Annual report 2020

Effective together

Energy is a hot topic

Contents

About this report

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This Alliander annual report looks back on our activities and results in 2020.

Key to our integrated reporting are transparency, the dialogue with stakeholders and the impact and value of our activities. We report based on the value we offer society and the matters our stakeholders find relevant. The annual report was published on 18 February 2021.

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

Alliander aims to create value for stakeholders and for the society of today and tomorrow. We accomplish this through our daily work, by innovating, and by investing. Accordingly, our value creation model is the recurring theme in this annual report. By following the model, we explicitly show the relationship between social developments, our goals, our strategy, our activities and the results. We clarify how we maximise our positive contribution to society and minimise negative side effects.

In the first section of this annual report, we discuss our role in the energy supply chain, our mission and strategy, and the trends and developments. In the second section, we report on our activities in terms of the value we create in the long term:

1. Ensuring a high level of supply reliability at a low cost
2. Being a creditworthy company with solid returns
3. Making the energy supply and our organisation 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

After the section explaining value creation, we go on to detail the effects of our activities on society and explain 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, shareholders/investors and the local and regional public authorities in our service areas. We also work closely with industry partners, national government authorities, supervisory bodies, social sector organisations, and knowledge centres. By maintaining an ongoing dialogue with our 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. In this context, the network operators organised online meetings for stakeholders in 2020 under the umbrella of Netbeheer Nederland. At the start of each value-focused chapter we state the stakeholders for which the chapter is relevant.

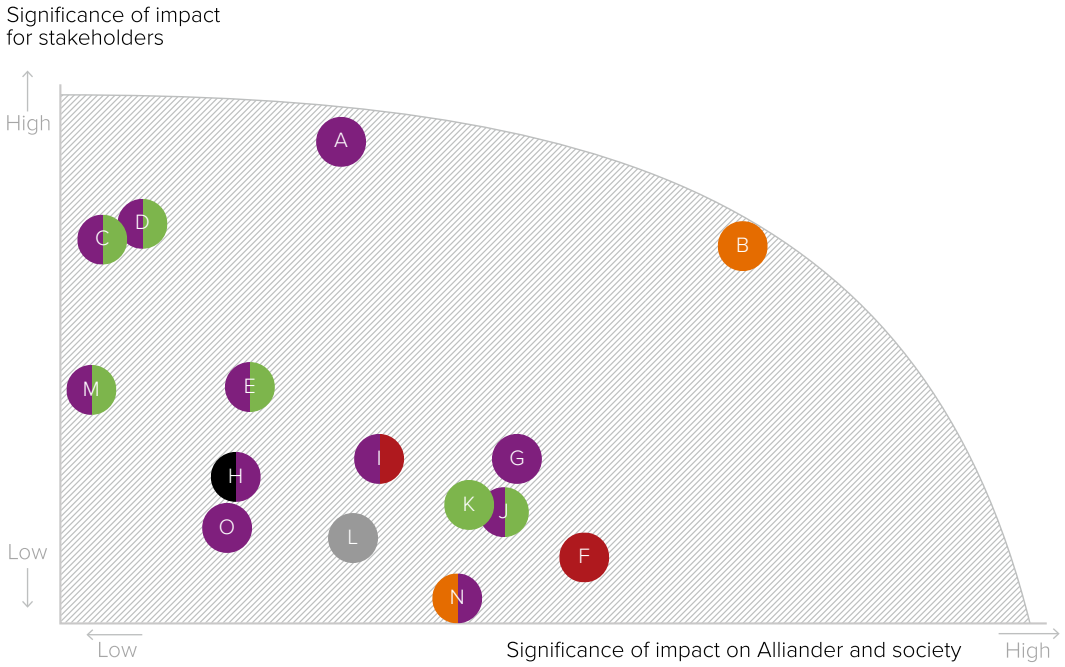
Stakeholder panel

In keeping with last year, a stakeholder panel read the report at an early stage in its preparation. On 18 December 2020, the dialogue we had with the panel centred on Alliander's role in the energy transition, the contents of the report, and the dilemmas we face. An account of the opinion of the stakeholder panel is included in the report.

Material issues

We ask our stakeholders to tell us what topics they would like to see included. We report on the 15 highest scoring topics ('material issues') in this annual report. The introduction to each chapter states which material issues are covered.

Materiality chart



The value we create in the long term

- Ensuring a high level of supply reliability for a low cost
- Being a creditworthy company with solid returns
- Making the energy supply and our organisation sustainable
- Ensuring a safe energy network, a safe working environment, and a safe data environment
- Being an attractive, inclusive employer with equal opportunities for all
- Not linked to long-term value

A Reliability of supply
B Safe working practices and safe infrastructure
C Facilitating renewable energy generation
D Working together on innovative solutions
E Data-driven network management
F Talent acquisition and development
G Customer satisfaction
H Socially responsible investment policy
I Organisational capacity for change
J Future-proof network
K Corporate social responsibility in the supply chain
L Corporate governance and business ethics
M Climate change, energy consumption and carbon emission
N Data security, privacy, and cybersecurity
O Access to affordable energy

The complete list of issues and materiality matrix is included in the appendices under Other information.

Reappraisal of the issues

In 2020 we reassessed the issues based on desk research, specifically a media analysis, surveys among supply chain partners and peer organisations, ratings awarded by external assessors in respect of environment, society and governance, and sector reports. We also received input from stakeholders during the year. No new issues were added to or removed from the top 30. We have however formulated the issues differently: 'Promoting renewable energy generation' became 'Facilitating renewable energy generation', and the issue of 'Responsible investment policy' became 'Socially responsible investment policy'.

Prioritisation of material issues

In 2020, changes became apparent in how material issues affect stakeholders and Alliander. The issue of 'Employee well-being' is no longer included in the top 15, because the impact on Alliander has been assessed at a lower level. Even so, it is still relevant in the light of the COVID-19 crisis and the increased amount of time spent working from home. Although the COVID-19 crisis has unavoidably changed the way we structure our work, its impact on the performance of our core tasks is relatively limited. The issue of climate change, energy usage and CO_2 has been assigned a higher priority. Due to supply-chain effects, this issue has a high impact and also appears to affect stakeholders more strongly. As a result, it now appears in the list of the most material issues. The letters indicate the degree to which attention has been focused on an issue and, consequently, the order of priority for Alliander in 2020.

Integrated report

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

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

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 that has a significant impact on the material aspects has been consolidated for Alliander and its subsidiaries. In the social information section, the data relating to Alliander and its main subsidiaries, Liander and Qirion, has been consolidated. The most material topics for our stakeholders relate primarily to the activities of these companies. The social information regarding the other business units encompasses employees, safety and security, compliance and governance data in each case.

In addition, we have included information on other Alliander business operations that are mainly dedicated to the energy transition. Where necessary, additional information about the reach and scope is provided in footnotes to the information in the report. Where this does not apply, this is explicitly stated. 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 issue, 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.

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 develop process-related and other innovations and address the shortage of technicians in the labour market, a problem that affects all areas of society. We cordially invite readers of our annual report who wish to discuss topics like the energy transition, or who have any questions, suggestions or tips for us, to contact us at communicatie@alliander.com.

Our story in 2020

Our story in 2020

We look back on 2020 as an extraordinary year that demanded a great deal of our employees and customers, primarily because of the COVID-19 crisis, but also due to the unabated speed at which the energy transition continued. Our employees worked hard under all circumstances to make the energy network ready for the future. We connected many customers, laid more cables and invested more in the power grid compared to last year. These activities reflect our efforts to continue to provide a reliable and affordable energy supply for our society. We are proud of our performance.

The impact COVID-19 has had on our work

The approach to and fight against COVID-19 may lead to a temporary delay in implementation of the Dutch Climate Agreement. At the same time, we see that the goals and intentions remain unchanged. The impact of COVID-19 on our society was - and continues to be - very significant. That also applies to the impact on our activities. For example, all work inside the homes of our customers had to be paused briefly after COVID-19 broke out. For colleagues in the offices, the crisis meant a rapid switch to working from home. During the crisis, we took every possible action to ensure that our employees could work safely and without endangering their health. This included following the guidelines and industry-wide protocols, and implementing additional measures such as rapid testing and the social distancing rule (currently one and half metres). We have adapted to the situation and shown flexibility to help our customers as well as possible. This is essential, because without energy everything would come to a standstill. Unfortunately, when carrying out scheduled maintenance work during the lockdown this spring, some of our technicians were the target of aggressive behaviour on the part of local residents. In our view, behaviour that puts the health of our technicians at risk while they are working to ensure the continuity of the energy supply is completely unacceptable.
The COVID-19 crisis also affected our financial position. Some of our large business customers, for example, have reduced their power consumption since the start of the outbreak. This led to a drop in our income from grid usage in that segment. The level of investment increased however; we continue to spend substantial amounts on expanding and upgrading our power grid.

Safety

Safety is the first priority when working on energy networks. Our goal is ‘Everybody safely home’. This applies to our employees, the customers on whose behalf we do our work, and the contractors who collaborate with us. Safety is an overriding priority at Alliander. There were no major accidents or incidents in 2020. The number of sickness absence cases reduced last year, and the Lost Time Injury Frequency (LTIF) also dropped to 1.8 (2019: 2.1), mainly due to a decrease in short-term sickness absence.

Transmission capacity

In 2020, we did our best to ensure our work could go ahead as much as possible and even to accelerate it. For example, we connected more large business customers to the energy network and work on power stations and cable connections also continued uninterrupted. In 2020, we laid over 1,200 kilometres of medium-voltage cable (400km more than 2019). In addition, we built 960 medium-voltage substations. The total investments increased by €56 million to €890 million.
These extensions and capacity upgrades are necessary because customers have an increasing need for electricity and facilities for feeding power back into the grid. As expected, the number of bottlenecks in the power grid grew in 2020. That has significant repercussions for customers. We are not always able to satisfy the demand for power. In fact, the grid is so congested in many places that business customers are facing transmission restrictions. Consumers are increasingly unable to feed in electricity from solar energy, or obtain a new connection or extra capacity within the specified delivery time. Upping the capacity at existing power stations and building new ones takes time, due to lengthy permit procedures and the acute shortage of technicians in the Netherlands. We feel it is important to clearly explain the local situation to customers and the effect their choices have on their energy supply. We devoted a great deal of time and attention to these issues last year.
In spite of all our investments, we do not expect the capacity problem to be resolved in the near future. We must continue to innovate, together with market parties and other stakeholders, in order to use the power grid more efficiently. We are working on a broad spectrum of technical solutions. For example, following on from the flex-markets in Nijmegen-Noord and Zuidplaspolder, businesses in the Neerijnen region were also offered the opportunity of participating in congestion management schemes.

Contribution to the Dutch Climate Agreement

The approach to and fight against COVID-19 may lead to a short-term delay in implementation of the Dutch Climate Agreement. In the long term, the goals and intentions appear to remain unchanged. Collaboration is required between all the parties involved in order to create a smart, affordable and efficient energy system. The Regional Energy Strategies (RES) are crucial to achieving this. Last year, municipalities and provincial authorities published draft versions of their Regional Energy Strategy on the websites of the RES regions. Looking closely at these plans, we see a general preference for solutions that aim to maximise local support, but that are not necessarily efficient for the

energy system, or that require more work and higher investments than strictly necessary. An alternative design can save up to almost 60% of the costs to society, 60% of the space required and 50% of the work. We were happy to contribute and proactively share our knowledge and expertise with the regions. The joint network operators, including Alliander, have drawn up a set of guidelines to support the regional discussions. We also engage in constant dialogue with the regions to ensure that all interests are clearly understood and achieve a good balance between support and efficiency.

Recruiting technicians

Expanding the power grid requires high availability of good technicians. Engineers, foremen and fitters who are looking for a job can more or less start with us tomorrow. So in 2020, as in previous years, we continued to invest a great deal of time and energy in recruiting technical colleagues. No easy task, because an electrician looking for a new job can currently find work with roughly 40 companies. Together with more than twenty other national parties - private sector businesses, public sector organisations, educational institutions and the trade unions - we have jointly agreed a learning and innovation programme ('Mensen maken de transitie') to ensure an adequate supply of skilled workers. This collaboration is intended to lead to technical innovation, an increasingly smarter approach and permanent employment.
In addition, we continuously look for new and innovative ways of recruiting staff. For example, we use live chat to give job applicants the opportunity of talking to potential colleagues before attending a job interview. We are also involved in the 'Sterk Techniek Onderwijs' initiative and the 'Opleidings- en Ontwikkelingsfondsen' funding programme, which target further improvements to technical education in collaboration with educational institutions and the sector in general. Our efforts have paid off, we were privileged to welcome 316 technicians into our ranks last year.

Reliable grids

The Netherlands boasts one of the most reliable power grids in the world, with a 99.99% availability rate. In 2020, customers were, on average, without electricity for 23.2 minutes (2019: 21.9 minutes) and without gas for 83 seconds (2019: 40 seconds). Customers can count on high-quality maintenance and fast service in the event of outages or problems, and appreciate this. In addition, we continue our efforts to further improve the electricity and gas grid for customers. Digitalisation of our network helps us achieve this. For example, we used the Smart Cable Guard – a monitoring tool that anticipates disruptions – in our electricity grid on a larger scale. We are also focusing on maintenance, reliability and development of the gas grid with a view to the future.

Agile, effective and cost-efficient

The energy transition has a major impact on Alliander. An agile, effective and cost-efficient organisation is a crucial precondition in view of the very significant amount of work that lies ahead of us. With this in mind, we developed plans for a new, flatter organisational structure last year, which will allow us to focus in a more targeted way on our strategy and speed up decision-making. By coordinating activities better and executing them in the same way, we can work faster and more effectively and develop and implement more innovations. In December, the Works Council issued positive advice on the plans for the new organisation. More than 200 jobs are scheduled to disappear due to the reorganisation. The new organisation came into effect on 1 January 2021.

Sustainable organisation

Our social contribution to a sustainable energy supply also requires an organisation that has corporate social responsibility in its genes. The global Sustainable Development Goals are our compass in this respect. In 2020, our negative impact on the climate has decreased substantially as we further reduced our CO_2 footprint in line with our target. Being forced to work from home also led to a particularly sharp reduction in our energy usage for buildings and (public) transport. Our policy of achieving climate-neutral business operations in 2023 is completely in line with the science-based Paris climate targets. In 2020, we presented our climate risks more accurately in accordance with the international standard (developed by the Taskforce on Climate-related and Financial Disclosures). We purchased a large proportion of the main components through circular procurement. We also launched the first initiatives for improving biodiversity by adapting our site management policies. Together with other infrastructure companies, we prepared an impact-measurement handbook to allow more effective benchmarking in respect of our social performance in future years. In our social domain, we succeeded in consolidating the number of women in managerial positions through targeted recruitment and selection, and took action to improve cultural diversity. Despite the COVID-19 crisis, a large number of colleagues were still able to provide support as volunteers through the Alliander Foundation, with a particular focus on preventing social isolation among the elderly.

Financial results

Alliander's profit after tax came to €224 million in 2020 (2019: €253 million). Profit excluding incidental items for 2020 worked out at €221 million, a reduction of €46 million compared to 2019. COVID-19 had a negative impact of €12 million on our operating profit. In addition, our costs increased because TenneT imposed higher tariffs. We must continue to critically review our spending and financing in the long term. In 2020, we once again successfully issued a green bond loan at favourable interest rates. Furthermore, we are also discussing ways of creating additional financing capacity with our shareholders. The first discussions on this topic took place in October last year.

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, Marlies Visser joined Alliander's Management Board on 1 May 2020 in the position of Chief Operational Officer. On 20 May, Maarten Otto joined the Management Board as the new Chief Executive Officer. He succeeds Ingrid Thijssen, who left after three years as Alliander's CEO to take up a new position as Chair of the VNO-NCW employers' association. We would like to thank her for her tremendous efforts on behalf of our organisation.

Outlook

In 2021, COVID-19 will probably continue to affect our daily lives for quite some time. We do not yet know how significant those effects will be. One thing is certain though: the energy transition will continue at the same rapid pace. This means that the issues we face today will continue to present challenges in the coming period. If we are to achieve the goals of the energy transition, we must ensure that we have access to adequate long-term financing capacity, that we double our production in the coming years and collaborate more intensively with partners such as other network companies, contractors, installers, municipalities and provincial authorities. Because energy will continue to be a hot topic. As the designer of today and tomorrow's energy network, our goal is to achieve maximum energy supply coherence for both electricity and gas. We continue to provide information and data to help customers develop their energy supply facilities. We realise that limited transmission capacity and long waiting periods for connection are inconvenient for our customers. The moment when Regional Energy Strategies are approved and adopted in their final form will be an important landmark in 2021. We continue to support our partners in the RES regions by making our knowledge and expertise available to them and keeping the energy supply system affordable and reliable. In stark contrast to the increasing pace of the energy transition, new and appropriately modified legislation is emerging at a snail's pace. We are working with sector partners and government organisations to eliminate bottlenecks and further accelerate our activities in the near future. This is how we are working together on an energy network that is right for everyone.

A word of thanks

Every day, thousands of employees, both at Alliander and our contractors, work hard to get the job done. They are in contact with our customers each day and make sure that the lights are on, homes are heated and businesses can keep operating, even in these complex times with a worldwide pandemic unfolding in the foreground and the transition to a new and sustainable energy system continuing to gather pace in the background. We are proud of all these colleagues and thank them for their flexibility, commitment and effort. Together with our stakeholders, in 2021 we will continue to work on our mission: ensuring an energy supply that gives everyone access to reliable, affordable and renewable energy on equal terms.

Alliander Management Board, 15 February 2021

Maarten Otto
Marlies Visser
Walter Bien
Daan Schut

From left to right: Maarten Otto, Marlies Visser, Walter Bien, Daan Schut

Profile of Alliander

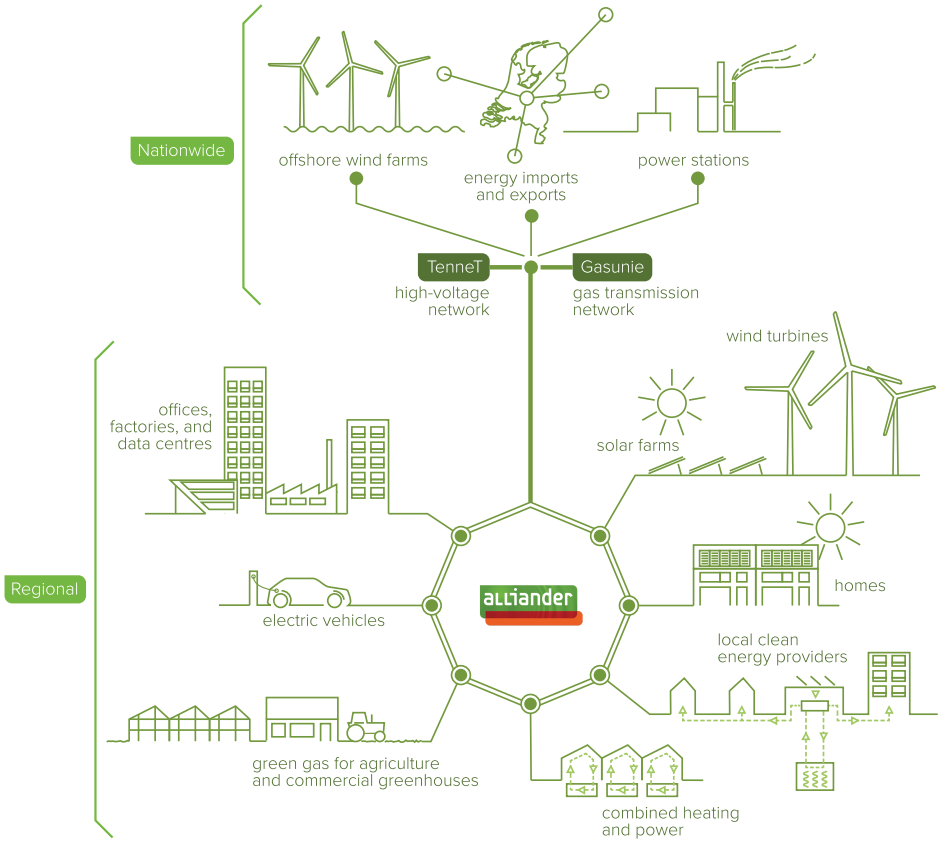
Profile of Alliander

What do we have at our disposal? → **What is our role and which choices do we make?** → What do our stakeholders notice in the long term? → Which values do we create for the long term? → What are the most significant social impacts? → To which global targets do we contribute?

Alliander N.V. is a network company comprising a group of companies employing some 7,100 people (6,900 FTEs). Together, we stand for high-quality expertise in the energy network field. We invest in the development of the energy networks and explore and implement innovative solutions. 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 provincial and municipal authorities.

Our role in the energy chain

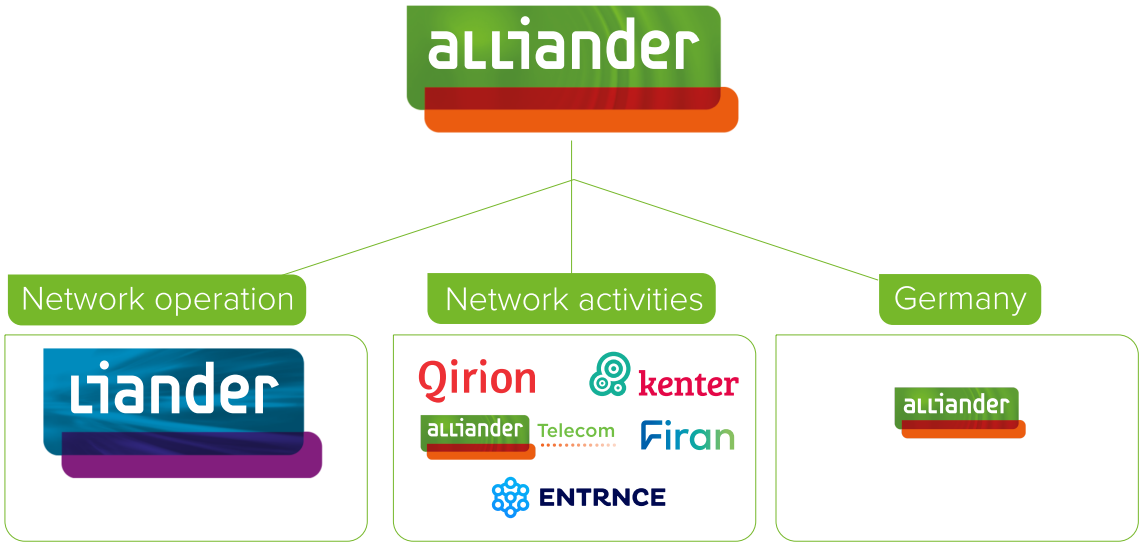
Network operator Liander, which is an Alliander subsidiary, has been statutorily tasked with managing and further developing the gas and electricity networks. We are on hand 24/7 to deal with outages; after all, without energy everything comes to a standstill. The energy we distribute comes from power stations, wind farms and imports through the national electricity and gas networks of TenneT and Gasunie respectively. Liander collaborates with many parties in the energy sector and organisations that want to drive innovation in the field of energy. As a network operator, Liander not only ensures correct data exchange with suppliers and other parties in today's energy market, it also works with the government at local and regional level to resolve heating transition challenges. In addition, we help organisations innovate by offering our data services and we collaborate with others to develop a flexible energy market that is driven by supply and demand. More and more consumers and companies are now feeding the energy they produce with their own systems back into our energy networks. The result is interaction and interlinking between energy supply and demand.



Other units in our network company actively facilitate markets by providing products and services that help create a future-proof energy network. We build and maintain the infrastructure, and we manage energy supply and demand. We track who produces or consumes energy: when, where, and how much.

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

Now that the Netherlands is transitioning to a sustainable energy supply, Liander continues to focus on the task of keeping energy flowing reliably, affordably and accessibly. Liander is on-call 24/7 to deal with outages, and develops, designs and manages the energy network. In addition, Liander shares knowledge and expertise with customers and government bodies to collaboratively create the most suitable energy network for everybody in the regulated domain.

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 designs, builds and manages future-proof energy infrastructures for heating, cooling, steam, sustainable gases, solar power, wind energy and CO_2. Together with municipalities, project developers, housing corporations, energy producers and other partners, Firan works on smart energy solutions for buildings, regions and municipalities.

Alliander Telecom Cluster

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 (owned jointly by Alliander and Stedin) offers a wireless data communication network with optimum coverage and capacity for smart meter technology and for distribution automation applications. TReNT offers fibre-optic services. 450connect, a subsidiary of Alliander AG, operates a wireless telemetry communications network for vital infrastructure. This involves cooperation with a significant part of the German network sector.

ENTRNCE

With ENTRNCE, Alliander offers market facilitation for current and future decentralised energy markets. Energy communities, aggregators, (corporate) producing consumers (prosumers) and innovative energy service providers play the leading role in these markets. ENTRNCE allows direct energy exchange between energy producers and consumers (peer2peer) and provides complete transparency about the source and final destination of the energy flows. By offering this facility, we give the decentralised markets freedom of choice and lower the entry barriers for the energy market.

Alliander AG, Germany

As a small-scale service provider operating in Germany, Alliander AG manages a few small electricity and gas grids, public lighting, and traffic lights in North Rhine-Westphalia and Berlin.

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.

2020 in figures

Number of customer connections

5.8 million

5.8 million in 2019

Number of employees

5,881 FTEs

5,703 FTEs in 2019

Electricity outage duration

23.2 minutes

21.9 minutes in 2019

Lost Time Injury Frequency (LTIF)

1.8

2.1 in 2019

CO_2 emissions

205 kt

243 kt[1] in 2019

Net revenue

€2.0 billion

€1.9 billion in 2019

Investments in property, plant and equipment

€890 million

€834 million in 2019

Total assets

€9.4 billion

€8.8 billion in 2019

Profit

€224 million

€253 million in 2019

1 *The CO_2 emission result for 2019 has been recalculated according to the most recent emission factors.*

Our service area

Electricity grid length

92,000 km

91,000 km in 2019

Gas grid length

42,000 km

42,000 km in 2019

Our mission

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

Through our cables and pipes, over three million Dutch households and companies are supplied with electricity, gas and heating. We operate a 92,000 km power grid and a 42,000 km gas network, and we take great pride in our networks being among the world's most reliable. Our colleagues work hard to achieve this day and night.

How we make a difference for customers

Reliability

We distribute energy in line with the highest possible safety and continuity standards and ensure that it is available to customers 24 hours a day, 7 days a week. This is what drives us to put safety first in our working practices and try to avoid planned and unplanned energy outages as much as possible.

Affordability

We endeavour to improve the effectiveness and efficiency of our activities every day to keep prices as low as possible for our customers.

Accessibility

We provide the framework within which customers can choose their own energy supplier and service providers and feed energy back into the grid. Plus, we actively help customers switch to renewable forms of 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.

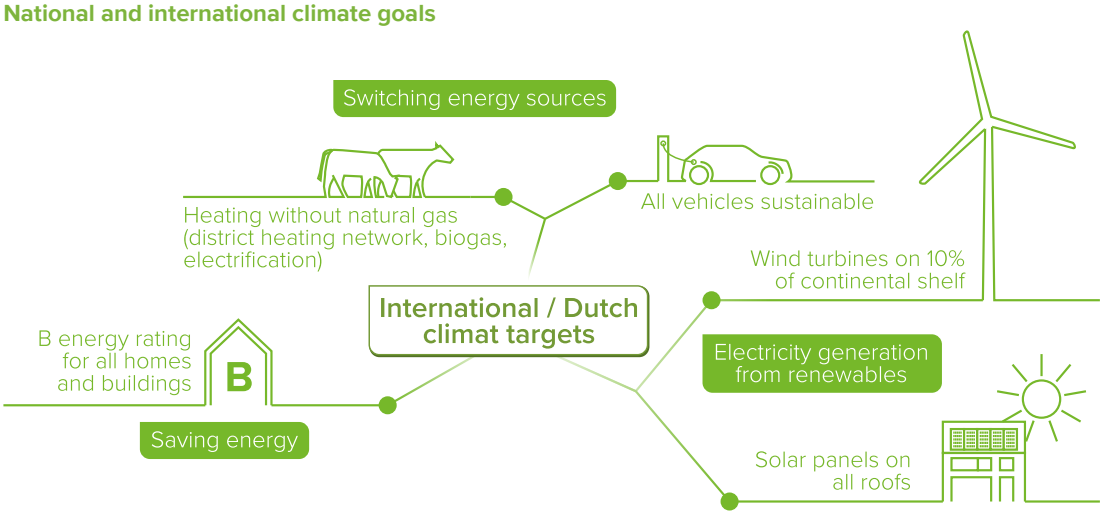
What we see around us

The energy transition is gathering pace: by 2030, the Netherlands aims to reduce national carbon emissions by 49% compared to 1990 levels. The European Union is currently considering the possibility of increasing this target even further to 55%. In order to realise the target set in the Netherlands, the 2019 Dutch Climate Agreement includes provisions such as:

- the integration of 35 TWh of onshore renewable energy generation;
- using forms of renewable energy to heat millions of homes;
- accelerating the installation of additional charging points for electric vehicles;
- making industry more energy-conscious and using land more sustainably.

The Dutch Climate Act came into effect on 1 January 2020. This legislation enshrines the targets of a 49% reduction in 2030 and a 95% reduction in 2050 in law. Our greatest challenge is to ensure that the necessary power infrastructure is ready on time. The more work we have to do, the harder it will be to meet the targets. The Regional Energy Strategies, as at year-end 2020, include plans for achieving the 35 TWh of onshore renewable energy generation. However, the high emphasis on solar generation in these plans will lead to a major peak load within our infrastructure. Furthermore a solar farm produces less energy than a wind farm with the same peak capacity. So the ratio that is finally chosen in these plans has a major impact on our grids.

National and international climate goals



Economic situation

Due to the COVID-19 crisis, our society is feeling the effects of an economic downturn. Although we do not yet know its duration and impact, this economic dip is expected to be temporary. We expect the demand for electricity to rise further after the COVID-19 crisis as the economy recovers. The 2030 targets in the Dutch Climate Act will therefore remain unchanged for the time being. More new houses, businesses, and buildings will need to be connected to the grid. Moreover, greater power capacity is required to facilitate the significant expected level of growth in the private sector. We are likely to see a sharp increase in the number of data centres, growing demand for larger connections, and a surge in the demand for additional capacity among our current customers.

Energy transition

We know from practical experience that the energy transition leads to more local generation and more local energy usage. Solar energy is becoming more and more affordable. Also, thanks in part to SDE grants designed to stimulate renewable energy production, several large-scale solar farms have been built in the regions where Alliander operates. Furthermore, we have connected various wind farms to the grid and electric vehicles and the associated charging infrastructure are now a familiar sight: in 2020 we connected 2,400 public charging points.

Fulfilling the agreements in the Dutch Climate Act will involve a huge amount of work for us in the years to come. System studies show that the electricity demand will have at least doubled by 2050. Our social mission is to complete that work on time. We want the Netherlands to achieve the climate goals, and for customers to get the capacity and energy they need.

The reduction in carbon emissions is not the only factor driving the energy transition: the nitrogen and PFAS issues that were very much in the news during 2020 also play a role. At the end of 2019, the government introduced measures to help get stalled construction projects up and running again in 2020. Examples include the lower maximum speed limit on motorways and relaxation of the limits set for PFAS. In the period up to 2023, fewer homes than planned will be completed in Liander's service area due to (temporarily) suspended construction projects. The expectation is that new construction activity will only reach its former levels from 2024.

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, both for Alliander and others. The entire energy infrastructure in the Netherlands will be upgraded in the coming years, which will, in turn, make it increasingly difficult for more and more households to pay their energy bill. From Alliander's perspective, it is important to ensure that all investments are justified and that we can arrange the necessary funding. Action must be taken to ensure financing capacity for the required investments.

Shortage of technical staff

The energy transition will involve significant electrical engineering work. Tens of thousands of extra technical specialists are needed in the Netherlands. Even though supply and demand in the labour market are currently more evenly matched, for the first time in years, filling these vacancies remains a major challenge for the construction industry, the 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 2022. All coal-fired power plants need to be shut down by then too. Initiatives to substantially reduce, and ultimately phase out, the use of 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 90% of new construction is 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. Liander is assisting the municipalities and provinces by giving them access to its knowledge and experience. The transition vision statements will be ready in 2021. We consider the gas grid's service life, the social investments in it and the application possibilities to find the best balance.

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

We expect the demand for transmission capacity to increase enormously as a result of the developments outlined above. The final result will be a greatly expanded power grid in 2030, compared to 2020. All our focus will be required to ensure proper timing and coordination of this mammoth task. We are working hard on solving the bottlenecks in the power grid by upgrading networks and applying innovative solutions. This takes time however. Until these issues have been resolved, there is a chance that we will not yet be able to supply the capacity required by customers in several areas.

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 Dutch 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

Our strategy comprises four pillars, which stand firmly on a solid and future-proof foundation: a safe, cost-conscious, sustainable and inclusive organisation. This combination of strategy and structure helps us to fulfil our social mission both now and in the future.

Excellent network management

The absolute reason for our existence is to ensure that our energy networks remain among the most reliable in the world. Given the challenges that are coming at us, we have decided to do a number of things differently: we are going to improve our planning of where and when work is required on our networks, take a more forward-looking approach to investing in our networks, and do more in less time.

Support for customers in making choices

In the energy system for 2030, customers play a role in making better use of existing networks. We want to support customers in making choices that work for them as well as for the energy system as a whole. What this boils down to is that we want to make it attractive for customers to consume energy when supplies are plentiful and feed power back into the grid when supplies are low in order to smooth the pressures on the energy network as much as possible at times of peak load. This way, the available network capacity is used to the maximum degree, peak load is prevented as much as possible, and we can design the best possible energy system for the future. We collaborate with market parties, such as energy suppliers and programme managers, to future-proof market facilitation processes. We ensure correct data exchange with suppliers and other parties in today's energy market.

Investing in new open networks

In the future energy system, we will have to cope with a great diversity of energy sources and energy carriers. We have the ambition to be the owner and operator of various energy infrastructures in the Netherlands. Infrastructures that are open to everyone, like the electricity and gas grids. Our primary focus in this process is on district heating networks and hydrogen.

Digitalisation

Digitalisation is an unprecedented enabler in operating our networks, and in preventing outages or troubleshooting them faster. It also enables us to fine tune our investments in the networks, gearing these to the actual condition of our networks. And so, we are embracing digitalisation to be able to better plan our work, speed up processes, make the work easier for technicians, serve customers better and faster, and better manage the energy flows in our networks.

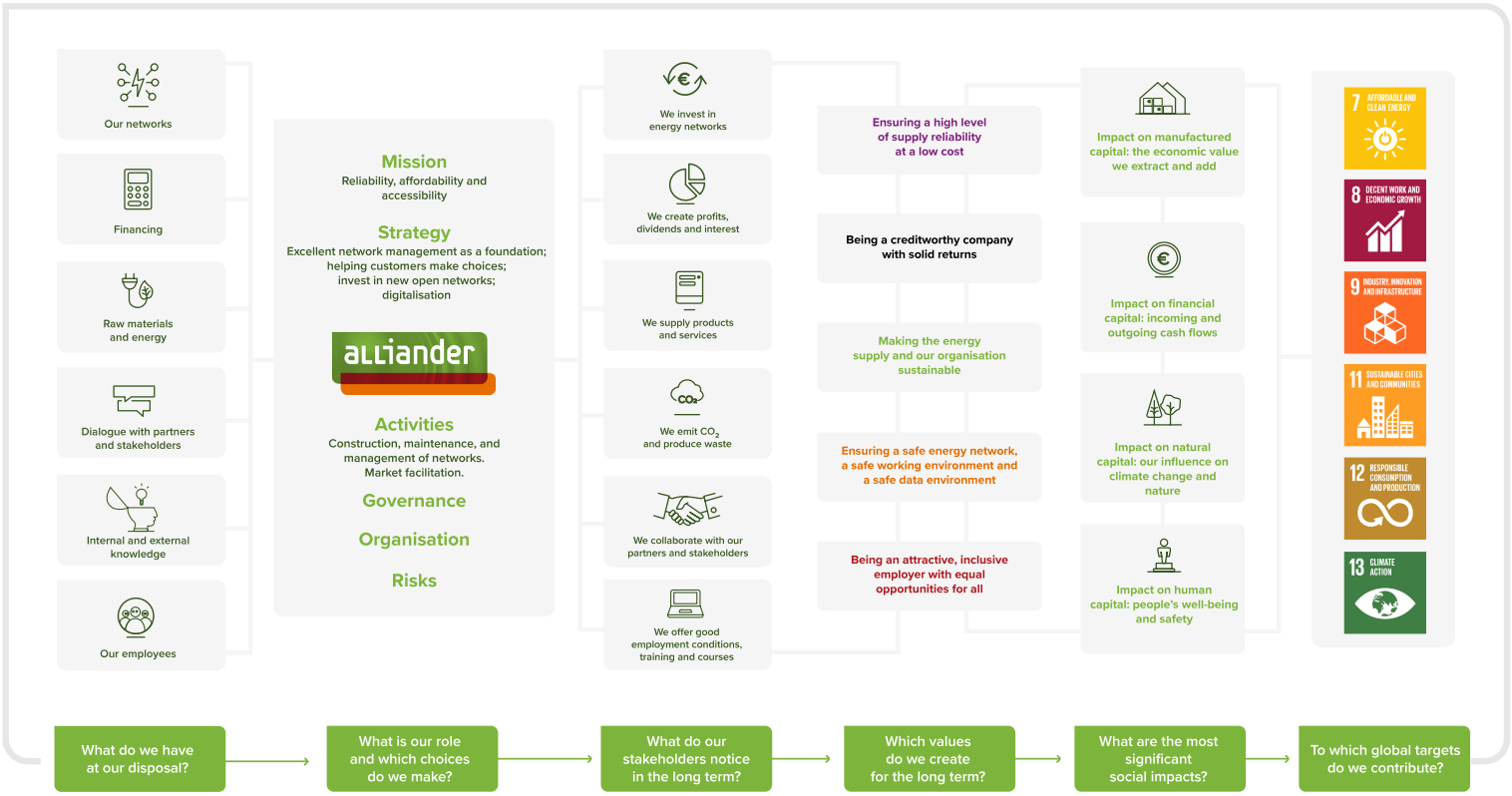
How we create value

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. That contribution is expressed in our value creation model, which clearly shows our capital flows, how we use them, how we add value and the resulting benefits for society. We have formulated all this in a way that represents 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 section entitled Key social impacts.

Value creation model

The model below is interactive when viewed on our annual report website. You can open the relevant paragraph or chapter by clicking an element.



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.

Objectives and results

What do we have at our disposal? → What is our role and which choices do we make? → **What do our stakeholders notice in the long term?** → Which values do we create for the long term? → What are the most significant social impacts? → To which global targets do we contribute?

Ensuring a high level of supply reliability at a low cost

Objectives 2020	Result 2020	Objective 2021	Strategic objective	Principal risks[7]
Customer convenience: the measured NES score is higher than 53% (consumer market) and 32% (business market).	Consumer: 54% Business: 35%	Customer convenience: the measured NES score is higher than 53% (consumer market) and 37% (business market).	Customer convenience will increase in the upcoming years.	Realisation of work package
Electricity outage duration: maximum 23 minutes.	23.2[1]	Electricity outage duration: maximum 23 minutes.	High reliability of supply.	Cybersecurity
Repeat outages: maximum 17 unique cable numbers with more than five interruptions.	17	Repeat outages: maximum 17 unique cable numbers with more than five interruptions.	The number of unique cable numbers with more than five interruptions is maximum 17 in the coming years.	Capacity for change Future-proof IT landscape
Smart meter offering: minimum 375,000.	403,000	Smart meter offering: The large-scale smart meteter offering has been finished in 2020. Therefore this KPI will not be measured in the future.	None.	Long-term regulatory focus

Being a creditworthy company with solid returns

Objectives 2020	Result 2020	Objective 2021	Strategic objective	Principal risks[7]
Credit rating: Retention of solid A rating profile.	S&P AA-/A-1+/stable outlook Moody's Aa2/P-1/ stable outlook	Credit rating: Retention of solid A rating profile.	Maintain solid rating profile. Continuously outperform the sector in terms of costs and operational excellence. Solid results compatible with the regulated permitted return.	Long-term regulatory focus Financeability
FFO/net debt: minimum 20%.	24.1%	FFO/net debt: minimum 20%.		
Interest cover: minimum 3.5.	14.2	Interest cover: minimum 3.5.		
Net debt/(net debt + net equity): maximum 60%.	38.7%	Net debt/(net debt + net equity): maximum 60%.		
Solvency: minimum 30%.	53.1%	Solvency: minimum 30%.		

Making the energy supply and our operations sustainable

Objectives 2020	Result 2020	Objective 2021	Strategic objective	Principal risks[7]
CO2 emissions from business operations: maximum 207 kton (according to a sector-wide calculation method).	205 kton	CO2 emissions from business operations: maximum 150 kton (according to a sector-wide calculation method).	A climate-neutral operation in 2023.	Long-term regulatory focus Future-proof IT landscape Capacity for change
Circular procurement: minimum 40% of all our primary assets.[2]	44%[3]	Circular procurement: minimum 45% of all our primary assets.[2]	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 2020	Result 2020	Objective 2021	Strategic objective	Principal risks[7]
LTIF (lost time injury frequency): none.[4]	1.8	LTIF (lost time injury frequency): none.[4]	Safety is a precondition for our business operations. We create a proactive safety culture.	Safety Privacy energydata Cybersecurity

Being an attractive, inclusive employer with equal opportunities for all

Objectives 2020	Result 2020	Objective 2021	Strategic objective	Principal risks[7]
Employee survey score: minimum score of 71 (on a scale to 100) in the Great Place to Work employee surveys.	None[5]	Employee survey score: currently we are developing a new research method. By announcement of the new method we will also announce the new target.	Top-class employer; an innovative and successful company where we develop future-oriented knowledge and competences.	Capacity of change
Employee absenteeism: maximum 4.3%.	3.9%	Employee absenteeism: maximum 4.3%.	The maximum employee absenteeism rate is 4.3% in the coming years	
Women in leadership positions: minimum 30% of all leadership positions.	29.0%	Women in leadership positions: minimum 31% of all leadership positions.	At least 33% of our leadership positions will be filled by women by 2024.	
Employees at a distance from the labour market: minimum offering of 108 apprenticeships. At least 83 of these places comply with the Labor Participation Act.	108[6]	Employees at a distance from the labour market: minimum offering of 107 apprenticeships. 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 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.

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

3 In line with the method used in previous years, based on the percentages for recycled and recyclable indicated by our suppliers, the percentage is 44%. Based on a revised method for raw materials passports, the most likely percentage for Circular is 35%, however this method has a wide variance of between 10% and 80% recyclability in the case of some materials. See also the section on: 'Circular operations'

4 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.

5 No employee satisfaction survey was conducted in 2020 due to the focus on the reorganisation and the COVID-19 crisis, which made performing a new survey difficult. More information can be found in the chapter about our employees

6 The figure for employees at a distance from the labour market comprises 78 employees working for us under the Dutch Participation Act and another 30 with a work experience placement.

7 The Risks chapter explains the risks in detail.

The value we create

Our network: Ensuring a high level of supply reliability at a low cost

What do we have at our disposal? → What is our role and which choices do we make? → What do our stakeholders notice in the long term? → **Which values do we create for the long term?** → What are the most significant social impacts? → To which global targets do we contribute?

We achieve 99.99% availability in our energy networks, making them among the most reliable in the world. The supply reliability in 2020 remained unchanged at this extremely high level. Planned expansions and smart solutions helped us to partially mitigate the shortage of transmission capacity. Even so, the number of transmission bottlenecks rose sharply. In the coming years, a lot of work still needs to be done to advance the energy transition.

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

A) Reliability of supply
D) Working together on innovative solutions
E) Data-driven network management
G) Satisfied customers
I) Company's adaptability
J) Future-proof network
O) Access to affordable energy

Contribution to SDGs

Related stakeholder groups

Customers, shareholders and investors

Objectives and results for reliability of supply

Customer convenience rated by consumers

54% 2020 result

≥ 53% 2020 objective

55% in 2019.

Customer convenience rated by business customers

35% 2020 result

≥ 32% 2020 objective

33% in 2019.

Electricity outage duration[1]

23.2 2020 result in minutes

≤ 23.0 2020 objective in minutes

21.9 minutes in 2019

Realisation of planned smart meter offering

403,000 2020 result

≥ 375,000 2020 objective

624,000 in 2019

Cable numbers with >5 interruptions

17 2020 result

≤ 17 2020 objective

17 in 2019

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 not taken into consideration in the regulatory report.*

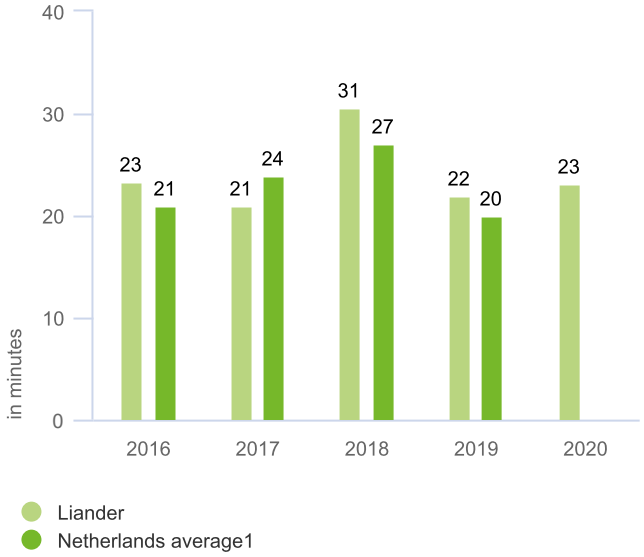
Excellent network management

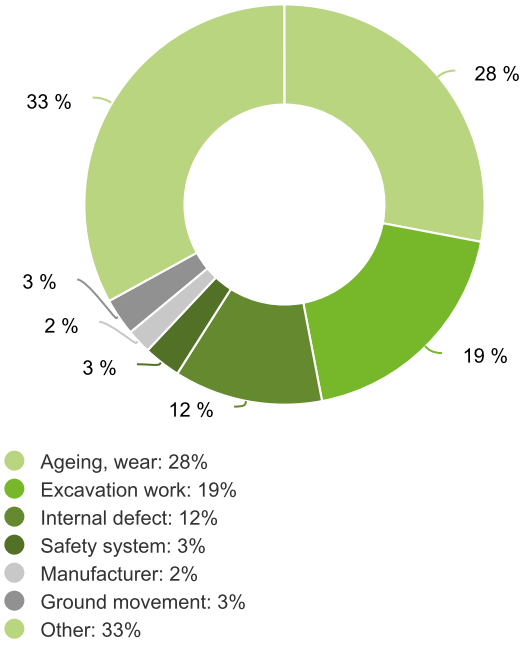
Supply reliability of the electricity grid

Our customers were without electricity for an average of 23.2 minutes (2019: 21.9 minutes), which is more than the target of 23 minutes. As in 2019, no major outages occurred. However, there were more medium-voltage outages during the hot summer, leading to an increase in outage duration compared to the previous year. This was caused by weak components in the grid overheating and failing. In 2020, 33% of the annual outage duration was caused by external factors, up from 27% in 2019. Damage caused during excavation work by third parties is another major cause.

We measure the number of repeat outages by analysing which cables are associated with five or more outages. The cables in the power grid are numbered. The number of unique cable numbers in the power grid associated with more than five repeat outages per year was 17 (2019: 17). This was on target.

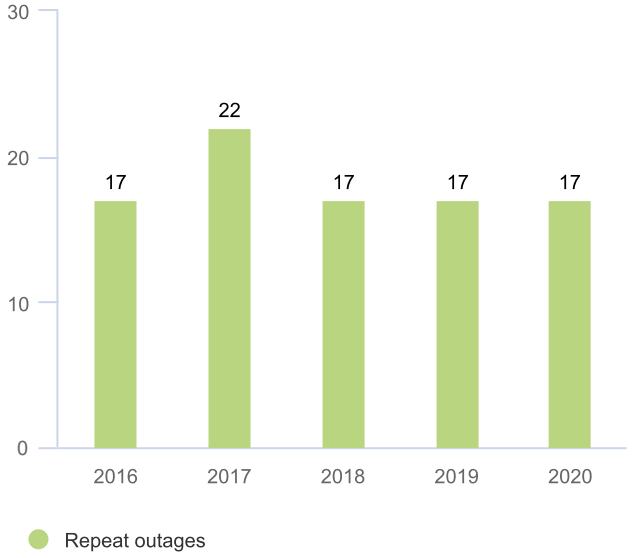
Power grid outage duration and causes





1 The Dutch average for 2020 is not yet known.

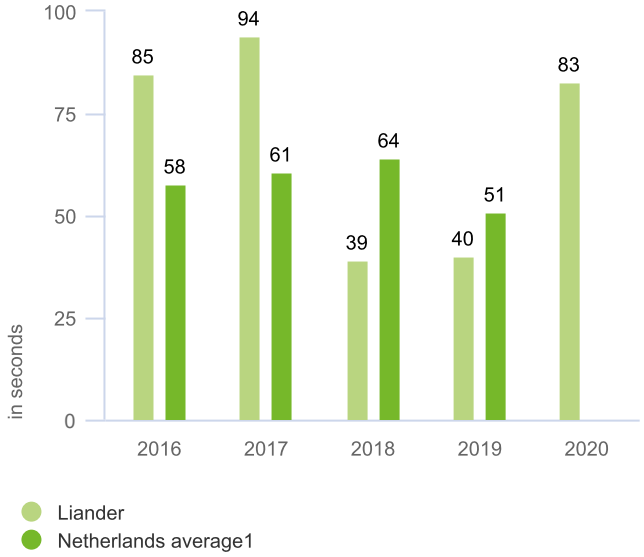
Repeat outages

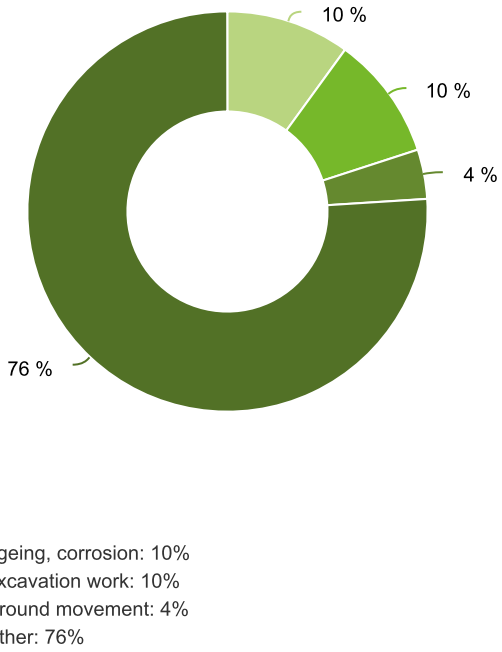


Supply reliability of the gas grid

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 2020, the outage duration on the gas grid was 83 seconds. The outage duration is mainly attributable to a major breakdown in Zaandam on 27 January 2020 (shown in the diagram under ‘other’). If this breakdown had not occurred, the average outage time on the gas grid would have been just 30 seconds.

