons)	288	264	271 [1]	We have set ourselves the target of making our operations climate-neutral by 2023.	
	Corporate social responsibility in the supply chain	Percentage of circular procurement of primary assets [1]	16.5%	30% [1]	25%	By 2025, 60% of our primary assets will be procured on a circular basis.	SDG 12.5
	Future-proof network	Investments in the networks (in millions of €)	671	755			SDG 7.1
A safe energy network and a safe work and data environment	Safe working practices and safe infrastructure	Lost Time Injury Frequency (LTIF)	1.4	2.1	None [1]	Safety is key to our operations. We create a proactive safety culture.	SDG 8.8
	Privacy and safety of data	Substantiated complaints concerning breaches of customer privacy and/or loss of customer data	Not reported	4 [2]		Adequate complaints handling	N/A
An attractive, inclusive employer with equal opportunity for all	Training and development	Training costs as a percentage of salary costs	3.4%	2.7%		3% of salary costs	SDG 8.5
		Number of apprenticeships offered to people at a distance from the labour market [1]	95	101 [1]	100	We offer long-term work to people at a distance from the labour market who meet the criteria of the Labour Participation Act. In addition, we offer work experience placements, internships and other learning experiences for a broad target group. We will meet the requirements of the Dutch Labour Participation Quota Act by 2024.	
	Workplace well-being	Employee satisfaction rating	70%	2018: 70% [1]	71%	Being a top-class employer: an innovative and successful company where we develop future-oriented knowledge and competencies.	N/A
		Sickness absence rate	4.7%	4.2%	4.3%	The maximum sickness absence rate is 4.3% in the coming years.	SDG 8.8
	Organisational capacity for change [3]						
	Corporate Governance and business ethics	Employees confronted with measures relating to corruption/fraud	9	10			N/A
		Number of reported cases of undesirable behaviour (and discrimination) by employees	Not reported	19			SDG 8.8
		Percentage of women in leadership positions	28.8%	26.9%	29.3%	By 2024, at least 33% of our leadership positions will be held by women.	SDG 8.5

1 For further details, please see our 'Objectives and results' table presented previously in this report.

2 In three of the four data breaches reported to the Dutch Data Protection Authority, these were situations where the network operators had joint responsibility, given that the breaches concerned centralised processing.

3 'Company's adaptability' is a new material issue and Alliander is currently working on determining an indicator for this. This annual report explains what this issue entails.

Interaction with stakeholders

Based on high-impact issues, we regularly seek to identify suitable parties for Alliander's dialogue. Engagement, size, willingness to enter into dialogue, and expertise are crucial considerations in this respect. We aim to find a common approach to issues, create support for initiatives, build trust, and devise solutions with added value, both for the short and long term. We talk to customers about their energy requirements on a daily basis. Together with our shareholders we look at ways in which we can contribute to sustainable solutions. And together with our employees we look how we can be an employer that matters. Together with all our stakeholders, we are moving forward towards the energy supply of the future.

Anybody or any group that is affected by our actions or that has an influence on our organisation or services we consider to be stakeholders of ours. We keep a constant check on who our stakeholders are. Whether on projects or concerning certain topics, they may have a relevant contribution to make and we involve them.
The nature of a number of our relationships with stakeholders is governed by the statutory and regulatory environment (government ministries, politicians, and industry regulators) and by cooperation in the supply chain (energy sector), but also by the public nature of our service (customers, municipal authorities, media, and pressure groups). Responsibilities for stakeholder management are formalised and the Corporate & Social Affairs department coordinates the strategic stakeholder management and decides which organisations and stakeholder representatives we actively engage with.

The Alliander stakeholder model comprises three stakeholder groups. A distinction is made between:

- Key stakeholders: customers, employees and shareholders & investors;
- Other stakeholders: suppliers, knowledge institutions, regulators and social sector organisations, etc.

Stakeholder touchpoints

We conduct the dialogue with stakeholders on both a regular and ad hoc basis. This includes the organisation of customer panels and shareholder consultations as well as meetings with the Works Council. Supplier days, knowledge and partner meetings, and participation in network organisations are important stakeholder touchpoints. One example from 2019 is the session we organised for members of the new Provincial Councils in our service areas to engage on the impact the energy transition is having on energy infrastructure.

Contact with policymakers

Alliander maintains contact with policymakers to ensure a future-proof legislative framework that facilitates the Dutch energy infrastructure. Such contact consists primarily in liaising with the Ministry of Economic Affairs and Climate Policy as the body responsible for the Netherlands' energy supply policy. In addition, we promote Alliander's interests through contacts with other government ministries, Dutch parliament, political organisations, and interest groups. For a complete list, please see the stakeholder table.

In these contacts, Alliander is represented by its Management Board and supported by the Corporate & Social Affairs department. In 2019, CEO Ingrid Thijssen represented Alliander or Netbeheer Nederland in the lower house of Dutch parliament on several occasions, including in sessions on increasing built environment sustainability and network capacity. To garner broader support for proposals, Alliander coordinates its efforts with industry peers through the Netbeheer Nederland industry organisation. Alliander does not engage public affairs firms to represent it, and neither does Alliander donate to political parties, politicians, or government bodies.

Sponsoring

Given that Alliander is publicly funded, we pursue a very cautious sponsoring policy, sponsoring only a very limited number of activities that are directly related to Alliander's field and ambitions, and which are based in our service area. For us to consider sponsoring an activity, it must be sustainable, safe, and politically and religiously neutral.

