Annual report 2022

Interconnected

alliander

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Our story in 2022

Interconnected

In 2022, the connection we as a network company have with society at large became more visible than ever. The war in Ukraine had a major impact on the accessibility and affordability of energy. The gas price – and with it, the price of electricity – rose steeply as a result of the great uncertainty surrounding the supply of gas from Russia. Supply problems all over the world were exacerbated by disrupted supply chains, resulting in material shortages. Climate change also had a significant impact. Protracted periods of heat and drought in Europe led to a fall in energy production. These developments had a major impact on the energy supply to consumers, businesses and public bodies, and therefore on our work. The unquestioning belief in the availability of energy had not come under such pressure for decades.

It led to an even more urgent wish amongst our customers to become more sustainable. In recent years, we have seen demand for capacity on the power grid soar as a consequence of the energy transition. It increased even further this year. There is huge demand for large batteries and industrial e-boilers. Consumers are increasingly choosing to insulate their homes and install solar panels and heat pumps to reduce their energy bills. Customers are switching to sustainable energy at a rapid rate and this creates an enormous demand for power. Energy is at the forefront of everyone's mind.

We invested €1,228 million in 2022

In 2022, we invested a total of €1,228 million, mostly in expanding and strengthening the power grid. This enabled us once again to complete an even bigger work package than in previous years. In one year, we laid 2,457 kilometres (2021: 2,271) of electricity cables and gas pipelines (+8%).

Safety in our work is a prerequisite

A short circuit occurred on the high-voltage line in Lelystad at the beginning of September, which started a fire and caused the conductors to become detached. Over 300,000 customers were without power. Luckily, no one was injured, but the incident had a major impact on colleagues and local residents. We are making sure that we learn from what happened in Flevoland for our own safety and that of our customers. It is our responsibility to make sure that everyone finishes their working day safely. We have taken a number of important steps to do so, based on a clear Safety Vision. This sets out how we are improving safety in the organisation, including personal safety. At year-end 2022, we reached rung 3 on the Safety Ladder for the organisation as a whole. There were more accidents (2022: 88, two of which with serious injuries) than in the previous year (2021: 69).

A safe working environment includes personal safety. We aim to create a safe working environment in which everyone feels supported and comfortable – a relevant theme this year. In the Central Employee Barometer for 2022, we attained a high score for personal safety, but there are sadly teams and departments where personal safety and leadership are points requiring attention. Various initiatives, such as the award-winning initiative Met Andere Ogen (Different Perspectives), help employees to work together to create an inclusive organisation.

The energy transition is both a technical and a social change

Despite the considerable expansion of our networks, we were unable to satisfy all of our customers' ambitions and wishes immediately in 2022. The maximum capacity of the network was reached in increasing numbers of places, which caused difficulties for expansion and sustainability plans. We find this concerning. We are aware that we are disappointing our customers in such situations and we regret this. Demand for electricity is still increasing faster than the speed at which we can upgrade or expand the network.

It became even more evident in 2022 that the energy transition is not just a technical change. It is also a social change: a process full of mutual dependencies between the various factors and players in the energy system. Sometimes this is easier said than done. As the Netherlands speeds up on the road to sustainability, it is important that all the parties with roles in the system plot a new course, for example in terms of spatial considerations. As the greening of the Netherlands speeds up, there is increasing realisation that the necessary infrastructure cannot always be realized. We see, for example, that additional space is needed in new area developments in existing neighbourhoods and industrial areas for our substations, transformer substations and cables, but that such space is not directly available. We are in continual dialogue with municipalities to find out where the underground and above-ground infrastructure can be located, based on new home development and company expansion plans. We call this 'energy planning' and it is something we are working hard on to ensure that what ought to be developed is also spatially possible and feasible, both nationally and regionally. By looking at this issue together at an early stage, we can organise materials and labour in good time. It also helps us tremendously if municipalities include the necessary infrastructure in their plans from the start and make clear-cut choices in such matters.

We are working with our customers and stakeholders on making the energy system more flexible

The increasing share of solar and wind power is rapidly changing the energy system from a demand-driven system to a supply-driven one. Energy is also increasingly being sustainably produced and used locally. At certain times, this creates energy surpluses and at others, energy shortages. The system will have to be designed with this in mind. In 2022, we worked with the market on a more flexible energy system, in which customers examine how they can align their energy demand with the supply, through storage or buffering for example, and we consider how we as a network operator can facilitate this. We sped up the development of non-firm contracts, for example, which enable our customers to use more energy at times when the network is less burdened. In line with new regulations in Leeuwarden, we used congestion management for the first time, which enables more customers to be admitted to the network. And at Schiphol Trade Park, we enabled our customers to align their energy consumption with that of other users, making better use of the total capacity. These and other examples demonstrate both that the flexible system can work and that it requires scaling up. This is the next step, to be taken in conjunction with customers and market players.

The labour market issue also requires collaboration between the various parties in our sector

Despite an increasingly tight labour market for technicians, we successfully managed to recruit more technicians in 2022, hiring a total of 387 technicians. We developed our View of the Labour Market & Education to set a course for our ambitions in the labour market and the field of education. The '100 Good Reasons' campaign aimed at technical target groups was launched in August 2022 to increase our recruiting efforts. Furthermore, in 2022 employees were invited to introduce new technicians and IT specialists to Alliander through our internal referral programme. We introduced a modernised training programme called 'Gericht Opleiden' (Targeted Training) to train mechanics, foremen and technicians more quickly, and in the summer we opened a unique training centre in the Anklaar electrical substation.

Based on our View of the Labour Market & Education, we started intensifying our collaboration with secondary vocational colleges, universities of applied sciences and academic universities. We were also actively involved in developing the Technology Action Plan, the national strategy for recruiting more technicians. This is an initiative by the employers' association WENB, the employers' organisation FME, Bouwend Nederland, Techniek Nederland, MetaalUnie and the employers' organisation VNO-NCW. It contains details of a broad package of measures aimed at recruiting and getting more people interested in technical jobs, enhancing technical education, attracting new target groups, promoting labour migration for technical jobs and increasing labour productivity by means of innovations. One example is the deployment of the Arbeidsmatchplatform (Labot matching platform), a digital platform that facilitates joint recruitment at a national level on the basis of competencies and skills.

Financing

Clearly, by engaging with all the parties in the energy system we can arrive at new solutions and perspectives. It is important to maintain that close contact even when we have an unwelcome message to deliver or cannot immediately meet demand, such as when our tariffs rose due to the increase in our purchase prices. In this case, we informed our customers earlier than normal as we realised that this would have a major impact.

We are in consultation with our regulator, the Netherlands Authority for Consumers and Markets (ACM), about the planned and necessary amendments to legislation and regulations. We are also in a dialogue with the Dutch government about the financing of the energy transition, since expanding and upgrading our power grids in the coming years will require billions of euros of investments. In conjunction with Stedin and Enexis and our shareholders, we have been in talks with the Dutch Ministries of Finance and of Economic Affairs & Climate Policy since the summer of 2021 about a possible future role for the State in strengthening the regional network operators' capital requirements. This led to a Framework Agreement in November setting out the conditions under which a capital contribution and thus State holdings in the regional network companies would be possible.

