Annual report 2021

In transition

alliander

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This document is the PDF/printed version of Alliander N.V.'s 2021 annual report in the European Single Electronic Format (ESEF) and has been prepared with ease of use in mind. The ESEF reporting package is available on Alliander's website. In the event of any discrepancies between this pdf version and the ESEF reporting package, the latter takes precedence.

Our story about 2021

In transition

Foreword by the Management Board

For Alliander, 2021 was a year of transition. We have worked hard to uprate and expand our networks. Our focus now lies on accelerating our pace. We are simplifying, optimising and digitalising our work to further increase productivity. These are basic prerequisites for creating the energy network of the future.

At the same time, maintaining a dependable supply of electricity and gas to our customers remains extremely important. Every day, our employees channel their efforts into preventing and resolving malfunctions. And they have been successful: there were fewer outages in 2021 than in the previous year. Safety is a top priority for us in this regard. Our motto - 'everyone safely home' - applies to every single colleague, customer, supply chain partner and local resident. The fact that all operational units (Qirion, Maintenance & Outages, Private Customers and Business Customers, Reconstruction & Energy Networks) have achieved rung 3 on the Safety Ladder is proof of our commitment to this. Even so, we were unable to prevent 69 accidents. We are making progress, but are not yet where we want to be.

Our task becomes more complex every year

One of the targets set in the Climate Agreement is that the Netherlands must emit 49% less CO_2 by 2030 than we did in 1990. The European 'Fit for 55' programme has further tightened this target to 55% and the new Dutch government, which has ambitious plans in the area of climate and energy, has committed to 60% less CO_2. These objectives are incorporated in Regional Energy Strategies (RES), Cluster Energy Strategies (CES, industry), the Transition Visions for Heating, the Transition Vision for the National Charging Infrastructure (NAL), and other programmes. These new plans and developments are significantly increasing our work package, to a much greater degree than we predicted in 2020.

The need for a substantial expansion of our energy network became very apparent this year; bottlenecks in the electricity grid arose in more and more places in the Netherlands. The demand for electricity is soaring as a result of economic growth, further digitalisation in society, the transition to electric mobility, the construction of homes that do not use natural gas and initiatives to make the energy supply more sustainable. Specifically in industry, the data centre sector, residential construction and mobility, we see that demand is not only growing rapidly, this development is also happening much earlier than we expected based on our discussions with those sectors.

As a result of this increasing demand, the electricity grid in our service area is close to maximum capacity in many places. This is noticeable for consumers, who are unable to feed their solar power back into the grid on some days. Entrepreneurs with plans to move into premises in a business park, and renewable energy producers that want to build large-scale solar roofs or solar farms in fields, also face transmission restrictions in some cases. We find this deeply regrettable. After all, we stand for an energy supply system where everyone has access to reliable, affordable and sustainable energy on equal terms. We want businesses and consumers that apply for a connection to our network to get the capacity and energy they need. We are seeing that is by no means self-evident at the present time.

We are investing more in the energy network

To make this possible, we are working hard to expand and uprate our grids and deploying smart solutions to make full use of the existing infrastructure. In 2021, we successfully processed a significantly larger work package. We achieved over 47,000 new customer connections and nearly 125,000 feed-in connections.

We invested €1,014 million in 2021, mostly in the energy network. That amount has never been so high. In the coming years, much more money will be needed for a future-proof energy network. With this in mind, we and our shareholders looked last year at ways of strengthening our equity in the short term, to ensure that we can continue to borrow money on the capital market on favourable terms. This resulted in our shareholders providing a €600 million convertible loan. In addition to this contribution, more steps are required to find a long-term solution to our financing needs. For example, exploratory talks are ongoing between network operators, the shareholders and the Dutch national government about whether and how central government can help regional network companies access the capital they need.

We are also critically examining our own costs and expenditure. In 2018, we started to make structural cost savings. By 2021, these savings had already reached €160 million on an annual basis. The Authority for Consumers and Markets (ACM) monitors our tariffs and makes sure the rates we charge our customers are reasonable. It also requires us to operate efficiently. That process includes a review of the costs incurred by all regional network operators. The average of all those costs is taken as a benchmark. Liander was above the benchmark in recent years. But we are now at the benchmark thanks to the cost-saving programme and other measures. This is a good result that we have achieved with all our colleagues, and it means that we can invest more money in our networks.

We work proactively to accelerate progress

Our social mission is clear: our production must increase sharply in the period up to 2025 in order to meet the increasing level of demand. We are working extremely hard to achieve this every day. This challenge requires us to think bigger and deliver faster. We need to approach our work differently. Not only is the energy system in transition; we are too. To accelerate progress, we are adapting our organisation with the aim of becoming more agile, responsive and cost-efficient. We have continued our commitment to leadership development and we work together in a smarter manner. To further increase productivity, we have strengthened our strategy for delivering more work. Elements of that approach include making even better use of the capacity available in the market, by outsourcing large work packages and bringing tender processes to completion more quickly. Modular construction also has a role to play here, as it allows us to build power stations more quickly. In addition, we are working on the digitalisation of our current grid so that we can use it more efficiently.

We need far more technical colleagues in order to cope with all the work for our customers. In 2021, we welcomed 469 new technical employees. Here again, a change in thinking was required because of the COVID-19 pandemic and associated restrictions. To get more people interested in a job in engineering, we started online webinars for people thinking about working as an electrical engineer, including a virtual tour of a mechanic's van. We won the Werf& Award for recruitment with this innovative approach. The panel of judges praised Alliander for its rapid adaptation to new circumstances.

We want strong partnerships

We cannot accomplish the task at hand on our own. The number of links in the process, complicated and lengthy permit procedures, the scarcity of physical space for our purposes and the extreme shortage of technicians and materials in the Netherlands all result in long lead times. More direction is needed from the government, for example on spatial planning choices and reserving areas in public spaces. Turnaround times for procedures also need to be much shorter. It currently takes an average of seven years to build a transformer station. During that time, new residential districts, businesses, supermarkets or primary schools in areas with insufficient capacity may not be able to obtain a connection, or expand an existing connection. To really make progress, new legislation is essential and a breakthrough is needed in addressing the chronic huge shortage of technical staff. We will continue to partner with government bodies and other sectors in efforts to tackle these challenges in a fundamentally different way.

We are shaping a sustainable future

We are proud and privileged to work every day on making the energy supply more sustainable. Therein lies our greatest social impact. We do this within the context of an organisation that is and will remain transparent in terms of its broad impact on society. And we continue to pursue our goal of operating as a climate-neutral, circular and inclusive organisation.

We deliver results together

Every day, thousands of Alliander colleagues and our contractors work on the energy network of today and the future. As in 2020, the global COVID-19 pandemic in 2021 required us to be flexible in our work and private lives. We have developed an effective way of collaborating online. At the same time, we see that face-to-face contact remains crucial in ensuring cohesion within teams. We have embraced hybrid working to combine the best of both worlds. We work online wherever we can and team up in person when necessary. The work itself and social bonding are the determining factors here. As for our employees out in the field; they carry out their work as safely and professionally as possible, supported by the industry-wide 'Samen Veilig Doorwerken' (Carry on working together safely) protocol.

In a year full of challenges and changes, we could always count on the professionalism, energy and enormous commitment of our colleagues. Together, we make sure that the lights stay on, that homes are heated and that businesses can carry on operating. We are proud of those achievements and warmly thank all our colleagues for their efforts.

Alliander Management Board, 21 February 2022

Left to right: Maarten Otto (CEO), Walter Bien (CFO), Marlies Visser (COO), Daan Schut (CTO)

About this report

About this report

This Alliander annual report looks back on our activities and results in 2021. The primary themes for our integrated report are our value to society, the dialogue with our stakeholders on material issues, and transparency. The annual report was published on 24 February 2022.

Creating long-term value as the basis

Our value creation model provides the backbone for this annual report. It shows how we use and protect our assets and what that brings to society. 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 and the value we create in the long term:

1. Ensuring a high level of supply reliability for a low cost
2. Being a credit-worthy company with solid returns
3. Making the energy supply and our 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

In the third section, we report on the effects of our activities on society and explain our contribution to the United Nations Sustainable Development Goals (SDGs). We also explain our corporate governance structure in this section.

Stakeholder dialogue

By maintaining an ongoing dialogue with our stakeholders, we stay informed about trends in society, the expectations regarding Alliander, and how we can work in unison to achieve a timely and successful energy transition at an affordable cost to society. Like last year, a stakeholder panel read the report at an early stage in its preparation. The members shared their findings with us on 20 December 2021.

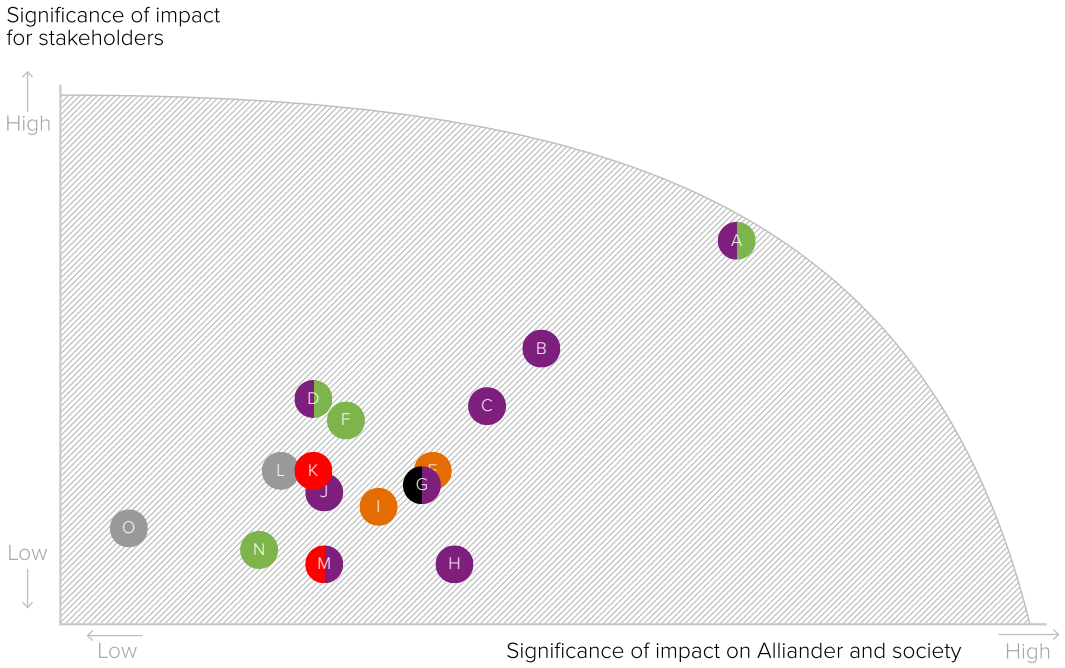
Material issues

We ask our stakeholders to tell us what topics they would like to see included in this report. In 2021, we reappraised and updated our materiality test. The key issue of the 'Work package completion' and the issue of 'Collaboration and dialogue with stakeholders' were added as a result. The 'Future-proof network' issue added in 2020 became part of the 'Facilitating the energy transition' and 'Work package completion' issues.

In 2021, we also saw developments in how material issues affect Alliander and its stakeholders. For example, 'Access to energy' is increasingly relevant to them. Developments in the energy market and changes driven by the energy transition are impacting this accessibility. The issue of 'Climate change, energy usage and CO_2' has also been assigned a higher priority. This issue has a high impact due to supply chain effects, and turns out to affect stakeholders more strongly. The issue of 'Socially responsible investment policy' dropped out of the top 15.

The ranking of the issues indicates the extent to which they have become a subject of interest and therefore also guides the priorities for Alliander from 2021 onwards. For an explanation of the changes, the method used and the results of the reappraisal, please refer to the Materiality Test.

Materiality chart



The value we create in the long term

- Ensuring a high level of supply reliability at 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
- Long-term impact on all values

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

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)
- Dutch Corporate Governance Code 2016
- GRI Standards reporting guidelines ('Comprehensive' option), Supplement. The online annual report includes the GRI Content Index.
- EU Directive on disclosure of non-financial information and diversity
- EU Taxonomy Regulation and the associated secondary legislation
- International Integrated Reporting Council (IIRC)
- TCFD (Taskforce on Climate-related Financial Disclosures)
- Relevant provisions in the Dutch Civil Code

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. Financial information is subject to full consolidation regardless of materiality. In the social information section, the data relating to Alliander and its main subsidiaries 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 activities when they are considered to be of material importance. 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 Dutch Corporate Governance Code 2016, and the United Nation's global sustainable development goals (SDGs). Our annual report for 2020 earned us a place among the top three in the Transparency Benchmark ranking published by the Ministry of Economic Affairs and Climate Policy.

Invitation to stakeholders and readers

Alliander is keen to discuss the energy transition and the transfer to a new energy system with its stakeholders. 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.

Profile of Alliander

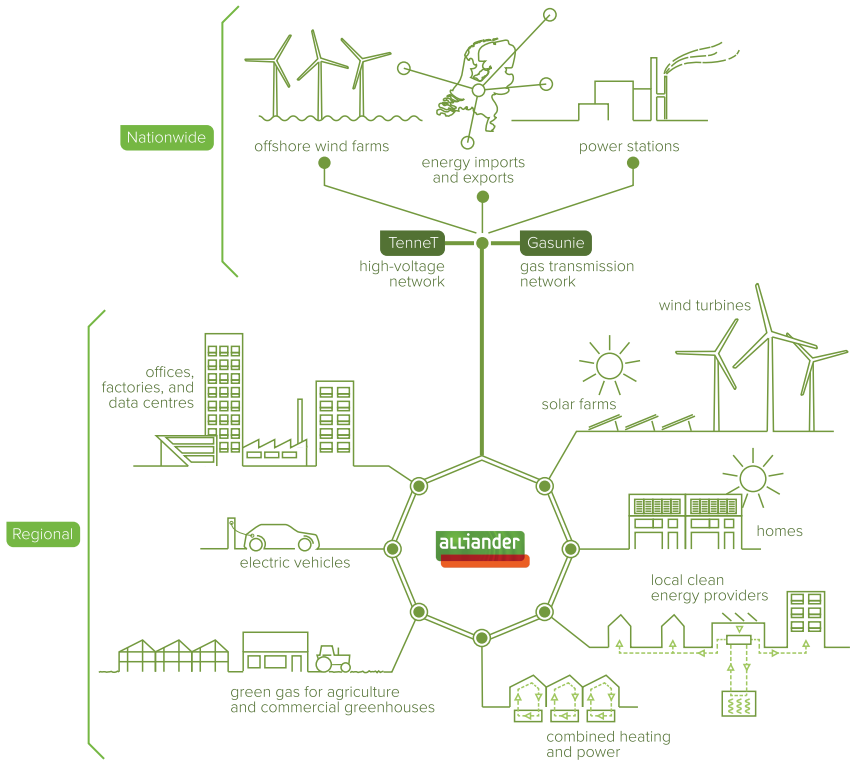
Profile of Alliander

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?

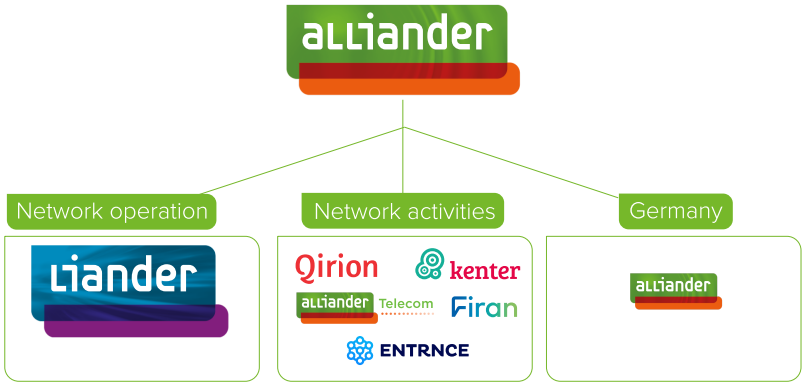
Alliander N.V. is a network company comprising a group of companies that employ some 7,300 people (7,200 FTEs) in all, including agency workers. Alliander N.V.'s shares are held by Dutch provincial authorities and municipalities. Alliander stands for high-quality expertise in the energy network field. 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. Sustainability plays a key role in the choices we make.

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 call 24/7 to deal with outages. The energy we distribute comes from power stations, wind farms, solar farms and imports through the national electricity and gas networks. More and more consumers and companies are now feeding the sustainable energy they produce with their own systems back into our energy networks. As a result, energy supply and demand have become interwoven, influencing one another. 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, we not only ensure correct data exchange with suppliers and other parties in today's energy market, we also work with the government at the local and regional levels to address heating transition challenges. As an advisory party, we give municipalities, provincial authorities and businesses the kind of insights that help them develop the energy supply. We show them what the energy network can handle and the social costs associated with specific choices. 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. The business units in our network company facilitate markets by providing products and services that help create a future-proof energy network. We build and maintain the infrastructure, and we help match energy supply and demand. We track who produces or consumes energy: when, where, and how much.



How we are organised



Liander

It is Liander's statutory duty to maintain a reliable, affordable and accessible energy supply in our service area. 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 focuses on the high-voltage domain and increasingly supports the development of new networks. Qirion is a specialist in power grids and the go-to knowledge centre for complex energy issues. Qirion designs, builds and maintains energy 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.

ENTRNCE

With ENTRNCE, Alliander offers market facilitation for current and future decentralised energy markets. Energy communities, generators, active producer-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.

Network management in Germany

As a small-scale service provider operating in Germany, Alliander AG manages several small electricity and gas networks. Late in 2021, it was announced that Alliander AG's traffic control system activities would be transferred to Grün Berlin GmbH at the end of 2022.

Other activities

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

2021 in figures

Number of customer connections

5.8 million

5.8 million in 2020

Lost Time Injury Frequency (LTIF)

2.6

1.8 in 2020

Number of employees

5,991 FTEs

5,881 FTEs in 2020

Electricity outage duration

20.9 minutes

23.2 minutes in 2020

Gas outage duration

44 seconds

83 seconds in 2020

Net CO_2 emissions

115 kilotons

176 kilotons in 2020[1]

Net revenue

2.1 € billion

€2.0 billion in 2020

Investments in property, plant and equipment

1,014 € million

€890 million in 2020

Total assets

10.2 € billion

€9.4 billion in 2020

Profit

242 € million

€224 million in 2020

1 The net CO_2 emissions figure for 2020 has been recalculated using the most recent emission factors (2020).

Liander's service area

Electricity grid length

93,000 km

92,000 km in 2020

Gas grid length

42,000 km

42,000 km in 2020

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 93,000 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. We also 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 the key trends and developments taking place around us and how we are responding.

Trend 1: Climate targets have been tightened

The targets for CO_2 reduction have been tightened further in the government's new coalition agreement. The Dutch government has followed the European Commission's guidance by aiming for a 55% reduction in CO_2 emissions by 2030, with a package of measures that actually adds up to 60%. This package demonstrates the government's intention of complying with, and preferably surpassing, the European 'Fit For 55' ambition. In addition, in November 2021 agreements were made at the Glasgow Climate Summit to limit global warming.

The national Climate Agreement states that additional demand for electricity will be met by phasing in extra generation capacity. This means that additional onshore generation may be needed compared with the 35 TWh identified in the Regional Energy Strategies. On the other hand, the government is releasing €35 billion for a fund for new energy infrastructures (CCS, hydrogen, district heating and electricity networks that, based on current expectations, will be mainly high-voltage).

Trend 2: The demand for electricity is soaring

The energy transition has gained pace in recent years. This applies not only to sustainable energy generation, but also to the level of dependence on electricity. The demand for electricity is soaring. This trend is visible in Amsterdam, for example. At our Hemweg power station, which supplies electricity to much of the city, large-scale consumers requested four times more power last year than in the previous ten years. A number of underlying developments explain the growing demand for electricity.

The economy has recovered

After several quarters of economic contraction due to the COVID-19 pandemic, the economy recovered strongly in 2021. That has led to growing demand for new connections and power for businesses and new-built homes.

Decentralised generation continues to grow

The growth of decentralised generation from solar energy will continue in the coming years. At present, roughly 4.4 GW of solar energy is installed in our grids. By 2030, we expect generation from solar energy to increase by a factor of two to four. We also see a trend towards more solar panels on rooftops instead of large-scale solar farms in fields. This trend may accelerate further due to more ambitious sustainability targets.

Many new sustainable homes

Looking at developments since 2019, it is obvious that we face a huge housing challenge in the Netherlands. More than one million homes must be added to our national housing stock between 2021 and 2030 to resolve the housing shortage. The demand for power in sustainable homes also shows a break in the previous trend line, fuelled by the decision to no longer heat new homes with natural gas. Sustainable homes require more electricity than homes with a natural gas supply. The need to build more homes plus the increased electricity requirement per home have accelerated this trend by eight years relative to the general picture in 2019.

Strong growth in hybrid heat pumps

The heating transition in the built environment is proceeding more slowly than initially thought. However, we do expect strong growth in the use of hybrid heat pumps in the period up to 2030. After that, we foresee strong growth in all-electric solutions and low-temperature and medium-temperature district heating networks. Up to 2030, we expect capacity in the power grids to grow by an additional 500 to 700 MW.

More electric cars

The number of electric cars will increase to about 1.6 million by 2030. Several tens of thousands of additional connections for the public charging infrastructure must be provided in the coming years for these cars. We also expect the number of grid connections for high-power fast chargers to increase by several hundred in the period up to 2030. Based on scenario analyses, we expect an additional demand for electricity of approximately 600 MW at our stations by 2030. In view of the growing popularity of electric urban freight transport and electric vans, we see this trend accelerating by about three years relative to the general picture in 2019.

More new data centres, at new locations

The demand for data centres in Europe remains as high as ever due to the continuing digitalisation of society. The total demand for electricity associated with this sector has developed about six years faster than initially thought. We are also seeing a more pronounced spread of data centre locations across the country. The Amsterdam and Haarlemmermeer regions have traditionally been the hotspots for new data centres. However, an increasing number of new data centres are now being built in surrounding areas, such as the Flevopolder. In the period up to 2030, we anticipate an increase of roughly 2 GW in the power required due to data centre growth in our service area.

Industry is becoming more sustainable

Industrial companies' approach to energy management is changing significantly. During the past two years, this customer group's power demand has already shown a clear break with the previous trend. We now expect industry's demand for power to grow very strongly over the next nine years. The companies supplied by Alliander are considering electrification, process modification and/or the use of sustainable gases as an alternative to fossil fuels. In particular, we see growing interest in hybrid electrification and e-boilers. We expect these developments to have an impact of approximately 400 MW on our grids through to 2030.

Trend 3: Shortage of technical staff and materials

The labour market is tighter than it has ever been during the past ten years. This is particularly noticeable in the job categories that are critical to Alliander: i.e., engineering and ICT. The energy transition calls for massive expansion and strengthening of the power grid, and that requires technicians.

Staff shortage

In 2021, the number of job vacancies for technical professions rose above 100,000. Historically low unemployment has resulted in a job vacancy ratio of 1:32 for electrical engineers. In other words, an electrical engineer looking for a position can choose from 32 job vacancies on average. In the western part of the Netherlands, the ratio is even higher at 1:55. This labour shortage limits the ability of network operators and other companies to scale up their operations. It also threatens implementation of the energy transition, against a background of declining numbers of students taking technical courses. As a result, during the next four years network operators and supply chain partners will have 13,000 fewer technicians than they need to meet the climate goals. If we are still to achieve those goals, we must not only step up our efforts to recruit existing engineers but also, and above all, act to increase the number of technicians. Fortunately, in the coalition agreement the government has recognised the need to tackle the shortage of technicians and sees this as a prerequisite for the energy transition.

Shortage of materials

In addition to scarcity in the labour market, there is also a shortage of the products and raw materials needed for the energy transition. In the short term, we will be confronted by higher prices and longer delivery times for cables and transformers, for example. Shipping in raw materials from sources around the world has become more challenging. In addition, many production lines are currently running at their maximum capacity. In the long term, the world's limited reserves of iridium and cobalt, for example, could make it harder to achieve the global climate objectives.

Impact on Alliander

When considering all these trends, we realise that the energy transition in the Netherlands is a bottom-up process. Government incentives and changing market prices will have a major impact on the direction and pace of the transition. Those factors make the transition more difficult to predict. The impact of these trends on Alliander is huge. In Amsterdam alone, the current power supply capacity will need to double in seven years in order to meet future demand. In our service area as a whole, dozens of new large power stations, thousands of transformer substations and many thousands of kilometres of cable will be required in order to meet the growing demand.

How is Alliander responding to these trends and developments?

The trends, developments and issues in the world around us are the basis on which we formulate our strategy, which describes how we as a company deal with the challenges of the changing energy system. Our SWOT analysis identifies where the opportunities and threats lie for our organisation.

Our strategy

Our strategy comprises four pillars resting on a strong foundation. This helps us to fulfil our social mission both now and in the future.

1. Excellent network management

We aim to be an excellent, responsive network operator by fulfilling the wishes of our customers and other stakeholders. This means that we take action to ensure better investment planning and customer forecasting, increase our productivity, guarantee continuous delivery, and make sure that people enjoy doing business with us and that we are an agile and decisive organisation.

2. Support for customers in making choices

We limit the load on the grid and facilitate the open energy market by allowing customers to make choices that benefit them and the system. This means that we avoid congestion as much as possible, and that we are a trusted, independent partner for the energy market and a relevant partner in the energy transition.

3. Investing in new open networks

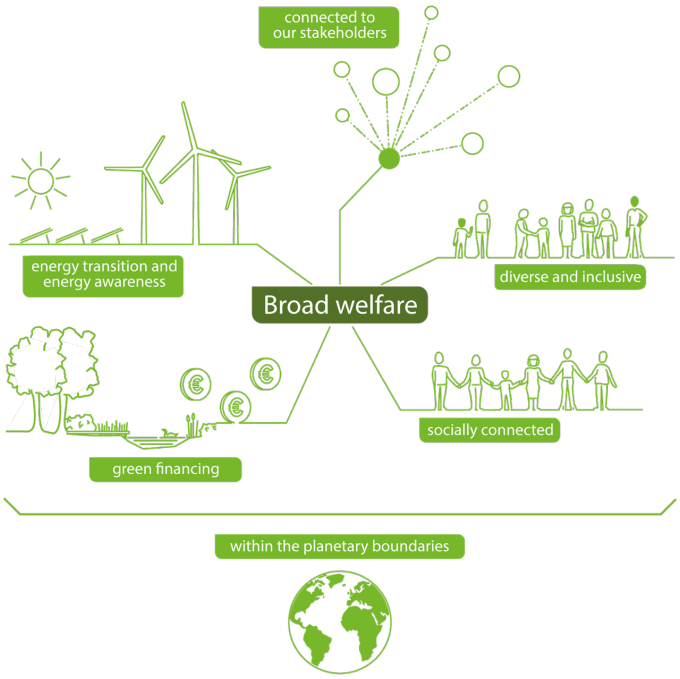
We manage the infrastructure for all energy carriers, are responsible for repurposing the gas grid and constructing new district heating networks, and intervene proactively and strategically to guide regulatory changes. That means that we maintain a balance in the energy supply, design regional energy systems, work to achieve a meaningful position in district heating networks, and seek to expand our statutory tasks with regard to ownership of infrastructures that are open to all.

4. Digitalisation

We are radically accelerating the programmes to digitalise our grids, our work processes and market facilitation through a value-driven digitalisation process and reliable and flexible IT. This means that we have real-time information on the grid and are able to influence energy flows, that our processes (in the office and in the field) contribute optimally to our goals, that our market-facilitating task will be developed further, and that we contribute to digitalisation of the energy market.

The strong foundation

We are an effective, safe, cost-conscious, sustainable and inclusive organisation. This means that we get ‘everyone safely home’, and that we are working to significantly increase production together with our partners, while at the same time further improving our cost efficiency. Our effective decision-making results in focus, proactive anticipation of developments in the world around us and active management to achieve our goals. We have also integrated a ‘broad view of well-being’ in our decision-making agenda and we promote circular network management. As an employer, we invest in future-oriented knowledge, the sustainable employability of our employees and creating and maintaining an inclusive work environment.

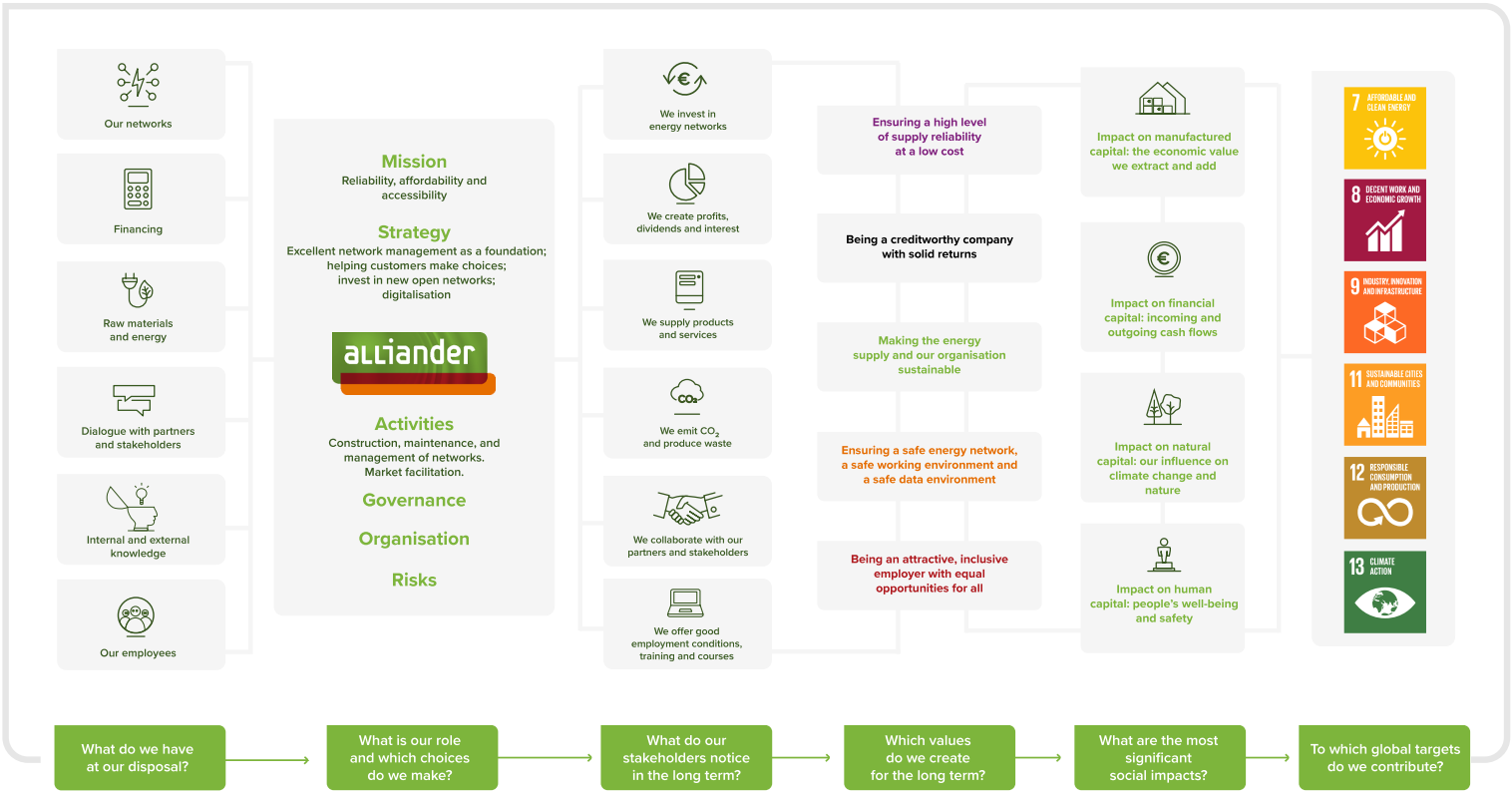


How we create value

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. We use the resources 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.

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.



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 reliability of supply for a low cost

Target for 2021	Performance in 2021	Target for 2022	Strategic objective	Most significant risks[10]
Customer convenience: the measured NES score is higher than 53% (consumers) and 37% (business market).	Consumer: 51% Business: 38%	Customer convenience: the measured NES score is higher than 48% (consumers) and 40% (business market).	Increase in customer convenience for consumers and business market over the coming years.	Completion of work package Cybersecurity Capacity for change Future proof IT landscape Long term regulatory focus Meeting customer expectations Future-proof investments
Electricity outage duration: maximum 23 minutes.	20.9[1]	Electricity outage duration: maximum 23 minutes.	High reliability of supply.	
Repeat outages: a maximum of 17 unique cable numbers with more than five outages.	22	Repeat outages: a maximum of 17 unique cable numbers with more than five outages.	The number of unique cable numbers with more than five outages will remain at 17 or less in the coming years.	

A creditworthy company with a solid return

Target for 2021	Performance in 2021	Target for 2022	Strategic objective	Most significant risks[10]
Credit rating: Maintain solid A rating profile.	S&P A+/A-1/stable outlook Moody's Aa3/P-1/stable outlook	Credit rating: 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.	Long term regulatory focus Ability to obtain financing Future-proof investments
FFO/net debt: at least 15%[2].	25.8%	FFO/net debt: at least 15%.		
Interest coverage: at least 3.5.	17.2	Interest coverage: at least 3.5.		
Net debt/(net debt + equity): maximum 60%.	36.7%	Net debt/(net debt + equity): maximum 60%.		
Solvency ratio: at least 30%.	53.8%	Solvency ratio: at least 30%.		

Making the energy supply and our operations sustainable

Target for 2021	Performance in 2021	Target for 2022	Strategic objective	Most significant risks[10]
Net CO_2 emissions from own operations: maximum 150 kilotons (using sector-wide calculation methods).	115 kilotons	Net CO_2 emissions from own operations: maximum 116 kilotons (using sector-wide calculation methods).	Having climate-neutral operations by 2023.[3]	Long term regulatory focus Future proof IT landscape Capacity for change Future-proof investments Meeting customer expectations
Circular procurement: at least 45% of all our primary assets.[4]	27%[5]	Circular procurement: at least 35% of all our primary assets.	An annual improvement in our Circular Procurement performance.[6]	

A safe network and a safe data and working environment

Target for 2021	Performance in 2021	Target for 2022	Strategic objective	Most significant risks[10]
LTIF (lost-time injury frequency): [7]	2.6	LTIF (lost-time injury frequency): [7]	Safety is key to our operations. We create a proactive safety culture.	Safety Privacy Cybersecurity Meeting customer expectations

Being an attractive, inclusive employer with equal opportunities for all

Target for 2021	Performance in 2021	Target for 2022	Strategic objective	Most significant risks[10]
Employee survey: Engagement No target has been set due to a change in the methodology.	81%	Employee survey: Engagement at least 81%	Being a top-class employer: an innovative and successful company where we develop future-oriented knowledge and competencies.	Capacity for change
Employee absenteeism: maximum 4.3%.	4.6%	Employee absenteeism: maximum 4.3%.	The maximum sickness absence rate will be 4.3% in the coming years.	
Women in managerial positions: at least 31% of all managerial positions.	28.1%	Women in managerial positions: at least 31% of all managerial positions.[8]	In 2024, at least 33% of our managerial positions will be held by women.[8]	
People with poor employment prospects: offer at least 107 apprenticeships. We aim to provide a minimum of 83 places that comply with the Dutch Labour Participation Act.	77[9]	People with poor employment prospects: offer at least 130 apprenticeships. We aim to provide a minimum of 130 places that comply with the Dutch Labour Participation Act.	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. By 2024, we will meet the requirements of the Dutch Labour Participation Quota Act.	

A further explanation can be found in the online annual report along with the definitions of the objectives and results.

1 The electricity outage duration differs from the figure stated in the regulatory report. This report does not include the interruptions in the high-voltage network (CBL assets) owned by Liander.
2 For further explanation, see Changes in financial policy.
3 The climate neutrality objective relates primarily to scopes 1 and 2. Greening is mainly achieved with Guarantees of Origin from national wind farms (see also the Sustainable organisation chapter).
4 The scope of the KPI comprises primary assets: Low-voltage and medium-voltage cables, gas pipes, distribution and power transformers, and legacy and smart electricity and gas meters.
5 The percentage of materials sourced through circular procurement is calculated based on an updated method. The method uses the recycled and recyclable percentages per material type as provided by the supplier. If this percentage is higher than the validated percentage, the validated percentage is used instead. See Supply chain responsibility and circular procurement. When raw material passports are used, the circularly sourced material is assessed at 40%.
6 We will reassess our assumptions regarding recycling and recyclability in 2022, and include input from independent specialists and suppliers. This will affect our long-term objective. We will therefore only be able to give a concrete long-term objective in the next annual report.
7 No target is set for the LTIF performance indicator, because the number of accidents leading to sickness absence should ideally be zero. Our objective with this indicator is to show a downward trend each time.
8 A managerial position is a hierarchical position as a manager or a position with budget responsibility.
9 The number of employees with poor prospects on the labour market comprises 77 jobs created under the Dutch Participation Act, amounting to 62 FTEs.
10 The Risks chapter explains the risks in detail.

How we create value

Our network: high 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 2021 remained unchanged at this extremely high level. However, it is becoming increasingly difficult to connect customers on time. Although we have devoted more effort to grid expansion projects and introducing smart solutions, bottlenecks continue to occur because demand is growing at a rate that outstrips our physical capabilities.

Related topics

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

Material issues	SDGs	Stakeholder groups
A) Facilitation of energy transition B) Reliability of supply C) Completion of work package D) Cooperating on innovation G) Access to affordable energy H) Data-driven network management J) Satisfied customers M) Company's adaptability		Customers Shareholders Investors

Objectives and results for reliability of supply

Customer convenience rated by consumers

51% 2021 result

≥ 53% 2021 objective

54% in 2020.

Customer convenience rated by business customers

38% 2021 result

≥ 37% 2021 objective

35% in 2020.

Electricity outage duration[1]

20.9[1] 2021 result in minutes

≤ 23.0 2021 objective in minutes

23.2 minutes in 2020

Cable numbers with >5 interruptions

22 2021 result

≤ 17 2021 objective

17 in 2020

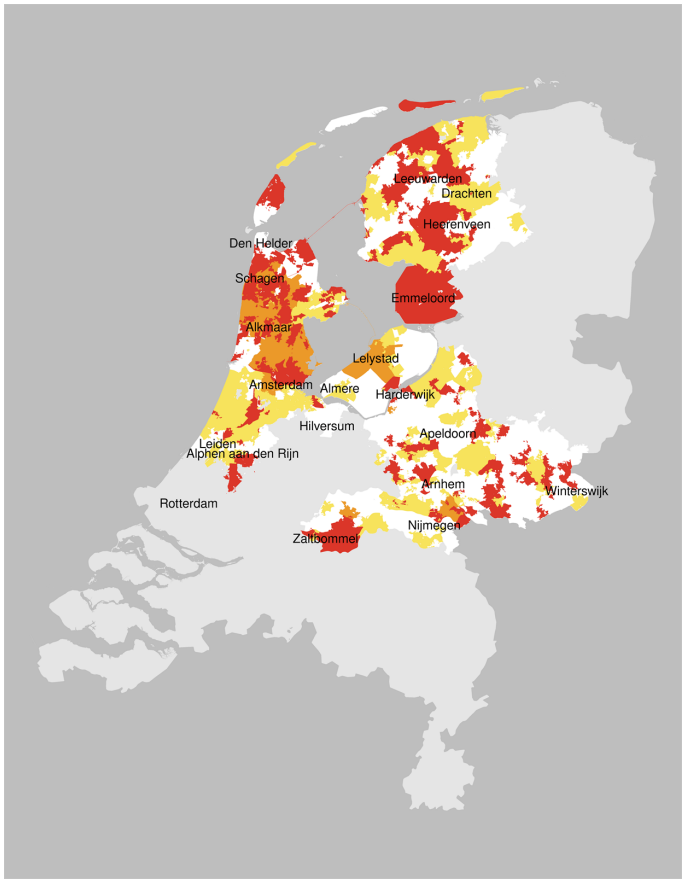
1 The electricity outage duration differs from the figure stated in the regulatory report. This report does not include the interruptions in the high-voltage network (CBL assets) owned by Liander.

The challenges in our work

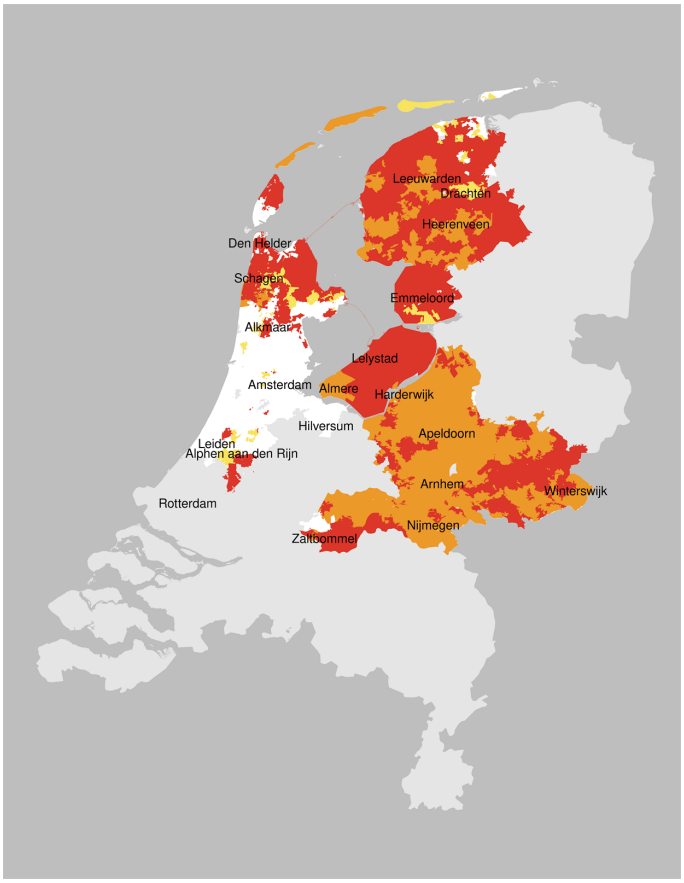
The Netherlands currently faces major societal developments: the growing economy, digitalisation, the housing shortage, and the need for a more sustainable energy supply. These developments are leading to soaring demand for electricity. System studies show that the peak demand for electricity will have at least doubled by 2050. Unfortunately, the current energy network is not designed to cope with the developments that are now occurring rapidly. So, the entire energy infrastructure in the Netherlands will have to be upgraded in the coming years. An average of 1,600 medium-voltage stations must be added each year until 2035. Roughly 6,900 kilometres of cable will go into the ground in the coming years. In the period up to 2031, we also expect to have to build 56 large new substations and expand a further 100 stations. This huge workload comes at a time when we are facing an acute shortage of qualified technical personnel. At present, technicians can choose between 32 job vacancies. The network operators and their contractors alone need an additional 13,000 technicians in the next four years. We are also having to cope with material shortages.
Furthermore, spatial integration of the new stations and cables is a bottleneck in the process for implementing the energy transition. Because space is in short supply and permit procedures often take many years, plans for expansion need to be presented well in advance and close collaboration between government authorities and network operators is needed to match development plans in the region with work to implement infrastructure expansion projects.

Due to the above developments, bottlenecks in the electricity network occurred in more and more places in the Netherlands in 2021. The demand for electricity is increasing faster than the rate at which we can increase capacity in the power grid. So, our network is already operating at maximum capacity in some areas. More and more consumers, businesses and other organisations will have to wait for access to the power grid or additional power. The colours on the maps show the regions where transmission capacity for consumption (on the left), and for generation (on the right), was scarce at the end of 2021 (source: Liander.nl).

Supply congestion



Feed-in congestion



Red: no transmission capacity
Orange: congestion management trial ongoing
Yellow: limited transmission capacity

How we are addressing our challenges

To resolve the bottlenecks, Liander, Stedin, Enexis and TenneT will invest some €40 billion in the electricty network in the period up to 2030. In the period up to 2050, investments will total over €100 billion. In 2021, Alliander invested €1,014 million, mostly in extending and strengthening the power grid. Our ambition is to have eliminated all our backlogs by 2025. That requires us to think bigger and deliver faster. We have to produce more, in the same time. So, we need to adopt a different approach. To bring the capacity of the energy networks in line with external demand, we enhanced our overall strategy for producing more work in 2021. The strategy breaks down as follows:

- Preventing work: we focus on the further development of an efficient energy system.
- Making better use of networks: we apply smart grid management to make better use of existing networks
- Executing more work: we focus on introducing solutions aimed at further improving productivity and increasing capacity in order to permanently increase our production levels.

Preventing work

The energy transition in the Netherlands is a bottom-up process with top-down goals. Plans to make the energy supply more sustainable are being drawn up, whether rapidly or more slowly, in various sectors, such as sustainable generation integration, industry, mobility and the built environment. All those plans converge on the energy network. We see that these plans do not always take into account the efficiency of the energy system and their impact on that system. Moreover, the anticipated time required for the development of these projects is much shorter than the time required to expand grid capacity. As a result, the objectives are not feasible in some cases and the work package for network operators is increasing significantly. So looking for ways to avoid unnecessary extra or unforeseen work is crucially important.

Programming and priorities

Over the past year, network operators and government authorities have begun working more closely on implementation programmes, in which we jointly programme and prioritise the roll-out of sustainable energy and energy infrastructure, and manage spatial impacts. The energy system needs to be designed for maximum possible efficiency, to keep it affordable and the tasks involved workable. That is why we identify all energy developments over the longer term, then draw up an efficient design and schedule the execution. We specify the planned expansion and replacement investments in the networks in Liander's investment plans.

In addition, we investigate opportunities for efficient grid use with specific customer groups. For example, in a joint project with the Port of Amsterdam, we are assessing whether offering and building an additional flexibility and system integration is a workable solution for giving customers access to energy despite the lack of capacity in the power grid.

New energy carriers

As a network company, we build energy infrastructure that will last for decades. With that in mind, we are assessing the potential of new and sustainable energy carriers in the energy system of the future. With that knowledge, we will be able to make system choices earlier, such as accelerating the construction of infrastructure for new energy carriers like hydrogen and biogas, in order to avoid wasting resources on intermediate solutions for making industry more sustainable (such as e-boilers). We are conducting research into the safety implications for our employees and the (end) users of hydrogen at a number of sites, including The Green Village in Delft and Kiwa's Hydrogen Experience Centre (hydrogen demonstration and training facility) in Apeldoorn. We are also lobbying for the changes and additions to legislation and regulations that are required for hydrogen. In 2021, we started a hydrogen pilot project in Oosterwolde. This project is intended to clarify what the direct production of hydrogen at a wind or solar farm means in terms of reducing the load on the electricity grid, and affordability and regulations. In Lochem, Alliander and partners are preparing a project in which historic buildings will be supplied with hydrogen as a fuel for heating via the existing natural gas network. In 2021, we also signed a collaboration agreement with the Port of Amsterdam to develop a public hydrogen network.

Better use of networks

In 2021, we scaled up several innovations to the point where they actually could be used for customers. They are smart solutions that take advantage of the off-peak periods on the energy grid.

New tariff models and contract types

The way the energy network is used is undergoing fundamental change. Generation is increasingly decentralised. Power usage is becoming increasingly variable due to the rise in electric vehicles, electrification in industry and heat pumps. Increasing volatility has led to a growing need for optimisation, both nationally and locally. As a network operator, we are working on new pricing models and contract types to ensure that customers use their own energy first, or only use energy when it is available in abundance. We are acting to encourage this at the individual, regional and national levels.

In 2021, we launched a pilot project at a business park in Noord-Holland province to explore the potential of a virtual group contract. This involves balancing supply and demand between different companies to avoid overloading the power grid. We are also investigating the possibility of implementing time-bound contracts, which would allow us to connect companies in areas where grid capacity is scarce.

Congestion management

In congestion management, business customers receive a monetary reward when they use or feed in less electricity. The grid capacity this frees up can then be split among other customers. This approach allows us to connect more customers. We are now applying congestion management in Neerijnen. The Systems Operations department ensures there is the right amount of energy in the right place at the right time. It controls the flows of energy through the grid, with the aim of making the best possible use of the grid and ensuring energy stability and continuity.

Dynamic feed-in

Dynamic feed-in calls for customers to set up their solar or wind farm to actively limit (‘dim’) the feed-in in real time when the grid voltage becomes excessively high. This makes it possible to connect additional customers in areas with voltage bottlenecks. In 2021, we launched pilot projects where dimming also occurs when a cable or transformer is overloaded. This lets us safely connect additional customers in places where there is insufficient transformer or cable capacity at peak times. In 2021, we also expanded use of the outage reserve in our network. Use of this spare capacity allows us to connect more feed-in customers.

Execute more work

We are acting resolutely to increase our production, to ensure a successful energy transition. The solution is not to work harder, but to work smarter, in more integrated a manner and more cost-effectively. Thinking bigger and delivering faster are central to this. In 2021, we started applying four strategies to achieve this.

Collating information from internal sources and our partners at an early stage

It is crucial that we gain a better understanding of future demand from customers, so that we know what to expect and what the implications are for our execution capacity, both now and in the future. That information will allow us to work on and guarantee the feasibility of these plans. We can then plan work better and start it in good time to secure spatial integration when needed. We have been realistic, proactive and transparent in communicating our plans to the outside world over the past year and are working to get permit procedures started as early as possible. We liaise closely with many municipalities to speed up the turnaround time for these procedures.

Proactively organise people, materials and services in a timely manner

We can secure more labour capacity more effectively by offering work in new and innovative ways, and for periods of several years. In 2021, we started applying the contractor strategy that we drew up in 2020. For example, in 2021 we continued to tender larger work packages for longer periods of time, with room for innovation during execution of the work. We proactively organise the required production capacity based on forecasts. This is essential if we are to deal successfully with the growing work package and the uncertainties of the energy transition. In addition, we worked on speeding up tenders in less complex procurement categories, with the goal of reducing the internal turnaround time to ten days.

Raw materials are currently less readily available worldwide and many production lines are running at maximum capacity. To mitigate the effects of the materials shortage, we set up a crisis team in 2021 to limit and prevent problems with the delivery of cables and transformers. The solutions they came up with include reusing refurbished transformers, deploying other types of transformers that are currently available, and using new suppliers. We are building inventories of materials and components to cover our needs for four to six months ahead in order to better cope with fluctuations in availability. We are also looking at the longer term. When material shortages appear likely, we want to be able to respond flexibly, for example by seeking alternatives to lengthy tender processes.

We also opened a new central distribution centre in 2021. This location, from which we supply all the materials required by our engineers and contractors, offers more space for material flows and makes the supply chain more efficient, which will ultimately help us increase production.

Recruit technicians and adopt smart training

To produce more work, we need more workers throughout the production chain. We train technicians in accelerated programmes at our vocational schools. We target a broad audience with our recruitment and training programmes, including young people, refugees with residence permits and newcomers to the industry, and we also create jobs for people covered by the Labour Participation Act. In addition, we are working with the sector to make working in engineering more attractive and accessible. Increasing training capacity throughout the supply chain, in combination with a stronger focus on training, developing and retaining technicians, will ultimately result in a greater number of technicians in the Netherlands.

Simplifying and digitalising work processes

We are successfully raising productivity and reducing work stress by organising, standardising and digitalising work in a smarter way. This involves fundamentally questioning current practices and identifying further opportunities to increase productivity. The modular approach for constructing stations is a good example. This means that we have stations built by contractors and outside suppliers according to a fixed design. That lets us build stations much faster and give customers access to the power they need more quickly. Another example is the use of digital tools to perform tasks (e.g. digital visual inspection), which reduces the amount of time employees spend travelling.