Outage duration of gas grid and causes





1 The Dutch average for 2020 is not yet known.

Infrastructure maintenance

In 2020, we spent €1,030 million on the maintenance, replacement and construction of our energy infrastructure (2019: €1,044 million). Infrastructure maintenance takes place at various locations throughout the year. Last year, we found that switching off the power to get the work done caused more problems than normal. More customers are working at home due to the COVID-19 crisis. In some locations, residents even tried to stop our technicians carrying out their work. We at Alliander find this behaviour unacceptable, so we continue to explain why it is important for our people to stay on the job and ask the public to maintain the recommended social distance.

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. Together with municipalities, contractors, suppliers of materials and excavation contractors, we have identified opportunities for accelerating the work, where possible in combination with the heating transition. The new completion date when all the mains in the scope of the remediation plan will have been replaced is now 2032 instead of 2040.
In addition to accelerating the activity, we have also agreed to intensify the frequency of gas leak detection in the pipelines. Gas leaks can lead to benzene contamination. Studies indicate that 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. Nevertheless, our aim is to detect gas leaks before they become a problem. We use extremely sensitive equipment for this, which is capable of detecting minimal gas leaks at a very early stage. The search frequency was increased last year to once a year instead of once every five years.

Access to energy

Prepaid energy

For some customers, paying their monthly energy bill is quite a struggle. Liander also has to find solutions each year for customers who do not have an energy contract with an energy supplier. We applaud social initiatives in the area of energy awareness, such as the Energiebank [Energy Bank] and the Prepaid Energy Service pilot project, and participate in these initiatives to help people on a low income stay out of debt and ensure that they can arrange and maintain adequate access to energy.

Disconnection as a last resort

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.

Performance in the regions

A great deal of work is being done in Liander's service areas to make the energy network ready for the future. The ambitions and activities differ from area to area. Liander helped prepare the draft Regional Energy Strategies that were submitted in June. We participated in various working groups and forms of administrative consultation. We drew up grid impact reports to quantify the impact of the draft Regional Energy Strategies on the power grid and outlined how to organise local supply in the most system-efficient way. We also supported municipalities in their work to prepare the Transition Vision Statements for Heating.

Noord-Holland

In the province of Noord-Holland, the demand for electricity continues to grow, but the capacity of the network is not always sufficient. To help resolve this situation, Liander collaborated with TenneT in various power grid expansion projects in 2020. For example, the substation in Haarlem Schalkwijk was partially renewed. In Haarlemmermeer we expanded the electricity grid to facilitate the connection of data centres. As part of this work, we built the 20kV section at the Vijfhuizen electricity substation. We also started a feasibility study to find the best location for a new substation at the Schiphol Logistics Park in Rozenburg.

Despite all these expansion projects, the growing demand for power is still causing capacity shortages in various places in Noord-Holland. In the northern tip of Noord-Holland, this restricts the amount of energy that can be fed back into the grid. The Wieringermeer wind farm was however successfully put into service. Liander laid 20kV connections between the wind farm and the newly constructed Middenmeer substation in order to connect up the turbines. In the Haarlemmermeer and Zaanstreek areas, grid restrictions stand in the way of new and additional power. Consequently, work will also continue in future years in order to expand the network.

Amsterdam

To emerge sustainably from the COVID-19 crisis, Amsterdam is investing tens of millions in measures that will help create jobs and make the city more sustainable. This includes making homes natural gas-free and installing solar panels on housing corporation properties. We are investigating the impact of this on our infrastructure and trying to create an optimum overlap between this schedule and the capacity enlargement and replacement plans for our cables and pipes. In addition, we are working with the municipality to retrain people who have lost their jobs due to the COVID-19 crisis in order to fill technical vacancies.

At the same time, growth in the Dutch capital and initiatives to make it more sustainable will lead to a major increase in the capacity needed in the power grid. Liander is working with the municipality and TenneT to create the future power grid for the city: we are upgrading the power grid infrastructure in several places. For example, we are increasing capacity at stations in Nieuwe Meer and Bijlmer-Noord. We are also talking with the municipality about building new stations at various locations in the city, such as IJburg, the Havengebied, Amsterdam Zuid-Oost and Amsterdam Noord. Preparations for tackling the Venserweg substation have started. Liander has also replaced more than 33 kilometres of obsolete gas pipes to prevent leakages.

Friesland

The number of solar roofs and solar farms in particular is growing rapidly in Friesland. This development is putting increasing pressure on the power grid. The provincial authority has announced solar energy policies that are designed to limit the emergence of large-scale solar farms. Liander collaborated with TenneT where necessary to resolve bottlenecks. For example, we completed the capacity upgrade at the Dokkum substation. The enlarged Wolvega substation was also completed. We are currently involved in permit procedures for a new electricity cable to Ameland. Preparations for expanding the Oudehaske substation also started in 2020. We have made good progress in expanding the Oosterwolde substation, which will be ready in 2022, and with the preparations for the Bolsward substation. The latter substation will be used for the wind farms near the Afsluitdijk and is expected to be completed in 2023.

Gelderland

The province of Gelderland covers a large and diverse area that is increasingly characterised by initiatives for large-scale generation of wind and solar energy, natural gas-free districts and transport electrification. These trends, together with the development of business parks, logistics centres, the greenhouse horticulture sector and new housing construction, mean that the demand for electricity is growing and sometimes exceeds the capacity of the grid. To help resolve this situation, Liander also worked on expanding the power grid in 2020. In the Rivierenland region, we are expanding existing stations and looking for suitable locations for new stations together with TenneT. In Neerijnen, we were the first regional network operator to start congestion management; a novel approach that shares limited capacity on the power grid. In addition to the expansion projects at the Ulft and Borculo substations, we worked hard on upgrading the local grids in the Achterhoek area. The aim here is to facilitate the large number of applications for solar power generation. We are building a new substation in Oosterhout to meet the rapidly growing demand for power in Nijmegen-Noord. And, in order to supply power to more customers in the meantime, we are laying extra cables from the Park 15 business estate to the Bemmel substation. A large conversion project is also ongoing at the Barneveld substation.
Together with Overijssel, the provincial authority of Gelderland has drawn up a regional strategy for rolling out charging infrastructure for electric vehicles. A total of 246 new electric buses have been taken into use for bus services in the Veluwe and Midden-Overijssel regions. Liander completed the necessary grid expansions and provided the connections required to facilitate the charging infrastructure for these buses.

Flevoland

During the past 18 months, the rapid growth in solar power generation in Flevoland caused bottlenecks in the power grid in many places. The main issue in the Noordoostpolder is a shortage of transmission capacity for all the solar energy that is being fed back into the grid. In order to solve bottlenecks, we are working on various expansion projects and upgrades, including construction of a substation in Dronten. We have started expanding our power grid for the Noordoostpolder and Urk. In addition, two new substations are being built to significantly increase capacity, particularly in Urk. This project is expected to take four to five years to complete. The preparations have now started. In Zeewolde, the first green gas booster has now been installed and connected to the regional gas grid. The booster raises the pressure of the green gas from four bars to the eight bars required in the gas grid. Thanks to the new compressor, producers can feed green gas into the grid throughout the year.

Zuid-Holland

There is an increasing demand for electricity in Zuid-Holland. We are adapting the infrastructure accordingly in consultation with the regional authorities. In 2020, the first steps were taken in preparation for a substantial investment programme designed to upgrade the region's power grid in line with the high level of demand for electricity. Together with TenneT, the municipalities of Zoeterwoude, Leiden, Voorschoten, Leiderdorp and the provincial authority, we started looking for a location for a 150kV power station in the Leiden area, and a further four 50kV stations. In addition, we are also collaborating with Stedin and TenneT to develop and construct a completely new station in Zuidplaspolder. In Boskoop, work has started on expanding the power grid so that it can keep up with rising demand for energy in the area.

As part of the local energy transition programmes, we have built new medium-voltage transformer stations and connected charging points. Agreements have been reached with municipalities about upgrading natural gas pipes and the first pipes have been replaced. We are also actively involved in the regional strategy for charging infrastructure: Regionale Aanpak Laadinfrastructuur (RAL).

Investments by region

	Investments (in millions of €)
Noord-Holland	301
Amsterdam	111
Zuid-Holland	69
Gelderland	264
Friesland	84
Flevoland	37
Other (Kenter and Alliander AG in particular)	24
Total	**890**

Challenges in the regions

As described previously, we are already seeing bottlenecks in the Dutch power grid that pose an obstacle to the energy transition and to the further economic development of the Netherlands. The electricity grid is busy with delivering power, but also with the feed-in of electricity from solar and wind energy generation facilities. Expanding the grid is a process that will take many years. In view of this challenge, we have decided to adopt a different approach to the energy transition by applying smart solutions and innovations wherever possible in the regions where Liander operates.

Insufficient transmission capacity

In the transition to a sustainable energy supply, wind and solar farms are producing more and more green electricity. They are often located in rural areas where little electricity is used. Consequently, the electricity must be transported to consumers elsewhere in the country. Industry, agriculture, electric mobility and sustainable residential areas also need more and more electricity. All these factors present major challenges for network operators, specifically because the grid is designed to supply electricity from gas and coal-fired power stations to consumers. The lower the number of consumers in an area, the thinner the cables. But it is exactly these areas where most renewable energy is generated because of the abundant availability of space and cheap land. The power grid has not been dimensioned to cope with this development.

The power grid is currently running at full capacity or near full capacity in some places. In rural areas, there is little or no capacity available for connecting new solar farms. In Liander's service area, there are capacity restrictions at roughly 20% of the high-voltage substations, and 35% of the medium-voltage substations are running at full capacity. So companies that want to expand, and therefore use more electricity, cannot immediately be offered a connection in areas where there is a shortage of transmission capacity. In more and more cases, they will have to wait until we have upgraded the grid locally or until other solutions become available. In 2020, Liander started publishing biweekly updates on the available grid capacity.

To continue facilitating the transition, Liander is investing significantly in expanding and upgrading the energy networks and in new, smart technologies. In the period up to 2030, we plan to expand and build around 100 substations in collaboration with TenneT. An additional 10,000 medium-voltage facilities will also be required and 20,000 km of new medium-voltage cable will have to be laid. In 2020, we invested more than €890 million in the network. For example, we completed a major upgrade project at a power station in Wolvega and laid an extra cable in Nijmegen-Noord so that Liander could accept dozens of new requests for additional power.

Thanks to the hard work done last year, we have eliminated transmission capacity shortages at a number of locations. We expect to do this in several other areas in the coming years. Nevertheless, as expected, the number of bottlenecks increased in 2020, particularly in Friesland, Noord-Holland and Gelderland. In contrast to the past, when mainly large-scale customers were affected, we also found that consumers were occasionally unable to feed all of their renewable energy back into the grid last year, for example, on very sunny days.

In the years to come, our investments will increase to more than €1 billion per year. Despite this, we do not expect the capacity problem to be resolved in the near future. As we expand the power grid, more and more solar panels and wind turbines are being added at the same time and the two cancel each other out to some extent. So we must continue to innovate, together with market parties and other stakeholders, in order to use the power grid more efficiently. Cable pooling (solar and wind energy on a single cable), congestion management (see box), curtailment and the use of the 'emergency capacity' in the network are solutions that we are developing and deploying to create greater capacity in the power grid.

Connection at 70% capacity

In 2020, we and the other network operators signed the 'Stroom Betaalbaar op het Net' [Affordable Power on the Grid] covenant. One of the agreements in this covenant is that solar power projects must be connected at 70% of the nominal installed capacity. On average, this 70% connection is adequate for a solar farm 97% of the time. This allows us to connect more projects at lower costs and create a healthy market for solar power.

But more is needed. The energy transition also calls for all the parties involved to collaborate in creating a smart and efficiently designed future energy system by, for example, reducing the distance between generation and usage so that fewer cables and transformers are required. Our task is to keep costs at the lowest possible level. It is also important to ensure an adequate supply of wind energy, in addition to solar energy, and combine power generation initiatives. An overview of all the developments is required in order to make optimum choices. An integral approach at national and regional level is becoming increasingly important.

Congestion management in Neerijnen

The Neerijnen region in Gelderland is one of the areas where the power grid has reached the limits of its capacity. As in other places, the growing demand for electricity and the rapid increase in the amount of solar and wind power being fed back into the grid here are causing congestion. In Neerijnen, this is mainly due to horticulturalists starting up or expanding businesses, or making their businesses more sustainable. We are expanding the power grid in many places in order to create greater grid capacity. Neerijnen is one of these places. However, the work will not be completed until 2023. As in other places with insufficient grid capacity, we investigated the option of applying congestion management in Neerijnen. This involves splitting the available space on the grid fairly and efficiently. We ask the parties participating in congestion management to use or generate more or less power. The market parties indicate the price at which they wish to purchase electricity or feed back power into the grid. As the study clearly indicated that congestion management is possible in Neerijnen, we held discussions with the different parties in 2020 to encourage them to participate in the system.

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.

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 carriers. In 2020, we introduced Dynamisch Terugleveren, i.e. dynamic active power curtailment, as the solution for bottlenecks leading to excessive voltage in the grid. Dynamisch Terugleveren calls for the customer to set up its solar or wind farm to actively limit power feed-in in real time when the grid voltage becomes excessively high.
Further examples of technical innovations that we are constantly working on are cable pooling (connecting solar farms and wind farms to a single cable) and connecting solar panels and wind turbines by using spare capacity reserved for outages and maintenance to allow a greater level of renewable energy generation. From 1 January 2021, in an effort to resolve transmission capacity limitations, Liander will offer customers who only want to feed in energy a connection that can be switched off preventively. This connection is routed via the spare capacity in the power grid (the 'emergency capacity'). During normal operation, the customer can feed in power. In the event of outages or planned work when Liander needs to be able to use the spare capacity itself, the customer's connection can be temporarily deactivated as a preventive measure. This customer-specific solution allows us to use the spare capacity to connect more feed-in customers.
Hydrogen at system level is a new type of energy carrier. In 2020, we approved investment in a number of pilot projects. Alliander wants to learn what the large-scale production of green hydrogen from wind and solar energy can mean for affordable and reliable network management.

Digitalisation

Digital technologies and innovations are unlocking new opportunities for managing our networks. Liander employs these new opportunities to more quickly detect and even prevent outages, make 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.

Digital components were rolled out further in 2020, 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.

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 2020 we prevented 49 power cuts and shortened the duration of 100 others. By the end of 2020, we had over 1,500 SCGs monitoring our network (2019: around 900). 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. Service technicians now work with an app that provides on-site information that was previously only available in the office. 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. This helps us take targeted investment decisions. With regard to the smart medium-voltage stations, the 134 we installed in 2020 put us above the planned 97 units. A total of 694 smart medium-voltage stations are in operation.

Congestion management

Following on from the flex-markets in Nijmegen-Noord and Zuidplaspolder, businesses in the Neerijnen region also had the opportunity of participating in congestion management from October onwards, through the GOPACS (Grid Operators Platform for Congestion Solutions) platform. GOPACS is a partnership set up by the Dutch network operators to resolve congestion in the power grid. Consuming less power, or supplying more power, in return for a fee prevents capacity problems in the grid. For example, a specific fee is paid to a participating company when it feeds electricity generated by its combined heat and power system back into the grid, or switches off a number of packaging machines. This prevents a capacity shortage (congestion) and therefore reduces the risk of power cuts.

Neighbourhood analysis tool for municipalities

The neighbourhood analysis tool used by Alliander to support municipalities when drawing up the Transition Vision Statement for Heating was improved during financial year 2020 to allow municipalities to use it independently. Thirty-seven municipalities are now doing so. This is a good example of how we increase our partners' knowledge to facilitate smooth collaboration. In addition, this development saves us a great deal of time because municipalities now have greater control.

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 save energy, encourage them to use energy during cheaper off-peak periods, 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 nearly all of our small consumer customers. Each day, more than 2 million requests for data from the smart meter are now being processed. In 2020, we offered the smart meter to over 400,000 customers, taking into account measures against the spread of COVID-19. The final result at the end of 2020 was 107% of our total plan - equivalent to 101% of the Ministry of Economic Affairs and Climate Policy's total offer plan, as some customers were approached more than once.

We will complete the roll-out of the smart meters at the beginning of 2021. This is when we will start offering smart meters in the context of the phased reduction in the statutory feed-in rate: customers who do not yet have a meter that separately registers the electricity flows taken from and fed into the grid will be offered a meter with this capability in 2021 and 2022. We will work in close cooperation with our partners, such as contractors, to implement this second phase.

Improving our operational processes

In 2020, within the operational organisation, we set ourselves the goal of at least doubling production and customer convenience by 2023. We are also working hard to respond to the rapid growth in demand for connections and feed-in capacity, and to solve bottlenecks. In 2021, we will continue our efforts to improve production capacity and focus on our goal of increasing productivity. We are working on the following four concrete developments:

Doing the work in the right sequence

In 2020, we restructured the way we manage investment in the downstream grid by starting to rank projects in the order of their importance in each region. This ensures that we use our capacity, which is finite, to the best effect. The benefits of this approach include an increase in our spare connection capacity, which will allow us to connect customers more quickly in the future and prevent or resolve transmission restrictions. We also took action in 2020 to ensure that we can more accurately predict the amount of work we will have completed by the end of the year.

Expanding production capacity

The programmes initiated in 2019 to recruit more technical staff and outsource more work to the market continued unchanged in 2020. A new strategy has been drawn up for contractors. New tenders have been started for work packages where the contractor is responsible for both implementation and the preparatory work.

In 2020, learning paths and new training courses were set up for foremen, project managers and engineers so that we can train people faster and better and keep them moving up the ladder in the organisation. We also recruited people from outside the sector (including industries that have been hit hard by the COVID-19 crisis) as foremen and for other positions. The first of these employees will start with us in 2021.

Qirion completed the regional reclassification process initiated last year by further simplifying the main structure of the business unit. This reorganisation focuses on creating a simpler organisational structure, ensuring that people can find each other more easily and making core processes clearer and simpler. This means that the work package can grow considerably in the years to come. This development matches the wishes of our internal and external clients.

Digitalisation and optimisation of the design and build process

In 2020, extra digitalisation teams were formed to introduce new digital tools for work preparation, engineering and implementation processes. Smarter planning, better support during execution, better information provision, more effective management based on accurate costing and greater cost awareness are key aspects of this process. For example, the design for a new power grid can now be produced fully automatically by a computer. Administrative processes that previously ran completely separately in different systems are now linked to eliminate double inputting and allow better project monitoring. In 2021, the digitalisation teams will gradually release more tools for use by the organisation. To improve management control, we have implemented a cost system that compares the standard time allocation to the actual time required to complete tasks. The results allow management to identify and respond more effectively to the actual causes of discrepancies.

New products and services

All our technical innovations require process adjustments in order to be able to offer new products and services faster. In 2020, we developed a new process for generating quotations to ensure proper handling of transmission capacity limitations in line with the regulatory framework. We also offered customers new products, such as the switch-on/switch-off medium-voltage connection.

Increasing the organisation's effectiveness

The energy transition has a major impact on Alliander. We face the mammoth task of expanding the power grid and keeping it reliable. In order to meet this challenge, we need to increase our flexibility and our power of execution. This requires us, as Alliander, to have a shared vision of our goal, operate as an agile, effective and cost-efficient organisation and work as one team. To achieve this, we are taking action to change our organisational culture.

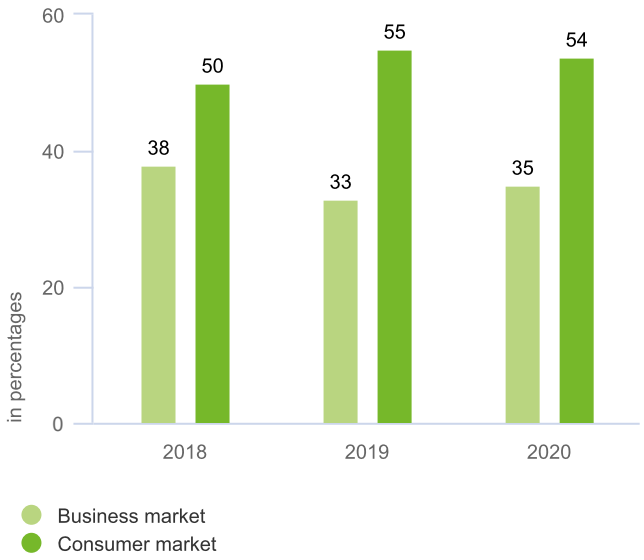
With agility and effectiveness in mind, we developed plans last year for a new and flatter organisational structure that will let us make decisions faster. In December, the Works Council issued positive advice on the plans for the new organisation.

In the new organisation, which came into effect on 1 January 2021, we will be able to work more productively at a faster pace and devise and implement innovative solutions more quickly. In addition, the way in which we organise ourselves helps us focus on our strategy and generic working methods ensure faster and more effective task completion.

Customer convenience

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. 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 in consumer and business markets



Customer convenience rated by business customers

In 2020, customer convenience based on the Net Effort Score (NES), as rated by business customers, rose to 35%, compared with 33% in 2019. When customers express dissatisfaction, the reasons they state mainly relate to increasing connection times and the increasing number of transmission limitations. Requests for quotes for solar power generation and the associated feed-in requests are also increasing sharply. As a result, requests cannot always be processed within the specified time periods. Customers also state that they have to put a lot of effort into getting the answer they are seeking during the implementation process.

Ensuring optimum customer convenience for business customers is a collaborative effort that involves many stakeholders, including municipalities, contractors and other business parties. The level of customisation is high. Where possible, the associated processes are optimised and digitalised.

Customer convenience rated by consumers

Our customer convenience score for the consumer market stood at 54% in 2020. This is similar to 2019 and a good performance in a COVID-19-stricken year. The most important points for attention in 2020 were the long waiting time between submission of the request and final execution of the work, and the quality of communications during the intervening period. This is where the customers experience the greatest inconvenience.

Drop in the number of customer queries

Customer queries fell by 3.2% compared with 2019, with pronounced reductions during the first lockdown and during the summer. 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 3.3 million times in 2020. That represents an increase of 35% relative to the number of visits in 2019. During the period after the intelligent lockdown in March 2020, we saw an even sharper rise in the need for online communications about our services.
In 2020, we worked on expanding our self-service offering, resulting in the creation of a ‘Mijn Liander’ (My Liander) environment for consumers and small business customers among other additions. Customers can use this facility to create an account and access more detailed information about the status of their connections. They can also initiate or complete a number of actions online in this environment. In the coming years, we will expand the environment so that customers can increasingly arrange their grid-management affairs online. Examples of other changes to Liander.nl are online help when purchasing solar panels, more detailed information about the transmission capacity per region and an online knowledge database.

Being a creditworthy company with solid returns

What do we have at our disposal? → What is our role and which choices do we make? → What do our stakeholders notice in the long term? → **Which values do we create for the long term?** → What are the most significant social impacts? → To which global targets do we contribute?

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

H) Socially responsible investment policy

Contribution to SDG

Related stakeholder groups

Customers, shareholders and investors

Objectives and results for creditworthiness

Credit rating

Result in 2020:
S&P AA-/A-1+/stable outlook
Moody's Aa2/P-1/stable outlook

2020 target:
To retain a solid A rating profile

S&P AA-/A-1+/stable outlook
Moody's Aa2/P-1/stable outlook in 2019

FFO/net debt

24.1% 2020 result

≥ 20.0% 2020 objective

29.0% in 2019

Interest cover

14.2 2020 result

≥ 3.5 2020 objective

13.3 in 2019

Net debt/(net debt + equity)

38.7% 2020 result

≥ 60.0% 2020 objective

36.5% in 2019

Solvency ratio

53.1% 2020 result

≥ 30.0% 2020 objective

55.6% in 2019

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 June 2020 Alliander issued a new green bond loan. As a result, 60% of our senior bonds are now green. Our sustainability efforts have been rewarded with a sustainability classification of B+ by rating agency ISS ESG and a Medium Risk classification by Sustainalytics.

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 2020	31 December 2019
FFO/net debt[1]	> 20%	24.1%	29.0%
Interest cover[2]	> 3,5	14.2	13.3
Net debt/(net debt + equity)	< 60%	38.7%	36.5%
Solvency[3]	> 30%	53.1%	55.6%

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 2020, the FFO/net debt ratio amounted to 24.1% (year-end 2019: 29.0%) compared with a required minimum of 20%. The decrease can be attributed to the increase in the net debt position, in combination with the lower result due to COVID-19 and the higher tariffs charged by TenneT.

As at 31 December 2020, the interest cover ratio worked out at 14.2 (year-end 2019: 13.3). 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 2020 amounted to 38.7% (year-end 2019: 36.5%). Alliander's financial policy stipulates that this ratio should not exceed 60%. The increase is mainly due to a more substantial net debt position, including the green bond loan of €500 million issued by Alliander in 2020.

The solvency ratio as at 31 December 2020 amounted to 53.1% (year-end 2019: 55.6%) compared with a required minimum of 30%. The decrease compared with 2019 is mainly due to the increase in assets as a result of investment.

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. For more information, see the Proposed profit appropriation for 2020.

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 provincial and municipal authorities. 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 2020, 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 and pension funds provide a large part of our loan financing. 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 2020 we met with investors in Amsterdam, Frankfurt, Paris and London to discuss the 2019 figures. In September 2020, we held a conference call on the half-year figures. Various topics were discussed on both occasions, including the energy transition, the increase in investments, our financial and dividend policy, the new regulatory period and the impact of COVID-19 on Alliander.

Banks

Alliander has access to a committed back-up credit facility of €600 million. The facility, which 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 2020 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. Topics discussed included the upcoming regulatory period, the challenges presented by the climate objectives and the energy transition, the increase in investments, potential shareholder support and the impact of COVID-19 on Alliander. 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 for the current regulatory period.

Rating agencies also assess our performance in the area of sustainable business practices. ISS ESG awarded us a B+ classification (year-end 2020). This is the highest classification ISS ESG has awarded to any of the companies it assesses in the network sector. In addition, we were also awarded a medium risk classification by Sustainalytics (year-end 2020).

Tax matters

Alliander's tax policy focuses on national taxes in the Netherlands, which are mainly 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 2020

€ million	Netherlands	Germany
Corporate income tax	49	2
Dividend tax	17	-
Wage tax	166	1
VAT	232	2
Total	**464**	**5**

In the past, Alliander entered into a covenant with the Dutch Tax and Customs Administration under the 'Horizontal Supervision' arrangements. Among other things, this means that we regularly engage in active, constructive and transparent talks with the tax authorities in respect of taxation that is relevant to Alliander. When implementing our tax strategy, we follow the guidelines set out in Alliander's risk management model. The Tax Control Framework is used as a risk mitigating measure to ensure a correct and complete tax return for the various types of tax, arrange timely submission of the returns and make sure that the tax owing is paid on time.

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

- We are compliant and observe the valid tax rules. We make use of tax facilities in a manner appropriate to our social position. This means that we apply the tax rules within our normal business operations and do not set up structures that mainly target tax avoidance.
- We attach great value to having a good relationship with the Dutch Tax and Customs Administration and work with them based on mutual trust, understanding and transparency.
- In our financial reporting – in the financial statements for example – we are transparent about the tax we pay.
- We are transparent vis-à-vis internal and external stakeholders with regard to all relevant records relating to tax and subsidies.
- For cross-border activities, the transfer pricing rules apply. We abide by these rules.

Financial results in 2020

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 and transformers, income related to new activities and income from the activities of other companies outside the regulated energy sector. As a network operator, Liander publishes its own annual report on its performance in 2020. This annual report will appear in the second quarter of 2021.

The main expenditure relates to maintenance work on the electricity and gas networks and the operating expenses connected with all other activities. We invested nearly €900 million in 2020, mainly for the replacement and expansion of our networks, as well as the installation of smart meters. This investment equates to roughly 37% 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 2020 together amounted to approximately 5% 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 8% of our outgoings approximately.

Cost-effective and efficient operations

Alliander invests increasingly in upgrading and expanding the networks in response to the energy transition. To be able to carry on financing these investments in a responsible manner, a multi-year, organisation-wide cost savings programme was initiated in 2018, aiming to reduce costs and increase productivity.

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. The idea is to work smarter and more efficiently. This will not only lead to savings, it will also increase our ability to get the work done. 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 more than €100 million at year-end 2020 compared to 2017. This amount reflects both cost reductions and efficiency improvements.

Income statement for 2020

Net profit amounted to €224 million in 2020 compared with €253 million in 2019. Profit is down by €29 million, due to the effects of COVID-19 (€12 million) and other factors. The COVID-19 crisis resulted mainly in lower revenue from electricity. The tariffs for large business customers are partly linked to the transmission volumes. The increase in the tariffs charged by TenneT also had a negative impact on our profit. As a result of these higher tariffs for transmission capacity, our costs increased by €63 million compared to 2019. On the other hand, our revenue also increased. The higher tariffs resulted in a regulated revenue from electricity and gas that was €43 million higher than in 2019. As a result, our net revenue exceeded €2 billion for the first time.

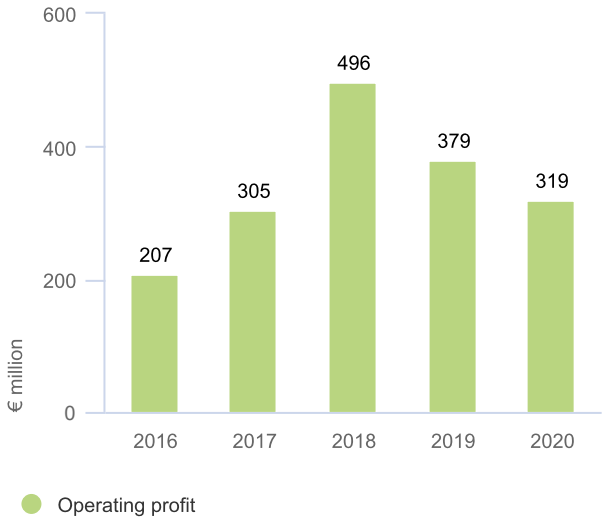
Total operating expenses for 2020 (€1,736 million) were €145 million higher than in 2019. This increase in expenses was mainly caused by the aforementioned €63 million extra charged by TenneT. Our procurement costs and the cost of subcontracted work were €21 million higher as a result of the more extensive work package.

Tax expenses were down €21 million on 2019. This is due not only to lower profit for the year; the changes to the proposed reduction in corporate income tax rates also had an effect. The latter resulted in an (incidental) expense of €19 million in 2020 (2019: incidental income of €9 million).

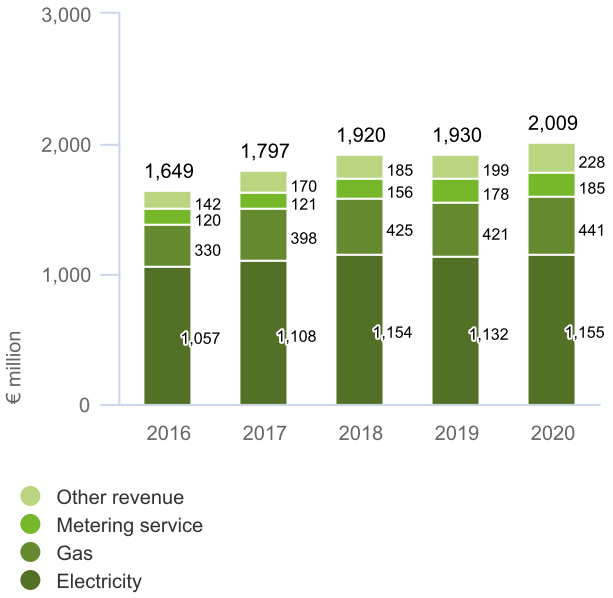
The net profit is affected every year by incidental items, which, in 2020, had a positive impact of €3 million on our profit. Profit excluding incidental items worked out at €221 million, €46 million lower than the comparable profit in 2019. These incidental items are explained in more detail later in this report.

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

Operating profit



Net revenue

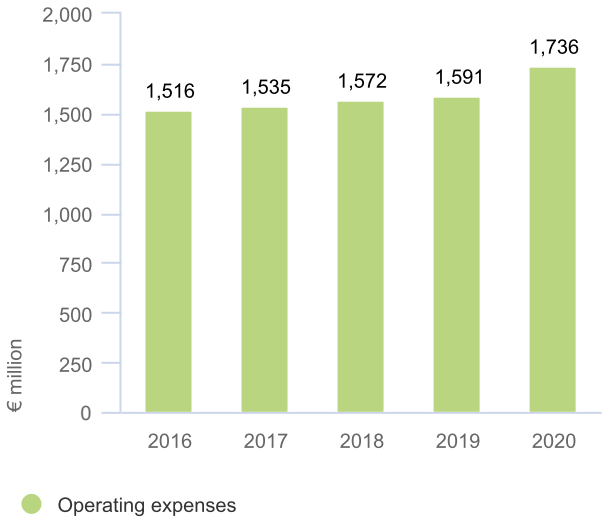


Net revenue

Net revenue in the 2020 financial year rose by €79 million compared with the previous year, from €1,930 million to €2,009 million, pushing past the €2 billion mark for the first time. The (regulated) revenue from electricity and gas increased by €23 million and €20 million respectively. This increase in relation to electricity was caused by a higher number of connections and higher tariffs. The revenue from electricity is partly linked to the transmission volumes in the case of large business customers. Due to the impact of COVID-19, these volumes were lower and had a negative impact on revenue of €17 million.
The increased revenue for gas can be fully attributed to the higher (regulated) tariffs. The higher revenue generated by metering services (€7 million) is due to both a larger number of connections and an increase in the tariffs.

In addition to these regulated activities, Alliander has non-regulated activities, such as those of Qirion and Kenter. These activities accounted for an additional €29 million in revenue compared to 2019.

Operating expenses



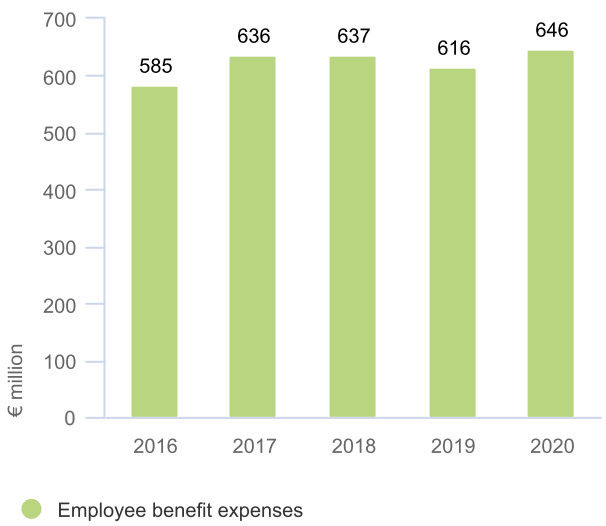
Operating expenses

Total operating expenses rose from €1,591 million in 2019 to €1,736 million in 2020. This increase can be attributed to the following main causes:

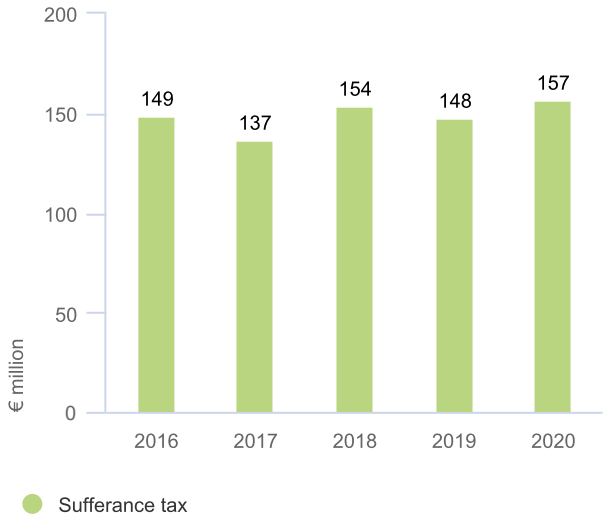
- the costs of purchasing transmission capacity have risen by €63 million as a result of the higher tariffs charged by TenneT;
- an increase of €21 million in the costs of contractors and materials as a consequence of the larger work package combined with the price increases on the market;
- the purchase costs for compensating network losses were €16 million higher than in 2019. This is because the regional network operators are now responsible for the network loss associated with gas, effective from 2020. This change resulted in a €7 million cost increase. In addition, the costs of purchasing electricity in compensation of network losses increased due to the higher prices at which the electricity was purchased;
- the increase in investments also resulted in a higher depreciation expense of €12 million.

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

Employee benefit expenses (permanent and temporary)



Sufferance tax



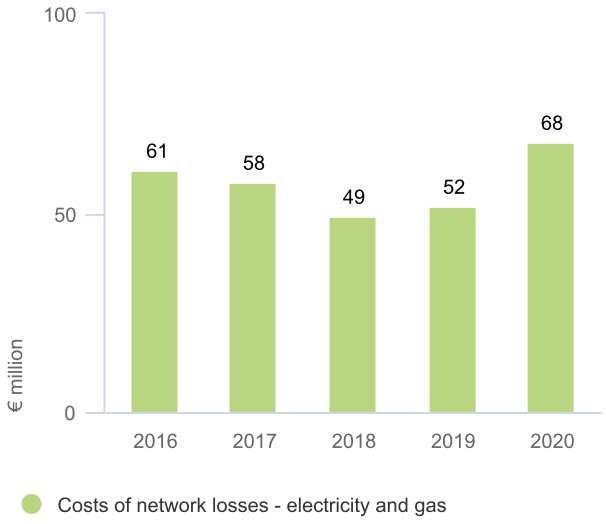
Employee benefit expenses

The total employee benefit expenses for both internal and external employees were €30 million higher than in 2019. The costs associated with our own workforce rose by €23 million due to the addition of almost 200 FTEs and the increase in average costs per FTE as a result of the collective labour agreement wage increase. The workforce grew particularly in the entities that operate in the free domain. The number of agency FTEs also increased by more than 130 full-time equivalents relative to 2019. These agency employees were hired to ensure adequate staffing for the work package and also for IT digitisation projects. The larger workforces also led to an increase in own work capitalised of €18 million relative to 2019.

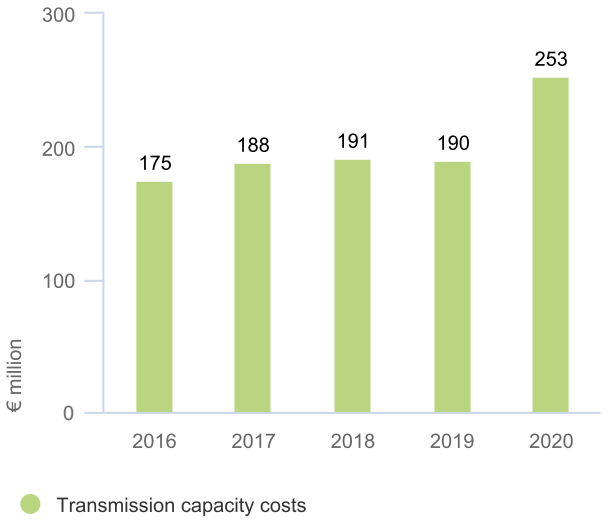
Sufferance tax

The amount of sufferance tax charges rose by €9 million compared with 2019, to €157 million. This is mainly due to additional charges imposed correctively by some municipalities, but also due to the extra kilometres of cables and pipes in land that is subject to sufferance tax charges.
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 end, 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.
The legislator has now agreed to discontinue the sufferance tax charges on electricity and gas infrastructure. This means that municipalities can continue to charge sufferance taxes to Liander up to the end of 2021.

Costs of network losses - electricity and gas



Transmission capacity costs



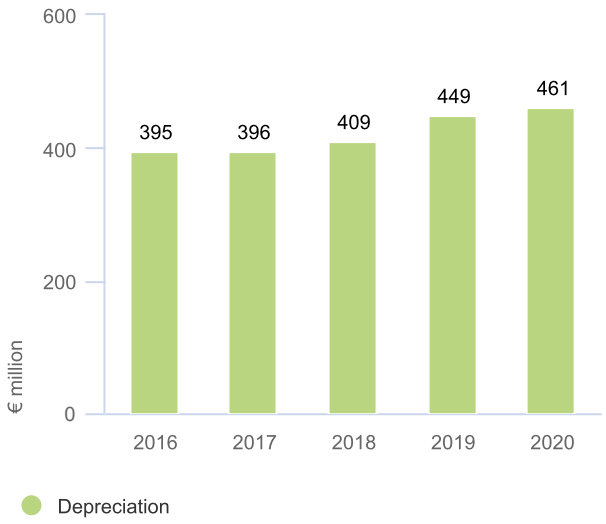
Costs of network losses - electricity and gas

The costs of network losses, at €68 million, were up by €16 million compared with 2019. From 1 January 2020, the network operators have been subject to a statutory obligation to purchase gas in compensation of network losses. This resulted in an expense of €7 million for Liander in 2020. The costs of compensating network losses in the electricity infrastructure have risen by €9 million, mainly due to the higher purchase prices paid for electricity.

Transmission capacity costs

Transmission capacity costs in 2020 amounted to €253 million, an increase of €63 million compared to the previous year (2019: €190 million). These costs mainly consist of the costs for transmission capacity charged by TenneT. The higher tariffs charged by TenneT explain the rise in costs, which were compensated to some extent by the lower volumes transmitted in 2020 as a result of COVID-19 (€6 million).

Depreciation



Depreciation

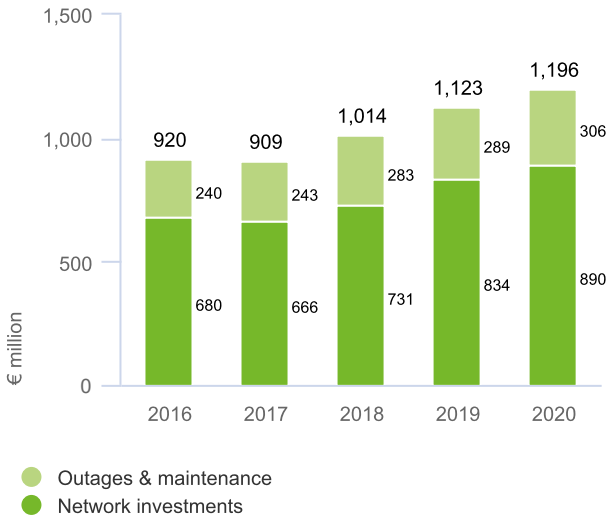
The depreciation charges and impairment losses on non-current assets amounted to €461 million, which is an increase of €12 million compared with the preceding year (2019: €449 million). The increase in depreciation is due to the high level of investment. Depreciation in 2019 includes a one-off write-down on a property of €4 million.

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 important in the long term for the distribution of, say, 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 trends for maintenance costs and network investments over the past five years. Total expenditure on network investments and maintenance costs in 2020, at €1,196 million, was an increase of €73 million compared with 2019 (€1,123 million). The increase is mainly due to higher investments (€66 million).

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 2020, incidental items had a positive impact of €3 million on our net profit. In 2019, incidental items had a negative impact of €14 million. This means that in 2020 the net profit, adjusted for these incidental items, was €46 million lower than in 2019. 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	
	2020	2019	2020	2019	2020	2019
Revenue	2,009	1,930	-	-	2,009	1,930
Other income	46	40	-	-	46	40
Total purchase costs, costs of subcontracted work and operating expenses	-1,550	-1,399	-19	-17	-1,531	-1,382
Depreciation and impairments	-461	-449	-	-6	-461	-443
Own work capitalised	275	257	-	-	275	257
Operating profit	**319**	**379**	**-19**	**-23**	**338**	**402**
Finance income/(expense)	-41	-52	-	-4	-41	-48
Result from associates and joint ventures	1	1	-	-	1	1
Profit before tax	**279**	**328**	**-19**	**-27**	**298**	**355**
Tax	-55	-76	22	13	-77	-89
Profit after tax from continuing operations	224	252	3	-14	221	266
Profit after tax from discontinued operations	-	-	-	-	-	-
Profit attributable to minority interests	-	1	-	-	-	1
Profit after tax	**224**	**253**	**3**	**-14**	**221**	**267**

Total procurement costs, costs of subcontracted work and operating expenses

(2020: €19 million expense, 2019: €17 million expense)

The incidental expenses in 2020 consist of the costs for organisational changes (€9 million) and the costs of a provision of €10 million for a loss-making maintenance contract in one of the business units. In 2019, the organisational changes resulted in an expense of €9 million, and the costs of the provision for a loss-making maintenance contract in one of the business units amounted to €8 million.

Depreciation and impairment

(2020: nil, 2019: €6 million expense)

There were no incidental expenses in 2020. The incidental expenses in 2019 consisted of impairment of assets, including a company building (€4 million).

Total finance income/(expenses)

(2020: nil, 2019: €4 million expense)

The incidental expenses in 2020 were zero. 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

(2020: €22 million income, 2019: €13 million income)

The income in 2020 is the result of the impact of the previously mentioned incidental items on corporate income tax (€3 million, 2019: €4 million), but also, in particular, non-implementation of the reduction in corporate income tax rates announced in 2019. The deferred tax assets were revalued accordingly, leading to an income of €19 million in 2020 (2019: income of €9 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	2020	2019	2020	2019	2020	2019	2020	2019
Operating income								
External income	1,835	1,773	220	197	-	-	2,055	1,970
Internal income	7	10	361	336	-368	-346	-	-
Operating income	**1,842**	**1,783**	**581**	**533**	**-368**	**-346**	**2,055**	**1,970**
Operating expenses								
Operating expenses	1,519	1,375	566	539	-368	-346	1,717	1,568
Operating profit	**323**	**408**	**15**	**-6**	**-**	**-**	**338**	**402**

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. At €1,842 million, operating income in 2020 was up by nearly €60 million compared with 2019. This increase is due to the higher number of connections and an increase in the regulated tariffs. The operating expenses for Liander were up by €144 million, chiefly owing to higher tariffs charged by TenneT for transmission capacity purchases, higher costs for procurement and subcontracted work as a result as of the greater work package and higher depreciation as a result of the higher level of investment. As a result, the operating profit of €323 million was €85 million lower than in 2019.

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, TReNT, the service units, corporate staff departments and the new activities. At €220 million, external operating income in 2020 was up by €23 million compared with 2019. Operating profit for 2020 amounted to €15 million positive (2019: €6 million negative). This improvement is mainly accounted for by higher profits at Qirion and Kenter and elsewhere.

Balance sheet

The abridged balance sheet as at 31 December 2020 is shown below.

	Alliander N.V.	
€ million	31 December 2020	31 December 2019
Assets		
Non-current assets	8,745	8,241
Current assets	674	547
Assets held for sale	3	3
Total assets	**9,422**	**8,791**
Equity and liabilities		
Total equity	4,328	4,224
Non-current liabilities	4,575	3,768
Short-term liabilities	519	799
Total equity and liabilities	**9,422**	**8,791**

The following notes explain the significant changes in the balance sheet as at 31 December 2020 relative to the situation as at 31 December 2019. Detailed information on balance sheet items is given in the financial statements.

- The non-current assets increased by €504 million compared to the position at year-end 2019. This increase is mainly explained by the high level of investment, in particular in the networks and meters, and by the purchase of TReNT.
- Equity increased by €104 million as a result of the profit achieved in 2020 (€224 million) on the one hand and the dividend paid in 2019 (€114 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. Loan capital totalling €722 million was raised, including a green bond loan for an amount of €500 million.
- Current liabilities decreased by €280 million due to repayment against the ECP loan in mid-2020.

Cash flow

Consolidated cash flow statement

Shown below is a summary of the cash flow statement for 2020.

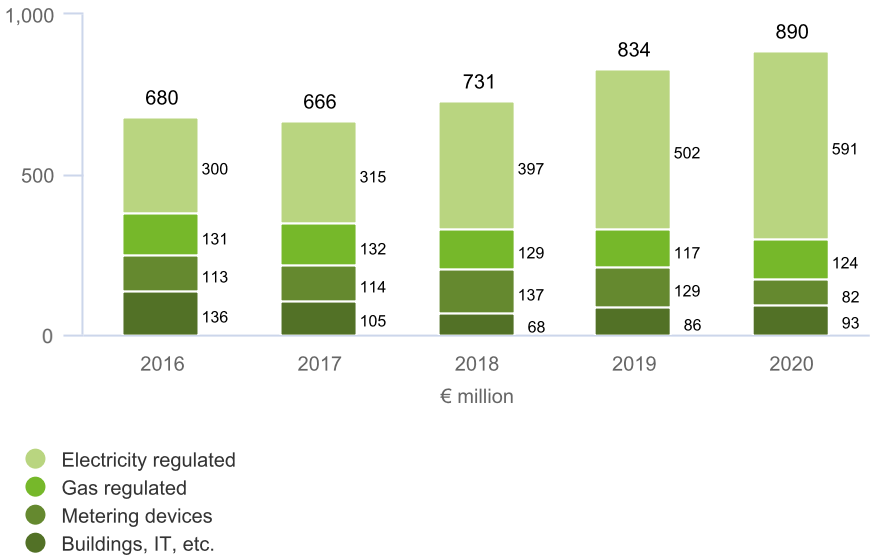
€ million	2020	2019
Cash flow from operating activities	634	638
Cash flow from investing activities	-775	-713
Cash flow from financing activities	286	88
Net cash flow	**145**	**13**

The cash flow from operating activities in 2020 amounted to €634 million (2019: €638 million). This lower operating cash flow is mainly due to the lower profit, which is partly compensated by lower interest and income tax payments.

The cash outflow from investing activities in 2020 amounted to €775 million, which is a €60 million improvement on 2019. This has three causes:

1. The increase in (gross) investments of €50 million for property, plant and equipment. These are disclosed below.
2. This is offset by higher customer contributions of €50 million.
3. The acquisition of TReNT in 2020, which had a negative impact of €60 million on the investment cash flow.

Investments



Despite a decrease in investments in gas networks and the completion of the large-scale roll-out of the smart meter, the total level of investments has risen by €210 million in the past five years, an increase of 31%. This is almost entirely due to the increased investments in the electricity networks in response to new home construction and 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 59% compared to 2016, which is largely in line with expectations. The investment in the smart meters has been at a high level for a number of years, peaking at €137 million in 2018. This large-scale roll-out is now being phased out, resulting in investments in 2020 that are €30 million lower than in 2019. 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). The relatively high investment figures in the years 2016 and 2017 are the result of the renovation of the buildings in Duiven and Bellevue.