Interconnected

We are building the energy system for the future for everyone and interconnected with everyone, including our supply chain partners and all our 7,700 plus colleagues at Alliander. Together, we are working hard to make changes to processes and the corporate culture to give us the clout and agility that will enable us to fulfil our task in society. In a year full of challenges and changes, we have always been able to count on everyone's professionalism and dynamism, reflecting the intrinsic motivation 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, 6 March 2023

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

About this report

This Alliander annual report looks back on our activities and results in 2022. The primary themes for our integrated report are our value to society, the dialogue with our stakeholders on material topics, and transparency. The annual report was published on 9 March 2023.

Long-term value creation as the foundation

Our value creation model provides the backbone for this annual report. It shows how we use our assets and what that brings to society. We start by discussing our role in the energy supply and our mission. We provide a summary of trends and developments that impact our organisation and show how they are reflected in our strategy. After that, we report on our activities and the value we create in the long term:

- Ensuring a high level of supply reliability at a low cost
- 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
- Being a credit-worthy company with solid returns

The final part of the management report describes the effects of our activities on society (impacts) and our contribution to the United Nations' Sustainable Development Goals (SDG). We also explain our corporate governance structure.

Stakeholder dialogue

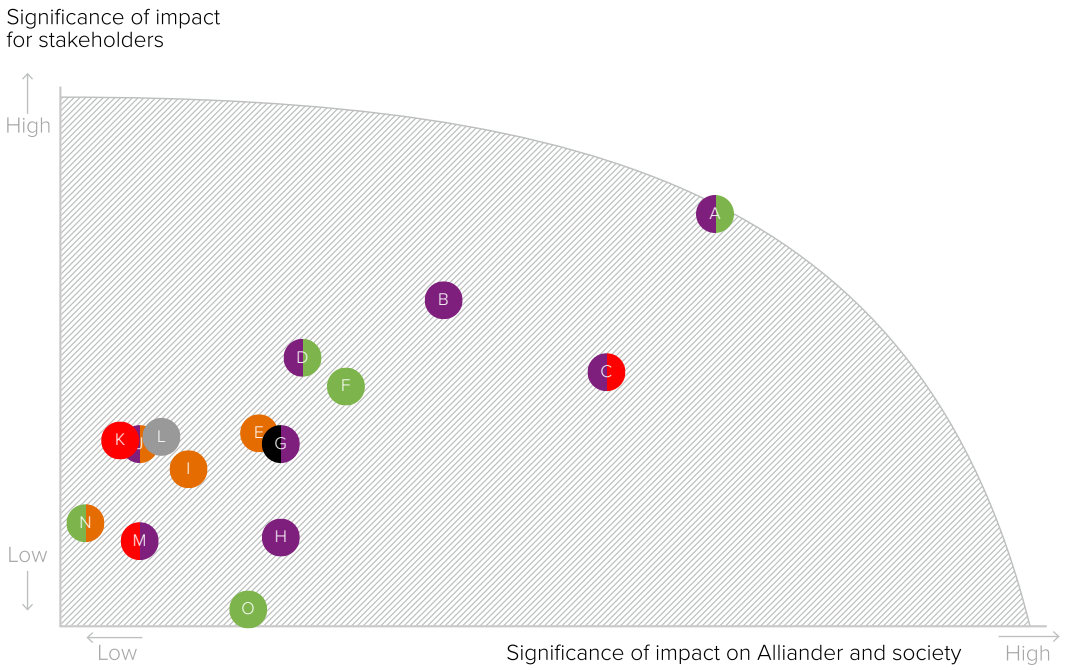
By maintaining an ongoing dialogue with our stakeholders, we stay informed of the trends in society and the expectations stakeholders have regarding Alliander. This gives us the opportunity to work in unison to achieve a timely energy transition and keep energy supplies affordable. In keeping with previous years, a stakeholder panel read the report at an early stage in its preparation. The members shared their findings with us on 19 December 2022, after which we tightened up the structure and content of the report.

Material topics

In 2022, we updated the materiality analysis in line with the Global Reporting Initiative (GRI) Standards. We drew up a shortlist of topics based on desk research and the materiality analysis we had performed in 2021. The topics were validated using international standards, peer and supply-chain analyses and our own risk framework. We noted significant shifts in the impact assessment of a number of topics, such as Completion of Work Package, Working Together on Innovative Solutions and Access to Affordable Energy. Other Environmental Topics is a new entry in the top fifteen. These modifications have no direct consequences for the content of the report because the topics already formed part of it.

The ranking of the topics indicates the extent to which they were the focus of attention, and therefore constituted a priority for Alliander in 2022. 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
- 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
- Being a creditworthy company with solid returns
- 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 Other environmental topics: Circular operations

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
- Dutch Corporate Governance Code 2016
- GRI Universal Standards 2021, report guidelines. The online annual report includes the GRI Content Index.
- United Nations Sustainable Development Goals
- 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)
- Part 9 of Book 2 of the Dutch Civil Code and Annual Reporting Guidelines

Consolidation

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. 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.

Account is taken of the date on which an acquisition or divestment took place when reporting on acquisitions and divestments in both our financial report and in our social impact report. The information in this report (financial and non-financial) includes all the data from the acquisition date to the date of divestment, unless stated otherwise.

The Disclosure of Non-Financial Information Decree and the Disclosure of Diversity Policy Decree are compatible with Alliander's intrinsic value of providing information about certain non-financial aspects and about diversity. Our reporting is accordingly in line with these decrees. For more information on the material aspects of the human rights topic, please refer to the relevant provisions in our Supplier Code of Conduct. Information about ethical business practices is provided in the 'Integrity' section of the Corporate Governance chapter.

Transparency

Alliander operates in the complex dynamics of a rapidly changing energy sector. Like our shareholders, we place great value on transparency. We comply with the Transparency Guideline, the Dutch Corporate Governance Code 2016, and the United Nation's global sustainable development goals (SDGs). Our 2021 annual report earned us a place among the top three for the Financieele Dagblad's Henri Sijthoff Prize.

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.