Innovathon

The second Alliander Innovathon took place in November. The idea was to identify integrated solutions for the energy transition. For 24 hours non-stop, 150 participants worked on this theme in 32 teams, from within Alliander and outside the company. The key question was: 'How can we all radically up the pace to meet our customers' energy requirements smarter and faster?' The winning team analysed the long turnaround times for placing new transformer substations that are needed to accommodate increasing electricity consumption. The team accelerated the process by getting all the stakeholders involved, both live and virtually, and enlisting their help to decide on the location. By using alternative collaborative approaches of this type, we will be able to get the desired result faster and ultimately produce more work in the long term.

Regional Energy Strategies 1.0

In the Netherlands, 30 regions have drawn up a Regional Energy Strategy (RES), the ambition being to achieve a total of 35 TWh of onshore sustainable energy generation by 2030. The power grid in the Netherlands forms the basis for these joint strategies and the impact for network operators 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. In the RES programmes in our service areas, we are working with government authorities, social sector organisations, the business community and residents to implement regionally supported choices.

Ambitions in RES 1.0

The decisions taken regarding RES 1.0 in 2021 represent a milestone on the path to 2030 for the RES regions. The regions have formulated ambitions that cumulatively exceed the agreed climate target for sustainable onshore generation of electricity by a significant margin. Based on analyses in 2021, the joint network operators stated that connecting 35 TWh of onshore generation to the grid by 2030 seems possible. Setting further objectives is not realistic given the major tasks facing industry and the mobility and built environment sectors, and the large amount of maintenance work that needs to be done in the coming years.
The target of 35 TWh is feasible, provided that we and all the other parties translate the RES tasks into actionable projects and draw up implementation programmes for spatial integration and building the infrastructure. These programmes must be streamlined to fit in with other developments in the energy system. RES 1.0 is not a finished product: every two years, the RES regions will update their plans based on new information and also make progress with implementation.

RES in 2022

In 2022, Liander will continue to work intensively with the RES regions, further focusing on the translation of RES 1.0 into spatial planning and on the transformation of RES 1.0 into RES 2.0. As this moves forward, the plans are becoming more concrete and we are providing increasing clarity on what expansions and working arrangements are needed for regions to achieve their sustainability ambitions.

An agile and responsive organisation

We need to adapt how we work together in order to achieve our mission. 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 together, we have taken steps in the past year to get our new organisational set-up working. We also launched an OGSM approach (Objectives, Goals, Strategies and Measures) in 2021, which has been rolled out to all units within the organisation. This method creates focus and boosts progress. In reflection of that, we have started to work with a consultative structure in which we identify priorities and make adjustments as necessary each quarter, take decisions to clarify our focus and act to ensure that we can fulfil our primary social mission. This requires all employees to reflect, learn and perform. With the help of coaches, the first teams have started applying this method.

Call to action: collaborate to make significant progress faster

The transition to renewable energy must be fully completed by 2050. The related objective of achieving a 60% reduction in CO_2 emissions by 2030 will be very challenging. The shift to a sustainable and much more decentralised energy system requires a major redesign of that system, a redesign that needs to be completed in less than nine years. That is a very short time frame for a large-scale modification of the Dutch energy infrastructure This means that as joint stakeholders at the national, regional and local levels, we need to rapidly identify and itemise the design of the energy system and the necessary infrastructure: what will come where and when? The transition also needs to be carefully managed. It is clear that the pace needs to pick up sharply if we are to meet the 2030 goals, particularly in view of the complex societal playing field in which we operate. So, coordination and control are crucial, to ensure that we can all make significant progress faster.

In addition, it is essential to have sufficient manpower and a forceful and effective organisation in order to make design choices together, to jointly determine priorities in terms of what we build first, what comes later and what may not be needed at all, and to greatly accelerate the spatial planning process.

Last year, good progress was made in the collaboration with partners, leading to an increasing number of national programmes for supporting the work in the regions. Together with sector umbrella organisations, we looked at how the need for energy infrastructure is evolving in the first version of the Cluster Energy Strategies (CES). In addition, we drew up a charging infrastructure map with the regional and local public transport authorities (DOVA) that identifies potential charging point locations for zero emission buses. Network operators can access the registered charging requirement and work with the public transport authority to determine the most appropriate solution for that charging requirement. In the regions, we set up regional infrastructure task forces with provincial authorities and municipalities in order to work effectively on infrastructure improvements.

Performance in the regions

Last year we worked intensively with municipalities on the RES, the heating transition and charging infrastructure. In the coming years, in addition to drawing up plans together, we expect that we will work together more intensively to complete expansion projects faster and also look at the options for prioritisation.

A great deal of work is being done in Liander's service areas to make the energy network ready for the future. In total, we laid 2,027 kilometres of power cable in 2021 (464 kilometres more compared to 2020 (+30%)). The number of new connections to the power grid increased by 10% to 43,104 compared to 2020. Nevertheless, in all the provinces we are seeing an increase in congestion that is causing a sharp increase in the connection times for large business customers. Liander has plans to achieve more in the coming years. For example, we can eliminate transmission restrictions by using the spare capacity of transformers. In 2021, Liander gave the first 30 customers authorisation to feed in solar energy via the network's 'emergency capacity'. The total power in this case amounts to 670 megawatts. The challenge here is to identify the solution that best meets the requirements in the region. This means that we must set priorities in this period of capacity scarcity.

Noord-Holland

In Noord-Holland province, the demand for electricity continues to grow unabated, but the capacity of the network is insufficient in many places. Last year, we issued an advance warning of congestion for two large substations in central Noord-Holland.
To make more capacity available, Liander collaborated with TenneT in various power grid expansion projects in 2021. After a long search, we found a location for a new substation last year and started the zoning plan procedure. We also worked with Schiphol Area Development Company and local businesses and companies to use the available capacity, local generation and storage in an innovative manner to resolve congestion at Schiphol Trade Park. Liander had several other projects in progress or in preparation to resolve congestion problems; e.g., projects in Oterleek, Schagen, De Weel, Wijdewormer, Purmerend and the Zaanstreek area.

Amsterdam

The economy in Amsterdam grew faster last year than the municipality and Liander had anticipated in their joint study. As a result, Liander had to announce the first congestion area in Amsterdam in June. The problem spread further during the course of the year and half of the city is now experiencing congestion. This congestion has a huge impact on development within the capital. To address this, the municipality of Amsterdam, the port authority, TenneT and Liander have launched a joint task force to accelerate grid expansion projects and limit the impact of congestion as far as possible.
In 2021, the areas requiring grid expansions and infrastructure locations were identified for the entire city. Construction work for a new

substation on Strandeiland also started and new transformers were installed at the Bijlmer Noord and Nieuwe Meer substations. They will be put into operation in 2022. Finally, work also started on the Karperweg substation conversion. While these projects provide additional capacity for the power grid, they will not fully resolve congestion problems. We are therefore also working with the municipality and Amsterdam Port Authority on innovative solutions to minimise the impact of congestion. With regard to the Amsterdam port area, the Port of Amsterdam, Liander and Firan are currently discussing approaches to jointly building a hydrogen distribution network there.

Friesland

The rapid growth in demand for capacity for both electricity supply and electricity feed-in means that there is little or no capacity left on the grid in large parts of Friesland. In respect of electricity feed-in, Friesland has also been impacted by congestion in the high-voltage grid operated by TenneT since June 2021. We have started a congestion management study to assess electricity demand in the southern and western areas of Leeuwarden. Until this study is completed, we will not be able to meet any additional power demand from new or existing large-scale customers.

Due to its rural character, Friesland is a popular location for developers of solar parks and solar roofs. The demand for electricity also continued to grow, as indicated, for example, by the large number of plans to electrify industrial players. In addition, several thousand new homes are due to be built in Friesland based on current plans. They include the Middelsee district in Leeuwarden, where 3,200 natural gas-free homes are being developed. On Vlieland, we started a pilot project to make smart use of supply and demand in solar energy in relation to the available grid capacity on the island.

In 2021 we worked on expanding several substations, such those as in Oosterwolde, Oudehaske and Drachten. Liander carried out work to increase the capacity of the medium-voltage network around Dokkum. Together with TenneT, we conducted a feasibility study for the construction of a new substation in Leeuwarden-Zuidwest.

A large-scale expansion programme to make the medium-voltage networks in Friesland future-proof has now left the planning stage. NULelie, as this programme is called, was put out to tender in the autumn of 2021. The aim of this programme is to have completely upgraded the Frisian medium-voltage grid by the end of 2025. Together with the provincial authority and municipalities, we have started a process to determine an efficient sequence for the individual expansion projects.

Gelderland

The demand for electricity also continues to grow in the province of Gelderland. Transmission bottlenecks are emerging in more and more places. Particularly in large business parks, we are increasingly unable to meet the rising demand for electricity.

Liander worked on expanding the power grid in various places during 2021. In the Rivierenland region, for example, preparations have been made for expanding stations and we are looking for suitable locations for new stations together with TenneT. In the Achterhoek, we are making major efforts to strengthen the medium-voltage grid. We are also expanding our network in the Arnhem and Nijmegen region to accommodate the projected large-scale construction of new residential housing. We are working on the realisation of a modular electricity substation in Oosterhout and we are in the middle of the land purchase procedure for the construction of a new station in Duiven. We are also looking for a location for a new substation near Berg en Dal.

The conversion work at Barneveld substation is progressing well: a connection has now been established between the Barneveld and Harselaar substations. In addition, we have conducted several studies for the development of 150/20kV stations in Nunspeet and Hattem, and other locations. We are in discussion with the municipality of Harderwijk about a new location for a larger station.

Flevoland

In Flevoland, bottlenecks in the power grid have arisen in many places due to the rapid emergence of sustainable energy generation. Unfortunately, we had to announce that we also expect transmission restrictions at the Zuiderveld substation in November. We are talking to the municipality and provincial authority about a suitable location for a new substation. In addition, TenneT has announced congestion for the Flevopolder.

In 2021, we worked on various projects expanding and increasing capacity. The work at the Zeewolde substation is progressing so well that the expansion is expected to be completed a year early. In addition, we started work at Dronten substation in 2021. The basic design for the Lelystad substation has been completed. Expansion work will start there in 2022. We have started to expand our power grid in Noordoostpolder and Urk: the upgrade for the medium-voltage cables has been put out to tender and we started the preparatory work for two new substations.

Zuid-Holland

In Zuid-Holland, some medium-voltage routes in Alphen aan den Rijn reached maximum capacity in 2021. Our efforts to improve capacity in the region are heavily dependent on a number of expansion projects, including a new regional substation. This substation will be located between Leiden and Alphen aan den Rijn and plays an important role in providing capacity in many municipalities in the coming years.

In Zuid-Holland, the power grid expansion plan assumes the availability of high-temperature heat from Rotterdam for the Leiden region. We have achieved a number of important milestones for this expansion programme. We have obtained zoning plan approval for the new 150 kV substation in the municipality of Zuidplas, and the 50 kV substation in Leimuiden. In Zoeterwoude, agreement was reached and permission granted to build a new station at the Heineken site. In the municipality of Alphen aan den Rijn, work is underway for a 10-kilometre-long 10 kV cable between the Zevenhuizen substation and Alphen Centrum. This will allow us to connect customers waiting in the queue in the Boskoop area. Construction work for the control station has started.

Investments by region

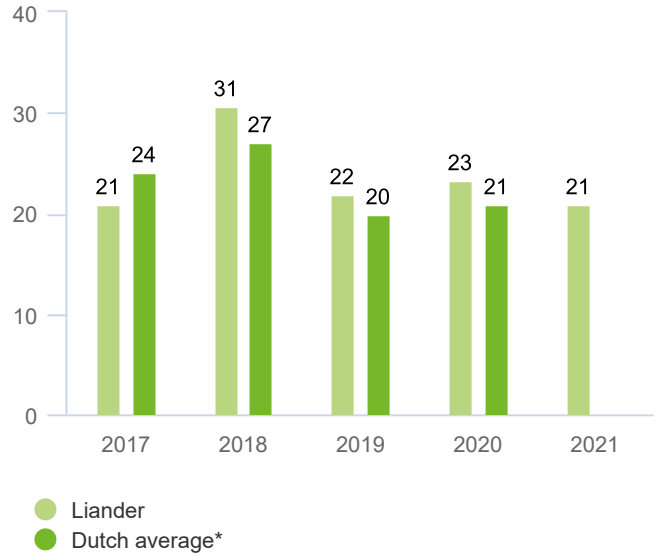
	Investments (in € million)
Noord-Holland	196
Amsterdam	166
Zuid-Holland	90
Gelderland	330
Friesland	125
Flevoland	87
Other (mostly Kenter and Alliander AG)	20
Total	1.014

Excellent network management

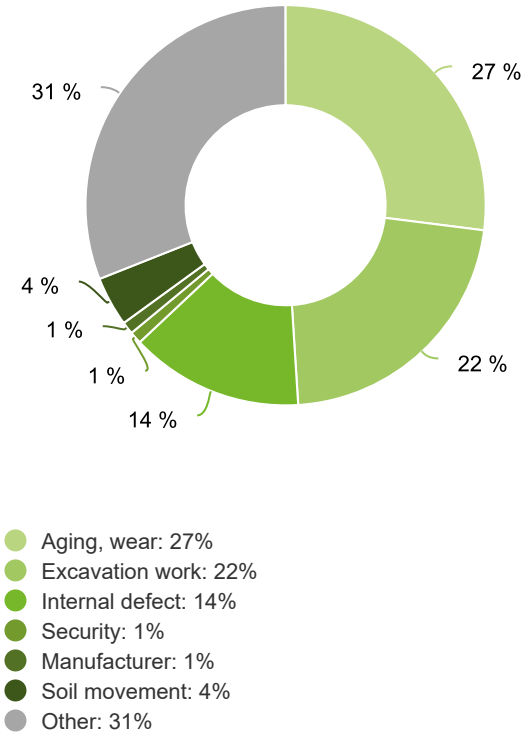
Supply reliability of the electricity grid

In 2021, our customers were without electricity for an average of 20.9 minutes (2020: 23.2 minutes). which is under the target threshold of 23 minutes. The largest drop was realised in the medium-voltage grid. The absence of heatwaves and long periods of hot weather kept the number of malfunctions in the medium-voltage grid below last year. The annual outage duration for high-voltage outages was also lower than in 2020. More faults occurred in the low-voltage grid however. The number of unique cable numbers in the power grid associated with more than five outages per year was 22, which is more than the target and higher than last year (17).

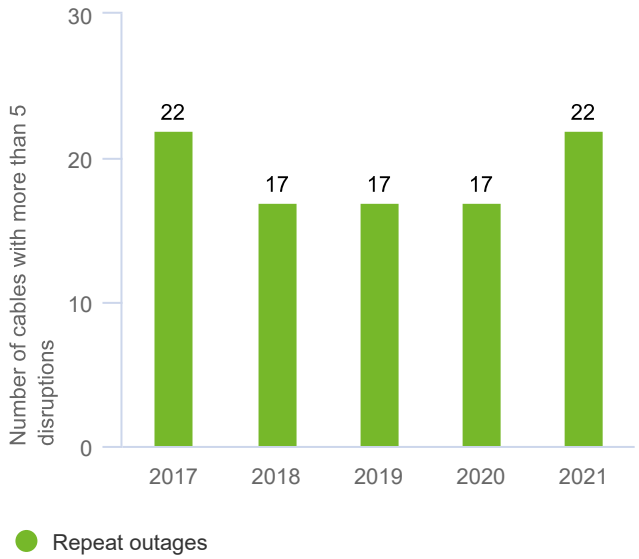
Power grid outage duration and causes



* The average for the Netherlands in 2021 is not yet known.



Repeat outages



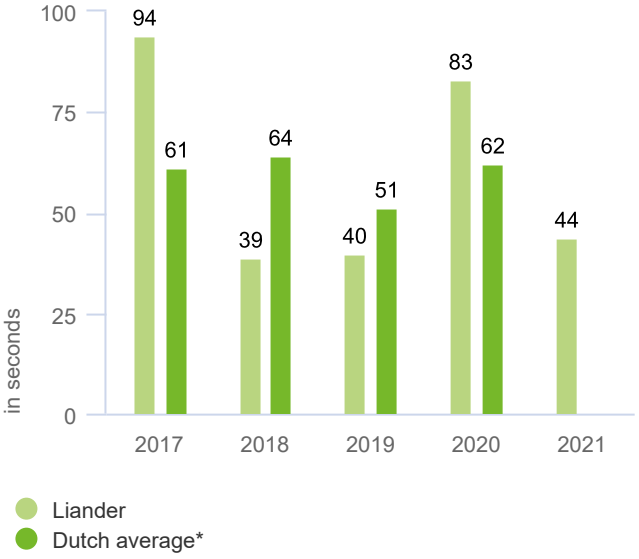
Fewer and shorter disruptions

Liander is installing more and more sensors in the power grid. Smart Cable Guard (SCG) is a sensor system that detects and pinpoints weak spots in the underground electricity network, ideally before these lead to outages. Using this system, in 2021 we prevented 39 power cuts and shortened the duration of 262 others. At the end of 2021, we had over 2,100 SCGs monitoring our network.

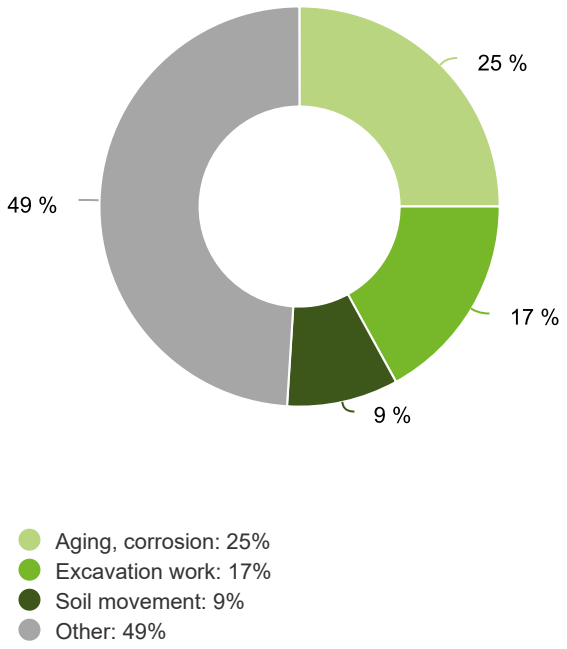
Supply reliability of the gas grid

Gas outages are relatively uncommon. The main cause of fluctuations in the gas outage duration is ad hoc outages caused by a third party, for example during excavation work, which often leave customers without gas for a long time.

Outage duration of gas grid and causes



* The average for the Netherlands in 2021 is not yet known.



Excavation damage campaign

In the Netherlands, gas and power outages are often the result of excavation damage. Excavation damage accounts for 17% of the consumption outage minutes in the case of gas, and 21% in the case of electricity. In collaboration with the other network operators, we reran the annual 'Veilig Graven' (Know What's Below) campaign in April 2021. The campaign alerts consumers, contractors and landscapers to the risks of excavation damage when working in gardens with an excavator, auger or shovel. The campaign also emphasises that users of excavators have an obligation to report planned excavation work (KLIC report) to the Land Registry and offers tips on working with an earth auger or shovel.

Offering smart meters

Smart meters help customers keep track of their energy usage. In April 2021, we successfully completing the statutory task assigned to us of offering a smart meter to all our small-scale customers. Most of our customers (87%) responded positively to our offer and had a smart meter by that date. At the time of writing, more than 7 million requests for data are sent every day to the total of 5 million smart meters that have been installed. Half come from energy suppliers and service providers, who use the data for consumption reports.
In 2022, we will continue our efforts to increase and maintain the number of smart meters. We do this in close cooperation with the Ministry of Economic Affairs and Climate Policy in respect of the statutory preconditions and with implementation partners, such as contractors.

Access to energy

As a network operator, we believe that energy should be accessible and affordable for everyone. During the extreme winter weather in February 2021, Liander took appropriate action to ensure that everyone had access to electricity and heat. For example, underground work was postponed until after the frost period. Furthermore, Liander temporarily stopped disconnecting households with payment difficulties from the gas and electricity grids. 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 addition, because of the COVID-19 pandemic, the network operators as a group, represented by Netbeheer Nederland, decided to exercise more leniency in the process for disconnecting consumers in arrears.

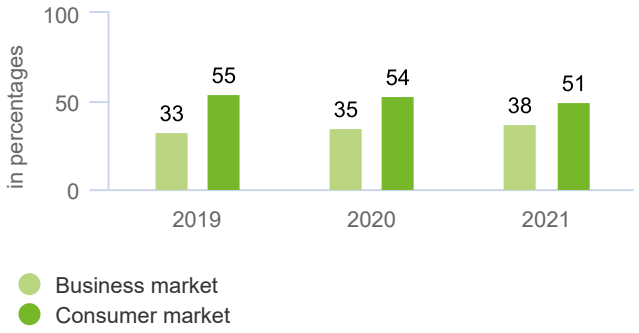
Energy tariffs and unilateral termination

Energy prices rose rapidly in 2021. As a result, in 2021, we saw energy suppliers unilaterally terminate contracts with their customers or increase their tariffs mid-term. Some energy suppliers even went bankrupt. This had a major impact on customers. If connected customers do not have a contract with an energy supplier for an extended period, we eventually have to disconnect them. Together with the Authority for Consumers and Markets, politicians and suppliers, we try to minimise the adverse consequences for households and businesses. Furthermore, these high energy tariffs highlight the need to combat energy poverty and to speed up implementation of insulation improvements and sustainability measures. The outgoing government took action last year in this regard and the European Union published a toolkit of measures for the member states.

Customer convenience

The key determining factor of customer satisfaction is the convenience they experience. Immediately after completion of 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.

Customer convenience in consumer and business markets



Customer convenience rated by business customers

In 2021, customer convenience based on the Net Effort Score (NES), as rated by business customers, rose to 38%, compared with 35% in 2020. This increase is partly due to a high rating for the quotation process. The perceived convenience for business customers is however under pressure where connection implementation is concerned. Our total work package is larger than we can handle. Liander will deploy more technicians and resources in the coming years to increase the capacity of the power grid. One consequence, unfortunately, is that Liander can then deploy fewer technicians to connect large companies to the grid. This is a logical choice though, since a new connection is of little use if there is too little capacity on the grid.

Customer convenience rated by consumers

Our score for the consumer market stood at 51% in 2021 (2020: 54%). Customers are finding it more difficult to make arrangements for normal connections, remediation work and combined work. As in 2020, the most important points for attention were the long waiting time between submission of the request and final execution of the work, and the quality of communications during that period. Lead times are increasing due to the lack of capacity in the power grid. This makes effective management of customer expectations even more important. We focus on proactive communication about lead times to achieve this. As a result, consumers give us a high rating for customer interaction.

Drop in the number of customer queries

The Customer Contact Centre answered over 290,000 customer queries in 2021. Due to the introduction of a new method, the number of queries is not directly comparable to previous years. The queries were mostly about the customer's connection, the energy contract and feed-in. Customers consult the website primarily for information on outages and connections, or they visit the contact page.

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 role in Dutch society. Our social, financial and sustainability performance is of significance 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 reported information relates to the topics that stakeholders feel to be important. Furthermore, these activities contribute to achieving an SDG.

Material issues	SDGs	Stakeholder groups
G) Access to affordable energy	9 INDUSTRIE, INNOVATIE EN INFRASTRUCTUUR	Shareholders Investors Customers

Objectives and results for creditworthiness

Credit rating

Result in 2021:
S&P A+/A-1/stable outlook
Moody's Aa3/P-1/stable outlook
2021 target:
To retain a solid A rating profile

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

FFO/net debt

25.8% 2021 result

≥ 15.0% 2021 objective[1]

24.1% in 2020

Interest cover

17.2 2021 result

≥ 3.5 2021 objective

14.2 in 2020

Net debt/(net debt + equity)

36.7% 2021 result

≤ 60.0% 2021 objective

38.7% in 2020

Solvency ratio

53.8% 2021 result

≥ 30.0% 2021 objective

53.1% in 2020

1 For further explanation see Changes in financial policy.

Developments in 2021

Funding the energy transition

The energy transition is leading to rapidly increasing demand for electricity and substantial growth in the network operators' work package. This is clearly reflected in Alliander's investments. The level of investment almost doubled in 2021 compared to five years ago, and exceeded €1 billion for the first time. The demand for energy will continue to increase in the coming years, leading inevitably to a further rise in our investments. This is not only due to the much larger work package; significant price increases caused by the scarcity of technical staff, a shortage of external contractors and limited availability of materials also play a role. Other factors are the rising energy prices and the growing work package at TenneT, which have resulted in an increase in our purchase costs and negatively affect our result.

In our current regulatory framework, in which the network operators themselves provide up-front financing for investments, it takes an average period of 40 years to recoup the investment via the network tariffs. Given the increasing level of investments, we are no longer able to finance them from our operating activities.

Consequently, the substantial growth in the investments that are now required to fulfil our social mission leads to a significant annual funding shortfall. In both 2021 and 2020, we had a financing requirement of nearly €300 million. Our debt position increased by these amounts as a direct result.

Due to the low interest rates, the tariffs will rise more slowly than our costs in the coming years. This is because the interest rate is a component in our regulated tariffs. The effect of the low interest rate on the tariffs is partly offset by a number of measures set out in the ACM's new Method Decision for 2022-2026, for example, allowing for a nominal return (rather than the real return) and the application of degressive depreciation on gas, which have an upward effect on tariffs. For further information, see Method Decision 2022-2026.

Investments are rising faster than the tariffs, so the financing need will increase further in the coming years. We have now taken action to keep the financial ratios within the specified ranges. In 2021, our shareholders provided €600 million in the form of a reverse convertible hybrid shareholder loan (convertible shareholder loan). This represents a substantial non-recurring cash flow, 50% of which counts as equity in rating agency assessments: subject to certain conditions, Alliander is entitled to convert all or part of the loan into shares, so part of the loan counts as extra capital for the purposes of determining creditworthiness. Furthermore, Alliander has been carrying out a cost-cutting programme for some years now, in part to preserve its ability to finance investments in a responsible manner.

Other options are also being investigated to ensure long-term financing, such as participation by the central government. Exploratory talks in this respect, initiated by the Ministry of Economic Affairs and Climate Policy and the Ministry of Finance, are currently ongoing with Alliander, Enexis and Stedin. We are also looking at opportunities to attract new shareholders, which is necessary for financing and for strengthening equity. This has a positive effect on the ratios, allowing us to continue to attract loans on attractive terms. Both the investments required in the future and their financing reflect the magnitude of the task we face in implementing the energy transition.

Developments relating to associates

In 2021, Alliander AG sold a large part (75%) of its shares in 450connect GmbH and the licence was simultaneously extended until 2040. In addition, agreement on the transfer of the activities relating to traffic control installations in the city of Berlin was reached with a company owned by the German Federal State of Berlin in November. This transfer will be effected on 31 December 2022. Furthermore, in the same context, the contracts for maintaining public lighting in a number of cities in Germany are being scaled back or transferred to third parties at an accelerated pace. In December 2021, Alliander signed the agreement with Van Gelder Group regarding the sale of the shares of Alliander's wholly owned contractor Stam Heerhugowaard Holding B.V. (Stam). The shares were transferred on 10 January 2022.

These divestments are a direct result of Alliander’s redefined strategy. The sale of the contractor Stam also fits in with the new contracting strategy that came into effect in 2021.

Early termination of CBLs

In December 2021, with the agreement of the relevant US counterparty, Alliander prematurely terminated two of the three remaining cross-border leasing (CBL) contracts. They were due to run until 2028. The early termination substantially reduced both our off-balance-sheet investments and related lease obligations. In addition, as part of this termination, the on-balance-sheet General Electric bonds (€147 million) were sold and the associated loans repaid. As a result of these transactions, only one CBL contract remained in place at the end of 2021. For further explanation, see note [3] to the financial statements.

Additions to the reporting scope

Under the EU’s Sustainable Finance Action Plan to make the European economy more sustainable, Alliander must comply with the reporting obligations set out in the EU taxonomy from the 2021 financial year. This specifies a classification system that indicates whether business activities and related cash flows — particularly revenues and investments — are sustainable. This reporting information, new as of the financial year 2021, has been added to this section.

In addition, as an issuer of securities in the European Union, Alliander is required to publish its annual report in digital form in accordance with the European Single Electronic Format (ESEF) as of the 2021 financial year. ESEF makes the reports published by issuing institutions more accessible and facilitates the analysis of and comparability between annual financial reports.

Alliander's financial policy is explained in further detail in this chapter. Furthermore, the financial results and position in 2021 in terms of the balance sheet, cash flows and financing are also presented, followed by taxation, the impact of the method decision and the impact of the EU taxonomy.

The main changes resulting from the 2022-2026 method decision are considered next. This method decision, established by the ACM, serves as the basis for determining the permitted income and, by extension, the regulated tariffs. The chapter ends with a look ahead at the results expected for 2022.

Financial policy

In principle, our financial policy is designed to allow us to maintain a solid A rating. This means that we are able to continue to invest in our networks and grow the business thanks to our financial position. This enables us to pursue our strategy and play a facilitating role in the energy transition. However, the information given earlier shows that our financial position, in particular, will come under pressure in the near future.

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 shareholder loan and the convertible shareholder loan are treated as 50% equity and 50% debt capital.

Changes to the financial policy

The financial policy remained unchanged in 2021, with the exception of the following: on 31 May 2021 the financial policy was adjusted on a number of points to be able to make full use of the financing capacity available under an A rating profile:
- The minimum FFO/net debt ratio was reduced from 20% to 15%.
- The minimum required A rating profile no longer concerns the stand-alone rating: from now on this will pertain to the rating including any markup as a result of public shareholding.

In addition, as of 31 May 2021, the dividend policy was amended with regard to the considerations for calculating the dividend payout ratio. The aim of this is to bring the treatment of the periodic compensation for the existing hybrid bond loan in line with that for the convertible hybrid shareholder loan. To this end, the profit/loss after tax will be adjusted for periodic payments relating to loans that are recognised in equity.

Ratios on the basis of Alliander's financial policy

	norm	31 December 2021	31 December 2020
FFO/net debt	> 15%	25,8%	24,1%
Interest cover	> 3,5	17,2	14,2
Net debt/(net debt + equity)	< 60%	36,7%	38,7%
Solvency	> 30%	53,8%	53,1%

As at 31 December 2021, the FFO/net debt ratio amounted to 25.8% (year-end 2020: 24.1%) compared with a required minimum of 15% in 2021 (2020: 20%). The higher ratio is due to the sharp increase in FFO in 2021 and a relatively limited increase in the net debt position. The increase in the net debt position was limited because, based on our financial policy, 50% of the newly agreed convertible shareholder loan counts as equity.

As at 31 December 2021, the interest cover ratio worked out at 17.2 (year-end 2020: 14.2). Alliander's financial policy stipulates that this ratio should be a minimum of 3.5. The increase in 2021 is mainly attributable to the higher FFO due to higher revenue and other factors.

The ratio of net debt/(sum of net debt and equity) as at 31 December 2021 amounted to 36.7% (year-end 2020: 38.7%). Alliander's financial policy stipulates that this ratio should not exceed 60%. The decrease in 2021 is mainly caused by the effect of the convertible shareholder loan, which strengthens our assets based on our financial policy.

The solvency ratio as at 31 December 2021 amounted to 53.8% (year-end 2020: 53.1%) compared with a required minimum of 30%. The increase compared with 2020 is mainly due to the increase in assets as a result of investment.

Dividend policy

As part of the financial policy, the dividend policy provides for distributions of up to 45% of the profit after tax, adjusted for fair value movements, periodic payments relating to loans that are recognised in equity and exceptional items that did not lead to a cash flow, unless investments or financial criteria demand a higher profit retention percentage and/or unless the solvency ratio falls below 30% after payment of dividend. For more information, see the proposed profit appropriation for 2021.

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.

Social 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.

Green financing

Alliander sees that, alongside a sound financial policy, shareholders and other investors are increasingly focusing on sustainability. 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. For example, Alliander established a green Euro Commercial Paper (ECP) programme in July 2021 and set up a committed sustainability-linked credit facility with banks in December 2021. Together with the existing option of issuing green bonds, this has created a financing structure that gives Alliander financial incentives to invest in sustainability and conduct its business in a sustainable way. Our sustainability efforts have been rewarded with a sustainability classification of B+ by rating agency ISS ESG and a Low Risk classification by Sustainalytics. This puts us among the best-performing companies in our sector in terms of sustainability performance, according to these rating agencies.

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 2021, 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.

In December 2021, almost all shareholders participated in a convertible shareholder loan totalling €600 million.

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 2021 we met with investors to discuss the 2020 figures. This discussion included various other topics such as the progress made in the energy transition, the increase in investments, measures to increase our financing capacity, the financial and dividend policy and the new regulatory period.

Banks

In December 2021, Alliander agreed a new committed back-up credit facility worth €900 million with seven banks, The facility runs until December 2026, with the option to extend it by one year in 2026 and 2027, up to December 2028 at the latest. This credit facility replaces the existing credit facility for €600 million. The fee paid for this facility depends in part on Alliander's performance in relation to a number of sustainability KPIs. As in previous years, no use was made of the credit facility during the past year.

A €300 million loan arranged with the European Investment Bank was drawn down 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 CBL contracts Alliander entered into at the end of the 1990s, of which one is still in effect, see note [3]. 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 to the long-term rating over the next few years. In 2021, the long-term credit ratings of both S&P and Moody's were downgraded one notch. In line with this, S&P also downgraded its short-term credit rating by one notch. At year-end 2021, Alliander's credit ratings were as follows:

	long term	short term
Standard & Poor's	A+ (stable outlook)	A-1
Moody's	Aa3 (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, the issue of the convertible shareholder loan and the impact of COVID-19 on Alliander. The recent financial performance figures and forecasts that Alliander provided on these occasions were taken into account by S&P and Moody's when assessing Alliander's creditworthiness.

Financial results in 2021

Financial flows within Alliander

Approximately 85% Alliander's income comes from the regulated activities of network operator Liander and 15% is from other sources, 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 will publish its own annual report on its performance in 2021. This annual report will appear in the second quarter of 2022.

The main expenditure relates to maintenance work on the electricity and gas networks and the operating expenses connected with all other activities. We invested more than €1 billion in 2021, mainly in the replacement and expansion of our networks. This investment equates to roughly 38% 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 2021 together amounted to approximately 4% of our overall expenditure. Finally, we pay corporate income tax to the tax authorities, and we paid sufferance tax to municipalities for the last time in 2021. 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. In the period up to and including 2021, this programme has led to total savings of €160 million.

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 capacity 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. Cost savings have become part of Alliander's management approach and are now embedded in our way of working.

Alliander's work package has increased significantly in recent years, leading to growth in the size of the organisation and a corresponding increase in costs. The procurement costs for compensating network losses have also risen, as have the costs charged by TenneT, the prices of materials and the prices charged by external contractors. These factors mean that Alliander's costs show a rising trend despite the annual savings we achieve. This increase is deemed necessary to carry out our social mission.

Income statement for 2021

Net profit amounted to €242 million in 2021 compared with €224 million in 2020. Profit is up by €18 million, due to higher revenue (€111 million) and other factors. The higher regulated tariffs in particular, but also the growth in the number of connections and transmission volumes, increased the revenue from regulated electricity and gas sales by €111 million compared to 2020. At the same time the extra revenue also has implications for the costs, which are €91 million higher than in 2020. As a result of the high level of investment in recent years, depreciation increased by €37 million. The increase in energy prices has a knock-on effect on the purchase costs for compensating network losses, which are €35 million higher than in 2020. 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, these costs increased by €14 million compared to 2020.

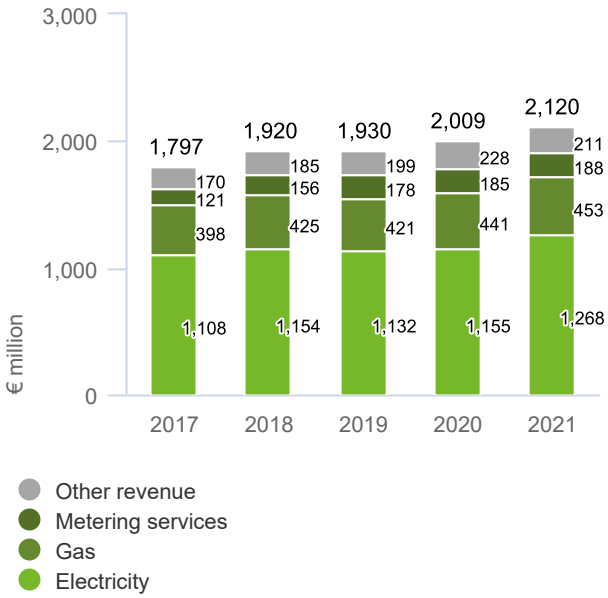
The tax expense is €17 million higher than in 2020 due to our higher profit, but also because of a tax gain of €19 million in 2020 following adjustment of the corporate income tax rates. In 2021, this adjustment led to a tax gain of €5 million.

The net profit is affected every year by incidental items, which, in 2021, had a positive impact of €12 million on our profit. Net profit excluding exceptional items worked out at €230 million, €9 million higher than the comparable profit in 2020. 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

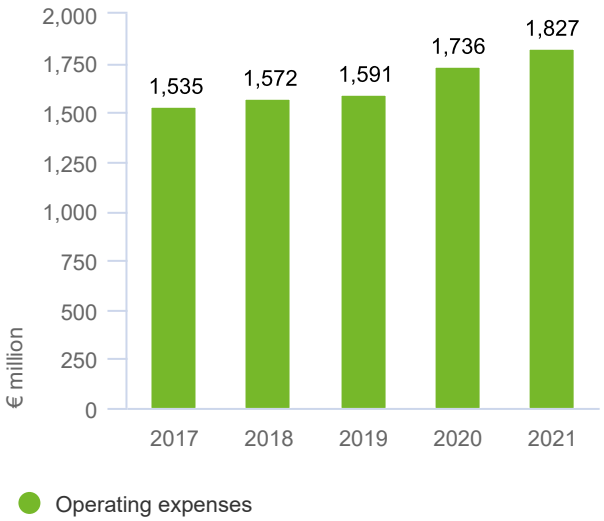


Net revenue

Net revenue in the 2021 financial year rose by €111 million compared with the previous year, from €2,009 million to €2,120 million. The (regulated) revenue from electricity and gas increased by €113 million and €12 million respectively. For electricity, this increase is mainly attributable to higher tariffs, although the higher number of connections also played a role. In the case of large business customers, the revenue is partly linked to the transmission volumes. In 2020, these volumes were affected by COVID-19, but this effect was limited in 2021. The higher transmission volumes also led to a revenue increase of €9 million relative to 2020. The increased revenue for gas can be fully attributed to the higher (regulated) tariffs. The higher revenue generated by metering services (€3 million) is due to both a larger number of connections and an increase in the tariffs.

Other revenue is €17 million lower compared to 2020. This is mainly due to the one-time revenues realised in 2020.

Operating expenses



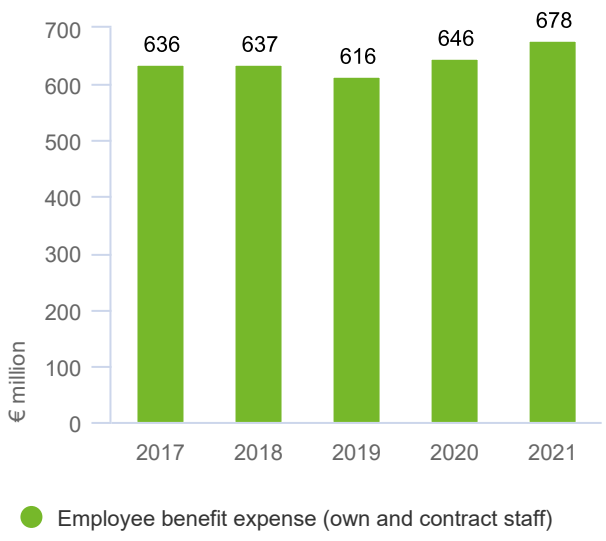
Operating expenses

Operating expenses rose from €1,736 million in 2020 to €1,827 million in 2021. This €91 million increase was primarily caused by the following factors:

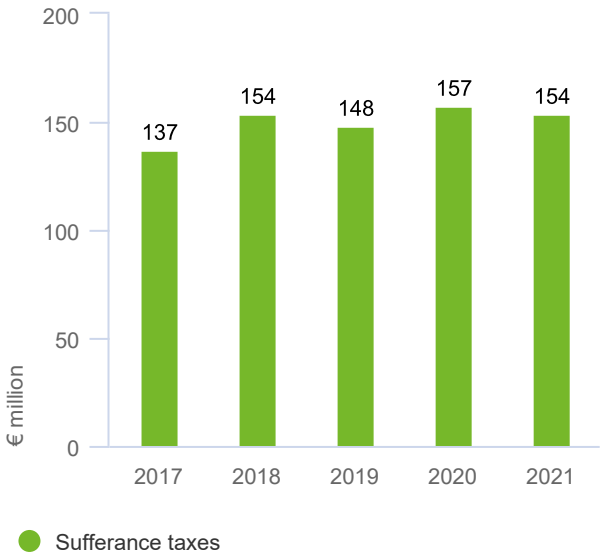
- The increase in investments in recent years also resulted in a higher depreciation expense of €37 million.
- The procurement costs for compensating network losses were €35 million higher than in 2020. This is mainly due to the higher energy prices at the time of purchase.
- The costs for procuring transmission capacity rose by €14 million as a result of the higher tariffs set by TenneT.
- There was an increase of €12 million in the costs of contractors and materials as a consequence of the larger work package executed in combination with the price increases on the market.
- The employee benefit expenses rose by a good €30 million. This is due to both growth in the size of the organisation and the agreed increases in the collective labour agreement. However, this was also offset by an increase in capitalised production, as more work was carried out for investment projects. On balance, this factor had little impact on operating expenses.
- Other operating expenses were down €6 million compared to the cost level in 2020. This is mainly due to the one-off expense of €10 million in 2020 for forming a provision for a loss-making maintenance contract in one of the business units. The partial release of this provision in 2021 resulted in a non-recurring income item of €5 million.

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

Employee benefit expenses (permanent and temporary)



Sufferance tax



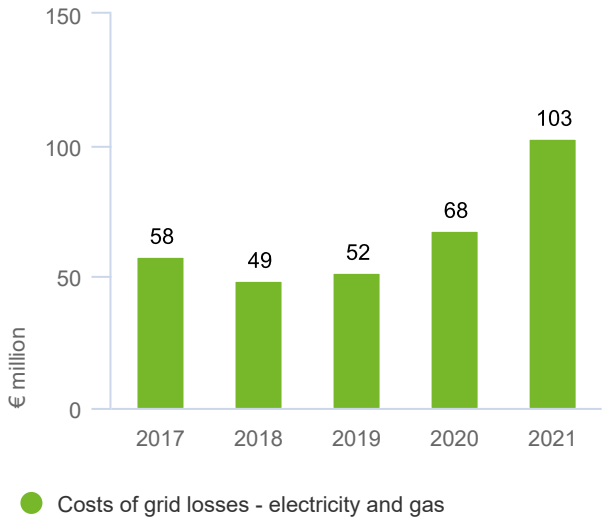
Employee benefit expenses

The total employee benefit expenses for both internal and external employees were €32 million higher than in 2020. The costs associated with our own workforce rose by €26 million due to the addition of more than 100 FTEs and the increase in average costs per FTE as a result of the collective labour agreement wage increase. The number of agency FTEs also increased by more than 150 full-time equivalents. These agency employees were hired to ensure sufficient staffing for the work package and also for digitalisation projects. The larger workforce also led to an increase in capitalised production of €30 million relative to 2020; as a result, the effect on total operating expenses was zero.

Sufferance tax

The sufferance tax charges rose by €3 million compared with 2020, to €154 million. This is mainly due to additional charges that were imposed by some municipalities in 2020. 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 non-recurring, the costs were €6 million lower in 2019 compared with 2018. In 2020, the sufferance tax charges increased due to an additional tax charge imposed by some municipalities and more kilometres of cables and pipes in the ground. A few years ago, the legislative powers agreed to abolish the sufferance tax charges on electricity and gas infrastructure. This means that as of 2022 municipalities can no longer charge sufferance taxes to Liander.

Costs of network losses - electricity and gas



Transmission capacity costs

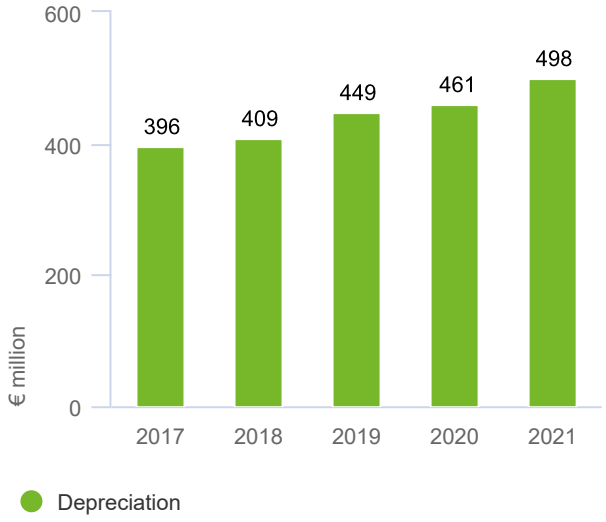
Costs of network losses - electricity and gas

The costs of network losses, at €103 million, were up by €35 million compared with 2020. Since 1 January 2020, the network operators have had 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 and gas infrastructure increased in 2021, mainly due to the higher procurement prices paid for electricity and gas.

Transmission capacity costs

Transmission capacity costs in 2021 amounted to €267 million, an increase of €14 million compared to the previous year (2020: €253 million). These costs mainly consist of the costs for transmission capacity charged by TenneT. The increase is mainly due to the higher tariffs charged by TenneT.

Depreciation and impairment



Depreciation

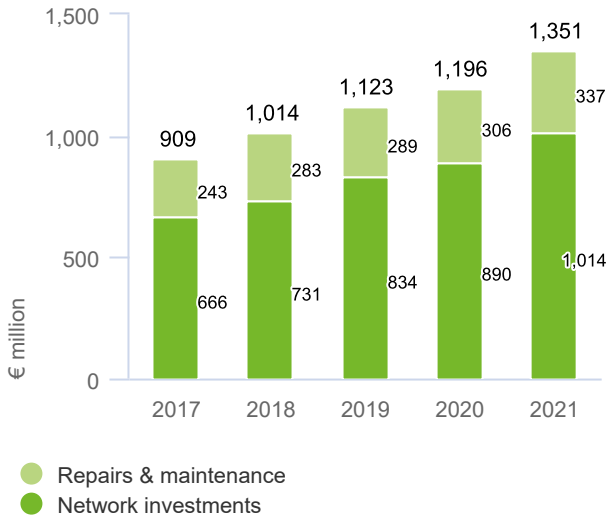
The depreciation charges and impairment losses on non-current assets amounted to €498 million, which is an increase of €37 million compared with the preceding year (2020: €461 million). The increase in depreciation is due to the higher level of investment.

The construction of energy networks is a long-term investment for us, based on an estimated useful life of 40 to 50 years. The Netherlands wants to become climate neutral by 2050, and one of the measures to achieve this is to replace natural gas for heating with sustainable heating solutions over the next 30 years. The question we ask ourselves 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 network being taken out of service earlier than originally planned. This has been provided for in the new method decision for 2022-2026 by allowing a higher return for gas, among other measures.

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 2021 was €1,351 million, an increase of €155 million compared with 2020 (€1,196 million). The increase is mainly due to higher investments (€124 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 2021, exceptional items had a positive impact of €12 million on our net profit. In 2020, exceptional items provided a gain of €3 million. This means that the net profit, adjusted for these exceptional items, was €9 million higher than in 2020. 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	
	2021	2020	2021	2020	2021	2020
Revenue	2.120	2.009	-	-	2.120	2.009
Other income	61	46	17	-	44	46
Total purchase costs, costs of subcontracted work and operating expenses	-1.634	-1.550	-10	-19	-1.624	-1.531
Depreciation and impairments	-498	-461	-3	-	-495	-461
Own work capitalised	305	275	-	-	305	275
Operating profit	**354**	**319**	**4**	**-19**	**350**	**338**
Finance income/(expense)	-45	-41	-4	-	-41	-41
Result from associates and joint ventures	5	1	6	-	-1	1
Profit before tax	**314**	**279**	**6**	**-19**	**308**	**298**
Tax	-72	-55	6	22	-78	-77
Profit after tax from continuing operations	242	224	12	3	230	221
Profit after tax from discontinued operations	-	-	-	-	-	-
Profit attributable to minority interests	-	-	-	-	-	-
Profit after tax	**242**	**224**	**12**	**3**	**230**	**221**

Sale of 450connect

The sale of part of our shareholding in 450connect GmbH had a positive impact of €10 million on our net profit in 2021. The effect is reflected in the revenue, other operating expenses, depreciation and the profit/loss from associates. These are disclosed below.

€ million	
Other income	17
Operating expenses	-10
Depreciation	-3
Profit/loss of associates and joint ventures	6
Net profit	**10**

Other income

(2021: €17 million, 2020: zero)

In 2021, the sale of part of our shareholding in 450connect GmbH had a positive impact of €17 million on other income.

Total procurement costs, costs of subcontracted work and operating expenses

(2021: €10 million; 2020: €19 million)

The net exceptional expenses in 2021 of €10 million comprised organisational adjustment costs (€5 million), compensation of €10 million paid under an earn-out arrangement for the former shareholders at 450connect and income resulting from the release of the provision for a loss-making maintenance contract in one of the business units. In 2020 an expense of €10 million was recognised for this. In addition, the exceptional expenses in 2020 included organisational adjustment costs of €9 million.

Depreciation and impairment

(2021: €3 million, 2020: zero)

The exceptional expenses in 2021 consisted of depreciation of the remaining goodwill at the time of the partial sale of our stake in 450connect.

Total finance income/(expenses)

(2021: €4 million expense, 2020: zero)

The exceptional expenses for 2021 of €4 million relate to the early termination of two CBL transactions. In 2020, the exceptional expenses were zero.

Tax

(2021: €6 million income, 2020: €22 million income)

The income item in 2021 is the result of the impact of the previously mentioned exceptional items on corporate income tax (€1 million, 2020: gain of €3 million), and the notified increase in the corporate income tax rate. The deferred tax assets and liabilities were revalued accordingly, leading to a tax gain of €5 million. In 2020, revaluation of deferred tax assets and liabilities also led to a tax gain of €19 million.

Profit/loss from associates

(2021: €6 million income, 2020: zero)

The income item in 2021 follows from the revaluation of our remaining interest in 450Connect following the partial sale of the shares.

Segment reporting

General

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	2021	2020	2021	2020	2021	2020	2021	2020
Operating income								
External income	1.935	1.835	229	220	-	-	2.164	2.055
Internal income	5	7	399	361	-404	-368	-	-
Operating income	**1.940**	**1.842**	**628**	**581**	**-404**	**-368**	**2.164**	**2.055**
Operating expenses								
Operating expenses	1.601	1.519	617	566	-404	-368	1.814	1.717
Operating profit	**339**	**323**	**11**	**15**	**-**	**-**	**350**	**338**

Network operator Liander

The Liander network operator 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 €1,940 million, operating income in 2021 was up by €98 million compared with 2020. This increase resulted from higher regulated tariffs and the higher number of connections. The operating expenses for Liander were up by €82 million, chiefly owing to higher tariffs charged by TenneT for transmission capacity procurement, higher procurement costs for compensating network losses and higher depreciation as a result of the higher level of investment. As a result, the operating profit of €339 million was €16 million higher than in 2020.