Stakeholder table

Stakeholder	Organisation or platform	Items for discussion	Type of interaction	Reference material issues
Stakeholder Customers Consumers	Customer contact web panel Customer survey Customer ombudsman Customer panels Consumer organisations	Collaboration, relationship management, dialogue, improved service	Digital panel Quantitative research Complaints and mediation (per case) Qualitative research (various) Dialogue (e.g. Consumers' Association [*Consumentenbond*], Association of Homeowners [*Vereniging Eigen Huis*])	Reliability of supply, Promoting renewable energy generation, Working together on innovative solutions, Satisfied customers, Future-proof network, Data security, privacy and cyber security, Access to affordable energy
Stakeholder Customers Business Customers	Trade associations Energy cooperatives	Collaboration, dialogue, improved service	Dialogue and relationship management (e.g. VEMW, Uneto VNI, Bouwend Nederland, VNO NCW)	Reliability of supply, Promoting renewable energy generation, Working together on innovative solutions, Satisfied customers, Future-proof network, Data security, privacy and cyber security, Access to affordable energy
Stakeholder Employees	Employee survey Employee participation Tension young people's network Lianne women's network Pride GBLT network Staff association Foundation Trade unions	Participation, dialogue, employee engagement and initiatives, formal negotiations (on pay and employment conditions)	Quantitative research Formal consultations Dialogue, workshops, meetings Employee association Employee volunteering Periodical negotiations on pay and employment conditions	Safe working practices and infrastructure, Attracting and developing talent, Company's adaptability, Workplace well-being
Stakeholder Shareholders and Investors	Stakeholder Provinces and Municipalities	Formal/informal consultations, knowledge and insight activities	General Meeting of Shareholders Meeting of Major Shareholders Company visits, consultative meetings, individual contact Two-yearly reputation survey Regular newsletter	All material issues
	Financiers, investors, and credit rating agencies	Accountability and notes	Regular consultations and reporting on financial results	All material issues
Societal stakeholders Government bodies	National government and European Union	Interest expression and active/proactive dialogue	Consultation, having a say, views	Promoting renewable energy generation, Working together on innovative solutions, Future-proof network, Access to affordable energy
	Provinces, Municipalities, and Regional Energy Strategies	Coordination of climate and energy plans and projects	Consultation, collaboration, projects (e.g. Association of Provincial Authorities [IPO] and Association of Netherlands Municipalities [VNG])	Promoting renewable energy generation, Working together on innovative solutions, Future-proof network, Access to affordable energy
Politicians	Lower and Upper House of Dutch Parliament, States General, government ministries	Keeping them informed on a general level and on specific, topical issues	Relationship management, working visits, proactive and reactive updates Qualitative research	Promoting renewable energy generation, Working together on innovative solutions, Future-proof network, Access to affordable energy

Industry regulators	Radiocommunications Agency Netherlands Authority for Consumers & Markets Netherlands Authority for the Financial Markets Dutch Data Protection Authority Human Environment and Transport Inspectorate State Supervision of Mines EU Industry Regulators Social Affairs and Employment Inspectorate	Informing, information sharing, and explanation	Regular meetings on topical subjects and issues Standard and ad hoc information requests	Reliability of supply, Safe working practices and safe infrastructure, Data security, privacy and cyber security
Energy sector	Cedec, Cogen EnergieNederland Energy producers/ providers Energy Storage Nederland Eurelectric, Eurogas, ENCS European Distribution System Flexible power Alliance Network (FAN) Gasunie IGU, IEA Nedu Netbeheer Nederland Operators for electricity (Edso) Stichting ElaadNL TenneT WENb Employers' Association	Knowledge sharing, partnerships, promotion of interests, collaboration	Administrative participation Working group	Reliability of supply, Safe working practices and infrastructure, Promoting renewable energy generation, Working together on innovative solutions, Data-driven network management, Attracting and developing talent, Satisfied customers, Future-proof network, Corporate social responsibility in the supply chain, Data security, privacy and cyber security, Access to affordable energy
Suppliers	Contractors and manufacturing industry Suppliers of goods and services	Collaboration, Relationship management, Dialogue	Contracting Day Supplier Days Theme consultations Sustainable procurement consultations	Corporate social responsibility in the supply chain
Knowledge institutions	Education and knowledge institutions Sustainable Electrical Energy Centre of Expertise	Knowledge sharing and partnerships	Collaboration with Radboud University, HAN University of Applied Sciences, Regional Training Centres. Delft University of Technology, Eindhoven University of Technology, University of Twente.	Attracting and developing talent
Media	National, regional media	Informing, positioning	Relationship management, proactive information, crisis communications, qualitative research.	All material issues
Social sector organisations	Nudge	Facilitating sustainable energy supply	Consultation and dialogue on construction projects	Promoting renewable energy generation
	Stichting de Opkikker Nederland Cares	Volunteering		Workplace well-being
	Housing corporations, project developers, business community	Participation, Dialogue and relationship management	Alignment, participation in associations and foundations	Reliability of supply, Safe working practices and safe infrastructure, Promoting renewable energy generation, Working together on innovative solutions, Responsible investment policy, Future-proof network, Access to affordable energy