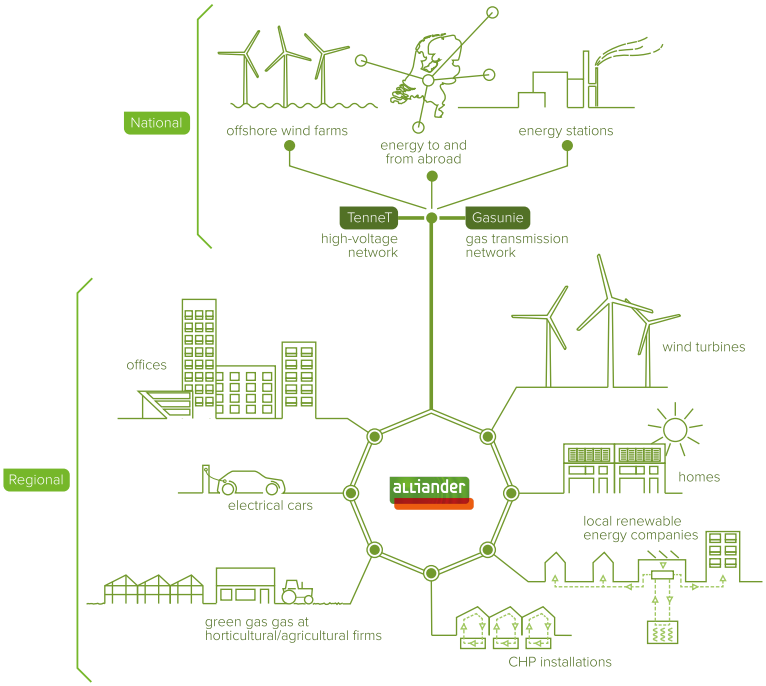
Profile of Alliander

Profile of Alliander

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

Alliander N.V. is a network company comprising a group of companies that employ some 7,700 people (7,300 FTEs) in all, including agency workers. Alliander N.V.'s shares are held by Dutch provincial authorities and municipalities. Alliander exemplifies high-quality network management and extensive expertise in the energy network. 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 system



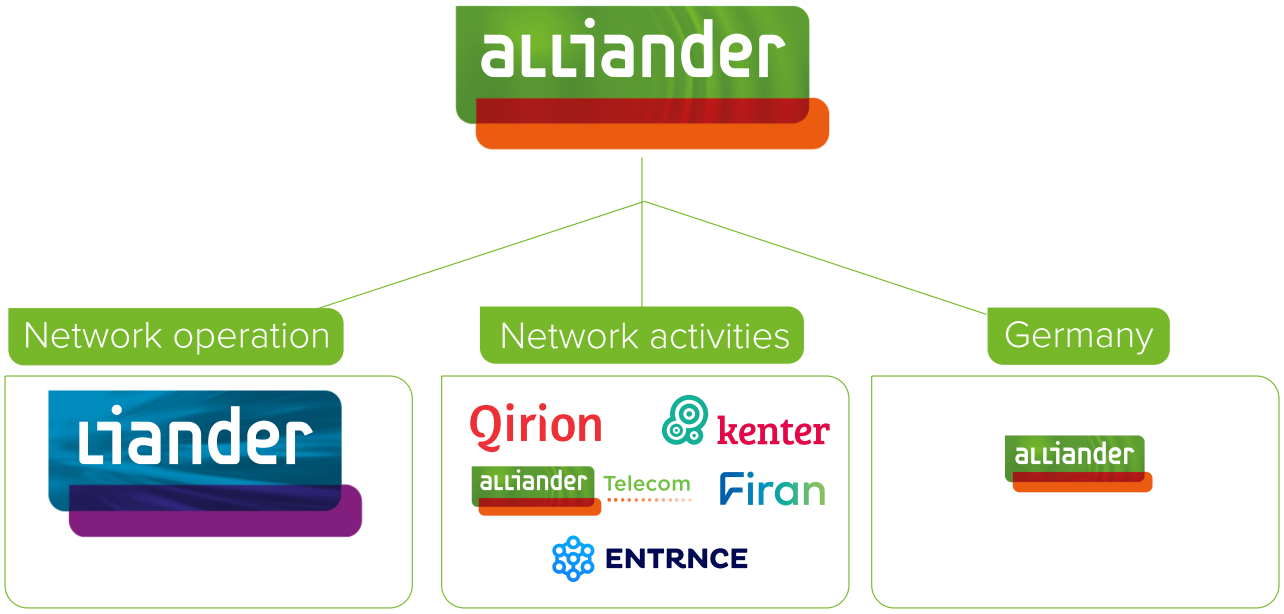
We distribute energy while ensuring maximum safety and continuity. We aim to make sure energy is available to our customers 24 hours a day, 7 days a week. Liander is the network operator and has a statutory responsibility to manage and further develop the gas and electricity networks. We are on-call day and night to deal with outages. The energy we distribute comes from power stations, wind farms, solar farms and imports from abroad, among other sources. More and more consumers and companies are 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.

Alliander and its subsidiaries collaborate with many parties in the energy sector and with organisations that want to drive innovation in the field of energy. We facilitate the local exchange of energy and work in conjunction with public authorities on issues related to the heating transition.

As a co-designer, we provide municipalities, provincial authorities and businesses with knowledge that helps in the long-term development of the energy system. We show them what the energy network can handle and the social costs associated with specific choices. In addition, we help organisations by offering 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
Liander has a statutory responsibility to maintain a reliable, affordable and accessible energy supply in our service area. Liander is on call 24/7 to deal with outages. Liander also develops, designs and manages the energy network. In addition, Liander shares knowledge and expertise with customers and government bodies to collaboratively create the most suitable energy network for everybody in the regulated domain.

Qirion
Qirion is the full-service implementation party for the integrated transmission domain of Liander and TenneT's high-voltage network, particularly in Liander's service area. Qirion designs, builds and maintains energy networks at all voltage levels in the grid.

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. In addition, Kenter is responsible for the sale, construction and management of mid-voltage installations in the free market domain. In 2022, Alliander announced that it was looking for a new owner for Kenter to better position the organisation to realise its full potention for the market and its employees in the energy transition.

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 securing, controlling and reading data from critical network elements and communicating with control centres.

ENTRNCE
ENTRNCE facilitates 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 capability, we give the decentralised markets freedom of choice and lower the entry barriers for the energy market.

Network management in Germany
Alliander AG manages several small electricity and gas networks in Germany.

2022 in figures

Number of customer connections

5.9 million

5.8 million in 2021

Lost Time Injury Frequency (LTIF)

1.7

2.6 in 2021

Number of employees including agency workers

7,369 FTEs

7,044 FTEs in 2021

Electricity outage duration

21.3 minutes

20.9 minutes in 2021

Gas outage duration

59 seconds

44 seconds in 2021

Net CO_2 emissions

116 kilotons

167 kilotons in 2021[1]

Net revenue

2.2 € billion

€2.1 billion in 2021

Investments in property, plant and equipment

1,228 € million

€1,014 million in 2021

Total assets

10.7 € billion

€10.2 billion in 2021

Profit after tax

198 € million

€242 million in 2021

Free cash flow

-603 € million

€25 million in 2021

FFO/net debt ratio

19.2 %

25.8% in 2021

1 *The net CO_2 emissions figure for 2021 has been restated based on the most recent emission factors (2021).*

Liander's service area

Electricity grid length

95,000 km

93,000 km in 2021

Gas grid length

42,000 km

42,000 km in 2021

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 also in a sustainable tomorrow.

How we make a difference for customers

Through our cables and pipes, over three million Dutch households and companies are supplied with electricity, gas and heating. We operate an electricity network of almost 95,000 kilometres in length and a gas network covering some 42,000 kilometres, and we take great pride in our networks being among the world's most reliable. Our colleagues work hard day and night to achieve this.