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 €229 million, external operating income in 2021 was up by €9 million compared with 2020. Operating profit for 2021 amounted to €11 million (2020: €15 million profit). This drop is mainly accounted for by lower profits at Qirion and Staven and elsewhere.

Balance sheet

The abridged balance sheet as at 31 December 2021 is shown below.

	Alliander N.V.	
€ million	31 December 2021	31 December 2020
Assets		
Non-current assets	9.167	8.745
Current assets	1.026	674
Assets held for sale	16	3
Total assets	**10.209**	**9.422**
Equity and liabilities		
Total equity	4.470	4.328
Non-current liabilities	4.694	4.575
Short-term liabilities	1.036	519
Liabilities held for sale	9	-
Total equity and liabilities	**10.209**	**9.422**

The significant changes in the balance sheet as at 31 December 2021 relative to the situation as at 31 December 2020 are explained below. Detailed information on balance sheet items is given in the financial statements.

- Non-current assets increased by €422 million. This increase is mainly explained by the high level of investment, in particular in the electricity networks.
- Current assets rose by a good €352 million. This is mainly due to the higher cash balance as a result of the incoming cash flow from the convertible shareholder loan at the end of 2021.
- The assets and liabilities held for sale relate to Stam.
- Equity increased by €142 million as a result of the profit of €242 million achieved in 2021 on the one hand, and the dividend of €94 million paid over 2020 on the other. A summary of the movements can be found in note [12] of the financial statements.
- The increase in non-current assets was financed, in part, through external loans. The non-current liabilities increased by €119 million compared to 2020. This includes the agreed convertible shareholder loan for an amount of €600 million and the shift from non-current liabilities to current liabilities of €400 million. Furthermore, the early termination of two CBLs led to a reduction in the lease liabilities.
- The current liabilities increased by €517 million compared to 2020. This is mainly because some of the non-current liabilities became current liabilities as they will be repaid in 2022.

Cash flow

Consolidated cash flow statement

A summary of the cash flow statement for 2021 is shown below.

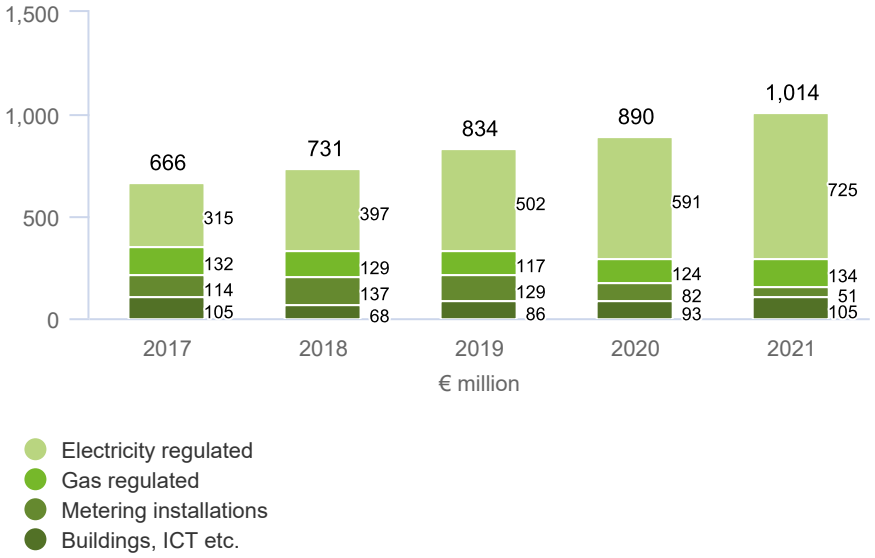
€ million	2021	2020
Cash flow from operating activities	664	634
Cash flow from investing activities	-639	-769
Cash flow from financing activities	301	280
Net cash flow	**326**	**145**

The cash flow from operating activities in 2021 amounted to €664 million (2020: €634 million). This higher operating cash flow is mainly due to the higher profit, which was partly offset by changes in working capital in particular.

The cash outflow from investing activities in 2021 amounted to €639 million, which is a good €100 million lower than in 2020. This has five causes:

1. Redemption of the bonds, which had a positive impact of €198 million on investment cash flow in connection with the early termination of two CBL transactions.
2. Increase of €124 million in gross investments for property, plant and equipment. These are disclosed below.
3. This is offset by lower customer contributions of €26 million.
4. The partial sale of 450connect in 2021, which had a positive impact of €30 million on the investment cash flow.
5. The acquisition of TReNT in 2020, which had a negative impact of €60 million on the investment cash flow in 2020.

Investments



In 2021, the investments increased by €124 million relative to 2020. This is almost entirely due to the increased investments in the power grids 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. The investments in power grids have more than doubled during the past five years. By contrast, the investments in the gas networks are roughly at the same level as in 2017. 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 has now been phased out, and the investments dropped to €51 million in 2021. In the 'Buildings, IT, etc. category', there has also been an increase in the investments over the last three years in telecommunications networks (both fibre optic networks and mobile data communications networks). The relatively high investment figures in the 'Buildings, IT, etc. category' in 2017 reflect the renovation of the office buildings in Duiven and Arnhem.

Free cash flow

€ million	2021	2020
Cash flow from operating activities	664	634
Acquisition/sale of associate	27	-60
Investments and divestments in non-current assets	-1.014	-890
Construction contributions received	149	175
Loans received	199	6
Free cash flow	**25**	**-135**

The free cash flow in 2021 totalled €25 million, compared with a free cash flow in 2020 of €135 million negative. This difference is almost entirely due to the redemption of the General Electric notes in connection with the early termination of two CBL contracts.

The cash flow from financing activities for 2021 amounted to €301 million (2020: €280 million). In 2021, the previously issued perpetual bond loan led to an incoming cash flow of €599 million. There was also an incoming cash flow resulting from security deposits received amounting to €72 million. This was offset by lease payments (€206 million) resulting from the early termination of two CBLs, repayment obligations (€48 million) and dividend paid (€94 million). The incoming cash flow due to new loans raised in 2020 amounted to €847 million through the Green Bond and other instruments, but the contractually agreed repayments amounted to over €400 million in 2020.

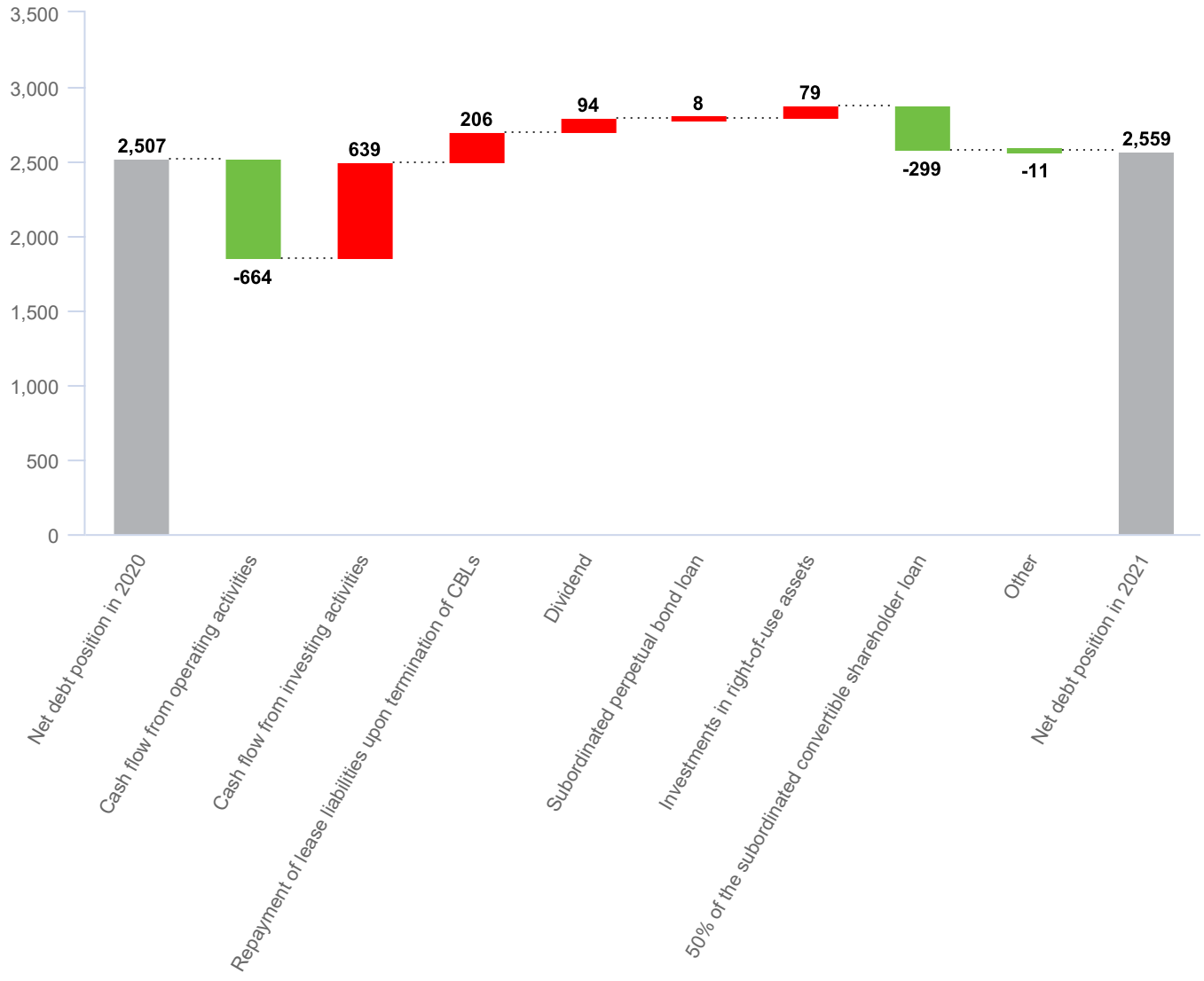
Part of the financing cash flow consists of the issue of a convertible shareholder loan. This resulted in an incoming cash flow of €599 million, 50% of which counts as equity in the determination of creditworthiness.

Financial position

Development in debt position

The development in the net debt position over 2021 is shown below.

Development in net debt position



The net debt position rose by €52 million to €2,559 million at year-end 2021 (31 December 2020: €2,507 million).

Net debt position

Net debt position

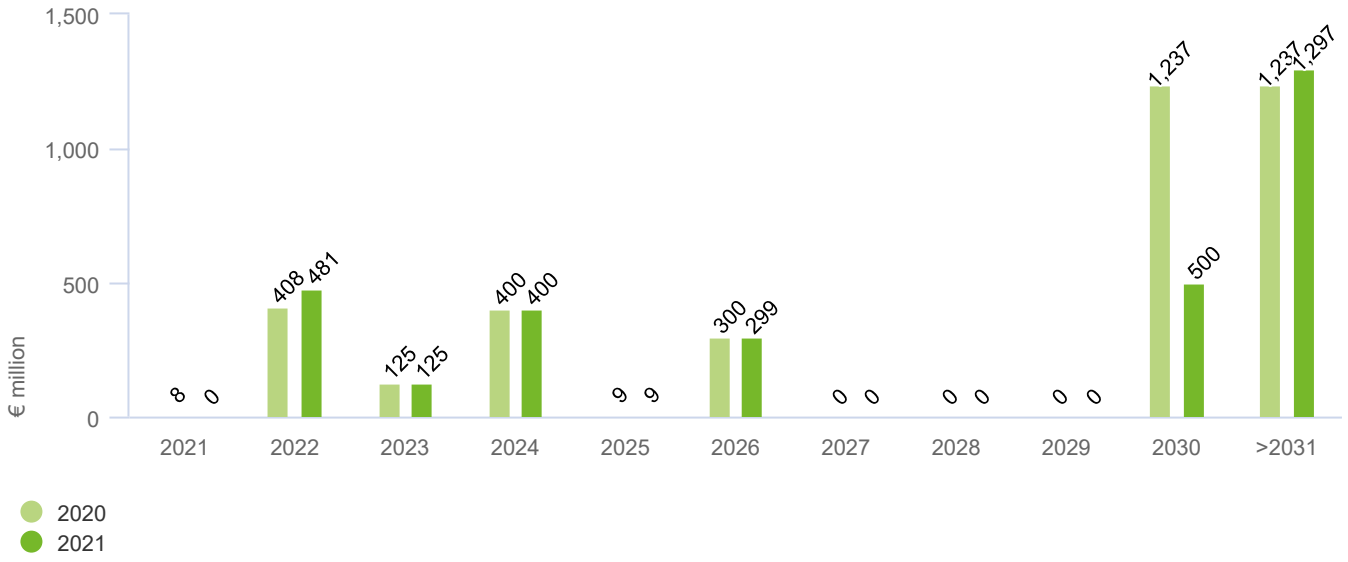
€ million	31 December 2021		31 December 2020	
Long-term interest-bearing debt	2.630		2.479	
Short-term interest-bearing debt	481		8	
Lease liabilities	123		217	
Gross debt		**3.234**		**2.704**
Cash and cash equivalents	624		298	
Investments held for lease obligations related to cross-border leases	-		147	
Total cash and cash equivalents and investments		**624**		**445**
Net debt in accordance with the annual financial statements (IFRS)		**2.610**		**2.259**
50% of the subordinated perpetual bond loan		248		248
50% of the convertible shareholders loan		-299		-
Net debt on the basis of Alliander's financial policy		**2.559**		**2.507**

Alliander has a €3 billion euro medium-term note (EMTN) programme. As at 31 December 2021, the carrying amount of the outstanding bonds was €1,990 million (nominal value €2,000 million). Alliander has two euro commercial paper (ECP) programmes totalling €1,500 million, which can be used to issue short-term debt instruments. In addition to the standard ECP programme, there is also a separate programme to issue green ECP debt instruments. In the latter case, the funds obtained are used to finance assets that are further specified in the Green Finance Framework. No ECP loans were outstanding as at year-end 2021, and the same applies to year-end 2020.

Interest-bearing debt

The repayment schedule for the interest-bearing debt as at year-end 2021 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/green-finance-framework/). 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 2021 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
Renewable energy	3,537	33%	1,181
Smart meters	530	100%	530
Fibre optic network	50	100%	50
Total energy efficiency	**580**	**100%**	**580**
Sustainable buildings	67	100%	67
Total green asset portfolio			**1,828**

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

The table shows that the net carrying amount of green assets at 31 December 2021 is €1,828 million. This represents an increase of €356 million since 31 December 2020. As a result, €628 million in green financing capacity was available as at year-end 2021. No new long-term green financing was arranged in 2021.

The weighting factor for the renewable energy asset category as at year-end 2021 has been determined as 33.4% (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.

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, although the local tax rules apply to our activities in Germany. The table below shows the totals per type of tax per country.

Tax payments in 2021

Million	Netherlands	Germany
Corporate income tax	63	1
Dividend tax	14	-
Wage tax	173	2
VAT	235	4
Total	**485**	**7**

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 Dutch tax authorities concerning tax issues that are relevant to Alliander. Alliander and the Dutch Tax Administration have jointly agreed a renewed covenant. Alliander has updated its tax policy to reflect this and published it on its public website. The key aspect of this tax policy is that Alliander is a committed, reliable and transparent tax-paying company that pays its fair share of taxes to society.

We give substance to this by focusing on the following in our tax policy:

- Timely submission of a correct and complete tax return and timely payment of the tax owing;
- Proper allocation of roles and responsibilities in respect of taxation across multiple hierarchical layers within Alliander;
- Maintaining a good and transparent relationship with the Dutch Tax Administration;
- Proper application of the applicable laws and regulations within normal business operations;
- Maintaining a working tax management framework consistent with our risk management model;
- Transparency on taxation in our reports and the information given to our stakeholders.

Method decision 2022 - 2026

In September, the Netherlands Authority for Consumers & Markets (ACM) established new regulatory methods for regional electricity and gas network operators. The law stipulates that the ACM must periodically establish a regulatory method, valid for a minimum of three and a maximum of five years, which is used to determine permitted income and tariffs for the corresponding period. The method must make it possible for network operators to achieve a reasonable return if they manage their activities efficiently.

The ACM has made adjustments in anticipation of the upcoming energy transition in both method decisions.

Gas

In the regulatory method for the regional gas network operators, the ACM has introduced measures in line with the expectation that no new customers will be connected to the existing gas infrastructure in the coming decades, and that many customers will in fact switch to a different form of heating. Without these adjustments, the customers remaining on the grid would risk being burdened with excessive bills and network operators might end up with unrecoverable assets. For gas, the ACM is moving to a nominal system for compensating the legally defined reasonable return, which means that returns can no longer be pushed back in time. In addition, the ACM will switch from straight-line depreciation to degressive depreciation for assets. The third important measure is that divestments in connections and networks will be charged directly to the regulatory result. This package ensures that fewer costs are pushed back in time, which is consistent with the goal of not overburdening future generations.

Electricity

In the regulatory method for the regional electricity network operators, the ACM has made several adjustments based on the opposite development compared to gas, namely that the infrastructure needs to be expanded substantially, which could lead to financial difficulties for the network operators if no adjustments were made. The ACM method ensures that the coverage in the tariffs for purchase costs charged by TenneT run parallel with the expected actual costs. This avoids significant pre-financing of these purchase costs. In addition, the ACM takes into account the exponential increase in the number of connections for decentralised renewable production. Where initially the increase was processed once per regulatory period, there is now provision for structural retrospective costing based on the last known actual data, i.e., for a delay of no more than two years. With regard to the reasonable return system, the ACM has decided to use an average of the real and nominal values. In the case of electricity, there is also a package of measures whereby fewer costs are pushed back in time.

Reasonable return

Furthermore, for both gas and electricity, the level of the legally defined reasonable return has been adjusted to reflect the recent market trend, with a decrease due to the effect of the historically low interest rates at present. In addition, the ACM decided to recalculate the reasonable return annually based on the actual level of the risk-free interest rate. This means greater financial uncertainty, but will be advantageous once interest rates start to rise again.

Impact

The conclusion of Liander and the other network operators is that the ACM has established a regulatory method for regional electricity network management for the years 2022 to 2026 that does not take sufficient account of the energy transition and will therefore lead to development in revenue that lags far behind the unavoidable increases in expenditure. The main reason for this is that in its forecasts, the ACM has not allowed for the sharp break relative to the previous trend in respect of expenditure associated with the energy transition. For example, it does not take into account the additional costs resulting from the much higher level of investment, more than double, nor does it make provision for compensation of the new, and potentially very high, costs of congestion management.
In respect of regional gas network management, the network operators conclude that the ACM has generally taken sufficient account of the consequences of the energy transition in the adjustments to the method.

Based on the above, the collective network operators submitted appeals to the Dutch Trade and Industry Appeals Tribunal (CBb) in December 2021.

EU taxonomy

Introduction

The Paris Agreement is the first universal, global climate treaty for climate adaptation, developing climate resilience and limiting global warming to no more than 2°C relative to pre-industrial levels. In line with this agreement, the EU set itself the goal of becoming climate neutral by 2050. To achieve those objectives, the EU launched an action plan for financing sustainable growth (the EU Action Plan) in March 2018. This action plan is part of the European Green Deal to make the European economy more sustainable. The three main elements of the EU Action Plan are:

- re-orient capital flows toward a more sustainable economy;
- make sustainability a permanent aspect of risk management;
- encourage transparency and long-term thinking.

The next step was the adoption of the EU taxonomy, a classification system that shows whether cash flows support sustainable business activities.

The EU taxonomy serves six environmental objectives:

- climate change mitigation;
- climate change adaptation;
- sustainable use and protection of water and marine resources;
- transition to a circular economy;
- prevention and control of pollution;
- protection and restoration of biodiversity and ecosystems.

In line with regulations, Alliander reports according to the EU taxonomy. The obligation for 2021 only concerns the first two environmental objectives (mitigation of and adaptation to climate change); in subsequent years, all the environmental objectives must be included in the report.

In concrete terms, the report must include the following information relating to the first two environmental objectives:

- Identification of the eligible activities of Alliander. In the context of EU taxonomy reporting, this relates to Alliander's activities in connection with transmitting and distributing electricity and heat, and these climate-related business activities are classified as sustainable.
- Details of the revenue, CAPEX (investments) and OPEX (operating expenses) per activity, both in amounts and as a percentage of the total.

Climate-related economic activities € million	Revenue		CAPEX		OPEX		NACE
A) Taxonomy of eligible activities							
4.9 Transmission and distribution of electricity	1,548	71%	760	69%	122	72%	35.13
4.15 Distribution of district heating and cooling	15	1%	8	1%	1	1%	35.30
Total for eligible business operations	1,563	72%	768	70%	123	73%	
B) Taxonomy of non-eligible activities							
Other business operations	618	28%	327	30%	45	27%	
Total for Alliander	**2,181**	**100%**	**1,095**	**100%**	**168**	**100%**	

Notes

For determining climate-related business activities, the EU taxonomy is consistent with the existing European system for classifying economic activities by sectors (NACE). Alliander reports on the following eligible business activities under the EU taxonomy: 'Transmission and distribution of electricity' and 'District heating/cooling distribution'. The non-eligible activities under the taxonomy mainly concern the distribution of natural gas, which is not currently included as a climate-related business activity in the EU taxonomy.
The 'Transmission and distribution of electricity' activity concerns the development, construction and operation of distribution systems for the transmission of electricity via high, medium and low voltage distribution networks. The 'District heating/cooling distribution' activity concerns the development, construction, renovation and operation of pipelines and related infrastructure for the distribution of heat and cold. The eligible business activities have no overlap so there is no duplication in the reported figures.

The revenue under the EU taxonomy is consistent with IFRS reporting standards and is therefore equal to the total operating income as included in the financial statements under note [21] (Net revenue) and note [22] (Other income). We have determined the proportion of total operating income that was generated with taxonomy-eligible activities. As far as possible, the existing split by business activities (electricity, gas, district heating and other) was used for this purpose. The existing NACE coding system of business activities was also followed for classification. The eligible revenue for Alliander includes the total operating income associated with:

- providing the transmission, connection and metering services for electricity distribution, and also with installing, managing and leasing electrical installations (NACE 35.13) and
- leasing district heating networks, providing the transmission service through local district heating networks and developing district heating networks (NACE 35.30).

The CAPEX under the EU taxonomy relates to investments in property, plant and equipment (note 3 in the financial statements), investments in intangible assets (note 4 in the financial statements) and additions to right-of-use non-current assets (note 3 in the financial statements).
The portion of the total investments that relates to taxonomy-eligible activities was determined by determining the economic activity to which each asset group is related and assessing whether this activity is mentioned in the EU taxonomy.
The EU taxonomy is currently not clear on the treatment of investments that are not directly related to the primary process; because these investments are limited in relation to the total CAPEX, they are included as part of the non-eligible activities.

The OPEX under the EU taxonomy is defined as the non-capitalised direct costs related to the maintenance of assets. Based on this definition, Alliander has only classified maintenance and outage expenses as operating expenses under the EU taxonomy. We have determined which part of these maintenance and outage expenses is related to taxonomy-eligible activities.

The EU taxonomy and associated criteria are still evolving. Consequently, this information is not yet part of the assurance report on the non-financial information, as presented on pages 202 - 205.

Our plans for 2022

Investments

Alliander's work package will continue to grow significantly in 2022. We anticipate that the gross investments, mainly for replacing and expanding the networks, as well as investments relating to the energy transition and to IT, will total more than €1 billion in 2022. 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 2022. This, in combination with the dividend that will be paid in 2022 on the profit in 2021, will result in a financing need on the part of Alliander, as was the case in 2021. This is expected to be entirely covered by the income from the issue of the convertible shareholder loan in December 2021.

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. We are also making the impact of our activities more sustainable in our own organisation.

Related topics

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

Material issues	SDGs	Customer groups
A) Facilitation of energy transition D) Cooperating on innovation F) Climate change G) Access to affordable energy N) Supply chain responsibility		Customers Shareholders Investors

Objectives and results for sustainable business operations

Net CO_2 emissions from business operations

115 2021 result in kilotons

≤ 150 2021 objective in kilotons

176 kilotons in 2020[1]

Circularity[2]

27%[3] 2021 result

≥ 45% 2021 objective

23% in 2020

1 *The net CO_2 emissions figure for 2020 has been recalculated using the most recent emission factors (2020).*
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 *The percentage of materials sourced through circular procurement is calculated based on an updated method. The method uses the recycled and recyclable percentages per material type as provided by the supplier. If this percentage is higher than the validated percentage, the validated percentage is used instead. See Supply chain responsibility and circular procurement. When raw material passports are used, the circularly sourced material is assessed at 40% (2020: 44%).*

Support for customers in making choices

We want to make it more attractive for customers to use energy when supplies are plentiful, and to feed power back into the grid when supplies are low. This can be done for example through solutions aimed at better utilisation of the existing network, such as connecting up the reserve capacity in power stations. Better utilisation can also be achieved through flex-markets, congestion management and better switching between substations. We also encourage the establishment of local energy markets and energy hubs. These unlock the potential of different forms of sustainable energy, and link producers directly with customers. Energy hubs optimise the use of locally generated sustainable energy and reduce the risks of network congestion. 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 data with a service provider, which then automatically controls the home battery based on current market prices. Such solutions make it possible to utilise grid capacity better, avoid peak loads and design an optimal energy system.

Rising number of renewable feed-in customers

Each year, we connect 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 sustainable gas into the natural gas network. In 2021, we again saw an increase in the number of registered connections with an active feed-in installation in our service area, from 494,000 to approximately 618,000 (up 25%). That represents 10.6% of our total connections.

Sustainable developments in our service area

Solar energy installed capacity

4,734 MW

3,444 MW in 2020

Wind energy installed capacity

1,756 MW

1,714 MW in 2020

Quantity of green gas fed in

59.2 million m^3

54.9 million m^3 in 2020

Number of public charging points

10,595

8,459 in 2020

Electrification in the area of mobility

The growth in the electrification of passenger cars, public transport, vans and trucks is accelerating. In 2021, we connected 2,136 public charging points (2020: 2,400). In the period up to and including 2025, we expect to connect an additional 88,000 EV charging points in Liander's service area. In other words, the energy transition will literally be visible on almost every street corner. In many places, the roads will have to be dug up in the coming years and more transformer substations, charging points and other infrastructure will be installed. Liander is collaborating with market parties in pilot projects at various places in the country in order to assess the added value of lampposts containing charging points for electric cars. To continue to facilitate the growing demand for charging infrastructure in the long term and to keep it affordable, Liander advocates adopting a coordinated approach at the national, regional and local levels and incorporating the requirements in spatial policy.

Sustainable heating supply

The transition to a new, sustainable heating supply will affect all of the roughly 5,000 districts within the 145 municipalities in Liander's service area. Every municipality was required to adopt a Transition Vision Statement for Heating by the end of 2021. This specifies when a district will transition away from natural gas and what alternative heating solution will be chosen in districts that make the transition before 2030. Liander is assisting the municipalities and provinces by giving them access to its knowledge and experience. We consider the gas grid's service life, the social investments in it and the application possibilities to find the best balance.

Test beds

Various Dutch municipalities receive a contribution from the government to make existing homes and other buildings natural gas-free – or to ensure that they are ready to become natural gas-free – using a district-oriented ('test bed') approach. There are eighteen test-bed districts in our service area. 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 biggest challenge is getting collective choices and timing to come together in a way appropriate to an efficient energy system. Only then can we ensure that everybody has the right supply of heat in the future, keep costs affordable, avoid repeated excavation work in streets 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 for creating a new, sustainable energy supply and organising the process to jointly ensure smooth implementation.

Using hydrogen

Hydrogen will become part of the energy supply. When and where that will happen and to what extent hydrogen will have a place in the energy system of the future is still uncertain. Because of the long useful lives of the gas networks, we must ensure that the choices we make are future-proof, and that includes hydrogen. When making changes to the gas network, we ensure that the network is also ready for the introduction of hydrogen.

Developments in open networks

Open district heating networks under independent network management make a significant contribution to the heating transition. The district heating networks we construct for our partners exploit the potential of residual heat (e.g. from data centres), biomass, collective heat and cold storage, aquathermal energy, geothermal energy and other heat sources. In 2021, we worked in various places to construct or further expand open district heating networks in Dutch municipalities. We also signed new collaboration agreements. The following are examples of ongoing projects and initiatives:

Didam

Together with the municipality of Montferland and housing corporation Plavei, we started to build a district heating network for 222 homes. The homes will initially use a system with a collective air source heat pump. In peak periods and as a backup, the system uses gas-fired boilers.

Zaanstad

In Zaanstad, flats in the Peldersveld district are supplied with heat through an open district heating network. In the summer of 2021, the newly built natural gas-free Gouwpark district was connected to this network. The main pipe in the district heating network was also extended towards 529 newly built houses in the Oostzijderpark district in the summer of 2021. Finally, in September 2021, the district heating piping was installed in readiness for the planned De Slag swimming pool.

Zutphen

In April 2021, a letter of intent was signed by the municipality of Zutphen, Woonbedrijf ieder1, ZutphenEnergie energy cooperative, Alliander and the Directorate-General for Public Works and Water Management for the development of a sustainable and affordable, open and modular district heating network for over 700 homes in the Helbergen district. The network will use thermal energy from the surface water of the IJssel River.

Amsterdam Buikslotermeer and Harderwijk

In Amsterdam Buikslotermeer, we are working with housing corporation De Key to investigate the possibilities for a district heating network for eight apartment blocks that will recover heat from wastewater. In Harderwijk, a project is underway to heat over 1,000 new homes in the new Waterfront district with residual heat from a sewage treatment plant.

Changes to the law

Alliander's activities are highly regulated by legislation and regulations. However, those laws and regulations mostly predate the energy transition. Back then, decentralised renewable energy generation, the heating transition, electric mobility and making industry more sustainable were not topics of any real importance. Alliander is consulting with relevant stakeholders to work out in more detail how the legislation required for the energy transition, for example based on the Dutch Climate Agreement, should take shape in the Energy Act, the Collective Heating Supply Act, the Heating Transition (municipal instruments) Act and the Environment & Planning Act with the National Strategy on Spatial Planning and the Environment. Even though the Climate Agreement is already several years old, the rules necessary for its implementation are not yet in place despite the pressing need for a legislative framework that will facilitate successful completion of this transition. The Energy Act is currently expected to come into effect from 1 January 2024.

Integrated Energy Act

The current Electricity Act and Gas Act are to be modernised and merged in the new Energy Act. The legal texts were published in 2021. Alliander endorses the objective of the new Energy Act, which is to create an integrated and future-proof legal framework for the energy system. However, we believe that it does not yet include adequate provisions for a number of topics. Much of the new legislation will be fleshed out in subordinate legislation, which is easier to adapt and amend. Key areas of focus in the new Energy Act are as follows:

- The Energy Act provides for changes to the connection and transmission obligation. The eighteen-week time limit will be replaced by a reasonable time limit, to be defined in codes. Furthermore, it must be possible to distinguish between types of connections, for example. The right to a connection and transmission will be linked to the availability of transmission capacity: if capacity is lacking, the connection can be postponed. There will also be provisions to the effect that contracted transmission capacity must actually be used.
- The Energy Act must ensure that connected parties have control over their metering data and that they can determine the parties with which they share their data at their own discretion. The network operator has a facilitating role to play here. The Energy Act is intended to set out the principles applying to the use and provision of data by network operators.
- The Energy Act must create scope for more market roles, greater diversity of contracts and tariffs that encourage efficient use of the available transmission capacity. It must also make it possible for active connected parties to participate in demand response, congestion management or other services set up to enhance flexibility or facilitate local exchange.

- The Energy Act must create scope for experimentation with innovations, system integration and various forms of collaboration. Network companies should not be restricted in their role as important links to the future energy system. Furthermore, network operators need to be legally allowed to distribute hydrogen gas via the existing gas networks. Experimentation with sustainable gases such as hydrogen will only be possible in the short term if — in anticipation of the new Energy Act — the Gas Act is amended to allow this.

Broadly speaking, the draft version of the Energy Act seems to make adequate provision for the first three points. At the same time, efforts are underway to achieve a 60% reduction in CO_2 emissions, which involves an even more challenging task package for the energy system infrastructure. This acceleration in the pace of the transition requires not less, but more scope for experimentation, including by network companies. In addition, we feel that attention should be given to the importance of prioritisation in times of scarce network capacity, to ensuring that all aspects of the transition follow a clear and implementation-proof path, and to the need to set clear frameworks for a flexible energy system and create opportunities for efficient system integration. This is currently not adequately provided for in the draft Energy Act. Quick action to develop the subordinate regulations is essential now, and provision must also be made to adapt that legislation annually to this rapidly changing task of making the transition a reality.

A new Heating Act

The expectation is that many houses will be connected to a district heating network in the coming years, as an alternative to heating with natural gas. Legislation should be supportive of the accelerated roll-out of district heating networks, while also ensuring that consumers are properly protected. This is why Alliander believes that the new Heating Act (the Collective Heating Supply Act) should encourage competition by legislating for as many different types of district heating network as possible, and not just one system with one party that is responsible for the end-to-end heating operations. This would open up opportunities for diversity and innovation, which would benefit consumers in turn. Electricity, (sustainable) gas and heating should be considered more in conjunction with each other in the future. Network companies can add value here, based on their social role.

Heating Transition (municipal instruments) Act

The proposed Heating Transition (municipal instruments) Act was submitted for consultation at the end of 2021. It gives municipalities powers to convert a district to natural gas-free heating, provided a good, affordable sustainable alternative is available. This implies that the existing natural gas transmission obligation for the network operator in that particular residential area will expire after a certain date. A generous transition period should be observed here so that owners of homes and other buildings can prepare for this change. The proposed Act is intended to help keep the energy transition affordable.

Environment & Planning Act

The Environment & Planning Act combines the rules for spatial projects with the aim of creating greater coherence in all decision-making processes relating to the physical living environment. The Act gives municipalities greater administrative discretion. In Alliander's view, it is essential that the impact and space requirements of the energy infrastructure are included in municipal environmental visions and plans, to guarantee the feasibility of network expansions and modifications. We have requested access to 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 will come into effect in October 2022.

Turnaround times for spatial planning procedures

In order to shorten the time it takes to build new infrastructure, we need to move towards intensive cooperation between government authorities and network operators. We frequently see that the process for permit procedures is extremely long-drawn-out. Ideally, these procedures need to be shortened to a maximum of two years. In addition to this, we collectively need to plan further ahead, even if we do not currently know what the final system choices will be. Alliander is therefore working on a national approach for integrated programming of the energy infrastructure expansion, at both the regional and national levels. Integrated programming ensures that we can make long-term choices regarding the energy systems (electricity, sustainable gases and/or heating). It identifies when the expansion projects should be implemented and in what sequence, but always in relation to the specific local, regional or national context and taking into account the necessary spatial developments. If, from a spatial planning perspective, we succeed in getting the energy system included in all plans much earlier, we can build our networks faster.

Sustainable organisation

Our social policy is one of the fundamental pillars of our governance: Alliander is future-proofed because we act to make our organisation safe, cost-conscious, sustainable and inclusive. Our social objectives focus on the facilitating capability of our energy network for sustainable energy, our CO_2 emissions and the circular use of materials within our own organisation, a diverse and inclusive corporate culture and our performance as an employer. In 2021, we reassessed our guiding principles to give further substance to our sustainable and socially-oriented way of working and the actions of all our employees.

Working towards climate-neutral operations by 2023

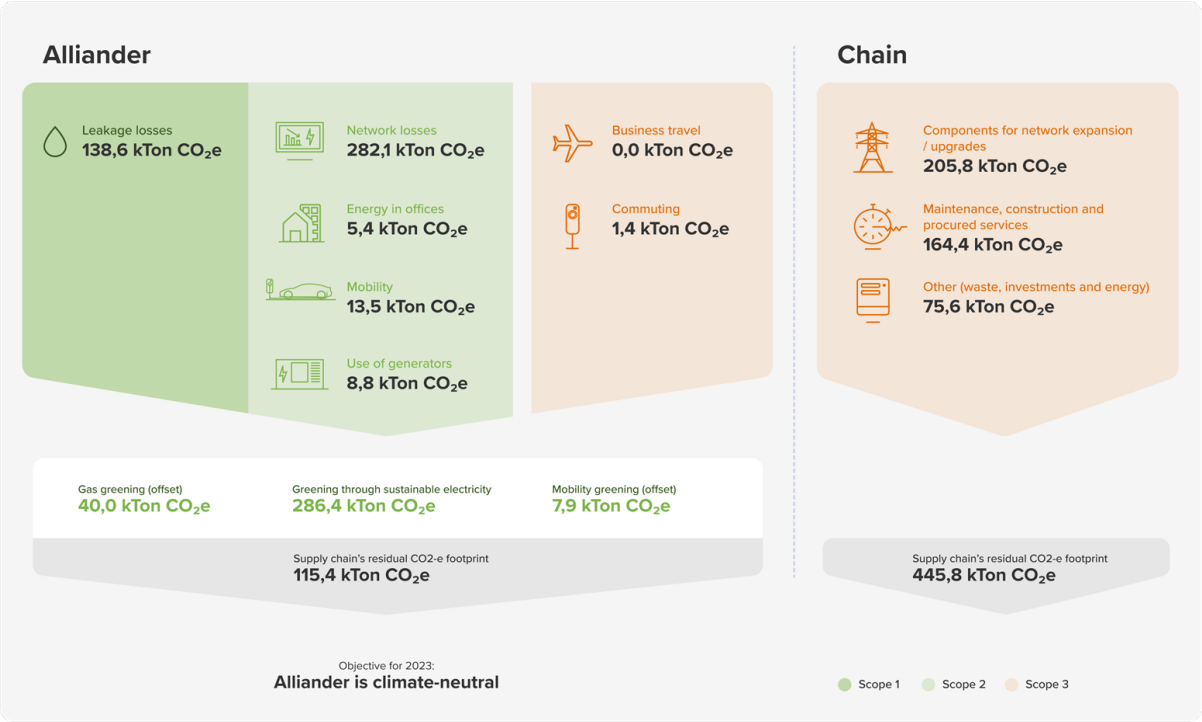
Alliander is working towards having climate-neutral operations by 2023. In other words, Alliander will have net zero CO_2 emissions caused by our network activities, offices and vehicles in 2023. In 2021, we were already at 85% of this objective relative to our reference year (2012). Our programme for reducing and 'greening' (offsetting) our CO_2 emissions is steadily bringing us closer to this goal. Our vehicle fleet is increasingly electric or hybrid, the energy usage in our buildings shows a stable low level in 2020 and 2021 compared to the pre-COVID-19 period, and we are continuing to reduce and green our network losses for electricity.

In 2021, the net CO_2 emissions of our own organisation decreased by 61 kilotons compared to 2020 (34%), falling from 176 to 115 kilotons. Net emissions have fallen sharply in recent years, largely due to greening of our network losses. The emissions also declined as a result of the replacement of grey cast-iron gas pipes and lower network losses due to increasing local power generation.

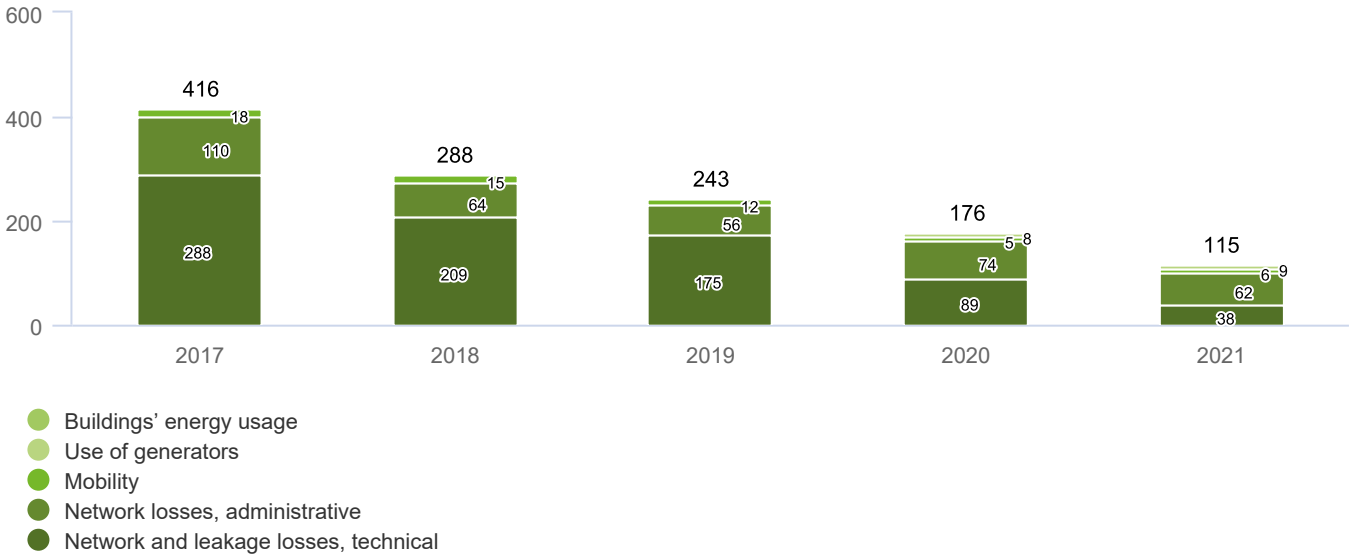
Emissions in our supply chain

In 2021, we investigated our supply chain-related CO_2 emissions in greater detail. These are emissions released by our suppliers when making, transporting and delivering products and providing services. These 'scope 3 emissions' are characterised by the indirect influence of our organisation on the final size. These emissions fall outside the scope of our internal climate objective. Scope 3 emissions are largely calculated based on emission indicators per economic sector, multiplied by Alliander's expenditure in the sector in question. Because we also request raw material passports for products, we can be more specific about the CO_2 effect of purchased components.

We see that the supply chain-related emissions in 2021 amounted to 446 kilotons $CO_{2\text{-eq}}$. This is the same order of magnitude as our direct gross emissions under scopes 1 and 2. We intend to make CO_2 a criterion in many of our procurement tenders (buildings, lease partners, components). In 2022, we will identify an appropriate target for scope 3 supply chain emissions, in discussion with our suppliers.



Alliander's net CO_2 emissions[1]



1 The net CO_2 emissions figure for 2020 has been recalculated using the most recent emission factors (2020).

Internal CO_2 price

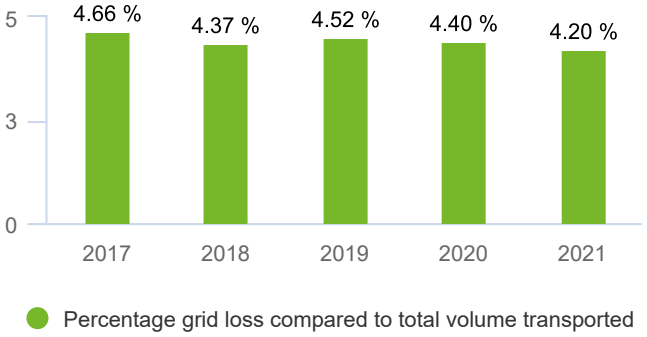
In 2021, we used a higher internal CO_2 price as a weighting factor when assessing the sustainability of our investments. Energy savings or reductions in methane leaks are assigned more importance as a result. The higher CO_2 price is part of a sector-wide agreement between all network operators, initiated and coordinated by Alliander. All Dutch network operators performed their calculations using the same price of €50 per ton of CO_2, and this price will progressively increase during the coming years.

The introduction of the higher internal CO_2 price shows that simple measures, such as installing solar panels at all electricity substations, can be instrumental in achieving a positive business case faster. In addition, this new guideline will force us to look more closely at the use of SF_6 in our transformers. The sector agreement has yet to be approved by the Authority for Consumers & Markets (ACM), but this approval is expected in early 2022.

Emissions from network and gas leakage losses

Network and leakage losses, which arise mainly during the transmission of electricity and gas, account for 93% of the gross CO_2 emissions of our own organisation. Network losses cost us about €103 million in 2021 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 percentage is an accurate approximation. We report the final figures in the five-year summary.



Greening network losses with renewable energy

Alliander is offsetting its network losses by generating additional renewable energy in the Netherlands. In 2021, we greened 321 kilotons of our total network losses with mainly Dutch Guarantees of Origin. We also received 8% of the electricity network losses as green electricity. We have made a deliberate decision to progressively green our procurement for network losses with electricity from investments in renewable sources. This offsets the CO_2 emissions associated with our network losses and lets us support growth in sustainable energy generation. In 2021, we made almost 80% of the total network losses sustainable by activating additional green certificates that had been contractually secured in the past.

Technical network losses

The total amount of the technical losses in the electricity network increased slightly in 2021, by 3% compared to 2020. This increase in technical network losses is mainly due to the increased level of economic activity compared to 2020. The trend over the past year is that local sustainable generation reduces the load on our cables at certain times of the day, and therefore results in a lower network loss. However, we expect further increases in sustainable energy feed-in to eventually lead to a higher load and thus a higher network loss. So we will continue to implement our reduction programme for technical network losses, which involves assessing measures based on the internal CO_2 price.

The amount of our gas-related network losses decreased by 1% compared to 2020. This decrease is mainly due to the replacement of grey cast-iron gas pipes. In the coming years, the CO_2 equivalent of a cubic meter of gas will be increased, so we expect to report higher gross CO_2 emissions for this category in the future.

Administrative network losses

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 help us detect fraud. In 2021, we continued to work on improvements in fraud detection and the collection of unpaid amounts, for example by applying better detection techniques. As a result, we prevented and recovered more administrative network losses, achieving an improved result compared to 2020.

Emissions from buildings

The energy usage in our offices and buildings has increased slightly. A colder winter led to higher gas usage. The energy purchased for buildings is fully greened through Guarantees of Origin.
Our new logistics centre in Apeldoorn, built according to the Breeam Excellent guidelines for sustainable material use and energy efficiency, was completed in 2021. We also started using the Basisweg location, which has been renovated to the Breeam Outstanding classification. We have started construction of our new Amsterdam Westpoort premises, replacing Amsterdam Spaklerweg. All Alliander offices will meet the A, B or C label criteria by 2023 at the latest.

Emissions from vehicle fleet

The number of kilometres travelled decreased by 21% compared to 2020, mainly due to the COVID-19 pandemic. The amount of fuel consumed by lease cars and service vehicles decreased by 8%. 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 2021, 33% of our vehicle fleet with a yellow number plate was fully or partly electric (2020: 28%).

IT-related emissions

Alliander has worked systematically to reduce the electricity consumption of its IT facilities during the past 10 years. A calculation performed in 2021 shows that the total CO_2 footprint of our IT facilities in 2020 was actually 49% lower than in 2010.

Top rung on the CO_2performance ladder

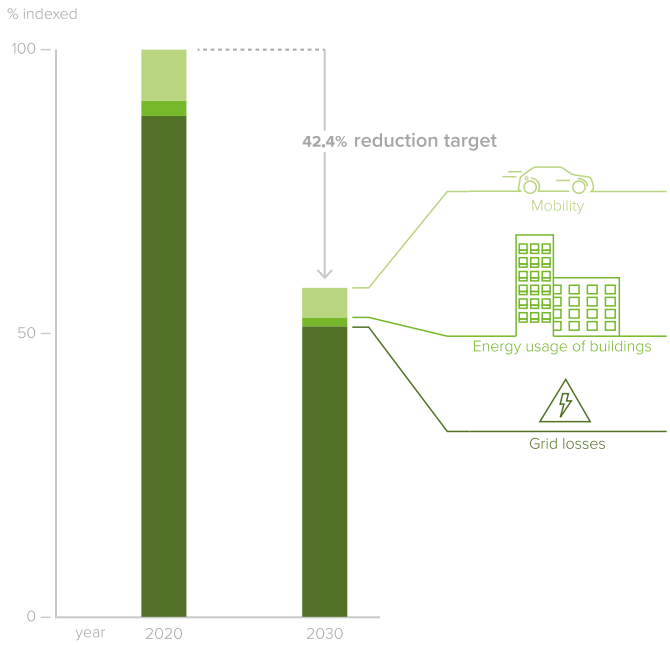
Once again, external experts assessed our CO_2 management approach and methods against the CO_2 performance ladder in 2021. This comprehensive review of our efforts was again rewarded with level 5 on the ladder. Certification on the CO_2 performance ladder proves that:

- 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 CO_2 reduction programme. In 2021, we performed a detailed analysis of our supply chain emissions for the first time.

Science-based targets

Science-based targets are objectives that are in line with the two-degree scenario of the Paris Agreement. These objectives can be broken down into the maximum CO_2 emissions per sector (agriculture, manufacturing, energy, etc.) and into the 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 21% before 2025, and 42.4% before 2030, in comparison to 2020. In 2020, it was once again determined that Alliander's CO_2 reduction policy for scope 1 and scope 2 emissions is in line with the science-based targets. In respect of these emissions, we will be climate neutral by 2023.



Cycling along the one-metre border

In June 2021, Alliander participated in a long-distance cycling event along the -1m water level line, an initiative organised by the Cycling for Climate foundation. The idea was to focus attention on the effects of climate change and encourage the use of bicycles as an alternative mode of transport to, from and between work locations.

Biodiversity

In 2021, biodiversity was added as a theme to our social policy. Under the Dutch Nature Protection Act, we are already bound by spatial requirements in our building and construction activities. In addition to that statutory duty, we want to focus more intensively in our operational processes on minimising or mitigating damage to biodiversity. To give an example, we are now working on a new policy for sustainable power station design. We also promote biodiversity with green roofs, natural boundary partition forms and local water storage. We started implementing this policy in 2021.

Ecological Main Structure - Infrastructure

Alliander participates in a broader coalition of infrastructure companies, which see opportunities to link the land they own and manage for large-scale nature recovery. Dutch infrastructure companies manage roughly 900 km^2 of land in total, 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.

‘Sine-wave mowing’

After a successful pilot project to assess ‘sine-wave mowing’ (meandering mowing) in 2020, we started a trial in 2021 to assess the use of sine-wave mowing as a standard upkeep approach outside the switching areas. Sine-wave mowing leads to greater variety in the number of plants and shrubs and their structure, providing a better habitat for insects. A total of 59 sites (187,000 m^2) are eligible for this. In addition to meandering mowing, our mowing strategy at various locations focuses on increasing biodiversity, for example by leaving flowering plants growing along ditch edges. The biodiversity-friendly mowing policy is a method that we implement with the aid of the Dutch Butterfly Foundation.

Dealing with climate risks and adaptation; TCFD

Alliander aspires to be 'future-proof'. One aspect of this is dealing effectively with the risks and opportunities presented by climate change. These risks may be physical, e.g. flooding, but they can also be related to the business and commercial environment; e.g. changes to the tax regime. Alliander uses the guidelines of the Taskforce on Climate-related Financial Disclosures (TCFD) as the starting point for its approach. Following on from this, climate risks will be part of the Alliander risk management framework from 2021 onwards, meaning that climate risks will be analysed and mitigated just like other types of risk.

Outcomes in 2021 and follow-up action

The risk management framework indicates a potentially high risk of damage and loss of assets due to flooding. The effects of drought and high temperatures can also pose a risk to the continuity of our operations. During the analysis of the results, we came to the conclusion that more research on climate scenarios is needed to increase the accuracy of our assessment of possible longer-term effects due to climate change. This is in line with the TCFD's recommendation and will be addressed through further action in 2022. A new TCFD guidance document was published at the end of 2021. Alliander has taken note of this and is incorporating the new developments into its climate policy.