Partner relationships	Amsterdam Economic Board, Economic Board Arnhem Nijmegen European Energy-Information Foundation for rural energy services (FRES) Global Gas Network Initiative Global Intelligent Utility Network coalition Global Reporting Initiative Global Smart City & Community Coalition Groene Zaak HIER Opgewekt Association of Provincial Authorities Klimaatverbond Nederland Management Community MVO Nederland (CSR Europe partner) Natuur & Milieu environmental organisation Nederlandse Vereniging Duurzame Energie (sustainable energy association) NG Infra Open compliance and ethics group Sharing & Analysis Centre Smart Energy Collective De Energiebank Foundation Universal Smart Energy Framework Foundation (USEF) New Energy Coalition Foundation The Open Global Data Urgenda Foundation Association of Homeowners Association of Netherlands Municipalities Woman Capital World Economic Forum	Collaboration with knowledge institutions, the business community and government bodies, promoting sustainability, new models for innovation and social development	Administrative participation, meetings, sponsoring, strategic collaboration	Reliability of supply, Promoting renewable energy generation, Working together on innovative solutions, Future-proof network, Corporate social responsibility in the supply chain, Corporate Governance and business ethics, Workplace well-being, Data security, privacy and cyber security, Access to affordable energy

Alliander endorses	In 2019, we participated in the following Dutch social initiatives
• ILO Conventions • OESO guidelines	• Sector-wide employment arrangement • Draft Dutch Climate Agreement • Circular Procurement Green Deal • ‘Talent naar de Top’ charter, ‘Diversiteit in Bedrijf’ charter • Sustainable Development Goals (SDGs) and LGBTi manifest • Collective labour agreement for network companies

SWOT

Alliander plays a central role in the energy supply domain and is moreover an attractive employer that is committed to high-quality professional skills. Partnership at local and regional level is essential in order to address the challenges facing our organisation. As in 2018, we further intensified our relations with municipal authorities in our service area in 2019. Alliander furthermore advises regional parties on possibilities for energy generation from renewable sources (Regional Energy Strategy [RES]). In implementing our strategy we run up against a number of challenges within our organisation. One such is the shortage of technically qualified staff. To address this we are engaged in an extensive recruitment campaign and are seeking to involve partners in the sector as well as educational institutions. We also recognise that we are unable to respond quickly enough when it comes to things like customer queries. The limited capacity of the network combined with soaring applications is making great demands on the organisation's capacity for change. We need to be able to do a lot more at greater pace and come up with and implement solutions faster. Smart technology and innovations can help us with that. Finally, we have identified inevitable threats as well, such as cybercrime and privacy of energy data, changing regulations, and our long-term financeability. These threats and what we are doing to address them are described in greater detail in the Risks chapter.

Strenghts

- Security of energy supply
- Attractive employer
- Central role in energy supply
- Climate-neutral policy
- Professional skills and energy network knowledge

Weaknesses

- Company's adaptability: in a dynamic context
- Retention of engineering capacity

Opportunities

- Development of Regional Energy Strategies (RES)
- Smart technology and innovations to reduce workload and network investments
- Collaboration with parties to implement the heating transition
- Use knowledge and tools for customers and peer companies

Threats

- Market regulation discussions
- Cybercrime and energy data privacy breaches
- Insufficient long-term regulatory focus
- Shortage of engineering capacity
- Long-term financing; regulatory model in the dynamic context of the energy transition
- Short term: timely changes to regulations to facilitate the energy transition, especially for solar fields

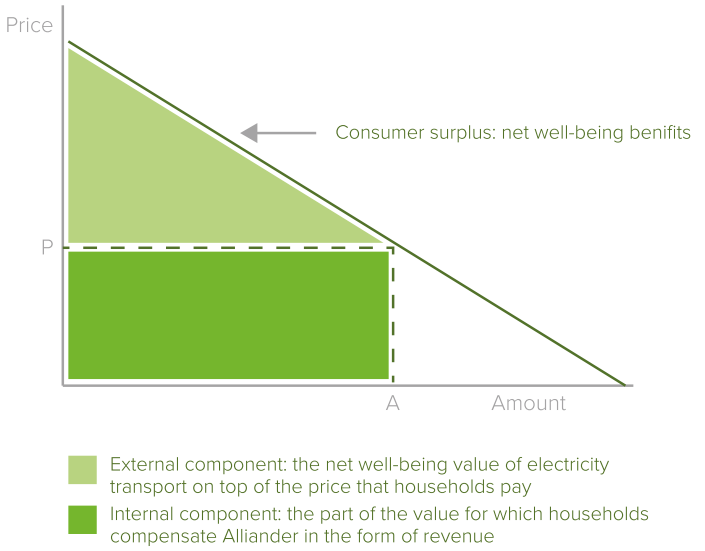
Key criteria for measuring impact

Main criteria
The impacts were classified using the value creation model of the International Integrated Reporting Council (IIRC), which subdivides impacts into six types of capital: financial, manufactured, intellectual, natural, social & relationship, and human capital. For each of these capitals, we quantify one or multiple indicators. In the coming period we will continue to develop processes for quantifying new indicators.
The relevant impacts that we have identified are reported as fully as possible.
Impacts are quantified in terms of money (euros) by estimating the sum of the individual impacts on prosperity and well-being. Prosperity is broadly defined to include all the most relevant impacts on prosperity that we have identified. This broad definition also refers to the prosperity of people today and later, both in the Netherlands and abroad.
The methods used to calculate the impacts are based on techniques that are commonly applied in scientific and social practice, including the Natural Capital Protocol of the NCC (2016), the Environmental management - Life cycle assessment - Principles and framework ISO (2010) and the General Guidance for Cost-Benefit Analysis of the Netherlands Bureau for Economic Policy Analysis (CPB). As indicated, further details are available online.
Since Alliander operates in a regulated market and forms part of a broader value chain, impacts are attributed to Alliander based on the attribution method described below.
The prosperity effects are conservatively estimated where a choice must be made between various equally reasonable assumptions. Two assumptions are equally reasonable if they are equally acceptable on the basis of the applied criteria and scientific practice and are equally plausible in the eyes of experts. This means that if several equally reasonable assumptions are possible, the assumption resulting in the lowest estimated prosperity impact is chosen.