Free cash flow

€ million	2020	2019
Cash flow from operating activities	634	638
Acquisition of associate	-60	-
Investments and divestments in non-current assets	-890	-837
Construction contributions received	175	124
Free cash flow	**-141**	**-75**

The free cash flow in 2020 totalled €141 million negative, compared with a free cash flow in 2019 of €75 million negative. This is due to both the lower profit in 2020 and the higher investment level.

If we were to include the dividend payment in 2020 (€114 million) and the interest payments to the holders of the subordinated perpetual bond loan, the free cash flow in 2020 would amount to €263 million negative (2019: €233 million negative). This negative cash flow was financed by the issue of a €500 million green bond, private placement of green bonds for a total of €100 million and a €125 million private loan.

At year-end 2020 the cash flow from financing activities was €286 million positive (2019: €88 million positive). Disregarding the dividend payment and the payment to bondholders (total: €122 million), financing amounts to €408 million. Of this amount, €146 million was added to cash and cash equivalents, the remainder led directly to an increase in our net debt position.

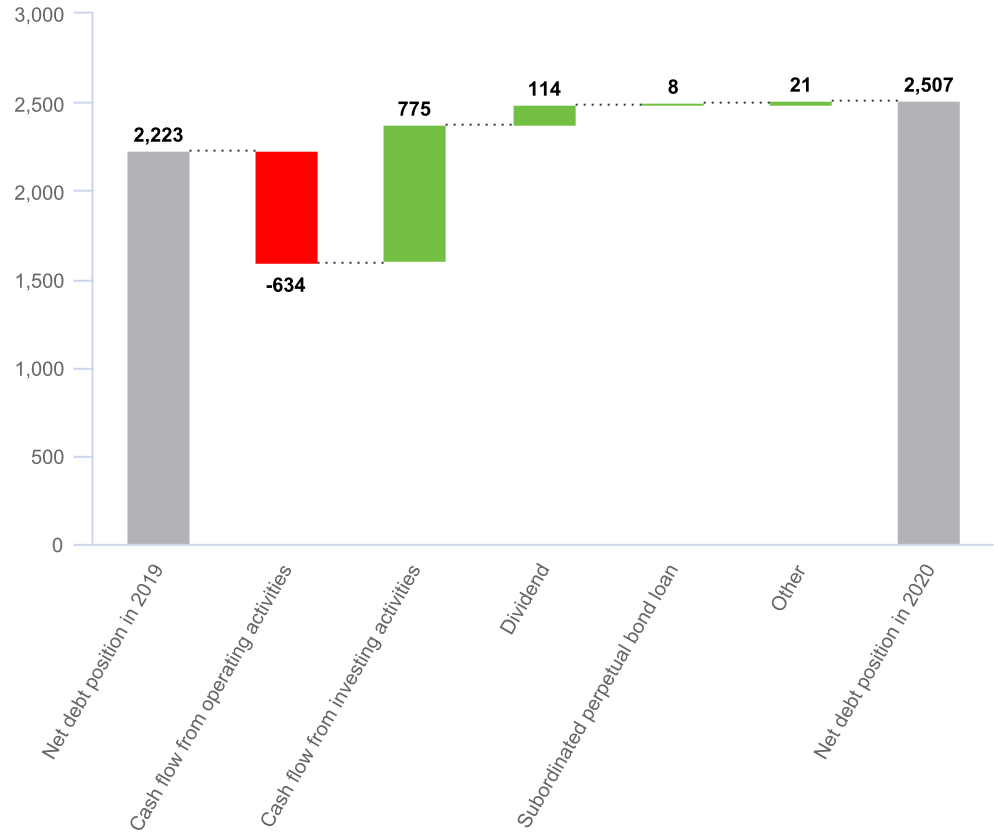
A €500 million green bond issued by Alliander in June 2020 is one element of the financing cash flow. This is our third issue of this type of bond to date. Proceeds from the previous green bond loans were used to finance the sustainable refurbishment of our Duiven offices and to buy smart meters, among other initiatives. Funds raised through this Green Bond will be used primarily for investments in network upgrades as part of the energy transition.

Financial position

Development in debt position

The development in the net debt position over 2020 is shown below.

Development in net debt position



The net debt position had risen by roughly €300 million to €2,507 million at year-end 2020 (31 December 2019: €2,223 million).

Net debt position

Net debt position

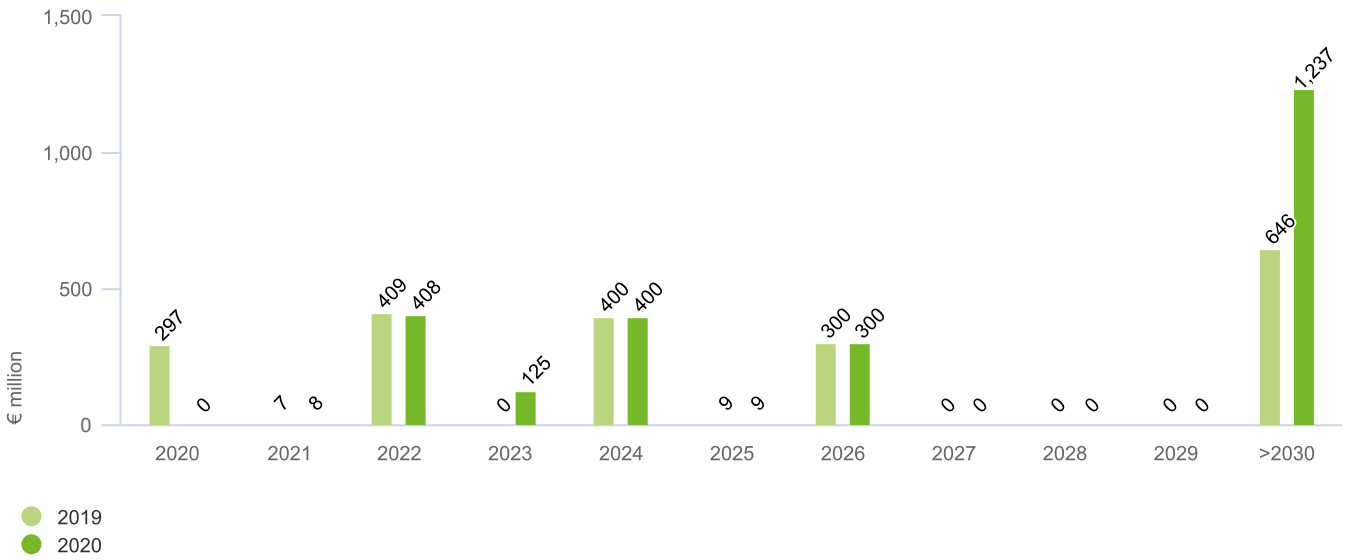
€ million	31 December 2020	31 December 2019
Long-term interest-bearing debt	2,479	1,765
Short-term interest-bearing debt	8	297
Lease liabilities	217	226
Gross debt	**2,704**	**2,288**
Cash and cash equivalents	298	153
Investments held for lease obligations related to cross-border leases	147	160
Total cash and cash equivalents and investments	**445**	**313**
Net debt in accordance with the annual financial statements (IFRS)	**2,259**	**1,975**
50% of the subordinated perpetual bond loan	248	248
Net debt on the basis of Alliander's financial policy	**2,507**	**2,223**

Alliander has a €3 billion EMTN programme. As at 31 December 2020, the carrying amount of the outstanding bonds was €1,990 million (nominal value €2,000 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. There were no ECP loans outstanding at year-end 2020 (year-end 2019: €289 million).

Interest-bearing debt

The repayment schedule for the interest-bearing debt as at year-end 2019 and 2020 was as follows:

Repayment schedule for interest-bearing debt



The amounts scheduled for repayment in 2022, 2024, 2026 and 2030 mainly relate to bond loans. The other amounts relate to the repayment of shareholder loans and other loans.

Available green financing capacity

Alliander has arranged four green financing facilities since 2016, including three green bond loans. The proceeds of these financing facilities have been used to fund various assets that are defined in more detail in the Green Finance Framework (https://www.alliander.com/nl/investor-relations/financiering/groene-obligaties/). These assets and financing facilities are accounted for in separate reports (https://www.alliander.com/nl/investor-relations/financiering/groene-obligaties/). A summary referred to as the allocation table is part of these reports. This summary details the size and composition of Alliander N.V.'s green asset portfolio and green financing facilities.

The allocation table at year-end 2020 is included. This is the updated version of the table as included in the 2020 Green Finance Report dated 15 September 2020.

Allocation table: use of funds available from green financing facilities

€ million	Net carrying amount	Weighting factor	Weighted sum
Electricity network (distribution network and connections)	3,098	26.2%	812
Total renewable energy	**3,098**	**26.2%**	**812**
Smart meters	537	100.0%	537
Fibre optic network	53	100.0%	53
Total energy efficiency	**590**	**100.0%**	**590**
Duiven	70	100.0%	70
Total green buildings	**70**	**100.0%**	**70**
Total green asset portfolio	**-**	**-**	**1,472**

€ million	Instrument (ISIN)	Date of issue	Maturity date	Principal sum
Green bond loan	XS1400167133	22/04/2016	22/04/2026	300
Green bond loan	XS2014382845	24/06/2019	24/06/2032	300
Green private loan	XS2152901315	08/04/2020	08/04/2035	100
Green bond loan	XS2187525949	10/06/2020	10/06/2030	500
Total green financing				**1,200**

The table indicates that the net carrying amount of green assets at 31 December 2020 is €1,472 million. This represents an increase of €256 million since 30 June 2020. As a result, €272 million in green financing capacity was available as at year-end 2020.

The weighting factor for the renewable energy asset category as at year-end 2020 has been determined as 26.2% (source: energieopwek.nl). This relates to the share of renewable energy generation in the total production capacity for electricity in the Netherlands. Rather than using green financing for our entire electricity grid, we have decided to invest these funds solely in the part used to transmit green electricity.

Events after the balance sheet date

There are no matters which should be disclosed after the balance sheet date.

Our plans for 2021

Profit/loss

Alliander expects to improve its operating profit in 2021, barring unexpected developments. This improvement is expected as a result of the higher, regulated tariffs set for 2021, partly because these increased tariffs will compensate the increases imposed by TenneT. The tariffs charged by TenneT are set to rise further in 2021 and this will also affect Alliander's cost base. This profit forecast assumes that the impact of COVID-19 on our profit in 2021 will be of the same magnitude as in 2020.

Investments

The energy transition is accelerating and the demand for solar farms, wind turbines, heat pumps and charging stations is increasing sharply. 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. 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 nearly €1 billion in 2021. These investments are necessary to ensure a sustainable and reliable energy supply. 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 high level of investment cannot be fully financed by the operating cash flows. We therefore anticipate a negative free cash flow in 2021. This, in combination with the dividend that will be paid in 2021 on the profit in 2020, will, as it did in 2020, result in a financing need on the part of Alliander.

Making the energy supply and our organisation sustainable

What do we have at our disposal? → What is our role and which choices do we make? → What do our stakeholders notice in the long term? → **Which values do we create for the long term?** → What are the most significant social impacts? → To which global targets do we contribute?

The energy supply is well on its way to becoming 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 very busy. This results in bottlenecks. We cannot solve these bottlenecks on our own however: this requires collaboration between all stakeholders at an early stage and a systematic approach.

We participate in the Regional Energy Strategies (RES) ensuing from the Dutch Climate Agreement. Furthermore, we embrace our responsibility towards society through initiatives to make our own organisation environmentally sustainable.

Related topics

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

Related material issues

C) Facilitating renewable energy generation
D) Working together on innovative solutions
H) Socially responsible investment policy
J) Future-proof network
K) Corporate social responsibility in the supply chain
M) Climate change, energy usage and CO_2
O) Access to affordable energy

Contribution to SDGs

Related stakeholder groups

Customers, Shareholders and Investors

Objectives and results for sustainable business operations

CO_2 emissions from business operations

205 2020 result in kilotonnes

≤ 207 2020 objective in kilotonnes

243[1] kilotonnes in 2019

Circularity[2]

44%[3] 2020 result

≥ 40% 2020 objective

30% in 2019

1 *The CO_2 emission result for 2019 has been recalculated according to the most recent emission factors.*

2 *The scope of the KPI comprises primary assets: low-voltage (LS) & medium-voltage (MS) cables, gas pipes, distribution and power transformers, and legacy and smart electricity & gas meters.*

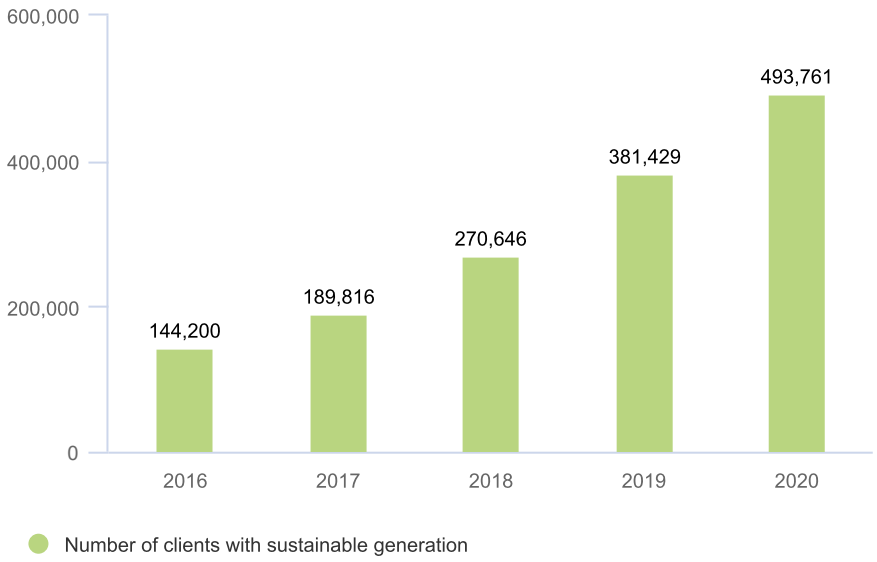
3 *In line with the method used in previous years, based on the percentages for recycled and recyclable indicated by our suppliers, the percentage is 44%. Based on a revised method for raw materials passports, the most likely percentage for Circular is 35%, however this method has a wide variance of between 10% and 80% recyclability in the case of some materials. See also the section on: 'Circular operations'.*

Support for customers in making choices

We want to make it more attractive for customers to use 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. This can be achieved in several ways. For example, in the form of solutions to make better use of the existing network, such as non-redundant connections, flex-markets and better switching between substations. A further solution involves stimulating local markets, because this prevents congestion on higher-level networks. As a neutral market facilitator, we also want to make it possible for customers to have control over their own data and decide who has access to it. For example, a customer can choose to share it with a service provider, which then automatically controls the home battery based on current market prices.
Solutions like this ensure that the available network capacity is used to the maximum degree, prevent peak loads as far as possible, and allow us to design the best possible energy system for the future.

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 was again apparent in 2020, with the number of registered connections with an active feed-in installation in our service area increasing from around 381,000 to roughly 494,000 (up 29%). This now represents 8.5% of our total connections.



Sustainable developments in our service area

Solar energy installed capacity

3,444 MW

2,222MW in 2019

Wind energy installed capacity

1,714 MW

1,321MW in 2019

Quantity of green gas fed in

54.9 million m^3

41.4 million m^3 in 2019

Number of public charging points

8,459

6,066 in 2019

Electrification in the area of mobility

The number of electric vehicles is increasing rapidly. This phenomenon places a strain on the electricity grid, but also creates opportunities. In response, Alliander is acting to encourage ‘smart charging’ as the new standard. This involves tailoring charging and discharging sessions to the local restrictions in the networks and applying schedules and methods that are favourable for network balancing. In this approach, costly and labour-intensive grid upgrades can be avoided and (peaks in) locally generated renewable energy can be used efficiently. In addition, we advocate including electric vehicles and the associated charging infrastructure in spatial planning policies to optimally match integration in the networks to the available network capacity. Finally, we want to see a free choice of energy supplier at the charge point, in an accessible market in which parties cooperate and share information. The initiatives for this will come from the market itself, with Alliander assuming a facilitating role. In 2020, we connected 2,400 public charge points (2019: 1,700). Liander participates in the ElaadNL knowledge and innovation centre and the Nationale Agenda Laadinfrastructuur (National Agenda for Charging Infrastructure).

Transition to a new, sustainable heating supply

Municipalities have a key role to play in achieving the international climate goals of the Paris Agreement (2015), at regional level through the Regional Energy Strategy (RES), and at municipal level through the Transition Vision Statement for Heating and the District Implementation Plan. The transition to a new, sustainable heating supply will affect all of the roughly 1,000 districts within the 145 municipalities in Liander’s service area.

In 2020, all Dutch municipalities started drawing up a local Transition Vision Statement for Heating, which indicates when a district will be disconnected from the natural gas grid. When developing and implementing natural gas-free heating solutions, the municipalities make use of our expertise and experience in the new energy field. For example, we provide information about the technical and financial depreciation of the gas grid and the status of the electricity grid. One of the tools we provide for this is the Buurtanalyse app, which delivers data at neighbourhood level. By providing expertise, we help advance innovative projects and initiatives of national, regional and local partners and jointly arrive at the optimum solution for specific situations. As a result, we make the right choices and energy remains affordable. All municipalities in the Netherlands are expected to complete their Transition Vision Statements in 2021.

New developments in open networks

Open district heating networks make a considerable contribution to the heating transition. The district heating networks of Alliander subsidiary Firan make it possible to utilise the potential of, for example, biomass, collective heat and cold storage, aquathermal energy, geothermal energy and residual heat from data centres. In 2020, we took further steps to create open district heating networks in a number of Dutch municipalities. Firan has started work on projects in Noord-Holland, Gelderland and Overijssel. Together with initiatives such as 'Stichting Warmtenetwerk' and 'WarmingUP', we are developing knowledge and expertise regarding sustainable, reliable and affordable concepts. As a result, we and our partners are increasingly finding solutions to current challenges in the heating transition such as changing legislation or regulations, successful collaboration in local heating supply chains and the business case for natural gas-free concepts.

Zaanstad-Oost district heating network

Warmtenetwerk Zaanstad B.V. has created the first open district heating network in the Netherlands in Zaanstad-Oost. This organisation is a partnership between the municipality of Zaanstad, Firan and the provincial authority of Noord-Holland. Thanks to the open structure, all suppliers and customers will ultimately be able to use the heating infrastructure under the same conditions. The district heating network, which has supplied heat to an existing residential district since 2019, is powered by a local small-scale biomass plant in this early phase. In the future, we will also be able to connect newly constructed homes and create links for new products, suppliers and users.

Greening the district heating networks in Amsterdam

In several districts in Amsterdam, Firan is collaborating with partners and residents to determine which energy infrastructures will best satisfy the wishes, needs and possibilities in the district. There are numerous opportunities for district heating networks that are supplied with residual heat from data centres and aquathermal energy. In the Middenmeer-Noord and Amstel III districts for example, we are supporting local initiatives to feed residual heat from nearby data centres into the district heating networks. In Buikslotermeer, we are investigating a source network for transporting residual heat from large sewer pipes.

Pioneering projects in Gelderland

We are taking the heating transition to the next stage in a growing number of municipalities in Gelderland. Firan is actively involved in three test bed projects set up under the 'Aardgasvrije Wijken' (Natural Gas-Free Districts) programme (Arnhem Elderveld, Apeldoorn Kerschoten and Huissen). Firan is also involved in Alliander's pilot project with the Buurt Energie Systeem (Neighbourhood Energy System) for the Hengstdal district in Nijmegen, which is a second-phase test bed project. Furthermore, we have been involved in the district heating network in Dukenburg for quite some time. We are also working with the provincial authority of Gelderland and the municipalities of Arnhem, Wageningen, Apeldoorn, Ede, Lingewaard, Culemborg and Nijmegen to set up a study to investigate the feasibility of a public heating infrastructure company for the region.

New steps towards district heating networks

In collaboration with partners such as municipalities and housing corporations, we are exploring opportunities for future-proof district heating networks at various locations in the Netherlands. In 2020, this activity resulted in new developments in our partnerships with the municipalities of Haarlem and Wageningen. We also started new investigations and initiatives in the Rijnland region. The district heating network in Hengelo, a smart system that uses residual heat from local industry, was voted the most innovative heating network in the Netherlands by the 2020 'Nationaal Warmtecongres' (National Heating Conference).

Test beds

Several Dutch municipalities are testing approaches to making districts natural gas-free. These municipalities receive 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. This government grant was made available again for 19 districts in 2020. Of these, eight are located in a municipality in Liander's service area: Amsterdam, Apeldoorn, Arnhem, Doesburg, Hilversum, Lingewaard, Nijmegen and Opsterland.

These test bed projects play an important role in helping us understand how we can work together to make an existing district natural gas-free. The greatest challenge is to make good system choices in the design phase. Only then can we ensure that everybody has the right supply of heat in the future, keep costs affordable, avoid repeated excavation work to open up the street and efficiently deploy scarce labour capacity. The municipality is responsible for managing implementation of the plans. Liander actively seeks to collaborate with municipalities, housing corporations, residents, market parties and other stakeholders. We assist in the decision-making process for creating a new sustainable energy supply to ensure smooth joint implementation at a later stage.

Hydrogen pilots

The potential applications for hydrogen are being studied and discussed all over the world. However, application in the built environment only seems likely after 2030, assuming adequate supply availability and further price reductions. Because network operators invest for the long term and we still have an expensive, extensive gas infrastructure at our disposal, we are following the developments in this area closely and adopting a policy of investigating possible opportunities ourselves in order to make the right choices regarding our gas pipelines.
Alliander has set up pilots with other partners in order to learn what the use of hydrogen means in practice. In Lochem, for example, we will be providing homes with hydrogen instead of natural gas. In Oosterwolde in Friesland, we are trialling a hydrogen conversion plant in partnership with the owner of a solar farm. This is a possible solution for relieving grid congestion, but it may also be possible to store sustainably generated energy for a longer period of time for other applications, such as sustainable mobility or heating. Having this option available means that the energy producer does not immediately have to feed all the energy into the grid. This will help make a fully sustainable energy system more flexible.

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 digitalising frequently performed tasks. These include analyses of the effects that specific developments have on voltage levels, and also automated sharing of data and information. The new form of collaboration with local and regional governments is already clearly evident in the Regional Energy Strategies (RES). We will apply this anticipatory form of collaboration increasingly in the future.

A better overall view and greater efficiency

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. This requires control and coordination of the transition, so that we can set priorities and make choices based on the sequential timing of the work. In other words, timely completion of the permit application processes and deployment of technicians - who are in short supply - where they are most needed. 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.
Last year, good forms of collaboration were established in all sectors, leading to an increasing number of national programmes for supporting the work in the regions. These programmes include the Regional Energy Strategies, the 'Aardgasvrije Wijken' (Natural Gas-Free Districts) programme, the 'Cluster Energiestrategieën' (Cluster Energy Strategies) for industry and the 'Nationale Agenda Laadinfrastructuur' (National Agenda for Charging Infrastructure) for mobility. There is a high degree of interdependency between these processes: the choices made for any one region also have an impact on the overall developments in industry, agriculture, mobility and the built environment. Alliander is calling for a coherent and coordinated approach between the sectors and disciplines, with clear priorities. This will ensure that network operators can continue to keep our energy supply affordable, reliable and accessible to everyone.

Regional Energy Strategies

In the Netherlands, 30 regions are drawing up a Regional Energy Strategy (RES), the ambition being to achieve 35 TWh of onshore renewable energy generation by 2030. The power grid in our country is the backbone for these joint strategies. In the RES programmes in our service areas, government authorities, social sector organisations, the business community and residents work with us to implement regionally supported choices. The first RES will be finalised on 1 July 2021. This is not a finished product: every two years, the RES regions will update their plans based on new information.

In 2020, the first draft versions of the RES were completed. Liander and the other regional network operators provided analyses and information to illustrate some of the consequences of these plans. The impact is huge: during the coming ten years, all the network operators will invest billions in infrastructure expansion projects and a great deal of extra land will be required for this infrastructure (often close to villages and towns).

Municipalities and provincial authorities have asked us to work more closely with them on solutions for network capacity issues. The first recommendations have been submitted, the final advice and associated actions will follow in early 2021. In addition, Liander has produced analyses for its own RES regions to show how the plans can be integrated in the existing network and merged with existing projected network developments. The application of design principles and technical solutions can greatly reduce the degree of modification required, without compromising the regional ambitions. This approach can save up to almost 60% of the costs to society, 60% of the space required and 50% of the work. Efficient use of the existing grid means that less expansion work is required, so that renewable energy generation initiatives can be connected more quickly. We and the other network operators have collated this information in a national fact sheet. In order to keep the energy supply affordable and the objectives of the Dutch Climate Agreement within reach, the RES regions can use these analyses and information to shape an approach based on an optimum trade-off between local support, the costs to society and implementation times.

In 2021, we will continue to work intensively with our regions. As soon as plans are updated, we will run new analyses to quickly indicate the consequences of those choices in terms of costs, space and time. In addition, we are cooperating intensively within a pilot scheme launched by 'Nationaal Programma RES' (National RES Programme) to test application of the range of instruments available under the new Dutch Environment & Planning Act. Our focus here is to examine how the plans in an RES can be put into practice and explore how we can jointly make agreements with local and regional governments about infrastructure expansion projects. Work on this is also being carried out at national level and Alliander's aim is to coordinate closely with the national RES programme.

Implementation of the regional energy transition

We are preparing for implementation of the regional energy transition. The preparations are based on practical experiences in the 'test-bed districts'. To aid smooth implementation, we have set up a learning and innovation programme called 'Mensen Maken de Transitie' (The Right People for the Transition) with our supply chain partners in the construction sector and educational institutions. For example, we have improved the request process for bulk removal of gas connections, we are working on the final attainment levels associated with the training course to ensure that installers will be capable of upgrading the electricity grid connections in the near future, and we are also setting up a certification scheme for charge point fitters. We have also developed a 'serious game' so that supply chain partners can discuss their joint approach well before work starts on a gas-free neighbourhood.

Changes to the law

Alliander's activities are strongly regulated by legislation and regulations. However, the current laws and regulations date back to before the start of the energy transition, before there was any significant local production of renewables. Alliander is consulting with the relevant stakeholders to work out in more detail how the arrangements provided for in the Dutch Climate Agreement should be integrated in the Energy Act, the Collective Heating Supply Act and the Environment & Planning Act with the National Strategy on Spatial Planning and the Environment. Even though the Dutch Climate Agreement is already more than a year old, the rules necessary for its implementation are not yet in place despite the pressing need for flexible and future-oriented legislation and investment security.

Integrated Energy Act

The current Electricity Act and Gas Act are to be merged and amended in the new Energy Act. Alliander endorses the objective of the new Energy Act, which is to create an integrated and future-proof legal framework for the energy system that can subsequently be fleshed out in more easily amendable subordinate legislation.

The Energy Act is intended to create the legal scope for further market roles, greater diversity of contracts and tariffs, and make it possible for active connected parties to participate in demand response, congestion management, etc. The Energy Act also provides for changes to the connection and transmission obligation. The eighteen-week period will be replaced by a reasonable period, to be specified in subordinate legislation, with the possibility of making a distinction based, for example, on the type of connection. In the case of large electricity consumers, the right to a connection will be linked to the availability of transmission capacity. This is necessary, because the current demand for electricity connections and transmission of electricity has rocketed.

Energy data is crucially important in the context of the energy transition. In our view, it is important to ensure that connected parties have control over their own metering data and that they can decide for themselves who, other than their contract parties, should be allowed access to this data. The network operator has an important facilitating role to play here. The Energy Act defines the conditions for making this data available, and must set out the basic principles that apply to provision of this data by the network operators.

The Energy Act must also create legislative scope for new innovations. For example, network operators need to be legally allowed to distribute hydrogen gas in the existing gas networks. We will only be able to experiment with sustainable gases such as hydrogen in the short term if the new Energy Act makes provision for this.

A new Heating Act

The expectation is that many houses will be connected to a (district) heating network in the coming years. In the proposal for the new Heating Act, municipalities will be given the authority to designate a heating company that will organise and manage the supply of heating in each area of the municipality. The scope of the new Heating Act includes a provision relating to the obligation to appoint heating companies with integral responsibility for several decades. Alliander believes that, rather than focusing on regulating a single type of heating company, the new Heating Act should provide the legislative scope required for diversity and innovation. This means that you can choose not to set up all district heating networks in the same way. Broad support and actually getting district heating networks off the ground depends on municipalities being able to make their own choices.

Environment & Planning Act

The importance of the energy infrastructure must be included, alongside all other interests, in the environmental visions and plans of governments. We call this system efficiency. We have smoothed the way for this and presented our views through our contributions to the RES and the Transition Vision Statements for Heating. We are also seeking to participate in the Digital System for the Environment & Planning Act (‘Digitaal Stelsel Omgevingswet’, DSO) so that we can keep abreast of all developments. We see the DSO as an opportunity to make all the rules transparent, speed up planning processes relating to our infrastructure and ensure input from stakeholders. The new Environment & Planning Act comes into effect on 1 January 2022.

Sustainable organisation

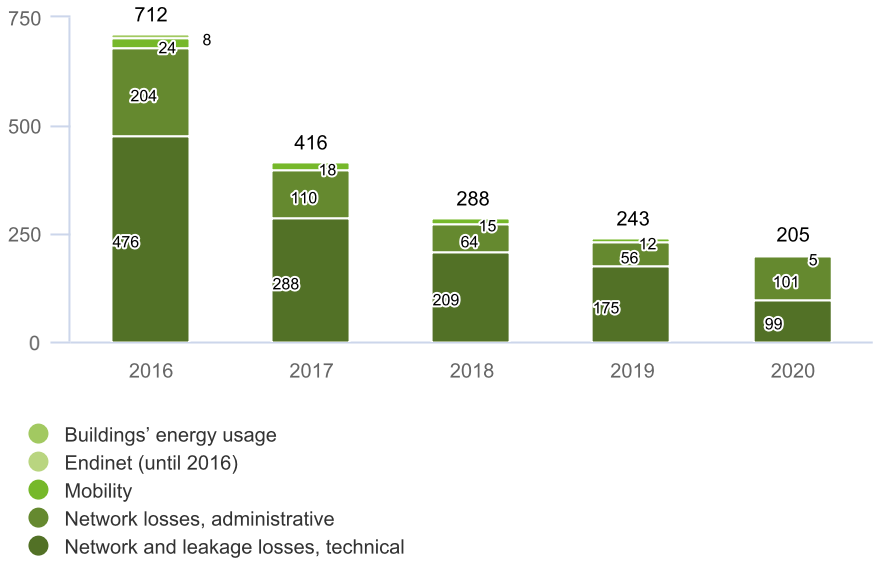
In 2020, we further improved our sustainability performance in the area of reducing our carbon footprint and contributing to the circular economy. We have seen the beneficial effects of our social programmes becoming properly embedded for several years now and are on track for achieving climate-neutral 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. In 2020, we were already at 74% of this objective. Our programme for reducing and 'greening' (offsetting) our CO_2 emissions is bringing us step by step closer to this goal. Our vehicle fleet is increasingly electric or hybrid, the energy usage in our buildings is falling and we are continuing to reduce and green our network losses for electricity.

In 2020, our CO_2 emissions decreased by 38 kilotonnes compared to 2019 (16%), moving from 243 to 205 kilotonnes. This clearly demonstrates the effect of our greening policy for the fifth successive year. Emissions have fallen sharply in recent years, partly due to greening of our network losses. Emissions also fell due to continued replacement of grey cast-iron gas pipes, lower network losses due to increasing local generation of renewable energy, falling CO_2 emissions associated with our buildings and mobility, and the effect of the COVID-19 pandemic; we saw a dramatic drop in energy usage in our buildings and commuting mileage.

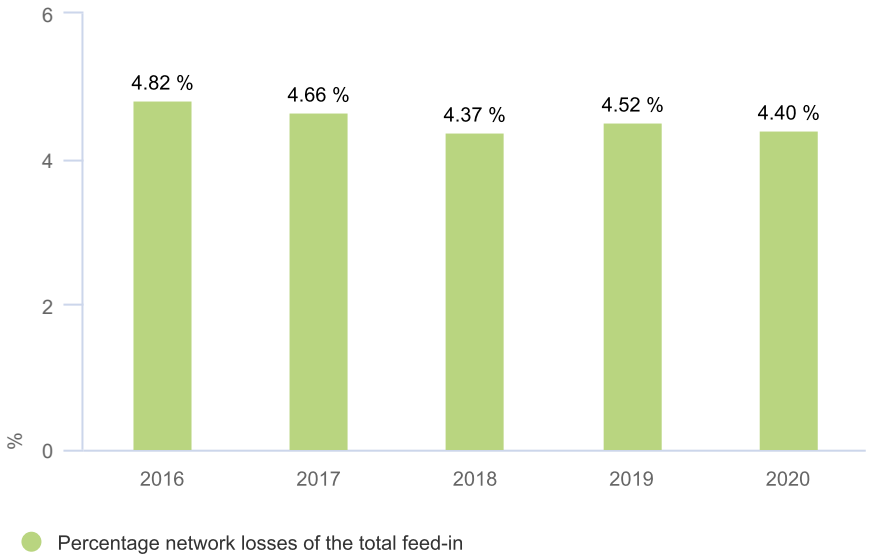
Alliander's CO_2 emissions[1]



1 The CO_2 emission result for 2019 has been recalculated according to the most recent emission factors.

Emissions from network and leakage losses

Network and leakage losses that arise mainly during the distribution of electricity and gas account for 94% of our gross CO_2 emissions. Network losses cost us about €68 million in 2020 and can only be mitigated to a limited extent. Nevertheless, we are working to reduce our technical and administrative network losses each year.



The network losses percentages shown for the last two years are estimates.

Greening network losses with renewable energy

Alliander is offsetting its network losses by generating additional renewable energy in the Netherlands. In 2020, we greened 80 kilotonnes of our total network losses with Guarantees of Origin and also received 39% of the electricity network losses as green electricity. 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. This approach ensures that our network losses are low-carbon and supports growth in renewable energy generation. In 2020, we made almost 71% of the total network losses sustainable by activating additional green certificates that had been contractually secured in the past.

Technical network losses

The absolute amount of the technical network losses decreased by 11% in 2020 compared to 2019. 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. The decrease in our technical network losses can partly be attributed to improved energy efficiency and partly to increasing renewable energy generation by customers.

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.

Internal CO_2 price

We use an internal CO_2 price as a weighting factor when assessing our investments. Energy savings or reductions in methane leaks are assigned more importance as a result. In 2020, Alliander took the initiative in persuading all the network operators to reach a sector-wide agreement on (higher) internal CO_2 pricing. This year, the network operators all decided to perform their calculations using the same CO_2 price of €50 per ton of CO_2 in 2021, and will progressively increase this price during the coming years.

Administrative network losses

The total size of the administrative network losses increased due to the addition of gas network losses. In absolute terms, our administrative network losses for electricity were down compared with 2019. Administrative network losses are caused by fraud, e.g. illegally tapping into the electricity supply to grow cannabis, or the absence of contracts for new or existing connections. 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 2020, we continued to work on improvements in fraud detection and the collection of unpaid accounts, by digitalising our networks for example.

Emissions from buildings

The energy usage in our offices and buildings has reduced. This is partly due to the implementation of energy-saving measures identified in energy scans and partly due to reduced occupancy of the buildings as a result of the COVID-19 crisis. The CO_2 emissions decreased by 10% compared with 2019. All the emissions from the buildings have been greened. The difference between energy generation and usage at our office in Duiven was actually positive in 2020.
In 2020, we presented our plans for a new office in Amsterdam-West. This will be Alliander's third energy-neutral office, following on from the head office in Arnhem and the regional office in Duiven.

Emissions from vehicle fleet

We achieved a 29% overall reduction in our CO_2 emissions for mobility relative to 2019. The number of kilometres driven fell by 62% compared to 2019, mainly as a result of the COVID-19 pandemic, and 24% less fuel was required for our lease cars and service vehicles. Our policy remained unchanged. Under this policy, we have an austere 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. Lease car drivers, like all other Alliander employees, can also use an 'NS business card' train pass. In 2020, 28% of our vehicle fleet with a yellow number plate was fully or partly electric (2019: 26%).

#BIKESTOGETHER scheme

In 2020, 80 employees participated in a pilot called 'samen fietsen' that encourages the use of bicycles for business-related travel. The idea is to increase the use of bicycles as an alternative mode of transport to, from and between work locations. In September and October, employees cycled a total distance of 14,600km during business hours. #samenfietsen has clear health benefits and is also a good way of reducing CO_2 emissions. We plan to continue this scheme in future years.

Highest step of the CO_2performance ladder

Our approach and methodology were externally assessed on the basis of the CO_2 performance ladder. In 2020, we again achieved a positive result and were audited at level 5 on the ladder. Certification on the CO_2 performance ladder proves that:

- we know our own footprint (level 1);
- we are aware of possible reduction measures (level 2);
- we are capable of actually implementing those measures (level 3);
- we report the information transparently (level 4);
- we initiate innovations together with supply chain partners (level 5).

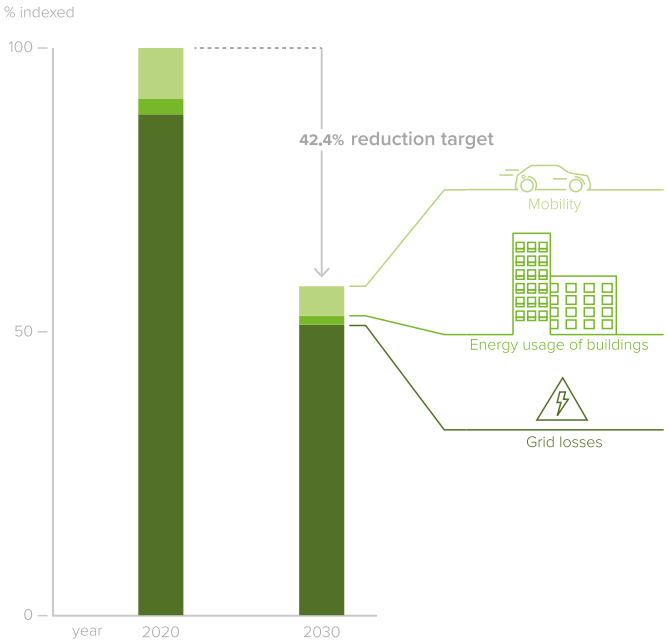
The CO_2 performance ladder is often used as a tender award criterion. This means that we know the CO_2 emissions of our main suppliers, have achieved the level 3 and 4 objectives, and are publicly committed to the government's carbon reduction programme.

Biodiversity

In 2020, it was proposed that we add biodiversity as a new area of focus to the CSR policy. In our building and pipe and cable laying activities, we are already bound by spatial conditions under the Dutch Nature Protection Act, which defines the legal framework for biological diversity and the protection of endangered species of animals and plants and their natural habitats. We also want to focus more intensively in our operational processes on minimising or mitigating damage to biodiversity. For example, we are preparing our own policy for sustainably designing our substations. In addition to energy-neutral and circular operations, biodiversity is an important theme. For example, green roofs, natural forms of plot separation or local water storage. We will start implementing this policy in 2021.
Alliander participates in a broader coalition of infrastructure companies, which see opportunities to use the land they own and manage for large-scale nature recovery. In total, the national infrastructure companies in the Netherlands manage roughly 900km^2 of land, so a collaboration among these companies to promote biodiversity will have a national impact. The 'Ecologische Hoofdstructuur Infra' project (Ecological Main Structure - Infrastructure) started in 2020.
In line with the example set by TenneT, Alliander wanted to investigate how our sites could contribute to biodiversity. As part of this initiative, we launched a pilot scheme for sinus mowing in 2020. Sinus mowing is the term for mowing in a meandering pattern rather than well-defined, straight lines. This pilot project was implemented under the supervision of the Dutch Butterfly Foundation ('Vlinderstichting'). Sinus mowing leads to greater variety in the number of plants and shrubs and their structure, providing a better habitat for insects. The pilot was successful. Alliander plans to introduce sinus mowing outside the switching areas as part of the normal land management activities in 2021.

Science-based targets

Science-based targets (SBTs) show companies how much and how quickly they need to reduce their greenhouse gas emissions to keep global warming below 2°C. In 2020, it was determined that Alliander operates within the 1.5°C limits set under the 2015 Paris Agreement. 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. In Alliander's specific case, this scenario means a total CO_2 reduction of around 21% before 2025, and 42.4% before 2030, in comparison to 2020. 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 appropriateness of the course we have set as a company for our climate-impacting emissions. Alliander is working towards having climate-neutral operations by 2023.
SBT identifies three emissions categories. Our climate targets for Scope 1-2 greenhouse gas emissions are in line with the Science-Based Targets criteria. Scope 3 supply chain emissions are not in our scope, as we can only influence these emissions indirectly.



Dealing with climate risks and adaptation; TCFD

Climate change requires companies to accept responsibility for reducing CO_2 and accurately analyse the risks for the organisation. These risks may be physical (e.g. flooding), but they can also be related to the business and commercial environment; i.e. changes to the tax regime.

In 2020, we started a process to gain a clear picture of the physical and transition risks. We have assessed the potential impacts of climate change based on the recommendations of the international Taskforce on Climate-related Financial Disclosures (TCFD). We have completed the first steps in the TCFD approach, leading to a qualitative understanding of our risks. The risks have been worked out for two scenarios: far-reaching global warming as a result of policy that is implemented too late or not at all (the '4 degrees scenario') and an optimistic scenario in which humanity succeeds in meeting the Paris objectives and limiting global warming.

The TCFD analysis shows that we comply with approximately two-thirds of the recommendations, provided we report more of the information available to us. We plan to achieve this in 2021.

Physical risks and opportunities

Our physical risks are mainly associated with supply chain dependencies in the event of extreme weather conditions and flooding. This includes potential damage to our own equipment and components or TenneT's high-voltage pylons. As we have energy networks in Noord-Holland and Friesland, rising sea levels also pose a risk. Furthermore, high temperatures lead to higher electricity consumption due to a greater demand for cooling throughout society.

Transition risks and opportunities

Network operators are part of the solution in the transition to a sustainable energy supply. There are more transition opportunities than transition risks. The opportunities relate to growing electrification in society and the growth of green gas generation. The risks relate to the feasibility of fulfilling our task and phasing out the gas infrastructure.

Physical risks	Possible effects
Extreme weather events like drought, heat waves, wildfires and heavy rainfall	Damage to infrastructure Power outages Damage at suppliers, in the energy supply chain and to transmission infrastructure
Rising sea level	Damage to energy supply chain, assets and at customers
Increasing average temperature	Damage to company assets Pest damage/insect plagues More demand for air conditioning, cooling, etc.
Transition risks	**Possible effects**
Technological innovation and market changes	Decrease in natural gas distribution in our networks in combination with the transition to other sources for heating Limitations in available workforce Move from consumer to 'prosumer' Electrification of society Energy storage Opportunities for hydrogen
Changes in policy and regulation	Cost allocation of energy transition Carbon pricing

Implementation of supply chain responsibility

Our social performance depends to a significant extent on our collaboration with partners in the supply chain. We aim to make a net positive contribution to SDG 12 (Responsible Production and Consumption) so that we can contribute to 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

Alliander's annual procurement volume is approximately €1.5 billion for products and services. Contractors, energy purchases, components and IT are the main areas of expenditure in our procurement profile. 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.

Compliance with agreements made with suppliers

Each year, we carry out multiple supply chain audits. Due to the COVID-19 crisis, we were only able to conduct two audits in 2020 to assess the quality of the products and services delivered to us (2019: 11). 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. Findings are shared with the supplier. We did not take any measures with regard to suppliers in 2020.
In the event of proven negligence or violation of the agreements, we terminate the relationship or impose other sanctions in accordance with the contract and Alliander's Supplier Code of Conduct. In the event of damage or risks, we communicate with our stakeholders, carry out investigations and implement temporary or structural measures. We keep in touch with and inform the parties concerned about the progress we make.

CO_2 score in tenders

When assessing our tenders, we include the energy consumption of components during their service life as far as possible. Given the volumes we purchase, we are always looking for improvements in this area. Alliander is the initiator of a sector-wide internal CO_2 pricing scheme (see also the Sustainable organisation chapter). Working with an internal CO_2 price ensures stronger prioritisation of a higher CO_2 reduction in respect of our own investments and the components we purchase from others. In 2020, we collaborated with the other network operators to develop an instrument that objectively applies this CO_2 price and that can be used in tenders to favour circularity. We will start using this method in practice in 2021 and expect to adopt it across the board in 2022.

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. We report a 'circular procurement' percentage every quarter. We use this term to refer to the purchase of materials made largely from recycled constituents and/or materials that are recyclable after use. This applies to our primary assets: low-voltage and medium-voltage cables, gas pipes, distribution and power transformers and (smart) electricity and gas meters. The percentage of recycled or recyclable is determined based on raw materials passports provided by our suppliers, which state these percentages. So we rely on the support and expertise of our suppliers to identify these percentages.
In 2020, the 'circular procurement' percentage was 44% (2019: 30%). We calculate the 'circular procurement' percentage as the average of 'recycled constituents' and 'recyclable at end of life'. From the end of 2020, we will also use relevant data from research carried out by CE Delft to produce our own analysis of the percentages quoted by suppliers and adjust them where necessary. Based on a recalculation performed as part of CE Delft's research, the most likely percentage for 'circular' is roughly 35%. However, this method also indicates a wide variance band for certain materials, from 10% to 80% recyclable. Our aim is to source 60% of our primary assets via circular procurement in 2025. We also manage based on the following flows and principles to implement circular operations even more concretely:

- We make the best possible use of the materials we have.
- We avoid wasting raw materials in our organisation.
- We recycle 90% of the remaining waste using high-grade recycling methods.

Within the Green Networks coalition, the coalition members (regional network operators, TenneT, GTS, ProRail, Rijkswaterstaat, and KPN) share their experiences with raw materials passports. In 2020, the coalition members agreed to adopt requesting the relevant raw materials passports for the most important components as standard practice. A consistent format is used to simplify the procedure for suppliers.

Circular Procurement Green Deal
Circular procurement demands intensive co-operation with our suppliers. To achieve this, we have worked for several years in accordance with the Circular Procurement Green Deal. The aim is to learn from each other's experiences with starting up circular procurement processes and accelerate the widespread adoption of circular procurement. 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.

Publicly available raw materials data

The circular economy benefits from high transparency in relation to the level of demand for and the availability of materials and raw materials. As a result, suppliers can better assess which raw materials will become available where and which can be reused. Transparency also facilitates the growing number of 'raw materials brokers', who specialise in matching supply and demand. Together with the other network operators, we have invested in a public database that aims to professionalise our raw materials data and the raw materials passports. We have included this functionality in the KSANDR platform, which network operators already used to record all the outage data relating to our main components. KSANDR is a not-for-profit organisation that aims to record, share and develop knowledge about the behaviour of the current electricity grids in the Netherlands.

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. Following its introduction in 2019, this programme was further optimised during the course of 2020 and has now been embedded in our logistics systems and processes. As a result, the reuse of components is now seen as our 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 €5.8 million in 2020, 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 do we have at our disposal? → What is our role and which choices do we make? → What do our stakeholders notice in the long term? → **Which values do we create for the long term?** → What are the most significant social impacts? → To which global targets do we contribute?

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

B) Safe working practices and safe infrastructure
N) Data security, privacy and cybersecurity

Contribution to SDGs

Related stakeholder groups

Customers, Employees

Objective and result for sustainable and safe working environment

Lost Time Injury Frequency (LTIF)

1.8 2020 result

none[1] 2020 objective

2.1 in 2019

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. Fortunately, there were no major incidents in 2020. The safety of our networks for everyone involved is a high priority for us. We continuously invest in the reliability of our infrastructure based on information regarding the condition of our network.

Replacement programme for grey cast-iron and asbestos cement gas pipes

On 27 January 2019, a gas explosion took place in The Hague in the gas network of Stedin. In 2019, in consultation with partners and following an advisory assessment issued by the Dutch State Supervision of Mines, we brought forward the completion date for the remediation plan for grey cast-iron and asbestos cement pipes by eight years to 2032.
In line with the accelerated implementation of the replacement programme, we replaced 10% of the grey cast-iron and asbestos cement gas pipes in 2020. At the end of 2020, we still had around 1,169 kilometres of these grey cast-iron pipes and 200 kilometres of asbestos cement pipes in our service area, During the period up to 2032, we will periodically carry out extra inspections of the remaining 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.

Asbestos in fitters' sealant

Fitters' sealant was commonly used in the past to seal threaded joints in metal pipes. At the end of 2019, we discovered that asbestos had been added to the fitters' sealant in the past, possibly as far back as 1978. The presence of this asbestos is harmless, as long as the joint is left undisturbed. However, asbestos emission measurements that we performed when working on pipe connections where asbestos-containing fitters' sealant was used indicate that excessive amounts of asbestos can be released. To ensure the safety of our technicians, we worked with the industry in 2020 to find a safe way to work on joints sealed with asbestos-containing fitters' sealant. The work instructions have been modified accordingly and our technicians can now work safely again on these connections.

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 2020 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.

Safe working practices

Working safely during the COVID-19 crisis

After the outbreak of COVID-19 in February, the government took action in line with advice issued by the National Institute for Public Health and the Environment (RIVM) and the Outbreak Management Team (OMT) on the basis of the number of infections, hospital admissions, ICU admissions and deaths. Alliander has always closely followed the guidelines. Some of these measures have an impact on our daily lives and on how we do our work at Alliander. The activities of the network operators are considered to be part of vital infrastructure. Practically all our work could continue without delays. Given the increase in our work package and looking ahead to the future, this was extremely important from a societal perspective. As an employer, Alliander has a duty of care to protect its employees against the virus while they are working. Various changes were introduced so that colleagues could continue to do their work.

Roadmap

Alliander has complied with the measures implemented by the central government and RIVM since the outbreak of COVID-19. To make everything clear for everybody, we produced an Alliander COVID-19 roadmap. The roadmap has been assessed as part of the risk assessment and evaluation that we carry out under the Dutch Working Conditions Act. Furthermore, several other specific measures have been implemented to limit the risk of physical or mental complaints due to COVID-19.

National protocol

Alliander complies with the national 'Samen Veilig Doorwerken' protocol, a set of safety instructions designed to ensure safe working practices. This protocol sets out clear guidelines on working safely during the COVID-19 crisis, not only for the construction and installation sector, but also for residents, clients, customers, suppliers and all employees. It also indicates how work can be carried out safely in people's homes. The exact approach to the work that is to be performed depends on each individual case and may vary from one network operator to another. The main priority is to keep vital infrastructure running and ensure that work activities can be carried out safely.