Physical risks and opportunities

Our physical risks mainly stem from supply chain effects in the event of extreme weather conditions and flooding. This involves potential damage to our own components or TenneT's high-voltage pylons. Given the low elevation of some of our service areas, rising sea levels also pose a risk. Furthermore, higher temperatures lead to higher electricity consumption due to a greater demand for cooling throughout society.

Transition risks and opportunities

Our networks are an indispensable element for ensuring a successful transition to a sustainable energy supply. The transition offers opportunities: growing electrification in society and the growth of green gas feed-in in our networks. But there are also transition risks: the demanding but unavoidable pace at which we must fulfil 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

Supply chain responsibility and circular procurement

The energy transition also poses major logistical challenges for our organisation. We have set ourselves the objective of connecting everyone in a timely and sustainable manner and eliminating backlogs by 2025. Our supply chain partners play a crucial role in achieving this. Alliander's annual procurement volume is approximately €1.5 billion for products and services. Our largest procurement volumes are for construction projects, energy purchases, components and IT.

The role of Procurement

Despite scarcity in the raw materials markets, shortages due to the COVID-19 pandemic and a tight labour market for technical personnel, Alliander must still up the pace. Our procurement policy contributes directly to Alliander's CSR policy with regard to the climate, raw materials and being an inclusive employer. We are drivers of change and initiatives in respect of supply chain responsibility. Together with our suppliers, we make a major contribution to sustainability. Our aim here is to make a net positive contribution to SDG 12, Responsible Production and Consumption. By entering into new forms of collaboration with our suppliers, quickly adopting innovations as they appear on the market and forming partnerships, we accelerate progress. Our Procurement department embodies our social responsibility in the way it interfaces with the market. Its tendering procedures uphold the principles of procurement law, such as being transparent and non-discriminatory. Sustainable procurement is an integral part of our tender invitation and evaluation criteria. In this process, we feel a responsibility for spending the revenue from our customer tariffs as fairly and transparently as possible.

CO_2 score in tenders

When assessing our tenders, we include the energy consumption of components during their service life as far as possible. Working with an internal CO_2 price ensures prioritisation of investments and purchased components that do most to reduce CO_2 emissions.

A sustainable relationship with our suppliers

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. Suppliers can also expect Alliander to deal with them in accordance with ethical business practices. We want suppliers to see us as an attractive business partner. We aspire to be a 'Customer of Choice'.

Compliance with agreements made with suppliers

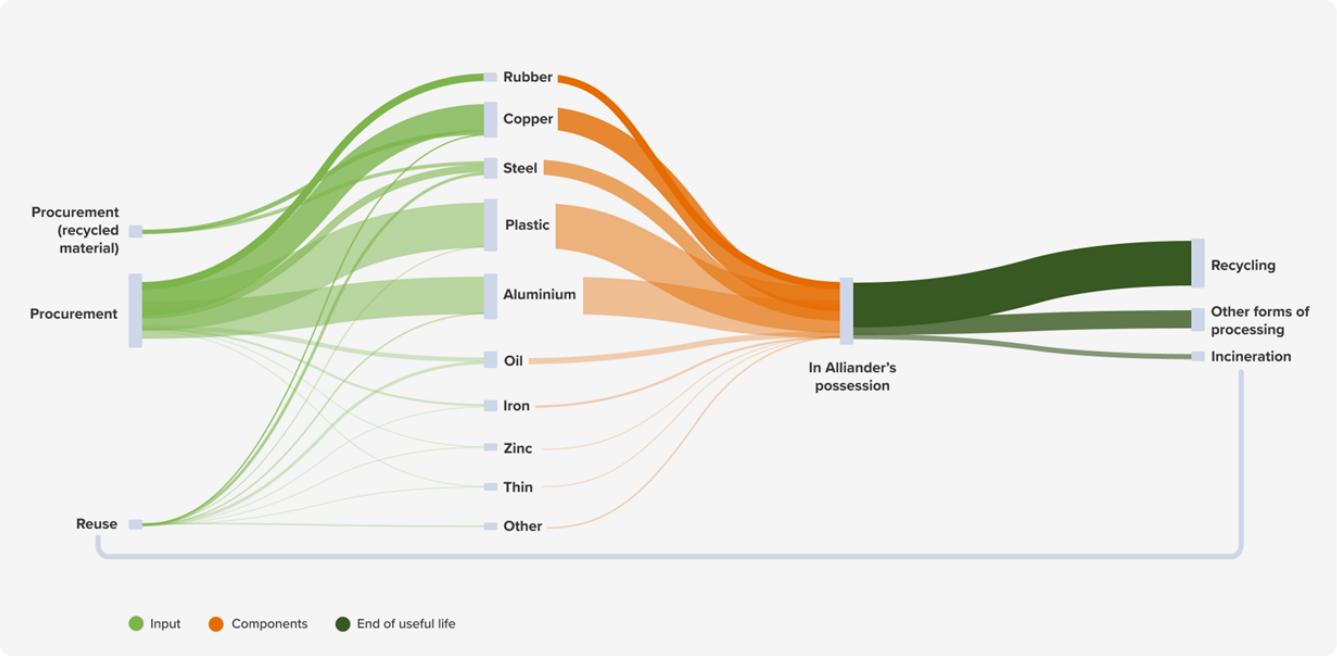
Each year, we carry out multiple supply chain audits. In 2021, we performed a total of 14 audits to assess the quality of the products and services supplied (2020: 2; 2019: 11). CSR elements were assessed in eight audits. No critical deficiencies in these aspects have been reported. During the audits, 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 compliance with CSR requirements such as universal human rights, working conditions, health and safety and the environment. 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 implement any measures with regard to suppliers in 2021.
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.

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. All network operators use the same format for a raw materials passport.

We report on the 'circular procurement' percentage internally every quarter. We use this term to refer to the procurement 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 materials is determined based on raw material passports provided by our suppliers, which state these percentages. We therefore rely on the support and expertise of our suppliers to identify these percentages, and we validate their declarations with data provided by CE-Delft, an independent research and consultancy firm.

Circular materials flow



This figure shows the key materials that support our primary process. It displays a high percentage of plastics (jacketed pipes, cables, gas pipes), copper and aluminium (base metal for cables). Understanding the composition of our materials helps us manage risk against the backdrop of internationally increasing demand for raw materials for the energy transition.

Improved data quality

In 2021, we focused more on the accuracy of the raw materials passports. We audited a number of suppliers that significantly influence the KPI score and checked the evidence for the figures provided by them. We also tightened up how we calculate 'circular procurement'. In determining 'recyclable at end of useful life', we will now look at the current state of the art, rather than the approach that our suppliers often use, which is the end-of-life state of the art (i.e. in 50 years' time). This matches the approach that most parties use for life-cycle analyses in the Netherlands.
To further increase data quality and improve the management of raw material passports, the sector set up a database for central registration of all passports in 2020 and continues to invest in this resource. This functionality is included in the KSANDR platform, which network operators already used to record all the outage data relating to our main components. KSANDR is a non-profit organisation that aims to record, share and develop knowledge about the behaviour of the electricity grids in the Netherlands. In the coming years, we will make more use of this facility as a collective of network operators and suppliers.

Circular procurement

In 2021, the 'circular procurement' percentage was 27% [1] (2020: 23%). which is lower than the target of 45%. This is explained in part by the greatly increased demand for materials, combined with the market situation. As a result, we had to spend time looking for new suppliers and securing the delivery of assets. A further factor explaining the lower score is the tighter definition of 'recycled out' and a correction to raw material passports as a result of our audit. In addition to this, we started requesting raw material passports in tenders for all network-related assets in 2021.

We also manage based on the following flows and principles to implement circular operations even more concretely:

- We have put measures in place to optimise how we use the items we already have, such as the redeployment programme, and the maintenance and replacement policy.
- We avoid wasting raw materials in our organisation.
- We recycle 90% of the remaining waste as high-grade materials.

1 The percentage of materials sourced through circular procurement is calculated based on an updated method. The method uses the recycled and recyclable percentages per material type as provided by the supplier. If this percentage is higher than the validated percentage, the validated percentage is used instead. See Supply chain responsibility and circular procurement. When raw material passports are used, the circularly sourced material is assessed at 40% (2020: 44%).

Making the best use of what already exists: reuse

Reuse of network components limits the use of new raw materials and reduces carbon emissions. In 2021, Alliander too faced scarcity in the market, so our practice of redeploying transformers, for example, helped minimise material shortages. Successful redeployment of network components is the responsibility of every party with a role in the materials supply chain. We also continuously optimise and expand our redeployment processes. This allowed us to redeploy more components this year, such as transformers, magnefix installations, suppression chokes and MVRs/network stations. In addition to making a substantial contribution to a sustainable Alliander, this resulted in cost savings of €10.3 million. Finally, in 2021, all the network operators in the Netherlands collectively endorsed the redeployment of network components. They have set up collaborations to ensure optimal reuse of existing equipment between organisations.

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 is ‘everyone safely home’. This applies to our employees, customers, people in the local community, and employees of external parties with which we work. Thinking and acting with safety in mind at all times is simply a given in our opinion. So Alliander continuously takes action to improve safety and we do our utmost to manage risks associated with the technology, our work processes, data security and our behaviour.

Related topics

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

Material issues	SDGs	Customer groups
E) Safe working practices and a safe infrastructure I) Data security, privacy and cybersecurity		Customers Employees

Objective and result for sustainable and safe working environment

Lost Time Injury Frequency (LTIF)

2.6 2021 result

– [1] 2021 objective

1.8 in 2020

1 No target is set for the Lost Time Incident Frequency (LTIF) performance indicator, because the number of accidents leading to sickness absence should ideally be zero. Our objective with this indicator is to show a downward trend each time.

Safe working practices

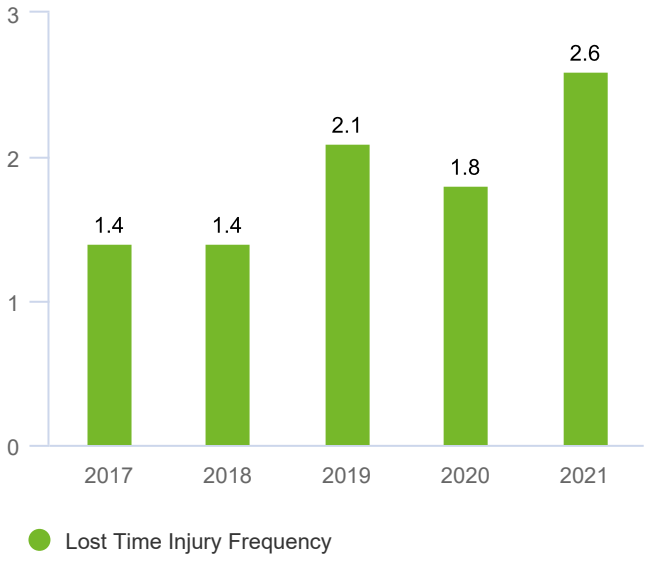
Working safely is a top priority for Alliander. It has to be, because working with gas and electricity is risky. The work we do also involves other risks. For example, we work at roadsides, at heights and with hazardous substances. Regrettably, 69 accidents occurred at work in 2021. One of these was a serious industrial accident. Every single work-related accident is one too many. That is why we comply with sector-wide standards, stipulations and requirements pursuant to legislation and regulations. We work according to the Working Conditions Catalogue and 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 makes sure employees apply the Life Saving Rules, which provide clarity. When incidents occur, we analyse them and share the lessons learned with all involved, including contractors for example.

Primary process certification

Assessment by independent and accredited organisations generates information that Alliander uses to improve the management system and performance in the primary process chain. In addition, Alliander sees certification as the appropriate instrument for confirming and demonstrating that Alliander controls risks and assures and improves quality. The management system is based on ISO 9001, supplemented where necessary by certification for ISO 55001, NTA 8120, ISO 14001, ISO 27001, the Safety Ladder and SCC (safety, health and environment checklist contractors, 'VCA'). An overview of the certificates and their scope is provided in Other non-financial information.

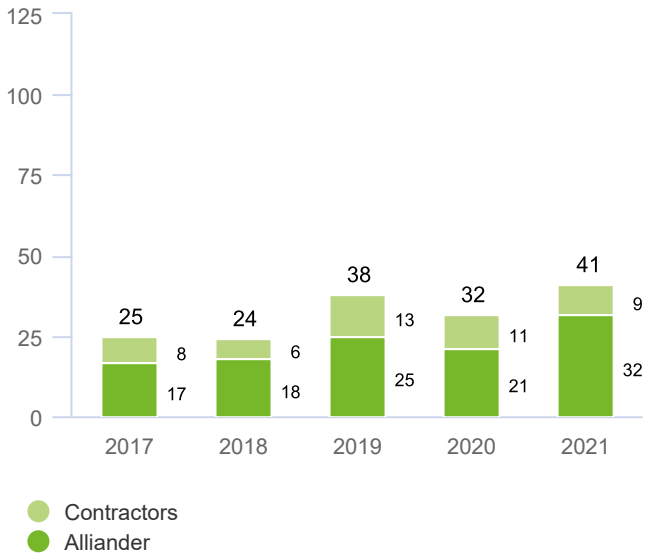
Lost Time Injury Frequency

Lost Time Injury Frequency (LTIF) expresses the number of accidents resulting in sickness absence per one million worked hours. The LTIF in 2021 was 2.6, which is higher than the LTIF in 2020 (1.8). In view of the increase in the LTIF, we will conduct a review in the first quarter of 2022 to determine whether the existing control measures (toolbox meetings, anti-sprain shoes, etc.) are adequate and whether there are any developments that have increased the safety risk.

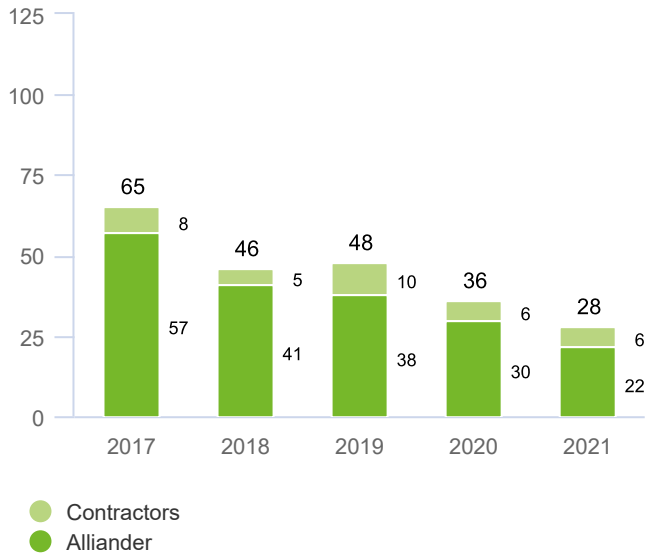


Employees can report dangerous situations and incidents to their manager or supervisor through immediately accessible (digital) channels. Accidents and incidents are discussed in the organisational units' Incident Review Group. If necessary, the reason for a reported incident and associated causes are investigated, so that management action can be taken (nationally if necessary). Based on risk and trend analyses, several issues have been addressed, for example replacement of insufficiently safe assets, procedure for signing in at stations, and falls and trips. An occupational health and safety risk assessment and evaluation is carried out periodically for each organisational unit, under the supervision of SEQ. Improvements are noted and discussed with management.

Lost Time Accidents



Accidents with no lost time



Safety, Environment and Quality department

In 2021, the Safety, Environment and Quality department was formalised in the new organisational structure. This reflects our conviction that focusing on quality and working safely has a positive impact on productivity and task feasibility, because the work is right first time as a result and can be carried out in complete safety.

Safety culture

'Everyone safely home' requires not only good safety policies and safe implementation, but also a proactive safety culture. The Safety Ladder audit assesses how proactive safety awareness is in the organisation. Is there sufficient management focus on safe behaviour? Are there clear rules and are they observed? And how is communication on safety topics organised? In 2021, the organisational units Qirion, Maintenance & Outages, Private Customers and Business Customers, Reconstruction & Energy Networks achieved rung 3 on the Safety Ladder for the first time. This means that the organisation is 'calculative'; i.e., the organisation takes responsibility for safety. The objective is to move up to rung 4 in 2025 ('proactive': all layers of the organisation are involved in complying with the safety rules).
In addition, in 2021, we organised safety observation rounds during which managers and directors discussed observed risks with colleagues, the conviction that the work can be done safely, and the safety-related dialogue with and between colleagues.
Our engineers and contractors attend training and education courses in order to keep their safety knowledge and skills up to date at all times. In 2021, 1,789 employees and 205 contractors passed their safety training exams.

Safety in the supply chain

Safety is not just a matter for our own organisation. Last year, three serious accidents occurred at sites where partners were working for us. We also feel responsible for safety in the activities of supply chain partners. That is why we endorse the Safe Energy Networks Governance Code and make clear working agreements (set out in contracts and other documents) with contractors. We continue to conduct a dialogue on the issues we observe and what needs to be improved. The purpose is to learn so that we can improve our work processes and continuously increase safety at work. In 2021, we made an active contribution to the Energy Safety Festival, among other initiatives.

Working safely during the COVID-19 pandemic

Alliander once again complied fully with the measures implemented by central government and the National Institute for Public Health and the Environment (RIVM) in 2021. The measures that apply to our work were identified in an Alliander COVID-19 Roadmap. The Roadmap was assessed as part of the risk assessment and evaluation. Alliander also complied with the national 'Samen Veilig Doorwerken' protocol in 2021. This protocol sets out clear guidelines on working safely during the COVID-19 pandemic, not only for the construction and installation sector, but also for residents, clients, customers, suppliers and all employees.

Exposure to hazardous substances

Benzene

Since September 2018, multiple surveys have been conducted to detect unsafe levels of benzene in the soil after gas leaks. The Soil Protection working group set up by Netbeheer Nederland will present an approach in 2022. Together with VEWIN, we are also investigating traces of benzene in drinking water. The results are also expected in 2022.

Chromium-6

In 2021, we validated the work instructions on hexavalent chromium with our own exposure measurements. In addition, Alliander and Netbeheer Nederland have contributed input and expertise to shape a new national management regime. The new national management regime may lead to changes in our own work instructions in the future.

Asbestos

All parties active in the network sector work according to a common asbestos policy. In recent years, we have acted to have our policies integrated into national asbestos legislation. An exemption for the inventory requirement was delivered in draft form in 2021 and subsequently discussed with the Ministry of Social Affairs and Employment. By allowing the exemption, the Ministry recognises that the network companies have a robust asbestos policy and that we are fully aware of our asbestos-related risks. Our use of the sources book and our investigations into safe work practices show that we take asbestos seriously. The new national asbestos legislation is expected to be passed in 2022.

Safe infrastructure

Customers expect us to ensure a safe infrastructure and guarantee their safety while we perform our work. The safety of our networks for everyone involved is a high priority for us. We continuously invest in the reliability of our infrastructure based on information regarding the condition of our network.

Asbestos in above-ground systems and buildings

In 2021, we largely completed the asbestos remediation work in the 50kV switching systems. In addition, in the distribution activity area, we completed all asbestos inventories and carried out remediation work in spaces that needed to be tackled according to the industry-wide colour coding policy (red and orange).

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

In 2019, in consultation with partners, we brought forward the completion date agreed for the remediation plan for grey cast-iron and asbestos cement pipes by eight years to 2032. Together with municipalities, contractors, suppliers of materials and excavation contractors, we identified opportunities for accelerating the work, where possible in combination with the heating transition. Various scenarios have been drawn up to determine what is needed. In line with the accelerated implementation of the replacement programme, we replaced roughly 150 kilometres of the grey cast-iron and asbestos cement gas pipes in 2021. 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 proactively and frequently check for (small) gas leaks using highly sensitive equipment These checks are not limited to the grey cast-iron and asbestos cement pipes; they cover all main and connecting pipes in operation. This approach ensures that we can address gas leaks at an early stage, before they reach a critical level. 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.

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. In 2021, we replaced a large number of substation locks to prevent doors from being left open. Additional measures aimed at promoting safe working practices in such spaces will apply until all the doors have been modified. We also took action to make low-voltage networks and networks for public lighting safe to touch.

Impact of environmental issues

Environment & Planning Act

The implementation of the Environment & Planning Act and secondary regulations has been postponed until October 2022. In anticipation of the new legislation, Alliander has started preparing for the upcoming system change. These preparations are essential because the introduction of the Environment & Planning Act will affect Alliander's activities in various ways. Alliander actively shares knowledge with industry peers and participates in various working groups, standards committees and other bodies.

Nitrogen

In 2019, several construction projects were delayed because the remaining permitted nitrogen emissions volume in the Netherlands was too low to rule out possible negative effects of the construction projects on Natura2000 areas. Since then, Alliander calculates nitrogen loads and we take action to reduce nitrogen emissions when carrying out construction work close to Natura2000 areas. On 1 July 2021, the Act and the Decree on Nitrogen Reduction and Nature Improvement came into effect. As a result, a nitrogen load calculation is usually no longer necessary when laying cables and pipelines. The legislation exempts construction work in certain sectors, including Alliander's activities, from the requirement to calculate the nitrogen load. This is a positive development for Alliander from the perspective of task feasibility. At the same time, we continue to talk to contractors about implementing appropriate measures, including reducing emissions and further electrification of equipment.

Privacy and security

If critical infrastructure 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, in conjunction with our partners, we do everything possible to prevent failures in critical infrastructure. Cybersecurity includes all measures (technology, people and the organisation) to detect, prevent and limit losses and damage caused by cybercrime. To do so, we use professional, modern security systems where possible. We continually monitor and analyse cyber risks to work out what they mean to Alliander, how they might affect us and what action we need to take. In addition, our office automation and process automation are kept separate to prevent malicious operations accessing the management of our energy networks.

Privacy

Protecting the personal data of our customers, employees and other stakeholders has continuous attention at Alliander. We aim ever higher when it comes to privacy, for example by embedding a new control framework for privacy. We also consider the issues in providing information to colleagues.

Data breaches

We detected and investigated 26 data breaches in 2021. As 10 of these incidents involved centralised processing, the network operators bear joint responsibility for them. Of the 26 identified data breaches, 12 incidents involved a breach for which a duty to report applied in line with the GDPR.

Governance changes to meet new security challenges

The CISO Office was set up in 2021 to deal more effectively with the combination of today’s increasingly complex cyber threats and the digitalisation of our networks. It serves to anchor a structured approach to cyber resilience at Alliander. The CISO Office facilitates the prevention, detection and response to cybersecurity risks by providing cultural, technological and staff-related measures to increase Alliander’s digital resilience. This enables us to keep abreast of cybersecurity developments and the increasingly higher demands placed on security. The Chief Information Security Officer (CISO) reports directly to the Management Board.

Certification

Our preference is to have our security processes certified by an independent external body. The critical infrastructures at Liander and Kenter already held ISO 27001 certificates and these certificates were extended in 2021. Alliander Telecom and Stam & Co attained the ISO 27001 certificate last year. Firan and ENTRNCE have 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 7,300 people (7,200 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 the topics the stakeholders feel are important. Furthermore, these activities contribute to achieving an SDG:

Material issues	SDGs	Stakeholder groups
K) Attracting talent M) Company's adaptability		Employees

Objectives and results for employees

Employee absenteeism

4.6% 2021 result

≥ 4.3% 2021 objective

3.9% in 2020

Employee survey score - engagement

81% 2021 result

Women in leadership positions

28.1% 2021 result

≥ 31.0% 2021 objective

29% in 2020

People with poor employment prospects

77[1] 2021 result

≥ 107 2021 objective

108 in 2020

1 The number of employees with poor prospects on the labour market comprises 77 jobs created under the Dutch Participation Act, amounting to 62 FTEs.

Working in the COVID-19 period

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, The Dutch government announced or reviewed various measures to combat COVID-19 in 2021. It was important for us and our customers that our primary activities, such as dealing with malfunctions and critical maintenance, could continue as effectively as possible.

We are aware that working in accordance with the measures asked a lot of our employees. In March, June and November, employees took part in a survey about their well-being during the pandemic. It revealed that colleagues had become accustomed to the situation at work and were satisfied with the cooperation and with the performance their work. The feeling of connection with their team and the organisation appears to have been restored.

Hybrid working

The challenges of the energy transition require a different way of working. Productivity needs to increase and we will have to plan our time more efficiently to leave more time to do the work. The COVID-19 pandemic has shown us how agile we already are. We can work separately and yet together in a single online environment. However, we have also noticed that in-person contact is sometimes essential to be able to do our work well. Hybrid working combines the best of both worlds. At Alliander we work together in person when that is necessary and online where possible. The nature of the work and social cohesion are the determining factors.

Online work can be done anywhere and colleagues do so where they feel most comfortable and can work most efficiently: in the office, at home or at an external location. Teams jointly look for the right balance between online and face-to-face cooperation.

Getting the job done

The energy transition requires tens of thousands of additional technical specialists in the Netherlands. A growing economy means a rapidly tightening labour market. There is a serious shortage of technicians and IT specialists. Filling the vacancies is and will remain a major challenge for the construction industry, installation sector and network operators. We welcomed 469 new technicians last year. In order to get the job done, we are not only focusing on recruiting new technicians and IT specialists, we are also acting to make the internal organisation more effective and more agile, partly by making changes to the organisation, but also by introducing improvements to training, culture and leadership.

Alliander's own technical college

In 2021, we provided 528 training courses through the Alliander technical college. This is where we train new technicians using safe live voltage in ways that mirror real-life situations. In 2021, we started converting the Anklaar electrical substation into a practical location for trainee technicians who will work in the high-voltage sector. Furthermore, we focus on innovative learning methods, such as the HoloLens where a person working on an installation is shown holograms with instructions projected onto the installation.

Youth programme

We started with our youth programme for the first time in September 2021. Our aim is to train 12 young people between the ages of 16 and 18 who join us straight from pre-vocational secondary school to become mechanics in two years.

Partnership with HAN

We continued working with HAN University of Applied Sciences in 2021 on a programme in which students combine work and studying for two years, and are prepared for a technical position at graduate level. The programme offers a combination of a practical technical training programme, an Associate Degree from HAN and work experience: students can start working immediately in Alliander's business units.

External collaboration

Alliander's technical college is involved in the plans of 'Sterk Technisch Onderwijs' (Strong Technical Education) and the Education and Development funding programme to further improve technical education in conjunction with educational institutions and companies in the sector. The partnership with other network operators and the Education and Development funding programme was strengthened further in 2021 with collaborative teams working on innovative learning solutions, labour market & education, technical training programmes and safety training programmes. The partnership aims to intensify collaboration, to combine forces while technical specialists are in short supply and, where possible, accelerate developments in the labour market and education.

Labour market for technical talent

We view it as our job to increase the 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 a joint programme called 'Power up the planet', we joined forces in 2021 with the other network operators and the Education & Development funding programme to inspire young people to train as technical specialists. Alliander was the national partner for Girlsday 2021 last year. By providing a broad range of activities we were able to inspire schoolgirls, female colleagues and the daughters of colleagues to consider working in technology.

Alliander is Hiring!

For several years, we have been conducting an intensive recruitment campaign internally and externally to publicise vacancies for technicians. In 2021 we held webinars and company visits to introduce technicians and IT specialists to the technology. Employees were once again invited to introduce new technicians and IT specialists to Alliander in 2021, through the internal referral programme 'Alliander is Hiring!'. The programme attracted 140 potential candidates in 2021, 23 of whom were offered a contract.

Refugees with residence permits

For the third year running, we offered a special training programme for refugees with residence permits in 2021. These new colleagues spend three years training to attain the certificates they need. They are then ready to start working independently in a technical job and are offered a job at Liander.

Building bridges

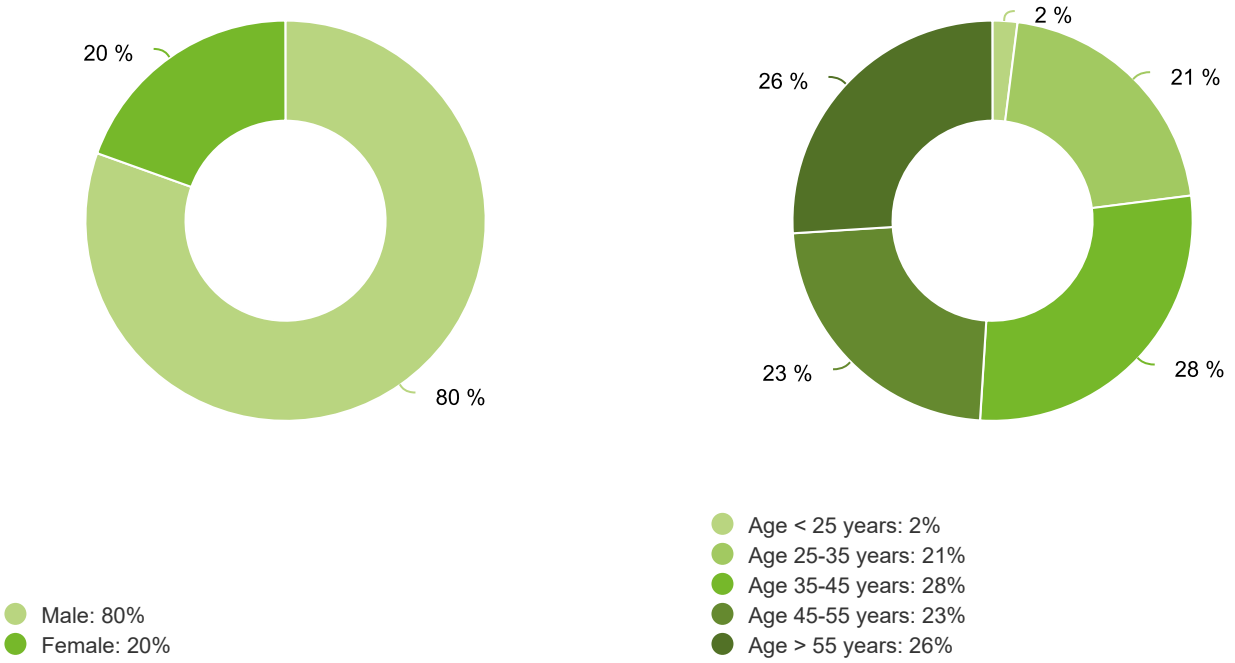
To achieve the ambitions set out in the Dutch Climate Agreement, there will be a need for more and more technical specialists. In conjunction with Netbeheer Nederland, Energie Nederland and the employers' association WENB, we are building a bridge to other sectors to attract as many technical employees as possible to the energy sector. The 'Branchebruggen' programme ('Building bridges to the sector') offers the opportunity to work on the energy transition and join one of the companies in the group. For more information, go to http://www.brugnaardeenergietechniek.nl

Composition of the organisation

Our workforce at Alliander is diverse in terms of education, age, gender, LBGTI, disability, cultural background and family structure. And yet we are seeking to achieve even more diversity at Alliander, at all levels. An active policy is needed to prevent us from excluding anyone unintentionally and unwittingly. Moreover, we know that we cannot complete the energy transition without diversity: different perspectives lead to new ideas and better information. And furthermore, our society increasingly demands equal treatment for everyone.

Our HR policy pursues diversity on the basis of three pillars. Firstly, we seek to achieve diversity at all levels. We do so by focusing directly on recruiting women and moving women into technical and managerial positions, and we offer support to cultural talent through mentoring in conjunction with our partner Agora. In 2021, the recruitment team took part in a pilot initiated by the Dutch Ministry of Social Affairs and Employment and we conducted research on the basis of the same programme (VIA) into retaining and promoting talented workers. Regarding employment benefits, we conducted an equal work/equal pay analysis. The recommendations based on that study are included in the plans for 2022. The last pillar is our inclusive organisational culture, in which we make use of our employee networks Tension (young people), Lianne (women), Pride (LGBT+) and Wij zijn Nexus [We are Nexus] (people with a migrant background). A special interactive online experience was organised for leaders to discuss diversity, inclusion and belonging.

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 their abilities. We seek to have a well-balanced, diverse workforce at all levels. We believe that diversity makes us an attractive employer for talented individuals, 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 to managerial and technical positions, employees with a migrant background, and people with poor employment prospects.

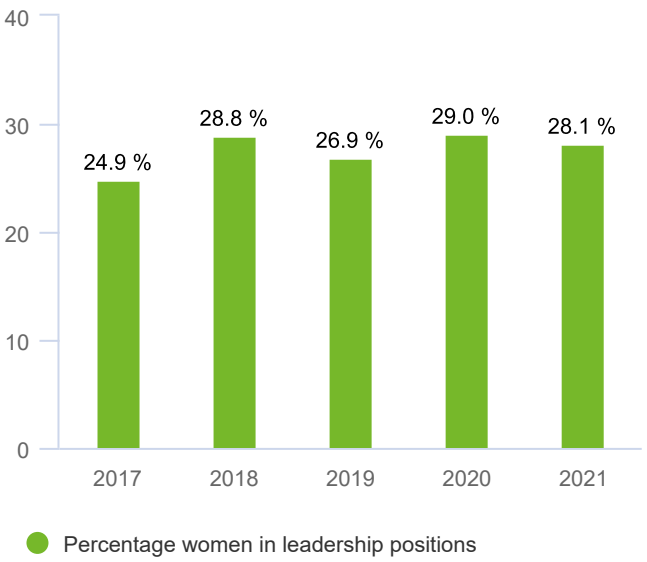
Diversity Day and Coming Out Day

On 5 October, we celebrated Diversity Day. This is the day on which we ask for particular attention to be paid to the differences and the similarities between people. This year, we focused on being yourself and telling your story. Employees told their stories in an online bookcase. The idea comes from the Danish concept of The Human Library. In addition to this, we celebrated Coming Out Day on 11 October, published a video message in conjunction with TenneT and organised an event in which we underlined that we and our partners stand for diversity and inclusion.

Percentage of women in leadership positions

The percentage of women in managerial positions at the end of 2021 was 28.1% (2020: 29.0%). Our target is to have women in 33% of managerial positions by 2024. A new measurement method will come into force from 2022 enabling us to measure the number of women in influential positions.

At year-end 2021, 25% of the Management Board members were female. The current composition of the Management Board represents a good balance in terms of diversity of expertise, background, experience and age. Women make up 40% of the Supervisory Board.



In 2021, 257 new leaders, managers, directors and Supervisory Board members were appointed. Of these, 77 were women, i.e. 30% of these vacancies, which takes us another step towards a more inclusive composition of our management.

Employees with a migrant background

In order to present our company to current and potential employees with a migrant background, we explicitly focus on the diversity within our organisation. To do so, we 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 in an inclusive, diverse organisation in which there are opportunities for everyone based on their own merits and talents. We employ people with poor employment prospects who are covered by the Labour Participation Act, because having work gets them more involved in society. 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. Our aim in 2021 was to increase employment in this target group. In 2021, we offered a total of 77 people (62 FTEs) a job or work experience placement (2020: 108).

Attractive employer

Health and sustainable employability

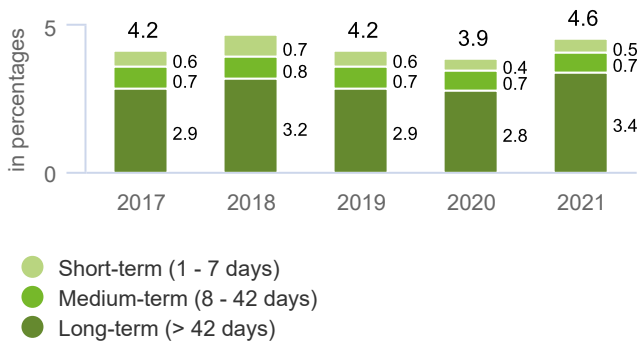
It is important to Alliander that our employees can remain sufficiently fit, motivated and skilled for their work, both now and in the future. Managers discuss performance and development with individual employees on an annual basis. Employees and their managers record the results and agreements in the HR system. In addition to a dialogue between managers and employees, Alliander is improving 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.

We 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 education level. Every employee makes his or her own decisions in this regard. 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 2021, the sickness absence rate was 4.6% (2020: 3.9%). The Netherlands' average in our sector was 5.1% at the end of the third quarter of 2021 (the figure for the whole of 2021 has not yet been published). Long-term sickness absence for mental health reasons has increased since the beginning of the year. The main causes of long-term sickness absence are: mental health complaints 45%, locomotor apparatus complaints 16%, other physical complaints including back problems and cardiovascular disease 30%, and complaints relating to COVID-19 9%.
The measures imposed due to COVID-19 have caused greater insecurity among employees and they miss the social support and contacts they have lacked due to working from home. Together with our occupational health and safety service, we have made plans to improve this, and the dialogue with employees about work pressure is an important element of those plans. We also looked at best practices within Alliander. We will continue to invest heavily in strengthening employability in the years ahead.

Sickness absence



Alliander is assisted by an external occupational and health service when dealing with sickness absence and absence issues. If they wish, employees can make an appointment themselves, including for preventive purposes. The occupational and health service is the first point of contact for managers who have questions and require advice on counselling employees who are ill, absent or reintegrating. As at 31 December, WGA benefits (under the Resumption of Work (Partially Fit Persons) Regulation) had been granted to eight individuals in 2021.

Employee satisfaction

In 2021, we began using a new method for measuring employee satisfaction: the Central Employee Barometer for internal and external employees. Alliander achieved high scores for engagement, sound employment practices, vitality, long-term employability and social safety. Colleagues are satisfied with their work and with Alliander as an employer, they enjoy their work, they consider it to be worthwhile and they are proud of their work. Points for improvement were the high workload, the agility of the organisation and how we explain our choices to stakeholders. There is also scope for improving cost-conscious working. The various organisational units and teams have been informed of the most important points for improvement and will discuss them jointly.

Training and development

Alliander seeks to be a highly effective, agile and cost-efficient organisation in which every employee works on Alliander's strategic goals by deploying their professional skills. In 2021, Alliander invested 2.8% of its wage bill in employee training (2020: 2.4%). We offer various training programmes and opportunities for development to make teams better able to perform and learn. Besides this, the necessary expert knowledge and skills are available whenever they are needed. We take a broad view of developing talent, both professionally and personally. These learning and development opportunities are offered by way of team coaches and training and development programmes, but they are also part of our talent management and trainee programmes.

Collective labour agreement for network companies

The parties to the collective labour agreement reached an agreement in July about a new collective labour agreement for the network companies. This agreement runs from 1 May 2021 to 31 December 2022. Employees who were employed full-time on 1 September received a once-only gross payment of €350 in September. All salaries will be increased by 2% as of 1 April 2022. The Sectoral Social Plan and the Vitality Scheme were extended without changes up to 31 December 2021. These are schemes for employees over the age of 62 to enable them to work fewer hours while retaining their pension accrual in the run-up to their retirement. Finally, agreements were reached in the collective labour agreement to investigate which measures can be adopted from the investigation report into the workload and resilience of employees in the on-call and troubleshooting service to improve long-term employability.

Career centre

The career centre supports all Alliander employees who are reviewing their employment options because their work has been, or may be, redefined or terminated. A total of 84 colleagues became redundant in 2021 (2020: 59), and 330 (2020: 348) people made use of our career centre. Thanks to this assistance, 91 employees managed to find a new job or an appropriate alternative (2020: 79). 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. 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. The Alliander Foundation spent a total of €123,000 on projects and activities in 2021.

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. At the beginning of 2021, the measures to combat COVID-19 prevented many activities from taking place. The Foundation therefore came up with alternatives, such as a campaign in which employees could send Valentine cards to elderly people. Online activities were also organised, such as language lessons for refugees.

During the year, colleagues undertook various social activities, such as a 'social clean-up' in which employees joined forces with elderly people to remove rubbish from the streets in the city. A care-home garden was also spruced up and families with sick children enjoyed an 'Opkikker Dag', a day organised to give them some light relief.

The Foundation's set-up was reassessed in 2021 to bring it more up to date. Measures were devised to further lower the threshold for participation.

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 CEO's salary and that of employees fall within the scope of the collective labour agreement for network companies. The total income of the CEO is 3.7 times the median salary of all Alliander employees in the Netherlands (2020: 3.6). Regarding employment benefits, we conducted an equal work/equal pay analysis. The recommendations included conducting an analysis of the most significant driving forces behind the basic and fringe benefits. This will help us to reduce the difference in equal work-equal pay from 4.6% to 0%.

In motion

For many Alliander employees, 2021 was a turbulent year. COVID-19 continued to affect the way we work. The Works Council monitored developments and was involved in the hybrid working process: a challenge in which employees again demonstrated their flexibility and adapted to the demands of the situation.

It is Alliander's job to give substance to the exponential growth in our work package. The purpose behind introducing a new organisational structure is to operate with more agility, and be more cost-effective and more decisive from 2021 on. The Works Council periodically discussed the status of the 1Alliander movement during its consultations.

Initiatives materialised all over the company to accelerate this. We also looked beyond simply changing the organisation structure, for example by considering managing by focusing on OGSM (objectives, goals, strategies and measures), different ways of working, simplifying processes, digitalisation and coordinating initiatives in a quarterly cycle. Giving all employees the ability to contribute to these developments is something the Works Council sees as a prerequisite for a movement that enjoys broad support.

Monitoring these developments was one of the Works Council's most important activities in the past year. In addition to the monthly contact with the Management Board, information from the business unit committees improved the Works Council's overall picture. The Works Council furthermore actively fulfilled a role in focus areas such as culture and leadership, safety and people development.

Despite the relevance of our social mission, the speed of the developments brings uncertainties for our employees. Enormous demands are placed on employees, sometimes resulting in a high workload. It is becoming harder to simply rely on existing experience and expertise. Does the organisation offer sufficient opportunities for making the most of our potential? Are there sufficient prospects for employees to grow and acquire the necessary competencies for the task facing us today and in the future?

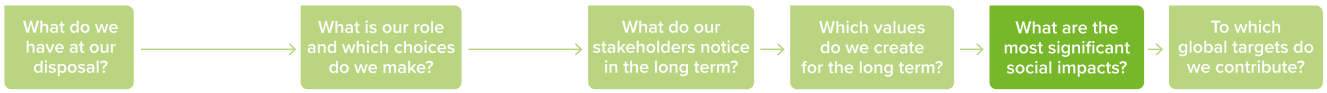
In 2021, the Works Council approved the new method for the employee satisfaction survey. The initial results present a mainly positive picture, with many engaged and proud employees. However, there are some points which need to be addressed. The workload in various places is felt to be high, for example. The new method and dialogues will help us to monitor the balance at an individual and team level.

The working conditions and sickness absence policy is discussed in the Works Council's permanent committees dealing with safety and the environment, and HR (Health and Welfare unit). Decisions on proposals from the Management Board for which the Works Council has the right of consent and the right to give advice are made in the regular Works Council. The Works Council has delegated the topic of risk assessment and evaluation to the organisational units. However, risk assessment and evaluation as a whole is handled by the Works Council through the permanent committee on safety and the environment.

We are perpetually working to achieve a reliable, accessible and affordable network. The agreements in the Dutch Climate Agreement are ambitious. We have a substantial role to play in the energy transition, but to do this we urgently need the knowledge, experience and talents of all our employees. Our social responsibility can best be put into practice by seeking to achieve satisfaction, pride and pleasure in our work. The Works Council hopes to continue its good relationship with the Management Board in the coming year so that together we can keep an eye on our employees' health and vitality.

Johannes Elmarasy, Chair of the Works Council in 2021

Our impact on society



Alliander's activities have an impact on society. The distribution of energy and its feed-in to our networks make a positive contribution to the economic development of regions and stakeholders. Employees and suppliers are rewarded for their performance. On the other hand, we know that we are also removing value from society, for example through the emission of greenhouse gases, the use of raw materials and the effects of interruptions to the power supply. Our aim is to contribute to broad prosperity in society by reducing the negative impact on stakeholders and increasing the positive impact.

Impact measurement

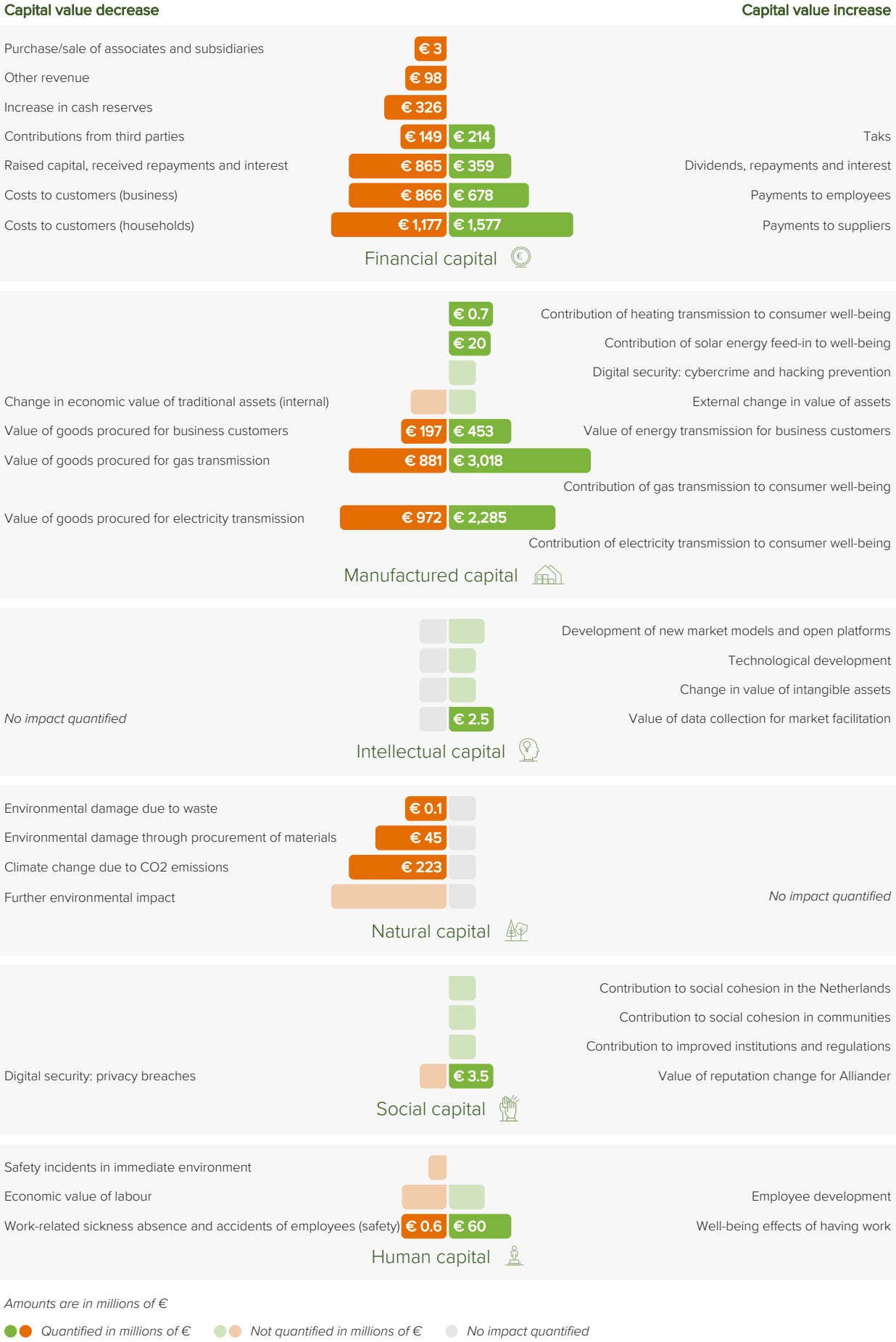
Impact measurements are used to calculate the extent to which our activities affect society. We can see whether we have achieved our goals and what our contribution to the global SDGs is. This enables us to take better decisions on projects and activities. By being transparent about how these calculations are made and reporting on the results, we want to actively involve our stakeholders in our development, the choices we make and our broad value creation.

Our steps in quantifying impact

Impact measurement is undergoing significant development worldwide. Alliander actively participates in alliances and continually works on improving our impact model. In 2021, we reached new agreements in the sector about various basic principles, which have been recorded in the Impact Measurement for Network Organisations handbook. A new version will be published in 2022. The new agreements provide a firm foundation for joint impact measurements and make it possible to compare participants' performance.
Alliander participates in the board of the Impact Economy Foundation on a pro bono basis. The aim of this foundation is to invest in further standardisation of impact measurements in a wider impact community. Our impact in 2021 was substantially affected by the following developments:

- In consultation with the sector, changes have been made in the attribution of costs to society to various parties involved in the valuation process. This attribution is a significant basis for the measurement of impacts. The starting point remains that the attribution is assigned according to the added value in the supply chain but this added value is divided up more accurately across the supply chain, leading to a reduction in our share in a number of impact indicators. The results of our model and the comparison of quantitative indicators with previous years have been adjusted to reflect this change.
- We are seeing the effect of a rise in the CO_2 price. This price tracks the damage to society due to climate change, and it increases every year. It has a negative effect on our impact on natural capital. At the same time, we are seeing that the energy produced in the Netherlands is becoming increasingly cleaner. This dampens the effect of the higher CO_2 price.
- The greater number of cold days in 2021 led to more transmission of gas. We did not notice any effect of the price rise on the total volume in 2021. The result is an increase in manufactured capital. In addition, we see that the value of district heating networks is increasing as an alternative.

Our impact model



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. We have described the other indicators qualitatively and made an estimation on the basis of external sources. 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 Accountability document.

Financial capital: investing in networks and energy transition

Alliander invests abundantly in expanding the energy networks and in the energy transition. Our need for financing increased in 2021. Capital requirements were €308 million more than in 2020.
Because our employees are paid a salary and suppliers receive payments for goods, services and assets, this generates work and income for other parties. In 2021, our impact increased by €276 million due to the rise in payments to our suppliers and in dividends, repayments and interest. On balance, our work stimulates the economy and contributes to employment, income and prosperity.

Manufactured capital: the impact of a warm home

Energy distribution and transmission are our manufactured capital and reflect the value that energy has for our customers. The availability of energy and heat determines prosperity and well-being.

Consumers and low-volume consumption

Alliander's share in the value for consumers amounted to €5.3 billion in 2021, an increase of €0.6 billion compared to 2020. The colder winter and more degree days resulted in greater distributed volumes of gas and heat. There was no increase in the number of gas connections. The number of heating connections for low-volume consumption rose by 10% and the well-being value of the heating connections also rose correspondingly. The added value for consumers rose from €0.6 million to €0.7 million. The total amount of electricity distributed rose slightly. This was due to a further increase in the amount of energy that consumers fed into the grid in 2021. We are seeing an increase of some 25% in the number of connections with solar panels. Feed-in of solar power resulted in a positive contribution to perceived well-being of €20 million.

Business customers

The total value of electricity and gas transmission for business customers rose from €409 million to €453 million. Despite the fall in electricity and gas transmission to business customers compared to 2020, the value of energy transmission increased due to rising energy prices.

Increase in value to society of reliable energy

The impact of failures and outages has been benchmarked against other network operators in the Netherlands. The length of gas outages in our service area almost halved last year, whereas the average length of gas outages in the sector increased considerably. As a result, Alliander performed better than average, with a positive impact of €0.025 million. The value of the reliability of a gas connection consequently rose by one eurocent.
Both the length of electricity outages and their frequency fell at Alliander. The average length of outages in the Netherlands actually increased slightly. We performed better than in 2020, but still below average, resulting in a negative impact of -€0.036 million. The value of the reliability of an electricity connection therefore improved. The net result for gas and electricity connections was an improved value for the reliability of our networks. This value was -€0.011 million compared with -€2.3 million in 2020.