Reliability

We distribute energy while maintaining 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 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 for 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

2022 was marked by major global developments that had a deep impact on society, the energy transition and the energy system. This inevitably had an effect on the work Alliander does. Having a good understanding of the factors that impact our work – in both the short and long term – is crucial. This section describes the most significant trends and developments that we use to refine our strategy, as described briefly in the next section.

Trend 1: The global energy market has become more unpredictable

The Russian invasion of Ukraine has significantly changed the geopolitical situation. Russia, a major exporter of gas, has gradually been cutting off the gas supply. The disruption to the important gas pipelines Nord Stream 1 and 2 was regularly in the news. Because sufficient gas supplies were no longer guaranteed, an early warning of a gas crisis in the Netherlands was issued in the summer.
The gas price, and as a result the price of electricity, rose to unprecedented levels due to the situation in Ukraine. In addition, the supply of electricity in Europe this summer did not come from the usual producers because there were problems with nuclear power plants in various places. As a result, the price of electricity rose even higher.
The consequences for the Netherlands were clearly visible. Over one million households were at risk of running into financial problems due to the rapidly rising energy prices in 2022. The Dutch government therefore issued energy rebates in November and December and worked on introducing a price cap from 1 January 2023. In this scheme, households and other low-volume consumers pay a maximum price up to a certain amount of energy, which in most cases means their energy bill will be lower.

These developments have led to a twofold picture in the Netherlands: on the one hand the risk of energy poverty has sharply increased, while on the other, people are seizing the opportunity provided by these developments to invest substantially in making their homes or businesses more sustainable, as described in trend 2, and to think more about how they use energy.

Trend 2: Explosive increase in demand for electricity

The effort to make the Netherlands more sustainable is leading to the further electrification of the supply and demand of energy and hence greater demand for network capacity and new connections. The Netherlands has risen rapidly up the European ranking when it comes to generating renewable energy. The significant rise in energy prices and limited availability of alternatives, such as hydrogen, green gas and district heating networks, led to a further acceleration in this electrification in the past year.

Huge increase in industrial e-boilers and large batteries

We find industry is showing increased interest in e-boilers. At the same time, there are companies that prefer to operate on sustainable gases. We see a dilemma emerging: companies differ in the timing of their switch and desirable alternatives are not yet available. The impact of this became more visible last year and was particularly conspicuous in the congestion problems in Limburg, where more than 1 GW of battery power was requested in a short space of time. This trend is now visible all over the country, causing the high-voltage and medium-voltage networks to fill to capacity more quickly. It is one of the most important issues for the coming years: how do we organise things to ensure that infrastructure modifications and sustainability efforts are synchronised such that climate targets can be met?

Despite the enormous increase in the demand for power, the use of batteries is a positive development. Batteries are a key source of flexibility in the energy system. In theory, they can play a part in solving network congestion. In practice however, we see that large-scale batteries actually lead to additional congestion in many places in the electricity network. Our opinion is that batteries should not unnecessarily overburden the network. This means we need to develop solutions for batteries that do not overload the network, or even remove some of the load, or alternatively that we look for places for batteries where there is plenty of capacity on the network.

More electric cars

The number of electric cars will increase to about 1.6 million by 2030. The Dutch Minister for Climate and Energy Policy, Rob Jetten, announced in 2022 that he wanted a faster switch to electric vehicles, including for drivers of lease cars. We are already seeing an enormous increase in the number of charging points, but tens of thousands of additional connections will be needed for public charging points in the coming years to build the charging infrastructure needed – not just for electric cars, but also for buses, logistics services and shipping. Based on scenario analyses, we expect an additional demand for electricity from our stations of approximately 900 MW by 2030. Our advice is to make smart charging compulsory in the Netherlands and we are preparing for this. We ran a trial with flexible charging speeds at public charging points for electric cars as part of our Flexpower3programme. We will scale this up further in the coming years.

Homes are becoming more sustainable, mainly through heat pumps

Consumers are increasingly choosing to insulate their homes and install solar panels and heat pumps as ways of reducing their energy bills. We are seeing a rapid rise in consumer interest in heat pumps. Of the 1.3 million heat pumps in the Netherlands, 70% are in homes. The number of heat pumps in homes has increased by about 50% per year in the past two years.

Trend 3: Energy transition under pressure due to shortage of staff, space and materials

Staff shortage

The number of job vacancies is rising and labour shortages are increasing substantially. It is a challenge for organisations in the energy sector to find staff to do all the work needed for the energy transition. At least 13,000 additional technicians will be needed in the energy sector in the next four years, with Alliander, its contractors and its supply chain partners requiring over 2,500 technicians. At the same time, there are staff shortages in the residential construction sector and in industry. In total, the Netherlands is estimated to have a shortfall of 60,000 technicians. Too few young people are choosing to train as technicians or to apply for a job in the technical sector. The consequences of this are visible throughout the sector.

At the beginning of November 2022, five technical sectors joined VNO-NCW and MKB Nederland in presenting a action plan. This has put the acute shortage of technicians firmly on the political and public agenda. The plan presents a broad package of measures covering the recruitment, training and retention of talented individuals.

Lack of space

As the sustainability process speeds up, realisation is growing that the necessary infrastructure is not always easy to fit into the available public space. Energy will be a key factor in determining spatial planning in the Netherlands in the coming decade, but there is a lack of space both above and below ground in the Netherlands and public support for major infrastructure projects is limited. The underground and aboveground space we require will therefore need to be made available more quickly and with more certainty. This requires, among other things, significantly faster spatial planning procedures for construction and utility-related work. Furthermore, some important projects are currently being delayed due to the nitrogen issue and the revocation of the exemption granted to the construction industry.

Shortage of materials

Geopolitical developments in recent years have made it clear than international supply chains are vulnerable to interruptions. Shortages of raw materials, the imposition of lockdowns and sanctions have made the availability and transport of such items as cables, meters and transformers more difficult. In addition, many production lines are currently running at their maximum capacity. Furthermore, the long-term outlook for the world's reserves of raw materials such as iridium and cobalt will make it harder to meet the global climate objectives.

Impact on Alliander

The above-mentioned trends have far-reaching implications for Alliander. These developments have increased the pressure to speed up the transition to renewable energy generation. Further acceleration is needed in terms of modifying the physical and digital infrastructure. At the same time, this is made more difficult by the increasing scarcity of staff, such as technicians and data specialists, and of materials and public space, both above and below ground.

How is Alliander responding to these trends and developments?

We are an organisation that serves the public. Everything that happens in society has a direct impact on our work. The trends, developments and issues in the world around us affect our strategy, which we have refined accordingly. Our strategy describes how we as a company deal with the challenges of the changing energy system. The current acceleration puts increased pressure on the organisation, and waiting times for connections have increased. Alliander’s strategy is therefore to take a multi-track approach, as explained in the following section.

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. Alliander will continue with the strategic course set in the previous year, but the specific details have been further refined to achieve the required acceleration and to prepare for the developments described in the previous section.