Safety instructions

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 informs employees as effectively as possible about the role that safety plays in their work in a number of ways, such as the Life Saving Rules. These rules provide clarity and consistency when it comes to safety and are aimed at preventing safety incidents.

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. At the instruction of Netbeheer Nederland, an action plan for avoiding benzene contamination was drawn up in 2020.

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, Since then, we have investigated where chromium-6 is present in our assets. Stricter working instructions apply to the activities relating to these assets. Employees can access information stating where chromium-6 is present and what precautions should be taken.

Asbestos

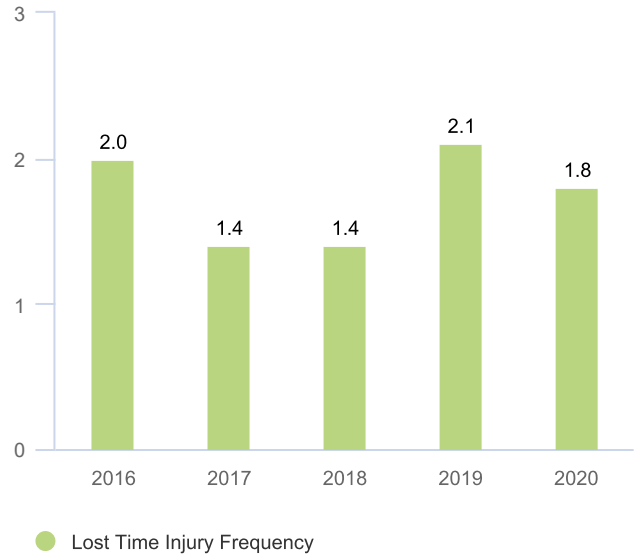
We work in accordance with our asbestos policy at Alliander. Asbestos is still very common in our sector and poses a serious risk that needs to be handled accordingly. To tackle this, the network operators employers' association in the Netherlands (WENb) and Netbeheer Nederland have collaborated to draw up a sector policy that complies with the latest legislation and regulations. As a result of this national asbestos policy, all network companies work according to a uniform policy. This is useful because it provides clarity for both our own employees and the employees of contractors or metering companies that work for us.

Impact of environmental issues: PFAS

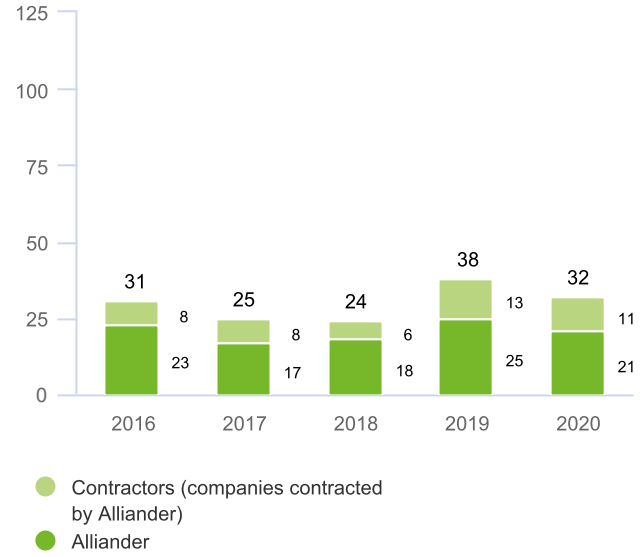
PFAS (per- and polyfluoroalkyl substances) is the collective name for thousands of man-made substances that do not occur naturally. If the concentration of these substances in soil is above a certain level, measures must be taken and the soil may not simply be transported, dumped or used on land. This complicates all sorts of earth-moving activities. Alliander always works carefully during earth-moving activities and has implemented internal precautionary measures with regard to PFAS, such as the soil sampling procedure to test for PFAS in order to protect employees working with soil.

Lost Time Injury Frequency

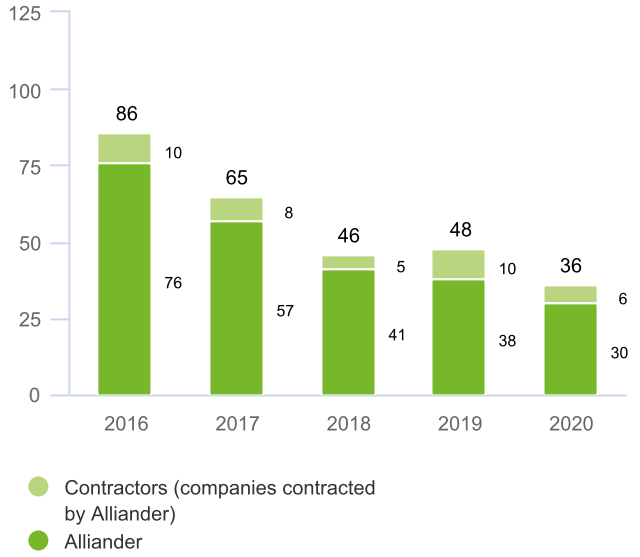
Lost Time Injury Frequency (LTIF) expresses the number of accidents resulting in sickness absence per one million worked hours. The LTIF in 2020 was 1.8, which is an improvement relative to the LTIF in 2019 (2.1). Last year, there were no major safety incidents involving electricity and gas.



Lost Time Accidents



Accidents with no lost time



Privacy

Privacy is a fundamental right that gives you the freedom to be who you are and to choose how you act. Privacy is about people retaining control over their data. Citizens must be able to entrust their personal data to organisations in the knowledge that it will be handled with care. Alliander processes personal data, including that of customers and employees. More personal data was exchanged digitally in 2020, partly due to the COVID-19 crisis, working from home and using video calling apps. Alliander has selected office automation platforms that meet its requirements. This ensures protection of the privacy of our employees, our network and our customers.

Processing energy data

Together with the other network operators, we are working on updating the code of conduct for processing energy data from smart meters. We are also working together to ensure responsible use of our customers' energy data.

Data breaches

In 2020, we detected and investigated 29 data breaches. In six cases, the investigation established that these were data breaches that must be reported to the Dutch Data Protection Authority pursuant to the GDPR and the Dutch law implementing the GDPR. All the data breaches reported to the Dutch Data Protection Authority 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. Alliander's activities fall within the scope of the Dutch Network and Information Security Act and we do everything possible to prevent this. 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. We continuously monitor and analyse cyberthreats: what do they mean for 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.

COVID-19 and cybersecurity

The cybersecurity risk level increased during the COVID-19 crisis. There were more incidents worldwide. Working from home also meant that our IT network was much more exposed than before. Furthermore, we were unable to monitor the security situation in people's homes. So cybersecurity is one of the elements addressed by our crisis response to COVID-19.

Governance changes to meet new security challenges

In addition to working from home, other factors such as the increased use of employee data, more extensive deployment of contractors and intensification in the distribution of energy data led to a stronger focus on cybersecurity in 2020. In order to gain an even better understanding of the security risks at Alliander, we felt it important to adjust governance in line with privacy and security this year. The actions we took to achieve this included expanding the responsibilities of the Chief Information Security Officer (CISO). The CISO reports directly to the Management Board.

Certification

We have had the security processes certified by an independent external body. Kenter was already ISO 27001 certified and this certification was renewed in 2020. Liander was awarded the ISO 27001 certificate for the vital infrastructure this year. Firan, ENTRNCE and Stam&Co achieved Security Verified certification.

Being an attractive, inclusive employer with equal opportunities for all

What do we have at our disposal? → What is our role and which choices do we make? → What do our stakeholders notice in the long term? → **Which values do we create for the long term?** → What are the most significant social impacts? → To which global targets do we contribute?

Alliander employs about 7,100 people (6,900 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 wishes to be and remain 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 an adequate energy supply for a sustainable tomorrow.

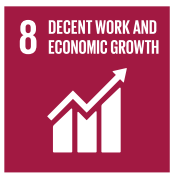
Related topics

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

F) Talent acquisition and development
I) Company's adaptability

Contribution to SDG



Related stakeholder group

Employees

Objectives and results for employees

Employee absenteeism

3.9% 2020 result

≥ 4.3% 2020 objective

4.2% in 2019

Employee survey score

none[1] 2020 result

≥ 71 2020 objective

70% in 2019

Women in leadership positions

29.0%[2] 2020 result

≥ 30.0% 2020 objective

26.9% in 2019

People with poor employment prospects

108[3] 2020 result

≥ 108 2020 objective

101 in 2019

1 *In 2020, together with the employee participation body, we looked for a new instrument to allow more effective monitoring of what goes on in the organisation in quantified terms. The instrument will be implemented in 2021.*
2 *No employee satisfaction survey was conducted in 2020 due to the focus on the reorganisation and the COVID-19 crisis, which made performing a new survey difficult.*
3 *The figure for employees with poor prospects on the labour market comprises 78 employees working for us under the Dutch Participation Act and another 30 with a work experience placement.*

Working in the COVID-19 period

In March, the government announced far-reaching measures in connection with the COVID-19 pandemic. As a network operator, we are responsible for supplying energy to 2.9 million households and businesses. Our activities are part of the vital infrastructure in the Netherlands, so ensuring continued performance to the extent possible of our primary activities, such as troubleshooting and critical maintenance, was important for us and our customers. The same applied to troubleshooting in people's homes. However, in some cases, field staff were confronted by angry customers during planned power interruptions, because they were unable to work from home or homeschool their children. Our team leaders engaged in dialogue with the residents in these cases to ensure that our technicians could carry on working without disruption.
We made every possible effort to help our field staff do their work in accordance with the COVID-19 measures and guidelines on social distancing. We use special protocols for this, which have been drawn up by the organisation and the sector in line with RIVM's guidelines.

Working from home

In the case of our office staff, the COVID-19 measures meant that they started working from home as much as possible in March. Office layouts were changed to ensure a distance of one and a half metres, by limiting the number of workstations for example, and marking out pedestrian routes. We cancelled internal and external events, with the exception of training courses. Despite the limitations, working from home sped up the introduction and adoption of ICT tools and systems. Many employees indicate that they would like to continue working from home to some extent after the COVID-19 crisis.

Crisis team

A COVID-19 crisis team was set up in March. The team, which includes members from all business units and disciplines, investigates what action Alliander can take to minimise the risk of employees contracting the virus during their work. The team drew up seven scenarios and identified the consequences for each scenario. Among other things, the scenarios considered the availability of employees, the use of IT, the scarcity of resources and our financial position. Actions were decided based on these scenarios, e.g. purchasing rapid test kits from a commercial party, enlarging the long-term employability budget, asking Arbo Unie and SpecialistenNet to provide extra assistance and creating an intranet group where people working from home can share tips and information.

Information about the work situation and well-being

We are aware that working in accordance with these measures asks a lot of our employees. So we attach importance to regularly investigating the work situation and the well-being of our colleagues. Employees participated in a working-from-home scan on two occasions. These scans indicated that people can generally work from home effectively, but that they miss their colleagues, collaboration within the organisation and (informal) contact. Employees were satisfied with the tools they use for working from home, but also said that they tend to get tired more quickly. At the end of 2020, we set up an intranet survey on the subject of employee well-being during the COVID-19 pandemic and 900 employees took part. The second scan indicated that the work situation was sustainable, that employees could work without interruptions and concentrate effectively, that online collaboration with colleagues was going well and that they had succeeded in creating a good home office. Some still had difficulties, but indicated that they would be able to carry on working from home for the time being.

Getting the job done

The labour market for technicians and IT professionals has hardly changed. The number of vacancies is stable and the supply of candidates is either the same or has decreased slightly. In order to get the job done, we are not only focusing on recruiting new technicians, we are also acting to make the internal organisation more efficient and more agile, partly by making changes to the organisation, but also by introducing improvements in the area of culture and leadership. The approach focuses on operating as a performing and learning organisation that prioritises teamwork in order to do the work a little more effectively every day. Regular short-cycle adjustments, explicit performance targets and monitoring, and learning from each other are now being embedded in our daily work. This includes clearly defining the strategy and giving the teams what they need to contribute to achieving this strategy.

Alliander's own technical college

In 2020, Alliander's own technical college ('Alliander Technische Bedrijfsschool') continued to roll out the reorganisation initiated in 2019. We have further increased the effectiveness of the technical college by streamlining and professionalising the basic structure and anchoring the learning activities more strongly at a regional level (in Duiven, Haarlem and Leeuwarden). These improvements include the appointment of training advisers. In 2020, we provided more than 1,600 training courses through the Alliander technical college.

Youth programme

Last year, we started a programme to raise interest among secondary school leavers and encourage them to specialise in Liander's technology. The COVID-19 pandemic restricted initiatives on location, such as guest lectures at the secondary schools, and our attendance at events such as WorldSkills. In 2021, we will run a pilot scheme that involves offering school leavers aged under 18 employment in combination with extensive training as technicians. This scheme will be offered in the west of the Netherlands initially, but can be extended to other parts of our service area at a later stage.

High-voltage sector

The medium-voltage and high-voltage training curriculum was redesigned in close collaboration with Qirion. A new dimension has been added by converting the now disused Anklaar substation into a training facility.

Hydrogen

Together with the hydrogen innovation team, the technical college is developing a specific training course to prepare technicians for working in hydrogen pilots.

External collaboration

The technical college is involved in the plans of 'Sterk Technisch Onderwijs' (Strong Technical Education) and the O&O funding programme to further improve technical education together with educational institutions and companies in the sector. One example is the development of virtual reality for use in engineering training and education.

Labour market for technical talent

Technicians and IT professionals continued to be in short supply on the labour market during the past year. We still have difficulty in finding suitable candidates, but see it as our task to ensure a more plentiful supply of technicians in the coming years. We offer training opportunities to newcomers to our sector, young people, and people with poor employment prospects. In addition, we also use various instruments to get young people, their parents and teachers enthusiastic about technology. For example, in 2020, we launched initiatives for training young people to become technicians. In 2020, we filled 316 technical vacancies.

Alliander is Hiring!

For several years, we have been conducting an intensive recruitment campaign on several fronts (both internal and external) to publicise vacancies for technicians. In 2020, the approach was expanded to include new online initiatives, such as webinars, to inform students and technicians about career opportunities at Alliander. During the webinars, participants were given a live tour of a technician's van.

Job interviews through online chat

Due to the limitation on face-to-face meetings at the sites, the recruitment process for Alliander colleagues took place entirely online. From March onwards, nearly all job interviews were conducted online. This chat facility was introduced in 2020 as a way of lowering the threshold for job applicants. We even received a Werf& Award for our approach. Werf& is a national online platform in the field of recruitment and selection.

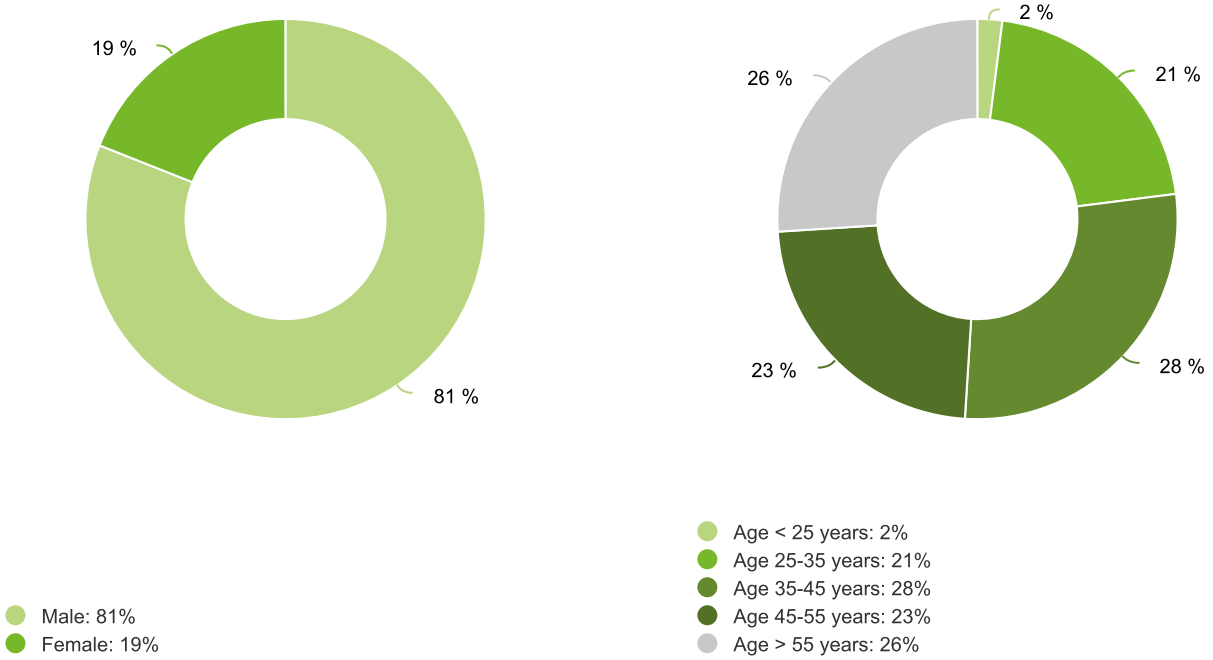
New Alliander colleagues

In 2020, we collaborated with UWV (the Dutch Employee Insurance Agency) and other employers to offer people made redundant by other companies the opportunity of continuing their career at Alliander.
In 2020, employees were once again invited to introduce new technicians to Alliander through the internal referral programme 'Alliander Werft!' ('Alliander is Hiring!'). More than 170 potential candidates were introduced through the programme in 2020, and nineteen of them were offered a contract.

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, so 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

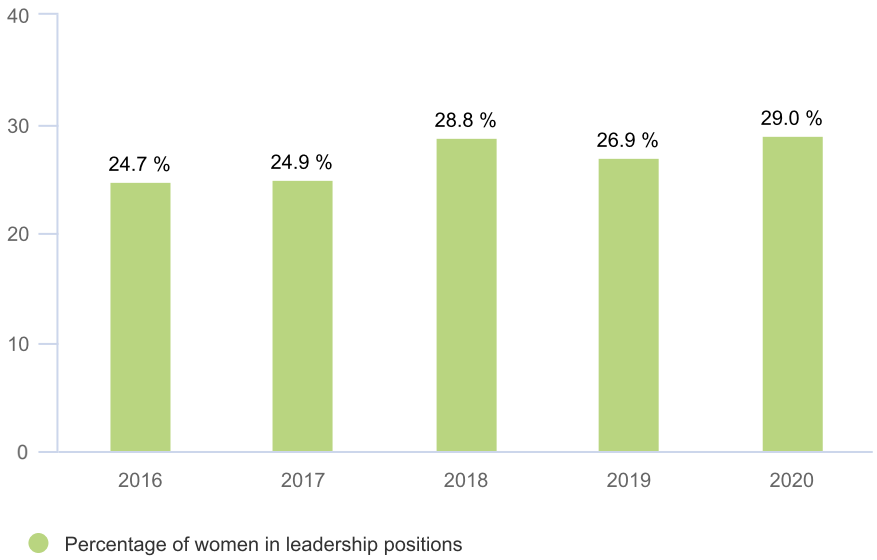
Alliander aims to be a diverse company where every employee can perform to the best of his/her abilities. At the same time, we target achieving a varied workforce with a good balance in diversity at all levels. We are convinced that diversity makes us an attractive employer for talent, gives everyone 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 and technical positions, employees with a migrant background, and people with poor employment prospects.

Launch of 'Wij zijn Nexus'
On 20 May, the day before the international Cultural Diversity Day, we launched our cultural staff network initiative, called *'Wij zijn Nexus'*. This network ensures that we continue to discuss cultural diversity. It helps to make our HR processes more inclusive and provides training for employees whose position when starting with us differs from that of indigenous Dutch employees.

Diversity Day
On 6 October, we celebrated Diversity Day. More than 200 employees participated and made the most of this opportunity to get involved in online webinars or workshops on diversity and inclusiveness. In addition to collaborating with other organisations on diversity, we launched a partnership with AGORA in 2020. This partner also subscribes to our mission to offer fair opportunities for all.

Percentage of women in leadership positions

The percentage of women in leadership positions at the end of 2020 rose to 29.0% (2019: 26.9%). 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 year-end 2020, the percentage of female members of the Management Board increased to 25% due to the creation of new board positions. The current composition of the Management Board represents a good balance in terms of diversity of expertise, background, experience and age. The percentage of women in the Supervisory Board is 50%.



Employees with a migrant background

In order to present ourselves to current and potential employees with a migrant background, we explicitly focus on the diversity within our organisation. Using role models has proven itself an effective strategy. In addition, we recruit through specific channels and make use of our 'Wij zijn Nexus' network, Echo (a mentoring programme for graduates with a migrant background) and Agora (a network organisation that supports diversity and inclusion).

Offering opportunities to people with poor employment prospects

Alliander believes that people in work feel more engaged with society. This is why we have been helping people with poor employment prospects to find work since 2009. Alliander feels obliged to do everything possible to give people with poor employment prospects a greater chance of finding a job. Having a job often determines whether a person can participate in society or not. Alliander also endorses the significant societal importance of the government's job promise scheme ('banenafspraak') that aims to create permanent positions for people with an occupational disability. In 2020, we offered a total of 108 people a job or work experience placement.

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. Managers discuss performance and development with individual employees on an annual basis. The results and agreements are documented in the HR system by the employee and manager. 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 help keep our employees in good shape and ready for the work of the future.

Long-term employability

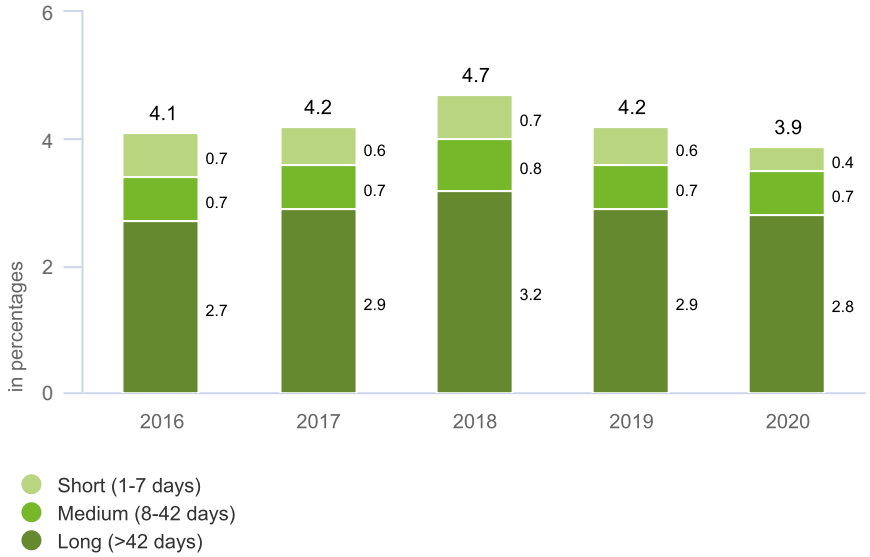
We constantly assess whether our employees have the knowledge and competencies that are needed today and in the years to come. We are working on creating a culture in which it is normal to continue to invest in yourself, irrespective of your age, work experience or training. Every employee makes his or her own decisions in this regard. To raise awareness of this issue, we organised a Long-term Employability Event in October. This was a completely online event due to the COVID-19 measures. Employees could participate in workshops that focused, for example, on improving their lifestyle, or the skills needed for applying for a job online. Time was also made available for checking employees' CVs, brainstorming with a career adviser or finding out more about working healthily from home.

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.

Sickness absence

In 2020, the sickness absence rate was 3.9% (2019: 4.3%). The official average for our sector in the Netherlands was 5.0% in 2019 (2020 figure not yet known). The COVID-19 pandemic caused a temporary spike in sickness absence at the beginning of 2020. Halfway through the year, this percentage returned to its former level. 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

During the period up to 2019, we conducted an 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 2020 however. In 2020, we felt this to be inappropriate in view of the ongoing process to transform Alliander into a more effective organisation. That transformation makes conducting and following up on a large-scale survey difficult. Instead, we conducted some surveys that provided short-cycle information. In 2020, for example, we conducted two working-from-home scans to assess the state of mind of our office workers during the COVID-19 crisis. The first analyses indicated that employees experienced more disturbances when working at home and did not have a good home office set-up. Furthermore, they missed informal contacts with colleagues. Even so, a significant majority (58%) would still like to work from home more after the COVID-19 pandemic. Employees were also satisfied with the tools they had available. At the end of 2020, we set up an intranet survey on the subject of employee well-being during the COVID-19 pandemic. 900 colleagues participated.
In addition, we also used team barometers in a number of areas in the organisation. These barometers give departments and teams information about the most important areas requiring improvement in relation to roughly twenty themes.
In 2021, we will implement a new tool to measure employee satisfaction.

Training and development

Alliander runs a training centre where employee development is the main priority. The key areas of focus include 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 2020. 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, offers various (non-technical) training programmes and advice. Furthermore, 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. In 2020, Alliander invested 2.4% of its wage bill in employee training (2019: 2.7%).

Collective labour agreement for network companies

The collective labour agreement for network companies (CAO Netwerkbedrijven) applies to Alliander's employees. This agreement runs from 1 May 2018 to 1 May 2021. All salaries were increased by 3.0% on 1 May 2020. A further increase of 2.0% comes into effect from 1 January 2021. The collective labour agreement also includes provisions for 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. A total of 59 colleagues became redundant in 2020 (2019: 75), and 188 (2019: 295) people to whom redundancy did not apply (or not immediately) also made use of our career centre. Thanks to this assistance, 79 employees managed to find a new job or an appropriate alternative (2019: 107).
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. Employees can request support for their own volunteer work or organise, on their own or with assistance, a team activity that benefits society. In order to raise money for good causes, employees can make use of an 'Event Budget', an amount of up to €500 to cover the initial costs of implementing their idea.
In 2020, the COVID-19 measures prevented many activities from taking place. The Foundation came up with alternatives, such as a scheme that employees could use to send a card with a photo of their choice to people. On Nationale Zaaidag, the national seed day in the Netherlands, roughly 400 employees ventured out into the fields and woods to sow flower seeds. More than fifty colleagues took part in the 'Doing something for someone else' campaign ('Doen voor een Ander'), which allowed them to submit a request for a modest amount of money to make a person or group of people feel appreciated. In addition, we tackled outdoor jobs such as gardening at nursing and care homes. In collaboration with NL Cares, we published several editions of a good news magazine called 'Blij Nederland'. Finally, dozens of colleagues took to the streets to deliver surprise packages to 124 families with sick children on behalf of Stichting De Opkikker.

The Alliander Foundation spent roughly €150,000 on projects and activities. 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 salary of the CEO and employees falls within the scope of the collective labour agreement for network companies (CAO Netwerkbedrijven). The total income of the CEO is 3.6 times the median salary of all Alliander employees in the Netherlands (2019: 3.6). The collective labour agreement salary increase in 2020 is 3%, with an additional maximum of 1% for outstanding performance, up to a maximum of the salary scale or statutory maximum amount under the Act on the Standardisation of Remuneration of Senior Executives in the Public and Semi-Public Sector (WNT). Consequently, the salary increase for the CEO in 2020 amounted to 0.9 of the average salary increase for all Alliander employees in the Netherlands. Alliander intends to investigate any differences in salary between men and women (the pay gap) in 2021.

Employee participation

Photo was taken before the COVID-19 outbreak in March 2020.

Adaptability

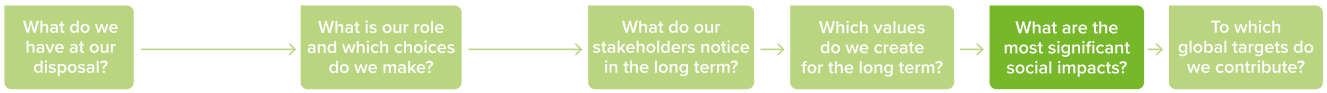
If 2020 has shown us anything, it is that adaptability is crucial. Alliander took action to create a flatter organisational structure in 2020, in order to improve adaptability. The employee representatives welcomed the Management Board's decision to involve them in this change at an early stage. Since then, Alliander has demonstrated that it already has some degree of adaptability as we were able to adjust quickly and efficiently to the new reality during the COVID-19 pandemic. We were helped by our solid and up-to-date IT infrastructure and services, which make mass working from home possible, and by Facility Services and the cleaners who keep our offices safe. And, last but not least, by the caring and flexible attitude adopted by all employees, both in respect of each other and in respect of our work.
At the end of 2020, the Works Council issued positive advice on the new organisational design. That structure aims to use 'agile' innovation and digitalisation activities to accelerate increases in productivity, improvements in efficiency and greater convenience for customers. A complex challenge in which we must strike a good balance between producing and innovating/digitalising, and maintaining a steady focus on our bottom line results.

We have made robust agreements on how we, as the controlling body and the employee participation body, are going to tackle this challenge together in the coming period. For the Works Council, this is part of our objective of *'helping 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*'. What about that other objective of the Works Council *'that everyone has the opportunity to contribute their best and share in good results based on their professionalism and vision…and the employee participation process as an integral component of the company's operations'*? In my opinion, we still have work to do in this respect. Because, as the Works Council, we have felt more than adequately involved and listened to by our managing colleagues in respect of the changes and we would like all our colleagues to experience the same level of attention and involvement.
Because if we all feel a sense of ownership and commit ourselves to full participation, we will maximise Alliander's adaptability and boost success. Let us consciously encourage each other, in all our diversity, to accept ownership and participate. Let us show appreciation for each other's contribution, at whatever level and in whatever way, shape or form. This requires excellent leadership and excellent employee participation.

On behalf of the Works Council, and the Focus and Preparation Committees,

Aart Smittenberg

Our impact on society



Alliander's activities have a major impact on society. For example, the distribution of energy affects the economic development of regions and stakeholders. The network operations also have an impact on greenhouse gas emissions, knowledge development and employee well-being.

We want to increase positive effects, such as the impact on customer well-being and increasing the percentage of renewables in the energy supply. In addition, we want to minimise negative effects, such as our CO_2 emissions and the carbon footprint associated with the goods we procure like cables, pipes and transformers. By measuring our impact, we can quantitatively assess the significance of our activities.

Impact measurement

When assessing the social contribution of our activities, our main focus has traditionally been on costs and the direct consequences. Now we also use impact measurements to calculate to what extent these activities affect society (our 'social impact'). Stakeholders can use this information to assess our contribution to social developments more accurately. Impact measurement is also good for our own organisation: it shows whether we are achieving our goals and helps us make better decisions about projects and activities. Impact measurements also give us greater insight into our contribution to the global Sustainable Development Goals.

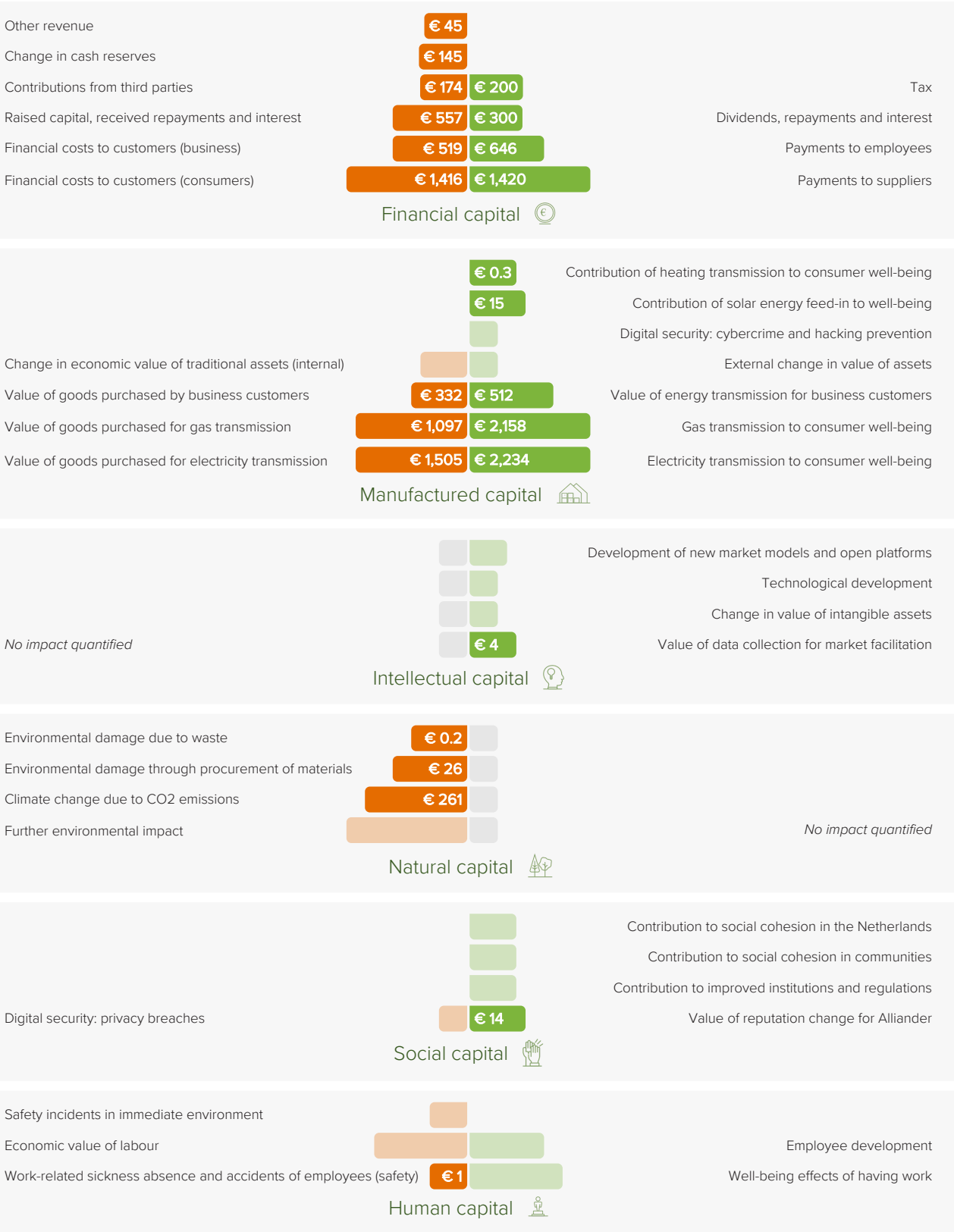
Impact at a glance

Alliander follows the 'six capitals model' of the International Integrated Reporting Council (IIRC). To be able to explain and compare the composition and extent of our impacts, we express them in euros. In the model, we mainly quantify and monetise the impacts where we can make the largest contribution to society, both directly and in the supply chain. For the other indicators, we made a qualitative description and an estimate based on external sources. Direct impacts result from Alliander's activities, for example, the impact of network losses, our own emissions and the well-being of our employees. Supply chain impacts are effects for which parties in the chain are jointly responsible. One example would be the impact of energy distribution on the well-being of consumers, or emissions from the consumption of electricity, gas and heating. We would like to point out that, in all cases, size is relative, i.e. the impact may be small at group level but significant at an individual level, like the impact of an accident on a person's life. For basic assumptions, calculations and comparative figures, we refer you to the Comparative figures for impacts section in the Other information chapter.

Our steps in quantifying impact

We are constantly working on improving the impact model and our social impact. Impact measurement gives us information on the value we create across a broad cross-section in the long term. In 2020, we made no changes to our impact model.
We used the model to calculate the impact of two proposed projects in 2020. Both situations related to the optimum use of grid capacity in areas affected by a lack of capacity in the power grid.

Our 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 2020, we jointly worked on the Handbook on impact measurement in network organisations. This handbook describes the key areas of shared impact for the national infrastructure sector as a whole. Alliander uses different values for a number of aspects, such as attribution factors. We will implement changes as required, in combination with a number of other calibrations, in the years to come. Making changes all at the same time favours stability and makes it easier to explain the underlying rationale. Thanks to the work put into this by the coalition, we now have a well-founded basis for joint impact measurements.

Financial capital

The financial capital reflects the impact of incoming and outgoing cash flows in relation to our stakeholders. For example, we use the money we receive from income and payments to make investments and carry out maintenance work. Put another way, we withdraw capital from society to finance our activities. Last year, we withdrew and paid back €49 million less to the capital market compared to 2019. In addition, the repayments and the successful issue of a green bond led to a substantial reduction in the impact of dividends paid out, repayments and interest paid, totalling €283 million. In addition to withdrawing capital, we also transfer value back to society through our role and position in the energy supply chain. For example, our employees are paid a salary. Suppliers receive payments for goods, services and assets. So we generate work and income for other parties in the supply chain. In 2020, our impact increased by €202 million due to the rise in payments to our suppliers and supply chain partners. On balance, our work stimulates the economy and generates long-term employment, income and prosperity.

Manufactured capital

The availability of energy and heat largely determines the degree of prosperity and well-being in society. Energy distribution and transmission are our manufactured capital and reflect the value that energy has for our customers. We calculate the value of this capital based on the regulated tariffs and the extra amount that customers would theoretically be prepared to pay on top of the actual price of a service or product ('consumer surplus').
Alliander's share in the value for consumers amounted to €4.4 billion in 2020[1]. This value is lower than in 2019. The mild winter led to a reduction in the number of degree days and gas demand. Those factors resulted in a lower distributed volume. To some extent, this reflects a direct effect of the energy transition: more and more customers generate their own renewable energy. Energy that is consumed immediately locally does not appear in our transmission figures. The amount of distributed electricity also decreased. This is reflected in a lower consumer surplus for our operations.

For some years now, we have seen an increase in the number of households with solar panels (2020: from 9% to 12%). Energy fed back into the power grid by consumers has a positive effect of €14.7 million on well-being. We expect that, on balance, an increase in the electricity generated locally on/in customers' buildings, some of which is fed into the grid, will result in less electricity being transported through our networks. This shift clearly illustrates the change in supply and demand patterns in our networks caused by the energy transition.

Due to the expansion of the district heating networks in Hengelo and Zaanstad, the number of heating connections for small consumers increased by 28%. This represents an added value for consumers of €0.3 million. Due to the mild winter and the relatively low price for natural gas, the impact value of our heating networks for customers has reduced.

The total value of electricity and gas transmission for business customers was down on 2019, dropping to €512 million. Less electricity was used for commercial activities due to COVID-19 (down by 6%). This effect can already be seen in the telemetry values recorded for business customers. The impact value of the business gas volume is less clear because the information is partly based on estimates, leading to uncertainty in the data. The gas consumed by businesses is used mostly for production applications and to a lesser extent for heating buildings. We therefore believe that the COVID-19 measures have not affected gas consumption as much as electricity. The calculated impact value for gas shows a slight increase for business customers.

The impact of failures and outages has been benchmarked against other network operators. Last year, Alliander performed relatively less well in this respect compared to the sector as a whole. This results in a slight decrease in the reliability of our networks, which can be expressed as a value of negative €1.3 million compared to 2019.

1 The distinction between distributed and transmitted energy has led to an adjustment of the calculation method. for which reason it is no longer possible to compare our figures for this reporting year with those of 2019.

Intellectual capital

Alliander invests time, attention and money in the network management of the future, Digitalisation of the energy networks, the use of data in applications, new business and market models, and the development of alternatives to natural gas are boosting knowledge development and data density and therefore creating intellectual value for Alliander and its stakeholders. We started measuring the benefits of the use and availability of data for stakeholders in 2019. Alliander makes data available through multiple channels. We share public data directly on Liander's website and other data can be requested on a case-by-case basis. This data has qualitative and operational value for society if it facilitates applications for users. Making data available also offers market opportunities for other companies. In 2020, this market-facilitating data represented a value of €4 million (2019: €6 million). Compared to last year, this impact has reduced due to a decrease in the number of times the data was referenced. One obvious explanation is that fewer websites contained links to our files and data in 2020, resulting in lower findability compared to the previous year. This can be generally explained by the fact that rules on nitrogen emissions and the COVID-19 measures resulted in a lower level of the types of (construction) activity for which this information is referenced. We also publish public data and refer more often to related sources when data is required. Both of these practices can lead to a decrease in the use of Alliander data.

Natural capital

The effect that we have as a society on natural capital (raw materials, biodiversity, air, water and soil quality and climate) is considerable. Alliander is working hard to limit the negative impact in this area. The total negative impact on the climate due to CO_2 emissions from our activities in 2020 increased by €24 million compared to 2019, to €261 million. This includes pro-rated emissions from the Dutch energy supply chain for Alliander. This negative effect arises because the social price of CO_2 damage is now valued considerably higher (by almost 22%). This effect is mitigated by the decrease in the volume of distributed energy. In the case of gas, this decrease can be attributed to a relatively warm year. Further details of this decrease are provided in Manufactured Capital. Our own direct emissions related to network losses, buildings and mobility also decreased. The monetary impact of our CO_2 footprint resulting from our own emissions amounted in 2020 to €28 million, largely due to the network losses and leakage in our networks.
In 2020, we procured more materials (20% more by weight than in 2019) and the cost of the ecological damage associated with specific raw materials, such as steel and copper, also increased. The materials that account for the largest procurement volume, i.e. the total of recycled and primary, are aluminium (6.7 million kilos), copper (5.4 million kilos), PE (3.8 million kilos) and PVC (3.7 million kilos), mainly in the form of electricity cables. As a result, the negative impact of materials procurement rose from €16 to €26 million in 2020. However, by using recycled materials, we avoided a negative impact of €9.7 million. As a result, we succeeded in reducing the total costs of the ecological damage that would have been done if we had exclusively used new primary raw materials by 27%. The fact that a very large percentage by weight of our waste materials are recycled or reused means that we have a limited negative impact in this area: €0.2 million.

Social capital

How stakeholders perceive and value our performance is part of our social capital. The value for reputational change indicates how we compare to similar companies in terms of reputation. A good reputation is beneficial for collaboration, employee recruitment and customer satisfaction. We are constantly aware that bottlenecks when connecting customers and the inability to facilitate feed-in into the grid due to local capacity constraints have an impact on customer perceptions and ratings. In 2020, we used a projection of the results from previous years that was adjusted for current developments in the sector. The outcome of this measurement shows a value of €14 million, compared to €28 million in 2019. We measure reputational value by relating the increase in the brand value of other energy companies in Europe to the increase in revenue. In 2020, the brand value did not increase as strongly as in 2019.

The contribution we make to national and local social cohesion and to improved institutions and regulations is based on a qualitative estimate. This contribution is not quantified.

Limiting the uncontrolled exchange of privacy-sensitive information has our constant attention. The violation of protocols can have an adverse effect on our social capital. We largely prevent the unwanted exchange of data through our systems. Even so, a data incident can sometimes still occur. We have not yet calculated the associated impact.

Human capital

Long-term work-related sickness absence or safety incidents have a dampening effect on the positive value of having a job. The negative impact value is relatively small compared to the positive impact. As in previous years, this impact is around €1 million. In addition to a slight increase in the impact of work-related sickness absence, we see a decrease in the negative impact of safety incidents.
Due to the lack of source data, we are unable to quantify the positive impact on human capital for Alliander in 2020. However, we can make qualitative statements based on the working-from-home scans that were carried out twice last year as a result of the COVID-19 crisis.

In the spring, we saw negative effects due to the COVID-19 crisis. For example, it delayed the reintegration of employees who had been off sick for some time: reintegrating in a working-from-home situation is extremely difficult in the case of some employees. In the autumn, we saw no visible effects of the COVID-19 crisis on work-related sickness absence. Furthermore, it is difficult to say at this stage whether the organisational changes will have a positive or negative impact. Although some employees may experience stress and tension due to the reorganisation, others may see it as an exciting new development.

The impact of grid-efficiency measures

The power grid in the Netherlands was originally built to transmit and distribute electricity generated on a large scale. The grid is now evolving into a multifunctional connector between electricity supply, demand and storage. The goals defined for the energy transition require careful consideration of the physical infrastructure and approach for regional energy networks. Coordinated integration and, where necessary, restriction of the feed-in capability of individual customers leads to system efficiency. It can also contribute greatly to controlling social costs and using existing and new network structures efficiently. There are a number of smart technical solutions for this:

- Feeding in power generated by wind and solar farms at a single location – *cable pooling* – avoids extra connections.
- *Capping* feed-in at peak times ensures that the grid offers greater and more consistent capacity for a longer period.
- Abandoning the principle of maintaining a standard outage reserve, known as *redundancy*, can free up capacity in areas where there are capacity constraints.

A limit on individual capacity agreed with the customer leads to greater grid efficiency, greater use of renewable energy and, on balance, lower social costs. The following two cases studies illustrate the social value of capping and using the operating reserve.

Impact case study 1: Using the operating reserve differently to relieve grid congestion

In an increasing number of regions, there is insufficient network capacity for connecting businesses and renewable energy generating facilities in a timely manner. One promising solution is to temporarily abandon the principle of maximum grid reliability based on a fully redundant grid structure. Redundant grid construction means that there is 'emergency capacity', which allows power to be restored quickly in the event of an outage. Using this emergency capacity in a different way speeds up connection in areas where there is a capacity shortage and makes the power grid more efficient.

Description

We performed an impact analysis for a case study in Leeuwarden. Under the current regulations, a non-redundant connection is possible after obtaining a dispensation. The hypothetical scenario of combining non-redundant connection with priority treatment for connecting renewable electricity generation leads to a significant increase in the social return. The case study focuses on a business park with a shopping centre around a planned football stadium. Setting up a redundant connection is not yet possible as this would require an upgrade to a substation. The network operator has two options: to either not make transmission capacity available at the preferred location until the upgrade has been implemented, or to offer a non-redundant connection with a restriction, possibly with a back-up set up by the customer for use in the event of a power outage. The question is whether the non-redundant connection (possibly with an emergency back-up) has value in terms of its social benefits. Various scenarios were explored in this connection:

- A preferred scenario that involved subsequent construction work to create the operating reserve in the area after a period of five years.
- A scenario without any operating reserve where the money saved would be used for

    1. connecting other business parks
    2. connecting sustainable energy production

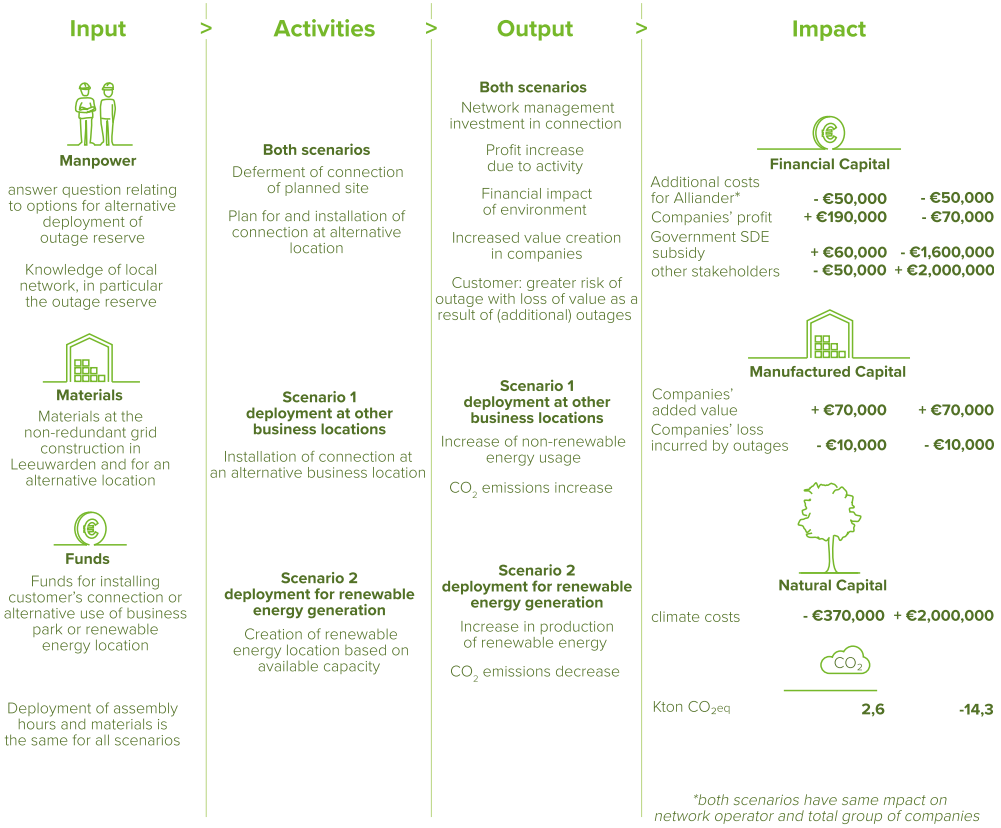
Results of the impact calculation

The case study shows that transmission capacity can be provided faster in an area with capacity restrictions by using the option of a temporary or permanent non-redundant connection. The hypothetical scenario in which all the available installation time is invested in connecting renewable electricity generation locations has a much higher social return than the scenario where that freed-up installation time is invested in other business parks. Scenario 2 has a much higher social return than scenario 1, largely driven by freeing up capacity for the connection of renewable energy generation.
The impact differs depending on the stakeholder perspective. For *companies*, the positive impact of faster availability of transmission capacity outweighs the negative impact of lost value due to a greater risk of power failure. In the scenario that focuses on renewable electricity generation sites, this advantage is less significant. For the *government*, the scenario that focuses on renewable electricity generation sites results, on balance, in considerably higher costs due to the requirement for more SDE+ subsidies. In the companies scenario, the government receives more income in the form of tax payments and the

bottom-line impact is €61,000 positive. *Other stakeholders* benefit from a limited positive financial impact in the case of the business park connections. In the scenario that focuses on renewable electricity generation locations, the impact for them has a higher positive value of €2 million.
The results of the climate impact comparison differed significantly. The scenario where investments are made in renewable electricity generation sites shows a more favourable impact, to the tune of €2.3 million, in comparison to the scenario involving business parks. The impact in terms of the use of scarce materials and the knock-on effect on natural capital is slightly negative in all scenarios. From the network operator's perspective, the impacts are equivalent in all scenarios.

Conclusion

The total value creation for society is greatest if the money saved by not upgrading the outage reserve in the grid is used to connect renewable electricity generation sites. This has the greatest overall positive impact across the different stakeholder groups and limits the climate costs. Some of the effects concern shifts: the use of SDE+ subsidies has a positive effect on the production of sustainable energy. Conversely, accelerated connection of business parks leads to a financially positive impact for the government and higher profits and revenue for companies, but comes at a cost in terms of the negative impact on the reduction of climate-related emissions.



Impact case study 2: Capping peaks in individual production capacity

Customers with renewable electricity generation systems require a relatively high transmission capacity in order to cope with the peaks in their supply to the grid. The question here is whether an incidental cap on production from the generating systems, applied by the network operator, is more effective in terms of the social benefits. This would mean individual producers having to sacrifice a small percentage of their annual production. This cap would 'shave away' the most extreme feed-in peaks. As a result, more customers could be allowed access to the electricity grid and the grid would be used more efficiently.