Key principles and assumptions for measuring and reporting on impact

Main principles and assumptions
Attribution
Impacts that are caused by multiple players in the supply chain are attributed to Alliander on the basis of its gross added value in the supply chain. The gross added value is calculated as revenue less goods and services used in production, valued at purchase price.
Impacts that Alliander realises independently are entirely attributed to Alliander.
For comparison purposes, the attribution value from 2018 is also applied for the 2017 impact.
Financial capital
The financial impacts are viewed from the perspective of cash flows to and from society: cash outflows from Alliander are positive impacts for society; Alliander's cash inflows are negative impacts for society.
Manufactured capital
The prosperity value of energy transmission is calculated on the basis of the consumer surplus. This is the extra value that customers are in theory prepared to pay on top of the regulated price for a service or product. The consumer surplus is currently the most common method for determining economic value, both for liberalised and regulated markets. The consumer surplus relates to all price elements in the energy value chain, including the taxes and prices for the supply and transmission of energy. The amounts presented as manufactured capital indicate the economic part of the energy value chain that is attributable to Alliander. The impact of Alliander that makes 'feeding energy' possible consists primarily of the financial impact of using solar panels (PVs) and enhanced well-being from the use of greener energy. The average impact of gas and power failures for the Netherlands is included in this estimate as the price elasticity is based on the actual demand for energy (including failures). The specific impact of gas and electricity outages for Alliander was calculated for 2018 and extrapolated for 2017. The impact of interruptions in the energy transmission on the well-being of consumers is related to interruptions in the electricity network and in the gas network.
In the adopted economic model, price elasticity assumptions were made. The gas and electricity price elasticity curve is assumed to be linear. This produces a conservative estimate of the consumer surplus, which is visualised in the figure below.

Demand for electricity



The slope of the curve that has an impact on the consumer surplus was determined on the basis of a study by CE Delft (2012).
In order to avoid double counting, the contribution of energy transmission to the prosperity of business customers consists exclusively of the revenue component, without adding the producer surplus of customers.
Natural capital
Alliander is partly responsible for the CO_2 emissions from the quantities of electricity and gas transported through its network. The impact includes the measurement of the CO_2 emissions associated with the direct operations and those of the supply chain. Emissions in the supply chain are attributed to Alliander on the basis of gross added value.
Alliander's electricity mix ratio (comprising oil, natural gas, coal, and nuclear power) is assumed to be equal to the national electricity mix.
The social costs of a tonne of CO_2-eq are estimated on the basis of a study of the U.S. Inter-Agency Working Group of the EPA (2013). This study is in our view still relevant because most climate change effects have yet to take place. This means that the costs of a tonne of CO_2-eq have not changed between 2013 and 2016. We have, however, adjusted the costs for inflation based on World Bank data. Adjustment 2018 = 1.38%, adjustment 2017 = 0.32%, on prior-year basis.
The scope for the Eco-cost materials indicator is based on the four largest network component categories: cables, gas pipes, transformers, and smart meters. The materials included in the analysis are: the copper, aluminium, PE, PVC, XLPE, transformer oil, tin-plate, steel and scarce materials in the smart meters, as defined in the raw materials passport.
Human capital
Only staff in the direct employ of Alliander are included in the calculation of this type of capital.
Well-being impacts of having work were calculated relative to not having work in the Netherlands. The indicator exclusively concerns the non-financial direct well-being impact. It is assumed here that work satisfaction has a direct positive impact on well-being.
It is also assumed that non-work related sickness absence has no connection with the work at Alliander. The calculation of the impacts of work-related sickness absence and accidents of employees (safety) is limited to direct effects. An accident or illness may be the underlying cause of other accidents or illnesses, but this is not measured here.

Comparative figures for impacts from 2019 and 2018

As in 2018, the attribution values in 2019 were determined on the basis of the share of the added value of Alliander in the Dutch energy chain. For comparison purposes the 2018 impacts have been restated using the 2019 attribution values. The gas transmission volumes for domestic and business customers were furthermore erroneously swapped around in 2018, which made it seem as if business gas consumption represented a larger share of total gas transmission than domestic gas consumption, while the opposite was the case. For comparison with 2019, the gas transmission figures for 2018 have been corrected, which has led to the following changes to the 2018 figures:

- The manufactured capital for well-being as a result of gas transmission for consumers is greater.
- The procurement value of goods used for gas transmission is higher.