1. Excellent network management

We aim to be an excellent, responsive network operator by fulfilling the wishes of our customers and other stakeholders. Firstly, this involves further optimising the maintenance of the existing networks and investing in providing information to customers.
Alliander is intensifying its collaboration with its customers and stakeholders, including municipalities, to be able to prepare in good time for plans for housing, businesses and charging points. The aim is to be able to ensure at an early stage that we have sufficient skilled employees, materials and physical space to expand above and below ground.
In addition, the scaling up of production will be accelerated by implementing far-reaching standardisation and simplification of processes, for example through digitalisation, so that more can be done with the same number of skilled workers. Collaboration with Alliander's partners will be expanded and large amounts of the work will be contracted out.

2. Support for customers with making choices

Scarcity in the electricity network will increase in the coming years and so we must make efficient use of the available capacity. In particular, we will use smart solutions such as congestion management. In this solution, customers receive a discount for making system-efficient choices (good for themselves and good for the energy system). The developments also require us and our stakeholders to have more control over the design of the energy system across regions. Alliander is a trusted, independent partner for the energy market in such matters and a relevant partner in the energy transition.

3. Investing in open networks

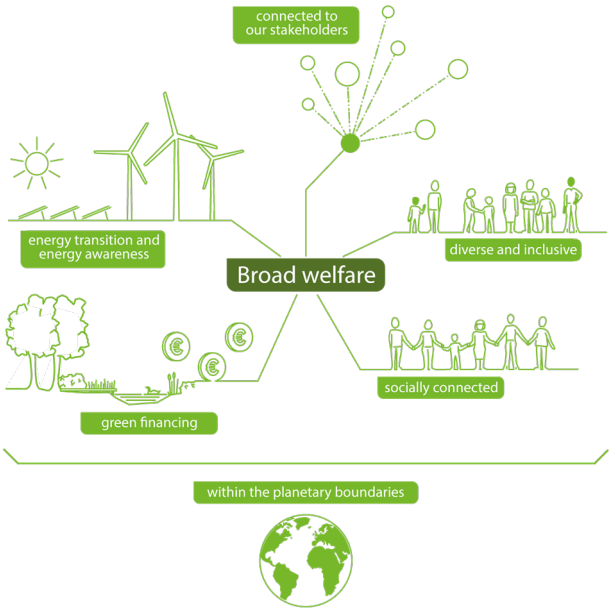
A reliable, affordable and accessible energy system in the sustainable future will consist of multiple energy carriers. In addition to the management of the network for electricity and the current natural and green gases, Alliander acts as an infrastructure manager for various other energy carriers, including district heating and sustainable gases, such as through the reuse of the existing gas network. We exert a proactive and strategic influence over regulatory changes in order to help safeguard the affordability and reliability of the energy network. This means that we ensure balance in the energy supply and an integrated design for regional energy systems. In addition, we are working on an energy network in which optimum use is made of the various energy carriers so that the energy supply for all sectors operates reliably and is affordable at all times of the day and across all seasons.

4. Digitalisation

We are radically accelerating the programmes to digitalise our grids, our work processes and market facilitation through a value-driven digitalisation process supported by reliable and flexible IT. This means that we have real-time information on the network 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 is developed further, and that we contribute to the digitalisation of the energy market.

The 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 and we promote circular network management. As an employer, we invest in future-oriented knowledge, the sustainable employability of our employees and in creating and maintaining an inclusive work environment.

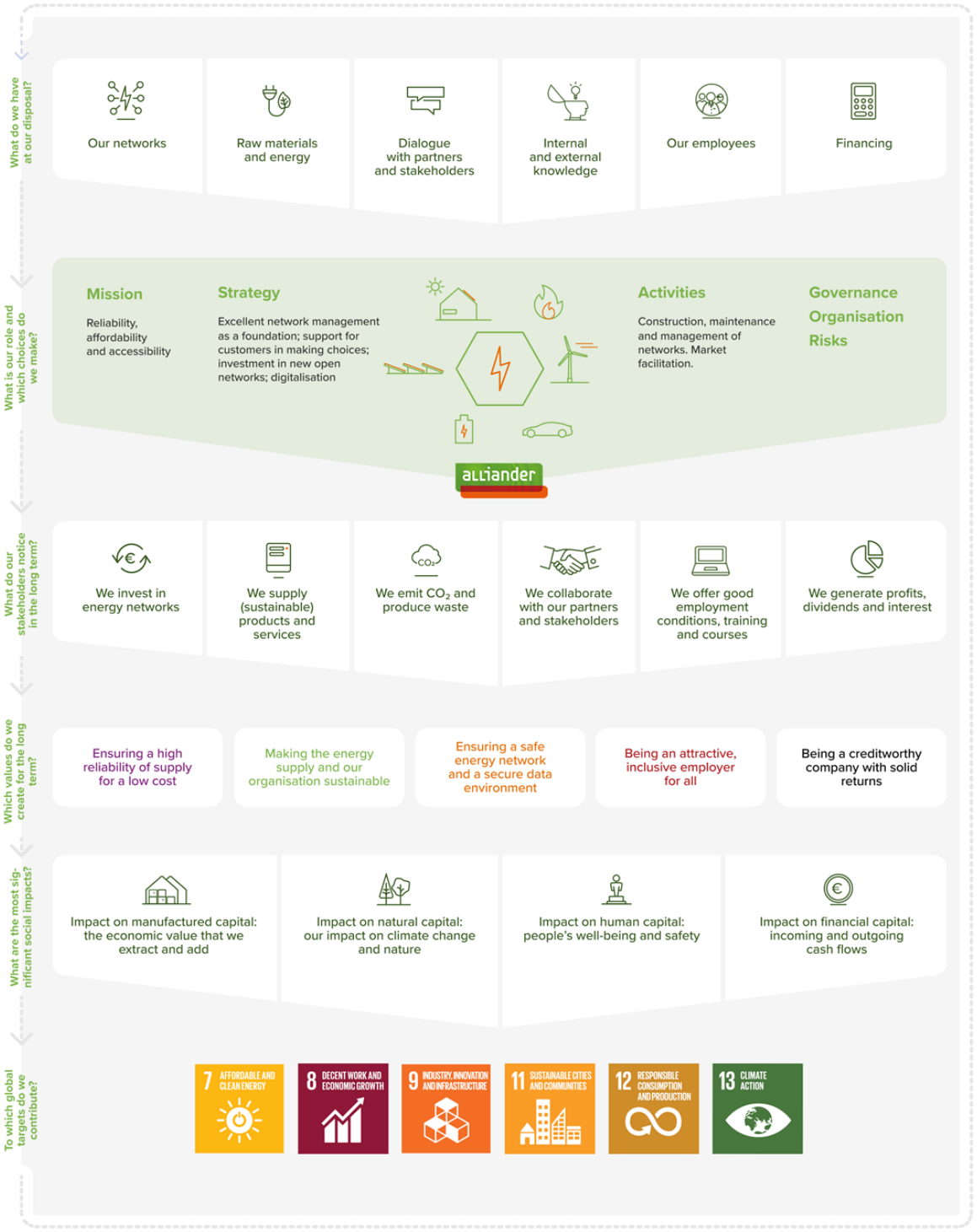


How we create value

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. Please visit the website of SDG Nederland for a list of all the Sustainable Development Goals (SDGs).