Description

This case study examines whether capping the feed-in capacity of producers of solar and wind power can free up grid capacity for new access requests from producers. We compare the effects of capping with a baseline scenario in which producers are subjected to a transmission restriction.
To obtain a realistic picture of the impact, this analysis was performed for two specific network sections. Actual data was used for this, supplemented by assumptions relating to the rate at which new producers of renewable energy will emerge, and other factors. The actual data comes from a solar farm in Oosterwolde and a wind farm in Dronten. The calculation in the case study is based on compensation for producers who suffer a loss of feed-in income due to capping.

Impact calculation

The analysis shows that the social impact of capping within a specific bandwidth is positive on balance.

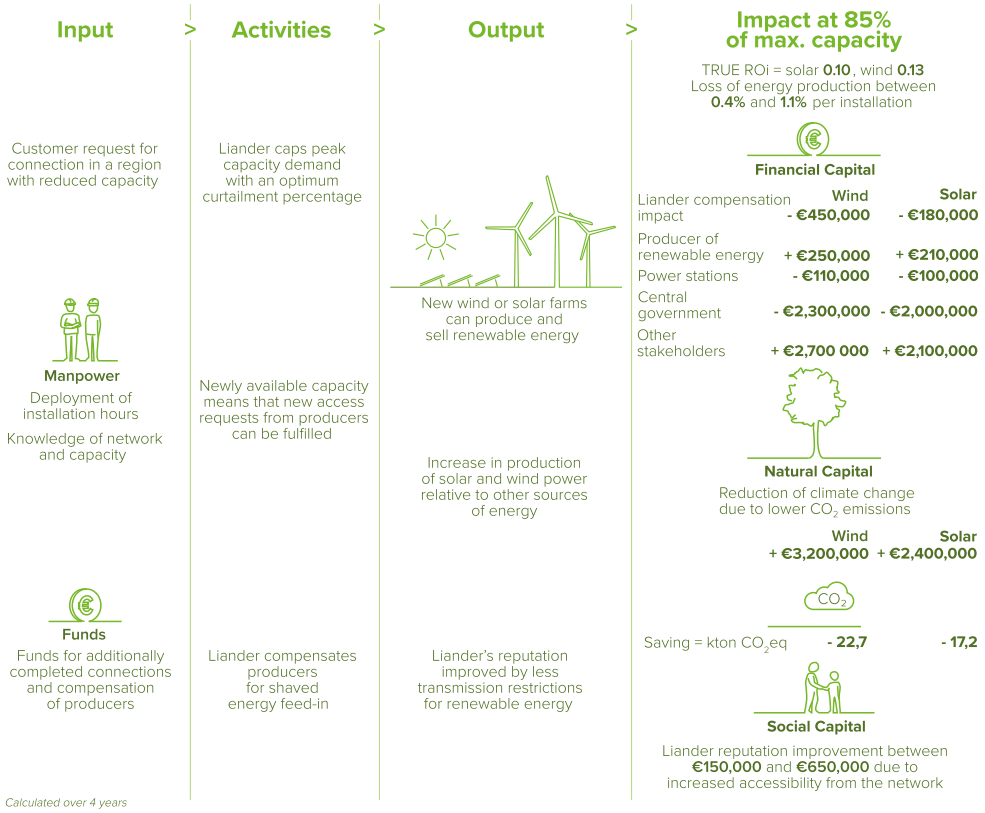
- In this scenario, the customer limits peak production up to a maximum of 10% of the installed capacity by installing a smaller inverter (a device for converting direct current into alternating current).
- In both cases, the optimum situation is achieved by capping the feed-in peak at roughly 85% of the installed capacity. This is where the highest social return on investment is realised. The added value of capping gradually diminishes as this value decreases and reaches a negative tipping point in terms of social impact at a percentage of roughly 35% of the installed capacity. This relates to the capacity: the volume of renewably generated electricity that is sacrificed, i.e. the lost income, is approximately 5 - 6% per year.

Conclusions

The financial impact for various stakeholders increases the more we cap. The financial impact is always negative for Liander due to the costs of compensation for capping. The government invests in the construction of the wind and solar farms through the SDE subsidy scheme. The initiators, i.e. the producers, benefit as they receive compensation for the costs of capping and generate revenue by feeding renewable electricity into the grid.

The results are broadly similar for both wind and solar. Interestingly enough, the contribution to climate change limitation is greatest at a capping percentage of roughly 15%, i.e. at 8% of the maximum capacity. In the case of wind in particular, this drops off rapidly at higher capping percentages due to the longer operating time required for wind in comparison to solar.

The result of capping is that new solar farms or wind farms can be built in the area and connected to the grid. The production of sustainable energy therefore increases and CO_2 emissions are avoided.



Contribution to Global Goals (SDGs)

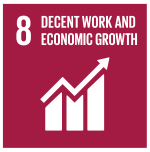
What do we have at our disposal? → What is our role and which choices do we make? → What do our stakeholders notice in the long term? → Which values do we create for the long term? → What are the most significant social impacts? → To which global targets do we contribute?

Alliander's activities contribute to achievement of the Sustainable Development Goals (SDGs) adopted by the member states of the United Nations in 2015. These seventeen Sustainable Development Goals aim to put an end to poverty, inequality, injustice and climate change by 2030. The Netherlands has also committed to achieving these goals. Government, politicians and companies are currently working out their contribution in more concrete detail. Statistics Netherlands reports annually on the progress made on the global goals in the Netherlands.

Alliander's mission

Reliable, Affordable and Accessible energy for everyone

We stand for an energy supply system wehere 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.

Excellent network management and innovation

Every day, we focus on making our networks suitable for the requirements of the energy transition. We facilitate customer choices, digitisation and efficient processes.

Energy and heating transition

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

Sustainable operations

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

Respond to climate change

We work with stakeholders and governments on climate adaptive strategies and programs.

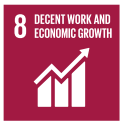
Alliander and global goals: focus on impact

In 2020, we reviewed our contribution to the SDGs. We have added two SDGs to the four goals that we previously identified, i.e. SDG 7, 8, 11 and 12. They are SDG 9 (industry, innovation and infrastructure) and SDG 13 (climate action). Both goals are logically associated with our core activities. We investigate where our influence is greatest and where we can help achieve the most social value. To this end, we have compared the SDGs with our operations and core activities, and our entire value creation process to ascertain which SDGs best match both our own initiatives, objectives and strategy, and our stakeholders' expectations. The six goals correspond to a number of material issues identified in this annual report, such as access to sustainable energy, good working conditions, making our infrastructures sustainable, innovation, responsible supply chain management and climate action.

Our contribution to SDGs: impact-driven strategy

The result of the SDG analysis is documented in our connectivity matrix. This matrix shows the relationships between our process of value creation, the material issues, performance and the SDGs. In the tables below, we also refer to other parts of the report for further explanations.

SDG 7: Affordable and sustainable energy		
	Energy network operators play a vital role in ensuring safe, affordable and continuous availability of energy. This goal largely coincides with our mission and strategy. 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. Through our chain partners, we want to continue making a contribution to a sustainable energy supply system at low costs.	
Sub-goals	We contribute to achieving the following SDGs: 7.1, 7.2, 7.3, 7.4 and 7.5. 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. We have therefore linked indicators to these two goals to monitor progress.	Connectivity matrix
Impact	Our impact on SDG 7 is reflected by the investments we make to increase the share of renewable energy transmitted through our networks, while at the same time acting to keep the social cost of energy as low as possible in the future.	Our impact on society
Our results in 2020	- Outage duration: 23.2 minutes (2019: 21.9 minutes). - Number of cable numbers with more than five interruptions: 17. - We have made agreements with local councils on how we can guide them in the coming years to shape the energy transition. - We have taken steps to identify our impact in relation to SDG 7. - The number of connections for sustainably generated energy increased by 29% to 494,000.	Our network
Long-term contribution	- Have the capacity each year to connect all the new locally generated energy in our areas. - Make heating transition arrangements with all municipal authorities and housing associations in our service areas by 2022. - Aim to provide high reliability of supply. - Invest in flexible solutions that help prevent investments in the network having to be made.	Transition to a new, sustainable heating supply
Actions and policy	- Aim to keep costs as low as possible for the customer and share costs as fairly as possible. - Facilitate the energy transition, for instance by offering open and sustainable district heating networks - Innovations that avoid us having to invest in the network. - Actively improve the energy efficiency of our own operations. - Offer insight into energy usage with smart meters and options for meter applications. - Participate in international initiatives aimed at knowledge sharing and technology development and application.	

SDG 8: Decent work and economic growth		
	We work non-stop on ensuring a safe and fair working environment for all our employees as well as an inclusive corporate culture.	
Sub-goals	We contribute to achieving SDG 8.8: protect labour rights and promote safe and secure working environments. In our procurement and tendering policy, we focus on good working conditions and compliance with international conventions. Contractors who work for us must meet the same safety standards as those we adhere to in-house. 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.	Connectivity matrix
Impact	Our impact on SDG 8 is reflected in our positive contribution to the wellbeing of employees and to employment in the Netherlands.	Our impact on society
Our results in 2020	- Number of learning places for people who meet the criteria of the Dutch Labour Participation Act: 108. - Percentage of women in leadership positions: 29%	Being an attractive employer
Long-term contribution	- Offer long-term work to people with poor job prospects who meet the criteria of the Dutch Labour Participation Act. - Offer work experience placements, internships and other learning experiences for a broad target group. - Meet the requirements of the Dutch Labour Participation Quota Act by 2024. - Have at least 33% of our leadership positions held by women by 2024. - Have a sickness absence rate of less than 4.3%.	Being an attractive employer
Actions and policy	- Provide all our employees continuous training and development. - Have a high level on the Safety Ladder. - Participation in the workforce via the Step2Work programme. - Raise employee health and fitness awareness, with Alliander Fit for example. - Diversity and inclusion: promote the appointment of women to leadership positions and recruit people with a non-western immigration background and people with poor employment prospects.	Being an attractive employer Having a safe work and data environment

SDG 9: Industry, innovation and infrastructure		
	The Netherlands has one of the most reliable and efficient energy infrastructures in the world. Every day, we focus on making our networks suitable for the requirements of the energy transition. We facilitate customer choices, make maximum use of digital opportunities, actively create open networks and do our work efficiently. The speed of the energy transition creates new challenges that require us to continuously innovate and invest in our network. We support our customers in the built environment in switching to a sustainable energy system.	
Sub-goals	We contribute to achieving SDG 9.1: develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.	Connectivity matrix
Impact	Our impact on SDG 9 is reflected in our organisation building a future-proof energy infrastructure and applying innovative techniques and technologies, including hydrogen projects.	Our impact on society
Our results in 2020	- Developing the plans for new offices for our activities in Amsterdam. We are working on an ambitious project to facilitate assimilation at a physically difficult location. - Implementing dynamic feed-in for situations where the mains voltage is too high. - Carrying out pilots with green hydrogen using electricity generated at wind and solar farms. - Carrying out research into and building networks where reserve capacity can be used. - Introducing a district analysis app to support municipalities in drawing up their 'Transition Vision Statement for Heating'.	Making our operations sustainable
Long-term contribution	- Invest in local and regional energy networks that support shifts in supply and demand patterns. - Facilitate new energy carriers and integrate innovative techniques and technologies.	Our network

Actions and policy	- In a changing energy landscape, work on a future-proof, open network with space for multiple energy providers. - Consult with provinces, municipalities and other customers. Help them with their energy challenges and develop complex energy infrastructures, for example, by putting forward network proposals to contribute to sustainable area development. - Support ambitious business accommodation plans by connecting transition buildings and making our own offices more sustainable. - Invest in a hydrogen programme with partners and stakeholders and conduct pilots to study possible applications. - Participate in Green Alliances and work with local companies, government bodies, and educational and research institutes to make business parks and other built environments more sustainable. - Within our innovation programme, our focus lies on bringing these innovations and smart solutions to market as fast as possible and using them to work more effectively on the networks and reduce network costs. - Work on alternative uses for our gas networks. Digitalisation helps in this.	Our network Making our operations sustainable

SDG 11: Sustainable cities and communities

In the Netherlands, municipalities play an important role in the transition to a sustainable energy supply. The agreements in the Regional Energy Strategies (RES) and the development of the Dutch Climate Agreement in combination with social initiatives lead to 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 charge points for electric mobility, we are also contributing to the sustainability of our cities, towns and communities.

Sub-goals	We support SDG 11.6, i.e. reduce the adverse per capita environmental impact of cities. These activities have a direct correlation with our supply chain emissions, natural capital and well-being in districts and neighbourhoods.	Connectivity matrix
Impact	Our impact on SDG 11 is reflected in us strengthening our economic added value, reducing climate change and resource utilisation, and contributing to collaboration in districts and neighbourhoods.	Our impact on society
Our results in 2020	- In order to be able to respond to the energy plans as efficiently and effectively as possible, the joint network operators have investigated which technical developments are possible. The results of those investigations have been documented in a fact sheet called 'System efficiency for an affordable and feasible energy transition'. - In 2020, 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. - Assisting municipalities so they can bring about the heating transition and can systematically plan and implement changes in the best possible manner. - Preparing the installation of a larger number of charge points for electric vehicles and public transport in our supply area.	Our network Making our operations sustainable
Long-term contribution	- Provide sufficient capacity to facilitate feed-in. - Provide underlying infrastructure and capacity for charge points for electric vehicles.	Our network
Actions and policy	- Assist all municipalities in drawing up their Regional Energy Strategies. - Improve air quality by facilitating clean electric transport. - Implement and apply flexible rates as an option, according to use over the connection for example. - Make Alliander a net-zero-energy company. - Carry out research into the use of an alternative energy source to replace natural gas.	Our network Making our operations sustainable

SDG 12: Responsible production and consumption

We are acutely aware of the impact of our operations on the planet, and strive to make our business operations climate-neutral and circular.

Sub-goals	We contribute to achieving SDG 12.2: by 2030, achieve sustainable management and efficient use of natural resources. We contribute to achieving SDG 12.5: by 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	Connectivity matrix
Impact	Our impact on SDG 12 is reflected in us mitigating climate change and reducing resource depletion.	Our impact on society

Our results in 2020	- 44% of our procurement is based on circular principles.	Making our operations sustainable
Long-term contribution	Our goal is to have fully climate-neutral, circular operations.	Making our operations sustainable
Actions and policy	- Make use of existing assets for longer and replace assets using recycled materials where possible. - Be a circular network operator: draw up a road map for implementing circular principles in business operations. - Expand the resource passport and integrate this further into operations. - Achieve transparency with regard to sustainability information. - Cooperate with and participate in green networks and cooperate with Dutch infrastructure companies. - Implement sustainable procurement.	Making our operations sustainable

SDG 13: Climate action		
	Climate change leads to our assets being subject to changing physical conditions, such as drought and flooding. Responding to and making changes to mitigate the consequences of climate change, adaptation, is receiving increasing social attention.	
Sub-goals	We contribute to achieving SDG 13.1: strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.	Connectivity matrix
Impact	Our impact on SDG 13 is reflected in bringing about and entrenching a future-proof, climate-adaptive energy network.	Our impact on society
Our results in 2020	- Carrying out a qualitative analysis of our position in the field of climate adaptation. - Compensating our carbon footprint, including via further greening of grid losses with Guarantees of Origin. - Moving forward in making the energy usage of our buildings more sustainable.	Making our operations sustainable
Long-term contribution	- Know and be open about climate-related developments of our assets. - Cooperate with stakeholders and government bodies on climate-adaptation strategies and programmes. - Assess investments against criteria for climate adaptation.	Making our operations sustainable
Actions and policy	- We have mapped out the effects of climate change on our company in more detail using the guidelines of the Taskforce on Climate-related Financial Disclosures (TCFD). - Further clarification/quantification climate-related opportunities and risks of our assets.	Making our operations sustainable

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 SDGs 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. Furthermore, we are working on the long-term goals explained under the relevant SDG theme.

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 2020.

Our dilemmas

Support versus system integration in the RES plans and in the district approach

Support is an important criterion in the Regional Energy Strategy plans. It is the reason why many regions have opted for decentralised, small-scale solar power generation. That kind of infrastructure is easier to integrate in the environment and meets with less local resistance than, for example, a wind turbine. However, on closer examination, we see that the first draft RES plans will result in an energy system design that is both difficult to implement and much more expensive. Only limited consideration has been given to a design that will guarantee timely, achievable and affordable infrastructure in the RES process. Regional authorities need to take into account the fact that the affordability of the energy supply is ultimately also a support issue. And the feasibility of the RES should also be considered when planning this huge task. So, for each RES region, we have drawn up and calculated an 'alternative view' that does take system efficiency into account as a basic factor for the RES. This approach can save up to almost 60% of the costs to society, 60% of the space required and 50% of the work.

We see the same dilemma in the district-oriented approach to the heating transition. There too we see growing resistance to the idea of making districts gas-free on a large scale in a single operation. This district-oriented approach has been agreed in the Climate Agreement because it results in the lowest social costs. The resistance is due to the fact that making the district sustainable requires drastic changes inside residential homes. Here again, there is a conflict between an efficient approach and/or the local and/or individual impact. Alliander resolves this dilemma by focusing to a greater extent on a phased transition in the district. This will help encourage all the stakeholders to make the necessary changes. Because a large part of the natural gas grid will remain serviceable for many years to come, the natural gas grid can be used as a transition tool. So insulation, the heating source and infrastructure can be disconnected from each other and residents can make their homes more sustainable at the time of their choosing while still being able to rely on energy from the gas grid.

Regulatory framework versus energy transition

The transition to a sustainable energy system will require major investments in energy infrastructure. We can also achieve a great deal by deploying innovations, which will allow us to accommodate more customers on the same infrastructure. This more effective use of the networks is necessary because the new forms of generation and consumption lead to much higher peaks and troughs in the use of the electricity grid. Our dilemma as network operators is that the investments for scaling up these innovations are required right now, however they are not always applicable in terms of the business case and within the current regulatory framework. Techniques such as peak shaving (capping) at the renewable energy source, cable pooling, smart charging, hydrogen conversion, storage and alternative tariffs are not yet adequately covered by regulations, or have punitively high front-end costs, or are associated with pricing set by regulations that is inadequate to allow large-scale implementation. These aspects, and by association our rules for using the energy system, will require significant changes in the very near future. In addition, getting legislation amended takes years and we no longer have that time available to us for the energy transition. So Alliander has opted to innovate in close collaboration with (private and public) stakeholders to ensure that we can make this possible technically, legally and financially, in spite of the barriers. We also bring these barriers to the attention of policymakers so that they can prepare the regulatory framework for the future energy system. We have done so for some time and we will continue to do so because the energy transition needs all these innovations.

Plannable versus non-plannable when it comes to the energy transition

The ideal situation for network operators is a planned economy in which the transition can be scheduled and the optimum system solution designed. A 'top-down' approach of this nature would significantly favour the feasibility and affordability of the task. However, in practice we know that local support and market forces mean that the world cannot be controlled like this, which is why we are changing our role to that of an assertive network operator that participates in the bottom-up process and helps design it. We have already shifted our approach to one of assertive collaboration and crystal-clear analysis of the impact on infrastructure. We transparently present the consequences of the choices made by regions and consumers and offer good system alternatives. We do this at municipal, provincial, national and market level and in the various Climate Action Programmes (such as the National RES Programme). We understand completely that we are part of a dialogue in which a balance must always be found between the sustainability challenge, support, space and system efficiency.

In addition to this bottom-up participation, we are working explicitly on making the whole exercise plannable. Rather than waiting for demand to appear, we map out a long-term development path together with government bodies and market players and then invest in our networks in anticipation of these developments, so that they are ready in time to meet the targets. We are also working with local and regional government on implementation programmes to ensure that spatial assimilation of the infrastructure can be realised in the shortest possible time. We need the backing of local and regional governments here and find it important to properly analyse and weigh up the choices for society. Setting up a national programme and regional programmes that focus on the energy system can help in this respect.

What have we learned?

Transparency about bottlenecks in the power grid leads to understanding

Liander's customers have an increasing need for electricity and opportunities to feed energy back into the grid. This causes congestion in the power grid. We are not always immediately able to deliver the capacity that customers demand because expanding the grid takes time. This has a major impact on business customers in particular. For example, they may be subject to transmission restrictions. The recent media exposure relating to this topic has led to negative public opinion.

To encourage the media to adopt a more balanced tone, Liander launched a publicity offensive on the topic of transmission capacity. We chose, even more than before, to transparently outline the challenges we face, provide factual information about the bottlenecks in the grid and explain what options we are exploring to solve the problem. This new approach not only resulted in more media exposure on transmission capacity, the sentiment in the media switched from negative to neutral. We intend to use this transparent communications approach to inform consumers who will increasingly be affected by transmission restrictions.

Regulatory framework versus customer demand

As a regulated network operator, Alliander works under a significant regulatory burden and has to adhere to several codes. Strict interpretation of these rules and codes can stand in the way of flexibility and slow down innovation. For example, the transmission restrictions we have to impose on solar farms when the grid is 'full'.

Instead of simply saying 'no' to new solar farms, we could also investigate other options for accommodating them. One possible option would be to design the infrastructure for a solar farm at 70% of the peak capacity, thereby limiting the size of the connection. This makes sense because a solar farm only generates electricity at more than 70% of peak capacity 3% of the time. So producers of solar energy would sacrifice a small part of their annual production, but, on the other hand, they would also pay lower connection costs for a smaller connection and more solar farms could be connected to the grid. We have chosen to sign covenants with our customers to obtain their agreement for smaller connections of this type. Given the legislative framework, we can still connect solar farms in this way, based on a clear understanding of each other's situation, and avoid mutual claims.

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 2020, 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 appropriate to prepare the financial reports on a *going concern* basis and that the report states those material risks and uncertainties that are relevant to the expected continuity of the company for a period of twelve months after the preparation of the report.

Board of Directors' statement of responsibilities

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 2020 and of the business during the 2020 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, 15 February 2021

Maarten Otto, Management Board chair/CEO
Marlies Visser, Management Board member/COO
Walter Bien, Management Board member/CFO
Daan Schut, Management Board member/CTO

Corporate governance

Corporate governance

As an energy network operator with an important role in Dutch society, we endorse the importance of good governance, effective supervision and transparent accountability in respect of all stakeholders.

Legal structure

The Alliander group, headed up by Alliander N.V. (Alliander), is made up of various business units, including Liander, Qirion and Kenter. Alliander is a statutory two-tier company and applies the full two-tier regime. All of Alliander's shares are held directly by Dutch provincial (4) and municipal authorities (72). Alliander has a two-tier management structure, with a Management Board and a Supervisory Board. The Management Board controls Alliander in its day-to-day operations; the Supervisory Board oversees the Management Board and its management of the company's business. Both Boards act independently of each other and are accountable to the General Meeting of Shareholders (GMS) in respect of the manner in which they carry out their tasks.

Dutch Corporate Governance Code

The Dutch Corporate Governance Code (the Code) is a code of conduct for listed companies. It serves as a general standard for good corporate governance. Alliander applies the Code voluntarily, where possible and relevant. In doing so, we emphasise our responsibility for the social aspects of entrepreneurship. The Code is applied at the level of the holding company.

Compliance with the Code

Some provisions of the Code are not relevant for Alliander. For example, because Alliander is a two-tier company and its shares are not listed on the stock exchange. In addition, Alliander has a different management structure (no one-tier board), there is no executive committee and also no variable remuneration arrangement for the Management Board. Moreover, Alliander has an internal audit department. The best-practice principles that do not apply to Alliander are summarised below:

- 1.3.6: absence of an internal audit department
- 2.1.3: executive committee
- 2.1.8 vi, vii and 3.3.2 - 3.3.3: remuneration of the Supervisory Board members in shares, or shares held by Supervisory Board members
- 2.8.2 - 2.8.3: takeover bid
- 3.1.2 ii and iv to vii: remuneration policy
- 3.1.3: remuneration of the 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 right on financing preference shares
- 4.3.5: publication of institutional investors' voting policy
- 4.3.6: report on the implementation of institutional investors' voting policy
- 4.4: issuing depositary receipts for shares
- 5: one-tier governance structure

Deviation from the Code

Deviations from the Code are explained below in accordance with the 'comply or explain' principle.

- *Principle 2.2.1: appointment and reappointment periods - Management Board members* – A member of the Management Board is appointed for an indefinite period. They act based on a long-term strategic perspective and a fixed-term appointment is not appropriate in this context.
- *Principle 2.3.2: establishment of committees* – A combined Selection, Appointment and Remuneration Committee has been established for practical reasons.
- *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 chaired by one of the other members of the Supervisory Board if the chair is absent. The replacement is appointed by a majority of votes of the present and represented members of the Supervisory Board.

- *Principle 2.4.3: point of contact for the performance of Supervisory Board and Management Board members* – Each Supervisory Board member acts as a point of contact for members of the Supervisory Board and Management Board regarding how the chair of the Supervisory Board performs his/her duties.
- *Principal 3.4.2: Management Board member agreement* – The Supervisory Board appoints the Management Board members. The Supervisory Board notifies the GMS - in this case the Committee of Shareholders - of the proposed appointment. The salary components of the Management Board members are transparently reported in the Remuneration Report.
- *Principle 4.1.10: AGM report* – Alliander sends the report to all shareholders within three months of the AGM.
- *Principal 4.2.3: meetings and presentations* – Alliander's shares are not listed on the stock exchange; they are held by provincial and municipal authorities, but Alliander has issued 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 press conferences after the publication of its half-year and annual figures, during which the Management Board explains the results. The Management Board's presentations can be downloaded from www.alliander.com. In addition, Alliander organises annual (and, if necessary, ad hoc) meetings 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.
- *Principle 4.3: casting votes* – Remote voting and communication with all other shareholders is not facilitated at this time.

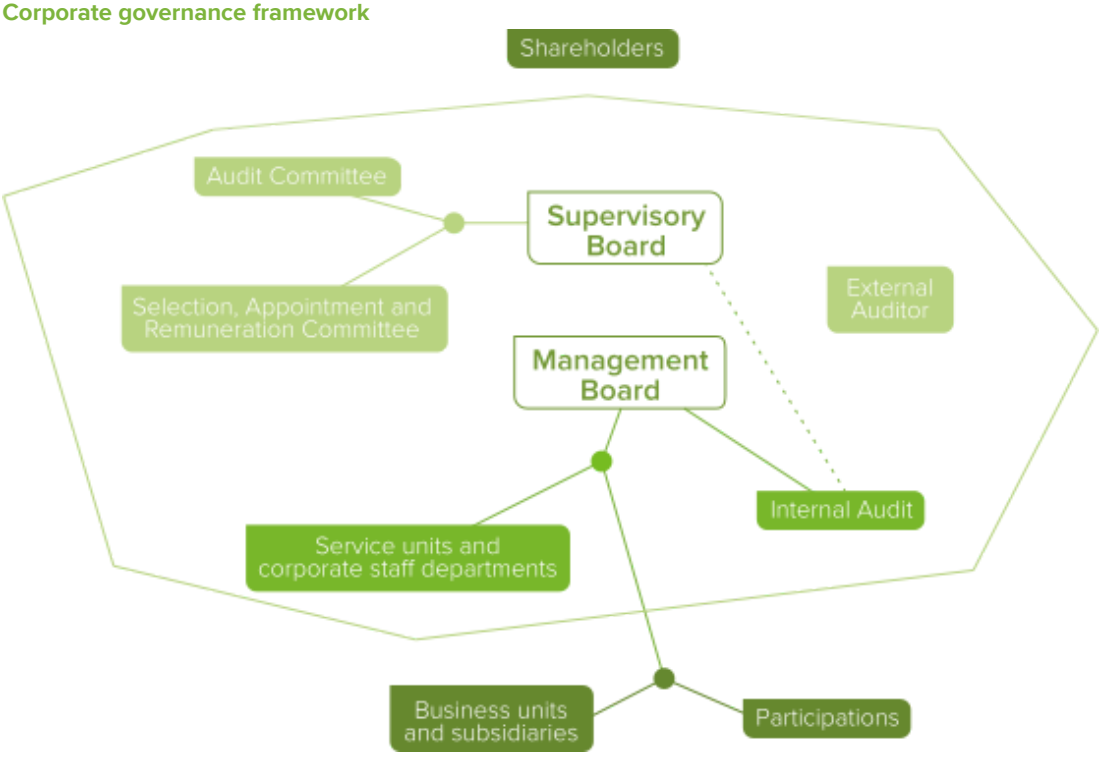
Corporate governance statement

This is a statement on 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'). For the information that must be included in this corporate governance statement, as referred to in Articles 3a(a) and 3a(d) of the Decree, please refer to the following chapters of the 2020 management report.

- 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 chapter.
- The diversity policy relating to the composition of the Management Board and the Supervisory Board, including 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), and the measures for achieving the desired situation and expected timing, are set out in the Report of the Supervisory Board.

Corporate Governance in outline

Corporate governance framework



Alliander's governance structure is based on Book 2 of the Dutch Civil Code, the 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 provisions that influence the governance of Alliander and its affiliated enterprises. In addition, based on its core values, Alliander has formalised 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 rules and by-laws and other documentation on corporate governance can be found at www.alliander.com.

Management Board

Tasks and responsibilities

The Management Board is responsible for managing Alliander. The Management Board determines the long-term strategy, sets the operational and financial objectives of the company and defines the preconditions for achieving the strategy. In addition, the Management Board is responsible for compliance with all relevant legislation and regulations, risk management and financing of the company. When performing its duties, the Management Board carefully weighs up the interests of the stakeholders. During this process, the Management Board also considers the social aspects of doing business that are material to the organisation and its management and control. 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 Management Board may amend these tasks and responsibilities as required. The division of tasks has been approved 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

The Management Board complies with the Management Board By-laws. These by-laws supplement the Management Board's statutory obligations and obligations under the articles of association and contain provisions on the composition, tasks and powers of the Management Board, and on meetings and decision-making. In addition, the by-laws also contain provisions on behaviour and culture, on the interaction with the Supervisory Board and on the provision of information, and on how to deal with (potential) conflicting interests.

Appointment and dismissal

The Supervisory Board appoints the members of the Management Board as directors under the articles of association 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 how the Management Board implements the strategy for long-term value creation, the policy of the Management Board and the general course of business within Alliander and its affiliated enterprises. The Supervisory Board also advises the Management Board. The Supervisory Board acts as the employer of the Management Board. The Supervisory Board of Alliander is also the Supervisory Board of network operator Liander N.V.

In the performance of its duties, the Supervisory Board – like the Management Board – focuses on the creation of long-term value for 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

The Supervisory Board complies with the Supervisory Board By-laws. These by-laws supplement the Supervisory Board's statutory obligations and obligations under the articles of association and contain provisions on the composition, tasks and powers of the Supervisory Board, and on meetings and decision-making. 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. Consideration is given to the nature and activities of the company and the desired expertise and background, in accordance with the profile, when nominating and appointing. The Committee of Shareholders and the Works Council have a priority right of nomination for one third of the number of supervisory directors.

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 its members. The Enterprise Section of the Amsterdam Court of Appeal can 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

Members of the Supervisory Board serve on two permanent committees: 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 verbally, 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. The committees each have their own by-laws, which describe the tasks and powers, as well as the composition and working method of the committees.

The Audit Committee advises the Supervisory Board and prepares materials to help the Supervisory Board in its decision-making on areas within its supervisory scope, such as the integrity and quality of Alliander's financial reporting, (assessments of) the effectiveness of the internal risk management and control systems, and the financing policy.

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, the performance of the Supervisory Board and Management Board members and the formulation of the remuneration policy for the Management Board and the Supervisory Board. This committee also prepares the annual Remuneration Report.

Shareholders

The AGM is held annually, no later than six months after the end of the previous financial year. Among other matters, the AGM discusses the annual report, adopts the financial statements and the dividend, grants discharge from liability to the members of the Management Board and Supervisory Board, and appoints the members of the Supervisory Board and the external auditor. Certain powers of the GMS have been transferred to the Committee of Shareholders with the aim of more effectively exercising certain shareholder rights on behalf of all shareholders. For example, the Committee exercises the right of recommendation when appointing or reappointing members of the Supervisory Board and the Committee is involved in the appointment of members of the Management Board.

Internal audit function

The Internal Audit department is responsible for the internal audit function within Alliander. Internal Audit has an independent, objective role in supporting Alliander in achieving its corporate objectives. The department provides detailed information, advice and (additional) assurance on the degree of effectiveness of the risk management, control and governance processes.

Every year, Internal Audit draws up an audit plan based on risk analyses 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. The annual audit plan is submitted to the Management Board for approval and then to the Supervisory Board. Internal Audit reports periodically to senior management, the Management Board and the Audit Committee on audit-related matters, such as the implementation of the audit plan, significant findings and failures to implement recommendations. Internal Audit also informs the external auditor about this.

Internal Audit is the responsibility of the Chair of the Management Board. The Internal Audit manager has direct contact with the Audit Committee and the external auditor and attends Audit Committee meetings. The Audit Committee supervises the internal audit function and advises the Supervisory Board on its performance.

External auditor

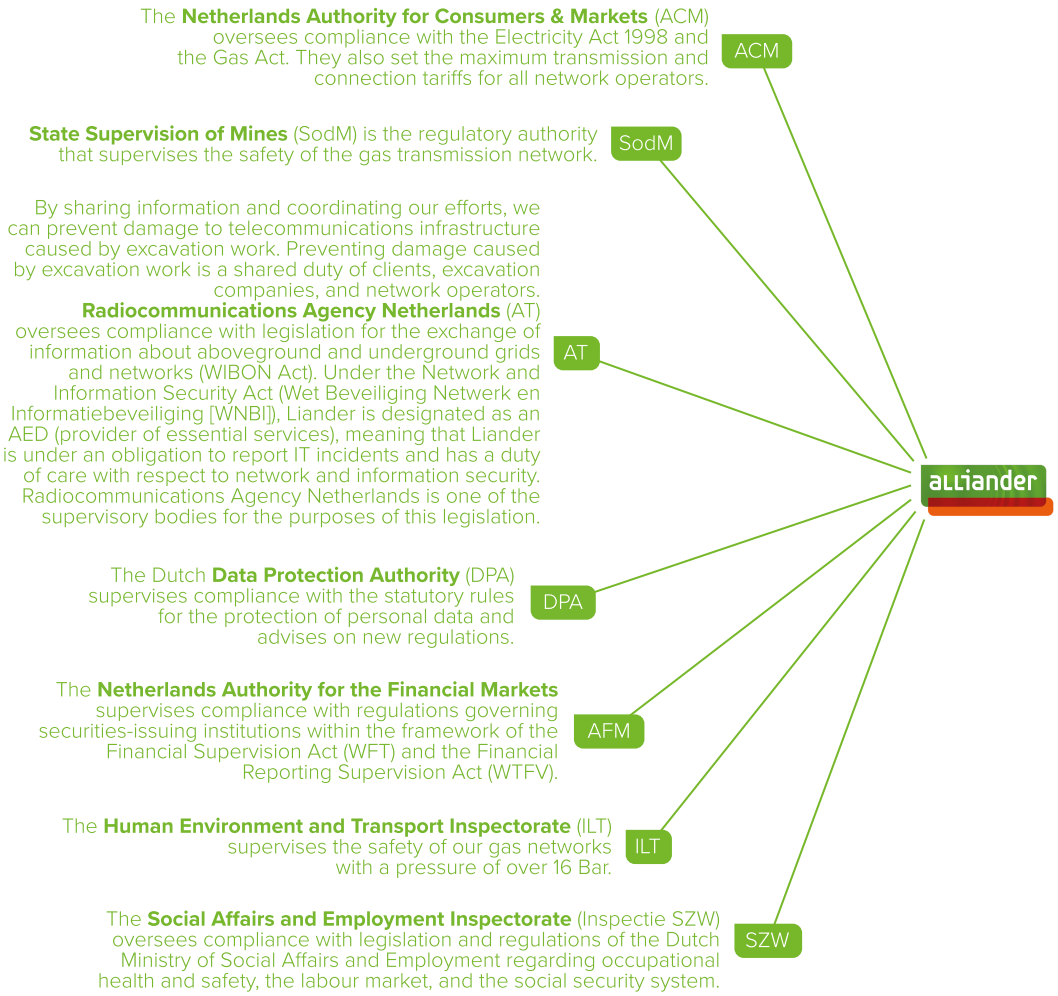
The external auditor is nominated by the Supervisory Board and appointed by the General Meeting of Shareholders. Deloitte Accountants B.V. has been the external auditor of Alliander and its affiliated enterprises since the 2016 financial year. The external auditor audits the financial statements and reports the findings of the annual audit to the Management Board and the Supervisory Board. Important points are highlighted in a statement. The General Meeting of Shareholders can ask the auditor questions about the findings. Consequently, the auditor attends the General Meeting of Shareholders during which the annual accounts are adopted. 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 auditor's 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.

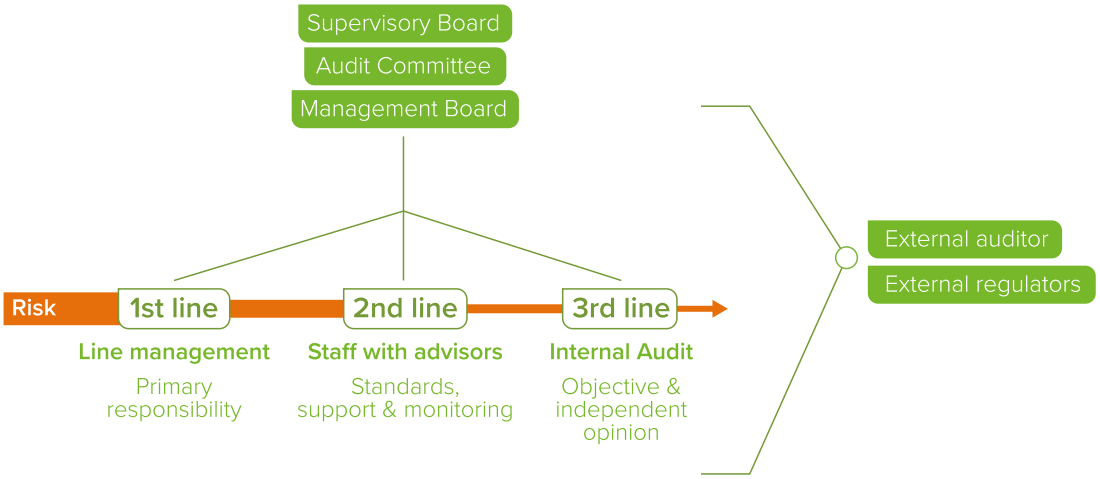
Other regulators

External organisations supervise Liander in its capacity as a network operator 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’ model for risk management purposes. Each line of defence has its own responsibility in the management and control process:



- The first line is responsible for 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.

- The Alliander Resilience 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.
- 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.
- 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. The full Supervisory Board receives a summary thereof. 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. This reduces the chance of abuses and irregularities. Alliander has various integrity-related regulations in place internally.

Codes of conduct

Alliander has drawn up an internal Code of conduct that sets out standards and values. This 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. If the rules of conduct are violated, disciplinary measures can be taken, varying from an (official) warning to dismissal depending on the seriousness of the case.

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. Specialists are available here to investigate any reported situations. 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 21 investigations into fraud and incident reports in the year under review. In four cases, the management involved decided to impose a measure or sanction. The measures taken were two immediate dismissals, one termination of an agency employee arrangement and one warning.

Every new employee is given the Code of Conduct upon joining the company, including directors and agency employees. 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. Articles focusing on integrity risks are also regularly published on the intranet.

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 Complaints Procedure for Inappropriate Behaviour, the Regulation on reporting suspected misconduct, and a Whistleblower Policy are in place so that employees can report suspected abuse or an irregularity in a safe and structured way. In addition, the Regulation on complaints related to employment conditions - previously applicable only to reorganisations - was made permanently available in 2020 as a procedure for objecting to all decisions relating to employment conditions. 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.

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 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 describes the rules of conduct. This Guideline is also applicable to the members of the Management Board and the Supervisory Board. In 2020, Alliander was not involved in any legal disputes or court rulings on market abuse.

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.

Risks

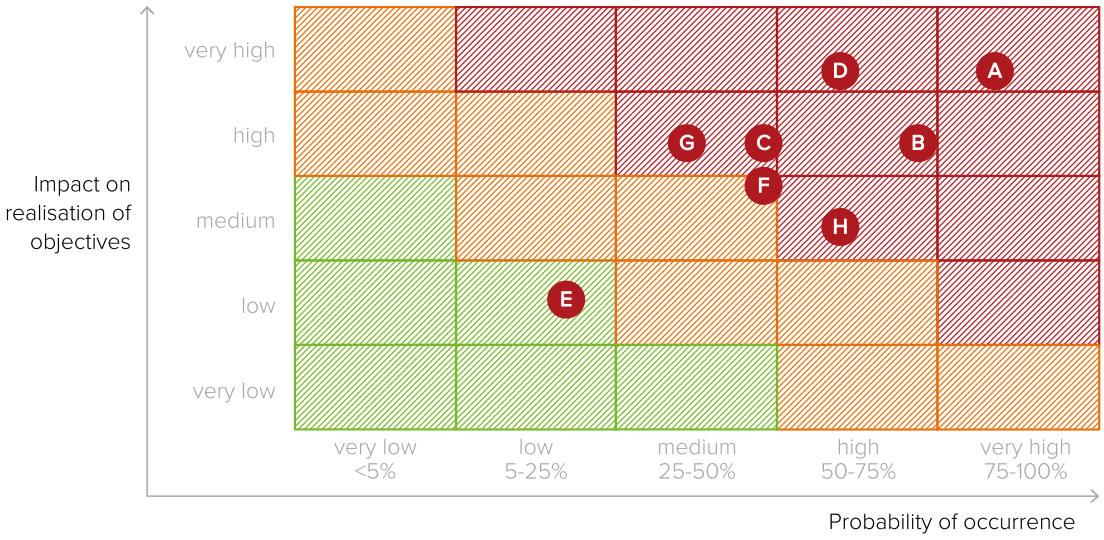
Alliander works hard to keep energy reliable, affordable and accessible for everyone. This work involves risks, including safety and financial risks. These risks cannot be entirely eliminated. However, risk management does provide insight into these risks, so that we can take informed decisions about 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 ↓
C Safety →
D Long-term regulatory focus →
E Privacy of energy data →
F Future-proof IT landscape ↓
G Cybersecurity →
H Financing →



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.

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: Capacity for change	•	•	•	•
C: Safety				•
D: Long-term regulatory focus	•	•	•	•
E: Privacy of energy data	•		•	
F: Future-proof IT landscape			•	
G: Cyber security			•	•
H: Financing				•

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.

Capacity for change ↓

Probability
High/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. By working as a united company – as *one* Alliander – we can handle this major challenge we have been tasked with. This means working on our strategy, our organisation and our culture and leadership. We are 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.
In addition, in 2020 we made efforts to realign aspects of our organisational structure with the aim of becoming an agile, highly effective and cost-conscious organisation. And finally, we direct our attention to and invest in culture and leadership.

What is the risk trend?
Decreasing. In the past year, we made every effort to create an agile, highly effective and cost-conscious organisation.

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, with possible claims as a result.

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. The work package is also expected to increase further in the years to come and so remain at a challenging high level.

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. We are seeing a mismatch between laws and regulations and Alliander's ambitions, at least to some extent. As a result, we run the risk of having insufficient financial resources, and there may also be insufficient leeway for us to both perform our statutory duties and fulfil the role we would like to play in the energy transition. 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. This includes ensuring a reasonable return for regulated activities and sufficient financial scope to perform our statutory duties. Additionally, 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. Alliander is consulting with the relevant stakeholders to work out in more detail how the arrangements provided for in the Dutch Climate Agreement should be integrated in the Energy Act, the Collective Heating Supply Act and the Environment & Planning Act with the National Strategy on Spatial Planning and the Environment.

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. In compliance with the provisions of the GDPR, we have appointed a Data Protection Officer (DPO). By means of a Privacy Assurance Statement, among other measures, we ensure that the outsourced privacy-sensitive processes at EDSN are adequately managed. We collaborate with other network operators in the industry and participate in the Privacy and Security Policy and Expertise Group (*Beleid en Expertise groep Privacy en Security* [BEPS]).

What is the risk trend?
Neutral.

Future-proof IT landscape ➔

Probability
Medium/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 put 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. Furthermore, with the redesign of our enterprise architecture, we can be certain that our application landscape is even more future-proof.

What is the risk trend?
Decreasing. In 2020, control and management mechanisms were set up to future-proof the IT landscape even further, with the Enterprise Architecture governance processes set up for this purpose. Initiatives to make the IT landscape future-proof have also been started.

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 has been further expanded with the establishment of a CISO office that is responsible for the entire information security process and thus has a key role in managing cyberrisks. We have also had our security processes certified by an independent external party. 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.

Financing ➔

Probability
High.

Impact
Medium.

What is the risk?
As the Dutch Climate Agreement was given more substance, greater clarity was created last year on the level of investment needed for the energy transition: network operators can expect a sharp increase in the required investments. 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?
Neutral. To manage this risk, Alliander has identified a number of solution approaches, namely to achieve targeted cost savings, seek financing through shareholders, and attract hybrid financing within the available scope. Lastly, adjusting the dividend policy is also one of the possible solutions.

Report of the Supervisory Board

In this report, the Supervisory Board renders an account of the performance of its supervisory activities in the past year and discusses the most important subjects in which it was involved.

Strategy

Alliander's strategy and long-term value creation were once again important items on the agenda in 2020. Accordingly, during our meetings the strategy, the implementation of the strategy, the progress of its implementation and the associated main risks were discussed on a regular basis. 2020 was largely dominated by the matter of the energy transition. The Supervisory Board is of the opinion that in 2020 Alliander further strengthened its strategic role in the design of the energy system of the future. Smart solutions and innovative ways to use the current energy grid more efficiently are being developed, such as cable pooling and congestion management. Several pilots are also being carried out with hydrogen to investigate how hydrogen can be used as an alternative to natural gas in the existing gas networks and what the impact of the conversion of electricity to hydrogen would be on the gas and electricity grids. Furthermore, Alliander is closely involved in the fleshing out of Regional Energy Strategies, in which context the importance of system efficiency is becoming increasingly apparent. The heating transition, the way in which we deal with our natural gas networks (gas strategy) and the role of data and digitalisation in the energy transition were also discussed.
The annual strategy day of the Supervisory Board and the Management Board was held in October. We used this occasion to have an in-depth exchange of ideas with the Management Board on aspects such as the development of the energy system, its significance for Alliander's core tasks and the way in which this is being influenced, and the task of seeing that the work package is carried out. The Supervisory Board wishes to express its appreciation for the method followed – including by discussing dilemmas – and our better understanding of the matters discussed as a result.

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. In quarterly reports, the Management Board renders account, in a clear and accessible manner, of the operational management and the financial results. This enables the Supervisory Board to closely monitor the progress on the corporate objectives, and adjustments can be made where necessary. We have seen that the objectives for 2020 have been largely achieved.

Internal risk management and control systems

The Supervisory Board (and the Audit Committee in particular) discussed the findings and recommendations from the internal audits as well as the status of actions taken in response to findings from previous audits. In addition, the report on the 2020 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. The Supervisory Board, like the Management Board, is of the opinion that the internal risk management and control systems worked properly in the year under review and provide a reasonable degree of certainty that the financial reporting does not contain any material misstatements.

Financing the energy transition

The increasing investments on account of the energy transition and the current regulatory model will in the long term complicate financeability. Measures are needed to create financing capacity for the necessary investments and thus guarantee an affordable, reliable and sustainable energy supply in the future. Alliander is working on various measures in this area. First and foremost, Alliander is continuously boosting its efficiency in order to reduce expenditure. In addition, Alliander is working on smart solutions and innovations to make better use of the capacity of the current electricity grid. Furthermore, the network operators are consulting with the government on bringing in regulations better suited to the energy transition. And lastly, Alliander is investigating, together with shareholders, the financing options for the energy transition over the longer term. From October 2020, Alliander is holding talks on this matter with the Meeting of Major Shareholders (consultation with representatives of major shareholders). The direction for finding the solution is expected to become clear in spring 2021, possibly followed by a detailed request for financing sent out to all shareholders. The Supervisory Board agrees that a combination of measures is necessary to increase the financing capacity and to maintain a solid A rating. Strengthening shareholders' equity would be an important financial impetus, helping to bring about the energy transition.

COVID-19

This annual report reports on the impact of the COVID-19 pandemic in general and its consequences for Alliander's business operations and financial position in particular. The Supervisory Board is also frequently updated – in the context of its supervisory and advisory roles – on the consequences for employees, business operations and financial results. The Supervisory Board has seen that, immediately after the outbreak of COVID-19, a multidisciplinary crisis team was set up to closely monitor developments, identify risks, and take additional measures where necessary. Alliander follows the guidelines of the Dutch National Institute for Public Health and the Environment (RIVM) and the government. The employees were also updated through live broadcasts about new measures and their impact on Alliander. Despite COVID-19, a lot of work has been done. The Supervisory Board would like to express its deep appreciation for the efforts of the employees and the resilience they have demonstrated in these difficult times.

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. Attention to their health and safety is not only a moral responsibility, but also important for the company's operational results. Based on the quarterly reports, we monitor accidents that lead to sickness absence (lost-time incidents), among other issues.

We have observed a slight increase in the number of lost-time incidents. Ongoing focus on safety is essential. Fortunately, no serious safety incidents occurred in 2020.

Green bond issue

The Supervisory Board approved a green bond issue with a total value of €500 million. The capital raised through this green bond will be used mainly to invest in the electricity networks. In addition to the role the company plays in facilitating the energy transition in general, Alliander also strives to contribute to sustainability through its own operations. And, as can be seen in the Prime B+ sustainability rating ISS ESG has awarded the operator, these efforts have not gone unnoticed. Alliander sees the interest displayed by investors in this green bond as proof that sustainability, alongside a sound financial policy, is a key consideration for investors. The Supervisory Board believes that this issue aligns well with Alliander's strategy to contribute to making our society more sustainable. This is the third green bond Alliander has issued.

Sustainability

Sustainability is an integral part of Alliander's strategy and its day-to-day operations. Our stakeholders also increasingly expect Alliander to operate sustainably and in a socially conscious manner. 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, which depends heavily on social, economic and financial sustainability. 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. The Supervisory Board sets great store by Alliander, as a socially relevant enterprise, being transparent on how its operations impact on society, and considers this aspect as well when forming its opinion. Progress on the Sustainable Development Goals as well as social impact and performance are items examined during meetings to discuss the annual report. For more information on this subject, see the 'Our impact on society' section.