Intellectual capital: added value of market-facilitating data

The digitisation of power grids is essential for the energy transition. New models for business and markets and the use of renewable energy lead to knowledge and data on these developments. This knowledge and data is intellectual capital that can make a positive contribution to issues around the energy transition, raw materials and implementation. Transparency, innovation and collaboration are key concepts for denoting intellectual capital.

Open data

We share public data directly on Liander's website and other data can be requested on a case-by-case basis. The quality and value in use of the data provide value for society if they facilitate applications by users. Making data available also offers market opportunities for other companies. In 2021, the 'market-facilitation data' represented a value of €2.5 million. Its impact increased slightly by €0.2 million due to a rise in the number of times the data was referenced.

Short-Term Forecasts project

A practical example of intellectual capital is the Short-Term Forecasts project. The software for this project has been developed in-house and will be used for congestion management, supporting innovations and a national analysis of the safety of the grid in conjunction with TenneT. Predicting the future load on the grid is complex, but relevant to many parties. This is why Liander has made the Short-Term Forecasts project available as open source and added it to the Linux Foundation Energy platform, enabling developers from other parties to assist the project further. As an example, the French high voltage network operator RTE and RWTH Aachen University are actively contributing to the project.
The improved tooling enables network operators such as Liander to make better predictions for up to two days ahead. This leads to better utilisation of the grid's capacity, fewer failures, fewer network losses and cost-efficiency. More capacity is created on the grid to connect customers, and savings can be made on purchases of flexible capacity and on the cost of limiting renewable energy generation. Participants in an open-source environment can work on innovation and knowledge development at a lower cost and with less deployment of human capital.

Natural capital

Alliander is working hard to limit its negative impact on natural capital (raw materials, biodiversity, the quality of the air, water and soil, and the climate).

Climate

The impact of our CO_2 emissions increased from €218 million in 2020 to €223 million in 2021. This can largely be explained by the increase in the number of degree days and the higher CO_2 price. The fall in carbon intensity per kWh due to a cleaner energy mix reduced the effect of this increase somewhat.

Circularity

The negative impact of our use of materials increased from €34 million in 2020 to €45 million in 2021, despite the fact that the amount of purchased material remained the same at 28 million kilos in 2021.
Validation of used recycled/recyclable material requires more consultations with suppliers. However, by using recycled materials, we avoided a negative impact of €3 million (2020: €13 million). As a result, we succeeded in reducing the total costs of the ecological damage that would have occurred if we had exclusively used new raw materials by 7%.
The negative impact of our waste remained stable at €0.11 million.

Social capital: broader measurement recommended

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. The reputation survey revealed a reduction in our reputational value from €14 million in 2020 to €4 million in 2021. Because of the reduced weight given to reputation as an indicator of social capital, we also see a reduction in the value of Alliander's reputation. Compared to the previous survey in 2017, Alliander's reputational value has improved.

Human capital: increased well-being through work

The impact on well-being through being in work has risen by 10% to €60 million euros. Alliander's employees reported that they are relatively satisfied with their work. The same applies to external employees. People in subsidised employment have also been included in the impact analysis since 2021. No negative effect was observed of the measures brought in to combat COVID-19, such as working from home. There are differences at a personal level however.
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 €0.61 million. Accidents and sickness absence due to mental health issues increased by 21%. The impact comprised a negative effect of €0.46 million due to work-related absence and a negative effect of €0.15 million due to safety incidents.

Measuring impact: lessons learned

As every year, manufactured capital (reliable energy transport) has a high social value. We calculate this value 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'). From this year, to make the method more understandable and applicable sector-wide, we started calculating the consumer surplus for the entire Dutch sector on the basis of a customer's consistent willingness to pay. We are aware that, by doing so, we are excluding the effect on society of the rise in energy prices. We will therefore take a broader approach to measuring the effects of

our activities on social capital in 2022.
We also see the effect of circular procurement on natural capital. We expect that further examination of the data on our circular procurement percentages will improve our impact again in 2022. And finally, as recommended by the stakeholder panel, we will invest more in a vision for the desired long-term impacts of Alliander in 2022. In doing so, we are moving from 'measuring and reporting' to 'working proactively towards social impact'.

Cable pooling: connecting a combination of wind and solar energy

Scarcity and capacity limitations on the electricity grid are currently an obstacle to creating new connections for feeding in renewable energy from the sun and wind. Often modifications to the networks are needed first. Because of the long wait for a connection, initiators are postponing investments, which in turn leads to delays in the feed-in from renewable sources of energy. One promising solution is to make use of one existing network connection for two sources of energy at a single location. Linking the two in a single cable, called 'cable pooling', makes the usual practice of using two separate network connections for solar and wind energy unnecessary and increases the chances of achieving feed-in in areas with many bottlenecks. To obtain a better understanding of the effects of cable pooling, we conducted an impact analysis at a solar and wind energy production site in the Dutch province of Gelderland.

Situation and study question

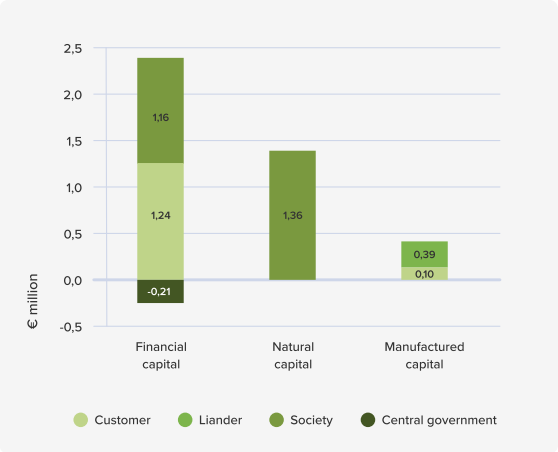
The impact calculation is based on a combined network connection of 5 MW of solar power and 10 MW of wind power. Traditionally, 5 MW of solar energy generation would only be possible on a separate new connection after extending the network. We looked at a five-year period. The stakeholders in this case study are the customer, Liander, the national government, society at large and the climate. The question is: what is the social impact of the combined connection of solar and wind energy using cable pooling compared to two individual network connections created after extending the network?

Results of the impact calculation

A combined connection would mean that the initiator of the project would save on the cost of making the additional connection for solar energy generation. The solar energy connection can be achieved more quickly than in the traditional manner. There would however be additional costs for the operating system that enables cable pooling and the necessary peak shaving. The project would be eligible for a government SDE subsidy (Stimulation of Sustainable Energy Production programme). Because the initiator would generate solar energy sooner, the total financial impact for the initiator would be €1.2 million positive. There would also be a positive impact on manufactured capital. Energy could be fed in sooner through the connection. This represents a value of €0.1 million over five years.

Cable pooling would have no direct impact on Liander's financial capital compared to the reference. If a traditional connection was used, the connection would be achieved after five years of transmission restrictions. The cost of this connection would be charged in full to the initiator. Cable pooling brings no additional costs or income for Liander. Savings would be made in investments at a higher network level since peak shaving would occur to feed in both wind energy generation with a capacity of 10 MW and solar energy generation with a capacity of 5 MW to a single network connection of 10 MW. This peak shaving would enable savings of around €1.2 million on the necessary network extension of the transmission service. These savings can be broken down into around 33% for Liander and 67% for TenneT.

There would be a negative impact for the government of €0.2 million due to the SDE subsidy. Cable pooling would lead to an acceleration of five years in the connection, implying that the subsidy costs would be incurred earlier and would represent a higher net present value. Cable pooling would enable the network operator to free up working hours, it would contribute to task feasibility and allow connections to be created elsewhere. This value creation is represented by the financial value of the connection, resulting in social value creation for Liander of the value of the connection, i.e. €0.4 million.



There is a positive impact for natural capital in terms of the climate: solar energy generation would be brought forward by five years, which equates to an impact of €1.4 million due to the avoidance of long-term CO_2 emissions from non-renewable energy generation. Eliminating the second connection leads to less use of materials and land and less earth moving. The eco-costs of this are not significant. Cable pooling produces new knowledge for those involved in the project and generates intellectual capital which can be used for projects elsewhere. This impact has not been quantified.

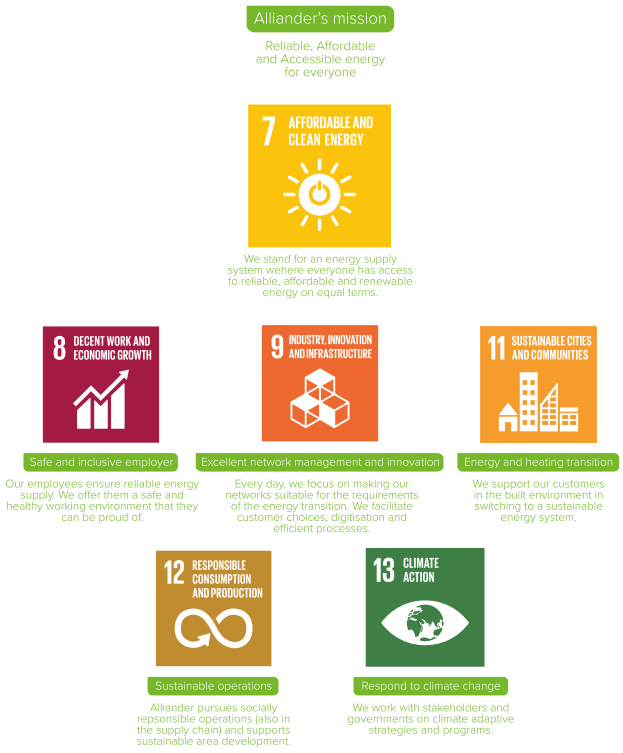
Conclusion

The total social value creation of cable pooling is positive. The True ROI – the ratio of social costs to revenue – amounts to 18.8 for this project. This is a very favourable ratio. The accelerated connection for solar energy generation will lead to higher revenue for the initiator in the initial years and to a reduction in climate-related emissions. Cable pooling will make more efficient use of the grid and the social costs of a combined connection are lower. Alliander is already facilitating this technique at several locations in the area it supplies. As such, together we are increasing the social creation of value in terms of financial, manufactured and natural capital. More renewable energy production can be connected to the existing network. Our service area has 36 comparable connections for 5 and 10 MW wind power installations on land. This offers potential for a comparable combination of network connections with solar power installations by means of cable pooling.

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.



Our contribution to the 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.

Energy transition and affordability: a vital combination

We advocate an energy supply system where everyone has access to reliable, affordable and sustainable energy on equal terms. As such, our mission deals with the essence of SDG 7: ensure access to affordable, reliable, sustainable and modern energy for all. We measure and assess progress made on this multi-faceted goal using various indicators as shown in the table below. In 2021, we started developing an index in which our performance would be measured in terms of a combination of affordability and sustainability. Our starting point for measuring sustainable energy was the goal used in the Dutch Climate Agreement of reducing CO_2 emissions by 55% in 2030 compared to 1990. We translate this goal into a target for CO_2 reduction in relation to the connections in Liander's network.

We look at the network costs to assess affordability. A significant portion of the price of energy and the cost of the energy transition will be paid for by consumers, and therefore our customers. The investments needed to make our networks robust and suitable for the drastically changing energy systems should remain in step with social costs and inflationary developments, while at the same time being sufficient to meet the changing requirements in good time. We have analysed this task and the extent to which we are able to fulfil it in relation to SDG 7. To measure affordability, we looked at the investment cost of extending the electricity grid, set against the average, standardised household income in the area Liander supplies. The idea behind this is that investment costs must remain in step with economic growth to guarantee an affordable energy supply. We want to clarify the effectiveness of our investments and promote new, smart forms of connections and transmission so that we can all use more sustainable energy, while keeping the cost of its transmission affordable. We note that investments in our networks are increasing faster than the growth in household incomes. This could have a negative effect on the affordability of energy transmission. On the other hand, we see that investments are increasing more slowly than the amount of CO_2 saved. On balance, increasing quantities of CO_2 are being saved for each euro invested in the energy network.

Our contribution to the SDGs

SDG 7: Affordable and sustainable energy		
	As an energy network operator, we play a vital role in guaranteeing a safe, affordable and constant availability of (sustainable) energy. SDG7 largely coincides with our mission and strategy. We see opportunities and challenges for the proper regulation of the heating market and energy storage, flex-markets, the technical and regulatory feasibility of smart connections, system integration, and the prevention of network problems. Together with our supply 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. Goal 7.1, which targets universal access to affordable, reliable energy, and goal 7.2, which aims to increase the share of renewable energy, are priorities for us. 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 2021	Outage duration: 20.9 minutes (2020: 23.2 minutes). Number of cable numbers with more than five outages: 22. Agreements with municipal authorities about how we can help them implement the energy transition in the years to come. The number of connections for sustainably generated energy increased by 25% to 618,000. We have provided a more detailed picture of our impact on SDG 7; this is explained elsewhere in this section.	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 highly reliable supply. Invest in flexible solutions to avoid having to invest in the network.	Our network
Actions and policy	Aim to keep costs as low as possible for the customer and share costs as fairly as possible. Facilitate 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 meter and options for meter apps. Participate in international initiatives aimed at knowledge sharing and technology development and application.	Our network

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 SDG 8.8, protecting employment rights and promoting a safe working environment. 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 well-being of employees and to employment in the Netherlands.	Our impact on society
Our results in 2021	Number of apprenticeships for people covered by the Labour Participation Act: 62. Percentage of women in managerial positions: 28.1%	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 to a broad target group. Meet the requirements of the Dutch Labour Participation Quota Act by 2024. In 2024, 33% of our managerial positions will be held by women. Have a sickness absence rate of less than 4.3%.	An attractive employer
Actions and policy	Continuous training and development of all our employees. High level on the Safety Ladder. Labour participation via Step2Work programme. Raise employee awareness and promote health and fitness, with Alliander Fit for example. Diversity and inclusion: encourage appointment of women to managerial positions and recruitment of ethnic minorities and people with poor employment prospects.	An attractive employer A safe working 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 2021	Developing the plans for new offices for our activities in Amsterdam. We are working on an ambitious project for blending in 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 by wind and solar farms. Investigating and building networks where reserve capacity can be used. Introducing a district analysis app to support municipalities in drawing up their transition visions on 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.	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 housing by connecting transitional buildings and making our own buildings 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. In 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 the energy supply more 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 2021	To respond as efficiently and effectively as possible to the energy plans, all network operators have examined the feasibility of the various technical options. The results of those investigations have been documented in a fact sheet called ‘System efficiency for an affordable and feasible energy transition’. We have met with many municipalities and housing associations to make agreements about the heating transition and ensure it can be implemented without negative consequences for ordinary 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 service area.	Our network Making the energy supply more sustainable
Long-term contribution	Provide sufficient capacity to facilitate feed-in. Provide underlying infrastructure and capacity for charging points for electric transport.	Our network
Actions and policy	Assist all municipalities in our area in drawing up their regional energy strategies. Improve air quality by facilitating clean electric transport. Implement and apply flexible rates as an option, based on 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 the energy supply more 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 are contributing to SDG 12.2, and will implement sustainable management and efficient use of natural resources by 2030. We are contributing to SDG 12.5: we will significantly reduce waste generation by 2030 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 2021	27% of our expenditure is on circular procurement.	Making our operations sustainable
Long-term contribution	Our goal is to have fully climate-neutral, circular operations.	Making our operations sustainable
Actions and policy	Use current assets for a longer period of time and replace assets with recycled materials Circular network operator: establishing a roadmap for a circular approach in operations Extension and improved embedding of raw materials passport Create transparency with regard to information about sustainability Cooperation and participation in green networks and with Dutch civil engineering companies Sustainable tendering	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 2021	Qualitative analysis of our position in the field of climate adaptation. Further greening of our carbon footprint, including via additional greening of grid losses with Guarantees of Origin. Progress in making the energy usage in our buildings more sustainable.	Making our operations sustainable
Long-term contribution	Being aware of and transparent about climate-related developments relating to our assets Cooperating with stakeholders and public authorities on climate-adaptive strategies and programmes Assessing investments based on climate-adaptive criteria.	Making our operations sustainable
Actions and policy	We have mapped out the effects of climate change on our company in more detail and incorporated this in our risk approach using the guidelines of the Taskforce on Climate-related Financial Disclosures (TCFD). Further quantification of climate-related opportunities and risks for 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 contributing to the UN sustainable development goals, we have linked them 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. In so doing, we are faced with dilemmas that can influence the way we plan and are able to carry out our work. Moreover, certain incidents, developments and events can have unforeseen consequences for our day-to-day work. 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 had to deal with in 2021.

Dilemma 1: First come, first served; or social desirability to determine the order of connecting customers

It is a social dilemma which became more and more urgent in 2021. Customers throughout our service area are increasingly having to contend with scarcity on the electricity grid. In most cases this concerns the feed-in of electricity generated from renewable sources (solar and wind). But it is also starting to affect the supply of electricity to high-volume customers. We expect that the grid will reach its maximum capacity in even more places in the coming years and that not only businesses and institutions, but also consumers will notice the effects of this. For example, we see housing estates being built in areas where there is scarcity. This may mean that social amenities such as healthcare centres, schools and supermarkets cannot be connected, whereas such amenities are crucial for the quality of life in these residential areas. However, when distributing the limited capacity on the network, the current law states that we have to deal with applications for connections without discriminating and in the order in which they come in (first come, first served principle). This can mean, as a member of the Provincial Executive of Noord-Holland once said, that a casino could easily be given priority over a school or a healthcare centre. We believe that this can and should be done differently, certainly when resources are scarce. However, we are bound by current legislation and moreover do not have a democratic mandate to make such decisions. We will always have to work on the basis of clearly defined criteria and in conjunction with the authorities.

Dilemma 2: Public support or speed when creating extra capacity on the electricity grid

The considerable increase in both supply of and demand for electricity will force us to expand and upgrade our grids more quickly in the coming years. This needs to be done both in rural areas and in the more urban areas. It is also necessary in order to achieve the goals of the Dutch Climate Agreement. The necessary network expansions have major spatial implications. Harmonious solutions that blend in, whether in towns or in the landscape, are crucial, including when it comes to maintaining public support for the energy transition. This takes a lot of time and many consultations and involves working through long-term decision-making processes. By way of illustration: a conventional development process for a new substation takes seven years on average, whereby the actual construction only takes one and a half to two years. It goes without saying that we consider it important to conduct careful and inclusive processes, which protect the rights of individuals and help ensure sustainable support for the energy transition. At the same time, there is a broad desire within society to speed things up, make clear choices and be more decisive, in part so as to achieve the goals in good time for 2030. These desires and interests regularly come into conflict and sometimes lead to major delays in decision making. Although it is true that processes could move much faster, there is a risk from a political, administrative and legal perspective that this could be to the detriment of sufficient public support or due care. This is where the major challenge lies for public authorities, network companies and other stakeholders in navigating between the various desires and interests in an appropriate manner. It also has to be remembered that both much more speed and sufficient support are crucial to be able to achieve the goals in time.

Dilemma 3: Physical living environment or policy-based and political-administrative reality as a starting point for designing an energy network

The Netherlands is facing many major challenges and transitions, such as combating climate change, tackling the nitrogen crisis, building affordable new homes, making the housing stock and mobility more sustainable, creating favourable conditions for business owners and companies, and the digitalisation of society. These developments have a direct impact on our energy networks and vice versa. Responsibility for and ownership of these challenges and transitions generally lies with government departments, cabinet ministers, provincial authorities and municipalities and with councils, and is often organised along sectoral or thematic lines. As a co-designer of the energy system of the future, Alliander works actively with other parties to find solutions for each of these challenges and transitions. Eventually everything needs to come together in a single, affordable, sustainable and accessible energy system. To do so, a

comprehensive appraisal is needed because both the sum total and the dependencies between the different elements of the energy system are important for an efficient implementation. If this happens, we can arrive at a single integrated programme for the entire energy system – including making choices concerning spatial planning and setting aside land – on the basis of national, regional and sectoral programmes. This comprehensive view will help us to make better appraisals and it acknowledges the interconnection between the various challenges and transitions, and their combined impacts. However, the fragmentation of responsibilities in the current set-up for policy-making, politics and administration means that either the comprehensive appraisal will not come about or only to a limited degree, or it will lead to complex and often slow processes. And at the same time, it is clear that integrating individual plans at a later stage will lead to unworkable situations or will endanger the goals. A combination of realism about what is possible in the real physical world and effective coordination and direction is needed to enable the various challenges and transitions to come together in realistic and feasible plans. Ideally, comprehensive policy-based and political decisions will be made regularly about prioritising and phasing at the national and regional levels on the basis of what is possible in the real physical world. This is because, although much of this transition will take place at the regional level, there is a lack of specific guidelines for effectively bringing the various realities together at present or to give direction and arrive at consistent ideas about the development pathways for the energy system of the future. To this end, it is crucial that a start is made in 2022 on a comprehensive national Energy Plan for 2050 and a national Energy System Programme in which public authorities, regional and other energy network operators and market parties jointly formulate these plans.

What have we learned?

More empathy for consumers' and customers' situation leads to more understanding

Alliander was confronted with a striking photo this year: residents of a neighbourhood in Amsterdam staging a sit-down protest in our trench. They disagreed with the location of a new transformer substation and had no hesitation in making their views known. This is a good example of an area of tension. The electrification of the Netherlands over the coming years will mean that thousands of these transformer substations will have to be built; at the same time, few people are pleased to see them arrive in their own street. To avoid situations like the one in Amsterdam in the future, we will have to have more empathy for our customers' perspective and involve them proactively in the steps we are going to take. The winning idea from the Alliander Innovathon provides us with specific guidelines for this, enabling those living nearby to virtually join us in looking at and deciding on a location for a transformer substation.

Proactive collaboration with stakeholders to speed up the energy transition

To strengthen the electricity grid and make it ready for the future, new substations will be needed in addition to new cables. We will have to go through protracted procedures prior to building them. Finding a suitable location generally takes a lot of time, because we have a spatial planning problem in the Netherlands. Land is scarce. Nonetheless, it is essential to arrive at agreements with municipalities even though this is often quite a challenge in practice. The town council of Neerijnen put did away with the zoning plan last year, for example. As a result, business owners will have to wait at least another three years for the capacity they wanted. It does not have to be this way, as Duiven shows. There, the town council proactively offered a location for a new substation. This shortened the permit procedures considerably. It just shows that municipalities are a crucial link in the energy transition. It is therefore extremely important for network operators to talk frequently to municipal councils.

Working from home is not a one-size-fits-all solution

Large numbers of our employees are working from home as a consequence of the coronavirus pandemic and government guidelines. The switch happened all of a sudden, with no extensive preparation. We just did it. Looking back, we may have approached it too rationally. Throughout 2020 and early 2021, we started picking up signals that there were employees who were unable to function well at home. This not only applied to work, but also to their work-life balance. Where one person finds it easy to work from home most of the time, another has a need for face-to-face contact and a decent workstation in the office. Because of this, we moved to hybrid working in the first quarter of 2021, combining working online and working on site as effectively as possible. Teams were given the opportunity to arrange hybrid working in a way that suits them best, making it possible for colleagues to work in the office if they felt the need. This has shown us that there is no single solution that works for everyone; it's all about tailoring solutions to individuals.

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 2021, 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 the effectiveness and any failings 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 it is appropriate to prepare the financial reports on a going concern basis based on the current state of affairs, 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 2021 and of the business during the 2021 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, 21 February 2022

Maarten Otto
Walter Bien
Marlies Visser
Daan Schut

Corporate governance

Corporate governance

As a large energy network company with an important role in Dutch society, we endorse the importance of good governance, effective supervision and transparent accountability in respect of all stakeholders. We therefore voluntarily apply the Dutch Corporate Governance Code where possible and applicable.

Related material issues in this chapter
O) Corporate governance and business ethics

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 by four Dutch provincial authorities and 72 municipalities. Alliander has a two-tier management structure, comprising 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. This is for example because the two-tier regime applies and shares in Alliander are held by Dutch provinces and municipalities rather than being listed on a stock exchange. In addition, Alliander has a different management structure (two-tier rather than a one-tier board), there is no executive committee and there is 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: maximum appointment and reappointment periods – Management Board members – Members of the Management Board are 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 Annual General Meeting (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. Alliander has however issued listed bond loans. 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, although the company does hold meetings with investors and shareholders after publication of the annual figures. These presentations can be downloaded from www.alliander.com. Alliander also holds a press conference after the publication of its six-monthly and annual figures, during which the Management Board explains the results. In addition, Alliander holds annual meetings with rating agencies (and on an ad hoc basis if necessary). These meetings and presentations cannot be attended by all shareholders in real time via webcasting. However, a webcast replay of the conference call with investors on the annual figures is made available via the Alliander website.

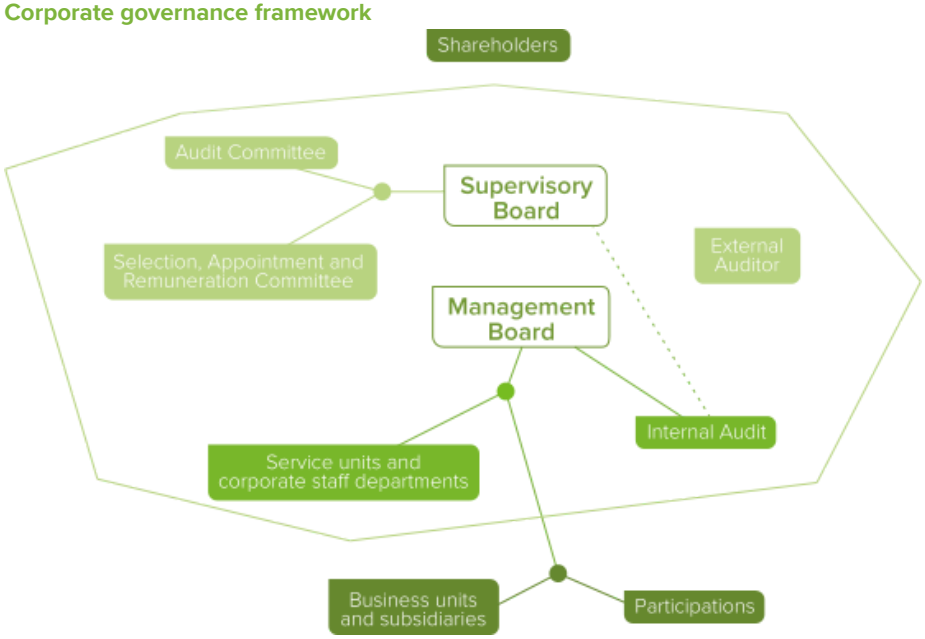
Corporate governance statement

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'). Please refer to the following chapters of the 2021 management report 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.

- 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

In addition to managing Alliander, the Management Board is also responsible for developing a vision for the company's long-term value creation and formulating an appropriate strategy in this respect. The Management Board is accountable to the Supervisory Board in respect of these activities. 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 conduct and culture, on the interaction with the Supervisory Board and on the provision of information, and on how to deal with actual or potential conflicting interests.

Appointment and dismissal

Given that Alliander is a two-tier company, the Supervisory Board appoints the Management Board members. 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

Due to the volume, diversity and complexity of the topics to be dealt with, the Supervisory Board has two permanent committees: an Audit Committee and a combined Selection, Appointment and Remuneration Committee. The composition of the committees is determined by the Supervisory Board. The committees advise the Supervisory Board and prepare the decision making. As such, the committees help the Supervisory Board to make decisions effectively. In the Supervisory Board meeting, the committees report verbally, and (draft) minutes of the committee meetings are distributed. 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 Audit Committee meets the external auditor at least once a year without the Management Board. The chair of the Audit Committee is the external auditor's first point of contact if actual or suspected misconduct or an irregularity is uncovered during the audit.

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

An AGM is held at least once a year at which all decisions are taken on the basis of the 'one share, one vote' principle. Decisions are made at the AGM about adopting the financial statements, determining the dividend, discharging the members of the Management Board and the Supervisory Board from liability, amending the articles of association and appointing the external auditor. Certain powers of the AGM 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

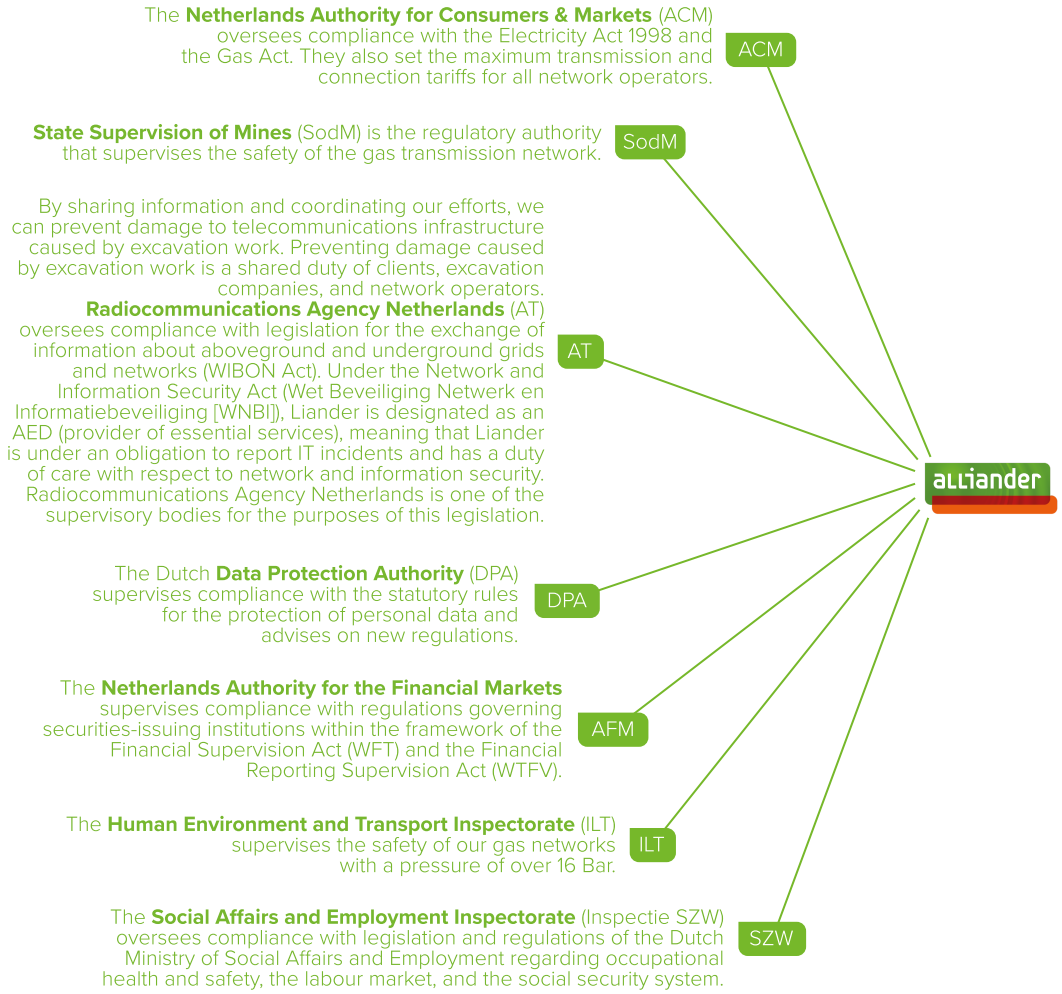
The external auditor is nominated by the Supervisory Board and appointed by the General Meeting of Shareholders. Deloitte Accountants B.V. has been the external auditor of Alliander and its affiliated enterprises since the 2016 financial year. The external auditor audits the financial statements and reports the findings of the annual audit to the Management Board and the Supervisory Board. The most significant issues appear in the auditor's report. The General Meeting of Shareholders can ask the auditor questions about the findings. Consequently, the auditor attends the AGM 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.

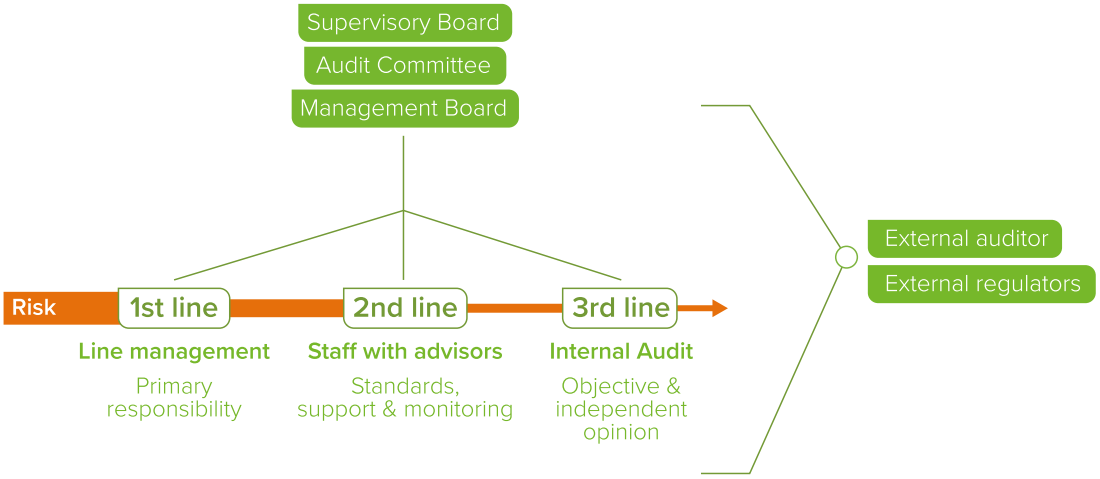
Other regulators

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

It is important to us that all our stakeholders have confidence in our organisation and that there is a safe working atmosphere for everyone at Alliander. We attach 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. It specifies how we deal with each other, business partners, company and personal interests, business assets, confidential and non-confidential corporate information, 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 20 investigations into fraud and incident reports in the year under review. This prompted the management involved to impose measures or sanctions in five cases, including terminating the employment contract by means of a settlement agreement. Apart from reports of fraud and incidents, there were 101 cases in which managers decided to impose sanctions varying from an official warning to a settlement agreement. These cases ranged from attitude issues and behaviour (including transgressive behaviour) to issues around an employee's performance. Every new employee is given the Code of Conduct upon joining the company; this includes 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. In 2021, 70% of employees had completed the e-learning course. Integrity issues and ways of dealing with dilemmas in this field are also discussed in team meetings. Aspects covered include a safe working environment, 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 misconduct safely and in a 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 the Whistleblower Policy.

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 Whistleblower Policy 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.

Guideline for the Prevention of Market Abuse

Although Alliander's shares are not listed on the stock exchanges, the company has issued listed bond loans. These bonds are listed on the Amsterdam stock exchange. Consequently, Alliander adheres to the Guideline for the Prevention of Market Abuse. This guideline draws on the Alliander Code of Conduct and the European Market Abuse Regulation. The aim of the Guideline is to make it clear that employees are not permitted to share inside knowledge or use inside knowledge to conduct personal trading transactions in Alliander's financial instruments. The Guideline describes the rules of conduct. This Guideline is also applicable to the members of the Management Board and the Supervisory Board. Alliander was not involved in any legal disputes or court rulings on market abuse in 2021.

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.

Privacy and security

We are responsible for protecting our systems against hackers and information security incidents (security) and for dealing appropriately with the personal data of our customers and our employees (privacy). The Corporate Privacy Officer (CPO) is the central point of contact in our organisation for privacy matters. In line with the General Data Protection Regulation (GDPR), a Data Protection Officer has been appointed to monitor compliance with the GDPR in matters relating to personal data. Each business unit has its own Privacy Officers who report to the CPO on privacy matters. The Chief Information Security Officer (CISO) is the central point of contact for security matters. In 2021, our security experts were brought under one roof in the CISO Office, which is headed by the CISO. The CISO Office performs first-line and second-line security work; first-line activities focus on the security of the business units and the second-line activities focus on the digital resilience of the Alliander organisation as a whole.

Risks

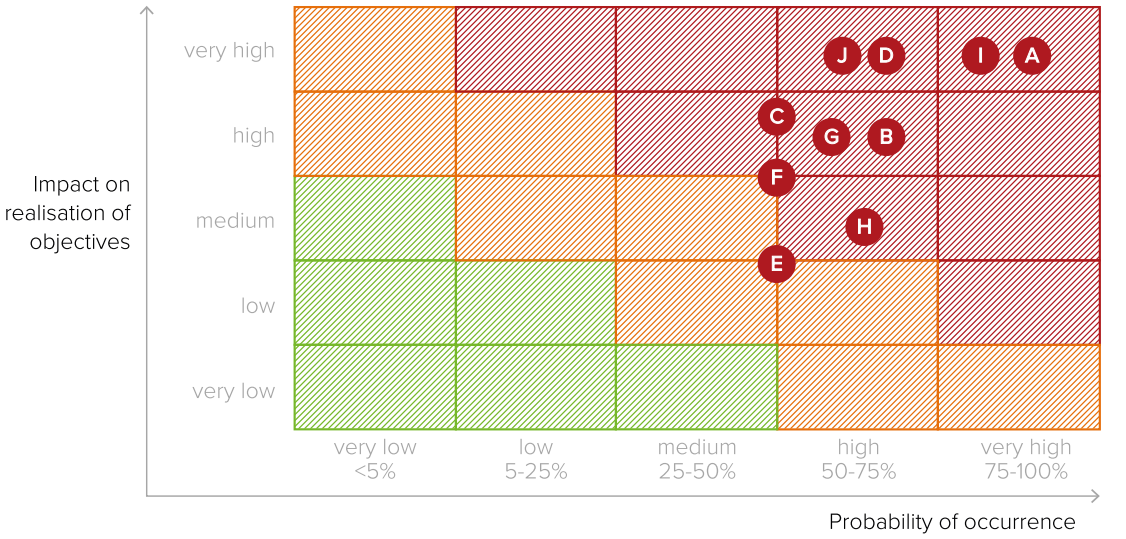
Alliander works hard to keep energy reliable, affordable and accessible for everyone. This work involves risks, including safety and financial risks. These risks cannot be entirely eliminated. However, risk management does provide insight into these risks, so that we can take informed decisions about 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: Reviewed
F Future-proof IT landscape→
G Cybersecurity ↑
H Financing →
I Meeting customers' expectations: New
J Future-proof investments: New



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 in 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, please visit 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			•	•
F: Future-proof IT landscape			•	
G: Cyber security			•	•
H: Financing				•
I: Meeting customer expectations	•	•	•	•
J: Future-proof investments				•

Risk appetite

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

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

Explanation of risks

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

decreasing: ↓
neutral: →
increasing: ↑

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

Completion of work package →

Probability
Very high.

Impact
Very high.

What is the risk?
The volume of work, especially in the electricity domain, is increasing much faster than anticipated due to the energy transition and economic growth. 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. Congestion on the grid and complaints about voltage may therefore increase.

How is the risk managed?
Alliander is addressing the challenge surrounding the completion of its work package by engineering more work, making better use of the grid and preventing additional work. We engineer more work by increasing our production systematically and substantially, by investing in solutions focused on improving productivity and increasing capacity. Better use is being made of the existing grid by means of smart solutions and the active application of customer flexibility. This reduces peak loads and enables more customers to be connected without expanding the grid. We prevent additional work by effectively influencing national and regional policy decisions and the behaviour of consumers and companies, with the aim of reducing demand for power.

What is the risk trend?
Neutral. The risk is and remains very high. This is despite the control measures put in place. The work package is also expected to increase further in the years to come and so remain at a challenging, high level.

Capacity for change ↓

Probability
High.

Impact
High.

What is the risk?
Our customers and society in general have high expectations of Alliander. Changes are needed if we are to continue to fulfil our social role. At the same time, we are dealing with an organisation in which employees are under pressure due to the challenges we face and uncertainty about whether and how we will be able to fulfil our task for customers and each other. COVID-19 has also put the engagement with the company under pressure. A failure to change could pose a threat to achieving our goals.

How is the risk managed?
To increase the capacity for change, we work on the basis of one common goal: being an agile, effective and cost-efficient organisation that works together as one team. This means addressing our strategy, our organisation and our culture and leadership. We work on the basis of a clear strategy with critical success factors and performance indicators which are incorporated at all levels of the organisation. We seek to have an agile, effective and cost-efficient organisation by being aware of each other's production process, continuing to develop the organisation structure and implementing a new Alliander consultative structure. We make use of strategic staff planning so that we can proactively respond to staffing developments in a much more targeted manner. We work as one team by drawing up new leadership profiles and developing activities to promote professional skills, lasting personal effectiveness and inclusivity. We also invest in leadership by holding leadership days at various levels.

What is the risk trend?
Decreasing. Progress has been made in our new organisation structure in the past year. We have started working with a consultative structure in which we set priorities and make adjustments each quarter, adding focus and ensuring that we can meet our enormous challenge. Employees are asked to reflect, learn and perform.

Safety →

Probability
Medium/high.

Impact
High.

What is the risk?
The regional distribution of energy, such as electricity, biogas, gas and heat, involves 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 focused on ensuring network safety, maintaining safe working practices and boosting safety awareness. We assure network safety by including safety in the design of the network and in decisions about procuring assets. We also weigh up safety risks as an integral part of our network maintenance and replacement planning. Instructions and training courses for employees prepare them for working on assets and they follow work instructions. We also provide them with safe tools, materials and protective equipment. We monitor safety at work by conducting workplace inspections and safety observation rounds, and we investigate incidents. We promote safe working at our contractors too by auditing their quality systems. Finally, we work on safety awareness: thinking and acting with safety in mind at all times should be a given. We do this by consciously focusing on safety and giving each other critical feedback about undesirable behaviour, so that together we can make improvements to safety every day.

What is the risk trend?
Neutral. Safety was prominently on the agenda again in 2021. Qirion, Maintenance & Outages, Private Customers and Business Customers, Reconstruction & Energy Networks rose to rung 3 on the Safety Culture Ladder for the first time in 2021. At the same time though, we see an increase in the LTIF. In Q1 2022, we will investigate whether control measures are adequate and whether there are any developments that have increased the safety risk.

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. In so doing, bottlenecks for Alliander are discussed on a continuous basis. We focus on ensuring a reasonable return for regulated activities and sufficient financial scope to perform our statutory duties. In addition, we paint a clear picture of what is necessary for us to perform our role and fulfil our responsibilities effectively now and in the future. We actively put forward proposals for necessary amendments to national and European legislation and regulations and proactively enter into dialogue with policy-making parties, often in alliance with Netbeheer Nederland.

What is the risk trend?
Neutral. We are still critical of the method decisions which govern the permitted income. They do not yet take sufficient account of the break in the trend of cost development as a consequence of the energy transition. Dialogue with the relevant stakeholders is continuing about the Energy Act and secondary legislation, the new Heating Act and the Heat Transition (Municipal Instruments) Act. Good progress is being made, but not everything is as we would wish. It is important to develop this legislation and these regulations further to make them sufficiently flexible and future-proof.

Privacy: Reviewed

Probability
Medium/high.

Impact
Low/medium.

What is the risk?
The digitalisation of Alliander's work is accelerating fast. As a result, we are gathering, storing and exchanging even more data on all aspects. There is an associated risk that personal data is processed unlawfully with respect to the statutory requirements of the General Data Protection Regulation (GDPR). In addition, personal data may not be appropriately protected by technical and organisational measures, making it accessible to unauthorised persons (data leak).

How is the risk managed?
We comply with the GDPR by recording the rules on working with personal data in our Code of Conduct. We have a privacy policy which sets out the organisation, implementation, management, monitoring and continuous improvement of privacy. We promote awareness of privacy among our employees by the active application of e-learning. We make use of processing registers to keep track of which personal data is processed for which purpose. Should a data leak occur, we have a data leak procedure to report the leak correctly and in good time to the regulator. We also work with processing agreements with suppliers to safeguard the privacy of personal data. And finally, we have set up authorisation management to protect data effectively.

What is the risk trend?
Not applicable, this is a new risk (the existing risk of 'privacy of energy data' is described elsewhere, from a broader privacy perspective).

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. The IT landscape is complex and still insufficiently flexible to address future challenges. Our current systems have high reliability but are currently receiving too little long-term attention, which complicates the digital transformation to a data-driven network operator.

How is the risk managed?
We are investing in the long-term development of our core systems: we are prioritising making a blueprint of them and planning how to tackle these systems. And we are putting together IT Guidelines & Principles that describe boundaries and freedoms for IT development to create a clear scope of action for the various teams. At the same time, we are documenting policies and communicating them. In addition, we are defining a long-term vision for our IT landscape and creating an overview of our applications and technical building blocks.

What is the risk trend?
Neutral.

Cybersecurity ↑

Probability
High.

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. Topical events which attract world-wide attention affect this threat assessment. Ransomware – maliciously encrypting files and systems before demanding a ransom to make them accessible again – has developed to such a degree that it poses a risk to the Netherlands' national security. Disruptions to or outages of the digital infrastructure can lead to disruptions in daily life or even to a breakdown of society. The supply of electricity is inextricably bound up with this.

How is the risk managed?
The CISO Office has overall responsibility for the entire process of information security and therefore has a key role in managing cyber risks. We manage this risk by working on our digital resilience and by applying the ISO CyberSecurity Framework. We seek to identify threats and vulnerabilities by making use of Alliander Security Governance, the Security Policy, risk identification and external sources. We protect Alliander from cyber risks by managing risks and by having a culture in which security is a given. We detect risks by actively monitoring identified threats and we respond effectively by resolving and further investigating security incidents. Finally, risk control is set up to enable recovery when cyber risks occur: we have organised business continuity management and set up Disaster Recovery Plans for this purpose.

What is the risk trend?
Increasing. The risk has increased given that more and more companies are affected by attacks every year and the complexity of these attacks is growing.

Meeting customers' expectations: New

Probability
Very high.

Impact
Very high.

What is the risk?
It is becoming increasingly difficult to meet customers' expectations. The shortage of transmission capacity is worsening and waiting periods for connections are getting longer. Interaction with customers is increasing too. All this has an impact on our customers and requires good, timely personal communication. At the same time, our customers have ever higher expectations concerning transparency and service provision. Consumers are uniting on specific topics and social and conventional media magnify issues. National and regional media are focusing more attention on network operators as well. This can cause customers to regard Alliander less positively, reducing public support for our work as a network operator.

How is the risk managed?
We are seeking to influence the image of our work by aiming to act before incidents happen. We are introducing guidelines on communicating with people who live in the surrounding area, and on customer policy. Our contractors will also have to comply with these guidelines. Our communication strategy is proactive, timely and transparent and shows what action the customer can take. We take a regional and customer-specific approach through various channels, with focal points per topic such as the shortage of transmission capacity, waiting times for connections, the shortage of low-voltage electricity and the image of our day-to-day work.

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

Future-proof investments: New

Probability
Very high.

Impact
High.

What is the risk?
We are building an energy infrastructure to last some 40 years. At the same time, we are dealing with an environment in which political and other choices are made which encourage developments under current market conditions leading to an energy solution that is not appropriate from the perspective of the ideal system in the long term. This may lead to suboptimal investments which will not be fully utilised up to the end of their useful lives, duplicate infrastructures and therefore higher costs for the infrastructure and for society. It can also lead to a greater challenge in terms of the task feasibility and delays in achieving the goals of the energy transition.

How is the risk managed?
We connect customers to the electricity grid when they put in a request to that effect, in line with our obligation to connect customers. We talk to customers to discuss the reason for the request and to offer them alternatives. In the short term, we show the sectors in which investments should be made for sustainable energy generation for the next 20 years. We thereby provide quantitative evidence for our lobbying activities. We are also conducting discussions in the relevant regions to get the problem on the agenda. The discussions about the areas being explored on the basis of the RES plans provide a platform for putting the problem on the agenda and for agreeing mitigating measures with our stakeholders for long-term prioritising and programming.

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

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 the course of 40 years. At the same time, the compensation for the cost of capital for borrowed capital and equity is falling. Taken together, the result is an increase in the need for financing, which may put financial ratios and ratings under pressure.

How is the risk managed?
The energy transition and our social task require substantial investments in the coming years. To find a structural solution to this financing challenge, we are taking a three-pronged approach: capital injection, a cost-efficient organisation and exploratory talks. To maintain a sound financial position, it is necessary to strengthen our equity. Alliander accordingly asked shareholders for a capital injection in 2021: the shareholders agreed to this at the end of 2021 and a reverse hybrid convertible bond loan has now been issued. In addition to strengthening equity, we continue to work towards an agile, effective and cost-efficient organisation, to lower the organisation's costs and increase production. And finally, in conjunction with the other network operators, we are conducting talks with the regulator and the Dutch Ministries of Economic Affairs and Climate Policy and Finance about the network operators' current revenue system and ways of ensuring sufficient equity for regional network operators in the longer term.

What is the risk trend?
Neutral. Alliander has made significant progress in managing this risk in the past year thanks to the capital injection of €600 million from its shareholders. Further capital injections will however remain necessary in the coming years.

Report of the Supervisory Board

The Supervisory Board has both a supervisory and an advisory role. We also serve as the employer of the members of the Management Board and maintain contacts with internal and external stakeholders. This report clarifies the way in which the Supervisory Board performed its supervisory role and the most significant topics addressed this year.

Topics

Strategy

Progress on the strategy and the manner in which the Management Board is accomplishing long-term value creation were discussed at each meeting with the Management Board in 2021. The major theme dominating 2021 was the challenges posed by the energy transition. Its consequences are becoming increasingly noticeable in society as bottlenecks appear in the electricity grid in more and more places. We see that the company is working hard on expanding and updating the grid and developing innovations and smart solutions to make better use of the existing grid. Apart from a lack of capacity in the grid, we note that the completion of the work package is under pressure due to a chronic shortage of technical staff, scarcity of materials and the long time it takes to complete planning and permit procedures. Implementing the energy transition is a shared task and requires joint action by all the parties involved. Fortunately, we are observing increasing awareness of the challenges of the energy transition and see that stakeholders are progressively recognising their responsibility and taking a proactive approach.
The annual strategy day was held in October; the Supervisory Board and the Management Board exchanged views on completing the work package and reflected on the vision of how to get more work done. We also extensively discussed the investment and financing challenges brought about by the energy transition. The Supervisory Board would like to express its appreciation of the approach pursued and the enrichment achieved by the strategy day.

Safety

The Supervisory Board endorses the importance of safety for our own employees, those of our subcontractors, our customers and local residents. The Supervisory Board has examined the current status and ambitions regarding safety. Work is permanently being done on improving processes and procedures, but especially on safety awareness. The national Safety Ladder is used to measure and promote safety awareness. In 2021, the organisational units Qirion, Maintenance & Outages, Private Customers and Business Customers, Reconstruction & Energy Networks achieved rung 3 on the Safety Ladder for the first time. This is a great achievement and gives us confidence that the ambition to reach step 4 by 2025 is feasible. We also monitor accidents that lead to absence, using the quarterly reports. In 2021, there were 32 accidents among Alliander employees that led to absence (2020: 21). One of these was a serious industrial accident. Contract employees suffered nine accidents. This indicates that safety requires our constant attention.

Financial reporting

The Supervisory Board discussed the 2020 annual report and the financial statements at length, including the accompanying audit report, in the presence of the external auditor, Deloitte. Throughout 2021, the Supervisory Board extensively discussed the financial results on the basis of the six-monthly and quarterly reports. Topics addressed included the growth of the work package, rising investments, the financing needs and the financial ratios. The Supervisory Board's Audit Committee carried out extensive preparatory work on all these matters. The Supervisory Board concluded that the six-monthly and quarterly reports contain sufficient information to monitor progress on achieving the financial results and the corporate objectives, and make adjustments where needed.