Objectives and results

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

Ensuring a high reliability of supply for a low cost

Target for 2022	Performance in 2022	Target for 2023	Strategic objective	Most significant risks[6]
Customer convenience: the measured NES score is higher than 48% (consumers) and 40% (business market).	Customer convenience: Consumer: 49% Business: 34%	Customer convenience: the measured NES score is higher than 48% (consumers) and 42% (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 environment Meeting customer expectations Future-proof investments
Electricity outage duration: maximum 23 minutes.	Outage duration: 21.3[1] minutes	Electricity outage duration: maximum 23 minutes.	High reliability of supply.	
Repeat outages: a maximum of 17 unique cable numbers with more than five outages.	28	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.	

Making the energy supply and our organisation sustainable

Target for 2022	Performance in 2022	Target for 2023	Strategic objective	Most significant risks[6]
Net CO_2 emissions from own business operations: maximum of 116 kilotons (according to sector-wide calculation method).	Net CO^2 emissions: 116 kilotons	Net CO_2 emissions from own business operations: 0 kilotons (according to sector-wide calculation method).	Climate-neutral operations.[2]	Long-term focus of legal and regulatory framework Future-proof IT environment Capacity for change Future-proof investments Meeting customer expectations
Circular procurement: at least 35% of all our primary assets.[3]	Circular procurement: 28%	Circular procurement: at least 31% of all our primary assets.[3]	45% circular procurement in 2027	

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

Target for 2022	Performance in 2022	Target for 2023	Strategic objective	Most significant risks[6]
LTIF (lost-time injury frequency): - [4]	LTIF: 1.7	LTIF (lost-time injury frequency): - [4]	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 2022	Performance in 2022	Target for 2023	Strategic objective	Most significant risks[6]
Employee survey: Engagement a score of at least 81%	Employee engagement: 82%	Employee survey: 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%.	Absenteeism: 4.8%	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.	Women in managerial positions: 28.3%	Women in managerial positions: at least 32% of all managerial positions.	By 2024, at least 33% of our managerial positions will be held by women.	
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.	People with poor employment prospects: 90[5]	People with poor employment prospects: offer at least 154 apprenticeships. We aim to provide a minimum of 154 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. We will meet the requirements of the Dutch Labour Participation Quota Act by 2024.	

Being a creditworthy company with solid returns

Target for 2022	Performance in 2022	Target for 2023	Strategic objective	Most significant risks[6]
Credit rating: Maintain solid A rating profile.	Credit rating: 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 focus of legal and regulatory framework Ability to obtain financing Future-proof investments
FFO/net debt: at least 15%.	FFO/net debt: 19.2%	FFO/net debt: at least 15%.		
Interest coverage: at least 3.5.	Interest coverage: 12.1	Interest coverage: at least 3.5.		
Net debt/(net debt + equity): maximum 60%.	Net debt/(net debt + equity): 43.8%	Net debt/(net debt + equity): maximum 60%.		
Solvency ratio: at least 30%.	Solvency ratio: 49.0%	Solvency ratio: at least 30%.		

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 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).

3 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.

4 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.

5 The number of employees with poor prospects in the labour market comprises 90 jobs created under the Dutch Participation Act, amounting to 73.2 FTEs.

6 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 of our energy networks, making them among the most reliable in the world. In 2022, the reliability of supply remained at this extremely high level. Our ability to connect customers on time and expand the grid is under pressure due to the shortage of technicians and materials, the acceleration of the energy transition, the lack of space in the Netherlands and the increasing demand for electricity. Because of this, we are working on ways of reducing demand for power, making better use of our grids and completing more work.

Related topics

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

Material topics	SDGs	Stakeholder groups
A) Facilitation of the 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) Organisational capacity for change	7 AFFORDABLE AND CLEAN ENERGY 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 11 SUSTAINABLE CITIES AND COMMUNITIES	Customers Shareholders Investors

Objectives and results for reliability of supply

Customer convenience rated by consumers

49% 2022 result

≥ 48% 2022 objective

51% in 2021

Customer convenience rated by business customers

34% 2022 result

≥ 40% 2022 objective

38% in 2021

Electricity outage duration[1]

21.3[1] 2022 result in minutes

≤ 23.0 2022 objective in minutes

20.9 minutes in 2021

Cable numbers with >5 interruptions

28 2022 result

≤ 17 2022 objective

22 in 2021

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 changing energy system

Our society is experiencing great uncertainty. The war in Ukraine is affecting the security of energy supply, causing higher energy prices, rising inflation and possibly a recession. The rising energy prices are prompting our customers to electrify more quickly. In addition to these recent developments, we continue to face other challenges to the energy supply that have been affecting our organisation for some time. One example is digitalisation and the growing need for data centres. Furthermore, the government aims to build 900,000 additional homes by 2030, around 300,000 of which will be in Liander's service area. There is also growing pressure to become more sustainable. For example, it is government policy to reduce CO_2 emissions by 60% by 2030, with a minimum of 55%. In Europe, the Netherlands has the most solar panels per inhabitant.

The energy transition will change our energy system from a central system, in which the generation of energy adapts to demand, to a more decentralised system in which demand adapts flexibly to the energy generated. This shift requires new concepts and solutions for the efficient management of the energy system. The rise in the number of controllable devices can reduce the load on the local grid through their combined responses, but can also cause large, unforeseen overload peaks leading to outages. The network management needs to find a good balance between market stimuli on the one hand and stimuli driven by the required local grid capacity on the other. Flexible transmission capacity, differentiation in tariffs and encouraging local alignment between supply and demand in energy communities and energy hubs are solutions we want to develop as a solid basis for parties to invest in making their energy demand or energy generation flexible and efficient.