Financial capital

€ million	2019	2018
Payments to suppliers	-1,218	-1,098
Dividends, repayments and interest	-583	-924
Payments to employees	-616	-636
Tax	-199	-217
Increase in cash reserves	13	39
Contributions from third parties	124	126
Other revenue	40	151
Costs to customers (business)	528	535
Raised capital, received repayments and interest	606	787
Costs to customers (residential)	1,332	1,316

Manufactured capital

(in millions of €)	2019	2018
Value of goods purchased for electricity transmission	-1,376	-1,306
Contribution of electricity transmission to well-being of consumers (2018 figures, incl. reliability)	2,465	2,325
Of which solar power feed-in	13	9
Value of goods purchased for gas transmission	-907	-1,129
Contribution of gas transmission to well-being of consumers (2018 figures, incl. reliability)	2,097	2,583
Value of goods purchased by business customers	-306	-316
Value of energy transmission - business customers	563	580
Contribution of heating transmission to consumer well-being	0.3	0.3

Natural capital

€ million	**2019**	**2018**
Climate change due to CO_2 emissions	-282	-331

Human capital

€ million	**2019**	**2018**
Work-related sickness absence and accidents of employees (safety)	-1	-1
Well-being effects of having work	93	106

Impact measurement disclosures

The downloadable Alliander Impact Analysis accountability document offers more in-depth insight into and supporting details for the information contained in the annual report.

Five-year summary

€ million	2019	2018	2017	2016	2015
Result					
Revenue	1,930	1,920	1,697	1,584	1,540
Total income	1,970	2,068	1,840	1,723	1,680
Total operating expenses	-1,591	-1,572	-1,535	-1,516	-1,341
Operating profit	379	496	305	207	339
Profit after tax	253	334	203	282	235
Balance sheet					
Net working capital	-91	-117	-87	-145	-211
Property, plant and equipment	7,476	7,072	6,793	6,529	5,899
Total assets	8,791	8,345	8,069	7,735	7,726
Equity	4,224	4,129	3,942	3,864	3,687
Total interest-bearing debt	2,062	1,796	1,784	1,564	1,668
Total financing	6,286	5,925	5,726	5,428	5,355
Capital expenditure on non-current assets	837	732	652	685	577
Cash flows					
Cash flow from operating activities	638	638	454	376	513
Cash flow from investing activities	-713	-496	-549	-232	-492
Cash flow from financing activities	88	-103	148	-185	-99
Free cash flow	-75	143	-95	144	21
Ratios					
Non-current interest-bearing debt as % of total interest-bearing debt	86%	82%	87%	95%	72%
FFO/Net debt	29.0%	32.2%	27.4%	26.6%	28.1%
Interest cover	13.3	12.9	10.2	8.3	7.6
Equity as % of total assets less deferred income (solvency)	55.6%	57.3%	56.7%	58.5%	55.7%
Shares (as at 31 December)					
Number of shares issued (thousand)	136,795	136,795	136,795	136,795	136,795
Dividend to be paid	114	150	92	104	85
Other					
- Electricity					
Active connections as at 31 December (x 1,000)	3,207	3,169	3,135	3,109	3,100
New connections (x 1,000)	42	40	36	37	31
Cables laid (km)	1,115	899	834	859	918
- Gas					
Active connections as at 31 December (x 1,000)	2,543	2,533	2,520	2,510	2,671
New connections (x 1,000)	16	20	20	21	19
Mains laid (km)	66	141	132	151	159
- Volumes transported					
Electricity (GWh)	28,548	29,858	29,960	29,990	29,882
Gas (million m3)	5,860	6,090	6,228	6,367	6,012
- Other					
Number of disconnections (consumer and business market)	4,038	3,958	4,805	7,468	9,465
Facilitated supplier switches (x 1,000)	851	968	903	973	956
Annual electricity outage Liander (minutes)	21.9	30.6	20.9	23.3	21.9
Average number of permanent staff (fte)	5,686	5,712	5,719	5,621	5,572

Definitions and abbreviations

ACM
In April 2013, the Consumer Authority, the Dutch Competition Authority and the Independent Post and Telecommunications Authority joined forces to create a new regulator: the Authority for Consumers & Markets (ACM). As part of its remit, the ACM oversees compliance with the Electricity Act 1998 and the Gas Act.

Attribution
Attribution of the impact relative to other entities contributing to the impact (part of the value and impact model).

Cable pooling
The use of shared cables for wind and solar power feed in.

CAIDI (customer average interruption duration index)
The average duration of individual power outages.

CBL (cross border lease)
A cross-border lease is a structured finance transaction by virtue of which a business sells the user rights of certain non-current assets to a foreign company, only to lease these assets back.

CO_2
Carbon dioxide. This is mainly released during the burning of fossil fuels such as natural gas and coal and contributes to the greenhouse effect.

CO_2 equivalent
The effect of greenhouse gases other than CO_2 converted into CO_2 values.

Committee of Shareholders
The Committee of Shareholders as referred to in Section 158(10) Book 2 of the Dutch Civil Code, if this has been appointed by the General Meeting of Shareholders.

Corporate Governance
The Dutch Corporate Governance Code contains principles and best-practice provisions governing the relationship between the Executive Board, the Supervisory Board and the General Meeting of Shareholders/shareholders themselves. The principles and provisions are aimed at detailing responsibilities for long-term value creation, risk management, effective management and supervision, remuneration and relationships with the shareholders/General Meeting and with other stakeholders.

CTO
Chief Transition Officer (CTO) is a management position at Alliander that is focused primarily on exploring and adopting the energy transition and digitalisation, with a view to future-proofing the network company.

Eco-costs
Eco-costing is a method of expressing the environmental burden of a product. It is based on the costs that will be incurred in preventing that burden.

Energy transition
The transition away from generating energy from fossil fuels to sourcing power from renewables, like the sun, wind or water, for example.

Flex-market
In a flexible electricity market, supply and demand are better matched. Flexibility is created by energy users switching demand to off-peak periods. Intelligent systems also make it possible for power from renewables, for example, to be stored and for generation demand to be shifted in time without users having to alter the pattern of consumption.