Internal risk management and control systems

The Supervisory Board (and the Audit Committee in particular) discussed the Internal Audit department's 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 2021 interim audit for the six-monthly figures 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 Audit Committee and the Supervisory Board questioned both Deloitte and the Management Board on the observations in the management letter. The Supervisory Board concludes that the consultations between the auditor and the Management Board about the management letter and follow-up actions were constructive and led to appropriate progress being made in improvement initiatives. The Supervisory Board also notes that the auditor found no significant shortcomings in internal controls in the 2021 financial year. The Supervisory Board endorses the conclusions of the Management Board about the internal risk management and control systems as expressed in the 'In Control Statement' in the Report by the Management Board.
In addition, the company's main risks (including control measures) are discussed every six months. The Supervisory Board is of the opinion that the company pursues a balanced risk policy and keeps the Supervisory Board adequately informed of risk-related issues. For a description of the principal risks, see the chapter on Risks in the Report by the Management Board. We also discussed the comprehensive IT, Privacy and Security risk report on Alliander's exposure in these areas and the strategic risks identified for these areas (including control measures).

Long-term financing of the energy transition

Alliander needs considerable capital to be able to fund the energy transition. This topic was discussed at length with the Management Board in 2021. Three parallel approaches are being taken to systematically address future financial challenges as a consequence of the energy transition: (I) Alliander is implementing cost-cutting measures, increasing productivity and introducing innovations for smarter working; (ii) Alliander has started talking to its shareholders about strengthening its capital position; (iii) Alliander and the other regional network companies are in talks with the Dutch central government about whether and how the government can assist the regional network companies in obtaining financing.
The Supervisory Board considers that significant progress has been made on all three tracks in 2021. The organisation-wide cost-cutting programme has saved €160 million a year to date and Alliander will continue to work on cutting more costs through this programme. Following a process started in 2020, Alliander has succeeded in strengthening its financial position by €600 million. Alliander's request to shareholders to invest money in a future-proof energy network met with a positive response from 70 of the 76 shareholders, who represent 99.5% of the issued share capital. The successful completion of this process will enable Alliander to expand the electricity grid further in the coming years. Intensive talks also took place with the Dutch government in 2021 about regional network companies' considerable investment requirements up to 2030. Exploratory talks are currently taking place between Alliander, Enexis and Stedin, their shareholders and the Dutch government about whether and how the government can help meet the capital requirements of regional network companies.

Strengthening the capital structure of the network companies and retaining an A rating are crucial in enabling the required major investments to be made. A combination of the above proposed solutions will be necessary to solve the funding issue. That is why the Supervisory Board is delighted with the capital contribution made by the shareholders, and why the Supervisory Board is also pleased with the ongoing process investigating how the government can help to meet the capital requirements of the regional network companies.

Culture

The Supervisory Board wants Alliander to be a top-class employer that people want to join and where employees continue to work happily. Alliander attaches great importance to integrity and having an open, honest culture within Alliander. Every six months, the Management Board informs the Supervisory Board via the Audit Committee of its findings and observations regarding the effectiveness of and compliance with the Code of Conduct, reports received in connection with the Whistleblower Policy and the outcomes of investigations.

The Supervisory Board went on working visits, including to the substation in Zeewolde, to get a feeling of what is going on in the company and the issues at play and to get more of an idea of the culture and behaviour. The Supervisory Board also held two informal lunch meetings with young professionals in 2021. Talks with the Works Council are a significant opportunity to assess cultural issues. The results of the Central Employee Barometer were also discussed with the Supervisory Board. The Barometer provides the Supervisory Board with valuable insights into how Alliander scores in terms of its ambition to be a top-class employer and where more work is needed to improve employee satisfaction. Furthermore, the findings of Internal Audit and the external auditor give the Supervisory Board information about culture and leadership. After all, behaviour and culture are part of the annual evaluation by the Supervisory Board and the Management Board.

COVID-19

The Dutch government announced or revised measures to combat COVID-19 on various occasions in 2021. Just as in 2020, these measures had a major impact on the organisation. The Supervisory Board is regularly updated on the impact on employees, operations and the financial results. The Supervisory Board is very appreciative of the way in which employees continued to work professionally under these difficult conditions and we note that Alliander has succeeded in finding the right balance between online and in-person collaboration by implementing hybrid working.

Sustainability

Social, economic and financial sustainability, the SDGs and impact measurement are a comprehensive part of Alliander's strategy and day-to-day operations and lead to long-term value creation for all its stakeholders. The Supervisory Board is regularly updated on sustainability initiatives and developments. Last year the Supervisory Board specifically reflected on impact measurement. The Supervisory Board considers it important that Alliander is transparent about the social impact of its activities and actively includes this in its decisions. The way in which Alliander does this has not gone unnoticed. Just as in 2020, for instance, Alliander won the Management Scope Corporate Impact Award. Furthermore, Alliander's 2020 annual report ended as one of the top three contenders for the Kristal Prize 2021 for the most transparent report on corporate social responsibility. What is more, Alliander received the highest sustainability rating (ESG rating) in the network sector from Sustainalytics. A high sustainability rating is not only a token of appreciation for the work Alliander does in this area, but is also becoming an increasingly significant aspect for potential investors when deciding to invest in Alliander bonds. The Supervisory Board compliments the organisation on this excellent performance and encourages Alliander to continue the course it is pursuing.

Other important matters

Other notable matters that demanded the attention of the Supervisory Board in 2021 included:

- important court rulings in cases in which Alliander was involved, and new legislation and regulations that are relevant to Alliander;
- people development and succession planning;
- the cost-cutting programme;
- the renewal of the engagement of Deloitte as auditor for the 2022 and 2023 financial years;
- the New Business strategy;
- the heat strategy;
- approval for updating the prospectus for the financing programme for Euro Commercial Paper (ECP);
- approval of the issue of a reverse convertible hybrid bond loan of €600 million and the designation of the Management Board as the authorised body to decide on the issue of ordinary shares in Alliander's capital and to limit or exclude preferential subscription rights when issuing ordinary shares in Alliander's capital in the context of the reverse convertible hybrid bond loan;
- approval of the 2022–2026 business plan;
- approval of the Internal Audit annual plan for 2022.

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)
Thessa Menssen	member	2019	n/a	2023 (eligible for reappointment)
Gerard Penning	member	2021	n/a	2025 (eligible for reappointment)
Bert Roetert	member	2015	2019	2023 (not eligible for reappointment *)

* The appointment period is assumed to be two four-year terms. This may be extended by two additional two-year terms, as long as sufficient reasons are given for this in the report of the Supervisory Board.

The composition of the Supervisory Board changed in 2021. Gerard Penning was appointed as a member of the Supervisory Board at the Extraordinary General Meeting of Shareholders on 20 January 2021. He was nominated for the appointment on the basis of the Works Council's enhanced right of recommendation. The appointment of Gerard Penning fills a vacancy on the Supervisory Board which had arisen due to the departure of Govert Hamers in May 2020. In the search for a new member of the Supervisory Board, an explicit preference was expressed for someone with specific knowledge and experience of areas such as Human Resources, culture and organisational development.
As a new member of the Supervisory Board, Gerard Penning has completed an introductory programme focusing on the general strategy, the regulatory context, financial reporting and the organisation structure. The programme also included a visit to the Alliander technical college in Duiven.

Procedure, frequency of meetings and attendance

In 2021, the Supervisory Board convened seven times: five of these were regular scheduled meetings and two were additional meetings. The meetings took place partly online and partly in person, taking account of public health guidelines. The same applied to the committee meetings. During the first part of each regular Supervisory Board meeting, the Supervisory Board meets on its own. The outcomes of the closed-door meeting are then shared with the Management Board in the plenary part of the meeting. 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. Outside the meetings, the Management Board kept the Supervisory Board abreast of relevant subjects in writing. Sander Oosterloo and Miranda de Bliek were the Supervisory Board's secretary and deputy secretary respectively in 2021. The secretary prepared the Supervisory Board meeting agendas, liaising with the chairpersons of the Management Board and the Supervisory Board.

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 2021, and the Selection, Appointment and Remuneration Committee held three meetings. A list of which individual members of the Supervisory Board were present is shown below.

Name	Supervisory Board meetings (7)	Audit Committee meetings (6)	Selection, Appointment and Remuneration Committee meetings (2)
Annemarie Jorritsma	86% (6/7), Chairperson		100% (3/3)
Frits Eulderink	100% (7/7)	100% (6/6)	
Thessa Menssen	86% (6/7)	83% (5/6), Chairperson	
Gerard Penning	71% (5/7)	83% (5/6)	
Bert Roetert	86% (6/7)		100% (3/3), Chairperson

Supervisory Board committees

The Audit Committee and the Selection, Appointment and Remuneration Committee prepare the decision-making of the Supervisory Board in their own fields, and also advise the Supervisory Board. During the committee meetings, the members explore the meeting topics in depth. In principle, the committees meet ahead of a scheduled Supervisory Board meeting. In the Supervisory Board meeting, the committee chairs provide verbal feedback on their most significant considerations and findings so that carefully considered decisions can be taken. 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

The Audit Committee comprises Thessa Menssen (chair), Frits Eulderink and Gerard Penning (from 20 January 2021). In addition to the Audit Committee members, the CFO, the Director of Corporate Control, the Internal Audit manager and the external auditor also attend Audit Committee meetings as a matter of course. One meeting was also attended by the COO. Other members of the Finance team were present at some meetings to clarify various topics, such as treasury and tax matters, based on their specific expertise. Alliander's CISO came to discuss privacy and security issues and throughout the year the chair of the Audit Committee discussed current topics with the CFO in bilateral meetings. The Audit Committee held one meeting in private with the external auditor. It was a constructive and open discussion and the Audit Committee believes that the relationship with the external auditor is satisfactory. The chair of the Audit Committee also held one meeting in private with the Internal Audit manager.
In addition to the regular topics, the Audit Committee paid specific attention to items such as long-term financing, yardstick regulation and the benchmark position, an SAP data incident, the premature termination of two cross-border lease contracts, project management and IT, privacy and security risks. Furthermore, the Audit Committee recommended the Supervisory Board approve the updating the financing programme prospectus for ECP. The renewal of the engagement of the external auditor was also discussed, following an evaluation based on input from the Audit Committee, the Management Board, and directly involved managers and employees. The Audit Committee issued a positive recommendation to the Supervisory Board on the renewal of the audit engagement of Deloitte for the financial years of 2022 and 2023.

Selection, Appointment and Remuneration Committee

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 recruitment and selection of a new member of the Supervisory Board was completed at the beginning of 2021. The committee made a proposal for a profile and drew up the selection criteria. Selection interviews followed, culminating in the appointment of Gerard Penning as of 20 January by the AGM, on the recommendation of the Supervisory Board. The committee furthermore carried out preparatory tasks for the Remuneration Report and the annual remuneration meeting with the Committee of Shareholders. Please refer to the Remuneration Report in this annual report for the remuneration policy. Finally, the committee conducted the annual performance appraisal interviews with Management Board members.

Independence of the Supervisory Board

The Supervisory Board's articles of association and the by-laws contain provisions about the independence of Supervisory Board members. The composition of the Supervisory Board is such that the members are able to operate independently and critically vis-à-vis one another, the Management Board and any particular interests involved. 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 Dutch Corporate Governance 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.
Any external positions which members of the Supervisory Board hold 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 the maximum of five supervisory positions at Dutch listed companies or other large Dutch public or private limited 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.
No material transactions involving potentially conflicting interests of Supervisory Board members took place in 2021.

Diversity

The Supervisory Board supports the view that diversity contributes to objective, well-crafted decision making. In addition to expertise, competencies 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:

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

The composition of the Management Board represents a good balance in terms of diversity of knowledge, background and experience and age. The Management Board comprises three men and one woman. Women therefore make up 25% of the Management Board, which fails to meet the target for a balanced gender ratio. The composition of the Supervisory Board is in line with the defined profile, and the Supervisory Board considers its composition to be sufficiently diverse in terms of expertise and experience as well as with regard to the age structure and gender ratio (the Supervisory comprised three men and two women in 2021). When future vacancies in the Management Board and the Supervisory Board are filled, the basic principle is that the diversity policy should be implemented further where possible. Diversity in composition will be included in the annual evaluation of the Management Board and the Supervisory Board.

Self-evaluation

As in 2018, the Supervisory Board had its self-evaluation in 2021 supported by external consultants, who spoke to all the members of the Supervisory Board, all the members of the Management Board, the secretary and the deputy secretary. The external evaluator's report was discussed by the entire Supervisory Board on 30 November. The members jointly reflected on the main points for attention and agreed on follow-up actions.

A new senior management structure has been created over the last two years and an entirely new Management Board has been appointed. The composition of the Supervisory Board has also altered significantly in this period and three of the five members of the Supervisory Board are new appointments. These changes on both sides of the management table have had a positive effect on the internal dynamics. All those interviewed spoke of constructive, respectful and open relations within and between the Supervisory Board and the Management Board. This has led to better agenda-setting, a higher calibre of dialogue and more openness in sharing managerial dilemmas. As a result, the Supervisory Board is able to fulfil its various roles of supervisor, employer and sounding board effectively and correctly, and the board can be said to function well.

Alliander is facing major challenges in fulfilling its significant role in the energy transition to the full satisfaction of society. The complex field of stakeholders and the size of the required transformation require vigilant, high-performing governance. A number of points for attention were mentioned during the self-reflection that could make the Supervisory Board even more effective. These points concern making a limited set of performance targets more measurable and transparent, thinking in terms of scenarios with respect to achieving long-term value creation, enriching the Management Board's evaluation process, having a better overview of talent in the organisation, the composition of the Supervisory Board's committees and the topicality of the questions posed by the Supervisory Board. The points for attention listed in the evaluation will be addressed in specific follow-up actions which the Supervisory Board and the Management Board will initiate in the coming period.

In response to the points for improvement listed in the previous evaluation, two informal lunch meetings were held with young professionals in 2021. The Supervisory Board considers such talks to be very valuable and is keen to continue them and expand their target group in 2022.

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. Individual members of the Supervisory Board attended two consultations with the Works Council in 2021. The members of the Supervisory Board who were appointed on the basis of the Works Council's enhanced right of recommendation have regular contact with the Works Council. The Supervisory Board once again held its annual meeting with all the members of the Works Council. The theme of this year's meeting was the transformation of Alliander into an agile, effective and cost-efficient organisation. The

Supervisory Board is pleased to hear that the course being taken is leading to better collaboration, cost-cutting and smarter and more efficient working. This is crucial in the light of the challenge Alliander is facing. The Supervisory Board considers its consultations with the Works Council to be open, constructive and valuable. Elections for Alliander's employee participation body took place in late 2021. We would like to take this opportunity to thank the departing Works Council members for their hard work and we look forward to meeting the new Works Council members.

Contact with shareholders

The most important contact each year is the Annual General Meeting (AGM), 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. All the members of the Supervisory Board attended the AGM on 7 April 2021. Further contacts with the shareholders mainly run through the Management Board. The Management Board consults informally with the major shareholders on a regular basis. The main theme of these consultations in 2021 was strengthening Alliander's capital structure by issuing a reverse convertible hybrid shareholder loan of €600 million. Other topics included developments in the energy system, the new method decisions for electricity and gas for the 2022-2026 regulatory period, the 'Engineering More Work' vision paper and developments in legislation and regulations. The Supervisory Board was consistently kept informed of these contacts. Consultations were also held with the Committee of Shareholders on the implementation of the Management Board remuneration policy.
The shareholders are important stakeholders for Alliander, and the Supervisory Board accordingly values a good relationship. The Supervisory Board feels positive about the constructive collaboration with the shareholders over the past year.

2021 Financial Statements

The 2021 financial statements were drawn up by the Management Board and audited by Deloitte Accountants B.V. and have been 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 opinion of the Audit Committee. The members of the Supervisory Board have signed the financial statements in accordance with the obligation set out in Section 2:101(2) of the Dutch Civil Code. The Supervisory Board will present the 2021 financial statements and the dividend proposal for the 2021 financial year to the AGM for their adoption. A proposal will furthermore be made to the AGM to discharge the members of the Management Board from liability for the management policy pursued and to discharge the members of the Supervisory Board from liability for their supervision of the policy pursued in the 2021 financial year.

Word of gratitude

The Supervisory Board would like to thank the employees, management, the Works Council and the Management Board for their commitment, professionalism and efforts, and would like to express its appreciation of the results achieved. We would also like to take the opportunity to thank the shareholders and other stakeholders for their support and confidence in Alliander.

Supervisory Board, 21 February 2022

Annemarie Jorritsma (chair)
Frits Eulderink
Gerard Penning
Thessa Menssen
Bert Roetert

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 Dutch Senate, member of the Supervisory Board of PricewaterhouseCoopers (PWC) Nederland [1], member of the Supervisory Board of Wilgenhaege Capital Markets, chair of the Nederlandse Vereniging van Participatiemaatschappijen (Dutch private equity and venture capital association) (NVP), member of the Supervisory Board of the Platform Talent voor Techniek ('Talent for Technology Platform')

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 of 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. Before that she was CFO and COO of the Port of Rotterdam Authority.
- Relevant other positions: member of the Supervisory Board of Ordina [1], member of the Supervisory Board of FMO[1], member of the Supervisory Board of PostNL[1] (until 21 April 2021), 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

G. (Gerard) Penning (1963)

- Nationality: Dutch
- First appointed: 1 February 2021
- End of current term: 2025 (eligible for reappointment)
- Alliander committee: member of the Audit Committee
- Background: Mr Penning is the Chief Human Resources Officer (CHRO) and a member of the Executive Board of ABN AMRO. He previously held various management and executive positions at Shell, including that of Executive Vice President of HR Downstream.
- Relevant other positions: member of the Administrative Board of the international organisation Sustainable Energy for All (SEforALL)

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: Mr Roetert is the director and 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 Supervisory Board of Zeeman Group [1], member 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 (until 1 April 2021)

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

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 has 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-NCW

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 his time at Boskalis, Walter Bien worked for 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)

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

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. He also completed the INSEAD Advanced Management Programme (AMP).

Supervisory Board memberships/relevant other positions

- Member of the Management Board of Next Generation Infrastructures
- Member of the Management Board of Stichting USEF (until 1 December 2021)
- 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

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. Each year, the remuneration policy is updated by the Supervisory Board in the implementation policy. The implementation policy is reviewed in the process and, if necessary, adapted to fit amended regulations, social trends and labour market developments.

The Supervisory Board is responsible for the implementation of the adopted remuneration policy for the Management Board. The Selection, Appointment and Remuneration Committee discusses the implementation of the remuneration policy with the Committee of Shareholders every year. 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 2021 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 (€112,189 for 2021). This implies that no further pension is accrued over the part of the salary that exceeds €112,189.

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 car provided by the company. 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 2021

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 emphasises the non-hierarchical nature of the management model. Although the total remuneration package of the members of the Management Board is set at 130% of the standard[1] under the Public and Semi-Public Sector Executives Pay (Standards) Act (WNT), there may be differences in salary levels. These differences arise through individual options with regard to fringe benefits, such as the use of a car provided by the company.[2]

1 The WNT standard for 2021 is €209,000.

2 The remuneration data under Re 1., Re 2. and Re 3. were prepared on the basis of the IFRS accounting principles for the financial statements and not according to the definition of the WNT. As a result, although the maximum remuneration of 130% of the WTN standard is met, the total remuneration per individual based on the IFRS principles may deviate from this.

Re 1. Annual gross base salary

In the 2021 calendar year, Mr Otto's base salary amounted to €230,000, including 8% holiday allowance. Mr Bien's base salary amounted to €236,000, including 8% holiday allowance. The base salary paid to Ms Visser amounted to €237,000, including 8% holiday pay, while Mr Schut's base salary amounted to €235,000, 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 €112,189 under tax rules. In the year under review, €26,000 was paid in pension contributions per member of the Management Board.

Re 3. Social security contributions and other benefits

In 2021, 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 €15,000 for Ms Visser, €15,000 for Mr Otto, €15,000 for Mr Schut and €14,000 for Mr Bien.

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		
	2021	2020
Ratio	3.7	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 2021, 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 2022, will contain disclosures on the WNT requirements.

Financial Statements

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Consolidated financial statements

Consolidated balance sheet

€ million	Note	2021	2020
Assets			
Non-current assets			
Property, plant and equipment	3	8.501	7.958
Right-of-use assets	3	120	66
Intangible assets	4	320	343
Investments in associates and joint ventures	5	17	6
Investments in bonds	6	-	147
Other financial assets	7	60	66
Deferred tax assets	17	149	159
Total non-current assets		**9.167**	**8.745**
Current assets			
Inventories	9	63	69
Trade and other receivables	10	339	307
Cash and cash equivalents	11	624	298
Total current assets		**1.026**	**674**
Assets held for sale	33	16	3
Total assets		**10.209**	**9.422**
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		2.380	2.256
Result for the year		242	224
Total equity		**4.470**	**4.328**
Liabilities			
Non-current liabilities			
Interest-bearing debt	13	2.630	2.479
Lease liabilities	19	102	199
Deferred income	14	1.906	1.837
Provisions for employee benefits	15	28	29
Deferred tax liabilities	17	-	1
Other provisions	16	28	30
Total non-current liabilities		**4.694**	**4.575**
Short-term liabilities			
Trade and other payables	18	152	145
Tax liabilities		92	88
Interest-bearing debt	13	481	8
Lease liabilities	19	21	18
Provisions for employee benefits	15	38	36
Accruals	8, 18	252	224
Total short-term liabilities		**1.036**	**519**
Total liabilities		**5.730**	**5.094**
Liabilities held for sale		9	-
Total equity and liabilities		**10.209**	**9.422**

Consolidated income statement

€ million	Note	2021	2020
Income			
Revenue	21	2.120	2.009
Other Income	22	61	46
Total income		**2.181**	**2.055**
Operating expenses			
Purchase costs and costs of subcontracted work	23	-623	-561
Employee benefit expenses	24	-678	-646
Other operating expenses	25	-333	-343
Total purchase costs, costs of subcontracted work and operating expenses		**-1.634**	**-1.550**
Depreciation and impairments of non-current assets	26	-498	-461
Less: Own work capitalised		305	275
Total operating expenses		**-1.827**	**-1.736**
Operating profit		**354**	**319**
Finance income	27	62	28
Finance expense	28	-107	-69
Result from associates and joint ventures	5	5	1
Profit before tax		**314**	**279**
Tax	29	-72	-55
Profit after tax from continuing operations		**242**	**224**
Profit attributable to non-controlling interests		-	-
Profit after tax		**242**	**224**

The profit after tax for 2021 is almost entirely attributable to the shareholders of Alliander N.V.

Consolidated statement of comprehensive income

The comprehensive income was as follows:

€ million	2021	2020
Profit after tax	**242**	**224**
Other elements of comprehensive income		
Items that will be reclassified subsequently to profit or loss		
Movement in hedge reserve	-	-
Comprehensive income after tax	**242**	**224**

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

Consolidated cash flow statement

€ million	Note	2021	2020
Cash flow from operating activities	30		
Profit after tax		242	224
Adjustments for:			
- Finance income and expense	27, 28	45	41
- Tax	29	72	55
- Result after tax from associates and joint ventures	5	-5	-1
- Depreciation, amortisation and impairment	22, 26	422	388
- Release of provision CDS after tax		-24	-
Changes in working capital:			
- Inventories		6	-9
- Trade and other receivables		-33	21
- Trade and other payables, accruals and deferred income		46	1
Total changes in working capital		**19**	**13**
Changes in deferred tax, provisions, derivatives and other		-6	2
Cash flow from operations		**765**	**722**
Interest paid		-37	-38
Interest received		-	-
Dividend received		1	1
Corporate income tax paid (received)		-65	-51
Cash flow from operating activities		**664**	**634**
Cash flow from investing activities	30		
Investments in property, plant and equipment	3	-1.014	-890
Construction contributions received from third parties	14	149	175
Cash flow from the acquisition of associates	1	-3	-60
Cash flow from the sale of associates	22	30	-
GE notes redeemed1	6	198	-
Repayments of short-term debt1	13	1	6
Cash flow from investing activities		**-639**	**-769**
Cash flow from financing activities	30		
ECP financing redeemed	13	-	-289
ECP financing issued	13	2	-
Long-term debt issued	13	599	847
Long-term debt redeemed	14	-48	-134
Received deposits	13	72	-
Redemption lease liabilities	19	-222	-22
Reimbursement on subordinated perpetual bond loan	12	-8	-8
Dividend paid		-94	-114
Cash flow from financing activities		**301**	**280**
Net cash flow		**326**	**145**
Cash and cash equivalents as at 1 January		298	153
Net cash flow		326	145
Cash and cash equivalents as at 31 December		**624**	**298**

1 To aid comparison, reclassified from cash flow from financing activities to cash flow from investing activities.

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 2020		**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		-	-	-	-	-6	-	-6
Dividend for 2019		-	-	-	-	-	-114	-114
Profit appropriation for 2019		-	-	-	-	139	-139	-
Total movements		**-**	**-**	**-**	**-**	**133**	**-29**	**104**
As at 31 December 2020		**684**	**671**	**495**	**-2**	**2.256**	**224**	**4.328**
Profit after tax for 2021		-	-	-	-	-	242	242
Comprehensive income for 2021		**-**	**-**	**-**	**-**	**-**	**242**	**242**
Reimbursement subordinated perpetual bond loan after tax	12	-	-	-	-	-6	-	-6
Dividend for 2020		-	-	-	-	-	-94	-94
Profit appropriation for 2020		-	-	-	-	130	-130	-
Total movements		**-**	**-**	**-**	**-**	**124**	**18**	**142**
As at 31 December 2021		**684**	**671**	**495**	**-2**	**2.380**	**242**	**4.470**

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 2021 financial statements were signed by the members of the Management Board and the members of the Supervisory Board on 21 February 2022. The Supervisory Board will submit the financial statements for adoption by the General Meeting of Shareholders on 13 April 2022. 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 electricity and gas are the exclusive responsibility of the network operator. Qirion provides services relating to the construction and maintenance of complex energy infrastructures. Among other things, Alliander AG performs activities relating to network management. Kenter B.V. focuses on innovative solutions for energy metering and energy management. 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.

Non-controlling interests

There are third-party non-controlling interests in Alliander's activities. As at year-end 2021, this concerned a 5% interest on the part of the Municipality of Nijmegen in Indigo B.V., a 5% interest on the part of the Municipality of Hengelo in Warmtenetwerk Hengelo B.V., a 5% interest on the part of the Municipality of Didam in Warmtenetwerk Didam B.V. and a 25% interest in Warmte-Infrastructuur Limburg Geothermie B.V., all of which are subsidiaries of Firan. See note [12].

ESEF

As of the 2021 financial year, Alliander, as a securities-issuing institution in the European Union, is obliged to publish its annual report digitally. This must be done according to the European Single Electronic Format (ESEF). ESEF makes the reports published by issuing institutions more accessible and facilitates the analysis of and comparability between annual financial reports. The annual financial report is therefore drawn up in XHTML, with the amounts in the consolidated balance sheet, the income statement, the cash flow statement and the statement of changes in equity being linked (tagged) to the ESEF taxonomy. The other parts of the financial statements are also included in the XHTML document. The external auditor is required to check that the annual report in XHTML is in line with the Regulatory Technical Requirements for ESEF.

IFRS

Alliander's financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) as at 31 December 2021, as adopted by the European Union (EU), and the provisions of Title 9, Book 2 of the Dutch Civil Code. 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 2021

The IASB and the IFRIC have issued new and/or amended standards and interpretations which are applicable to Alliander with effect from the 2021 financial year. The amendments to the standards and interpretations described below have been endorsed by the European Union.

- Amendment of references to IFRS framework;
- Amendment to IFRS 4 Insurance Contracts 'Extension of the Temporary Exemption from Applying IFRS 9';
- Amendments to IFRS 4, IFRS 7, IAS 39, IFRS 9 and IFRS 16 'Interest rate benchmark reform – Phase 2';
- Amendment to IFRS 16 Leases 'COVID-19-related rent concessions beyond 30 June 2021' (effective as of 1 April 2021);
- Further interpretation of accounting for Software as a Service (SaaS) purposes (effective as of 1 January 2021).

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 a first-time adopter';
  - Amendment to IFRS 9 'Fees in the "10 per cent" Test for Derecognition of Financial Liabilities';
  - Amendment to IFRS 16 'Illustrative Example 13';
- Amendment to IAS 1 'Presentation of Financial Statements' and 'IFRS Practice Statement 2';
- Amendment to IAS 8: 'Accounting policies, changes in accounting estimates and errors: definition of accounting estimates';
- Amendment to IAS 12: 'Deferred tax related to assets and liabilities arising from a single transaction'.

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

2021

Didam Warmtenetwerken B.V. was set up in 2021, with Alliander having a 95% share and the Municipality of Didam 5%. A district heating network will be constructed in Didam. Furthermore, high-volume meters and associated contracts were acquired for a purchase price of €3 million on 31 December 2021. This purchase took place by means of a transfer of shares from Ebatech B.V. This was compensated for by the sale in 2021 of a 75% share in 450connect GmbH for a sum of €36 million. Furthermore, a sales agreement was signed with the Municipality of Berlin for the transfer of all activities relating to the construction and maintenance of traffic management systems as of 31 December 2022.

An agreement was also reached in December 2021 with the Van Gelder Group for the sale of all the shares in Stam Heerhugowaard Holding B.V. This sale took place on 10 January 2022.

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.

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.

The new company Didam Netwerken B.V. was added to the existing CGUs (cash-flow generating unit) as a separate CGU in 2021. Ebatech B.V., acquired in 2021, has been added to the Kenter CGU.

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.

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

2021

From 1 January 2021, the depreciation periods of traditional meters have been shortened, bringing them more in line with the regulatory depreciation periods. This pushed depreciation costs up by €0.3 million in 2021.

2020

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.

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. With regard to the calculation of the provision for obsolete inventories, the primary focus is no longer on the rate of inventory turnover, but rather on the serviceability of the inventories. This better reflects current practices. This adjustment reduced the provision by €1 million in 2021.

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 CBLs 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

Acquisition of Ebatech

On 31 December 2021, Kenter B.V. signed a purchase agreement to acquire 100% of the shares in Ingenieursbureau Ebatech B.V. (Ebatech) from Vattenfall Warmte N.V. as at the same date. The employees will remain with Vattenfall.

Ebatech is a metering company which focuses on electricity and gas metering activities in the Dutch business-to-business market. The company has revenue of €2 million, just over 1,000 customers and some 5,500 meters under management in 2022. In acquiring Ebatech, Kenter has strengthened its position in the metering company market.

The final acquisition price for Ebatech was set at a fair value of €3 million. The fair value was determined based on the medium and long-term cash flows.

The acquisition price was made up of €2 million for property, plant and equipment (meters) and €1 million for trade receivables. No goodwill was purchased in this transaction.

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 has become the owner of its own telecommunications infrastructure in Liander's service area 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.

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 provision	-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 cannot be amortised for the purpose of corporate income tax.

Note 2 Segment information

Alliander distinguishes the following reporting segments in 2021:

- 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 (sold on 10 January 2022) 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, Telecom activities, new activities and Stam, and the income from network management 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	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
Operating income												
External income	1.935	1.835	229	220	-	-	2.164	2.055	17	-	2.181	2.055
Internal income	5	7	399	361	-404	-368	-	-	-	-	-	-
Total income	**1.940**	**1.842**	**628**	**581**	**-404**	**-368**	**2.164**	**2.055**	**17**	**-**	**2.181**	**2.055**
Operating expenses												
Purchase costs and costs of subcontracted work	673	627	108	96	-158	-162	623	561	-	-	623	561
Operating expenses	764	730	483	446	-246	-206	1.001	970	10	19	1.011	989
Depreciation and impairments	384	353	111	108	-	-	495	461	3	-	498	461
Own work capitalised	-220	-191	-85	-84	-	-	-305	-275	-	-	-305	-275
Total operating expenses	**1.601**	**1.519**	**617**	**566**	**-404**	**-368**	**1.814**	**1.717**	**13**	**19**	**1.827**	**1.736**
Operating profit	**339**	**323**	**11**	**15**	**-**	**-**	**350**	**338**	**4**	**-19**	**354**	**319**
Finance income	50	10	61	85	-60	-67	51	28	11	-	62	28
Finance expense	-111	-78	-41	-58	60	67	-92	-69	-15	-	-107	-69
Share in results of associates and joint ventures after tax	2	1	-3	-	-	-	-1	1	6	-	5	1
Tax	-69	-64	-9	-13	-	-	-78	-77	6	22	-72	-55
Profit after tax from continuing operations	**211**	**192**	**19**	**29**	**-**	**-**	**230**	**221**	**12**	**3**	**242**	**224**
Profit attributable to non-controlling interests	-	-	-	-	-	-	-	-	-	-	-	-
Profit after tax	**211**	**192**	**19**	**29**	**-**	**-**	**230**	**221**	**12**	**3**	**242**	**224**
Segment assets and liabilities												
Total assets	8.654	8.236	3.838	3.412	-2.283	-2.226	10.209	9.422	-	-	10.209	9.422
Non-consolidated investments in associates	3	2	14	4	-	-	17	6	-	-	17	6
Non-consolidated investments in joint ventures	-	-	-	-	-	-	-	-	-	-	-	-
Liabilities (non-current and current)	6.158	5.803	3.463	2.862	-3.891	-3.571	5.730	5.094	-1	-	5.729	5.094
Other segment items												
Investments in property, plant and equipment	935	796	79	94	-	-	1.014	890	-	-	1.014	890
Number of permanent staff at year-end	2.956	3.070	3.035	2.824	-	-	5.991	5.894	-	-	5.991	5.894

The profit after tax for 2021, like that for 2020, is almost entirely attributable to the shareholders of Alliander N.V.

Reclassification to reported and incidental items

In 2021 some exceptional items have been recognised in the column headed 'Reclassification to reported items and exceptional items'. The sale of part of our shareholding in 450connect GmbH had a positive impact of €17 million on operating income in 2021.

The exceptional expenses included in operating expenses relate to the partial sale of 450connect (€10 million) and a released provision for a loss-making contract in Germany (-€5 million). Expenses for organisational changes were also incurred in 2021 to the amount of €5 million. In 2020, the expense of €19 million comprised organisational change costs of €9 million and the provision for a loss-making maintenance contract in one of the business units amounting to €10 million.

The sale of 450connect in 2021 led to exceptional depreciation of €3 million.

The exceptional expenses for 2021 of €4 million relate to the early termination of two CBL transactions. In 2020, the exceptional expenses were zero.

The income item in 2021 is the result of the impact of the previously mentioned exceptional items on corporate income tax (€1 million, 2020: gain of €3 million), and the notified increase in the corporate income tax rate. The deferred tax assets and liabilities were revalued accordingly, leading to a tax gain of €5 million. In 2020, revaluation of deferred tax assets and liabilities also led to a tax gain of €19 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 Electricity1	Metering Service small consumers Gas1	Other activities
Revenue 2021	**2.120**	1.268	340	113	99	59	241
Revenue 2020	**2.009**	1.155	332	109	118	67	228

1 Alliander had recognised €28 million in revenue from metering services for high-volume customers (€20 million for electricity and €8 for gas) in its 2020 figures. From 2021, Alliander will only recognise revenue from metering services for low-volume customers in this column. The comparative figures have been adjusted accordingly.

Net revenue in 2021 amounted to €2,120 million (2020: €2,009 million), with other income of €61 million (2020: €46 million).

In total, external revenue came in at €2,181 million (2020: €2,055 million).

Seasonal influences

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

Geographical segmentation

€ million	External income		Property, plant and equipment		Intangible assets		Non-consolidated associates and joint ventures	
	2021	2020	2021	2020	2021	2020	2021	2020
The Netherlands	2.108	2.001	8.445	7.907	320	320	7	6
Rest of the world	73	54	55	53	-	23	10	-
Total	**2.181**	**2.055**	**8.500**	**7.960**	**320**	**343**	**17**	**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 2020					
Historical cost	237	11.160	1.883	285	13.565
Accumulated depreciation and impairments	-94	-5.054	-941	-	-6.089
Carrying amount as at 1 January 2020	**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**
Movements 2021					
Investments	-	623	77	314	1.014
Divestments	-2	-23	-12	-	-37
Depreciation	-6	-283	-147	-	-436
Reclassifications and other movements	4	84	65	-153	-
New consolidations	-	-	2	-	2
Total	**-4**	**401**	**-15**	**161**	**543**
As at 31 December 2021					
Historical cost	207	12.430	2.149	466	15.252
Accumulated depreciation and impairments	-77	-5.521	-1.153	-	-6.752
Carrying amount as at 31 December 2021	**130**	**6.909**	**996**	**466**	**8.501**

Investments

Investments in property, plant and equipment during the financial year totalled €1,014 million (2020: €890 million).

Divestments

Divestments in 2020 and 2021 related to decommissioning of buildings, network assets and other plant and equipment.

New consolidations

Ebatech was added to the consolidated figures in 2021. TReNT had been added in 2020.

Impairments

There were no impairments in 2021 or in 2020.

Reclassification to assets held for sale

The reclassification of the Stam non-current assets to assets held for sale is recognised under reclassification and other movements. Furthermore, the site of our premises in Leeuwarden was reclassified in 2021 from assets held for sale to non-current assets. For further disclosures with respect to assets held for sale, reference is made to note [33].

CBL transactions

In the period from 1998 to 2000, subsidiaries of Alliander N.V. entered into cross-border lease (CBL) transactions for networks with US investors. 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 fees earned on the CBLs were recognised in the year in which the transaction in question was concluded. Two of the three still current CBLs were terminated prematurely in December 2021. Consequently, there are no longer any gas or district heating networks with an American lease. The electricity network in the Randmeren region is the only one still held in a CBL; it is due to expire at the beginning of 2025. The total net carrying amount at year-end 2021 was approximately €300 million (year-end 2020: €680 million)

There are conditional and unconditional contractual rights and obligations relating to the remaining CBL transaction. At the end of 2021, a total of $715 million was held on deposit with several financial institutions or invested in securities in connection with the transaction (2020: $3,112 million).

Since no powers of disposal exist over the investments and associated liabilities, they are not regarded as assets and liabilities of Alliander and the respective amounts are not recognised in Alliander's consolidated financial statements.

At year-end 2021, the 'net 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 – that cannot be settled from the deposits and investments held for this purpose) for the current transaction was $22 million (2020: $72 million). The strip risk is affected to a great extent by market developments.

As a consequence of the termination of the associated CBL transaction, the sub-subleases to Vattenfall Warmte for the district heating networks in Duiven-Westervoort and Almere-Stad belonging to Liander N.V. have also been terminated by operation of law. We have agreed with Vattenfall that an agreement will be reached on the future of these networks by 1 December 2022. Until then, the district heating networks will be rented out to Vattenfall Warmte on the basis of the agreements in the terminated sub-subleases as far as possible. In anticipation of this, the district heating networks currently belonging to Liander will be split off into two separate companies and their shares will be held by Alliander N.V. The total carrying amount of the subleased district heating networks and associated meters as at 31 December 2021 was €95 million (2020: €95 million).

Right-of-use assets

€ million	Land and buildings	Other plant and equipment	Total
As at 1 January 2020			
Historical cost	12	72	84
Accumulated depreciation and impairments	-5	-16	-21
Carrying amount as at 1 January 2020	**7**	**56**	**63**
Movements 2020			
Investments	2	17	19
Divestments	-	-	-
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**
Movements 2021			
Investments	66	13	79
Divestments	-	-1	-1
Depreciation	-5	-17	-22
Reclassification to assets held for sale	-1	-1	-2
Total	**60**	**-6**	**54**
As at 31 December 2021			
Historical cost	78	96	174
Accumulated depreciation and impairments	-11	-43	-54
Carrying amount as at 31 December 2021	**67**	**53**	**120**

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. The reclassification of assets held for sale relates to Stam.

Note 4 Intangible assets

€ million	Goodwill	Other intangible assets	Total
As at 1 January 2020			
Historical cost	477	33	510
Accumulated depreciation and impairments	-188	-9	-197
Carrying amount as at 1 January 2020	**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**
Movements 2021			
Depreciation	-3	-1	-4
Discontinued consolidations	-	-19	-19
Total	**-3**	**-20**	**-23**
As at 31 December 2021			
Historical cost	495	28	523
Accumulated depreciation and impairments	-191	-12	-203
Carrying amount as at 31 December 2021	**304**	**16**	**320**

In 2021, the discontinued consolidations item relates entirely to the sale of 75% of the shares in 450connect GmbH. Please see note [22] for further information. The amortisation of €6 million in 2021 mainly relates to the intangible assets of TReNT.

All the shares in Ebatech B.V. were acquired in 2021, whereby no goodwill was recognised. In 2020, Alliander acquired all shares in TReNT B.V. and TReNT Infra B.V., for which acquisition goodwill amounting to €18 was recognised. The intangible assets for TReNT (€14 million) comprise the contract value for the rental of telecom lines. Please see note [1] for further information about this acquisition. The remaining amortisation period is 20 years. The amortisation of €2 million in 2020 mainly relates to intangible assets.

Goodwill allocation by segment

€ million	2021	2020
Liander	286	286
Other	18	21
Total	**304**	**307**

Of the total amount of goodwill allocated to Liander as at year-end 2021, €209 million (2020: €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 (2020: €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 2021, impairment tests were performed on the value of the Liander networks, the TReNT telecommunications networks and the district heating network in Hengelo, including the associated goodwill. 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 2021 financial year, Liander applied a pre-tax fair discount rate of 4% (2020: 7.1%). This figure will gradually drop to 2.8% in 2026. The main assumptions on which the 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 7.1% was applied for the telecom networks (2020: 7.3%). 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.

A pre-tax discount rate of 8.5% was applied for the impairment test performed on the assets of Warmtenet Hengelo. The test revealed an impairment of less than €1 million.

Note 5 Investments in associates and joint ventures

	Associates		Joint ventures		Total	
€ million	2021	2020	2021	2020	2021	2020
Carrying amount as at 1 January	**1**	**1**	**5**	**5**	**6**	**6**
Movements						
Transfers of subsidiaries	-	-	3	-	3	-
Revaluation of non-controlling interest	-	-	9	-	9	-
Investments	-	-	3	-	3	-
Share in results	1	-	-3	1	-2	1
Dividend and other movements	-	-	-2	-1	-2	-1
Total	**1**	**-**	**10**	**-**	**11**	**-**
Carrying amount as at 31 December	**2**	**1**	**15**	**5**	**17**	**6**

In 2021, the transfer of group companies item (€3 million) relates to the sale of 75% of the shares in 450connect. The revaluation of the remaining interest (€9 million) recognised in the income statement in respect of non-consolidated associates also relates to 450connect.

The investments in 2021 relate to payments of share premium, especially in 450connect.

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 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	2021	2020	2021	2020	2021	2020
Share in						
Profit or loss from continuing activities	1	-	-3	1	-2	1
Profit or loss from discontinued activities	-	-	-	-	-	-
Other comprehensive income	-	-	-	-	-	-
Total comprehensive income	**1**	**-**	**-3**	**1**	**-2**	**1**

Alliander has concluded arrangements with associates and joint ventures for granting financing and credit facilities totalling €26 million as at year-end 2021 (2020: €35 million). Under these facilities, an amount of €19 million was drawn down as at 31 December 2021 (2020: €23 million). Additionally, as at year-end 2021, there was also a liability under this heading amounting to €0.2 million in relation to overdraft facilities (2020: a receivable of €1 million).

Note 6 Investments in bonds

€ million	Beleggingen in obligaties
Carrying amount as at 1 January 2020	**160**
Movements 2020	
Currency translation differences	-13
Adjustment expected credit loss	-
Total	**-13**
Carrying amount as at 31 December 2020	**147**
Movements 2021	
Currency translation differences	9
Divestments	-156
Total	**-147**
Carrying amount as at 31 December 2021	**-**

The investments in bonds item were zero at year-end 2021 (2020: €147 million). The item comprised investments in a debt instrument issued by a large international enterprise which served to cover obligations arising from two CBL contracts. These investments were sold in 2021 along with the redemption of the related lease obligations. See note [3] for more information.

Note 7 Other financial assets (including current portion)

€ million	Loans, receivables and other
Carrying amount as at 1 January 2020	**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**
Effective interest rate 2021	1%
Movements 2021	
Reclassification	-
Loans and interest repaid	-3
Accretion of interest	-
Other movements	1
Impairments	-
Loans granted	2
Discontinued consolidations	-
Total	**-**
Carrying amount as at 31 December 2021	**66**
Non-current portion of other financial assets	**60**
Current portion of other financial assets	**6**

The carrying amount of the other financial assets item as at year-end 2021 includes a non-current receivable from Meridiam (€27 million), a receivable from the Municipality of Amsterdam relating to the Spaklerweg site (€13 million, €6 million of which is current), and a non-current receivable from EDSN (€19 million).

Note 8 Derivatives

€ million	Current assets		Non-current assets		Short-term liabilities		Non-current liabilities	
	2021	2020	2021	2020	2021	2020	2021	2020
Foreign exchange contracts	-	-	-	-	-	-	-	-
Carrying amount as at 31 December	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Derivatives are measured at fair value.

In 2021, the financing denominated in foreign currency raised earlier that year under the Euro Commercial Paper Programme was repaid. In order to eliminate currency risks, the foreign currency was immediately converted into euros by means of two foreign exchange swaps. The foreign exchange contracts were settled when the financing was repaid.

Two CBL transactions with associated investments in foreign currency were redeemed in 2021. Interest rate swaps were agreed to hedge the interest rate risk on this redemption. These interest rate swaps were also settled when the CBL transactions and associated investments were redeemed.

As at year-end 2021, they had a value of zero (2020: zero).

Note 9 Inventories

€ million	2021	2020
Raw materials and consumables	35	32
Finished goods	28	37
Carrying amount as at 31 December	**63**	**69**

The impairment of inventories in 2021 was €1 million (2020: €1 million).

Note 10 Trade and other receivables

€ million	2021	2020
Trade receivables	76	68
Impairment of trade receivables	-8	-10
Trade receivables net	68	58
Corporate income tax	17	12
Other receivables	25	44
Current financial assets	6	-
Accrued income and prepayments	223	193
Carrying amount as at 31 December	**339**	**307**

At the end of the financial year, impairment of trade receivables totalled €8 million (2020: €10 million). The impairment loss on trade receivables recognised in the income statement in 2021 amounted to €2 million (2020: €3 million). For further information, see the credit risk section of note [34].

The current financial assets item concerns the current portion of long-term receivables, which comprise a receivable from the Municipality of Amsterdam relating to the Spaklerweg site. See note [7].

The other receivables include an amount of €8 million (2020: €7 million) from non-controlling interests.

Note 11 Cash and cash equivalents

€ million	2021	2020
Cash held at banks	44	78
Deposits	580	220
Carrying amount as at 31 December	**624**	**298**

The effective interest rate on cash and cash equivalents ranged from -1.03% to -0.26% (2020: -0.68% to -0.17%). Cash and cash equivalents are held almost entirely in euros. In 2021, the cash and cash equivalents included amounts that were not at the unrestricted disposal of Alliander. This concerns a blocked bank account with a balance of €1 million (2020: €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 2021, 136,794,964 shares were in issue (2020: 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 its risk management policy, Alliander took measures in 2019 to mitigate the interest rate risk attached to the new EMTN financing of €300 million. For this purpose, two forward starting interest rate swaps were entered into in the run-up to the bond issue. When the bond loan was issued, both the interest rate swaps were settled. As a result, the interest rate risk was mitigated to a large degree in the run-up to the bond issue. The loss on the settlement totalling €3 million has, after deducting deferred tax, been recognised in the 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 2021 after deduction of the deferred tax was €2 million (2020: €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 Municipality 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 owned by Vattenfall Warmte 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 started operating in 2017. The equity of this company as at year-end 2021 amounted to €0.3 million negative. In 2017, Alliander acquired a 75% interest in Warmte-Infrastructuur Limburg Geothermie B.V. As at the end of 2021, the equity of this company amounted to €2.2 million negative. Given the small size of these non-controlling interests, they are not visibly accounted for on the face of the balance sheet as at year-end 2021 and 2020. Warmtenetwerk Didam B.V. was set up in 2021, with Alliander having a 95% share. As at the end of 2021, the equity of this company amounted to €1.0 million positive.

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 the non-current and current interest-bearing debt is as follows:

€ million	2021	2020
Carrying amount as at 1 January	**2.487**	**2.062**
Movements		
New loans	599	722
Loans repaid	-48	-297
Currency translation differences	1	-
Received deposits	72	-
Total	**624**	**425**
Carrying amount as at 31 December	**3.111**	**2.487**

Short and long-term interest-bearing debt

€ million	Effective interest rate 2021	Effective interest rate 2020	Current portion 2021	Current portion 2020	Non-current portion 2021	Non-current portion 2020
Subordinated loans	2,2%	8,4%	8	7	599	50
Private and green loans	1,1%	1,1%	1	1	436	436
Euro Medium Term Notes	1,4%	1,4%	400	-	1.592	1.990
Euro Commercial Paper	0,0%	0,0%	-	-	-	-
Other	0,0%	0,0%	72	-	3	3
Carrying amount as at 31 December			**481**	**8**	**2.630**	**2.479**

The short-term interest-bearing debt, amounting to €481 million as at year-end 2021 (2020: €8 million), is made up of the current portion of the long-term debt (€409 million) and interest-earning security deposits received (€72 million).

The subordinated loans bear interest at a rate of 9%. These loans are subordinated to other liabilities.

On 15 December 2021, Alliander issued a convertible subordinated shareholders' loan for an amount of €600 million. The direct costs are €1 million, leaving a balance sheet value of €599 million. The loan has a term of 60 years and an interest rate of 2.075%. Under certain conditions, Alliander is entitled to convert the loan in full or in part into equity at a conversion ratio that is still to be set.

At the end of 2021, the amount open under the ECP programme was zero (2020: zero).

The security deposits received are recognised under other short-term interest-bearing debt. Please see note [34] for further information.

Maturities of interest-bearing debt

€ million	2021	2020
Less than 1 year	481	8
Between 1 and 2 years	125	408
Between 2 and 3 years	400	125
Between 3 and 4 years	9	400
Between 4 and 5 years	299	9
Over 5 years	1.797	1.537
Carrying amount as at 31 December	**3.111**	**2.487**

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	2021 Contributions	2021 Subsidies	2021 Total	2020 Contributions	2020 Subsidies	2020 Total
Carrying amount as at 1 January	**1.824**	**13**	**1.837**	**1.723**	**14**	**1.737**
Contributions received	149	-	149	175	-	175
Amortisation recognised as income	-76	-1	-77	-73	-1	-74
Other	-3	-	-3	-1	-	-1
Carrying amount as at 31 December	**1.894**	**12**	**1.906**	**1.824**	**13**	**1.837**

Note 15 Provisions for employee benefits

€ million	Current portion 2021	Current portion 2020	Non-current portion 2021	Non-current portion 2020	Total 2021	Total 2020
Long-term employee benefits						
Post-employment benefits	-	-	2	2	2	2
Other long-term employee benefits	10	10	22	23	32	33
Termination/reorganisation benefits	3	6	4	4	7	11
Total	**13**	**16**	**28**	**29**	**41**	**46**
Short-term employee benefits						
Short-term employee benefits	25	20	-	-	25	20
Carrying amount as at 31 December	**38**	**36**	**28**	**29**	**66**	**66**

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 was 101% at the end of 2021; the current funding ratio is 104%, while the contribution rate for the retirement and dependants' pension was 25.9% of pensionable pay in 2021. The contribution rate for the retirement and dependants' pension will continue to be 25.9% in 2022. The premium for the ABP incapacity pension (AOP) will be 1.1% in 2022.