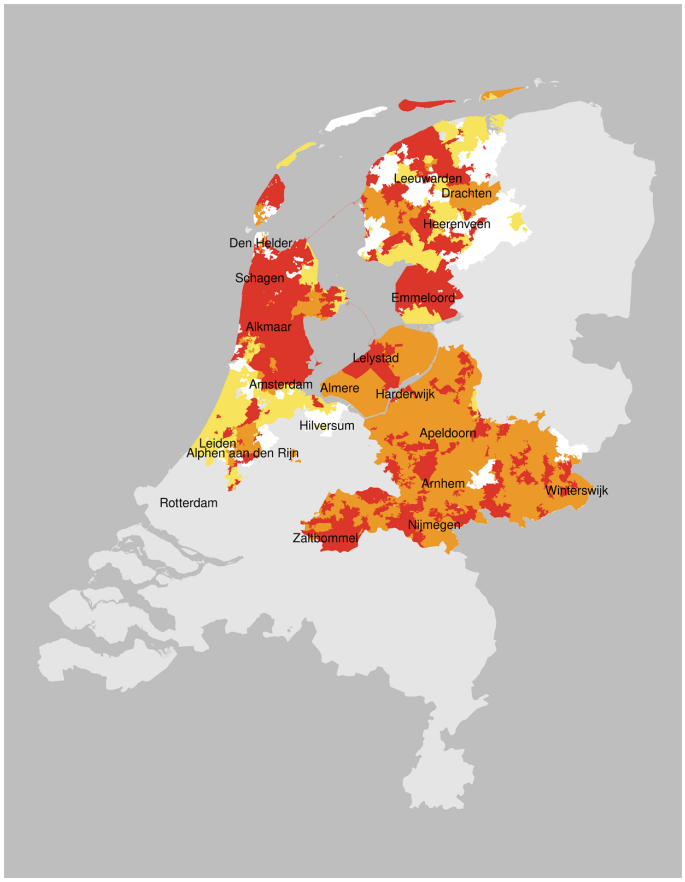
Besides the fundamental change in our electricity system, the heat transition will also have a major impact on the required network capacity, certainly during cold winter days. Controllable hybrid heat pumps introduce substantial flexibility into the energy system's winter peak demand: because they can switch to electricity, they will stabilise the system when there is little demand for electricity or if the power grid becomes overloaded. Although a hybrid heat pump is often viewed as a transitional solution, it could be an excellent final solution in a future flexible and sustainable energy system, certainly once natural gas is replaced by a sustainable gas such as green gas or green hydrogen.

Bottlenecks in the power grid

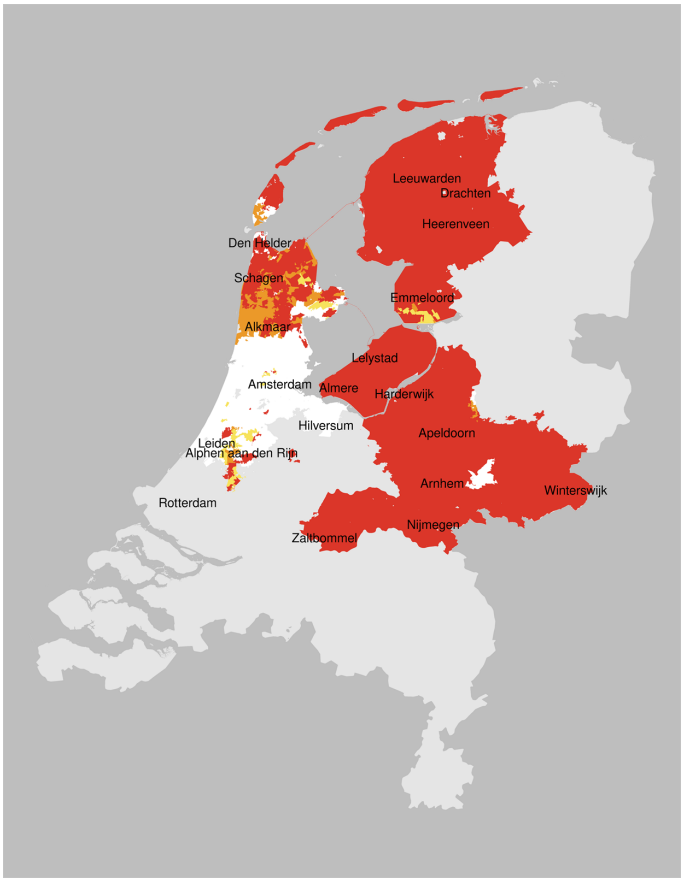
The energy system has to be modified to give customers the best possible service, but not everything can be done at once. That is why we publish investment plans that stakeholders can comment on. We communicate proactively about bottlenecks in the power grid. An example of this is the congestion maps for supplying electricity and feeding it back into the grid that Liander and other network operators publish periodically. They enable our stakeholders to adjust their plans accordingly. In this regard, Liander recommends always first consulting the network operator about what is possible.

Bottlenecks in the Dutch power grid emerged in more and more places in 2022. 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 businesses and organisations have to wait for access to the power grid or additional power. The maps below show the regions where transmission capacity for energy consumption (on the left) and generation (on the right) by high-volume consumers was scarce at the end of 2022.

Maps showing regional transmission scarcity



Scarcity affecting consumption



Scarcity affecting generation

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

In 2022, the congestion in the electricity network started to affect households and smaller companies. The low-voltage grids in residential areas are becoming increasingly congested, while capacity remains the same. Society as a whole is becoming aware of this because feeding back sustainably generated electricity to the grid is no longer always possible, while it is taking longer to expand the grid.

Unfortunately, we are finding it more and more difficult to comply with our customers' planning schedules. This is something we regret. We are doing everything we can to keep to planning schedules but the reality is that we cannot always do so.

Investments in the energy network

Last year, Alliander once again carried out more work than in previous years. In one year, we laid 2,457 kilometres (2021: 2,271) of electricity cables and gas pipelines (+8%). Investments in 2022 totalled €1,228 million.

Investment breakdown

In € million	Electricity	Gas	Other	Total
Noord-Holland	247	47	-	294
Amsterdam	131	61	-	192
Zuid-Holland	88	21	-	109
Gelderland	334	56	-	390
Friesland	105	10	-	115
Flevoland	90	4	-	94
Other[1] (mostly Kenter, Alliander AG and warmth)	-	-	34	34
Total	**995**	**199**	**34**	**1,228**

Coordination and collaboration

The energy network is undergoing huge alterations. We are having to deal with completely new ways of generating energy and forms of demand for energy, in new places in the landscape and in the energy system, with many new players entering the field. We also have to take account of some very complex issues. Which forms of energy best match which sustainability tasks? How do we safeguard individual freedom of choice while still finding solutions that are good for society as a whole? How do we keep everything affordable for individuals and society? How do we slot in sustainable energy to make optimum use of the space in the Netherlands optimally while developing an accessible, affordable and sustainable energy system? How do we create new local partnerships in which supply and demand for energy is locally aligned? The extent and complexity of these issues require coordination of the choices that are made and intensive collaboration to implement new concepts.

The Dutch government's National Energy System Plan (NPE) is an important step towards a coordinated approach to the energy system. Such a programme is needed not only nationally but also regionally and locally. Alliander believes it is our social duty to be actively involved in the design of the energy system. As a public partner and key player in the energy system with vast knowledge of that system, Alliander is well positioned to collaborate with our stakeholders and find the optimum arrangement in good time. This is important because energy infrastructure places major demands on the available space, the costs are borne by everyone and we have to deal with scarcity of materials and technical staff. It means that choices have to be made regarding the future energy system and the speed of its implementation. Last year, we laid the foundations for regional programming in conjunction with provincial authorities and municipalities. This is intended to lead to regional energy vision documents in our service areas in 2023. In drawing them up, we join public authorities and the business community in looking at the regional development of mobility, industry and the built environment, the development of the collective energy demand, the optimum mix of energy carriers to meet this demand, the required investments in infrastructure, availability of space and the timelines within which all this can be achieved. In this way, we and our stakeholders are trying to make the best choices for society and the energy system. At the same time, we seek to structure the approach to the transition, because not everything can be done at once. We are doing this for instance by providing the optimum wind-solar power ratio or the clustering of large-scale supply and demand for energy as input for the Regional Energy Strategies (RES). In the Transition Vision Statements, we propose what we have reasoned are the most appropriate heat alternatives per area in view of the future energy system. We are also working closely with municipalities and the business community to launch new solutions and put them into practice. Examples include bringing parties in a certain area together to jointly develop an approach to align supply and demand for energy locally.