FTE (full-time equivalent)
Equivalent of the number of employees with a full working week.

Guarantee of Origin
A Guarantee of Origin certificate shows that electricity has been generated by a wind, hydro, solar, or biomass installation.

DC (direct current) network
A network allowing DC power from renewables to be used directly without the need for an inverter to produce alternating current.

Geothermal energy
Energy derived from the heat found in the earth's crust.

Regulated domain
The activities of the network operator which arise from the tasks that are the exclusive preserve of the network operator and for which maximum tariffs are set by the ACM. This includes:

- construction, maintenance, renewal and management of connections to the electricity grid with a load value up to 10 MVA;
- construction, maintenance, renewal and operation of electricity and gas networks;
- transmission of gas and electricity;
- metering services for small consumers;
- effective assurance of the safety and reliability of the networks;
- promotion of the safe use of equipment and installations that consume electricity and gas;
- facilitation of the free market to enable customers to switch to another energy supplier, among other things.

Degree-day
A degree-day is a unit for quantifying energy demand. The measure is obtained by multiplying the number of degrees temperature difference between indoor temperature and average outdoor temperature over a given 24-hour period. If the outdoor temperature is 1°C below the temperature below which heating is required – taken as 18°C – that counts as 1 degree-day, and so on. If the average outdoor temperature is 18°C or above, the number of degree-days (for heating purposes) is zero.

Green bond
A debt instrument used exclusively to finance new and existing environmentally sound projects.

GRI (Global Reporting Initiative)
Global organisation that issues guidelines for CSR reporting.

Impact
In the context of the value and impact model, the effects of the actual outcome compared with the effects of the predetermined 'counterfactual' or reference scenario.

Smart grids
A 'smart grid' refers to electricity distribution networks in which IT and sensor technology systems are used in substations and medium-voltage transformer stations. The capacity has also been increased by raising the voltage from 10kV to 20kV.

LTIF (Lost Time Injury Frequency)
Number of accidents resulting in time off work times a million divided by the number of worked hours.

Interoperability
The ability of various autonomous, heterogeneous systems to communicate and interact with each other.

Feed-in
The supply of electricity fed into the electricity grid from power generating sources.

Supply chain responsibility
A situation in which a company assumes responsibility for the entire supply chain involved in its activities and for the impact which these activities have in social, ecological and economic terms and renders account accordingly, including engaging in a dialogue with stakeholders. The whole process is result-driven.

Customer perception
It is measured using the Net Effort Score (NES). This score is given by deducting the percentage of customers experiencing difficulty with the service from the percentage of customers finding it easy.

Climate Agreement
The Climate Agreement (i.e. the Dutch Climate Agreement) aims to cut greenhouse gas emissions in the Netherlands by 49% compared with 1990 levels by 2030. Talks relating to the Climate Agreement were begun by businesses, social sector organisations and public authorities in 2018. A start is due to be made with implementing the plans coming out of the Climate Agreement in 2019.

Security of supply
The ability of customers to rely on the uninterrupted supply of electricity, gas and heat, as well as uninterrupted feed-in to the grid.

m^3 of natural gas
A cubic metre (1,000 litres) of natural gas. The average natural gas consumption per household is about 1,800m^3 per year.

Methane
A gaseous hydrocarbon, chief component of natural gas.

Microgrid
The local network of energy sources that is able to function independently of the grid.

Net debt
The sum of long and short-term interest-bearing liabilities less cash and cash equivalents and investments.

Net investments
Investments less contributions received from third parties.

Grid losses
There are two components to grid losses or network losses: technical losses and administrative losses. Technical grid losses refers to the electrical energy that is dissipated in overcoming the inherent resistance of cables, transformers and other components in the network. Administrative grid losses refers to losses due to fraud and theft of electricity and loss of potential income due to empty properties.

NO_x
Nitrogen oxides, gases produced during the burning of fuels. These gases cause acid rain and smog.

NTA8120
The NTA (Netherlands Technical Agreement) 8120 comprises standards for the assurance of the safety of employees and the public, the protection of industrial and built-up areas and nature, the security of transport and distribution, and the efficient and optimal management of grids.

Zero energy homes
Homes that produce as much energy as they consume.

Output
The effects of an activity – within the context of the value and impact model – over which Alliander has some control.

PCB (polychlorinated biphenyl)
Chemical name for a chlorine compound with strong heat-resistant properties.

Sufferance tax
A levy charged by local authorities for the assets of utilities running either overhead or below ground across public land or water as well as surface assets.

Regional Energy Strategy (RES)
The RES focuses on the energy task facing a region, including the potential for electricity generation from renewables, potential savings and the actual plans for balancing supply and demand. All the provincial and municipal authorities are expected to have a draft version of an RES ready in 2020.

Regulation
With respect to public utilities, the process whereby the government sets the maximum rates that network operators are permitted to charge for their services.

Remuneration Report
The Remuneration Report of the Supervisory Board concerning the remuneration policy of Alliander, as drawn up by the Selection, Appointment and Remuneration Committee of the Supervisory Board.

SAIDI (system average interruption duration index)
Average annual power supply interruption duration per customer.

SAIFI (system average interruption frequency index)
Interruption frequency per customer.

SASensor
A sensor-based control system for the faster localisation and resolution of interruptions in the grid.

Sustainable Development Goals (SDGs)
The latest United Nations goals for sustainable development of the world in the period 2015–2030.