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 2022 are expected to total €84 million (of which an expected €61 million will be borne by Alliander).

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 2021 (2020: €2 million), made up as follows:

€ million	Current portion 2021	Current portion 2020	Non-current portion 2021	Non-current portion 2020	Total 2021	Total 2020
Liability for pensions and post-employment healtcare insurance for retired employees	-	-	2	2	2	2
Actuarial value of obligations as at 31 December	**-**	**-**	**2**	**2**	**2**	**2**

Other long-term employee benefits

€ million	Current Portion 2021	Current Portion 2020	Non-current portion 2021	Non-current portion 2020	Total 2021	Total 2020
Long-service benefits	1	1	13	14	14	15
Long-term sickness leave and disability benefits	7	6	8	8	15	14
Unemployment benefits	2	3	1	1	3	4
Carrying amount as at 31 December	**10**	**10**	**22**	**23**	**32**	**33**

Alliander offers a number of other long-term employee benefits. The provision covers the following types of benefit:

- Long-term sickness benefits; this benefit covers the obligation to continue paying all or part of an employee's salary during the first two years of sick leave;
- Incapacity benefit; Alliander bears the risk for benefits payable under the Work and Income (Ability to Work) Act (WIA) – the relevant provision covers the obligations towards Alliander employees who become wholly or partially unfit for work;
- Unemployment benefits; Alliander is the risk-bearer within the meaning of the Unemployment Act (WW); if an Alliander employee becomes unemployed, the unemployment benefit is borne by Alliander for a period of between three months and 38 months, depending on the employee's employment history; and
- Long-service benefits: the long-service benefits scheme covers long-service benefits payable on attaining 25 and 40 years of service. Employees born before 1 January 1963 retain the entitlement to the benefit after retiring. 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 2021, an amount of €5 million was added to the reorganisation provision (2020: €9 million). The provision for employment termination payments and reorganisations totalled €7 million at year-end 2021 (2020: €11 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 2020	**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**
Movements 2021				
Released	-	-	-5	-5
Added	-	7	9	16
Benefits paid	-	-8	-8	-16
Reclassified to short-term liabilities	-	-	-	-
Total	**-**	**-1**	**-4**	**-5**
Carrying amount as at 31 December 2021	**2**	**32**	**7**	**41**

Assumptions

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

	2021	2020
Mortality tables	AG 2020 Mortality Table / Start year = 2021	AG 2020 Mortality Table / Start year = 2020
Discount rates	0%-0,65%	0,0%-0,11%
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 amounted to €26 million at year-end 2021 (2020: €20 million). The increase of €6 million mainly relates to the increase in the provision set aside for holiday entitlement and holiday allowances (€6 million).

Note 16 Other provisions

€ million	Other provisions
Carrying amount as at 1 January 2020	**23**
Movements 2020	
Added	13
Utilised	-6
Total	**7**
Carrying amount as at 31 December 2020	**30**
Movements 2021	
Added	8
Utilised	-1
Released	-9
Total	**-2**
Carrying amount as at 31 December 2021	**28**

The other provisions as at year-end 2021 amounted to €28 million (2020: €30 million), part of which relates to a loss-making maintenance contract in one of the business units amounting to €13 million (2020: €17 million). The calculation factors in unavoidable 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	2021	2020
Differences in valuation of property, plant and equipment	148	155
Other differences	1	4
Carrying amount as at 31 December	**149**	**159**

This item amounting to €149 million 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 valuation for tax purposes.

The deferred tax assets of €148 million in respect of property, plant and equipment (2020: €155 million) are the result of differences between the carrying amounts in the financial statements and the valuation for tax purposes. 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 deferred tax under the item Property, plant and equipment refers to the general overhead surcharge that has been capitalised for tax purposes, the effects of implementing IFRS accounting policies in 2005, and the discretionary depreciation for tax purposes allowed in the past.

The remaining portion of the deferred tax asset of €1 million consists of the differences in the valuation of provisions and other securities and investments for commercial purposes and for tax purposes.

As at year-end 2021, there was a total unrecognised deferred tax asset of €19 million (year-end 2020: €24 million), made up of:

- tax loss carryforwards from our activities in Germany: €17 million (2020: €17 million), which have not been recognised due to the projected results for the German entities in the medium term;
- an amount of €2 million (2020: €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 2020	**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**
Movements 2021			
Realised temporary differences	-12	-2	-14
New consolidations	-	-	-
Change in rate of corporate income tax	5	-	5
Total	**-7**	**-2**	**-9**
Carrying amount as at 31 December 2021	**148**	**1**	**149**

The decrease in deferred tax assets by €9 million in 2021 consists of a realisation of temporary differences, including the change in the corporate income tax rate. The realisation of temporary differences accounted for in the income statement consists of an expense of €14 million. The change in rate of corporate income tax item concerns the increase in the current 25% tax rate in the Netherlands to 25.8%. The effect is an increase of €5 million in the deferred tax asset and a gain in the income statement.

Note 18 Trade and other payables

€ million	2021	2020
Trade payables	90	82
Invoiced instalments on work in progress	6	4
Other payables	56	59
Carrying amount as at 31 December	**152**	**145**

Other debt includes €23 million owed to a company in which Alliander has a non-controlling interest (2020: €16 million).

Accruals and deferred income

The accruals (2021: €252 million; 2020: €224 million) include municipal sufferance tax (2021: €70 million; 2020: €84 million), invoices still to be received for subcontracted work among other things (2021: €105 million; 2020: €82 million) and anticipated amounts in respect of network losses and energy transport costs (2021: €50 million; 2020: €22 million).

Note 19 Leases

Finance lease receivables

The receivables in respect of finance leases as at year-end 2021 were as follows:

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2021				
Future minimum lease receivables	-	2	-	2
Unearned finance income	-	-	-	-
Present value of finance lease receivables	**-**	**2**	**-**	**2**
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**

The receivable at year-end 2021 concerns the rental of transformers and batteries. At year-end 2020, €3 million of the receivable related to a connection to a district heating grid. The remaining amount concerned 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	2021	2020
Less than 1 year	25	25
Between 1 and 2 years	25	24
Between 2 and 3 years	25	24
Between 3 and 4 years	21	24
Between 4 and 5 years	16	20
Over 5 years	76	71
Total as at 31 December	**188**	**188**

The operating leases at year-end 2021 mainly relate to the rental of transformers and the lease 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 2021				
Future lease payments of the on-balance lease liabilities	21	48	57	126
Future finance expenses on the on-balance lease liabilities	-	-1	-2	-3
Present value of the on-balance lease liabilities	**21**	**47**	**55**	**123**
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**

Alliander has lease liabilities in respect of buildings, spaces, telecommunication interconnections and company cars.

In addition, liabilities relating to two CBL transactions were included here in 2020. These CBLs were terminated prematurely in 2021, resulting in lower liabilities in 2021.

Besides the above lease liabilities, there is an undiscounted amount of €5 million in lease liabilities at year-end 2021 to which Alliander has committed but that have not yet started, relating mainly to buildings and lease vehicles. At year-end 2020 this was €71 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	2021	2020
Capital expenditure commitments regarding property, plant and equipment	597	257
Other purchasing commitments	398	309
Total as at 31 December	**995**	**566**

Contracts with purchase or revenue guarantees have also been recognised in 2021.

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.

As at year-end 2021, Alliander had issued parent company guarantees amounting to €30 million (2020: €33 million), including parent company guarantees of €5.0 million (2020: €5.1 million) for non-controlling interests. Bank guarantees amounting to €0.9 million had been issued on Alliander's behalf as at year-end 2021 (2020: €0.5 million).

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 2022 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	2021	2020
Electricity transport and connection services	1.268	1.155
Gas transport and connection services	453	441
Metering services	188	185
Other revenue	211	228
Total	**2.120**	**2.009**

At €2,120 million, net revenue in 2021 was up by €111 million compared with 2020. The regulated revenue from electricity and gas increased by €125 million. The higher number of connections for low-volume consumption led to higher revenue of €9 million and the higher tariffs resulted in an increase in revenue of €66 million. Greater volumes transmitted to high-volume consumers led to an increase in revenue of €9 million and the higher tariffs resulted in an increase of €33 million. The transmitted volumes were lower in 2020 due to the effects of the coronavirus pandemic.

The revenue from metering services increased by €3 million as a result of both the higher number of connections and the higher tariffs. The revenue from other products fell by €17 million to €211 million. This decrease is attributed to non-recurring revenue items in 2020.

Note 22 Other income

€ million	2021	2020
Amortisation of subsidies	1	1
Operating contributions and other income	34	21
Lease income from operational leases	26	24
Total	**61**	**46**

Other income in 2021 amounted to €61 million (2020: €46 million). The increase in other income is mainly a result of sale proceeds worth €17 million from the 75% stake in the German entity 450connect GmbH.

Sale of 450connect

On 31 March 2021, Alliander AG sold 58.23% of its shares in its subsidiary 450connect GmbH to a number of German energy companies for a total of €28 million. In July 2021, an additional 16.77% of the shares were sold to the same parties for €8 million, bringing the total proportion of shares sold to 75%.

These German companies serve more than half of the German energy market. The sale of this stake allowed the licence for the 450MHz network to be granted in March 2021, with a term running up to 2040.

The result of the transaction is as follows (€ million):

Sale of 75% of the shares in 450connect GmbH (€ million):		
Fair value of the sale of 75%		36
Fair value of the remaining stake of 25%		12
		48
Less: Net assets, goodwill and earnout		
Net assets	25	
Goodwill	3	
Additional earnout	10	
		38
Profit		**10**

Specification of remaining stake (€ million)	
Fair value of the remaining stake of 25%	12
25% of the value of the net assets, goodwill and additional earnout	10
Share in the profit	2

Note 23 Purchase costs and costs of subcontracted work

€ million	2021	2020
Grid losses	103	68
Transport capacity and restrictions	267	253
Billing and payment collection	29	27
Contractors, materials and other	224	213
Total	**623**	**561**

Compared with 2020, the purchase costs and subcontracted work rose by €62 million to €623 million. The cost of grid losses was up €25 million, due to an increase in procurement tariffs for electricity. The cost of transport capacity rose by €14 million as a result of the higher tariffs set by TenneT. The cost of contractors and materials went up by €11 million, accounted for by the greater volume of work on the grid carried out in 2021.

Note 24 Employee benefit expense

€ million	2021	2020
Salaries	409	386
Social security premiums	50	47
Pension costs:		
- Contributions paid to multi-employer plans that are accounted for as defined-contribution plans	60	54
Termination benefit expenses	5	9
Other long-term employee benefit expenses	7	9
Other staff costs	18	18
External personnel	129	123
Total	**678**	**646**

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
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**
2021				
Contributions paid to multi-employer plans	60	-	-	60
Added to provision	-	10	7	17
Released from provision	-	-5	-	-5
Total 2021	**60**	**5**	**7**	**72**

Clarification of 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]. External staff costs amounted to €129 million (2020: €123 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 5,991.

Number of permanent staff (FTEs)

	2021	2020
Employed in continuing operations		
-Average during the year	5.936	5.786
-As at 31 December	5.991	5.881
-Number of permanent staff outside the Netherlands	144	188

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 WNT standard is set annually by a ministerial ruling.

WNT reporting

The WNT is not applicable to Alliander, but to Liander it 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 2022, will contain disclosures on the WNT requirements.

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 Remuneration Report can be found in the ‘Corporate Governance’ chapter of our 2021 annual report. The following tables disclose the remuneration of the members of the Management Board.

Total gross annual remuneration chargeable to the financial year

€ thousand	Fixed salary 2021	2020
M.J. Otto[1]	230	136
W.Th. Bien	236	225
M.I. Visser[2]	237	151
F.D. Schut	235	224
I.D. Thijssen[3]	-	97
Total	**938**	**833**

1 Chair of the Management Board as of 20 May 2020.

2 Member of the Management Board as of 1 May 2020

3 Retired 1 June 2020.

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	2021	2020
M.J. Otto[1]	26	19
W.Th. Bien	26	24
M.I. Visser[2]	26	21
F.D. Schut	26	24
I.D. Thijssen[3]	-	10
Total	**104**	**98**

1 Chair of the Management Board as of 20 May 2020.

2 Member of the Management Board as of 1 May 2020

3 Retired 1 June 2020.

Social security contributions and other benefits

€ thousand	2021	2020
M.J. Otto[1]	15	9
W.Th. Bien	14	14
M.I. Visser[2]	15	10
F.D. Schut	15	14
I.D. Thijssen[3]	-	20
Total	**59**	**67**

1 Chair of the Management Board as of 20 May 2020.

2 Member of the Management Board as of 1 May 2020

3 Retired 1 June 2020.

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 car provided by the company.

Remuneration of the Supervisory Board

€ thousand	2021	2020
ms. A. Jorritsma-Lebbink, Chairman	31,4	30,2
B. Roetert	20,9	20,1
ms. T. Menssen	20,9	20,1
F. Eulderink	20,9	20,1
G.R. Penning[1]	19,1	-
ms. A.P.M. van der Veer-Vergeer[2]	-	7,7
G.L.M. Hamers[3]	-	7,7
Total	**113,2**	**105,9**

1 Appointed as of 01 February 2021.

2 Stepped down as of 21 May 2020.

3 Stepped down as of 21 May 2020.

Note 25 Other operating expenses

€ million	2021	2020
Added to/released from provisions	2	12
Premises and transport	16	16
Rent and leases	18	21
Corporate staff and IT	77	75
Sufferance tax and other tax	160	163
Other	60	56
Total	**333**	**343**

Other operating expenses amounted to €333 million in 2021 compared with €343 million in 2020. The decrease in the expenses was mainly due to released provisions amounting to €8 million, which related, among other things, to a loss-making maintenance contract in one of the business units.

The amount recognised for rent and leases in 2021 includes €2 million in short-term leases and €0.2 million in low-value leases, these amounts are the same as in 2020. The remainder of the costs concerns the service costs under the lease contracts.

Auditors' fees

The auditors' fees were as follows:

€ million	2021	2020
Description of services:		
Audit of the financial statement	0,8	0,8
Other assurance services	0,2	0,2
Total	**1,0**	**1,0**

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 2020 and 2021.

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
2021					
Depreciation	6	283	21	151	461
Divestments	2	23	-	12	37
Impairments	-	-	-	-	-
Total 2021	**8**	**306**	**21**	**163**	**498**
2020					
Depreciation	6	272	21	135	434
Divestments	7	17	-	3	27
Impairments	-	-	-	-	-
Total 2020	**13**	**289**	**21**	**138**	**461**

Note 27 Finance income

€ million	2021	2020
Other finance income	51	13
Currency translation differences	11	15
Total	**62**	**28**

The increase in finance income is mainly due to the book profit on the sale of the CBL-related investments as a result of the premature termination of two CBLs.

Note 28 Finance expense

€ million	2021	2020
Loans from third parties	-40	-40
Currency translation differences	-11	-16
Other finance expense	-56	-13
Total	**-107**	**-69**

The increase in finance expenses is mainly due to the book loss on the repayment of the lease obligations related to the premature termination of two CBLs. Also included in the other finance expenses are the costs associated with credit facilities.

Note 29 Tax

€ million	2021	2020
Current tax expense	-63	-58
Movement in deferred taxes	-9	3
Total	**-72**	**-55**

The tax expense in the 2021 financial year amounts to €63 million. The movement in deferred taxation is €9 million.

The corporate income tax charge for the Alliander N.V. tax group, as recognised in the financial statements, amounts to €58 million. This is the balance of the corporate income tax calculated over the profit for 2021 (€61 million), corporate income tax for previous years (€1 million tax credit) and 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

%	2021	2020
Enacted corporate income tax rate in the Netherlands	**25,0**	**25,0**
Impact of:		
Substantial holding privilege	-	-
Change in corporate income tax rate	-1,5	-6,8
Losses not accounted for	-0,3	1,3
Other permanent differences	-	0,3
Effective corporate income tax rate	**23,2**	**19,8**

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 2021 amounted to 23.2% (2020: 19.8%). The difference compared with the nominal tax rate of 25% is mainly due to the effect of the change in the corporate income tax rate to 25.8% (downward effect of 1.5%).

Note 30 Notes to the consolidated cash flow statement

Cash flow from operating activities

The cash flow from operating activities in 2021 amounted to €664 million (2020: €634 million). The increase of €30 million compared to 2020 is mainly due to the higher net profit.

Cash flow from investing activities

The cash outflow from investing activities in 2021 was €639 million, compared with €769 million in 2020. This is partly due to the redemption of corporate bonds (€198 million) as a result of the premature termination of two CBL transactions. This was partly offset by higher investments and lower investment contributions that, on balance, resulted in an outgoing cash flow that was €150 million higher in 2021. Furthermore, €30 million was received in 2021 in relation to the sale of 75% of the shares in 450connect GmbH, whereas €60 million was paid for TReNT shares in 2020.

Cash flow from financing activities

The cash flow from financing activities for 2021 amounted to €301 million (2020: €280 million). The perpetual shareholder loan issued in 2021 led to an incoming cash flow of €599 million. There was also an incoming cash flow resulting from security deposits received amounting to €72 million. This was offset by lease payments (€206 million) resulting from the early termination of two CBLs, repayment obligations (€48 million) and dividend paid (€94 million). The incoming cash flow due to new loans raised in 2020 amounted to €847 million through the Green Bond and other instruments, but the contractually agreed repayments amounted to over €400 million in 2020.

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 2021, the remaining shares were held by 75 shareholders, none of whom are related parties. For a complete list of our shareholders, please see https:// www.alliander.com/nl/over-alliander/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	2021	2020
Sales of goods and services		
Associates	1	1
Joint ventures	109	101
Total	**110**	**102**
Purchase of goods and services		
Associates	28	25
Joint ventures	185	143
Total	**213**	**168**

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). As part of the issue of the convertible shareholders loan, a transaction took place 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, please refer to [note 24].

Outstanding accounts with related parties connected with purchase and sale transactions involving related parties are immaterial. As at year-end 2021, Alliander had a receivable of €19 million (2020: €23 million) in respect of loans granted to related parties, a liability of €0.2 million in respect of agreed borrowings on current accounts with related parties and a non-current interest-bearing liability of €270 million in respect of the issue of the convertible shareholders' loan in 2021 (2020: a receivable of €1 million).

Note 33 Assets and liabilities held for sale and discontinued operations

Assets held for sale and liabilities in respect of assets held for sale at year-end 2021 all relate to the assets and liabilities of Stam. An agreement was reached in December 2021 with the Van Gelder Group about acquiring all the shares in Stam. This transfer took place on 10 January 2022. For further explanation, see note [36], Events after balance sheet date.

The land (€2 million) belonging to one of our sites was reclassified in 2021 from assets held for sale to property, plant and equipment. The reason for this is that the sale is not expected to be completed until 2023.

The assets held for sale item as at year-end 2020 (€3 million) relates to the business premises and the land at one of our sites. The business premises were sold in 2021.

No operations were discontinued in 2021 or 2020.

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. At year-end 2021, there were no balance sheet positions in foreign currency which would lead to currency risks.

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.

The funds raised in 2021 under the Euro Commercial Paper Programme, denominated in US dollars, were repaid the same year. As at year-end 2021, this item was zero (2020: zero). The currency translation differences have been recognised in the income statement and do not affect the equity position.

Exchange rates

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

	2021	2020
USD	1,139	1,223

Interest rate risk

General

Alliander had no interest rate swaps outstanding as at year-end 2021 or 2020.

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 2021						
Assets						
Investments in bonds		Fixed / variable	-	-	-	-
Loans, receivables and other financial assets	1,0%		26	28	7	61
Cash and cash equivalents	-1,03% - 0,26%	Variable	624	-	-	624
Total assets			**650**	**28**	**7**	**685**
Loans received						
Subordinated loans	2,2%	Fixed	-8	-	-599	-607
Private and green loans	1,1%	Fixed	-1	-135	-301	-437
Euro Medium Term Notes	1,4%	Fixed	-400	-698	-894	-1.992
Euro Commercial Paper		Fixed	-	-	-	-
Other		Variable	-72	-	-3	-75
Lease liabilities	0,0%-2,5%	Fixed	-21	-47	-55	-123
Total liabilities			**-502**	**-880**	**-1.852**	**-3.234**
As at 31 December 2020						
Assets						
Investments in bonds	6,6%	Fixed / variable	4	51	92	147
Loans and receivables			7	49	7	63
Cash and cash equivalents	-0,68%-0,17%	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		Fixed	-	-	-	-
Other		Variable	-	-	-3	-3
Lease liabilities	0,0-6,8%	Fixed	-18	-74	-125	-217
Total liabilities			**-26**	**-1.017**	**-1.661**	**-2.704**

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 CBL 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 is placed or invested with parties with a credit rating of A or higher. Of this 93% (2020: 74%) 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 CBL transactions is $715 million (2020: $3,112 million). The carrying amount of the investments in bonds was zero at year-end 2021 (2020: €147 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	2021	2020
Not overdue	37	29
0-30 days	22	23
31-90 days	8	7
91-360 days	6	5
> 360 days	5	5
Carrying amount as at 31 December	**78**	**69**

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 zero at year-end 2021 and year-end 2020.

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	2021	2020
Carrying amount as at 1 January	10	10
Utilised (trade receivables written off)	-7	-3
Released from / added to allowance account charged to income	5	3
Carrying amount as at 31 December	**8**	**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 2021, Alliander had a committed credit facility of €900 million (up to 10 November 2026). This facility can be used for general operating purposes, working capital financing or debt refinancing. In addition to this credit facility, which had not been drawn on at year-end 2021, Alliander has an ECP programme totalling €1.5 billion, under which no amount was outstanding at the end of the financial year (2020: zero) and an EMTN programme of €3 billion, €2 billion of which was outstanding as at 31 December 2021 (2020: €2 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 2021 but Alliander did make margin calls. On account of this, Alliander held security deposits worth €72 million as at year-end 2021 (2020: zero).

Liquidity risk in 2021 and 2020

€ million	Carrying amount	Contractual cash flows			
		Less than 1 year	1 - 5 years	Over 5 years	Total
As at 31 December 2021					
Loans received					
Principal amounts	-3.036	-408	-535	-2.104	-3.047
Interest	-	-46	-123	-740	-910
Lease obligations	-123	-21	-48	-57	-126
Accounts payable	-152	-152	-	-	-152
Other payables	-386	-383	-	-3	-386
Off balance sheet commitments					
Lease liabilities	-	-1	-3	-1	-5
Total	**-3.697**	**-1.011**	**-709**	**-2.905**	**-4.626**
As at 31 December 2020					
Loans received					
Principal amounts	-2.484	-7	-934	-2.054	-2.995
Interest	-	-47	-118	-949	-1.114
Lease obligations	-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**

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

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 2021 or 2020.

Fair value of other financial instruments

Alliander had no financial instruments recognised at fair value at year-end 2021 or 2020.

Fair value of financial assets and liabilities measured at amortised costs

€ million	Note	31 December 2021		31 December 2020	
		Fair value	Level	Fair value	Level
Non-current assets					
Investments in bonds and other financial assets	6, 7	61	2	259	2
Liabilities					
Non-current liabilities					
Interest-bearing debt:					
Euro Medium Term Notes	13	-1.648	1	-2.169	1
Other interest-bearing debt	13	-1.002	2	-738	2
Total non-current liabilities		**-2.650**		**-2.907**	
Short-term liabilities					
Interest-bearing debt:					
Euro Medium Term Notes	13	-409	1	-	1
Euro Commercial Paper	13	-	2	-	2
Other interest-bearing debt	13	-85	2	-21	2
Total short-term liabilities		**-494**		**-21**	
Total liabilities		**-3.144**		**-2.928**	

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	2021	2020
Net result on derivatives held for trading:		
Fair value changes in currency instruments	-2	1
Net result on investments in bonds	9	-13
Net result on financial liabilities at amortised cost:		
Interest charges on financial liabilities at amortised cost	-96	-50
Interest gains on cash equivalents, loans granted, trade receivables, other receivables and deposits	51	11
Currency translation differences	-	-
Fees paid and received other than for the calculation of the effective interest rate	-7	1
Net finance income and expense	**-45**	**-50**
Impairments of trade receivables	-5	-2
Other operating expenses	**-5**	**-2**

Note 35 Assumptions and estimates used in the financial statements (critical accounting policies)

Alliander prepares its financial statements in accordance with International Financial Reporting Standards that have been endorsed for use in the European Union by the European Commission. The preparation of financial statements and the measurement of items in the financial statements require the use of estimates and assumptions. These are mainly based on past experience and Alliander's management's best estimate of the specific circumstances that are, in the opinion of management, applicable in the given situation.

The assumptions and estimates used in the financial statements often relate to future developments. As a result, the actual outcome may differ significantly from the current measurement of a number of items in the financial statements. Consequently, the estimates and assumptions used may have a significant impact on equity and the results. The estimates and assumptions used are tested regularly and adjusted if necessary. Alliander is developing a number of new activities within the framework of its strategy. Due to the start-up nature of these activities, inherent uncertainties are attached to their valuation. This section sets out an analysis of the main areas where the measurement of assets, liabilities and the results is affected by the estimates and assumptions used.

Determination of the provision for employee benefits

The provision for post-employment benefits and other long-term employee benefits is determined on an actuarial basis, using assumptions on future salary levels, disability benefits (WAO/WIA), health insurance premiums, statistical assumptions on mortality rates, employee turnover and probability of disability. These assumptions, together with the discount rate used, influence the carrying amount of the provision for employee benefits and, consequently, the results.
An increase in the discount rate of 1 percentage point, for example, has the effect of reducing the necessary carrying amount of the provision by €3 million.

Inventories

With regard to the calculation of the provision for obsolete inventories, the primary focus is no longer on the rate of inventory turnover, but rather on the serviceability of the inventories. This better reflects current practices. This adjustment reduced the provision by €1 million in 2021.

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. On this basis, the (remaining) depreciation periods for traditional meters were changed in 2021. 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. When measuring 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 had 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. Our office staff work from home as much as possible. 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 effect on the financial capacity at the balance sheet date or the profit for 2021, nor is it expected to in 2022 either. Alliander also expects to continue to have sufficient access to the resources needed for its operations and payment obligations, meaning that the company's continuity is guaranteed. 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

On 10 January 2022, Alliander sold its shares in the contractor Stam Heerhugowaard Holding B.V. to the Van Gelder Group. Alliander received a total of €21 million and the book profit amounted to approximately €13 million. At year-end 2021, Stam's assets and liabilities were classified as held for sale in Alliander's consolidated balance sheet. All Stam's 137 employees will be transferred too. Under Van Gelder, Stam will have further scope for development and can benefit from more economies of scale. The sale fits in with the new contracting strategy that came into effect in 2021.

Company financial statements

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

€ million	Note	2021	2020
Assets			
Non-current assets			
Property, plant and equipment	37	220	232
Right-of-use assets	37	102	43
Intangible assets	38	68	68
Investments in subsidiaries and associates[2]	39	2.671	2.457
Other financial assets	40	2.649	2.654
Total non-current assets		**5.710**	**5.454**
Current assets			
Other receivables	41	33	29
Receivables from subsidiaries	41	1.468	1.273
Cash and cash equivalents	42	619	292
Total current assets		**2.120**	**1.594**
Assets held for sale		-	3
Total assets		**7.830**	**7.051**
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		2.380	2.256
Result for the year		242	224
Total equity		**4.470**	**4.328**
Liabilities			
Non-current liabilities			
Interest-bearing debt	44	2.626	2.474
Lease liabilities	45	88	28
Provisions[2]	46	34	30
Total non-current liabilities		**2.748**	**2.532**
Short-term liabilities			
Current and accrued liabilities	47	595	176
Lease liabilities	45	17	15
Derivatives	48	-	-
Total short-term liabilities		**612**	**191**
Total liabilities		**3.360**	**2.723**
Total equity and liabilities		**7.830**	**7.051**

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

2 The figures for 2020 have been adjusted for comparison purposes.

Company income statement

€ million	Note	2021	2020
Revenue		-	-
Own work capitalised		37	41
Other income		326	297
Total income	**50**	**363**	**338**
Operating expenses			
Costs of subcontracted work and other external expenses	51	-70	-60
Employee benefit expenses	52	-117	-106
Social security premiums	52	-11	-9
Depreciation and impairments of non-current assets	53	-78	-72
Other operating expenses	54	-95	-94
Total operating expenses		**-371**	**-341**
Operating profit		**-8**	**-3**
Proceeds from receivables included in non-current assets and securities	55	66	75
Interest and similar expenses	56	-40	-40
Profit before tax		**18**	**32**
Tax	57	-3	-8
Share of profit/loss from investments in affiliated companies	58	227	200
Profit after tax		**242**	**224**

1 The figures for 2020 have been adjusted for comparison purposes.

Company statement of comprehensive income

€ million	2021	2020
Net profit	242	224
Movement in hedge reserve	-	-
Comprehensive income	**242**	**224**

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.

The comparative figures have been adjusted accordingly to allow better comparison. This adjustment brings the classification of income into line with the classification of consolidated revenue.

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 2020				
Historical cost	198	472	19	689
Accumulated depreciation and impairments	-71	-370	-	-441
Carrying amount as at 1 January 2020	**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**
Movements 2021				
Investments	-	8	39	47
Divestments	-3	-2	-	-5
Depreciation	-5	-51	-	-56
Reclassifications and other movements	3	25	-28	-
Reclassification to assets held for sale	2	-	-	2
Total	**-3**	**-20**	**11**	**-12**
As at 31 December 2021				
Historical cost	168	519	22	709
Accumulated depreciation and impairments	-52	-437	-	-489
Carrying amount as at 31 December 2021	**116**	**82**	**22**	**220**

Investments

Investments in property, plant and equipment totalled €47 million during the financial year (2020: €53 million). This mainly related to investments in hardware and software.

Divestments

Divestments mainly concern the decommissioning of IT resources.

Right-of-use assets

€ million	Land and buildings	Other plant and equipment	Total
As at 1 January 2020			
Historical cost	6	58	64
Accumulated depreciation and impairments	-2	-14	-16
Carrying amount as at 1 January 2020	**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**
Movements 2021			
Investments	66	10	76
Divestments	-	-	-
Depreciation	-4	-13	-17
Total	**62**	**-3**	**59**
As at 31 December 2021			
Historical cost	73	77	150
Accumulated depreciation and impairments	-8	-40	-48
Carrying amount as at 31 December 2021	**65**	**37**	**102**

These assets relate to business premises and lease vehicles.

Note 38 Intangible assets

€ million	Goodwill	Other intangible assets	Total
As at 1 January 2020			
Historical cost	68	-	68
Accumulated depreciation and impairments	-	-	-
Carrying amount as at 1 January 2020	**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**
Movements 2021			
Depreciation	-	-	-
Total	**-**	**-**	**-**
As at 31 December 2021			
Historical cost	68	-	68
Accumulated depreciation and impairments	-	-	-
Carrying amount as at 31 December 2021	**68**	**-**	**68**

Intangible assets as at year-end 2021 are 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 2020	**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	4	-	4
Total	**-74**	**-**	**-74**
Carrying amount as at 31 December 2020	**2.456**	**1**	**2.457**
Movements 2021			
Dividends received	-150	-	-150
Result for the year	227	-	227
Issue of share capital	137	-	137
Other changes	-	-	-
Total	**214**	**-**	**214**
Carrying amount as at 31 December 2021	**2.670**	**1**	**2.671**

1 The figures for 2020 have been adjusted for comparison purposes.

In 2021, Alliander received €150 million (2020: €257 million) in dividend from its subsidiary, Liander N.V.

The investments of €137 million in 2021 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 2020	**12**	**2.584**	**47**	**2.643**
Movements 2020				
New receivable	-	-	2	2
Accretion of interest	-	-	1	1
Transfers	-	7	-	7
Loans paid	-	-	-	-
Realised temporary differences	1	-	-	1
Total	**1**	**7**	**3**	**11**
Carrying amount as at 31 December 2020	**13**	**2.591**	**50**	**2.654**
Movements 2021				
Loans paid	-	-4	-3	-7
Realised temporary differences	2	-	-	2
Total	**2**	**-4**	**-3**	**-5**
Carrying amount as at 31 December 2021	**15**	**2.587**	**47**	**2.649**

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 interest rate in 2021 was 1.5% (2020: 2.0%). 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 2021, the fair value was €2,536 million (2020: €2,792 million).

Note 41 Other receivables and receivables from subsidiaries

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 1.5% (2020: 1.75%) for associates operating in the regulated market, 2.5% (2020: 2.75%) for 'Stable Business' associates and 3.5% (2020: 3.75%) for 'New Business & High Risk' associates. The interest rates are based on the average cost of borrowing on Alliander N.V.'s lending portfolio as at year-end 2021, with a risk mark-up where relevant. 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 2021 did not include any restricted cash (2020: zero).

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	2021	2020
Carrying amount as at 1 January	**2.482**	**2.057**
Movements		
New loans	599	725
Loans repaid	-48	-298
Currency translation differences	2	-2
Total	**553**	**425**
Carrying amount as at 31 December	**3.035**	**2.482**

Long-term loans including the current portion

	Effective interest rate		Current portion		Non-current portion	
€ million	2021	2020	2021	2020	2021	2020
Subordinated loans	2,2%	8,4%	8	8	599	49
Private and green loans	1,1%	1,1%	1	-	435	435
Euro Medium Term Notes	1,4%	1,4%	400	-	1.592	1.990
Euro Commercial Paper	0,0%	0,0%	-	-	-	-
Carrying amount as at 31 December			**409**	**8**	**2.626**	**2.474**

Subordinated loans

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

Maturities of interest-bearing debt

€ million	2021	2020
Less than 1 year	408	8
Between 1 and 2 years	125	408
Between 2 and 3 years	400	125
Between 3 and 4 years	9	400
Between 4 and 5 years	299	9
Over 5 years	1.794	1.532
Carrying amount as at 31 December	**3.035**	**2.482**

Note 45 Lease payables

The lease liabilities as at year-end 2021 were as follows:

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2021				
Future lease payments of the on-balance lease liabilities	17	42	49	108
Future finance expenses of the on-balance lease liabilities	-	-1	-2	-3
Present value of the on-balance lease liabilities	**17**	**41**	**47**	**105**
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**

This relates to payables on account of leases for business premises and lease vehicles.

Besides the above lease liabilities, there was an undiscounted amount of €3 million in lease liabilities to which Alliander had committed but that had not yet started at year-end 2021. This concerned lease vehicles. At year-end 2020 this amount was €71 million and concerned buildings and lease vehicles.

Note 46 Provisions

€ million	Long-service benefits	Termination benefits	Other provisions	Total
Carrying amount as at 1 January 2020	**14**	**5**	**13**	**32**
Movements 2020				
Transfers	-	-	-1	-1
Released	-	-6	-2	-8
Added[1]	3	14	24	41
Utilised	-1	-8	-8	-17
Reclassification to short-term liabilities	-	-2	-1	-3
Major curtailments and settlements	-3	-	-11	-14
Total	**-1**	**-2**	**1**	**-2**
Carrying amount as at 31 December 2020	**13**	**3**	**14**	**30**
Movements 2021				
Released	-3	-5	-14	-22
Added	3	6	26	35
Utilised	-1	-7	-7	-15
Reclassification to short-term liabilities	-	4	-	4
Major curtailments and settlements	1	-	1	2
Total	**-**	**-2**	**6**	**4**
Carrying amount as at 31 December 2021	**13**	**1**	**20**	**34**

1 The figures for 2020 have been adjusted for comparison purposes.

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 59 or older) and in the company's employment on 31 December 2021 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 2021 amounted to €13 million.

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 2021, an amount of €6 million was added to the reorganisation provision (2020: €14 million). The provision for termination payments/reorganisations, including the current portion of €3 million, totalled €4 million at the end of 2021 (2020: €10 million).

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

Note 47 Current and accrued liabilities

€ million	2021	2020
Amounts owed to suppliers and trade credits	21	17
Tax and social security contributions	89	84
Liabilities in respect of pensions	7	6
Interest-bearing debt	408	8
Other liabilities and accruals	70	61
Total short-term liabilities	**595**	**176**

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 €8 million for non-controlling interests (2020: €6 million). The interest-bearing liabilities at year-end 2021 chiefly concerned liabilities under the EMTN programme, which must be repaid in October 2022.

Note 48 Derivatives

Derivatives are measured at fair value. There were no derivatives on the balance sheet at year-end 2021 or 2020.

Note 49 Contingent assets and liabilities

Lease payables

Please refer to note [45] to the consolidated financial statements for details of 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 2021, Alliander had issued parent company guarantees amounting to €30 million (2020: €33 million), including a parent company guarantee of €5.0 million (2020: €5.1 million) for non-controlling interests. Bank guarantees amounting to €0.9 million had been issued on Alliander's behalf as at year-end 2021 (2020: €1.3 million).

Investments and other purchasing commitments

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

€ million	2021	2020
Capital expenditure commitments regarding property, plant and equipment	42	2
Other purchasing commitments	103	89
Total	**145**	**91**

Note 50 Operating income

€ million	2021	2020
Own work capitalised	37	41
Other income	326	297
Total	**363**	**338**

The figures for 2020 have been adjusted for comparison purposes.

The other income chiefly relates to group-wide activities at holding company level.

Note 51 Costs of subcontracted work and other external expense

€ million	2021	2020
Contractors, materials, external personnel and other	70	60
Total	**70**	**60**

Note 52 Employee benefit expense

€ million	2021	2020
Salaries	101	83
Social security premiums	11	9
Pension costs:		
- contributions paid to multi-employer plans that are accounted for as defined-contribution plans	17	13
Termination benefit expenses	2	1
Long-term employee benefit expenses	-1	1
Other staff costs	8	8
Subtotal	**138**	**-**
Charged to other organisational units	-10	-
Total	**128**	**115**

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 €129 million in 2021 (2020: €115 million), and relate to the Alliander N.V. corporate staff department and service unit staff.

The number of employees, based on a 38-hour week (FTEs), at year-end 2021 was 1,284 (2020: 1,142). The main reason for the growth of the workforce is the restructuring of the group's business units, which took place in 2021. Some departments were transferred from the subsidiary Liander N.V. to Alliander N.V.
The proportion of costs attributable to the direct deployment of Alliander staff to other business units' projects has been deducted from Alliander's employee benefit expenses.

Note 53 Depreciation and amortisation

€ million	Land and buildings	Other	Total
2021			
Depreciation	5	68	73
Divestments	3	2	5
Total 2021	**8**	**70**	**78**
2020			
Depreciation	5	66	71
Divestments	-	1	1
Total 2020	**5**	**67**	**72**

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

Note 54 Other operating expenses

€ million	2021	2020
Items charged by subsidiaries	3	5
Premises and transport	5	5
Rent and leases	6	7
Corporate staff and ICT	55	55
Accountancy, notary and consulting expenses	11	14
Sufferance tax and other tax	1	1
Other	14	7
Total	**95**	**94**

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

Note 55 Finance income

€ million	2021	2020
Interest income on money market loans and deposits	1	1
Finance income on loans from group companies	65	74
Total	**66**	**75**

The finance income from loans to group companies was down by €9 million compared with 2020 as a result of changes in the interest rate charged and changes in the composition of group companies.

Note 56 Finance expense

€ million	2021	2020
Loans from third parties	38	40
Other finance expense	2	-
Total	**40**	**40**

Note 57 Tax

€ million	2021	2020
Current tax expense	-5	-9
Movement in deferred tax	2	1
Total	**-3**	**-8**

The effective tax rate was 16.7%. The difference compared to the nominal rate (25%) is the outcome of the revaluation of the deferred tax asset arising from the change to the corporate income tax rate. The recognised tax expense of €2 million is made up of tax charges of €4 million for 2021, less the movement in deferred tax of €2 million.

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

€ million	2021	2020
Result from interests in subsidiaries and associates after tax	227	200
Share of profit/loss from investments in affiliated companies	**227**	**200**

Coming in at €227 million after tax, the share in the profits of participations was up by €27 million compared to 2020, primarily as a result of higher profits at network operator Liander.

Proposed profit appropriation for 2021

The Management Board has decided, with the approval of the Supervisory Board, to add €140.4 million of the profit to the Other reserves. The remaining profit of €101.1 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 2021 financial year. An adjustment has been made for the offsetting pursuant to Article 15.1 of the convertible fixed interest shareholder loan agreement.

The dividend for 2021 is up by €7.3 million on 2020 owing to the higher net profit for 2021.

Events after the balance sheet date

On 10 January 2022, Alliander sold its shares in the contractor Stam Heerhugowaard Holding B.V. to the Van Gelder Group. Alliander received a total of €21 million and the book profit amounted to approximately €13 million. At year-end 2021, Stam's assets and liabilities were classified as held for sale in Alliander's consolidated balance sheet. All Stam's 137 employees will be transferred too. Under Van Gelder, Stam will have further scope for development and can benefit from more economies of scale. The sale fits in with the new contracting strategy that came into effect in 2021.

Subsidiaries and other participations

As at 31 December 2021

	Based in	%
Consolidated subsidiaries		
Liander N.V.*	Arnhem	100%
Qirion B.V.*	Duiven	100%
Alliander Digital Solutions B.V.*	Arnhem	100%
Gamog Gasnetwerk Veluwe B.V.	Arnhem	100%
Gamog Gasnetwerk Oost-Gelderland B.V.	Arnhem	100%
Gamog Gasnetwerk Flevoland B.V.	Arnhem	100%
Nuon Warmtenetwerken I B.V.	Amsterdam	100%
Nuon Warmtenetwerken II B.V.	Amsterdam	100%
Nuon Elektriciteitsnetwerken I B.V.	Amsterdam	100%
Nuon Elektriciteitsnetwerken II B.V.	Amsterdam	100%
Nuon Gasnetwerken IV B.V.	Amsterdam	100%
Nuon Gasnetwerken V B.V.	Amsterdam	100%
Nuon Gasnetwerken VI B.V.	Amsterdam	100%
Nuon Gasnetwerken VII B.V.	Amsterdam	100%
Nuon Gasnetwerken VIII B.V.	Amsterdam	100%
Alliander Corporate Ventures B.V.*	Arnhem	100%
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%
Ingenieursbureau Ebatech B.V.	Amsterdam	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%
Warmtenetwerk Didam B.V.	Didam	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%
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%
Warmtenetwerk Lingewaard B.V.	Bemmel	34%
Duurzame Energie Netwerken Noord-Holland B.V.	Zaanstad	50%
Warmtenetwerk Zaanstad B.V.	Zaandam	31%
450connect GmbH	Köln	25%

* Alliander N.V. has issued a Section 403 statement of liability for these subsidiaries.

Other information

Profit appropriation

The profit appropriation is governed by Article 40 of the Articles of Association. The text of this article is as follows: Article 40: Profit. Payment chargeable to the reserves.

- Subject to approval of the Supervisory Board, the Management Board determines every year which part of the profit available for distribution - the positive balance of the income statement - is added to the reserves.
- The profit remaining after the addition to the reserves under the previous paragraph is at the disposal of the General Meeting of Shareholders.
- Profit distributions are capped at the distributable part of the shareholders' equity,
- and made after adoption of the financial statements that authorise these distributions.
- The Management Board may decide to distribute an interim dividend, subject to approval of the Supervisory Board and with due observance of clause 3 above and any other provision laid down by law.
- The General Meeting of Shareholders may, following a proposal from the Management Board that has been approved by the Supervisory Board, resolve to make distributions to shareholders chargeable to the distributable part of the shareholders' equity.

Independent auditor's report and assurance report

Introduction

Dear shareholders and supervisory board of Alliander N.V.,

We were engaged by the supervisory board as auditor of Alliander N.V. as of the audit for year 2016 and have therefore audited the financial statements 2021. Furthermore the management board engaged us to provide assurance on a selection of non-financial information in the Annual Report 2021.

Our reports in relation to both assignments, namely the auditor's report on the financial statements 2021 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 2021 included in the Annual Report

Our opinion

We have audited the financial statements 2021 of Alliander N.V., based in Arnhem. The financial statements comprise 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 2021, and of its result and its cash flows for 2021 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) 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 2021, and of its result for 2021 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

1. The consolidated statement of financial position as at 31 December 2021.
2. The following statements for 2021: the consolidated balance sheet, the consolidated income statement, the consolidated statements of comprehensive income, changes in equity and cash flows.
3. The notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

1. The company balance sheet as at 31 December 2021.
2. The company profit and loss account for 2021.
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.

Information in support of our opinion

We designed our audit procedures in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The following information in support of our opinion was addressed in this context, and we do not provide a separate opinion or conclusion on these matters.

Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at € 25 million. The materiality is based on 8% 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 € 1,25 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.

Audit approach fraud risks

We identified and assessed the risks of material misstatements of the financial statements due to fraud. During our audit we obtained an understanding of the entity and its environment and the components of the system of internal control, including the risk assessment process and management’s process for responding to the risks of fraud and monitoring the system of internal control and how the supervisory board exercises oversight, as well as the outcomes.

We evaluated the design and relevant aspects of the system of internal control and in particular the fraud risk assessment, as well as among others the code of conduct, whistle blower procedures and incident registration. We evaluated the design and the implementation and, where considered appropriate, tested the operating effectiveness, of internal controls designed to mitigate fraud risks.

As part of our process of identifying fraud risks, we evaluated fraud risk factors with respect to financial reporting fraud, misappropriation of assets and bribery and corruption in close co-operation with our forensic specialists. We evaluated whether these factors indicate that a risk of material misstatement due to fraud is present.

We identified the following fraud risks and performed the following specific procedures:

Based on our work and the risk assumed in the auditing standards, we considered the assumed fraud risks related to management's breach of internal controls, including whether there are indications of tendency in the group's management that may pose a risk of a material misstatement resulting from fraud.

Our audit procedures with respect to these fraud risks focused on an evaluation of the design and implementation of the relevant internal control measures to mitigate these risks.

We also performed additional substantive work, including testing journal entries, assessing estimates for trends (including a retrospective review of significant estimates from previous financial year), substantiating adjustments made during the preparation of the financial statements.

We build into our audit an element of unpredictability. We also considered the outcome of other audit procedures and evaluated whether any findings were indicative of fraud or non-compliance with laws and regulations.

We considered the available information and made inquiries from members of the Executive Board, management (including Legal and Internal Audit) and the Supervisory Board. This did not reveal any indications of fraud that could lead to a material misstatement due to fraud.

Audit approach fraud risks 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.

Where material to the related financial statements, based on our risk assessment procedures and while realizing that the effect of non-compliance could considerably vary, we considered the following laws and regulations: adherence to (corporate) tax law and financial reporting regulations, the requirements under the International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and Part 9 of Book 2 of the Dutch Civil Code, as being laws and regulations with a direct impact on the 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 procedures are more limited with respect to these laws and regulations that do not have a direct effect on the determination of the amounts and disclosures in the financial statements. Compliance with these laws and regulations may be fundamental to the operating aspects of the business, to the Group's ability to continue its business, or to avoid material penalties (e.g., 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, the Supervisory Board, the Executive Board and others within the company as to whether the company 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 obtained written representations that all known instances of (suspected) fraud or non-compliance with laws and regulations have been disclosed to us.

Audit approach going concern

We are responsible for obtaining reasonable assurance about the group's ability to continue as a going concern. It is management's responsibility to assess the group's ability to continue as a going concern and to disclose in the financial statements any events or circumstances that may cast reasonable doubt upon the group's ability to continue as a going concern.

As explained on page 134, the accounting policies used in the financial statements are based on the assumption of going concern of the company.

We have reviewed management's assessment of the going concern assumption of Alliander N.V., including the related disclosures in the Alliander N.V. 2021 financial statements. In our analysis, we considered the following:

- The 2022-2026 business plan;
- The financial position as of December 31, 2021;
- The budget for 2022;
- The energy transition and resulting financing needs;
- Treasury reports;
- Most recent credit ratings from Moody's and S&P.

Based on our work, we have no findings to report.

Paragraph emphasising the impact of the energy transition

As a network company, Alliander faces major required investments and associated financing needs. We draw attention to pages 37-38 and 113 of the Management Report, in which the Management Board described the impact of the energy transition. This energy transition will require substantial investments in the coming years in connection with expansions and reinforcements of the electricity network and the related financing requirements. Alliander is investigating the various options for securing its long-term financing. Our opinion has not changed as a result of this matter.

Our key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements. We have communicated the key audit matters to the supervisory board. The key audit matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters 2021

Key audit matter

Property, plant and equipment

Description

In determining the carrying amount of property, plant and equipment amounting to € 8,501 million as at 31 December 2021, 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 on pages 138-139 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 on the key audit matter

Our audit approach

Property, plant and equipment are measured at historical cost less accumulated depreciation and impairment losses. 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.

In 2021, the Method Decision regional network operators gas 2022-2026 was published by the Authority Consumer and Market (ACM). In the method decision, the ACM included the results of research conducted into the future of the gas network. The main conclusion is that the use of the gas network will decline in the coming years as a result of the energy transition, but this will not lead to a 'stranded asset' at the end of its useful life. There will still be a partial need for a gas distribution network in 2050. Given the expected decline in gas network use, the ACM has taken measures in the regulatory methodology as a result of which fees should partially be pulled forward. Based on the above, management has concluded that there is no reason to shorten the economic life of the gas networks at this moment, as the regional network operators are still obliged to maintain the gas network.

Observation

Based on the materiality described above and the procedures performed by us as described above, we concur with management's assessment regarding capitalized amounts and the economic useful lives of the assets.

Revenue recognition

Description

The net revenue of Alliander N.V. in 2021 amounts to € 2,120 million and largely relates to the regulated activities of the network operator Liander N.V. The revenue recognition process involves only limited management 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 144 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 the materiality described above and the procedures performed by us as described above, we noted no findings.

Report on the othe 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 3-126).
- 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 the 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.

European Single Electronic Reporting Format (ESEF)

Alliander N.V. has prepared its annual report in ESEF. The requirements for this are set out in the Commission Delegated Regulation (EU) 2019/815 with regard to regulatory technical standards on the specification of a single electronic reporting format (hereinafter: the RTS on ESEF).

In our opinion, the annual report, prepared in XHTML format, including the partially marked-up consolidated financial statements, as included in the reporting package by Alliander N.V., complies in all material respects with the RTS on ESEF.

Management is responsible for preparing the annual report including the financial statements in accordance with RTS on ESEF, whereby management combines the various components into a single reporting package.

Our responsibility is to obtain reasonable assurance for our opinion whether the annual report in this reporting package complies with the RTS on ESEF.

Our procedures, taking into account Alert 43 of the NBA (the Netherlands Institute of Chartered Accountants), included amongst others:

- obtaining an understanding of the company's financial reporting process, including the preparation of the reporting package;
- obtaining the reporting package and performing validations to determine whether the reporting package containing the Inline XBRL instance and the XBRL extension taxonomy files has been prepared in accordance with the technical specifications as included in the RTS on ESEF;
- examining the information related to the consolidated financial statements in the reporting package to determine whether all required mark-ups have been applied and whether these are in accordance with the RTS on ESEF.

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 among others:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.

- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a 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, 21 februari 2022

Deloitte Accountants B.V.

B.C.J. Dielissen

Assurance report of the independent auditor

To the Management Board of Alliander N.V.