Change to senior management structure and Management Board composition

Ingrid Thijssen stepped down as CEO of Alliander on 1 June 2020 in connection with accepting the position as Chair of the VNO-NCW employers' association. Mrs Thijssen had worked at Alliander since 2014, first as COO and, from September 2017, as CEO. Following her departure, the Supervisory Board evaluated the structure of senior management and the composition of the Management Board. Achieving the 2030 climate targets presents a major challenge on the operational side of the organisation, a challenge the Supervisory Board believes requires attention at the highest level. The Supervisory Board has therefore decided to entrust this task to a new Chief Operation Officer (COO) and to expand the Management Board to four members. With the expansion, Alliander is emphasising the importance of its major operational charge of helping to meet the targets, while the changes at the top also make senior management more robust. The Supervisory Board appointed Maarten Otto as Chair of the Management Board and CEO with effect from 20 May 2020 – succeeding Ingrid Thijssen – and Marlies Visser as a member of the Management Board and COO with effect from 1 May 2020. The Supervisory Board is proud that both positions could be filled by talent from within the company's own ranks.

New organisational model

Over the past year, a lot of hard work was put into designing a new organisational model for Alliander. This was done in good consultation and collaboration with the Works Council. The motivation for the reorganisation was the enormous amount of work and the extensive investments required as a result of the energy transition. These challenges demand an agile, decisive and cost-efficient organisation. As a result of this reorganisation 200 jobs will be lost. The Supervisory Board agrees with the reasons for and accepts the necessity of this reorganisation. At the same time, we fully realise how drastic the impact of this reorganisation is for many employees.

Other important matters

Other notable matters that demanded the attention of the Supervisory Board in 2020 included:

- 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;
- succession planning for the Management Board and its direct reports;
- approval of a private loan with a total value of €100 million;
- approval of the continuation of the sale and investment process for 450connect (currently still a wholly owned subsidiary of Alliander AG);
- positioning strategy for Alliander and Liander;
- improvement plans with regard to project management;
- approval of the 2021–2025 business plan, including the 2021 budget;
- the approval of the Internal Audit year plan for 2020.

Procedure, frequency of meetings and attendance

In 2020, the Supervisory Board convened seven times: five of these were regular scheduled meetings and two were additional meetings. Nearly all the meetings took place online due to COVID-19 measures. A decision was also made outside a regular meeting. During the first half hour of each regular Supervisory Board meeting, the Supervisory Board meets on its own; for the remainder of these meetings other participants are Management Board members and, on invitation, the external auditor and members of management. Whenever a Supervisory Board member was unable to attend a meeting, the member in question submitted his or her input beforehand. The Chair of the Supervisory Board prepared the agendas for the meetings in consultation with the Chair of the Management Board. Outside the meetings, the Management Board kept the Supervisory Board abreast of relevant subjects in writing.
The Supervisory Board has set up two committees from among its members, an Audit Committee and a combined Selection, Appointment and Remuneration Committee. The Audit Committee met six times in 2020, and the Selection, Appointment and Remuneration Committee held two meetings.

Name	Supervisory Board meetings (7)	Audit Committee meetings (6)	Selection, Appointment and Remuneration Committee meetings (2)
Annemarie Jorritsma	100%		100%
Frits Eulderink	86%	100%	
Govert Hamers (up to 21 May)	67%	67%	
Thessa Menssen	86%	100%	
Bert Roetert	100%		100%
Ada van der Veer (up to 21 May)	100%	100%	

Report of the committees

The Audit Committee and the 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. During the committee meetings, the members explore the meeting topics in depth. The most important considerations and findings of both committees are then discussed at the Supervisory Board meeting, providing the basis for careful decision-making. Decisions are made by the full Supervisory Board. The draft and approved minutes of the committee meetings are made available to all members of the Supervisory Board.

Audit Committee

Following the departure of Ada van der Veer (Chair) and Govert Hamers (member), the Audit Committee is now formed by Thessa Menssen (Chair) and Frits Eulderink (member). In addition to the members of the Audit Committee, the CFO, the Internal Audit manager, the Business Control manager, the Corporate Control manager and the external auditor (Deloitte) participate as standard in the meetings; the COO was also present at one meeting. Over the year, various specialists were invited to provide the Audit Committee with more in-depth information on various subjects, such as treasury, security and taxes. The Audit Committee held one meeting in private with the external auditor without the presence of the other members of the Supervisory Board. The Audit Committee believes that the relationship

with the external auditor is satisfactory.
In addition to the regular agenda items, specific attention was paid to long-term financing, the cost-saving programme, irregular payments to contractors, project management, security/cybersecurity risks, and obtaining public-interest entity status for network operator Liander from 1 January 2020. The Audit Committee issued a positive recommendation to the Supervisory Board with respect to the private loan of €100 million and a green bond of €500 million.

Selection, Appointment and Remuneration Committee

In 2020, the Selection, Appointment and Remuneration Committee was made up of Bert Roetert (Chair) and Annemarie Jorritsma (member). The meetings were attended by the Chair of the Management Board and the HRM Director.
The search for a new CEO and the decision to add a COO to the board made the composition of the Management Board a priority issue in 2020. The committee prepared the selection and appointment of the two new Management Board members. In filling the positions, the committee took into account the job profiles and the diversity policy with the aim of achieving an effective, well balanced composition of the Management Board. This resulted in the appointment of Maarten Otto as CEO and Marlies Visser as COO.
The recruitment of Gerard Penning as a new member of the Supervisory Board was also a key point of consideration in 2020. The committee furthermore carried out preparatory tasks for the Remuneration Report and the annual remuneration meeting with the Committee of Shareholders. In addition, the committee conducted the annual performance appraisal interviews with the Management Board members.

Composition of the Supervisory Board

Name	Position	First appointed	Reappointment	Outgoing
Annemarie Jorritsma	chair	2016	2020	2024 (not eligible for reappointment)
Frits Eulderink	member	2019	n/a	2023 (eligible for reappointment)
Govert Hamers (up to 21 May)	member	2016	n/a	2020 (eligible for reappointment)
Thessa Menssen	member	2019	n/a	2023 (eligible for reappointment)
Bert Roetert	member	2015	2019	2023 (not eligible for reappointment)
Ada van der Veer (up to 21 May)	member	2009	2012, 2016	2020 (not eligible for reappointment)

Govert Hamers (also a member of the Audit Committee) stepped down at the General Meeting of Shareholders on 20 May 2020, after a single four-year term, at his own request. After an extensive, rigorous recruitment and selection procedure, a good successor was found in the person of Gerard Penning, who was nominated as a new member of the Supervisory Board at an Extraordinary General Meeting of Shareholders held at the start of 2021. Supervisory Board member Ada van der Veer (who also chairs the Audit Committee) stepped down on the completion of her third and final term, on 20 May 2020. She was a member of the Supervisory Board of Alliander for eleven years. Ada van der Veer is succeeded by Thessa Menssen, who started the orientation process more than six months earlier in order to ensure continuity and with a view to embedding the current financial knowledge. She was appointed at the Extraordinary Meeting of Shareholders held on 26 September 2019, as a result of which the Supervisory Board temporarily (up to 20 May 2020) comprised six members. Annemarie Jorritsma was reappointed for a second four-year term as Chair at the General Meeting of Shareholders on 20 May 2020, directly following her first four-year term.

Independence, conflicts of interest and other positions

The composition of the Supervisory Board is such that the members are able to act critically and independently of the other members, the Management Board and any particular interests involved, pursuant to the Dutch Corporate Governance Code (the 'Code'). All Supervisory Board members operate independently within the meaning of best practice provisions 2.1.7, 2.1.8 and 2.1.9 of the Code.
They also all operate independently within the meaning of the Electricity Act 1998 and the Gas Act, meaning that none of them has a direct or indirect connection with an electricity or gas producer, supplier or trader.
In 2020, there were no material transactions involving potentially conflicting interests of Supervisory Board members.

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. In addition, no Supervisory Board members hold more than five supervisory positions at Dutch listed companies or other large Dutch companies or foundations. The number and nature of the other positions of each Supervisory Board member are such that a proper fulfilment of the tasks is assured. The other positions held by the Supervisory Board members were discussed once during the financial year.

Diversity

We view diversity as one of the conditions for ensuring the effective performance of tasks. In addition to expertise and background, diversity also relates to aspects such as gender and age. The Supervisory Board observes a diversity policy for the composition of both the Management Board and the Supervisory Board, which puts the emphasis on the following:

- having 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.

With the current composition of the Management Board, there is a good balance in terms of diversity of knowledge, background and experience and age. The Management Board currently comprises three men and one woman. When filling the vacancies of CEO and COO on the Management Board in 2020, we were successful in filling the position of COO with a female candidate, bringing the percentage of women on the Management Board to 25%. The composition of the Supervisory Board is in line with the defined profile, and the Supervisory Board considers the composition to be sufficiently diverse, in terms of expertise and experience as well as with regard to age structure and balanced participation of men (2) and women (2). The starting point is that when future vacancies are filled, the diversity policy will be carried out further where possible.

Self-evaluation

The Supervisory Board evaluates and discusses its performance at least once a year and performs this evaluation in the presence of an external advisor once every three years. Given that an external advisor was present in 2018, the Supervisory Board carried out a self-evaluation in the year under review, for which both the Supervisory Board and the Management Board provided input. In this evaluation, the first matter discussed was the aspects identified as requiring improvement during the previous evaluation. The Supervisory Board notes that as a result of this, in 2020 extra attention was paid to the quality of the meeting agenda and other documents, as well as how the supporting committees function in relation to the full Supervisory Board, and the further expansion of the advisory role of the Supervisory Board.
The general picture to emerge from the evaluation is a positive one, and one that further encourages the Supervisory Board to continue along the course that has been adopted. The Supervisory Board functions well, is diverse in its composition with members who complement each other, and is well equipped for its duties. The boardroom dynamics are good and there is a pleasant, open and constructive atmosphere. The Supervisory Board is pleased to see that the Management Board works together as a good team and that it conveys this as well. The relationship between the Supervisory Board and the Management Board is characterised by mutual respect and trust, with sufficient space for critical dialogue. Both the Supervisory Board and the Management Board are exacting when carrying out their duties. The Supervisory Board also evaluated the way in which the committees of the Supervisory Board function. One of the observations in this regard was that better use is now being made of the preparatory activities of the committees. This increases the efficiency of the Supervisory Board meetings.
Although the general trend is positive, suggestions for further improvement have emerged. As the Supervisory Board, we find it important to know what is going on among the people in the organisation. To gain more insight into culture and behaviour in the organisation, the Supervisory Board intends to hold a number of informal (lunch) meetings with management in 2021. The Supervisory Board also wants to further refine its advisory role on strategic issues and related dilemmas, with the aim of encouraging and expanding its use as a sounding board and sparring partner.

Contact with the Works Council

The Supervisory Board has a good working relationship with the Works Council; this contact gives us a feeling for what is really going on in the organisation. The Supervisory Board is in regular contact with the Works Council, especially through the member appointed on the recommendation of the Works Council under their ‘enhanced right of recommendation’. Topics discussed at the annual joint meeting of the Supervisory Board and the Works Council included Alliander’s strategy – and the associated challenges for the organisation – and the culture and leadership. Both parties found this meeting useful and it was highly appreciated by both. In addition, the Supervisory Board consulted with the Works Council on the appointment of two new Management Board members, and the Works Council was given the opportunity to make use of its enhanced right of recommendation regarding the vacant position on the Supervisory Board.

Contact with shareholders

The most important contact each year is the General Meeting of Shareholders, during which the Supervisory Board renders an account of the performance of its supervisory duties. This is the ideal time to exchange ideas formally and informally. Further contacts with the shareholders mainly run through the Management Board. The Management Board consults informally with the major shareholders on a regular basis. In 2020, the Management Board held four formal consultations with the major shareholders, where the main topic of discussion was the financing of the energy transition. The impact of COVID-19 and developments in legislation and regulations were also discussed. The Supervisory Board was consistently kept informed of these contacts.

In addition, in 2020 we consulted with the Committee of Shareholders on two occasions in connection with the intended appointment of two Management Board members and the filling of a vacancy on the Supervisory Board. Consultations were also held with the Committee of Shareholders on the implementation of the Management Board remuneration policy and on the adjustment of the senior management structure. The Supervisory Board attaches great value to a good relationship with the shareholders and feels positive about the constructive collaboration with the shareholders over the past year.

Financial statements and discharge from liability

The 2020 financial statements have been audited by Deloitte Accountants B.V. and provided with an unqualified auditor's report. This report is included in this annual report under Other information.
Both the financial statements and the findings of the external auditor as a result of the audit of the financial statements were discussed during a meeting of the Supervisory Board and the Management Board in the presence of the external auditor, after taking note of the positive advice of the Audit Committee. The members of the Supervisory Board have approved the financial statements and have signed them in accordance with the obligation set out in Section 2:101(2) of the Dutch Civil Code. We recommend that the shareholders adopt the 2020 financial statements and the dividend proposal for the 2020 financial year at the AGM. We furthermore recommend that at the AGM the shareholders grant discharge from liability respectively to the members of the Management Board for the policy pursued and to the Supervisory Board in respect of their supervision over the 2020 financial year.

Word of gratitude

2020 was an intense, eventful year. This was due to COVID-19, which impacted all employees – both outside the company and within – but certainly also due to the changes at Alliander. The Supervisory Board would like to thank the employees, management, the Works Council and Management Board for their efforts and commitment and would like to express its admiration for the results achieved. Our thanks also go out to the shareholders and other stakeholders for the confidence placed in Alliander.
We would also like to thank Ingrid Thijssen, who stepped down as CEO on 1 June 2020, for her commitment and valuable contribution to the development of Alliander. Finally, we would like to thank former Supervisory Board members Govert Hamers and Ada van der Veer for their expertise and the contributions they made to the work carried out by the Supervisory Board.

Arnhem, the Netherlands, 15 February 2021

Supervisory Board
Annemarie Jorritsma (Chair)
Frits Eulderink
Thessa Menssen
Bert Roetert

Composition of the Management Board

M. J. (Maarten) Otto MMC (1983, Dutch nationality)

Chair and CEO

Maarten Otto was appointed chair of the Management Board and Chief Executive Officer (CEO) with effect from 20 May 2020. He is also responsible for the business and operations management of network operator Liander. He was worked for Alliander since 2017, holding the position of Corporate & Social Affairs Director since 2018. Prior to that, he held various positions at organisational consultancies TEN HAVE Change Management and Twynstra Gudde.

Maarten Otto studied Management, Economics and Law at The Hague University of Applied Sciences and Public Administration at Erasmus University Rotterdam. He also holds a postgraduate diploma in Management Consulting from VU University Amsterdam.

Supervisory Board memberships/relevant other positions

- Chair of the Management Board of the WENb Werkgeversvereniging voor de Energie-, Kabel & Telecom- en Afval & Milieubedrijven (Employers' Association for the Energy, Cable & Telecom and Waste & Environment Sectors)
- Member of the Executive Management Board of VNO-CW

M. I. (Marlies) Visser (1968, Dutch nationality)

Member of the Board and COO

Marlies Visser was appointed member of the Management Board and Chief Operating Officer (COO) with effect from 1 May 2020. She is also responsible for the business and operations management of network operator Liander. Prior to joining the Board, she held the position of Director of Operations at Liander (from 2014). Before that, she worked at the Netherlands' primary railway operator, Nederlandse Spoorwegen, for nearly ten years, including as the company's Service & Operations Manager.

Marlies Visser studied Communication Science at the University of Amsterdam and completed the INSEAD Advanced Management Programme (AMP) in Fontainebleau, France.

Supervisory Board memberships/relevant other positions

Not applicable

W. T. (Walter) Bien RC (1972, Dutch nationality)

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 Chief Financial Officer (CFO). He is also responsible for the business and operations management of network operator Liander. 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 has a degree in Business Economics from the University of 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)

F. D. (Daan) Schut (1974, Dutch nationality)

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 Chief Transition Officer (CTO). He is also responsible for the business and operations management of network operator Liander. 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)
- Member of the Supervisory Board of GOPACS

Retired in 2020

I. D. (Ingrid) Thijssen (1968, Dutch nationality)

Chair and CEO

Ingrid Thijssen held the position of Chair of the Management Board and CEO from 1 September 2017 to 21 May 2020. She became a member of the Management Board on 1 March 2014. From 2011 to 2014, she chaired the Management Board of NS Reizigers B.V. and prior to that she held various executive and management roles at Nederlandse Spoorwegen (Dutch Railways).

She studied law at Utrecht University and subsequently 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]
- Board member of SchuldenlabNL
- Chair of Business Club D66

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

Composition of the Supervisory Board

A. (Annemarie) Jorritsma-Lebbink (1950), Chair

- Nationality: Dutch
- First appointed: 1 July 2016
- End of current term: 2024 (not 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 [1], chair of the Netherlands Private Equity and Venture Capital Association (NVP), member of the Supervisory Board of HG International [1], member of the Dutch Senate.

F. (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: Mr 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: member of the Management Board of SmartPort Rotterdam, member of the Advisory Council of Leiden Observatory research institute, member of the International Review Board of the Netherlands Research School for Astronomy.

T. (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: Ms 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 [1], member of the Supervisory Board of FMO [1], 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.

B. (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 (until 1 April 2020), chair of the Supervisory Board of Zeeman Groep [1], chair of the Supervisory Board of Jan Linders Supermarkten[1], member of the Supervisory Board of Royal Smilde [1], member of the Supervisory Board of Noviflora Beheer, chair of Afvalfonds Verpakkingen.

Retired in 2020

G. L. M. (Govert) Hamers (1952)

- Nationality: Dutch
- First appointed: 7 April 2016
- Alliander committee: member of the Audit Committee
- 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).

A. P. M. (Ada) van der Veer-Vergeer (1959)

- Nationality: Dutch
- First appointed: 30 June 2009
- 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.
- In addition, she has been Chair of the Nederlandse Monitoring Commissie Accountancy (Dutch Accountancy Monitoring Committee) for the past 5 years.
- Relevant other positions: chair of the Supervisory Board of Arcadis Nederland Holding [1], member of the Supervisory Board of DeGiro[1], 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 (until 1 March 2020).

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

Remuneration report

Remuneration policy for the Management Board

General

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.

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 2020 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 (€110,111 for 2020). This implies that no further pension is accrued over the part of the salary that exceeds €110,111.

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 towards the premium for the group health insurance plan, contributions to the 'personal budget' scheme 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.

Implementation of the Management Board remuneration policy in 2020

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.

With the change in the composition of the Management Board in 2019, it has been decided to set the remuneration of the various members of the Management Board at the same level, this way emphasising the equal-footing nature of the management model. Although the total remuneration package of the various members of the Management Board is the same, there may still be differences in the salaries: these differences arise through the personal choices in regards to benefits, such as the use of a lease car.

Re 1. Annual gross base salary

Up to 1 June 2020, Mrs Thijssen's base salary amounted to €97,000, including 8% holiday allowance. Mr Otto's base salary from 20 May 2020 amounted to €136,000, including 8% holiday allowance. Ms Visser's base salary from 1 May 2020 amounted to €151,000, including 8% holiday allowance. The base salary paid to Mr Schut amounted to €224,000, including 8% holiday pay, while Mr Bien's base salary amounted to €225,000, 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 €110,111 under tax rules. The total pension contributions paid in the year under review were €10,000 for Mrs Thijssen (up to 1 June 2020) and €21,000, €19,000, €24,000 and €24,000 for Ms Visser (from 1 May 2020), Mr Otto (from 20 May 2020), Mr Schut and Mr Bien, respectively.

Re 3. Social security contributions and other benefits

In 2020, the total amount of social security contributions, the employer's contribution towards the premium for the health insurance plan, and contributions to the personal employee benefits budget amounted to €20,000 for Mrs Thijssen (up to 1 June 2020) and €10,000, €9,000, €14,000 and €14,000 for Ms Visser (from 1 May 2020), Mr Otto, Mr Schut and Mr Bien, respectively.

Remuneration ratios

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

Remuneration ratio

	2020	2019
Ratio	3.6	3.6

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. 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 2020, see the notes to the consolidated financial statements.

WNT

Alliander is not governed by the Public and Semi-Public Sector Executives Pay (Standards) Act (WNT), but Liander N.V. is. The WNT requires companies to report on the remuneration of current and former senior executives. The annual report of the network operator, which is to be published in the second quarter of 2021, will contain disclosures on the WNT requirements.

Financial statements

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Consolidated balance sheet

€ million	Note	2020	2019
Assets			
Non-current assets			
Property, plant and equipment	3	7,958	7,476
Right-of-use assets	3	66	63
Intangible assets	4	343	313
Investments in associates and joint ventures	5	6	6
Investments in bonds	6	147	160
Other financial assets	7	66	58
Deferred tax assets	17	159	165
Total non-current assets		8,745	8,241
Current assets			
Inventories	9	69	60
Trade and other receivables	10	307	334
Cash and cash equivalents	11	298	153
Total current assets		674	547
Assets held for sale	33	3	3
Total assets		**9,422**	**8,791**
Equity and liabilities			
Equity	12		
Share capital		684	684
Share premium		671	671
Subordinated perpetual bond loan		495	495
Hedge reserve		-2	-2
Other reserves		2,256	2,123
Result for the year		224	253
Total equity		4,328	4,224
Liabilities			
Non-current liabilities			
Interest-bearing debt	13	2,479	1,765
Lease liabilities	19	199	209
Deferred income	14	1,837	1,737
Provisions for employee benefits	15	29	31
Deferred tax liabilities	17	1	3
Other provisions	16	30	23
Total non-current liabilities		4,575	3,768
Short-term liabilities			
Trade and other payables	18	145	151
Tax liabilities		88	90
Interest-bearing debt	13	8	297
Lease liabilities	19	18	17
Provisions for employee benefits	15	36	27
Accruals	8, 18	224	217
Total short-term liabilities		519	799
Total liabilities		5,094	4,567
Total equity and liabilities		**9,422**	**8,791**

Consolidated income statement

€ million	Note	2020	2019
Income			
Revenue	21	2,009	1,930
Other Income	22	46	40
Total income		**2,055**	**1,970**
Operating expenses			
Purchase costs and costs of subcontracted work	23	-561	-452
Employee benefit expenses	24	-523	-500
External personnel expenses	24	-123	-116
Other operating expenses	25	-343	-331
Total purchase costs, costs of subcontracted work and operating expenses		**-1,550**	**-1,399**
Depreciation and impairments of non-current assets	26	-461	-449
Less: Own work capitalised		275	257
Total operating expenses		**-1,736**	**-1,591**
Operating profit		**319**	**379**
Finance income	27	28	17
Finance expense	28	-69	-69
Result from associates and joint ventures	5	1	1
Profit before tax		**279**	**328**
Tax	29	-55	-76
Profit after tax from continuing operations		**224**	**252**
Profit attributable to non-controlling interests		-	1
Profit after tax		**224**	**253**

The profit after tax for 2020 is almost entirely attributable to the shareholders of Alliander N.V.

Consolidated statement of comprehensive income

The comprehensive income was as follows:

€ million	2020	2019
Profit after tax	**224**	**253**
Other elements of comprehensive income		
Items that will be reclassified subsequently to profit or loss		
Movement in hedge reserve	-	-2
Comprehensive income after tax	**224**	**251**

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

Consolidated cash flow statement

€ million	Note	2020	2019
Cash flow from operating activities	30		
Profit after tax		224	253
Adjustments for:			
- Finance income and expense	27, 28	41	52
- Tax	29	55	76
- Result after tax from associates and joint ventures	5	-1	-2
- Depreciation, amortisation and impairment	22, 26	388	378
Changes in working capital:			
- Inventories		-9	6
- Trade and other receivables		21	12
- Trade and other payables, accruals and deferred income		1	-32
Total changes in working capital		**13**	**-14**
Changes in deferred tax, provisions, derivatives and other		2	-1
Cash flow from operations		**722**	**742**
Interest paid		-38	-48
Interest received		-	1
Dividend received		1	-
Corporate income tax paid (received)		-51	-57
Total		**-88**	**-104**
Cash flow from operating activities		**634**	**638**
Cash flow from investing activities	30		
Investments in property, plant and equipment	3	-890	-834
Construction contributions received from third parties	14	175	124
Cash flow from the acquisition of 450connect GmbH		-60	-
Financial assets (associates and joint ventures) - Investments and divestments		-	-3
Cash flow from investing activities		**-775**	**-713**
Cash flow from financing activities	30		
ECP financing issued (redeemed)	13	-289	291
Long-term debt issued	13	847	296
Long-term debt redeemed	14	-134	-321
Repayments of short-term debt	13	6	-
Redemption lease liabilities		-22	-20
Reimbursement on subordinated perpetual bond loan	12	-8	-8
Dividend paid		-114	-150
Cash flow from financing activities		**286**	**88**
Net cash flow		**145**	**13**
Cash and cash equivalents as at 1 January		153	140
Net cash flow		145	13
Cash and cash equivalents as at 31 December		**298**	**153**

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	Hedge reserve	Other reserves	Profit for the year	Total
As at 1 January 2019		**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		-	-	-	-	-6	-	-6
Dividend for 2018		-	-	-	-	-	-150	-150
Profit appropriation for 2018		-	-	-	-	184	-184	-
Total movements 2019		**-**	**-**	**-**	**-2**	**178**	**-81**	**95**
As at 31 December 2019		**684**	**671**	**495**	**-2**	**2,123**	**253**	**4,224**
Profit after tax for 2020		-	-	-	-	-	224	224
Comprehensive income for 2020		**-**	**-**	**-**	**-**	**-**	**224**	**224**
Reimbursement subordinated perpetual bond loan after tax	12	-	-	-	-	-6	-	-6
Dividend for 2019		-	-	-	-	-	-114	-114
Profit appropriation for 2019		-	-	-	-	139	-139	-
Total movements 2020		**-**	**-**	**-**	**-**	**133**	**-29**	**104**
As at 31 December 2020		**684**	**671**	**495**	**-2**	**2,256**	**224**	**4,328**

Notes to the consolidated financial statements

Accounting policies

Alliander N.V. is a public limited liability company, with registered offices in Arnhem (Utrechtseweg 68, 6812 AH Arnhem) in the Netherlands.

The 2020 financial statements were signed by the members of the Management Board and the members of the Supervisory Board on 15 February 2021. The Supervisory Board will submit the financial statements for adoption by the General Meeting of Shareholders on 7 April 2021. 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 provides services relating to the construction and maintenance of complex energy infrastructures. Alliander AG carries on network operation and public lighting activities in Germany. Kenter B.V. focuses on innovative solutions for energy metering and energy management. 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., TReNT B.V., TReNT Infra B.V. and the joint operation CDMA Utilities B.V. centre around data communications for the group and for third parties. Through its subsidiaries set up in recent years, including Firan and ENTRNCE, 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 2020 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 2020, 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 2020

The IASB and the IFRIC have issued new and/or amended standards and interpretations which are applicable to Alliander with effect from the 2020 financial year. The amendments to the standards and interpretations described below have been endorsed by the European Union.

- Amendment of references to the conceptual framework in IFRS standards;
- Amendment to IFRS 3 'Definition of a Business';
- Amendment to IAS 1 and IAS 8 'Definition of material';
- Amendment to IFRS 9, IAS 39 and IFRS 7 'Interest rate benchmark reform';
- Amendment to IFRS 16 'COVID-19-Related Rent Concessions' (effective 1 June 2020).

These amendments to standards and interpretations do not have any material impact on Alliander or the impact is very limited so they will 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 to IAS 1 Presentation of Financial Statements 'Classification of Liabilities as Current or Non-current';
- Amendment to IFRS 3 'Reference to the Conceptual Framework';
- Amendment to IAS 16 'Proceeds before Intended Use';
- Amendment to IAS 37 'Onerous Contracts - Cost of Fulfilling a Contract';
- 'Annual Improvements to IFRS Standards 2018 – 2020':
  - Amendment to IFRS 1: 'Subsidiary as First-time Adopter';
  - Amendment to IFRS 9 'Fees in the "10 per cent" Test for Derecognition of Financial Liabilities';
  - Amendment to Illustrative Example 13 accompanying IFRS 16;
  - Amendment to IAS 41 Agriculture 'Taxation in Fair Value Measurements';
- Amendment to IFRS 4 Insurance Contracts 'Extension of the Temporary Exemption from Applying IFRS 9';
- Amendment to IFRS 4, IFRS 7, IAS 39 and IFRS 16: 'Interest Rate Benchmark Reform – Phase 2'.

These published future amendments to standards and interpretations are not relevant or have very limited relevance 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

2020

On 8 January 2020, Alliander Corporate Ventures B.V. (ACV) acquired 100% of the shares in both Twinning Research Network Twente B.V. and TReNT Infrastructuur B.V. (jointly called TReNT) from TReNT Holding B.V. With this acquisition, Alliander becomes the owner of telecommunications infrastructure in the eastern part of the Netherlands. It is Alliander's policy to own telecommunications infrastructure, because it is crucial for Alliander's ability to safely operate its electricity and gas network.

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.

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.

In 2020, CGU TReNT, consisting of the companies TReNT B.V. and TReNT Infra B.V. both purchased on 8 January 2020, was added to the existing CGUs.

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.

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 held for sale and assets held for sale relating to key operations, as well as the liabilities that can be attributed to these assets, are recognised separately on 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

As of 1 January 2020, the depreciation periods for transformers, switchgear and electrical substations in the free domain have been shortened following changes to the replacement policy in combination with legal requirements and technological developments, which pushed depreciation costs up by €4 million in 2020.

Due to the discontinuation of GPRS services as of 1 January 2029, smart meters using GPRS technology must be replaced more quickly. This has led to shorter depreciation periods for these meters starting from 1 September 2020, increasing depreciation costs by €3 million in 2020. This adjustment will push the depreciation costs up by €8 million in 2021.

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

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 provision for losses 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, gas and green certificates (renewable energy certificates – RECs) for network losses occurring in the distribution of electricity and gas. 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

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 grants a 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 of the contract is recognised as a lease in the records separately from the contract's non-lease components.

On the effective 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 on or before the effective date, less all lease incentives received.

On the effective date, the lease liability is measured at the present value of the lease payments not made on 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.

Rights of use are measured at historical cost, less accumulated depreciation and impairment.

After initial recognition, the lease liabilities are measured by increasing the carrying amount to show the interest on the lease liability and lowering it to show the lease payments made.

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

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 receivables 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 receivable 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 interest accrual 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.

Revenue 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.

Net revenue

Net 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;
- free domain 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

TReNT acquisition

On 8 January 2020, Alliander Corporate Ventures B.V. (ACV) acquired 100% of the shares in both Twinning Research Network Twente B.V. and TReNT Infrastructuur B.V. (jointly called TReNT) from TReNT Holding B.V.

TReNT is an organisation with 18 employees that operates an optic fibre network of roughly 2,000km 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 Liander in the eastern part of the Netherlands. Alliander's policy is to own its own telecommunications infrastructure, given its crucial importance in the safe operation of the electricity and gas grids. In a large part of the Liander service area, Alliander already owned the telecommunications infrastructure. And this is now also the case in the eastern part of the Netherlands.

Acquisition of shares in Twinning Research Network Twente B.V. and TReNT Infrastructuur B.V.

The total purchase price amounted to €64 million, financed entirely from Alliander's own available resources.

The allocation of the purchase price is shown in the summary below:

€ million	Fair value as at 8 January 2020
Property, plant and equipment	40
Intangible assets	14
Trade receivables	2
Total assets	**56**
Deferred tax liabilities	-9
Trade payables	-1
Total liabilities	**-10**
Net assets acquired	**46**
Cash	60
Net debt	4
Purchase price	**64**
Less: net assets acquired	-46
Goodwill	**18**

Net assets acquired (€46 million)

The tangible fixed assets acquired from TReNT, i.e. networks and customer connections, have a value of €40 million. The €14 million in intangible assets relates to contracts with customers. The deferred tax liabilities relate to the difference between the reported carrying amounts of the network, customer contracts, and customer contribution to the investments, and the corresponding tax bases.

Goodwill (€18 million)

The €18 million in goodwill breaks down into €8 million for the provision for deferred tax liabilities The remaining goodwill comes mainly from new customers and to some degree also from the value of the workforce. Goodwill is non-deductible for the purpose of corporate income tax.

Other

The total costs involved in the acquisition of TReNT (€0.5 million) are recognised in Alliander's income statement for 2019 and 2020. TReNT's revenue over the period from 8 January 2020 to 31 December 2020 amounted to €8.7 million, while the operating profit over that same period came in at €1.5 million. If TReNT had been acquired as of 1 January 2020, Alliander's net revenue would have been €2,009 million, with a net profit of €224 million.

Note 2 Segment information

Alliander distinguishes the following reporting segments in 2020:

- 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 regular 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	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**
Operating income												
External income	1,835	1,773	220	197	-	-	2,055	1,970	-	-	2,055	1,970
Internal income	7	10	361	336	-368	-346	-	-	-	-	-	-
Total income	**1,842**	**1,783**	**581**	**533**	**-368**	**-346**	**2,055**	**1,970**	**-**	**-**	**2,055**	**1,970**
Operating expenses												
Purchase costs and costs of subcontracted work	627	514	96	80	-162	-142	561	452	-	-	561	452
Operating expenses	730	714	446	420	-206	-204	970	930	19	17	989	947
Depreciation and impairments	353	334	108	109	-	-	461	443	-	6	461	449
Own work capitalised	-191	-187	-84	-70	-	-	-275	-257	-	-	-275	-257
Total operating expenses	**1,519**	**1,375**	**566**	**539**	**-368**	**-346**	**1,717**	**1,568**	**19**	**23**	**1,736**	**1,591**
Operating profit	**323**	**408**	**15**	**-6**	**-**	**-**	**338**	**402**	**-19**	**-23**	**319**	**379**
Finance income	10	14	85	79	-67	-76	28	17	-	-	28	17
Finance expense	-78	-91	-58	-50	67	76	-69	-65	-	-4	-69	-69
Share in results of associates and joint ventures after tax	1	1	-	-	-	-	1	1	-	-	1	1
Tax	-64	-74	-13	-15	-	-	-77	-89	22	13	-55	-76
Profit after tax from continuing operations	**192**	**258**	**29**	**8**	**-**	**-**	**221**	**266**	**3**	**-14**	**224**	**252**
Profit attributable to non-controlling interests	-	-	-	1	-	-	-	1	-	-	-	1
Profit after tax	**192**	**258**	**29**	**9**	**-**	**-**	**221**	**267**	**3**	**-14**	**224**	**253**
Segment assets and liabilities												
Total assets	8,236	7,810	3,412	3,205	-2,226	-2,224	9,422	8,791	-	-	9,422	8,791
Non-consolidated investments in associates	2	-	4	1	-	-	6	1	-	-	6	1
Non-consolidated investments in joint ventures	-	2	-	3	-	-	-	5	-	-	-	5
Liabilities (non-current and current)	5,803	5,330	2,862	2,415	-3,571	-3,178	5,094	4,567	-	-	5,094	4,567
Other segment items												
Investments in property, plant and equipment	796	746	94	88	-	-	890	834	-	-	890	834
Number of permanent staff at year-end	3,070	3,043	2,824	2,660	-	-	5,894	5,703	-	-	5,894	5,703

The profit after tax for 2020, like that for 2019, is almost entirely attributable to the shareholders of Alliander N.V.

Reclassification to reported and incidental items

In 2020 there are some incidental items in the column headed 'Reclassification to reported items and incidental items'. The incidental expenses included in operating expenses relate to organisational changes (€9 million) and a provision for a loss-making maintenance contract in one of the business units (€10 million). In 2019, the expense for the organisational changes was also €9 million and the costs of a provision for a loss-making maintenance contract in one of the business units amounted to €8 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 2020 is the result of the impact of the previously mentioned incidental items on corporate income tax (€3 million, 2019: €4 million), but also, in particular, non-implementation of the reduction in corporate income tax rates announced in 2019. The deferred tax assets were revalued accordingly, leading to an income of €19 million in 2020 (2019: income of €9 million).

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 2020	**2,009**	1,155	332	109	118	67	228
Revenue 2019	**1,930**	1,132	333	88	113	65	199

Net revenue in 2020 amounted to €2,009 million (2019: €1,930 million), with other income of €46 million (2019: €40 million).

In total, external income came in at €2,055 million (2019: €1,970 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	2020	2019	2020	2019	2020	2019	2020	2019
The Netherlands	2,001	1,922	7,907	7,427	320	289	6	6
Rest of the world	54	48	53	49	23	24	-	-
Total	**2,055**	**1,970**	**7,960**	**7,476**	**343**	**313**	**6**	**6**

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

Note 3 Property, plant, 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 2019					
Historical cost	265	10,682	1,806	220	12,974
Accumulated depreciation and impairments	-103	-4,838	-960	-	-5,902
Carrying amount as at 1 January 2019	**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**
Movements 2020					
Investments	1	607	111	171	890
Divestments	-7	-17	-4	-	-28
Depreciation	-6	-271	-133	-	-410
Reclassifications and other movements	3	83	55	-151	-10
New consolidations	-	-	40	-	40
Total	**-9**	**402**	**69**	**20**	**482**
As at 31 December 2020					
Historical cost	216	11,793	2,035	305	14,349
Accumulated depreciation and impairments	-82	-5,285	-1,024	-	-6,391
Carrying amount as at 31 December 2020	**134**	**6,508**	**1,011**	**305**	**7,958**

Investments

Investments in property, plant and equipment totalled €890 million (2019: €834 million).

Divestments

Divestments in 2019 and 2020 related to decommissioning of buildings, network assets and other plant and equipment.

New consolidations

In 2020, TReNT was added to the consolidated group companies.

Impairments

There were no impairments in 2020.

In the comparative figures, the impairments 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]. Last year, the write-down in Germany related to operations in the area of public lighting and traffic management systems, for which an impairment test was performed in 2019 based on the value in use. The value in use was measured on the basis of the then most recent business plans. The discount rate used for taxes in 2019 was 6.7%. The outcome of the impairment test led to a €2 million write-down on the fixed assets in 2019.

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 2020. 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 2020 was approximately €680 million (year-end 2019: €660 million). At the end of 2020, a total of $3,112 million (2019: $3,002 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 2020, 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 $72 million (2019: $140 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 N.V. in Duiven-Westervoort and Almere-Stad had been subleased under a cross-border lease for a period of 12.5 years, ending on 31 December 2020. At the end of 2020, Alliander and Vattenfall agreed to extend the sub-subleases on their expiry on 31 December 2020, until 31 December 2024 and 31 December 2025, respectively. The total carrying amount of the subleased heating networks and associated meters as at 31 December 2020 was €82 million (2019: €87 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**
Movements 2020			
Investments	2	17	19
Depreciation	-3	-18	-21
Reclassifications and other movements	1	2	3
New consolidations	-	2	2
Total	**-**	**3**	**3**
As at 31 December 2020			
Historical cost	15	93	108
Accumulated depreciation and impairments	-8	-34	-42
Carrying amount as at 31 December 2020	**7**	**59**	**66**

The greatest 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 2019			
Historical cost	477	33	510
Accumulated depreciation and impairments	-188	-7	-195
Carrying amount as at 1 January 2019	**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**
Movements 2020			
Depreciation	-	-2	-2
New consolidations	-	14	14
Investments	18	-	18
Total	**18**	**12**	**30**
As at 31 December 2020			
Historical cost	495	47	542
Accumulated depreciation and impairments	-188	-11	-199
Carrying amount as at 31 December 2020	**307**	**36**	**343**

In 2020, Alliander acquired all shares in TReNT B.V. and TReNT Infra B.V., for which acquisition goodwill amounting to €18 was recognised. Please see note [1] for further information. There were no investments in 2019. The amortisation of €2 million in 2019 and 2020 mainly relates to the intangible assets of 450connect.

The new consolidations concern the intangible assets on the acquired TReNT balance sheet (€14 million), comprising the contract value for the rental of telecom lines. The remaining amortisation period is 20 years.

Goodwill allocation by segment

€ million	2020	2019
Liander	286	286
Other	21	3
Total	**307**	**289**

Of the total amount of goodwill allocated to Liander as at year-end 2020, €209 million (2019: €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 (2019: €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 and TReNT.

At year-end 2020, impairment tests were performed on the carrying amounts of the networks of Liander and the TReNT telecommunications 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 2020 reporting period, Liander used a pre-tax discount rate of 7.1% (2019: 8.1%). This figure will drop to 3.9% up to 2025. 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.

A pre-tax discount rate of 7.3% was used for the telecom networks. From the impairment test it emerged that the margin between the value in use and the carrying amount, including goodwill, is such that the sensitivity to changes in the estimates and assumptions used is limited.

For the impairment test on the assets of 450connect, the higher value of the assets' direct realisable value less costs to sell and their value in use was taken into account. Here, too, there is a considerable margin between this value and the carrying amount including goodwill.

Note 5 Investments in associates and joint ventures

	Associates		Joint ventures		Total	
€ million	2020	2019	2020	2019	2020	2019
Carrying amount as at 1 January	1	2	5	2	6	4
Movements						
Investments	-	-	-	3	-	3
Share in results	-	-	1	2	1	2
Dividend and other movements	-	-1	-1	-2	-1	-3
Total	-	-1	-	3	-	2
Carrying amount as at 31 December	1	1	5	5	6	6

In 2020, the share in the result of the joint ventures amounted to €1 million, and €1 million in dividend income was also received.

In the comparative figures for 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

	Associates		Joint ventures		Total result	
€ million	2020	2019	2020	2019	2020	2019
Share in						
Profit or loss from continuing activities	-	-	1	2	1	2
Profit or loss from discontinued activities	-	-	-	-	-	-
Other comprehensive income	-	-	-	-	-	-
Total comprehensive income	-	-	1	2	1	2

Alliander has concluded arrangements with associates and joint ventures for granting finance and credit facilities totalling €35 million as at year-end 2020 (2019: €29 million). Under these facilities, an amount of €23 million was drawn down as at 31 December 2020 (2019: €20 million). Additionally, as at year-end 2020, there was a receivable under this heading amounting to €1 million in relation to overdraft facilities (2019: a liability of €3 million).

Note 6 Investments in bonds

€ million	
Carrying amount as at 1 January 2019	**156**
Movements 2019	
Currency translation differences	3
Adjustment expected credit loss	1
Total	**4**
Carrying amount as at 31 December 2019	**160**
Movements 2020	
Currency translation differences	-13
Total	**-13**
Carrying amount as at 31 December 2020	**147**

Investments in bonds as at year-end 2020 comprises investments in a debt instrument issued by a large financial institution which serves to cover obligations arising from two cross-border lease contracts (2020: €147 million). The carrying amount of the related lease liabilities was €150 million at year-end 2019 (2019: €162 million). The carrying amount of the investments as at year-end 2020 includes a €1 million provision for credit risk (2019: €1 million).

Note 7 Other financial assets (including current portion)

€ million	Loans, receivables and other
Carrying amount as at 1 January 2019	**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**
Effective interest rate 2020	1%
Movements 2020	
Reclassification	2
Loans and interest repaid	-6
Accretion of interest	1
Other movements	1
Total	**-2**
Carrying amount as at 31 December 2020	**66**
Non-current portion of other financial assets	**66**
Current portion of other financial assets	**-**

In 2020, Alliander received €6 million from the City of Amsterdam relating to the Spaklerweg site. The reclassification in 2020 from property, plant and equipment concerns a finance lease. The impairments in the comparative figures for 2019 relate to a write-down on a long-term receivable for heating operations.

The carrying amount of the other financial assets as at year-end 2020 include a long-term receivable from Meridiam (€27 million) and from the City of Amsterdam relating to the Spaklerweg site (€13 million), as well as a receivable from EDSN (€23 million), among other financial assets.

Note 8 Derivatives

€ million	Current assets		Non-current assets		Short-term liabilities		Non-current liabilities	
	2020	2019	2020	2019	2020	2019	2020	2019
Foreign exchange contracts	-	-	-	-	-	2	-	-
Carrying amount as at 31 December	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**

Derivatives are measured at fair value.

In 2020, the financing denominated in foreign currency raised in 2019 under the Euro Commercial Paper Programme was repaid. In order to eliminate currency risks, in 2019 the foreign currency was immediately converted into euros by means of two foreign exchange swaps. As at year-end 2020, these had a value of nil (2019: €2 million).

Note 9 Inventories

€ million	2020	2019
Raw materials and consumables	32	29
Finished goods	37	31
Carrying amount as at 31 December	**69**	**60**

The impairment of inventories in 2020 was €1 million (2019: €1 million).

Note 10 Trade and other receivables

€ million	2020	2019
Trade receivables	68	78
Impairment of trade receivables	-10	-10
Trade receivables net	58	68
Corporate income tax	12	18
Other receivables	44	44
Current financial assets	-	10
Accrued income and prepayments	193	194
Carrying amount as at 31 December	**307**	**334**

At the end of 2020, impairment of trade receivables totalled €10 million (2019: €10 million). The impairment loss on trade receivables recognised in the income statement in 2020 amounted to €3 million (2019: €1 million). For further information, see the credit risk section of note [34].

The other receivables include an amount of €7 million (2019: €8 million) for non-controlling interests.

The current financial assets as at year-end 2019 concern the current portion of long-term receivables, which were 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 was reached with the Dutch Tax & Customs Administration concerning the tax treatment of this loan. This matter was submitted to the District Court and subsequently to the Court of Appeal, which both ruled in Alliander's favour. On behalf of the Dutch Tax & Customs Administration, the Dutch Finance State Secretary then sought to have the Appeal Court ruling overturned in cassation by the Supreme Court. On 15 May 2020, the Supreme Court delivered its ruling, dismissing the appeal in cassation. Briefly after delivery of this ruling, Alliander engaged with the Dutch Tax & Customs Administration to discuss the implications of the ruling, which makes interest expenses on the perpetual bond loans in question fully tax deductible. The Dutch Tax & Customs Administration

processed the 2010 corporate income tax assessment as per the ruling and upheld the notices of objection for the other years. Aside from that, the notices of objection with respect to dividend tax assessments will also be upheld and dividend tax bills will, therefore, be reduced to zero, putting an end to Alliander's exposure of €38 million. The final settlement has now taken place. This Supreme Court ruling puts an end to the dispute over the tax treatment of the subordinated perpetual bond loan from 2010. The ruling did not affect the results for 2020.

Note 11 Cash and cash equivalents

€ million	2020	2019
Cash held at banks	78	79
Deposits	220	74
Carrying amount as at 31 December	**298**	**153**

The effective interest rate on cash and cash equivalents ranged from -0.68% to -0.17% (2019: -0.57% to 0.00%). Cash and cash equivalents are held almost entirely in euros. In 2020, there were amounts of cash which were not at the unrestricted disposal of Alliander. This concerns a blocked bank account with a balance of €1 million (2019: €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 2020, 136,794,964 shares were in issue (2019: 136,794,964).

Subordinated perpetual bond loan

On 30 January 2018, Alliander issued a subordinated perpetual bond loan of €500 million at a coupon rate of 1.625% and an issue price of 99.144%. 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.

Hedge reserve

In line with Alliander's risk management policy, Alliander took measures last year 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 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). The carrying amount at year-end 2020 after deduction of the deferred tax is €2 million.

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 €2.8 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 network, the first phase of which was commissioned in 2017. The shareholders' equity of this company as at year-end 2020 amounted to €1.2 million negative. In 2017, Alliander acquired a 75% interest in Warmte-Infrastructuur Limburg Geothermie B.V. As at the end of 2020, the shareholders' equity of this company amounted to €1.0 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 2020 and 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	2020	2019
Carrying amount as at 1 January	**2,062**	**1,796**
Movements		
New loans	722	989
Loans repaid	-297	-721
Currency translation differences	-	-2
Total	**425**	**266**
Carrying amount as at 31 December	**2,487**	**2,062**

Short and long-term interest-bearing debt

	Effective interest rate		Current portion		Non-current portion	
€ million	2020	2019	2020	2019	2020	2019
Subordinated loans	8.4%	8.5%	7	7	50	59
Private and green loans	1.1%	1.4%	1	1	436	311
Euro Medium Term Notes	1.4%	1.8%	-	-	1,990	1,392
Euro Commercial Paper	0.0%	-0.3%	-	289	-	-
Other	0.0%	0.0%	-	-	3	3
Carrying amount as at 31 December			**8**	**297**	**2,479**	**1,765**

Short-term interest-bearing debt, amounting to €8 million as at year-end 2020 (2019: €297 million), is made up of the current portion of the long-term debt (€8 million).

The subordinated loans carry interest at rates of 8% to 10%. These loans are subordinated to other liabilities.

On 10 June 2020, Alliander issued green bonds under the EMTN programme with a total value of €500 million and a term of 10 years, the proceeds of which will be used to invest in the electricity networks. The loan of €500 million has a maturity of 10 years and a coupon rate of 0.375%. Bonds were issued at a price of 99.785%.
This is the third green bond Alliander has issued. Proceeds from the previous green bonds were used to finance the sustainable refurbishment of our Duiven offices and to buy smart meters, among other initiatives. The capital raised through this green bond will be used to invest in the electricity networks, which require substantial investments due to the sharp rise in demand for new connections and the emergence of wind and solar farms.
Alliander has set up a Green Finance Framework in support of the listing of the green bond. Alliander can also list other forms of green financial instruments under this framework, such as bank loans and private loans. The framework has been assessed by independent sustainability bond rating agency ISS ESG.

Alliander has also issued two smaller long-term private loans.
On 31 March 2020, Alliander acquired €125 million in funding through a private loan from an external party, with a term that runs through to the end of October 2023 and at a fixed rate of interest of 0.345%.
On 8 April 2020, Alliander issued a €100 million private placement under the EMTN programme. This loan has a term of 15 years and a coupon rate of 1.125%. Bonds were issued at a price of 98.976%. As at year-end 2020, a carrying amount of €1,990 million (face value €2,000 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 2020, the amount open under the ECP programme was nil (2019: €289 million).