SF_6
An inert gas that is 5.1 times heavier than air and has a CO_2 equivalent of 22,800. SF_6 has good electrical insulating properties and is therefore frequently applied in electrical engineering, such as in medium-voltage and high-voltage units. In the case of combustion (e.g. due to an arc), toxic waste products such as S_2F_{10} occur. Also, in the case of major gas escapes, there is the risk of SF_6 displacing oxygen which can lead to suffocation.

Smart meter
The smart meter enables remote reading of electricity and gas meters to obtain information on consumption and status. In addition, a smart meter can execute remote instructions. The communication with the meter takes place via CDMA or GPRS communication protocol.

Solvency ratio
The solvency ratio is obtained by dividing total equity including the profit for the period by total assets less the expected dividend distribution for the current year and deferred income.

Stakeholders
Stakeholders are individuals and groups who have any form of interest in Alliander such as employees, shareholders, customers, financiers, suppliers and public authorities.

Transparency
The extent to which things can be clearly seen through something – specifically the provision of a clear view of a company's activities.

Phasing-out of natural gas
The gradual discontinuation of a mains gas supply and use of natural gas as a fuel.

VCA (Veiligheid Checklist Aannemers)
A certifiable checklist for contractors by which they can demonstrate that they are complying with health and safety standards.

Substation
A power system installation on the high voltage network either connecting two or more high-voltage networks or forming a connection to the high-voltage network.

VET (Voortgang Energietransitie)
Proposed Energy Transition Advancement legislation aimed at supporting and accelerating the energy transition by amending the regulations governing electricity and gas networks. The changes are partly necessary in view of the increase in intermittent power supplies (solar, wind) and feed-in from decentralised sources, which demand high standards of reliability and affordability of the systems.

Deregulated domain
The activities that are carried out in competition and/or arise from the statutory tasks and are offered at the customer's request. This includes the construction, maintenance, renewal, and management of connections to the electricity network with a load of 10 MVA and above for specific customer groups, including public transport and public lighting.

Free cash flow
Cash flow from operating activities less net investments in non-current assets.

Working capital
Inventories plus trade receivables and other receivables, less short-term non-interest-bearing debt and other liabilities.

Other non-financial information

CO_2 and energy

This section provides a detailed review of the energy consumption by Alliander itself and the CO_2-related impacts of operations. The methodology and the conversion factors used are also described.

Energy consumption

Alliander takes 2012 as the base year for calculating the reduction in its energy consumption. This is because the targets were formulated in 2012.

Energy consumption #	2019	2018	2017
Gas usage in buildings	920,703 m^3	1,386,649 m^3	915,619 m^3
Fuel consumption of vehicle fleet			
Petrol	1,549,087 litres	1,360,318 litres	1,248,224 litres
Diesel	3,946,833 litres	4,392,424 litres	4,360,044 litres
LPG	10,163 litres	10,186 litres	9,659 litres
Electricity[2]	0 kWh	0 kWh	204,555 kWh
Electricity usage in buildings	9,345,740 kWh	9,779,593 kWh	9,818,143 kWh

1 The addition of technical facilities means that the total gas consumption by buildings was up overall.

2 The electricity consumption for our vehicle fleet is accounted for in the figures for our buildings.

Energy consumption GJ	2019	2018	2017	Conversion factor
Gas and heating usage in buildings	32,384 GJ	48,768 GJ	34,258 GJ	35.17 official calorific value of Slochteren natural gas
Electricity usage in buildings	33,645 GJ	35,207 GJ	35,345 GJ	conversion factor 3.6, SI unit conversion factor
Total energy usage in buildings	**66,029 GJ**	**83,975 GJ**	**69,603 GJ**	
Energy consumption for transport & mobility				Conversion factor
Petrol	50,190 GJ	44,074 GJ	40,442 GJ	conversion factor 32.4
Diesel	41,297 GJ	157,249 GJ	156,091 GJ	conversion factor 35.8
LPG	264 GJ	265 GJ	251 GJ	conversion factor 26
Electricity	0 GJ	0 GJ	736 GJ	conversion factor 3.6
Total energy usage for transport & mobility	**191,751 GJ**	**201,588 GJ**	**197,520 GJ**	
Total energy usage	**257,780 GJ**	**285,563 GJ**	**267,123 GJ**	

CO_2-emissions and carbon footprint

For the purposes of the report, a uniform emissions standard is used across the sector. This differs from the Greenhouse Gas (GHG) Protocol.

The GHG Protocol figures in CO_2 equivalents are presented in the following table.

Scope 1	2019	2018
Gas consumption in buildings	1,740	2,621
Natural gas network leakage loss	50,113	48,021
Lease & company cars:	17,011	17,933
SF_6 emissions:	1831	1,255
Total	**70,695**	**69,830**

Scope 2	2019	2018
Electricity in buildings	3,729	4,327
Network losses on electricity, technical	278,930	274,740
Network losses on electricity, administrative	125,093	121,272
Total	**407,752**	**400,339**

Scope 3	2019	2018
Commuting, business travel, air transport	4,448	4,504
Total	**4,448**	**4,504**

Total	2019	2018
Total footprint	482,895	474,673
Carbon offset	-218,858	-186,777
Total, including carbon offset	**264,037**	**287,896**

Most of the figures included in the tables and graphs in this report are taken from the underlying source systems. Some figures, however, are derived from third-party records or reports. An example of this is the volume of waste and the level of waste-related CO_2 emissions.