The management board of Alliander N.V. ('the Company') engaged us to provide assurance on a selection of non-financial information in the Annual Report 2021 ('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'):

- Our story in 2021 (page 3-5).
- About this report (page 6-9).
- Profile of Alliander (page 10-22).
- The value we create, presented in the chapters:
    - Our network: high supply reliability at a low cost (page 24-35)
    - A creditworthy company with solid returns (page 36-58)
    - Making the energy supply and our organisation sustainable (page 59-71)
    - Ensuring a safe energy network, a safe working environment and a safe data environment (page 72-76)
    - Being an attractive, inclusive employer with equal opportunities for all (page 77-84)
    - Our impact on society (page 85-90), including impactcases
    - Contribution to Global Goals (SDGs) (page 92-96)
    - Dillemas and lessons learned (page 97-98)

We did not perform review procedures on the information about the EU Taxonomy as disclosed in the chapter ‘EU Taxonomy’ on page 56-57.

Our conclusion

Based on our review 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 2021.
- 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 8) and the extensive materiality assessment presented in the chapter ‘Other Information, Materiality test’ (page 208-215).
- The table "Objectives and results" in the chapter "Profile of Alliander" (page 20-22).

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 2021.
- In accordance with the reporting criteria as included in the section ‘reporting criteria’.

Basis for our opinion and our conclusion

We have conducted 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’. Furthermore, we have complied with the ‘Verordening gedrags- en beroepsregels accountants’ (VGBA, Dutch code of ethics).

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.

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 societal impact of its activities on the environment as shown in the chapter 'Our impact on society' on page 85-90.

Alliander applied the six capital model of the International Integrated Reporting Council (IIRC) as a basis for determining the relevant societal impacts. Alliander has determined the societal impacts based on the supply chain and has attempted to quantify these impacts in one unity (euros) to the extent possible.

The capitals within the 2021 impact model have remained unchanged compared to last year. However, there has been a methodological change. The addition of an extra attribution type makes it possible to assign primary responsibility to one of the value chain partners, while distributing the rest of the impact across the value chain. In addition, two adjustments are implemented for manufactured capital, whereby the approach is simplified and harmonized across the sector.

As indicated by Alliander the identification, quantification and monetization of societal 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 fluctuations outside Alliander's sphere of influence can occur. As a consequence, positive or negative year-on-year changes can occur.

We note that 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.

A summary of the key assumptions is presented in the 'Key criteria for measuring impact' on pages 226-228 of the Report.

Procedures performed

Our procedures regarding the key review matter consisted of reviewing the societal impact measurement in the chapter 'Our impact on society on page 85-90.

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 226-228 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.

Limitations to the scope of our audit

The Report includes prospective information such as ambitions, strategy, plans, expectations and estimates. Inherent to prospective information, the actual future results are uncertain. We do not provide any assurance on the assumptions and achievability of prospective information in the sustainability 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.

Furthermore, the management board is responsible for such internal control as it 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 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, 21 februari 2022

Deloitte Accountants B.V.

B.C.J. Dielissen

Opinion of the Alliander stakeholder panel

Dear reader,

True to tradition, Alliander convened a stakeholder panel to review its annual report. We are pleased to have been given this opportunity to provide feedback on the annual report, which we believe will enable Alliander to gear the report more closely to the wishes and needs of the stakeholders and society in general.

General impression

Alliander is an organisation that faces a considerable challenge in the energy transition. This makes it even more important to continue to engage in open and transparent dialogue. Not only does such dialogue lead to more understanding for the goals, dilemmas and challenges the network operator is working on, but dialogue is also increasingly important to all stakeholders, including the financial market, particularly in view of the forthcoming international statutory accounting guidelines. The information in the draft report generally provides an extensive, readable insight into Alliander's activities, results and challenges. The link that is made with broad well-being and the SDGs is a plus. Nonetheless, the report could present more clear-cut lines. Urgent themes are addressed extensively but are scattered throughout the report, giving it a lack of cogency. Moreover, the report could make it clearer which strategic choices are required to respond to the most significant challenges. The panel also asks for an explicit explanation of the organisation's stakeholder approach: how and according to what process are stakeholders involved in strategic and materiality choices, implementation, discussions on dilemmas and reporting?
In addition, the panel misses a certain vigour in the message. We understand that Alliander's – sometimes tricky – position in relation to its social role forces it to be diplomatic or cautious in many cases. But it is less and less easy to remain neutral – nor is it desirable in our opinion – given the organisation's social task, and need to maintain access to the capital market. The organisation could therefore display more courage and guts in debates which are important for its own future and that of society. We hope to see this reflected in the Management Board's foreword, or in a separate chapter containing challenges, strategy and value creation.
Topics which the panel believes deserve a more in-depth discussion are sustainable finance, affordability, innovation and access to energy. Perhaps the most significant topics could be presented in the form of fact sheets, or something similar, to reach a broader audience.

Our recommendations

Vision for the future that spans generations

Alliander has a number of dates sharply in focus. By 2025, the company wants to have eliminated all its backlog. By 2030, the Netherlands as a whole must have achieved a 55% reduction in CO_2 emissions compared to 1990. Much of the information in the report focuses on the short term. There is little to be found in the report which spans future generations, to 2050 or even 2070. It would be advisable, where possible, to offer a glimpse of the scenarios envisaged up to those dates.

Position

Energy networks are part of a chain which includes suppliers of products and services, and other partners. Alliander could be more precise about the responsibilities when mentioning topics. It is understandable that direction and coordination are required in the work needed for the energy transition is understandable, but if this is not Alliander's job, then whose is it?

Significance of results

Alliander reports many results of activities, but it is often unclear what these results signify. Is the organisation on course? Are things going better than expected? What was disappointing and why? What is Alliander's level of ambition in relation to the various political and institutional contexts in which Alliander operates? Alliander could be more outspoken, certainly where things are not yet going as they should. This would add a dimension to the report.

Focus on diversity

The stakeholder panel feels that the focus on diversity – the key to being future-proof – could be more comprehensive and more refined. For example, what is Alliander's vision in terms of empowering women and increasing the share of young women in the technical professions, rather than simply the focus on women in a managerial position? Furthermore, we expect to receive more focused information on other diversity factors in terms of gender, age, level of knowledge and origins.

Alliander's dilemmas

Like last year, the stakeholder panel took time to reflect on a number of Alliander's dilemmas: 1) planning based on realism versus the sustainable ambition; 2) creating capacity to achieve long-term goals or prioritising short-term tasks; and 3) system efficiency versus broad support from society. We recognise and endorse the dilemmas discussed, which make it abundantly clear what a difficult role Alliander has to play and its limited influence in the regulated domain. We would like to read more about the practical possibilities in the ambition and realism quadrant. Is there an optimum, and what is its impact on the company's financial position? How does Alliander view the coalition agreement? After all, the urgency of the transition requires legal facilitation. The choices to be made are ultimately essential for creating broad support. We recommend that Alliander makes the elaboration of its dilemmas more compelling by using concrete facts and figures to underpin and illustrate its account.

A final word

Alliander's reporting is of a high quality, as confirmed by its excellent position in the Transparency Benchmark. We hope that our contribution will help to retain this high level of transparency. We would like to thank Alliander for its positive attitude towards its 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,

Teresa Fogelberg - sustainability leader, former deputy chief executive of GRI, chair of the Transparency Benchmark, Impact Economy Foundation
Heleen Keur - local council member for the Municipality of Den Helder
Arthur Krebbers – head of Sustainable Finance Corporates, NatWest Markets
Werner Schouten – former chair of Jonge Klimaatbeweging
Margot Weijnen – Professor of Process and Energy Networks, Delft University of Technology

Response of the Alliander Management Board to the feedback from the stakeholder panel

"We have taken note of all the stakeholder panel's reflections with great interest and have accordingly made alterations in a number of regards in the annual report.

- To start with, we have been more explicit about the position we wish to take and in specifying our expectations with respect to other parties. We have pointed out the great importance of coordinating planning and programming with the national government, the provinces and the municipalities in the section entitled 'Our Network'. We have provided details on the progress made in the RES programme and what still needs to be done. In the same section, we have elaborated on the requirements for the new Energy Act in order to be able to tackle the major challenges facing network operators.
- The stakeholder panel makes a valid point about Alliander's long-term vision and objective. The section entitled 'Our Strategy' refers to our new Corporate Social Responsibility policy and its basic principles, including broad well-being. This should be read as a promise that we will focus more attention on our long-term impact on society. This promise is reported in 'Our impact on society'.
- With reference to the comment about diversity, we have amended the 'Attractive Employer' section. In addition to providing concrete data on the composition of the organisation, we show in more detail how we are working to achieve an inclusive and culturally diverse organisation.
- The panel's feedback is valuable input for the choice and refinement of dilemmas in our annual report. At the request of the panel, we have been transparent about the effect of the ambitious climate policy on our operations. We have taken note of the suggestion to provide substantiating facts and figures and this will be an ambition for our next annual report."

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 2021 annual report with the panel members in December. It was discussed during an online meeting held on 20 December 2021, 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: various stakeholder groups assess the relevance of different issues and we make an assessment of what the impact of these issues is on the company and on the wider world.

2021 Issues

Two issues have been added as a result of the reappraisal: 'Work package completion' and 'Collaboration and dialogue with stakeholders'. The 'Future-proof network' issue is part of the 'Facilitating the energy transition' and 'Work package completion' issues. In 2021, changes became apparent in how material issues affect stakeholders and Alliander. The 'Work package completion' issue is relevant to many stakeholders and the 'Access to energy' issue is also becoming increasingly relevant. The issues of 'Climate change, energy usage and CO_2' and 'Data security, privacy and cybersecurity' received higher scores while the issue of 'Socially responsible investment policy' received lower scores. 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

A new materiality analysis was conducted in 2021 at an early stage in the reporting process. On the one hand the relevance of various issues was assessed from the point of view of the various stakeholder groups, and on the other hand the impact these issues have on the company was analysed in an internal assessment.

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. We investigated which current social issues could be relevant for Alliander using information derived from various sources and trend research. This led to some modifications to the list of issues compared to previous financial years.

Relevance to stakeholders

The relevance of the issues from the stakeholders' perspective was determined by means of a digital questionnaire sent to a representative group of stakeholder representatives. Respondents returned their completed questionnaires and a number of qualitative interviews were conducted. This gave a representative picture of the material issues for our stakeholders. The result is a summary prioritising the issues having the most relevant impact from the point of view of the stakeholders.

Impact on Alliander

The extent and the impact of the issues were then determined by means of an impact assessment carried out previously. (The weighting factored in the materiality score from the preceding financial year.) 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. The information was collated to produce a draft materiality matrix. The outcomes of the questionnaire among stakeholders and the materiality matrix were discussed internally and made available to the Management Board. One of the conclusions was that the issues stakeholders considered important largely match the most important challenges Alliander is addressing.

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 linked to the GRI guidelines. This summary guides the composition of the information contained in this annual report. Alliander also has company-related indicators in place, which are likewise linked to the GRI information.

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 issues 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. Use was made of a data request (standard listing) for the quantitative data, which is part of the regularly scheduled internal data request. Wherever possible, this information is drawn from Alliander's existing 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 is reviewed internally for the reporting process.

Restatements and mutations

The following topics in our social impact report have changed compared to our 2020 annual report.

Energy and CO_2 data

We calculate the CO_2 footprint, the energy usage during the year under review and the transmitted energy volumes based on actual data for transmitted energy volumes and accurate estimates. The electricity labels and the associated CO_2 coefficients of the previous calendar year are also used. Adjustments are then made to the multi-year review, based on final data.
Reference: appendix, Other non-financial data - Energy and CO2.

Impact data

The attribution values were redetermined for 2021 using a revised method, which is explained in the Impact Analysis Accountability document included with this annual report. For comparison purposes the 2020 impacts have been recalculated using the 2021 attribution values.
Reference: appendix, Impact Analysis Accountability document.

Circularity KPI

The stated percentage of circularly sourced materials is calculated based on an updated method. The percentages submitted by the suppliers were assessed against validated recycled and recyclable percentages per material type. When raw material passports are used, the circularly sourced material is assessed at 40%. The combination of the updated method and market circumstances has led to a lower reported result. Reference: Objectives and performance table – Making the energy supply and our organisation sustainable.

Material issues

This part of the report elaborates on and shows the connection between the material issues and other elements of the report.

Facilitating the energy transition

Input and relationships 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. The energy transition requires investments to make the energy networks future-proof.

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 from fluctuating sources such as solar and wind will figure prominently. In this context, we participate in pilots together with other parties, such as suppliers and consumers. Customers expect us to help them make new energy choices.

Our long-term objective
Municipalities have drawn up plans setting out how they intend to wean each district off natural gas. 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. We are developing innovations, including cable pooling, curtailment and congestion management, and are scaling them up. We have been looking at smart energy solutions together with customers and partners and gaining experience. Our business activities related to 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.

Correlation with strategy
Accessibility

Risks
Long-term regulatory focus, Capacity for change, Financing, Meeting customers' expectations

Stakeholder information
- Support for customers in making choices in 'Making the energy supply and our organisation sustainable' section

Reliability of supply

Input and relationships 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 have invested over €1 billion in total, with the greatest proportion being spent on increasing the reliability of the grids. Our outage duration was 20.9 minutes in 2021. The number of repeat outages was 22.

Relationship with Alliander impact model: manufactured capital
The prosperity value of energy transmission for society is high and makes a strong contribution to the well-being of customers. Interruptions in the availability of energy lead to a relatively strong impairment of customer well-being.

Correlation with strategy
Safety, long-term regulatory focus, required capacity and competences, anticipating and keeping up with the energy transition, cybercrime

Risks
Safety, Capacity for change, Meeting customers' expectations, Cybersecurity, Future-proof investments

Stakeholder information
- Reliability of supply in 'High reliability of supply at low costs' section

Completion of work package

Input and relationships relevant to issue

Issue definition
As a company, we are currently unable to meet the huge demand for expansion and replacement of networks in full and in good time. The feasibility of the energy transition is an even greater challenge. This is partly due to the severe shortage of labour with technical skills and the lengthy spatial planning procedures for building and construction.

Stakeholder expectation
Stakeholders expect requests for connections to be honoured within the applicable periods, to have lighting and warm homes, and to be able to keep businesses and other organisations up and running.

Our long-term objective
We advocate an energy supply system where everyone has access to reliable, affordable and sustainable energy on equal terms.

Alliander's contribution
Our strategy comprises four pillars, which stand firmly on a solid and future-proof foundation: a safe, cost-conscious, sustainable and inclusive organisation. This helps us to work on our goals and missions, both now and in the future.

Relationship with Alliander impact model: manufactured capital
By engineering more work, we will increase our added value to society.

Relationship with strategy
Excellent network management

Risks
Work package completion, Capacity for change, Meeting customers' expectations

Stakeholder information
- High reliability of supply at low costs, Regional information

Working together on innovative solutions

Input and relationships 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 to work 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 accelerate and increase the scale of operations by applying tried and tested innovations. We and our partners are acquiring experience in developing new techniques and working methods.

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 2021, the amount of solar and wind energy that customers fed into our network increased substantially again. We also worked on managing congestion with a flex-market in Neerijnen, with the aim of matching the supply and demand of energy in the short term while upgrading the network is not possible or desirable. Through our business operations, we are discovering new markets. The planned smart meter offering was completed in 2021.

Relationship with Alliander impact model: intellectual capital
Technology, new market models and platforms contribute to positive intellectual capital. We want to track and analyse the exact social effects in greater detail.

Correlation with strategy
Accessibility

Risks
Long-term regulatory focus, Capacity for change, Future-proof investments

Stakeholder information
- 'Making the energy supply and our organisation sustainable' section

Safe working practices and safe infrastructure

Input and relationships 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 2021, there were 32 lost-time accidents and 22 accidents that did not result in sickness absence. This was partly why Alliander's LTIF increased to 2.6. Contract employees suffered nine lost-time accidents and six that did not result in sickness absence.

Relationship with Alliander impact model: human capital
Work-related accidents and sickness impair the well-being and happiness of those concerned. As an employer, Alliander always aims to make a positive contribution to the well-being of employees.

Correlation with strategy
Reliability

Risks
Safety, cybersecurity

Stakeholder information
- Safety in the 'A safe energy network and safe work and data environment' section
- Fit and healthy employees in the 'An attractive, inclusive employer with equal opportunities for all' section

Climate change, energy consumption and carbon emission

Input and relationships 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 sustainable, efficient 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 run 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. Our net carbon footprint in 2021 was: 115 kilotons of $CO_{2\text{-eq}}$ (2020: 176 kilotons of $CO_{2\text{-eq}}$).

Relationship with Alliander impact model: human capital
Climate change due to CO_2 emissions

Correlation with strategy
Accessibility, affordability

Risks
Long-term regulatory focus, Capacity for change

Stakeholder information
- Making the energy supply and our own organisation sustainable
- Appendices, Other non-financial information

Access to affordable energy

Input and relationships relevant to issue

Issue definition
Energy is a basic need for our everyday lives. That is why being connected to an energy supply 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 an energy supply 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.

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.

Correlation with strategy
Accessibility

Risks
Long-term regulatory focus, Capacity for change, Meeting customers' expectations

Stakeholder information
- Our strategy
- High reliability of supply at low costs

Data-driven network management

Input and relationships 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 social and intellectual capital as well as to more efficient and cleaner production.

Correlation with strategy
Accessibility, reliability

Risks
Privacy, Cybersecurity, Future-proof IT landscape

Stakeholder information
- Digitalisation in the 'High reliability of supply at low costs' section

Data security, privacy, and cybersecurity

Input and relationships 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 its 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 greater focus on cybersecurity in 2021. 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.

Correlation with strategy
Reliability

Risks
Privacy, Safety, Cybersecurity

Stakeholder information
- Privacy and security in the 'A safe network and safe work and data environment' section

Customer satisfaction

Input and relationships 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 47.5%, businesses at least 39.7%.

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). The result for consumers is 51% (-3% compared to 2020) and for business customers 38% (+3%).

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.

Correlation with strategy
Reliability

Risks
Work package completion, Privacy, Cybersecurity, Capacity for change, Meeting customers' expectations

Stakeholder information
- Customer convenience in 'High reliability of supply at low costs' section

Talent acquisition and development

Input and relationships 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 encouraged to develop their professional 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. For the third year in succession, refugees with a residence permit completed a development programme to attain a senior secondary vocational education (MBO) qualification in installation and maintenance work on the electricity grid. In 2021, Alliander invested 2.8% of its wage bill in employee training (2020: 2.4%).

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.

Correlation with strategy
Accessibility, reliability

Risks
Safety, Capacity for change, Completion of work package

Stakeholder information
- Recruitment in the ‘An attractive, inclusive employer with opportunities for all’ section

Collaboration and dialogue with stakeholders

Input and relationships relevant to issue

Issue definition
We consider anybody or any group that is affected by our activities or that has an influence on our organisation or services to be our stakeholders. 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 energy system is changing at a great pace, which comes with different requirements for the energy network. Collaboration and dialogue with stakeholders are essential to align changes and their impacts with developments in society.

Stakeholder expectation
Stakeholders expect to be able to continue to rely on and have access to a well-functioning energy system in the future. To ensure this, Alliander must be receptive to stakeholders’ concerns and listens to them.

Our long-term objective
We are permanently in contact with our stakeholders and involve them in developments and the social impact we have as an organisation.

Alliander’s contribution
We organise our stakeholder relations effectively. Contact takes place structurally, on an ad hoc basis and, where necessary, according to legal requirements, and through a variety of channels, depending on the issue, its intensity and the relationship with the choices we make as an organisation on a daily basis.

Relationship with Alliander impact model: financial capital
Stakeholders have an interest in our social impact on one or more forms of capital.

Relationship with strategy
Continuous evaluation of stakeholder relations with respect to our tasks; alignment with social aspects of the future energy supply.

Risks
Long-term regulatory focus, Capacity for change

Stakeholder information
Interaction with stakeholders

Organisational capacity for change

Input and relationships 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.

Correlation with strategy
Excellent network management is the basis

Risks
Capacity for change, Completion of work package

Stakeholder information
- Profile of Alliander:Our strategy
- Increasing the organisation’s effectiveness in the ‘High reliability of supply at low costs’ section

Corporate social responsibility in the supply chain

Input and relationships 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. 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 27% of our procurement volume based on circular principles in 2021 (4% more than in 2020). The increase came about because we focused more attention on the accuracy of the raw material passports in 2021. In doing so, we support the achievement of our socially responsible procurement objective in the Netherlands, while also promoting further sustainability among our suppliers through our Socially Responsible Procurement statements. Outsourcing, investments and production in other countries sometimes lead to an increased risk regarding the recognition and observance of norms in such areas as fundamental human rights, safety and the environment. The assessment of suppliers in the supply chain is part of our CSR and procurement policy.

Relationship with Alliander impact model
Manufactured capital, natural capital

Correlation with strategy
Reliability, affordability, accessibility

Risks
Capacity for change, Future-proof investments:

Stakeholder information
- Supply chain responsibility in the ‘Making the energy supply and our organisation sustainable’ section.
- High reliability of supply at low costs

Corporate governance and business ethics

Input and relationships 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. We are guided in this endeavour 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.

Correlation with strategy
Reliability

Risks
Capacity for change

Stakeholder information
- Corporate Governance

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 credit-worthy company with solid returns	Materiality test How finance and sustainability go hand in hand
Description of the resilience of the organisation's strategy, taking account of various climate-related scenarios, including a temperature rise of 2 degrees or less	Achieving sustainability in energy supply and operations	Dealing with climate risks and adaptation: TCFD
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	Achieving sustainability in energy supply and operations	Dealing with climate risks and adaptation: TCFD
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, consistent climate-related financial risk disclosures for companies. The aim is to give investors, financial institutions and other stakeholders a better understanding. The recommendations centre on physical, transition and legal 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.

High degree of energy reliability for our network at low costs in our service area

Material issues	Indicators	Performance in 2020	Performance in 2021	Objective for 2021	Long-term goal	Contribution to SDG
Reliability of supply	Electricity outage duration in minutes[1]	23.2	20.9	23	Having a high reliability of supply	SDG 7.1
	Gas outage duration in seconds	83	44			SDG 7.1
	Number of repeat outages concerning unique cable numbers with more than five interruptions	17	22	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
Access to energy	Number of customer connections	5.8 million	5.8 million	None	Customers have access to the energy supply on equal terms.	SDG 7.1
Satisfied customers	Customer convenience based on Net Effort Score (NES)	Consumer: 54% Business: 35%	Consumer: 51% Business: 38%	Consumer: 53% Business: 37%	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	741	618	650	Further roll-out of Smart Cable Guard as an advanced malfunction detector to prevent and shorten outages in the electricity grid.	SDG 9.1

A creditworthy company with a solid return

Material issues	Indicators	Performance in 2020	Performance in 2021	Objective for 2021	Long-term goal	Contribution to SDG
Responsible investment policy	Credit rating	S&P A+/A-1/stable outlook Moody's Aa3/P-1/ stable outlook	S&P A+1/A-1/stable outlook Moody's Aa2/P-1/ stable outlook	Credit rating: Maintain solid A rating profile.	Remaining 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	24.1%	25.8%	FFO/net debt: at least 15%[2].		SDG 9.1
	Interest cover	14.2	17.2	Interest coverage: at least 3.5.		SDG 9.1
	Net debt/(net debt + equity)	38.7%	36.7%	Net debt/ (net debt + equity): maximum 60%.		SDG 9.1
	Solvency ratio	53.1%	53.8%	Solvency ratio: at least 30%.		SDG 9.1

Making the energy supply and our organisation sustainable

Material issues	Indicators	Performance in 2020	Performance in 2021	Objective for 2021	Long-term goal	Contribution to SDG
Facilitation of energy transition	Number of feed-in installations at our customers	494,000	618,000	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	Net CO_2emissions in kilotons	176[3]	115	150	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]	23%	27%[4]	45%	An annual improvement in our Circular Procurement performance.[5]	SDG 12.5
Facilitation of energy transition	Investments in the networks in millions of euros	890	1,014	992	In long term, annual investments of more than €1,000 million.	SDG 7.1 and SDG 9.1

A safe energy network and a safe work and data environment for our customers, suppliers and employees

Material issues	Indicators	Performance in 2020	Performance in 2021	Objective for 2021	Long-term goal	Contribution to SDG
Safe working practices and safe infrastructure	Lost Time Injury Frequency (LTIF)[1]	1.8	2.6	-[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	6[6]	12[7]	0	No substantiated complaints received regarding breaches of customers' privacy and/or data.	SDG 9.1

An attractive, inclusive employer offering equal opportunities for all

Material issues	Indicators	Performance in 2020	Performance in 2021	Objective for 2021	Long-term goal	Contribution to SDG
Safe working practices and safe infrastructure	Number of employees on sick leave due to an accident	21	32	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	2.4%	2.8%	3.0%	3.0%	SDG 8.5
	Number of apprenticeships offered to employees with poor employment prospects[1]	108	77[8]	107	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. By 2024, we will meet the requirements of the Dutch Labour Participation Quota Act.	SDG 8.5
Organisational capacity for change	Pace of achieving OGSM[9]	OGSM starting phase	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	4	5	Employees comply with Alliander's internal Code of Conduct	None.	SDG 8.8
	Number of reported cases of undesirable behaviour (including discrimination) by employees	33	33	Employees comply with Alliander's internal Code of Conduct	Employees comply with Alliander's internal Code of Conduct	SDG 8.8
	Women in managerial positions as a % of all managerial positions	29.0%	28.1%	31%	In 2024, at least 33% of our managerial positions will be held by women.[10]	SDG 8.5

1 For further details, please see our 'Objectives and results' table presented previously in this report.

2 For further explanation, see Changes in financial policy.

3 The net CO_2 emissions figure for 2020 has been recalculated using the most recent emission factors (2020).

4 The percentage of materials sourced through circular procurement is calculated based on an updated method. The method uses the recycled and recyclable percentages per material type as provided by the supplier. If this percentage is higher than the validated percentage, the validated percentage is used instead. See Supply chain responsibility and circular procurement. When raw material passports are used, the circularly sourced material is assessed at 40% (2020: 44%).

5 We will reassess our assumptions regarding recycling and recyclability in 2022, and include input from independent specialists and suppliers. This will affect our long-term objective. We will therefore only be able to give a concrete long-term objective in the next annual report.

6 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.

7 Seven of 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.

8 The number of employees with poor prospects on the labour market comprises 77 jobs created under the Dutch Participation Act, amounting to 62 FTEs.

9 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.

10 A managerial position is a hierarchical position as a manager or a position with budget responsibility.

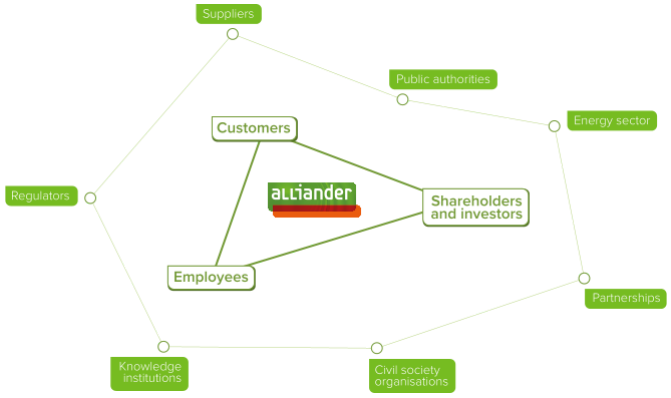
Interaction with stakeholders

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. We look at ways in which processes, legislation and regulations need to be changed in conjunction with market players, regulators and policy makers. 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 experts and transparency experts; the feedback on the draft 2021 annual report was 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, service improvements	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, Facilitation of energy transition, Cooperation on innovative solutions, Satisfied customers, Future-proof network, Data security, privacy and cybersecurity, Access to affordable energy, Climate, energy and CO_2
Customers Business Customers	Trade associations Energy cooperatives	Collaboration, dialogue, service improvements	Dialogue and relationship management (e.g. VEMW, Uneto VNI, Bouwend Nederland, VNO NCW)	Reliability of supply, Facilitation of energy transition, Cooperation on innovative solutions, Satisfied customers, Future-proof network, Data security, privacy and cybersecurity, Access to affordable energy, Climate, energy and CO_2
Employees	Alliander employee participation Youth network Tension Women's network Lianne LGBTIq+ network Pride Cultural network Wij zijn Nexus Staff association Alliander Foundation 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	Stakeholder provinces and municipalities	Formal/informal consultations, knowledge and insight into activities	General Meeting of Shareholders Meeting of Major Shareholders Company visits, consultative meetings, individual contact Two-yearly reputation survey Regular newsletter	All material issues
Investors	Financiers, investors, and credit-rating agencies	Accountability and explanations	Regular consultations and reporting on financial results	All material issues
Local and regional authorities	Provinces, municipalities, umbrella organisations (VNG, IPO), Regional Energy Strategy regions and National RES Programme	Coordination of climate and energy plans and projects, investment areas	Consultation, collaboration, projects	Facilitation of energy transition, Cooperation on innovative solutions, Access to affordable energy, Climate, energy and CO_2
Government bodies	Central government (ministries) and European Union (European Commission, European Parliament)	Expression of interest and active/proactive dialogue	Consultation, having a say, views	Facilitation of energy transition, Cooperation on innovative solutions, Access to affordable energy, Climate, energy and CO_2
Politicians	States General + Upper and Lower Houses, provinces, municipalities	Keeping them informed generally and on specific, topical issues	Relationship management, working visits, proactive and reactive updates Qualitative research	Facilitation of energy transition, Cooperation on innovative solutions, Access to affordable energy, Climate, energy and CO_2
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/suppliers Energy Storage Nederland Eurelectric, Eurogas, ENCS, European Distribution System Operators (E.dso) Flexible power Alliance Network (FAN) Gasunie IGU, IEA Nedu Netbeheer Nederland (association of energy network operators) Nederlandse Vereniging Duurzame Energie (NvDE) Operators for electricity (Edso) Foundation ElaadNL TenneT Employer's association WENb	Knowledge sharing, partnerships, promotion of interests, collaboration	Participation in boards Working groups	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 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 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, Company's adaptability
Media	National and regional media	Informing, positioning	Relationship management, proactive information, crisis communications, qualitative research.	All material issues
Social sector organisations	Stichting de Opkikker Nederland Cares	Volunteering		Attracting and developing talent, Well-being
	Housing corporations, property developers, business community	Participation, Dialogue and relationship management	Alignment, participation in associations and foundations	Reliability of supply, Safe working practices and safe infrastructure, Cooperation on innovative solutions, Access to affordable energy, Climate change, energy and CO_2 emissions

Partner relationships	Amsterdam Economic Board Economic Board Arnhem Nijmegen European Energy Information Energy Storage Foundation rural energy services Global Gas Network Initiative Global Intelligent Utility Network coalition Global Reporting Initiative Global Smart City & Community Coalition Green Deal HIER Opgewekt Klimaatverbond Nederland Management Community MVO Nederland Natuur & Milieu Nederlandse Vereniging Duurzame Energie NG Infra Nudge Open compliance and ethics group Sharing & Analysis Centre Smart Energy Collective Stichting de Energiebank Stichting USEF Stichting New Energy Coalition The Open Global Data Urgenda Vereniging Eigen Huis 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	Participation in boards, meetings, sponsoring, strategic collaboration, consultation and dialogue	Reliability of supply, Facilitation of energy transition, Cooperation on innovative solutions, Social responsibility in the energy supply chain, Corporate governance and business ethics, Data security, privacy and cybersecurity, Access to affordable energy, Climate, energy and CO_2 emissions, Company's adaptability

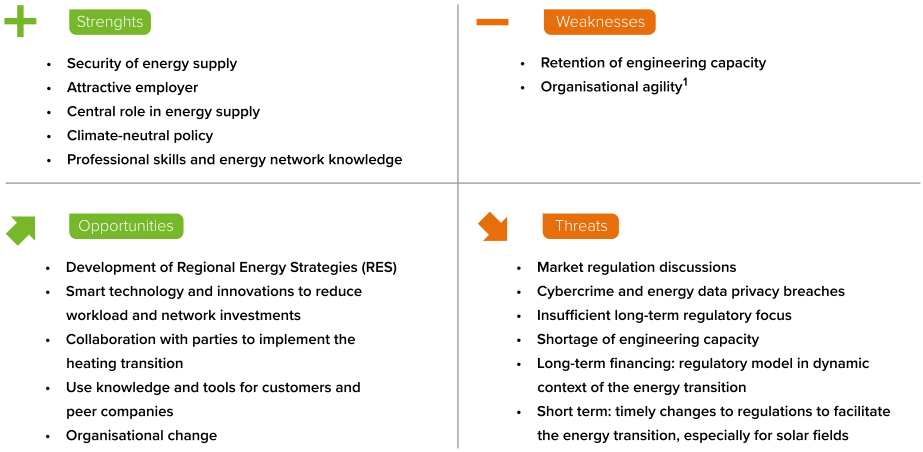
Alliander endorses	In 2020, we participated in the following Dutch social initiatives
• ILO Conventions • OECD guidelines	• Sector-wide employment arrangement • Climate Agreement and Regional Energy Strategies • Circular Procurement Green Deal • Womens Inc. incubators, *Talent naar de Top* charter, *Diversiteit 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. The Regional Energy Strategy (RES) programme was an example of such collaboration. Alliander makes a significant contribution to these regional plans drawing on its knowledge and expertise, thereby helping to design a new, sustainable energy supply for the future.

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 are experiencing scarcity in materials and resources.
We also recognise that we are unable to respond quickly enough to changes. For that reason, we have invested in agility, decisiveness, cost-effectiveness and working as one team. Progress has been made in making our new organisational structure operational. We are working with a new consultative structure, we are introducing focus and we are asking employees to reflect, learn and perform.

Finally, we have identified certain threats as well, such as cybercrime, privacy, changing legislation and regulations, our ability to obtain long-term financing and a fast-growing work package. These threats and what we are doing to address them are described in greater detail in the Risks section.

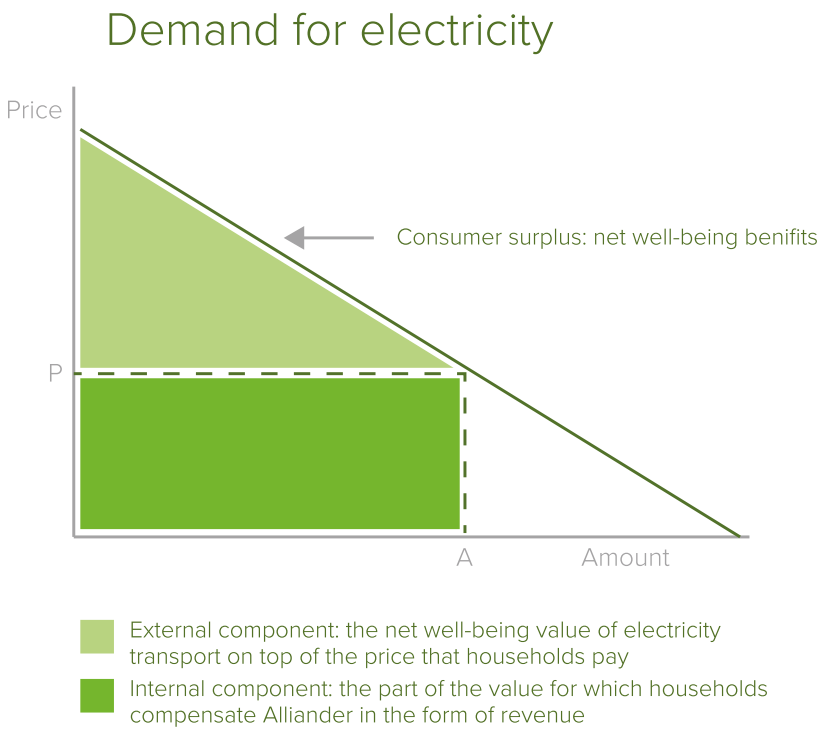


Key criteria for measuring impact

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. 'Well-being concerns the quality of life in the present and the extent to which it does not impact negatively on future generations and/or people elsewhere in the world' (Statistics Netherlands 'Monitor of Well-being').
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

Key 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, measured at purchase price.
From 2021 onwards, the attribution of these supply chain impacts has been extended with two new types of impact where the main accountability for the supply chain can be identified: a supply chain impact with Alliander as the primary responsible party and a supply chain impact with another partner as the primary responsible party.
Impacts that Alliander achieves independently are entirely attributed to Alliander.
As the supply chain positions are fairly stable, the attribution value from 2020 was recalculated using the new method and was fixed for three years. This gives a clearer overview of the organisation's own influence on changes in impacts, which helps manage the impacts.
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 for consumers is calculated on the basis of the consumer surplus. This is the extra amount 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 concern the economic part of the energy value chain that is attributable to Alliander. The average impact of gas and electricity outages for the Netherlands is included in this estimate, as the price elasticity is based on the actual demand for energy (including outages). 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 concerns interruptions in the electricity network and in the gas network. Alliander's impact in making 'feed-in' possible consists primarily of the financial impact of using solar panels (PVs) and enhanced well-being from the use of greener energy.
Price elasticity assumptions were made in the adopted economic model. The gas and electricity price elasticity relationship is assumed to be linear. This assumption produces a conservative estimate of the consumer surplus, which is visualised in the figure below.



The slope of the line, which affects the consumer surplus estimate, 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 these customers.
Natural capital
Alliander is partly responsible for the CO_2 emissions from the quantities of electricity, gas and heat transported through its network. The impact comprises the measurement of the CO_2 emissions associated with the direct operations and those of the supply chain. Emissions in the supply chain are attributed to Alliander on the basis of gross added value.

The assumption is that the electricity mix (the ratio between energy from oil, natural gas, coal, nuclear power and renewable sources) of the energy that we transmit is equal to the national electricity mix.

The social costs of a ton of CO_2 equivalent have been taken from the True Price publication '*Monetisation factors for true pricing*'. This value is based on a meta-analysis of the social costs per ton of CO_2 so as to remain within the 2-degree target of the Paris Agreement. This value is updated and published regularly by True Price. Alliander uses this source.

The scope for the 'Environmental damage' indicator for procured materials 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 impacts of having work were calculated relative to not having work in the Netherlands. This is done separately for two groups of people: those who have difficulty finding work and those who do not. The indicator exclusively concerns the non-financial direct well-being impact. It is assumed here that work satisfaction has a direct positive impact on well-being.

It is also assumed that sickness absence not recorded as 'work-related' has no connection with the work at Alliander. The calculation of the impacts of work-related sickness absence and employee accidents (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 using the brand value method. This method has been established for commercial utilities. Alliander's value is estimated with a correction factor on the basis of data for European organisations in the top 10 utilities. The number of European utilities in the top 10 varies from year to year. 2019: 7; 2020 5; 2021 6.

Intellectual capital

The value of data collection for market facilitation is calculated on the basis of the practical value. We are assuming here that downloading and opening data sources has and creates a direct net positive value.

The proportion of data that is used is less than that which is consulted. A factor is used to calculate this.

Comparative figures for impacts from 2021 and 2020

The attribution values were redetermined for 2021 using a revised method, which is explained in the Impact Analysis Accountability document included with this annual report. For comparison purposes the 2020 impacts have been restated using the 2021 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	2021	2020
Purchase/sale of associates and subsidiaries	-3	-60
Payments to suppliers	-1,577	-1,360
Dividends, repayments and interest	-359	-300
Payments to employees	-678	-646
Tax	-214	-200
Increase in cash reserves	326	145
Contributions from third parties	149	174
Other revenue	98	45
Costs to customers (business)	866	519
Raised capital, received repayments and interest	865	557
Costs to customers (households)	1,177	1,416

Manufactured capital

€ million	2021	2020
Value of goods procured for electricity transmission	-972	-987
Contribution of electricity transmission to consumer well-being	2,285	2,240
Contribution of solar energy feed-in to well-being	20	15
Value of goods procured for gas transmission	-881	-710
Contribution of gas transmission to consumer well-being	3,018	2,479
Value of goods procured for business customers	-197	-174
Value of energy transmission for business customers	453	409
Contribution of heating transmission to consumer well-being	0.7	0.6

Intellectual capital

€ million	2021	2020
Value of data collection for market facilitation	2.5	2.3

Natural capital

€ million	2021	2020
Work-related sickness absence and employee accidents (safety)	-1	-1
Well-being effects of having work	n/a	93

Social capital

€ million	2021	2020
Environmental damage due to waste	-0.1	-0.1
Environmental damage through procurement of materials	-45	-34
Climate change due to CO_2 emissions	-223	-218

Human capital

€ miljoen	2021	2020
Werkgerelateerde uitval en ongevallen van werknemers (veiligheid)	-1	-1
Welzijnseffecten van het hebben van werk	n.v.t.	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	2021	2020	2019	2018	2017
Result					
Revenue	2.120	2.009	1.930	1.920	1.697
Total income	2.181	2.055	1.970	2.068	1.840
Total operating expenses	-1.827	-1.736	-1.591	-1.572	-1.535
Operating profit	354	319	379	496	305
Profit after tax	242	224	253	334	203
Balance sheet					
Net working capital	-132	-117	-91	-117	-87
Property, plant and equipment	8.501	7.958	7.476	7.072	6.793
Total assets	10.209	9.422	8.791	8.345	8.069
Equity	4.470	4.328	4.224	4.129	3.942
Total interest-bearing debt	3.111	2.487	2.062	1.796	1.784
Total financing	7.581	6.815	6.286	5.925	5.726
Capital expenditure on non-current assets	1.014	890	837	732	652
Cash flows					
Cash flow from operating activities	664	634	638	638	454
Cash flow from investing activities	-639	-775	-713	-496	-549
Cash flow from financing activities	301	286	88	-103	148
Free cash flow	25	-141	-75	143	-95
Ratios					
Non-current interest-bearing debt as % of total interest-bearing debt	85%	100%	86%	82%	87%
FFO/Net debt	25,8%	24,1%	29,0%	32,2%	27,4%
Interest cover	17,2	14,2	13,3	12,9	10,2
Equity as % of total assets less deferred income (solvency)	53,8%	53,1%	55,6%	57,3%	56,7%
Shares (as at 31 December)					
Number of shares issued (thousand)	136.795	136.795	136.795	136.795	136.795
Dividend to be paid	114	94	114	150	92
Other					
- Electricity					
Active connections as at 31 December (x 1,000)	3.276	3.236	3.207	3.169	3.135
New connections (x 1,000)	43	39	42	40	36
Cables laid (km)	2.027	1.563	1.115	899	834
- Gas					
Active connections as at 31 December (x 1,000)	2.539	2.542	2.543	2.533	2.520
New connections (x 1,000)	4	9	16	20	20
Mains laid (km)	60	22	66	141	132
- Volumes transported					
Electricity (GWh)	27.262	28.946	28.548	29.858	29.960
Gas (million m3)	6.056	5.632	5.860	6.090	6.228
Percentage grid losses[1]	4,21%	4,40%	4,52%	4,37%	4,66%
- Other					
Number of disconnections (consumer and business market)	3.210	3.756	4.038	3.958	4.805
Facilitated supplier switches (x 1,000)	918	1.128	851	968	903
Annual electricity outage Liander (minutes)	20,9	23,2	21,9	30,6	20,9
Average number of permanent staff (fte)	5.936	5.786	5.686	5.712	5.719

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.

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.

FFO/net debt ratio
The funds from operations (FFO)/net debt ratio is the 12-month profit after tax adjusted for deferred tax movements, the equity component in the payment relating to hybrid loans, incidental items and fair value movements plus depreciation of property, plant and equipment and amortisation of intangible assets and deferred income, expressed as a percentage of net debt.

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.

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.

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.

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.

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.

Output
The effects of an activity – within the context of the value and impact model – over which Alliander has some control.

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.

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.

Interest cover
The interest cover ratio concerns the 12-month profit after tax, adjusted for the movements in the deferred tax assets and liabilities, the equity component in the payment for hybrid loans, the incidental items and the fair value movements, plus the depreciation and amortisation of property, plant and equipment and intangible assets and deferred income and the net amount of finance income and expense adjusted for the equity component in the payment for hybrid loans, the incidental items and the fair value movements divided by net finance income and expense adjusted for the equity component in the payment for hybrid loans, the incidental items and the fair value movements.

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.

Regulation of tariffs
With respect to public utilities, the process whereby the government sets the maximum rates that network operators are permitted to charge for their services.

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.

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.

XBRL company definitions

Name of reporting entity or other means of identification	Alliander N.V.
Domicile of entity	Arnhem
Legal form of entity	N.V.
Country of incorporation	Nederland
Address of entity's registered office	Utrechtseweg 68 6812 AH Arnhem The Netherlands
Principal place of business	Arnhem
Description of nature of entity's operations and principal activities	Energy distribution

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 uses 2012 as a reference year for comparison of energy and CO_2 data. The reason for this is that 2012 is the year in which the targets for CO_2-related emissions were formulated. In that year, emissions totalled 761 kilotons of CO_2-eq without a greening policy. Gross emissions in 2021 amounted to 450 kilotons of CO_2-eq (-41% compared to 2012); including greening, our own organisation's net emissions amounted to 115 kilotons of CO_2-eq.

At least 10% of the electricity consumption of our buildings is fed by renewable electricity we generate ourselves on site. The remaining electricity consumption for buildings is procured. The energy mix of this procurement comprises 49.2% renewable energy production and 50.8% generated from gas. The electricity label for this gives 398g of CO_2/kWh. The entire CO_2 volume is compensated by Guarantees of Origin for wind energy produced in the Netherlands. The Duiven and Arnhem Bellevue offices are moreover practically energy-neutral (at least an A label) and surplus is fed back into the grid. All Alliander offices will meet the A, B or C label criteria by 2023 at the latest.

	2021	2020	2019
Energy consumption of buildings			
Gas consumption in buildings (m^3)	1,069,106	920,301	1,386,649
Electricity consumption in buildings (kWh)	8,202,984	8,095,728	9,779,593
Fuel consumption of vehicle fleet (litres)			
Petrol	1,115,626	1,103,185	1,360,318
Diesel	2,770,679	3,102,545	4,392,424
LPG	2,154	4,960	10,186
Electricity[1] (kWh)	2,432,381	358,201	0
Commuter traffic, business travel, air travel (km)	8,846,583	11,157,113	29,122,704

1 In 2018 and 2019, the electricity consumption for our vehicle fleet was accounted for in the consumption for our buildings. This figure is reported on separately as of 2020.

GJ	2021	2020	2019	Conversion factor[1]
Energy consumption of buildings				
Gas and heat consumption	37,600 GJ	32,367GJ	32,384GJ	35.17 official calorific value of Slochteren natural gas
Electricity consumption[2]	29,531 GJ	29,145GJ	33,645GJ	conversion factor 3.6, SI unit conversion factor
Total energy usage in buildings	**67,131 GJ**	**61,512GJ**	**66,029GJ**	
Energy consumption for transport & mobility				Conversion factor
Petrol	36,146 GJ	35,743GJ	50,190GJ	conversion factor 32.4
Diesel	99,190 GJ	111,071GJ	141,297GJ	conversion factor 35.8
LPG	56 GJ	129GJ	264GJ	conversion factor 26
Electricity	8,757 GJ	1,290GJ	0GJ	conversion factor 3.6
Total energy usage for transport & mobility	**144,149 GJ**	**148,233GJ**	**191,751GJ**	
Total energy usage	**211,280 GJ**	**209,775GJ**	**257,780GJ**	

1 Source for calorific values and conversion factors: 'calorische waarde' (joostdevree.nl)

2 The value of the electricity feed-in to the grid is 4.2 GJ.

CO_2-emissions and carbon footprint

A sector-wide uniform emissions standard has been used for the purposes of the section entitled 'Making the energy supply and our organisation sustainable'. 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.

CO_2emissions in tons[1]	2021	2020[2]
Scope 1		
Gas consumption in buildings	2,014	1,758
Heat use in buildings	33	-
Natural gas network leakage loss	138,575	136,032
Lease & company cars:	13,466	13,346
SF_6 emissions	1,097	2,488
Use of generators	8,848	8,479
Total for scope 1, own organisation	**164,034**	**162,104**
Scope 2		
Electricity in buildings	3,330	3,287
Network losses on electricity, technical	194,017	139,276
Network losses on electricity, administrative	87,012	62,462
Total for scope 2, own organisation	**284,359**	**205,025**
Scope 3		
Commuter traffic	1,419	1,677
Business and air travel	31	20
Total for scope 3, own organisation	**1,450**	**1,697**
Total for scopes 1, 2 and 3, own organisation	**449,842**	**368,825**
Greening/Offsetting		
Greening network losses E	281,029	170,070
Greening network losses G	40,048	6,802
Greening of gas consumption in buildings	2,047	1,758
Greening of electricity consumption in buildings	3,330	3,287
Greening of vehicle fleet	7,888	10,776
Total for greening, own organisation	**334,343**	**192,692**
Total for own organisation including greening	**115,499**	**176,133**
Scope 3 - Supply chain emissions		
Components for network expansion/upgrades	205,830	-
Maintenance, construction and procured services	164,382	-
Other (waste, investments and energy)	75,591	-
Total for scope 3, supply chain emissions	**445,802**	**-**
Total footprint	**561,301**	**176,133**

1 The CO_2 emissions are calculated in terms of CO_2 equivalents. The main underlying greenhouse gases are methane, SF6 and CO_2 emissions resulting from energy generation from fossil fuels.

2 The net CO_2 emissions figure for 2020 has been recalculated using the most recent emission factors (2020).

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.

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. The 2020 electricity labels have been used for the 2021 annual report. This gives a figure for the CO_2 coefficient of 0.21743 kg CO_2/kWh. This includes an adjustment of 2% for tank-to-wheel. Of the CO_2 footprint, 62% 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 it now represents a much higher proportion of our carbon footprint. Gas leakage losses accounted for 31% of the gross footprint in 2021, compared with 11% in 2019. Gas leakage losses are based on consumption by customers without an energy contract, improper use or theft of gas from the network and the number of kilometres of gas mains in Alliander's gas network. Cast-iron gas mains have higher leakage losses (322.5m^3/km) than the regular PE pipes (55.3m^3/km) and therefore higher emissions. The CO_2 equivalent is calculated using a factor of 28 (methane). We reported procurement-related supply chain emissions in 2021 as part of scope 3. These are emissions which take place at our suppliers when making, transporting and delivering services and products. Calculations take place on the basis of key emission figures for each sector multiplied by Alliander's expenditure in the sector. These emissions are beyond the scope of our climate objectives and form no part of the intensity indicator.

		2021	2020[1]	2019	2018	2017
Net CO_2-eq emissions	kt	115	176	243	288	416
Net revenue	€ million	2,120	2,009	1,930	1,920	1,697
Net CO_2-eq emissions/net revenue	tonne/€ million	54	88	126	150	245

1 The net CO_2 emission result for 2020 has been recalculated according to the most recent emission factors (2020).

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:

	2021	2020	2019
Electricity transmission	27,262 GWh	29,723 kWh	28,548 kWh
Gas transmission	6,056 million m^3	5,600 million m^3	5,860 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 an energy 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.

To arrive at 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. We saw a reduction in energy consumption due to lower occupancy of our buildings as a consequence of the pandemic.

	2021	2020	2019
Energy intensity ratio	99 GJ/€ million (211,280/2,127)	104 GJ/€ million (209,775/2,009)	133.6GJ/€ million (257,780/1,930)

* 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 2021 was 59 million m^3, a 7% increase compared with 2020. This involved connections to 22 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, round table meetings and the social reports.

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. Alliander has received an unqualified assurance report for its 2021 annual report, affording reasonable assurance with respect to the most relevant part of the annual report, namely the principal 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: precision work in Oosterhout

Nijmegen North is an area in full development. In a short time, many homes and other facilities have been built. As a result, the demand for electricity has increased significantly. That is why we are working with TenneT on a new transformer station. The station is expected to be ready in the first quarter of 2023.

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This report is a translation of the Dutch annual report 2021 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 2021 will prevail.

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