Maturities of interest-bearing debt

€ million	2020	2019
Less than 1 year	8	297
Between 1 and 2 years	408	8
Between 2 and 3 years	125	408
Between 3 and 4 years	400	1
Between 4 and 5 years	9	399
Over 5 years	1,537	949
Carrying amount as at 31 December	**2,487**	**2,062**

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	2020			2019		
	Contributions	Subsidies	Total	Contributions	Subsidies	Total
Carrying amount as at 1 January	**1,723**	**14**	**1,737**	**1,667**	**15**	**1,682**
Contributions received	175	-	175	126	-	126
Amortisation recognised as income	-73	-1	-74	-70	-1	-71
Other	-1	-	-1	-	-	-
Carrying amount as at 31 December	**1,824**	**13**	**1,837**	**1,723**	**14**	**1,737**

Note 15 Provisions for employee benefits

€ million	Current portion		Non-current portion		Total	
	2020	2019	2020	2019	2020	2019
Long-term employee benefits						
Post-employment benefits	-	-	2	2	2	2
Other long-term employee benefits	10	8	23	24	33	32
Termination/reorganisation benefits	7	5	4	5	11	10
Total	**17**	**13**	**29**	**31**	**46**	**44**
Short-term employee benefits						
Short-term employee benefits	20	14	-	-	20	14
Carrying amount as at 31 December	**37**	**27**	**29**	**31**	**66**	**58**

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 88% at the end of December 2020; the current funding ratio is 93%, while the contribution rate for the retirement and dependants' pension was 24.9% of pensionable pay in 2020. The contribution rate for the retirement and dependants' pension will be 25.9% in 2021. The premium for the ABP incapacity pension (AOP) will be 1.1% in 2021. ABP expects interest rates to stay low for a long time to come and anticipates needing 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 2021 are expected to total €83 million (of which an expected €61 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 2020 (2019: €2 million), made up as follows:

	Current portion		Non-current portion		Total	
€ million	2020	2019	2020	2019	2020	2019
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

	Current Portion		Non-current portion		Total	
€ million	2020	2019	2020	2019	2020	2019
Long-service benefits	1	1	14	15	15	16
Long-term sickness leave and disability benefits	6	4	8	8	14	12
Unemployment benefits	3	3	1	1	4	4
Carrying amount as at 31 December	**10**	**8**	**23**	**24**	**33**	**32**

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 companies 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 2020, an amount of €9 million was added to the reorganisation provision (2019: €13 million). The provision for termination payments/reorganisations totalled €11 million at the end of 2020 (2019: €10 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 2019	**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**
Movements 2020				
Released	-	-	-6	-6
Added	-	9	15	24
Benefits paid	-	-8	-8	-16
Reclassified to short-term liabilities	-	-	-	-
Total	**-**	**1**	**1**	**2**
Carrying amount as at 31 December 2020	**2**	**33**	**11**	**46**

Assumptions

The main assumptions used in determining the provisions are given below:

	2020	2019
Mortality tables	AG 2018 Mortality Table / Start year = 2020	AG 2018 Mortality Table / Start year = 2019
Discount rates	0.0%-0.11%	-0.29%-0.30%
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 2020 amounted to €20 million (2019: €14 million). The increase of €6 million mainly relates to the increase in the provision for long-term sickness absence (€2 million) as a result of the restructuring provision as at 1 January 2021 (€2 million).

Note 16 Other provisions

€ million	Other provisions
Carrying amount as at 1 January 2019	**10**
Movements 2019	
Added	17
Utilised	-4
Total	**13**
Carrying amount as at 31 December 2019	**23**
Movements 2020	
Added	12
Utilised	-6
Total	**6**
Carrying amount as at 31 December 2020	**29**

The other provisions as at year-end 2020 amounted to €29 million (2019: €23 million) and relate to, among other things, a loss-making maintenance contract in one of the business units amounting to €17 million (2019: €8 million). 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	2020	2019
Differences in valuation of property, plant and equipment	155	161
Other differences	3	4
Carrying amount as at 31 December	**158**	**165**

This €158 million item comprises the temporary 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.

The deferred tax assets of €155 million in respect of property, plant and equipment (2019: €161 million) are the result of differences between the carrying amounts in the financial statements and the tax bases. Alliander became liable to pay corporate income tax on 1 January 1998. 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 'Property, plant and equipment' deferred tax item refers to the general overhead surcharge that has been capitalised for tax purposes, the effects of implementing IFRS accounting policies in 2005, the arbitrary amortisation tax break allowed in the past and a lower tax valuation of the assets of two Dutch subsidiaries.

The other portion of the deferred tax asset of €3 million consists of the differences in valuation of provisions and other securities and investments for commercial purposes and for tax purposes.

As at year-end 2020, there was a total unrecognised deferred tax asset of €24 million (year-end 2019: €21 million), made up of:

- tax loss carryforwards from our activities in Germany: €17 million (2019: €17 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;
- temporary measurement differences totalling €5 million (2019: €2 million) at one of the German entities;
- an amount of €2 million (2019: €2 million) relating to a Dutch subsidiary acquired in 2018.

Gross movement in deferred tax assets

€ million	Property, plant and equipment	Other	Total
Carrying amount as at 1 January 2019	**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**
Movements 2020			
Realised temporary differences	-16	-1	-17
New consolidations	-9	-	-9
Change in rate of corporate income tax	19	-	19
Total	**-6**	**-1**	**-7**
Carrying amount as at 31 December 2020	**155**	**3**	**158**

The decrease in the deferred tax assets by €7 million in 2020 consists of a realisation of the temporary differences, including due to the change in the corporate income tax rate, and a movement relating to the differences in valuation with regard to the acquisition of two Dutch subsidiaries. The realisation of the temporary differences included in the income statement result in an expense of €17 million. Given that the announced rate change from 25% to 21.7% that was to take effect in 2021 has not materialised, the correction included in the past has lapsed. The effect is an increase of €19 million in the deferred tax asset and a gain in the income statement. In 2020, the shares of two Dutch companies were acquired; the companies were included in the consolidation and deferred taxes were valued. The valuation for commercial purposes is higher than for tax purposes. The effect is a decrease of €9 million in the deferred tax asset.

Deferred tax liabilities

The deferred tax liabilities as at year-end 2020 stood at €1 million (year-end 2019: €3 million).

Note 18 Trade and other payables

€ million	2020	2019
Trade payables	82	85
Invoiced instalments on work in progress	4	5
Other payables	59	61
Carrying amount as at 31 December	**145**	**151**

Other debt includes €16 million (2019: €4 million) owed to a company in which Alliander has a non-controlling interest.

Accruals and deferred income

The accruals (2020: €224 million; 2019: €217 million) are made up of sufferance tax payable (2020: €84 million; 2019: €91 million), invoices still to be received for costs such as subcontracted work (2020: €82 million; 2019: €71 million) and anticipated amounts in respect of network losses and energy transport costs (2020: €22 million; 2019: €13 million).

Note 19 Leases

Finance lease receivables

The receivables in respect of finance leases as at year-end 2020 were as follows:

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2020				
Future minimum lease receivables	1	3	2	6
Unearned finance income	-	-1	-	-1
Present value of finance lease receivables	**1**	**2**	**2**	**5**
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**

At year-end 2020, €3 million of the receivable relates to a connection to a district heating grid. The carrying amount was written down to nil at year-end 2019. The remaining receivable at year-end 2020 concerns the rental of transformers.

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	2020	2019
Less than 1 year	25	22
Between 1 and 2 years	24	14
Between 2 and 3 years	24	14
Between 3 and 4 years	24	15
Between 4 and 5 years	20	14
Over 5 years	71	68
Total as at 31 December	**188**	**147**

The operating leases at year-end 2020 mainly relate to the rental of transformers and the subletting of two district heating networks to Vattenfall Warmte N.V., part of Vattenfall N.V.

Lease liabilities

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2020				
Future lease payments of the on-balance lease liabilities	28	115	136	279
Future finance expenses on the on-balance lease liabilities	-10	-41	-11	-62
Present value of the on-balance lease liabilities	**18**	**74**	**125**	**217**
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, spaces, telecommunication interconnections, 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 €13 million (income) and other movements. In 2019 this was an expense of €3 million.

Besides the above lease liabilities, at year-end 2020 there is an undiscounted amount of €71 million in lease obligations to which Alliander has committed but that have not yet started, relating mainly to buildings and lease vehicles. At year-end 2019 this was €77 million.

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.

Investments and other purchasing commitments

The outstanding investment commitments and other purchasing commitments at the end of the year were as follows:

€ million	2020	2019
Capital expenditure commitments regarding property, plant and equipment	257	125
Other purchasing commitments	309	346
Total as at 31 December	**566**	**471**

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 a legal dispute with a municipality relating to sufferance tax. Liander could potentially be reclaiming an amount of €0.5 million. However, given the uncertainties, these receivables have not been recognised in the balance sheet as at 31 December 2020.

As at year-end 2020, Alliander had issued parent company guarantees amounting to €33 million (2019: €33 million), including parent company guarantees of €5.1 million (2019: €5.1 million) for non-controlling interests. Bank guarantees amounting to €0.5 million had been issued on Alliander's behalf as at year-end 2019 (2018: €0.9 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 assumed by Meridiam; as at year-end 2020, there was an amount of €0.1 million outstanding.

An agreement was signed in 2020, under which the remaining part of the Spaklerweg site will be sold to the City of Amsterdam for €13 million (payments of €6 million in 2025 and €7 million in 2028). Assuming certain conditions are met, handover of the property will take place in 2023 and Alliander will continue to have the use of the site until that date. Delivery in 2023 is expected to result in a book profit.

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	2020	2019
Electricity transport and connection services	1,155	1,132
Gas transport and connection services	441	421
Metering services	185	178
Other revenue	228	199
Total	**2,009**	**1,930**

At €2,009 million, net revenue in 2020 was up by €79 million compared with 2019. Of this increase €43 million is the result of the higher regulated-domain revenue from electricity and gas. This is due to the growth in the number of connections to the electricity grid (€17 million), higher regulated transmission and connection tariffs for gas and electricity (€37 million), offset by lower transmission volumes for large business customers (€18 million) mainly as a result of COVID-19. The revenue from metering services increased by €7 million as a result of both the higher number of connections and the higher tariffs. The revenue from other products increased by €29 million, climbing to €228 million. This includes the completion/administrative completion of projects in the free domain, greater revenue from TenneT's shared use of our substations, and the increase in revenue from network activities.

Note 22 Other income

€ million	2020	2019
Amortisation of subsidies	1	1
Operating contributions and other income	21	12
Lease income from operational leases	24	27
Total	**46**	**40**

Other income in 2020 came in at €46 million (2019: €40 million). The increase in other income is mainly due to higher claims receipts.

Note 23 Purchase costs and costs of subcontracted work

€ million	2020	2019
Grid losses	68	52
Transport capacity and restrictions	253	190
Billing and payment collection	27	18
Contractors, materials and other	213	192
Total	**561**	**452**

The purchase costs and costs of subcontracted work were up by €109 million compared with the preceding year and amounted to €561 million. The costs for transmission capacity rose by €63 million as a result of the higher tariffs set by TenneT. The costs of contractors and materials were up by €21 million, accounted for by the greater volume of work on the grid carried out in 2020. The costs of grid losses were €16 million higher; this is because the regional network operators are responsible for gas grid losses (€7 million) from 2020 and because of the increase in the purchase tariffs for electricity.

Note 24 Employee benefit expense

€ million	2020	2019
Salaries	386	363
Social security premiums	47	44
Pension costs:		
- Contributions paid to multi-employer plans that are accounted for as defined-contribution plans	54	53
Termination benefit expenses	9	9
Other long-term employee benefit expenses	9	7
Other staff costs	18	24
Total	**523**	**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
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**
2020				
Contributions paid to multi-employer plans	54	-	-	54
Added to provision	-	15	9	24
Released from provision	-	-6	-	-6
Total 2020	**54**	**9**	**9**	**72**

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 €123 million (2019: €116 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) was 5,786.

Number of permanent staff (FTEs)

	2020	2019
Employed in continuing operations		
-Average during the year	5,786	5,686
-As at 31 December	5,881	5,691
-Number of permanent staff outside the Netherlands	188	179

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 companies to report on the remuneration of current and former senior executives. 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 2021.

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 2020 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	2020	2019
M.J. Otto[1]	136	-
W.Th. Bien[2]	225	51
M.I. Visser[3]	151	-
F.D. Schut[4]	224	165
I.D. Thijssen[5]	97	225
M.R. van Lieshout[6]	-	122
Total	**833**	**563**

1 Chair of the Management Board as of 20 May 2020.
2 Joined 7 October 2019.
3 Member of the Management Board as of 1 May 2020
4 Member of the Management Board as of 1 April 2019
5 Retired 1 June 2020.
6 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.

Pension contributions

€ thousand	2020	2019
M.J. Otto[1]	19	-
W.Th. Bien[2]	24	3
M.I. Visser[3]	21	-
F.D. Schut[4]	24	17
I.D. Thijssen[5]	10	23
M.R. van Lieshout[6]	-	12
Total	**98**	**55**

1 Chair of the Management Board as of 20 May 2020.
2 Joined 7 October 2019.
3 Member of the Management Board as of 1 May 2020
4 Member of the Management Board as of 1 April 2019
5 Retired 1 June 2020.
6 Retired 1 July 2019.

Social security contributions and other benefits

€ thousand	2020	2019
M.J. Otto[1]	9	-
W.Th. Bien[2]	14	3
M.I. Visser[3]	10	-
F.D. Schut[4]	14	10
I.D. Thijssen[5]	20	13
M.R. van Lieshout[6]	-	7
Total	**67**	**33**

1 Chair of the Management Board as of 20 May 2020.
2 Joined 7 October 2019.
3 Member of the Management Board as of 1 May 2020
4 Member of the Management Board as of 1 April 2019
5 Retired 1 June 2020.
6 Retired 1 July 2019.

In addition to the social security contributions that are normally paid by the company, Management Board members are entitled to an employer's contribution towards the premium for the group health insurance plan, contributions to the 'personal budget' scheme and the use of a company car.

Remuneration of the Supervisory Board

€ thousand	2020	2019
A. Jorritsma-Lebbink, Chairman	30.2	29.1
B. Roetert	20.1	19.4
T. Menssen[1]	20.1	5.2
F. Eulderink[2]	20.1	5.2
A.P.M. van der Veer-Vergeer[3]	7.7	19.4
G.L.M. Hamers[4]	7.7	19.4
J.G. van der Linde[5]	-	9.6
Total	**105.9**	**107.3**

1 Appointed as of 26 September 2019.
2 Appointed as of 26 September 2019.
3 Stepped down as of 21 May 2020.
4 Stepped down as of 21 May 2020.
5 Stepped down as of 1 July 2019.

Note 25 Other operating expenses

€ million	2020	2019
Added to/released from provisions	12	18
Premises and transport	16	15
Rent and leases	21	24
Corporate staff and IT	75	66
Sufferance tax and other tax	163	154
Other	56	54
Total	**343**	**331**

Other operating expenses amounted to €343 million in 2020 compared with €331 million in 2019. These higher costs are mainly due to the higher expenses arising from sufferance tax and other taxes. These amounted to €163 million in 2020 compared with €154 million in 2019. This increase in costs is the result of additional tax being charged for previous years.

The amount recognised for rent and leases in 2020 includes €2 million in short-term leases and €0.2 million in low-value leases, both of which amounts are unchanged from 2019. The remainder concerns the service costs under the lease contracts.

The auditors' fees were as follows:

Auditors' fees

€ million	2020	2019
Description of services:		
Audit of the financial statement	0.8	0.7
Other assurance services	0.2	0.2
Total	**1.0**	**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 2019 and 2020.

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
2020					
Depreciation	6	272	21	135	434
Divestments	7	17	-	3	27
Impairments	-	-	-	-	-
Total 2020	**13**	**289**	**21**	**138**	**461**
2019					
Depreciation	7	257	21	114	399
Divestments	7	18	-	19	44
Impairments	4	2	-	2	6
Total 2019	**18**	**277**	**21**	**135**	**449**

Note 27 Finance income

€ million	2020	2019
Other finance income	13	12
Currency translation differences	15	5
Total	**28**	**17**

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 6].

Note 28 Finance expense

€ million	2020	2019
Loans from third parties	-40	-50
Currency translation differences	-16	-5
Other finance expense	-13	-14
Total	**-69**	**-69**

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 19].

The other finance expenses mainly related to the lease liabilities [note 19]. Also included in the other finance expenses are the costs associated with credit facilities.

Note 29 Tax

€ million	2020	2019
Current tax expense	-58	-70
Movement in deferred taxes	3	-6
Total	**-55**	**-76**

The tax expense in the 2020 financial year amounts to €58 million. The change in deferred tax, which was €3 million, is the net effect of a change in deferred tax assets (€2 million) as well as in deferred tax liabilities (€1 million).

The corporate income tax charge of the Alliander N.V. tax group, as recognised in the financial statements, amounts to €55 million. This is the balance of the corporate income tax calculated over the profit for 2020 (€56.6 million), the corporate income tax for previous years (€0.6 million) and the corporate income tax on movements in balance sheet items recognised directly in equity (€2 million tax credit).

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

%	2020	2019
Enacted corporate income tax rate in the Netherlands	**25.0**	**25.0**
Impact of:		
Substantial holding privilege	-	-0.2
Change in corporate income tax rate	-6.8	-2.7
Losses not accounted for	1.3	1.2
Other permanent differences	0.3	-
Effective corporate income tax rate	**19.8**	**23.3**

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 2020 amounted to 19.8% (2019: 23.3%). 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 6.8%) and the effect of unrecognised losses of our entities outside the Netherlands (upward effect of 1.3%).

Note 30 Notes to the consolidated cash flow statement

Cash flow from operating activities

The cash flow from operating activities in 2020 amounted to €634 million (2019: €638 million). The decrease compared to 2019 is the result of the lower net profit compensated by the lower interest and taxes paid.

Cash flow from investing activities

The cash outflow from investing activities in 2020 was €775 million, compared with €713 million in 2019. The higher cash outflow in 2020 came as a result of higher investments and non-recurring costs for the purchase of TReNT in 2020. Third-party contributions to investments in 2020 amounted to €174 million, up on 2019 (€124 million).

Cash flow from financing activities

The cash flow from financing activities for 2020 amounted to €286 million (2019: €88 million). This €198 million rise came mainly as a result of the €850 million raised through long-term loans. This amount is partly compensated by the repayment of the ECP notes and a contractually repaid loan under the EMTN programme.

Note 31 Licences

Liander N.V. owns networks for the transmission of electricity and gas in the Netherlands.
In accordance with the Electricity Act 1998 and the Gas Act, Liander N.V. has appointed itself network operator for their gas and electricity networks for a ten-year period (expiry date: 10 December 2030). 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 2020, the remaining shares were held by 75 shareholders, none of whom are related parties. For a full list of our shareholders, we refer you to www.alliander.com/en/organisation/corporate-governance/aandeelhouders/.

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	2020	2019
Sales of goods and services		
Associates	1	-
Joint ventures	101	93
Total	**102**	**93**
Purchase of goods and services		
Associates	25	17
Joint ventures	143	133
Total	**168**	**150**

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 2020, Alliander had a receivable of €23 million (2019: €20 million) in respect of loans granted to related parties and a receivable of €1 million in respect of agreed borrowings on current accounts with related parties (2019: a liability of €3 million).

Note 33 Assets and liabilities held for sale and discontinued operations

The assets held for sale item as at year-end 2020 and 2019 (€3 million) relates to business premises. This asset is part of the Other segment. Based on the expected proceeds from the sale, in 2019 an amount of €4 million was recognised under impairments in the income statement. There are no long-term liabilities relating to the assets held for sale. This sale is expected to occur in the first half of 2021.

No operations were discontinued in 2020 and 2019.

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, gas 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 2020 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 2020 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.

The finance raised in 2019 under the Euro Commercial Paper Programme, denominated in US Dollars (USD), was repaid in 2020. As at year-end 2020, this item amounted to nil (2019: €289 million). 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 2020					
Exposure in USD	-	-	-	-	-
Hedged position in USD	-	-	-	-	-
Sensitivity of cash flow in USD (net)	**-**	**-**	**-**	**-**	**-**

The following important exchange rates were applicable as at the balance sheet date:

Exchange rates

	2020	2019
USD	1.223	1.123

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.

Alliander had no more interest rate swaps outstanding as at year-end 2020 or 2019.

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 2020						
Assets						
Investments in bonds	6.6%	Fixed / variable	4	51	92	147
Loans, receivables and other financial assets			7	49	7	63
Cash and cash equivalents		Variable	298	-	-	298
Total assets			**309**	**100**	**99**	**508**
Loans received						
Subordinated loans	8.4%	Fixed	-7	-8	-42	-57
Private and green loans	1.1%	Fixed	-1	-136	-300	-437
Euro Medium Term Notes	1.4%	Fixed	-	-799	-1,191	-1,990
Euro Commercial Paper	0.0%	Fixed	-	-	-	-
Other	-0.68%-0.17%	Variable	-	-	-3	-3
Lease liabilities	0.0-6.8%	Fixed	-18	-74	-125	-217
Total liabilities			**-26**	**-1,017**	**-1,661**	**-2,704**
As at 31 December 2019						
Assets						
Investments in bonds	6.5%	Fixed / variable	-	42	118	160
Loans and receivables			5	48	9	62
Cash and cash equivalents	-0.57%-0%	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
Finance lease liabilities	0.0-6.8%	Fixed	-17	-36	-173	-226
Total liabilities			**-314**	**-850**	**-1,124**	**-2,288**

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 74% (2019: 48%) 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 $3.1 billion (2019: $3.0 billion). The carrying amount of the associated bond investments included in Alliander's balance sheet amounts to €147 million (2019: €160 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	2020	2019
Not overdue	29	38
0-30 days	23	21
31-90 days	7	7
91-360 days	5	6
> 360 days	5	6
Carrying amount as at 31 December	**69**	**78**

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 (2019: 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	2020	2019
Carrying amount as at 1 January	10	9
Utilised (trade receivables written off)	-3	-
Released from / added to allowance account charged to income	3	1
Carrying amount as at 31 December	**10**	**10**

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 2020 Alliander had a committed credit facility of €600 million (up to 28/7/2023). 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 2020, Alliander has an ECP programme totalling €1.5 billion under which no amount was outstanding as at year-end (2019: €289 million) and an EMTN programme of €3 billion under which an amount of €2 billion was outstanding as at 31 December 2020 (2019: €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).

No margin calls were triggered for Alliander in 2020 and Alliander did not make any margin calls. As at year-end 2020, Alliander held no margins.

Liquidity risk 2020 and 2019

€ million	Carrying amount	Contractual cash flows			
		Less than 1 year	1 - 5 years	Over 5 years	Total
As at 31 December 2020					
Loans received					
Principal amounts	-2,484	-7	-934	-2,054	-2,995
Interest	-	-47	-118	-949	-1,114
Lease liabilities	-217	-28	-115	-136	-279
Accounts payable	-147	-147	-	-	-147
Other payables	-359	-356	-	-3	-359
Off balance sheet commitments					
Lease liabilities	-	1	-18	-54	-71
Total	**-3,207**	**-584**	**-1,185**	**-3,196**	**-4,965**
As at 31 December 2019					
Loans received					
Principal amounts	-2,062	-298	-817	-955	-2,070
Interest	-	-36	-119	-318	-473
Finance lease obligations	-226	-29	-83	-194	-306
Accounts payable	-151	-151	-	-	-151
Other payables	-334	-334	-	-	-334
Off balance sheet commitments					
Operating lease liabilities	-	-	-13	-64	-77
Total	**-2,773**	**-848**	**-1,032**	**-1,531**	**-3,411**

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 2020 Level 1	Level 2	Level 3	Total	31 December 2019 Level 1	Level 2	Level 3	Total
Assets								
Investments in bonds	-	-	-	-	-	-	-	-
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

Alliander had no derivatives outstanding as at year-end 2020.

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 2020 Fair value	Level	31 December 2019 Fair value	Level
Non-current assets					
Investments in bonds and other financial assets	6, 7	259	2	269	2
Liabilities					
Non-current liabilities					
Finance lease liabilities	19	-	2	-	2
Interest-bearing debt:					
Euro Medium Term Notes	13	-2,169	1	-1,505	1
Other interest-bearing debt	13	-738	2	-507	2
Total non-current liabilities		**-2,907**		**-2,012**	
Short-term liabilities					
Interest-bearing debt:					
Euro Medium Term Notes	13	-	1	-	1
Euro Commercial Paper	13	-	2	-289	2
Other interest-bearing debt	13	-21	2	-16	2
Total short-term liabilities		**-21**		**-305**	
Total liabilities		**-2,928**		**-2,317**	

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 receivables, 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	2020	2019
Net result on derivatives held for trading:		
Fair value changes in currency instruments	1	-2
Net result on investments in bonds	-13	3
Net result on financial liabilities at amortised cost:		
Interest charges on financial liabilities at amortised cost	-50	-60
Interest gains on cash equivalents, loans granted, trade receivables, other receivables and deposits	11	11
Currency translation differences	-	-
Fees paid and received other than for the calculation of the effective interest rate	1	-
Net finance income and expense	**-50**	**-48**
Impairments of trade receivables	-2	-1
Other operating expenses	**-2**	**-1**

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. In 2020, the (remaining) depreciation periods for GPRS meters and transformers, switchgear and stations in the free domain were adjusted on this basis. With regard to the gas networks, there is no reason to shorten the current useful life for these on the basis of existing laws and regulations.

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.

COVID-19

In 2020, the Netherlands was hit by COVID-19. In order to stem the spread of the virus, the Dutch government took drastic measures that are having an impact on Alliander N.V. and its subsidiaries. Given that the energy infrastructure is of essential importance to society, Alliander N.V. continues to take all the necessary measures, also in these unprecedented times, to maintain the reliability of its electricity and gas network in a responsible way. Our field service staff have been working with special safety measures for some time now. Where possible, they maintain a distance of at least 1.5 metres from each other, work in fixed teams, do not shake hands and, for a while, only worked at customers' homes when absolutely necessary. It is uncertain how long this crisis will endure or what impact it will ultimately have on society and our company. Throughout this crisis, Alliander N.V. will maintain the same state of alertness as ever to be able to do whatever is required. Although the financial impact has been felt, it has remained relatively minor. The crisis has not had a significant influence on the financial capacity at the balance sheet date or the profit for 2020, nor is it expected to in 2021 either. Alliander also expects to continue to have sufficient access to resources needed for its operations and payment obligations, meaning that the company’s continuity is secure. Therefore, although we cannot be certain, we do not expect the impact of COVID-19 to have a material adverse effect on our financial capacity or liquidity.

Other

The assumptions with respect to risks and financial instruments are described in note [34].

Note 36 Events after balance sheet date

There are no matters which should be disclosed after the balance sheet date.

Company financial statements

Company balance sheet (as at 31 December, before appropriation of profit)

€ million	Note	2020	2019
Assets			
Non-current assets			
Property, plant and equipment	37	232	248
Right-of-use assets	37	43	48
Intangible assets	38	68	68
Investments in subsidiaries and associates	39	2,455	2,531
Other financial assets	40	2,654	2,643
Total non-current assets		**5,452**	**5,538**
Current assets			
Other receivables	41	29	39
Receivables from subsidiaries	41	1,273	795
Cash and cash equivalents	42	292	153
Total current assets		**1,594**	**987**
Assets held for sale		3	3
Total assets		**7,049**	**6,528**
Equity and liabilities			
Equity	43		
Share capital		684	684
Share premium		671	671
Subordinated perpetual bond loan[1]		495	495
Hedge reserve[1]		-2	-2
Other reserves		2,256	2,123
Result for the year		224	253
Total equity		**4,328**	**4,224**
Liabilities			
Non-current liabilities			
Interest-bearing debt	44	2,474	1,760
Lease liabilities	45	28	33
Provisions	46	28	32
Total non-current liabilities		**2,530**	**1,825**
Short-term liabilities			
Current and accrued liabilities	47	176	462
Lease liabilities	45	15	15
Derivatives	48	-	2
Total short-term liabilities		**191**	**479**
Total liabilities		**2,721**	**2,304**
Total equity and liabilities		**7,049**	**6,528**

1 The hedge reserve and the subordinated perpetual bond loan are not freely distributable.

Company income statement

€ million	Note	2020	2019
Revenue		20	28
Own work capitalised		41	35
Other income		277	269
Total income	**50**	**338**	**332**
Operating expenses			
Costs of subcontracted work and other external expenses	51	-60	-52
Employee benefit expenses	52	-106	-107
Social security premiums	52	-9	-9
Depreciation and impairments of non-current assets	53	-72	-81
Other operating expenses	54	-94	-94
Total operating expenses		**-341**	**-343**
Operating profit		**-3**	**-11**
Proceeds from receivables included in non-current assets and securities	55	75	85
Interest and similar expenses	56	-40	-49
Profit before tax		**32**	**25**
Tax	57	-8	-6
Share of profit/loss from investments in affiliated companies	58	200	234
Profit after tax		**224**	**253**

Company statement of comprehensive income

€ million	2020	2019
Net profit	224	253
Movement in hedge reserve	-	-2
Comprehensive income	**224**	**251**

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, 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 2019				
Historical cost	226	460	30	716
Accumulated depreciation and impairments	-80	-376	-	-456
Carrying amount as at 1 January 2019	**146**	**84**	**30**	**260**
Movements 2019				
Investments	2	7	46	55
Divestments	-7	-	1	-6
Depreciation	-6	-49	-	-55
Impairments	-4	-	-	-4
Reclassifications 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**
Movements 2020				
Investments	1	7	51	59
Divestments	-7	-1	-	-8
Depreciation	-5	-50	-	-55
Reclassifications and other movements	3	56	-59	-
Transfers	-	-12	-	-12
Total	**-8**	**-**	**-8**	**-16**
As at 31 December 2020				
Historical cost	177	501	11	689
Accumulated depreciation and impairments	-58	-399	-	-457
Carrying amount as at 31 December 2020	**119**	**102**	**11**	**232**

Investments

Investments in property, plant and equipment totalled €59 million (2019: €55 million). This mainly related to investments in hardware and software.

Divestments

Divestments mainly concern the sale of two of our buildings.

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 and other movements	-1	4	3
Total	**-3**	**9**	**6**
As at 1 January 2020			
Historical cost	6	58	64
Accumulated depreciation and impairments	-2	-14	-16
Carrying amount as at 31 December 2019	**4**	**44**	**48**
Movements 2020			
Investments	-	16	16
Divestments	-	-1	-1
Depreciation	-2	-14	-16
Reclassifications and other movements	1	-	1
Transfers	-	-5	-5
Total	**-1**	**-4**	**-5**
As at 31 December 2020			
Historical cost	7	67	74
Accumulated depreciation and impairments	-4	-27	-31
Carrying amount as at 31 December 2020	**3**	**40**	**43**

These assets relate to business premises and lease vehicles.

Note 38 Intangible assets

€ million	Goodwill	Other intangible assets	Total
As at 1 January 2019			
Historical cost	68	4	72
Accumulated depreciation and impairments	-	-4	-4
Carrying amount as at 1 January 2019	**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**
Movements 2020			
Depreciation	-	-	-
Total	**-**	**-**	**-**
As at 31 December 2020			
Historical cost	68	-	68
Accumulated depreciation and impairments	-	-	-
Carrying amount as at 31 December 2020	**68**	**-**	**68**

Intangible assets as at year-end 2020 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 2019	**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	-	-	-
Transfers	13	-	13
Total	**32**	**-**	**32**
Carrying amount as at 31 December 2019	**2,530**	**1**	**2,531**
Movements 2020			
Dividends received	-257	-	-257
Result for the year	200	-	200
Issue of share capital	38	-	38
Transfers	-59	-	-59
Other changes	2	-	2
Total	**-76**	**-**	**-76**
Carrying amount as at 31 December 2020	**2,454**	**1**	**2,455**

In 2020, Alliander received €257 million (2019: €246 million) in dividend from its Liander N.V. subsidiary. The investments of €38 million in 2020 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.

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 2019	**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**
Movements 2020				
New receivable	-	-	2	2
Accretion of interest	-	-	1	1
Transfers	-	7	-	7
Realised temporary differences	1	-	-	1
Total	**1**	**7**	**3**	**11**
Carrying amount as at 31 December 2020	**13**	**2,591**	**50**	**2,654**

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 2020 amounted to 2.0% (2019: 2.60%). 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 2020 the fair value was €2,792 million (2019: €2,871 million).

Note 41 Other receivables and receivables from subsidiaries

Other receivables do not include any amounts owed by a company in which Alliander has a non-controlling interest (in 2019: €2 million). 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 associates. All income and expenditure is accounted for through the current accounts with the associates. Differentiated interest rates are applied to this finance, of 1.75% (2019: 2.35%) for associates operating in the regulated market, 2.75% (2019: 3.35%) for 'Stable Business' associates and 3.75% (2019: 4.35%) for 'New Business & High Risk' associates. The interest rate is based on the average cost of borrowing on Alliander's lending portfolio as at year-end 2020, 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 2020 did not include any restricted cash (2019: 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	2020	2019
Carrying amount as at 1 January	**2,057**	**1,780**
Movements		
New loans	725	989
Loans repaid	-298	-707
Currency translation differences	-2	-5
Total	**425**	**277**
Carrying amount as at 31 December	**2,482**	**2,057**

Long-term loans including the current portion

	Effective interest rate		Current portion		Non-current portion	
€ million	2020	2019	2020	2019	2020	2019
Subordinated loans	8.4%	8.7%	8	7	49	57
Private and green loans	1.1%	1.4%	-	1	435	311
Euro Medium Term Notes	1.4%	1.8%	-	-	1,990	1,392
Euro Commercial Paper	0.0%	-0.3%	-	289	-	-
Carrying amount as at 31 December			**8**	**297**	**2,474**	**1,760**

Subordinated loans

These loans have been made available by shareholders. They are subordinated to all other liabilities.

Maturities of interest-bearing debt

€ million	2020	2019
Less than 1 year	8	297
Between 1 and 2 years	408	8
Between 2 and 3 years	125	408
Between 3 and 4 years	400	-
Between 4 and 5 years	9	399
Over 5 years	1,532	945
Carrying amount as at 31 December	**2,482**	**2,057**

Note 45 Lease liabilities

The payables in respect of leases as at year-end 2020 were as follows:

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2020				
Future lease payments of the on-balance lease liabilities	14	27	2	43
Future finance expenses of the on-balance lease liabilities	1	-1	-	-
Present value of the on-balance lease liabilities	**15**	**26**	**2**	**43**
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 payables on account of leases for business premises and lease vehicles.

Besides the above lease liabilities, at year-end 2020 there is an undiscounted amount of €71 million in lease obligations to which Alliander has committed but that have not yet started, relating to buildings and lease vehicles. At year-end 2019 this was €77 million.

Note 46 Provisions

€ million	Long-service benefits	Termination benefits	Other provisions	Total
Carrying amount as at 1 January 2019	**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**
Movements 2020				
Transfers	-	-	-1	-1
Released	-	-6	-2	-8
Added	3	14	22	39
Utilised	-1	-8	-8	-17
Reclassification to short-term liabilities	-	-2	-1	-3
Major curtailments and settlements	-3	-	-11	-14
Total	**-1**	**-2**	**-1**	**-4**
Carrying amount as at 31 December 2020	**13**	**3**	**12**	**28**

Long-service benefits are built up in advance through this provision for all Alliander permanent staff. The network companies 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 58 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 from 1 January 2020. The provision as at year-end 2020 amounted to €13 million.

The provision for termination benefits 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 2020, an amount of €14 million was added to the reorganisation provision (2019: €13 million). The provision for termination payments/reorganisations, including the current portion of €7 million, totalled €10 million at the end of 2020 (2019: €10 million).

The other provisions include provisions for long-term sickness absence.

Note 47 Current and accrued liabilities

€ million	2020	2019
Amounts owed to suppliers and trade credits	17	23
Tax and social security contributions	84	86
Liabilities in respect of pensions	6	6
Interest-bearing debt	8	297
Other liabilities and accruals	61	50
Total short-term liabilities	**176**	**462**

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 €6 million (2019: €10 million) on non-controlling interests. The interest-bearing liabilities at year-end 2019 chiefly concerned liabilities under the ECP programme, which were repaid in July 2020.

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.

Note 49 Contingent assets and liabilities

Finance lease payables

Please refer to note [45] to the consolidated financial statements for details of finance lease payables.

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 2020, Alliander had issued parent company guarantees amounting to €33 million (2019: €33 million), including a parent company guarantee of €5.1 million (2019: €5.1 million) for non-controlling interests. Bank guarantees amounting to €1.3 million had been issued on Alliander's behalf as at year-end 2019 (2018: €0.9 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 assumed by Meridiam; as at year-end 2020, there was an amount of €0.1 million outstanding.

Investments and other purchasing commitments

The following table presents the existing investment commitments and other purchase commitments as at year-end.

€ million	2020	2019
Capital expenditure commitments regarding property, plant and equipment	2	3
Other purchasing commitments	89	98
Total	**91**	**101**

Note 50 Operating income

€ million	2020	2019
Revenue	20	28
Own work capitalised	41	35
Other income	277	269
Total	**338**	**332**

The decrease in net revenue is mainly due to the transfer of Alliander N.V.'s interest in the joint operation Utility Connect within the Alliander group, as a result of which it is no longer part of the company financial statements. The other income chiefly relates to group-wide activities at holding company level.

Note 51 Costs of subcontracted work and other external expense

€ million	2020	2019
Contractors, materials, external personnel and other	60	52
Total	**60**	**52**

Note 52 Employee benefit expense

€ million	2020	2019
Salaries	83	79
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	1	5
Long-term employee benefit expenses	1	1
Other staff costs	8	9
Total	**115**	**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 €115 million in 2020 (2019: €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 2020 was 1,142 (2019: 1,039).

Note 53 Depreciation and amortisation

€ million	Land and buildings	Other	Total
2020			
Depreciation	5	66	71
Divestments	-	1	1
Impairments	-	-	-
Total 2020	**5**	**67**	**72**
2019			
Depreciation	8	63	71
Divestments	6	-	6
Impairments	4	-	4
Total 2019	**18**	**63**	**81**

Depreciation of IT assets and right-of-use assets are recognised in the Other column.

Note 54 Other operating expenses

€ million	2020	2019
Items charged by subsidiaries	5	7
Premises and transport	5	6
Rent and leases	7	8
Corporate staff and ICT	55	47
Accountancy, notary and consulting expenses	14	16
Sufferance tax and other tax	1	1
Other	7	9
Total	**94**	**94**

Costs passed on by group companies mainly concerns internal development projects at holding company level.

Note 55 Finance income

€ million	2020	2019
Interest income on money market loans and deposits	1	1
Finance income on loans from group companies	74	84
Currency translation differences	-	-
Total	**75**	**85**

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 €10 million compared with 2019 as a result of changes in the interest rate charged and changes in the composition of group companies.

Note 56 Finance expense

€ million	2020	2019
Loans from third parties	40	49
Total	**40**	**49**

Note 57 Tax

€ million	2020	2019
Current tax expense	-9	-7
Movement in deferred tax	1	1
Total	**-8**	**-6**

The effective tax rate was 25.8%. The recognised tax expense of €8 million is made up of tax charges of €9 million for 2020, less the upward change in deferred tax of €1 million.

Note 58 Share in profit/loss from investments in affiliated companies

€ million	2020	2019
Result from interests in subsidiaries and associates after tax	200	234
Share of profit/loss from investments in affiliated companies	**200**	**234**

Coming in at €200 million after tax, the share in the profits of participations was down by €34 million compared to 2019, primarily as a result of lower profits at network operator Liander.

Proposed profit appropriation for 2020

The Management Board has decided, with the approval of the Supervisory Board, to add €130.1 million of the profit to the Other reserves. The remaining profit of €93.8 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 2020 financial year.

The dividend for 2020 was down by €19.8 million on 2019 owing to the lower net profit for 2020.

Events after the balance sheet date

There are no matters which should be disclosed after the balance sheet date.

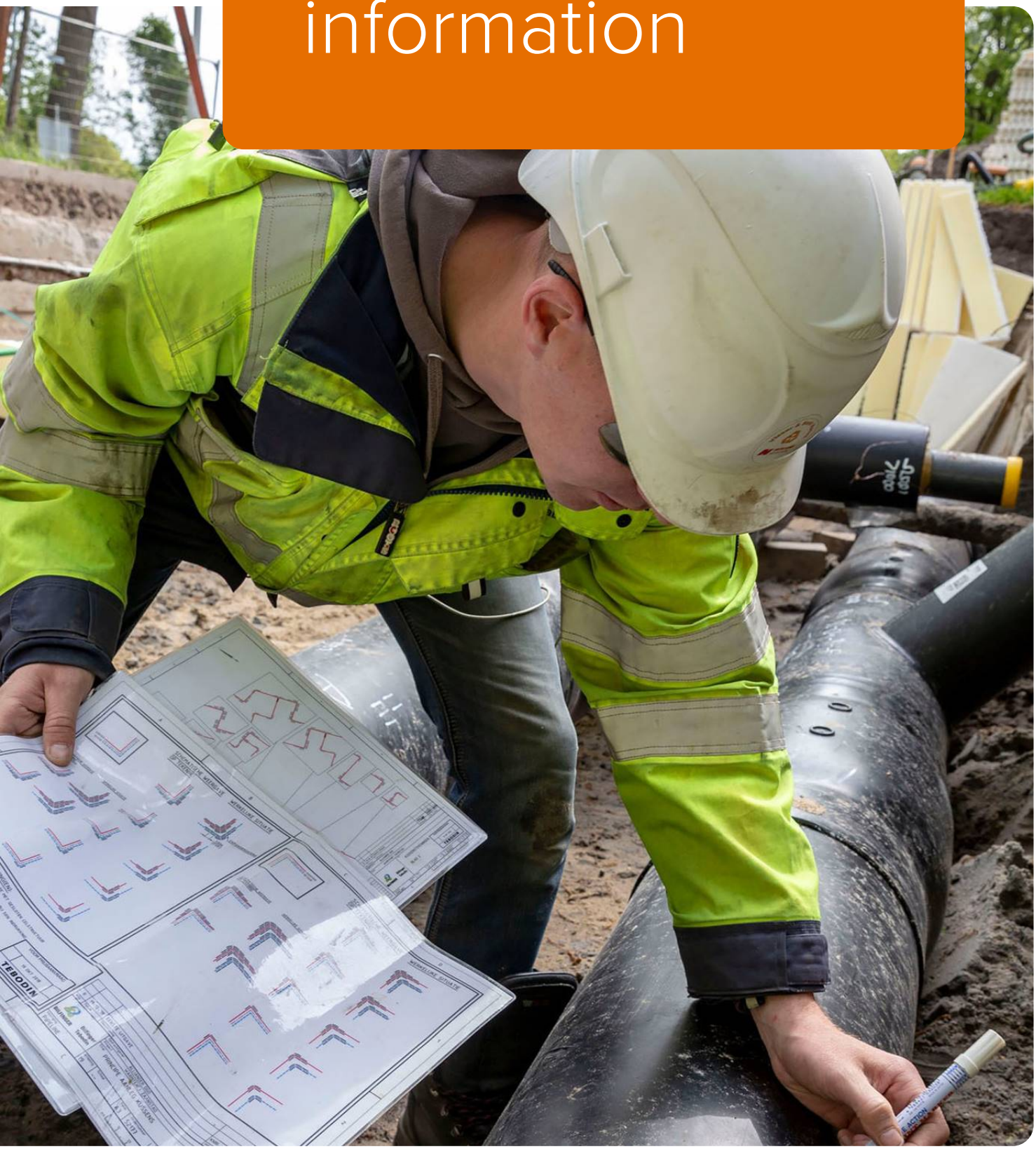
Principal subsidiaries and other participations

As at 31 December 2020

	Based in	%
Consolidated subsidiaries		
Liander N.V.	Arnhem	100%
Qirion B.V.*	Duiven	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%
Alliander Telecom N.V.*	Amsterdam	100%
Stam Heerhugowaard Holding B.V.*	Heerhugowaard	100%
Stam & Co. Leidingwerken B.V.*	Heerhugowaard	100%
Stam & Co. Infratechniek B.V.*	Heerhugowaard	100%
Sol Energy v.o.f.	Heerhugowaard	100%
Kenter B.V.*	Arnhem	100%
123meetbedrijf B.V.*	Helmond	100%
Kenter GmbH	Brandenburg	100%
Kenter Belgium B.V.	Zaventum	100%
QTERRA B.V.*	Arnhem	100%
BackHoom B.V.*	Arnhem	100%
Sim-Ci Holding B.V.*	Arnhem	100%
Locamation B.V.*	Enschede	100%
TReNT Infrastructuur B.V.*	Enschede	100%
Twinning Research Netwerk Twente (TReNT) B.V.*	Enschede	100%
ENTRNCE International Holding B.V.*	Arnhem	100%
ENTRNCE Nederland B.V.	Arnhem	100%
ENTRNCE Deutschland 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%
Alliander Netz Heinsberg GmbH	Heinsberg	100%
Alliander Stadtlicht Rhein-Ruhr	Hagen	100%
450connect GmbH	Köln	100%
Joint operations		
Utility Connect B.V.	Arnhem	59%
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%
Biogas Gelderland1 B.V.	Arnhem	50%
Duurzame Energie Netwerken Noord-Holland B.V.	Zaanstad	50%
Warmtenetwerk Zaanstad B.V.	Zaandam	31%

* 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. Distribution of 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 of 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 2020. Furthermore the management board engaged us to provide assurance on a selection of non-financial information in the Annual Report 2020.

Our reports in relation to both assignments, namely the auditor's report on the financial statements 2020 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 2020 included in the annual report

Our opinion

We have audited the accompanying financial statements 2020 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 2020, and of its result and its cash flows for 2020 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 2020, and of its result for 2020 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 2020.
2. The following statements for 2020: The consolidated balance sheet, the consolidated income statement, the consolidated statements of comprehensive income, the consolidated cash flow statement and consolidated statement of changes in equity.
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 2020.
2. The company income statement for 2020.
3. The company statement of comprehensive income.
4. 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 € 21 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 € 1,050 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. and performed review procedures or specific audit procedures at other group entities.

By performing the procedures mentioned above at group entities, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion about the consolidated financial statements.

Scope of fraud and non-compliance with laws and regulations

In accordance with the Dutch Standards on Auditing, we are responsible for obtaining reasonable assurance that the financial statements taken as a whole are free from material misstatements, whether due to fraud or error. Non-compliance with law and regulation may result in fines, litigation or other consequences for the Company that may have a material effect on the financial statements.

Considerations regarding fraud

In identifying and assessing the risks of material misstatement due to fraud, we obtained an understanding of Alliander N.V. and its environment, including its internal control. We reviewed the group's fraud risk analysis and made inquiries with management, those charged with governance and others within the group, including Corporate Control and Internal Audit. We evaluated several fraud risk factors to consider whether those factors indicated a risk of material misstatement due to fraud. We have involved forensic specialists in our risk analysis and in determining the audit response.

Following these procedures, and the presumed risks under the prevailing auditing standards, we considered the fraud risks in relation to management override of controls, including evaluating whether there was evidence of bias by the Executive Board, the executive leadership team and other members of management, which may represent a risk of material misstatement due to fraud.

As part of our audit procedures to respond to these fraud risks, we evaluated the design and implementation of the internal controls relevant to mitigate these risks.

We performed substantive audit procedures, including detailed testing of journal entries, evaluating the accounting estimates for bias (including retrospective reviews of prior year’s estimates), the supporting documentation in relation to post-closing adjustments.

We also incorporated elements of unpredictability in our audit. The procedures described are in line with the applicable auditing standards and are not primarily designed to detect fraud.

Our procedures to address fraud risks did not result in a Key Audit Matter.

Because of the characteristics of fraud, particularly when it involves sophisticated and carefully organized schemes to conceal it, such as forgery, intentional omissions, misrepresentation and collusion, an unavoidable risk remains that we may not detect all fraud during our audit.

Considerations regarding compliance with laws and regulations

We assessed the laws and regulations relevant to the Company through discussion with the Legal Department, reading minutes and reports of internal audit.

As a result of our risk assessment procedures, and while realizing that the effects from non-compliance could considerably vary, we considered the Electricity Act 1998, Gas Act, Independent Network Management Act, Energy Transition Progress Act, General Regulation on Data Protection and Procurement Act 2012, adherence to (corporate) tax law and financial reporting regulations, the requirements under the International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and Part 9 of Book 2 of the Dutch Civil Code with a direct effect on the financial statements as an integrated part of our audit procedures, to the extent material for the related financial statements.

We obtained sufficient appropriate audit evidence regarding provisions of those laws and regulations generally recognized to have a direct effect on the financial statements.

Apart from these, the group is subject to other laws and regulations where the consequences of non-compliance could have a material effect on amounts and/or disclosures in the financial statements, for instance, through imposing fines or litigation.

Our activities are more limited with regard to these laws and regulations that do not have a direct effect on the determination of the amounts and disclosures in the financial statements. Compliance with these laws and regulations may be fundamental to the operating aspects of a group, to the ability of a group to continue its activities, or to avoid material penalties (for example, compliance with the terms of operating licenses and permits or compliance with environmental regulations) and therefore non-compliance with such laws and regulations may have a material effect on the financial statements. Our responsibility is limited to undertaking specified audit procedures to help identify non-compliance with those laws and regulations that may have a material effect on the financial statements. Our procedures are limited to (i) inquiry of management and those charge with governanceas to whether the group is in compliance with such laws and regulations and (ii) inspecting correspondence, if any, with the relevant licensing or regulatory authorities to help identify non-compliance with those laws and regulations that may have a material effect on the financial statements.

Naturally, we remained alert to indications of (suspected) non-compliance throughout the audit.

Finally, we have obtained written confirmation that all known cases of fraud, non-compliance or suspected non-compliance with laws and regulations have been brought to our attention.

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 matters 2020

Key audit matters

Property, plant and equipment

Description

In determining the carrying amount of property, plant and equipment, amounting to EUR 7,958 million as at 31 December 2020, 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 132-133 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

Our audit approach

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 2020, 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 2020 amounts to EUR 2,009 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 137-138 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 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 contain other information that consists of:

- The Management board's report (page 3-120).
- 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 the other information, including the Management Board's Report in accordance with Part 9 of Book 2 of the Dutch Civil Code, and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Engagement

We were engaged by the supervisory board as auditor of Alliander N.V. on July 29, 2015, as of the audit for the year 2016 and have operated as statutory auditor ever since that financial year. In December 2019 we were reappointed for the audit of the financial years 2020 and 2021. The Supervisory Board is mandated to this end 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 audit 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 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, February 15, 2021

Deloitte Accountants B.V.

Signed on the original: B.C.J. Dielissen

Assurance report of the independent auditor

To the shareholders and the supervisory board of Alliander N.V.

Our opinion

The management board of Alliander N.V. ('the Company') engaged us to provide assurance on a selection of non-financial information in the Annual Report 2020 ('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 2020 (page 8-11).
- Profile of Alliander (page 12-25).
- The value we create, presented in the chapters:
  - Our network: Ensuring a high level of supply reliability at a low cost (page 27-37);
  - Being a creditworthy company with solid returns (page 38-53);
  - Making the energy supply and our organisation sustainable (page 54-67);
  - Ensuring a safe energy network, a safe working environment and a safe data environment (page 68-72);
  - Being an attractive, inclusive employer with equal opportunities for all (page 73-80);
  - Our impacy on society (page 81-87), including impactcases;
  - Contribution to Global Goals (SDGs) (page 88-92);
  - Dillemas and lessons learned (page 93-94).

Our conclusion

Based on our review procedures performed nothing has come to our attention that causes us to believe that the Report does not present, in all material respects, a reliable and adequate view of:

- The policy and business operations with regard to non-financial information.
- The thereto related events and achievements for the year 2020.

In accordance with the reporting criteria as included in the section 'reporting criteria'.