Arriving at the carbon footprint and the energy consumption involves making assumptions and estimates. Since 2016, the CO_2 emissions factor for the grid losses has been calculated on the basis of the energy purchased from our suppliers to cover grid losses. For the 2019 annual report, the 2018 electricity labels have been used. This gives a figure for the CO_2 coefficient of 0.27973 kg CO_2/kWh. This includes an adjustment of 2% for tank-to-wheel. More than 85% of the carbon footprint is attributable to grid losses on power distribution, giving a figure of 0.27973.

Approximately 9% of the CO_2 equivalent footprint is due to gas leakage losses, based on the mix of gas pipes in Alliander's network. The cast-iron gas mains have higher leakage losses (323 m^3/km/a), which is considerably higher than the mains using PE pipe (58.55 m^3/km/a). The CO_2 equivalent is calculated using a factor of 25 for methane.

Transport

The greatest impact which Alliander has outside the organisation itself is due to the activity of distributing energy to end-users. This accounts for the following volumes:

Energy transmission	2019	2018	2017
Electricity transmission	28,548 kWh	29,858 kWh	29,960 kWh
Gas transmission	5,860 million m^3	6,090 million m^3	6,228 million m^3

Alliander's energy intensity ratio is calculated by dividing the energy consumption in gigajoules (GJ) by the revenue in millions. This ratio takes into account the gas consumption of buildings, the fuel consumption of the vehicle fleet, and the electricity consumption of the buildings.

Energy intensity ratio	**2019**	**2018**	**2017**
	133.6 GJ/million € (257,780/1,930)	148.2 GJ/million € (284,637/1,920)	157.4 GJ/million € (267,123/1,697)

* This information is not available by energy type. Where Alliander is concerned, a view is obtained according to energy type for Scope 1 use; the distinction according to energy type for Alliander's own use is of a far smaller magnitude and impact and is therefore immaterial.

Green gas

The total feed-in of green gas in the area supplied by Alliander during the year 2019 was 41,432,055 m^3, involving connections to 18 green gas production facilities. The term 'green gas' refers to:

- Green gas Bio-SNG, biogas, and landfill gas conditioned and upgraded to natural gas quality. Gas satisfying the definition of gas as a fuel but differing in that it is a product of a fermentation or digestion process. The two main components of biogas are CH_4 and CO_2.
- Landfill gas: Gas satisfying the definition of gas as a fuel but differing in that it is a product of the natural processes of decay in a landfill site for waste disposal. The analysis is similar to that of biogas.
- Bio-SNG: SNG – substitute/synthetic natural gas – produced exclusively from biomass.

Crisis organisation

In case of major outages, an internal crisis organisation is mobilised. Within this organisation, staff members of various departments work on-call shifts. Depending on the nature and scale of the incident, when the crisis is over, we set up a case and/or investigation team to assist and ensure the completion of any internal and/or external investigations. All major incidents are evaluated to identify and implement possible improvements.

CSR organisation

Corporate Social Responsibility (CSR) is a responsibility that is integral to all parts of the business and is included in the Planning & Control cycle. All the business units perform an analysis of the qualitative and quantitative impacts which their operations have on society. The Management Board has overall responsibility for the economic, ecological and social impact of Alliander. The CSR Manager personally communicates the policy to the managers of the separate entities and assists the management team in defining quantifiable parameters for monitoring progress. The Management Board and the Supervisory Board liaise with stakeholder representatives. Their presence or representation at regular and ad hoc meetings ensures an active awareness of developments and views regarding strategic topics. See the section of the report covering Interaction with stakeholders for the various social concerns that have been discussed.

The results of the CSR policy are evaluated with the stakeholders. The extent to which stakeholders appreciate the policy that is pursued and the results that are achieved is gauged by such means as customer surveys, employee involvement, shareholders' meetings, roundtable meetings and the Social Report.

External assurance of the social part of the annual report

Alliander believes it important for its stakeholders to have formal assurance regarding the social part of the annual report. For the 2019 annual report, Alliander has received an unqualified assurance report affording reasonable assurance with respect to the most relevant part of the annual report, namely the more important management variables taken into account by the company (both financial and non-financial).

Alliander has also obtained reasonable assurance in relation to the material aspects of its reporting (materiality test). Additionally, Alliander has received an unqualified assurance report affording limited assurance covering the rest of the social part of the annual report. To guarantee the quality of the social information, Alliander adopts the Three Lines of Defence model. The various business units are required to submit social information gathered in connection with the stakeholder dialogue, the materiality test and GRI activities, as well as in other ways. The separate entities form the first line of defence and are responsible for supplying reliable information. The business controllers of each business unit form the second line of defence and ensure that their business submits its information reliably and on time. The business controllers check such things as the basis of the information and the analysis of it by the business itself and prepares a file for the verification carried out by the internal audit department. The internal audit department forms the third line of defence, verifying the social information before it is reviewed by the external auditors. The external auditors form the final link in the verification process and provide ultimate assurance, as expressed in the report.

Cover photo: energy transition in the Amsterdam Houthaven

In the Houthaven in Amsterdam, the transition to a sustainable energy supply is taking shape. In this climate-neutral new residential area, electricity for public lighting, parking meters, etc. is generated as much as possible via solar panels. In addition, there will be charging stations for electric transport. The houses in the Houthaven are heated via the heat network of the capital.

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This report is a translation of the Dutch annual report 2019 of Alliander N.V.. Although this translation has been prepared with the utmost care, misinterpretations or deviations as a result of the translation process from the Dutch annual report may nevertheless occur, such that the information in this report may be misinterpreted or different conclusions may be drawn. In such cases, the Dutch annual report 2019 will prevail.

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