Furthermore we were engaged to provide reasonable assurance on the following information ('the audited information'):

- The summarized materiality assessment presented in the chapter 'About this report' (page 5) and the extensive materiality assessment presented in the chapter 'Other Information, Materiality test' (page 206-208).
- The table "Objectives and results" in the chapter "Profile of Alliander" (page 23-25).

Our opinion

In our opinion, the report presents, in all material respects, a reliable and adequate view of:

- The policy and business operations with regard to non-financial information.
- The thereto related events and achievements for the year 2020.

In accordance with the reporting criteria as included in the section 'reporting criteria'.

Basis for our opinion and our conclusion

We have performed our review and audit work on the aforementioned information in accordance with Dutch law, including Dutch Standard 3810N 'Assurance-opdrachten inzake maatschappelijke verslagen' (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 section 'Our responsibilities for the review and audit of the Report'.

We are independent of Alliander N.V. 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 requirements 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 and assurance evidence we have obtained is sufficient and appropriate to provide a basis for our opinion and conclusion.

Reporting criteria

The non-financial information in the Report 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 Report are the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and the applied supplemental reporting criteria as disclosed in the chapter "Other Information" of the annual report.

The absence of an established practice on which to draw, to evaluate and measure non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time.

Key review matter

Key review matters are those matters that, in our professional judgement, were of most significance in our review of the Report. We have communicated the key review matters to the Supervisory Board. The key review matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our review of the Report as a whole and in forming our conclusion thereon, and we do not provide a separate conclusion on these matters.

Key review matter

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 "Our impact on society" on page 81-87.

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 (euros) 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. Part hereof is the use of external sources, in which fluactuations outside Alliander's sphere of influence can occur. As a consequence, positive or negative year-on-year changes can occur.

We note that in particular the calculated consumer surplus, as part of 'Produced Capital', 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 method and capitals within the social impact in 2020 have remained unchanged compared to last year.

A summary of the key assumptions is presented in the 'Key criteria for measuring impact' on pages 225-227 of the Report.

Procedures performed

Our procedures regarding the key review matter consisted of reviewing the social mpact measurement in the chapter "Our impact on society" on page 81-87.

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 expertise of external advisors for the impact calculations (i.e. Trueprice/The Impact Institute), we obtained an understanding of the competency and objectivity of those advisors. Where external sources have been consulted, a reconciliation to those sources has been performed.

We obtained an understanding of the calculations and performed recalculations for the key elements. For the design of the initial model we engaged our model validation expert.

For key assumptions as presented in chapter 'Key criteria for measuring impact' on page 225-227 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 estimates. 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 non-financial information.

Responsibilities of the management board and the supervisory board

The management board is responsible for the preparation of reliable and adequate Report in accordance with the reporting criteria as included in the section 'reporting criteria', including the identification of stakeholders and the definition of material matters. The choices made by the management board regarding the scope of the non-financial information and the reporting policy are summarised in chapter 'Other information' of the annual report.

The management board is also responsible for such internal control as the management board determines is necessary to enable the preparation of the non-financial information that is free from material misstatement, whether due to fraud or error.

The Supervisory Board is responsible for overseeing the reporting process of the Company.

Our responsibilities for the review and audit of the Report

Our responsibility is to plan and perform the assurance assignment in a manner that allows us to obtain sufficient and appropriate audit evidence to provide a basis for our conclusion and opinion.

Procedures performed to obtain a limited level of assurance are aimed to determine the plausibility of information and vary in nature and timing from, and are less in extent, than for a reasonable assurance engagement. The level of assurance obtained in review is therefore substantially less than the assurance obtained in an audit.

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.

We apply the 'Nadere voorschriften kwaliteitssystemen)' (NVKS, regulations for quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and other relevant legal and regulatory requirements.

We have exercised professional judgement and have maintained professional scepticism throughout the review and audit, in accordance with the Dutch Standard 3810N, ethical requirements and independence requirements.

Limited assurance procedures

Our review included among others:

- Performing an analysis of the external environment and obtaining an understanding of relevant social themes and issues, and the characteristics of the company.
- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures in the sustainability information. This includes the evaluation of the results of the stakeholders' dialogue and the reasonableness of estimates made by the management board.
- Obtaining an understanding of the reporting processes for the sustainability information, including obtaining a general understanding of internal control relevant to our review.
- Identifying areas of the sustainability information with a higher risk of misleading or unbalanced information or material misstatements, whether due to fraud or error. Designing and performing further assurance procedures aimed at determining the plausibility of the sustainability information responsive to this risk analysis. These procedures consisted amongst others of:
  - interviewing relevant staff responsible for the sustainability strategy, policy and results;
  - interviewing relevant staff responsible for providing the information for, carrying out internal control procedures on, and consolidating the data in the sustainability information;
  - obtaining assurance information that the sustainability information reconciles with underlying records of the company;
  - reviewing, on a limited test basis, relevant internal and external documentation;
  - performing an analytical review of the data and trends.
- Evaluating the presentation, structure and content of the Report.
- Considering whether the Report as a whole, including the disclosures, reflects the purpose of the reporting criteria used.

Reasonable assurance procedures

Complementary to the aforementioned 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 internal and external documentation, on a test basis, to determine the reliability of the information in the Report.

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the review and audit and significant findings, including any significant findings in internal control that we identify during our review and audit.

Amsterdam, 15 februari 2021

Deloitte Accountants B.V.

Signed on the original: B.C.J. Dielissen

Opinion of the Alliander stakeholder panel

Dear reader,

For the sixth successive occasion, Alliander has organised a stakeholder panel to review its annual report. We are pleased with Alliander's invitation 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 and society in general. It should be noted that the panel has based its discussion on a draft version of the annual report in which annual figures and several sections of text were left out by necessity.

General impression

Alliander is an organisation that faces a considerable challenge in the energy transition. Looking at the value creation model, the company has a very clear purpose in the social and financial domains. These two facts combined make it extra important that Alliander engage in open and transparent dialogue with society. We see in general that reporting is continuing to move forward and that there is an increasing focus on providing the transparency stakeholders want to see. Transparency is the very air needed for the proper functioning of markets and stakeholders, and it is a fundamental right, especially where this concerns information from an organisation in the public sector. The information in the draft report provides a relevant and fascinating insight into Alliander's activities, results and challenges. The reports on TCFDs and carbon pricing are strong points in the reporting. Some points could stand to be illustrated more clearly though, such as making clear connections between the report and Alliander's mission, vision and strategy. This also applies to topics arising directly from the energy transition, such as going natural gas-free in the construction of new homes and buildings, the use of the natural gas network as a transitional solution, hydrogen and collaboration within the industry and with other infrastructure operators. Other areas where reporting could be improved concern nitrogen, human rights issues in the Netherlands, and issues relating to capacity.

What is also striking is that the report is mostly quite narrative in nature, which is nice enough in itself, this gives colour and feeling; however, on some points there is an imbalance between the quantitative and qualitative dimensions in the sections and data, with concrete results sometimes missing or not being shown in the context of targets or developments. This can all be pulled together better, as can internal consistency, by bringing related sections closer together or improving the internal referencing.

Our recommendations

- **Stakeholder diversity**

In the view of the panel, the stakeholder distribution as identified in the report raises some questions. With a stated ambition to serve society and create value, it is striking that the stakeholder distribution is slanted towards customers/shareholders. In the materiality matrix, we would like to see a reference to satisfied customers and employees (especially with the current pandemic). Furthermore, in the annual report there is no explicit reference to builders, citizens, SMEs and suppliers, and this at a time when these people increasingly function as a small customer or supplier and are running up against the limitations of the energy system. Reading the report, it is not sufficiently clear how the stakeholder groups were chosen nor how they are consulted; to raise the level of transparency this should be explained. Given that the report states that it is based on the GRI Standards, in line with these standards it is important to explain the stakeholder approach. We would also like to draw attention to the matter of 'stakeholder inclusion'. An annual stakeholder panel for the annual report is a fantastic concept, but we would suggest rather that Alliander strive for more permanent, ongoing involvement. That would be a huge step forward.

- **Risk development**

For the company, some risks are particularly high, i.e. capacity for change, completion of the work package, long-term legal and regulatory focus, ensuring a future-proof IT landscape, and financeability. We would like to see more up-to-date insight in these areas in the light of the events of the past year. In addition, we read in the report that, in addition to transition risks, there are transition opportunities. We find that an extremely interesting observation, and one which we would like to see clarified further, given that this is exactly the message that should be passed on to the stakeholders.

- **Additional SDGs**

Alliander has currently selected six SDGs. We suggest that at least three SDGs be added to these: SDG 4 because of the training courses that Alliander offers in collaboration with the industry, SDG 5 because of the company's desire to narrow the income gap between men and women, and SDG 17 as a signal to the market that Alliander is open to working together with industry peers and the government. We also recommend ensuring that a better connection is made between the SDGs and the other information in the report.

Greater emphasis on and insight into role and vision

In the view of the panel, Alliander, like other network operators, plays a crucial role in bringing about the energy transition. The stakeholder panel has noticed that Alliander often takes a reactive position rather than setting the agenda and influencing this. The panel encouraged the company to make a change in this respect last year too. We understand the restrictive effect of laws and regulations in this regard, but still believe that the company is doing itself short. You need to jump into the discussions that are important to your own future.

Alliander's dilemmas

For the first time, the stakeholder panel explicitly considered a number of Alliander's dilemmas. One of them is that the choices that network operators would make from the technical and economic perspective of system integration and optimisation do not always line up with the choices citizens or municipalities would and are free to make. This is an area of tension between the parties. In our view, it could be of great help if Alliander were to get involved in the social debate and exert influence on a number of urgent topics, specifically urbanisation, location, and digitalisation. Currently, the company reviews plans, providing its views on the plans under the RES programme for example, but this is usually after the fact, at which point it is particularly difficult to maintain the carefully built support base. If Alliander were to make itself more visible and present at an earlier stage, this would result in better informed choices being made. This dilemma is not just down to Alliander though, which means the position regarding the solution to the dilemma needs to be clearly defined. Looking ahead in part by using scenarios and anticipating developments helps.

A second dilemma follows on the heels of the first: how do companies with operations in the regulated domain deal with the restrictive effect of laws and regulations? Whereas the energy transition is accelerating, legislation is slow to respond. This applies to the entire infrastructure sector. We recommend joining forces with industry peers: together, you can present a stronger front and arrange that you can work differently in the not too distant future. It is important to prepare now for a future that will be very different, and to explain this effectively, through joint lobbying activities for example. It is to be hoped that the new coalition government will also offer better prospects in this regard.

A final word

Alliander strives for high quality in its reporting. Their reporting has improved over the years, becoming more in keeping with the times. 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,

Aernout van der Bend – managing director at Next Generation Infrastructures
Maarten Biermans – head of Sustainable Capital Markets at Rabobank; adjunct lecturer, Webster University
Teresa Fogelberg – sustainability leader; former deputy chief executive at GRI
Harold Lever – chair of the Ondergrondse Netwerken en Grondwaterbeheer (underground networks and ground-water management) section at Bouwend Nederland
Heleen Keur – local council member for the municipality of Den Helder
Herman Mulder – chair of Impact Economy Foundation; chair of SDG Nederland; chair of True Price Foundation, IIRC ambassador
Dick de Waard – professor of Accountancy, University of Groningen

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 2020 annual report with the panel members. The panel members responded in writing. Their input was discussed at greater length during an online meeting held on 18 December 2020, 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 2020 we reassessed the issues based on desk research, specifically a media analysis, surveys among supply chain partners and peer organisations, and reviewing ESG ratings and sector reports. We also received input from stakeholders during the year. No new issues have been added or removed. The 'Climate change, energy consumption and CO_2' issue emerged as being of greater importance for Alliander in 2020 than previously, while the 'Workplace well-being' issue has become slightly less so and fell just outside the Top 15 issues. 'Promoting renewable energy generation' became 'Facilitating renewable energy generation', and the issue of 'Responsible investment policy' became 'Socially responsible investment policy'. In 2021, we will conduct a more extensive materiality test among stakeholders and reassess the impact of issues.

The results of the dialogues with stakeholders and the materiality test were then discussed with the Management Board. The conclusion was that the issues 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, on several occasions we ran a full assessment to determine materiality. For the 2020 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 of issues is updated every other year 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 revision of the material issues carried out in 2018 was used as the basis for the 2019 and 2020 annual reports.

Relevance to 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 2020. The results of the reappraisal were grouped according to stakeholder group. The result is a summary prioritising the issues having the most relevant impact 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. 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.

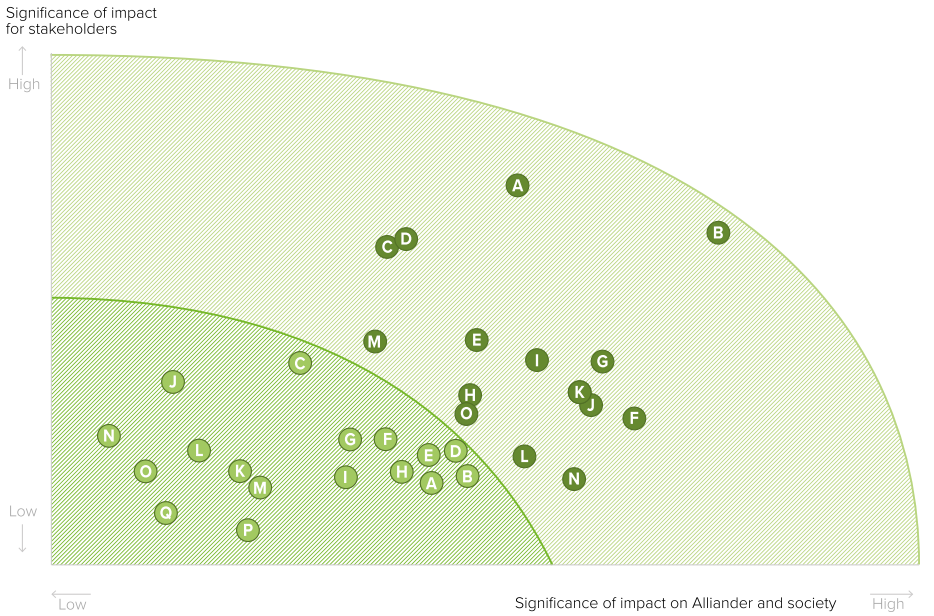
The impact analysis provides insight into opportunities and threats for the organisation, as well as into the level of priority that should be assigned to tackling each specific subject.

Step 2: weighting and comparison with previous years

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.



Other issues A - Q

- A Responsible communication and information (2019)
- B Workplace well-being
- C Regulation and tariffs
- D Direct and indirect economic results
- E Guaranteeing cybersecurity
- F Environmental impact
- G Risk management
- H Diverse and inclusive organisation
- I Strategic partnerships
- J Facilitating energy storage
- K Responsible use of resources and circularity
- L Stakeholder collaboration and input
- M Energy prices
- N Labour capacity
- O Public policy and lobby for suitable legislation and regulations
- P Social cohesion, local initiatives and quality of the living environment
- Q Digitalisation and robotisation

Top 15 issues: A - O

- A Reliability of supply
- B Safe working practices and safe infrastructure
- C Facilitating renewable energy generation
- D Working together on innovative solutions
- E Data-driven network management
- F Talent acquisition and development
- G Customer satisfaction
- H Socially responsible investment policy
- I Organisational capacity for change
- J Future-proof network
- K Corporate social responsibility in the supply chain
- L Corporate governance and business ethics
- M Climate change, energy consumption and carbon emission
- N Data security, privacy, and cybersecurity
- O Access to affordable energy

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 which have an impact on our organisation. 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.

Information & data collection

In the collection of information and data from society, a distinction is made between qualitative information and quantitative data. Descriptive information for the material issues was collected using a questionnaire. For the quantitative data, a 'data request' (standard inventory list), which is part of the regularly scheduled internal data request, was used. Wherever possible, the information is drawn from Alliander's management and information systems. In addition, the company's own sources were used. A system of internal measures, control and auditing assures the quality of routinely collected information; other information collected is reviewed internally for the reporting process.

Material issues

This part of the report elaborates on and shows the connection between the material issues and other elements of the report.

Reliability of supply

Input and correlations relevant to issue

Issue 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 €890 million in our networks to increase their reliability. Our outage duration was 23.2 minutes in 2020. 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.

Link 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 safe infrastructure

Input and correlations relevant to issue

Issue 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 proactive culture where safety comes first. No target (figure) is set for the Lost Time Incident Frequency (LTIF) performance indicator, because the number of accidents leading to sickness absence should be zero.

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 2020, there were 21 lost-time accidents and 30 accidents that did not result in employees having to take time off work, which played a part in Alliander's LTIF decreasing to 1.8.

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.

Link 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 'An attractive, inclusive employer' section

Facilitating renewable energy generation

Input and correlations relevant to issue

Issue 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 them being allowed to take responsibility for the promotion of renewable energy.

Stakeholder expectation
We are seeing a trend where 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 from these. Customers expect us to help them make new energy choices.

Our long-term objective
All municipalities must have their district-by-district plan for the transition from gas to clean energy completed by the end of 2021. In the design of these plans, Alliander is applying its knowledge and experience of existing energy networks to help the municipalities avoid making suboptimum choices and incurring unnecessary costs for society. For locally generated power in our regions, Alliander wants to be able to respond positively to all new applications for a feed-in to the grid.

Contribution from Alliander
Alliander wants to respond actively to the changing energy landscape. In 2020 we worked on innovations, including cable pooling, curtailment and congestion management. We have been looking at smart energy solutions together with customers and partners and gaining experience. Our business activities in the field of heating, for example, 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.

Link with strategy
Accessibility

Risks
Long-term regulatory focus

Stakeholder information
- Support for customers in making choices in ‘Making the energy supply and our organisation sustainable’ section

Working together on innovative solutions

Input and correlations relevant to issue

Issue 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 2020, the amount of solar and wind energy that customers fed into our network increased strongly. We also worked on congestion management through the use of a flex-market in Nijmegen-Noord, with the aim of matching the supply and demand of energy so long as 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 2020: 403,000 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.

Link with strategy
Accessibility

Risks
Long-term regulatory focus, capacity for change

Stakeholder information
- ‘Making the energy supply and our organisation sustainable’ section

Data-driven network management

Input and correlations relevant to issue

Issue 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. We are making medium-voltage stations more intelligent, rolling out a switching system for public lighting, offering smart meters and implementing IT applications and sensors to flexibly manage the flow of energy. Smart networks support the efficient use of capacity and infrastructure, and are also more reliable. Expanding our smart energy networks lays 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.

Link 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 issue

Issue 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 become continuous learning: employees and labour market partners expect Alliander to enable them to stay fit at and for work through courses and training. Alliander 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 316 new technicians. Furthermore, 9 recruits with asylum status received training to carry out installation and maintenance work on the electricity grid. In 2020, Alliander invested 2.4% of its wage bill in employee training (2019: 2.7%).

Relationship with Alliander impact model: human capital
Employee development has a positive impact on human capital as well as on the level of education on the job market.

Link 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 issue

Issue 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. Actively focusing on customer satisfaction is a priority. 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. Customer satisfaction as measured by the Net Effort Score (NES): consumers at least 53%, business at least 32%.

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 53% (consumer market) and 32% (business market). Result for consumers is 54% and business customers 35%.

Relationship with Alliander impact model: Manufactured capital
The sense of well-being and comfort derived from the availability of energy is enhanced further when customers are satisfied. Lower customer satisfaction means less added value for consumers.

Link 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

Socially responsible investment policy

Input and correlations relevant to issue

Issue 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 offers, and they want to see stable financial results. Sustainable value creation is an increasingly important aspect. 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. We want to continuously outperform the sector in terms of costs and operational excellence. We want solid profits that are 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. We maintain our solid A rating profile and have at least a B level for the ESG rating.

Contribution from Alliander
In 2020, we invested a total of €890 million in our networks. We issued a green bond worth €500, our third to date. In doing so, we created sustainable value for our stakeholders and retained our solid A rating. Our ISS ESG rating was set at B-plus, prime in 2020. 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.

Link with strategy
Affordability

Risks
Financeability, long-term regulatory focus

Stakeholder information
Creditworthy company with solid returns, Annual Report, Regional information

Organisational capacity for change

Input and correlations relevant to issue

Issue 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
We work with focus, set priorities, and adapt our organisation to changing needs and circumstances as and when necessary.

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.

Link 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 issue

Issue 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 in good time to meet the Dutch Climate Agreement targets in 2030 and 2050. Planned investments in our networks amount to €883 million.

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.

Link 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 issue

Issue 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 €1.5 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 44% of our procurement volume based on circular principles in 2020. 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

Link with strategy
Reliability, affordability, accessibility

Risks
Capacity for change

Stakeholder information
- Supply chain responsibility in 'Making the energy supply and our organisation sustainable' section.

Corporate governance and business ethics

Input and correlations relevant to issue

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 and, 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. The Supervisory Board provides adequate and effective supervision 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.

Link with strategy

Reliability

Risks

None

Stakeholder information

- Corporate Governance

Climate change, energy consumption and carbon emission

Input and correlations relevant to issue

Issue definition

As a link in the energy supply chain, Alliander is responsible for the energy consumption and related carbon emissions of its networks, buildings and fleet, as well as for promoting efficient, sustainable energy generation and consumption.

Stakeholder expectation

As a result of the changing climate, the sea level is rising and extreme weather events such as storms and longer periods of drought or precipitation are more common. Climate change is a global problem. Stakeholders expect an active climate policy aimed at achieving lower emissions throughout the energy supply chain. In addition to our own and energy network-related emissions, our role in the energy transition contributes to lower emissions through energy consumption.

Our long-term objective

We strive to reduce our carbon emissions: on balance, we want to be climate neutral by 2023.

Contribution from Alliander

Alliander is preparing for situations where business operations may be affected by the consequences of extreme weather conditions. At the same time, we have a large gross carbon footprint. Carbon emissions contribute to climate change, and it is important to strive to reduce these emissions in order to reduce this impact. We implement greening programmes. Alliander is undertaking various activities to reduce carbon emissions, and we are increasingly greening energy consumption and network losses through the purchase of Guarantee of Origin certificates for sustainable energy produced in the Netherlands. Together with the Dutch network operators, we are working on standardising the way we calculate our footprint. As a result, our CO_2-related emissions have continued to decline in recent years.

Relationship with Alliander impact model: human capital

Climate change due to carbon emissions

Link with strategy

Accessibility, affordability

Risks

Insufficient long-term regulatory focus

Stakeholder information

- Making the energy supply and our organisation sustainable
- Appendices Other non-financial information

Data security, privacy, and cybersecurity

Input and correlations relevant to issue

Issue 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 social and economic phenomenon. 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.
In addition to working from home, other factors such as the increased use of employee data, more extensive deployment of contractors and intensification in the distribution of energy data led to a stronger focus on cybersecurity in 2020. In order to gain an even better understanding of the security risks at Alliander, we have reassessed the position of Chief Information Security Officer (CISO). We have also had our security processes certified by an independent external party in accordance with ISO 27001 and the Security Verified standard.

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.

Link 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 issue

Issue 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. 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.

Link 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

TCFD index

TCFD index

Task Force on Climate-related Financial Disclosures/TCFD*

Topic	Section	Paragraph - reference
Governance		
Supervision by the board of climate-related risks and opportunities	Corporate Governance Other information About Alliander	Risk management and control Other non-financial information CSR Alliander's profile: Our strategy
Role of management in assessing and controlling climate-related risks and opportunities	Corporate Governance About Alliander	Risk management and control Report of the Supervisory Board: Topics Profile of Alliander: Trends and developments Materiality test
Strategy		
Description of climate-related risks and opportunities in the short, medium and long term	About Alliander Corporate Governance Achieving sustainability in energy supply and operations	Profile of Alliander: trends and developments Risk Management, Risk section Systematically planning the energy transition Dealing with climate risks and adaptation: TCFD
Description of the impact of climate-related risks and opportunities on the company's operations, strategy, and financial planning	Other information Being a creditworthy company with solid returns	Materiality test How finance and sustainability go hand in hand
Description of the resilience of the company's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	Achieving sustainability in energy supply and operations	Dealing with climate risks and adaptation: TCDF
Risk management		
Description of climate-related risks and opportunities, including how the company identifies and assesses these	Achieving sustainability in energy supply and operations	Systematically planning the energy transition
Description of processes for managing climate-related risks	Other information	Report of the stakeholder panel
Description of how processes for identifying, assessing, and managing climate-related risks are integrated into overall risk management	-	-
Indicators and objectives		
Description of the metrics used to assess climate-related risks	Achieving sustainability in energy supply and operations Value creation Other information	Goals and results Contribute to global goals Interaction with stakeholders
Report Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas emissions and related risks	Achieving sustainability in energy supply and operations Value creation Other information	Sustainable business practices: Targets, Science Based Target, Climate adaptation Key social impacts Other non-financial information

Report on targets for managing climate-related risks, opportunities and performance compared to external goals	Achieving sustainability in energy supply and operations	Sustainable business practices: Targets, Science Based Target, SDGs

* 2017 TCFD Recommendations. The TCFD recommendations are a set of recommendations for voluntary and consistent climate-related financial risk disclosures for companies. The aim is to help identify and provide the information needed by investors, lenders, insurance underwriters and other stakeholders. The recommendations centre on physical, transition and liability risks.

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.

Ensuring a high level of supply reliability at a low cost

Material issues	Indicators	Performance in 2019	Performance in 2020	Objective for 2020	Long-term goal	Contribution to SDG
Reliability of supply	Electricity outage duration in minutes[1]	21.9	23.2	23	Having a high reliability of supply	SDG 7.1
	Gas outage duration in seconds	40	83	None		SDG 7.1
	Number of repeat outages concerning unique cable numbers 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.	SDG 7.1
Innovative solutions	Number of smart meters offered	624,000	403,000	375,000	In 2020, all customers were offered a smart meter.	SDG 9.1
Access to energy	Number of customer connections	5.8 million	5.8 million	None	Customers have access to access to energy on equal terms.	SDG 7.1
Satisfied customers	Customer convenience based on Net Effort Score (NES)	Consumer: 55% Business market: 33%	Consumer: 54% Business market: 35%	Consumer: 53% Business market: 32%	Increase in customer convenience for consumers and business market over the coming years.	SDG 9.1
Data-driven network operator	Number of Smart Cable Guard systems added to the medium-voltage network	456	741	750	Further roll-out of Smart Cable Guard as an advanced short-circuit detector to prevent and shorten outages in the electricity grid.	SDG 9.1

Being a creditworthy company with solid returns

Material issues	Indicators	Performance in 2019	Performance in 2020	Objective for 2020	Long-term goal	Contribution to SDG
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.	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.	SDG 9.1
	FFO/net debt	29.0%	24.10%	At least 20%		SDG 9.1
	Interest cover	13.3	14.2	At least 3.5		SDG 9.1
	Net debt/(net debt + equity)	36.5%	38.7%	Maximum 60%		SDG 9.1
	Solvency ratio	55.6%	53.1%	At least 30%		SDG 9.1

Making the energy supply and our organisation sustainable

Material issues	Indicators	Performance in 2019	Performance in 2020	Objective for 2020	Long-term goal	Contribution to SDG
Facilitating renewable energy generation	Number of feed-in installations at our customers	381,000	494,000	The capacity to connect all new locally generated energy in our areas.	Having the capacity each year to connect all new locally generated energy in our areas.	SDG 7.2 and SDG 11.3
Climate change, energy consumption and CO_2 emissions	CO_2 emissions in kilotonnes	243[2]	205	207	Having climate-neutral operations by 2023.	SDG 7.2, SDG 11.3 and SDG 13.3
Corporate social responsibility in the supply chain	Primary assets procured on a circular basis as percentage of total[1]	30%	44%	40%	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 euros	755	890	805	Having more than €1,000 million to invest annually in the longer term.	SDG 7.1 and SDG 9.1

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

Material issues	Indicators	Performance in 2019	Performance in 2020	Objective for 2020	Long-term goal	Contribution to SDG
Safe working practices and safe infrastructure	Lost Time Injury Frequency (LTIF)[1]	2.1	1.8	None[1]	Safety is key to our operations. We create a proactive safety culture.	SDG 8.8
Data security, privacy, and cybersecurity	Number of identified data breaches reported to Dutch Data Protection Authority	4[3]	6[4]	0	We strive to have no substantiated complaints concerning breaches of customer privacy and/or loss of customer data.	SDG 9.1

An attractive, inclusive employer with equal opportunities for all

Material issues	Indicators	Performance in 2019	Performance in 2020	Objective for 2020	Long-term goal	Contribution to SDG
Safe working practices and safe infrastructure	Number of employees on sick leave due to an accident	25	21	0	Safety is key to our operations. We create a proactive safety culture.	SDG 8.8
Attracting and developing talent	Training costs as percentage of total wage bill	2.7%	2.4%	3%	3%	SDG 8.5
	Number of apprenticeships offered to employees with poor employment prospects[1]	101	108	108	We offer long-term work to people with poor employment prospects who meet the criteria of the Dutch Labour Participation Act. In addition, we offer work experience placements, internships and other learning experiences for a broad target group. We meet the requirements of the Dutch Labour Participation Quota Act by 2024.	SDG 8.5
Organisational capacity for change	Pace of achieving OGSM[5]	None	OGSM starting phase	1Alliander strategy set	We work with focus, set priorities, and adapt our organisation to changing needs and circumstances as and when necessary.	SDG 8.5
Corporate governance and business ethics	Number of employees confronted with measures relating to corruption/fraud	10	4	Employees comply with Alliander's internal Code of Conduct	None	SDG 8.8
	Number of reported cases of undesirable behaviour (including discrimination) by employees	19	33	Employees comply with Alliander's internal Code of Conduct	Employees comply with Alliander's internal Code of Conduct	SDG 8.8
	Women in leadership positions as percentage of all leadership positions	26.9%	29.0%	30.0%	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 The CO_2 emission result for 2019 has been recalculated according to the most recent emission factors.

3 The 2019 figure relates to the "Substantiated complaints concerning breaches of customer privacy and/or loss of customer data" indicator. In 2020, the indicators relating to data leaks were changed. Three of the four data breaches reported to the Dutch Data Protection Authority were situations where the network operators had joint responsibility, given that the breaches concerned centralised processing.

4 All the data breaches reported to the Dutch Data Protection Authority were situations where the network operators had joint responsibility, given that the breaches concerned centralised processing.

5 OGSM: Objectives, Goals, Strategies, Measures. Coherent management model for systematically managing based on achievement of the organisation's strategic objectives. All organisational units are working on this.

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 activities 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 relating to stakeholder management are assigned, specifically to business units and staff who then maintain the relevant relationships. The Corporate & Social Affairs department coordinates 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:

- Core stakeholders: customers, employees, shareholders and investors, and local and regional authorities in our service area.
- 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. A draft version of our annual report is shared and discussed with a panel of external stakeholder and transparency experts; the feedback on the draft 2020 Annual Report has been shared directly with the Management Board.

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. 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	Material issues
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, Facilitating renewable energy generation, Working together on innovative solutions, Satisfied customers, Future-proof network, Data security, privacy and cybersecurity, Access to affordable energy, Climate change, energy consumption and CO_2 emissions
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, Facilitating renewable energy generation, Working together on innovative solutions, Satisfied customers, Future-proof network, Data security, privacy and cybersecurity, Access to affordable energy, Climate change, energy consumption and CO_2 emissions
Employees	Employee participation Young people's network Tension Lianne women's network Pride GBLT network *Wij zijn Nexus* cultural network Staff association Foundation Trade unions	Participation, dialogue, employee engagement and initiatives, formal negotiations (on pay and employment conditions)	Formal consultations Dialogue, workshops, meetings Employee association Employee volunteering Periodic negotiations on pay and employment conditions	Safe working practices and safe infrastructure, Attracting and developing talent, Company's adaptability
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
Local and regional authorities	Provinces, Municipalities, Local and regional authorities, Umbrella organisations (VNG, IPO) and the National Programme on Regional Energy Strategies	Coordination of climate and energy plans and projects	Consultation, collaboration, projects	Promoting renewable energy generation, Working together on innovative solutions, Future-proof network, Access to affordable energy, Climate change, energy consumption and CO_2 emissions
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, Climate change, energy consumption and CO_2 emissions

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, Climate change, energy consumption and CO_2 emissions
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 cybersecurity
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 safe 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 cybersecurity, Access to affordable energy, Climate change, energy consumption and CO_2 emissions
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, Climate change, energy consumption and CO_2 emissions
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	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, Climate change, energy consumption and CO_2 emissions
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, Facilitating sustainable energy supply	Administrative participation, meetings, sponsoring, strategic collaboration, consultation and dialogue	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 cybersecurity, Access to affordable energy, Climate change, energy consumption and CO_2 emissions

Alliander endorses	In 2020, we participated in the following Dutch social initiatives
• ILO Conventions • OECD guidelines	• Sector-wide employment arrangement • Climate Agreement and Regional Energy Strategies • Circular Procurement Green Deal • Womens Inc. incubators, *Talent naar de Top* charter, *Diversiteit in Bedrijf* charter • Sustainable Development Goals (SDGs) and LGBTi manifest • Collective labour agreement for network companies • Carbon pricing agreement between 5 network operators • Resource passport agreement between 8 infrastructure operators

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. In 2020, the Regional Energy Strategy (RES) programme was an example of such collaboration. In the RES, regional authorities work out regional choices together with Alliander, social partners, the business community and, where possible, local residents. The first draft versions of the RES were delivered last year.

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. With agility and effectiveness in mind, we developed plans last year for a new and flatter organisational structure that will let us make decisions faster. In the new organisation, which came into effect on 1 January 2021, we will be able to work more productively at a faster pace and devise and implement innovative solutions more quickly. In addition, the way in which we organise ourselves helps us focus on our strategy and generic working methods ensure faster and more effective task completion.

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

- Retention of engineering capacity
- Organisational agility[1]

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
- Organisational change

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 dynamic context of the energy transition
- Short term: timely changes to regulations to facilitate the energy transition, especially for solar fields

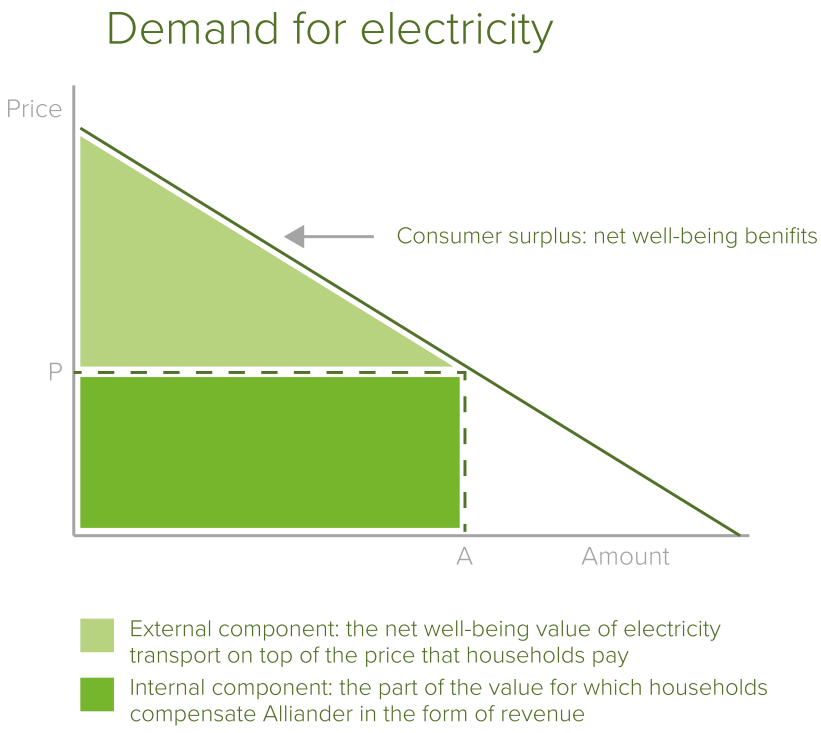
1 We expect that, thanks to the 1Alliander organisational change, organisational agility will eventually no longer be a weakness at Alliander.

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 & 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 the other capitals.
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 2020 is also applied for the 2019 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.



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 CO2 emissions from the quantities of electricity, gas and heat transported through its network. The impact includes the measurement of the CO2 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 CO2-eq are estimated on the basis of a study of the U.S. Inter-Agency Working Group of the EPA (2013). In our opinion, this study is relevant because most of the impacts of climate change will occur in the future. EPA's advice – which we are following – is for the CO2 price to be increased gradually. This means that the valuation of the damage per ton of CO2 has increased by almost 22% compared with 2019. This value has been converted from the data source into the correct currency and adjusted according to the Dutch inflation rate.
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: 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 effects of having work have not been calculated this year because the employee satisfaction study upon which it is based has not taken place. For more information on this subject, please consult the section on our employees.

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.

Social capital

The reputational value is calculated on the basis of the brand value method. This method has been established for commercial utilities. On the basis of data for European organisations in the top 10 utilities, Alliander's value is estimated with a correction factor. The number of European utilities in the top 10 varies from year to year. 2019: 7; 2020 5.

For this year, we are assuming that the reputation ratio between Alliander and its peers has remained the same. To do this, we are using a projection of the results from previous years. The difference between the respective impacts in 2019 and 2020 is caused by sector change, as reflected in the brand value method.

Intellectual capital

The value of data collection for market facilitation is calculated on the basis of practical value. We are assuming here that downloading and opening data has and creates a direct net positive value.

The share of data that is used is less than that which is consulted. A factor is used to calculate it.

Comparative figures for impacts from 2020 and 2019

As in 2019, the attribution values in 2020 were determined on the basis of the share of the added value of Alliander in the Dutch energy chain. For comparison purposes the 2019 impacts have been restated using the 2020 attribution values.

Until now, the definitions of transmitted energy and distributed energy have been the same. However, we transmit more electricity and gas over our networks than we distribute directly to our customers. This difference is due to energy sent over the border to other network operators, network losses, etc. For this reason, the transmitted volumes and distributed volumes are now calculated separately. Because distributed energy is data to be fed into the impact model, as a result of this change in definition there is a break in the trend for the value of gas and electricity transmission under manufactured capital and for the climate change indicator for natural capital, meaning a direct comparison of these figures with those from previous years is not possible.

Financial capital

€ million	2020	2019
Payments to suppliers	-1,420	-1,218
Dividends, repayments and interest	-300	-583
Payments to employees	-646	-616
Tax	-200	-199
Increase in cash reserves	145	13
Contributions from third parties	174	124
Other revenue	45	40
Costs to customers (business)	519	528
Raised capital, received repayments and interest	557	606
Costs to customers (residential)	1,416	1,332

Manufactured capital

€ million	2020	2019
Value of goods purchased for electricity transmission	-1,505	-1,687
Contribution of electricity transmission to consumer well-being	2,234	2,502
Contribution of solar energy feed-in to well-being	15	11
Value of goods purchased for gas transmission	-1,097	-1,190
Contribution of gas transmission to consumer well-being	2,158	2,342
Value of goods purchased by business customers	-332	-349
Value of energy transmission - business customers	512	536
Contribution of heating transmission to consumer well-being	0.3	0.4

Intellectual capital

€ million	2020	2019
Value of data collection for market facilitation	4	6

Natural capital

€ million	2020	2019
Environmental damage due to waste	-0.2	-0.2
Environmental damage through procurement of materials	-26	-16
Climate change due to CO_2 emissions	-261	-237

Social capital

€ million	2020	2019
Value of reputation change for Alliander	14	28

Human capital

€ million	2020	2019
Work-related sickness absence and accidents of employees (safety)	-1	-1
Well-being effects of having work	-	93

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	2020	2019	2018	2017	2016
Result					
Revenue	2,009	1,930	1,920	1,697	1,584
Total income	2,055	1,970	2,068	1,840	1,723
Total operating expenses	-1,736	-1,591	-1,572	-1,535	-1,516
Operating profit	319	379	496	305	207
Profit after tax	224	253	334	203	282
Balance sheet					
Net working capital	-117	-91	-117	-87	-145
Property, plant and equipment	7,958	7,476	7,072	6,793	6,529
Total assets	9,422	8,791	8,345	8,069	7,735
Equity	4,328	4,224	4,129	3,942	3,864
Total interest-bearing debt	2,487	2,062	1,796	1,784	1,564
Total financing	6,815	6,286	5,925	5,726	5,428
Capital expenditure on non-current assets	950	837	732	652	685
Cash flows					
Cash flow from operating activities	634	638	638	454	376
Cash flow from investing activities	-775	-713	-496	-549	-232
Cash flow from financing activities	286	88	-103	148	-185
Free cash flow	-141	-75	143	-95	144
Ratios					
Non-current interest-bearing debt as % of total interest-bearing debt	100%	86%	82%	87%	95%
FFO/Net debt	24.1%	29.0%	32.2%	27.4%	26.6%
Interest cover	14.2	13.3	12.9	10.2	8.3
Equity as % of total assets less deferred income (solvency)	53.1%	55.6%	57.3%	56.7%	58.5%
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	114	150	92	104
Other					
- Electricity					
Active connections as at 31 December (x 1,000)	3,236	3,207	3,169	3,135	3,109
New connections (x 1,000)	39	42	40	36	37
Cables laid (km)	1,563	1,115	899	834	859
- Gas					
Active connections as at 31 December (x 1,000)	2,542	2,543	2,533	2,520	2,510
New connections (x 1,000)	9	16	20	20	21
Mains laid (km)	22	66	141	132	151
- Volumes transported					
Electricity (GWh)	28,946	28,548	29,858	29,960	29,990
Gas (million m3)	5,632	5,860	6,090	6,228	6,367
Percentage grid losse[s]1	4.40%	4.52%	4.37%	4.66%	4.82%
- Other					
Number of disconnections (consumer and business market)	3,756	4,038	3,958	4,805	7,468
Facilitated supplier switches (x 1,000)	1,128	851	968	903	973
Annual electricity outage Liander (minutes)	23.2	21.9	30.6	20.9	23.3
Average number of permanent staff (fte)	**5,786**	**5,686**	**5,712**	**5,719**	**5,621**

1 An estimate has been made for the last two years.

Definitions and abbreviations

ACM
ACM is the Dutch initialism for the Netherlands Authority for Consumers & Markets, the regulator charged with the supervision of competition, industry-specific market surveillance, and consumer protection. As part of its remit, ACM oversees compliance with the Electricity Act 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 energy 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.

Congestion management
Congestion management is the system used at times when the electricity grid has insufficient capacity for customers who consume or feed in electricity. This system ensures that the available transmission capacity is spread as fairly and efficiently as possible. In an area where a shortage of capacity is imminent, parties participating in the system are asked to consume less power or to return more power to the grid for a fee. These measures can prevent the impending shortfall from occurring.

Corporate Governance
The Dutch Corporate Governance Code contains principles and best-practice provisions governing the relationship between the Management 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.

Curtailment
During peak periods in electricity feed-in, the network operator reduces or restricts energy delivery from generators of green electricity to the grid, creating more space on the grid so that more generators of green electricity can be connected. This way the grid is used more efficiently.

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.

Investment plan
As of 2020, network operators will publish an investment plan every two years. This plan describes all necessary expansion and replacement investments over a 10-year period and provides the reasons for these investments. The basis for the investment plan is Article 21 of the Electricity Act and Article 7a of the Gas Act.

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. These targets stem from the climate agreements made by the international community in 2015 in the Paris Agreement and are set out officially in the Climate Act in the Netherlands. The climate agreement is therefore not a law itself, but gives substance to the objectives of the Dutch Climate Act.

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. The first RES was delivered in 2021. This is not a finished product: every two years, the RES regions will update their plans based on new information.

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 the cable network (Power Line Communication) or via GPRS.

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.

System analysis
A system analysis provides an integrated picture of future energy development and the impact on the required energy infrastructure for all energy modalities (for electricity or gas for example) and the cross connections.

Transparency
The extent to which things can be clearly seen through something – specifically the provision of a clear view of a company's activities.

Transmission restrictions
Due to the rapidly growing demand for electricity and the increase in feed-in, in more and more places the electricity grid has reached its full capacity. In these areas, when generators of green electricity and large companies that consume large volumes of electricity request more capacity on the power grid, they are subject to transmission restrictions. This means they are placed on a waiting list and can only access the extra capacity once there is again sufficient capacity on the grid. This additional capacity is created when the network operator expands the grid or can deploy a smart solution.

Phasing-out of gas
The gradual discontinuation of a mains gas supply and use of 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.

Free 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 its energy consumption, the year in which the targets for CO_2-related emissions were formulated. In 2012, emissions totalled 761 kilotonnes CO_2-eq without a greening policy. The gross emissions in 2020 totalled 408 kilotonnes CO_2-eq (-46% compared to 2012); including greening, net emissions amount to 205 kilotonnes CO_2-eq.
At least 10% of our own electricity consumption is fed by renewable electricity we have generated ourselves, and surplus is fed back into the grid. The entire remaining consumption of electricity for buildings will be greened/compensated by Guarantees of Origin for wind energy produced in the Netherlands. The Duiven and Arnhem Bellevue offices are almost energy-neutral (at least an A label). For 10% to 50% of the user surface, sustainable heat is used for space heating using thermal energy storage. All Alliander offices will meet the A, B or C label criteria by 2023 at the latest.

	2020	2019	2018
Energy consumption of buildings			
Gas consumption	920,301m^3	920,703m^3	1,386,649m^3 [1]
Electricity consumption	8,095,728 kWh	9,345,740 kWh	9,779,593 kWh
Fuel consumption of vehicle fleet			
Petrol	1,103,185 litres	1,549,087 litres	1,360,318 litres
Diesel	3,102,545 litres	3,946,833 litres	4,392,424 litres
LPG	4,960 litres	10,163 litres	10,186 litres
Electricity[2]	358,201 kWh	0 kWh	0 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 in 2018 and 2019 is accounted for in the figures for our buildings.

	2020	2019	2018	Conversion factor
Energy consumption of buildings				
Gas and heat consumption	32,367GJ	32,384GJ	48,768GJ	35.17 official calorific value of Slochteren natural gas
Electricity consumption	29,145GJ	33,645GJ	35,207GJ	conversion factor 3.6, SI unit conversion factor
Total energy usage in buildings	**61,512GJ**	**66,029GJ**	**83,975GJ**	
Energy consumption for transport & mobility				Conversion factor
Petrol	35,743GJ	50,190GJ	44,074GJ	conversion factor 32.4
Diesel	111,071GJ	141,297GJ	157,249GJ	conversion factor 35.8
LPG	129GJ	264GJ	265GJ	conversion factor 26
Electricity	1,290GJ	0GJ	0GJ	conversion factor 3.6
Total energy usage for transport & mobility	**148,233GJ**	**191,751GJ**	**201,588GJ**	
Total energy usage	**209,775GJ**	**257,780GJ**	**285,563GJ**	

CO_2-emissions and carbon footprint

For the purposes of the 'Making the energy supply and our organisation sustainable' section, a uniform emissions standard has been used. This differs from the Greenhouse Gas (GHG) Protocol. The figures expressed in CO_2 equivalents in accordance with the GHG Protocol are presented in the following table.

tonnes	2020	2019
Scope 1		
Gas usage in buildings	1,734	1,735
Natural gas network leakage loss	130,334	47,708
Lease & company cars:	13,237	17,011
SF_6 emissions:	2,488	1,828
Total gas consumption of buildings	**147,793**	**68,282**
Scope 2		
Electricity in buildings	4,192	4,859
Network losses on electricity, technical	175,487	257,845
Network losses on electricity, administrative	78,701	115,637
Total electricity consumption of buildings	**258,380**	**378,341**
Scope 3		
Commuting, business travel, air transport	1,719	3,958
Total for transport & mobility	**1,719**	**3,958**
Total footprint	**407,892**	**450,581**
Carbon offset	**-202,691**	**-207,696**
Total, including carbon offset	**205,201**	**242,885**

1 The CO_2 emission result for 2019 has been recalculated according to the most recent emission factors.

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 2020 annual report, the 2019 electricity labels have been used. This gives a figure for the CO_2 coefficient of 0.20218kg CO_2/kWh. This includes an adjustment of 2% for tank-to-wheel. More than 62% of the carbon footprint is attributable to network losses in the electricity infrastructure. From 2020, network operators will be obliged to purchase the natural gas leakage loss over a larger part of the chain. This means that these losses will represent a higher portion of the carbon footprint. This brings the share of leakage losses in the gross footprint to 32% (2019: 11%). The gas leakage loss is based on the number of kilometres of pipeline in Alliander's gas network. Cast-iron gas mains have higher leakage losses (323m^3/km/a), which is considerably higher than the mains using PE pipe (55.3m^3/km/a). The CO_2 equivalent is calculated using a factor of 25 (methane).

		2020	2019	2018	2017	2016
Net CO_2-eq emissions	kt	205	243	288	416	712
Net revenue	€ million	2,009	1,930	1,920	1,697	1,584
Net CO_2-eq emissions/net revenue	tonne/€ million	102	126	150	245	449

Our carbon footprint per million euros in revenue has been greatly reduced in recent years through targeted measures.

Transport

The greatest impact Alliander has relates to the activity of distributing energy to end users. This accounts for the following volumes:

	2020	2019	2018
Electricity transmission	29,723 kWh	28,548 kWh	29,858 kWh
Gas transmission	5,600 million m^3	5,860 million m^3	6,090 million m^3

The calculated network losses are the end result of the allocation and reconciliation process, in which the difference is calculated for all volumes entering the Liander network less all volumes taken up by end users. The main causes of network losses are losses that occur during transmission (through resistance or other factors), customers who consume electricity without a contract, and improper use or theft of electricity from the grid. The total grid losses are finalised using a 'reconciliation' process. Meter readings are often estimated and only read at a later time, meaning there is delay in settlement and allocation and it takes a few years for data to be finalised.

For the energy intensity ratio, Alliander divides its own energy usage in gigajoules (GJ) by its net revenue. This ratio takes into account the gas and electricity consumption of buildings and the fuel consumption of the vehicle fleet. The development of the ratio over a series of years shows the decrease in Alliander's own energy usage per million euros of net revenue. In 2020 we see an additional decrease in energy usage due to the much lower occupancy of our buildings.

	2020	2019	2018
Energy intensity ratio	109GJ/€ million (209,775/2,009)	133.6GJ/€ million (257,780/1,930)	148.2GJ/€ million (285,563/1,920)

* 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 2020 was 55 million m^3, a 32% increase compared with 2019. This involved connections to 20 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 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 surveys, 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 2020 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 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: under construction in Zaltbommel.

There is a lot happening in Neerijnen and Bommelerwaard, two of the regions in the province of Gelderland. New large business customers are establishing themselves and horticulturists are expanding their companies or managing them in a more sustainable manner. Extra capacity is required to be able to supply extra power, establish sustainable generation and facilitate the use of electric vehicles. This is why Liander is constructing, among other things, a new substation close to Zaltbommel.

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This report is a translation of the Dutch annual report 2020 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 2020 will prevail.

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