Firm coordination, local flexibility

In conjunction with the Netherlands School of Public Administration (NSOB), in 2022 Alliander published the article 'De Stroom Zoeken; de energietransitie bezien vanuit ecosyteem perspectief', which sets out our view that coordination and collaboration must be accompanied by steering aimed at setting a new course.

How we are working on the changing energy system

To resolve the bottlenecks, Alliander, Stedin and Enexis will invest some €30 billion in expanding and upgrading the network in the period up to 2030. In 2022, Alliander invested €1,228 million, mostly in extending and strengthening the power grid. It is our ambition to help make the Netherlands more sustainable by 2030 by upgrading or expanding our energy networks and using them smartly so that we can meet our customers' demand for capacity without making concessions on affordability, reliability and accessibility. To bring the capacity of the energy networks in line with our customers' demand, we are working on three ways of making the energy system future proof:

- Reducing demand: we are focusing on the further development of an efficient energy system;
- Making better use of the networks: we will use existing energy networks more efficiently;
- Carrying out more work: we are increasing our production.

Reducing demand

The energy transition is a complex system change. To be able to have a sustainable energy system in place by 2050, we need to do more than simply replace fossil fuels with renewable energy generation. The transition requires significant energy savings, a change in behaviour, greater flexibility in energy supply and demand and a clear sequence in the transition process. We are helping our customers to make choices that enable a reliable, affordable and accessible sustainable energy system. This lets us handle energy efficiently and flexibly and reduce demand for scarce space, materials and resources. We are doing so by investing in mobilising changes in behaviour and greater energy awareness. We are raising energy awareness among our customers and in society at large by providing information that end users can use to make choices which benefit the energy network. The majority of end users actively help optimise energy

consumption, generation and storage for the benefit of the public interest. One of the areas we are investigating is behind-the-meter energy management, to enable the increasingly flexible capacity behind individual meters to be optimised and used with no loss of comfort for the customer. Moreover, we help municipalities and provincial authorities with energy-related spatial planning so that system-efficient spatial design choices can be made at the regional level and transition pathways can be developed with a focus on optimum use of energy carriers and solutions within the energy system.

Integrated programming

Noord-Holland-Noord is one of the regions where we are developing integrated programming for the energy system of the future. As such, this region is leading the rest of the country. In conjunction with public authorities and other stakeholders, we went through a process in design studios where we designed the energy system of the future, taking the existing sectoral spatial plans and future scenarios for the energy system as our starting point. We presented the intermediate results in the summer of 2022: these form the basis for an assessment framework for public authorities that will help them to set priorities when expanding energy networks and for other spatial developments. For example, network expansions which simultaneously solve several local bottlenecks or which enable residential construction can be tackled ahead of other projects. In addition, an initial elaboration has been performed of development pathways for the five hotspots in the region, looking into how the energy system in an area like this could evolve in the coming years. The development pathways describe the region in 2035 and the route to get there, including significant decision points. In this process, we contribute our knowledge of the energy system and help public authorities to take control of important assessments and decisions about the energy system of the future in their regions.

Better use of networks

In many cases, Liander's power grid is not being used as well as it could be, which is why we are making major efforts to make better use of the existing infrastructure. We are doing so partly by extending the capacity limits of the existing cables and transformers, and partly by making use of our customers' flexibility to improve the effectiveness of the energy network. One way is to first use the energy generated ourselves or to store it before it is fed into the grid. If production, storage and consumption take place locally, far more capacity will be available for new projects. We made great strides in introducing flexibility in 2022.

Stretching capacity limits

There is a limit on the transmission capacity of all cables, transformers and pipelines, but this limit depends on many different variables. When calculating the capacity of a transformer, for instance, we take account of the maximum outside temperature that can occur, for example 40 degrees. But if the main demand for energy is in the winter, the effective capacity limit of such an installation can be increased, enabling us to connect additional customers to the grid. We plan to look at all our assets in 2023 to see how we can responsibly extend the limits further.

Introducing flexibility for a more efficient use of the network

Congestion management

Congestion management is used to allocate the limited space in the power grid. This is done when the demand for transmission of electricity is greater than the power grid can cope with. We ask high-volume consumers and major producers of electricity to temporarily take less electricity from the grid or, alternatively, to feed more electricity into the grid. We then allocate the additional capacity this creates on the grid to the customers who are waiting for additional power. New rules for applying congestion management were introduced in 2022, as a result of which regional network operators such as Liander can use this system more often. For example, Liander, in partnership with a local business, has created additional capacity on the congested power grid in the Schenkenschans business park in Leeuwarden by scaling back the demand for electricity from the bio-LNG installation at Energiecampus Leeuwarden (ECL) during peak periods. This has created capacity on the grid and eight businesses on the waiting list have been able to get the electric power they want. The business involved in the scheme receives a payment funded from our tariffs. This is one of the ways we can all contribute. The contract will run until the new electrical substation in Leeuwarden is ready, this is expected to be at the end of 2027. We intend to use congestion management in many more places in the coming years in order to create more capacity on the grid. At this time, we are using congestion management to make more capacity available at larger substations, in the future future we also want to use congestion management on a smaller scale. For this to be possible, it is important that the connected companies invest in making their business processes flexible, for instance by making use of batteries. This is necessary because of the fluctuating supply of renewable energy.

Local energy systems

A local energy system is essentially a group of customers ('community') that exchange energy with one another. Such systems are subject to European legislation. These local energy systems partly arise from ideological motives – support for the energy transition, sustainability and autonomy – and partly from pragmatic considerations, due to transmission scarcity, for example, and the opportunity to save on energy costs. One example of this is Schiphol Trade Park, a business park being developed near Amsterdam Schiphol Airport. Various substations in the region are at maximum capacity. In order to be able to provide power to businesses, we started an experiment last year with what is known as a virtual grid. This makes it possible for businesses without power capacity to utilise the unused capacity of businesses that have excess capacity. By measuring supply and demand in real time in the virtual grid, businesses connected to it can share the available capacity and make use of the available capacity. Up to 90% of all the businesses' demand for electricity (whether or not they have excess capacity) can be supplied from the grid in this way. Additional elements in this solution are flexibility from energy storage, generators and solar panels. It is still at an experimental stage and requires a lot of customisation. Obviously every location is different, but in the coming year we will work on further upscaling local energy systems to resolve or prevent congestion.

Roll-out of customer products in 2022

We rolled out three smart customer products on a small scale in 2022. Two of these solutions have enabled us to offer businesses in congested areas a temporary solution, in that they have been able to consume or feed in energy outside of peak times. The third smart solution makes it possible to utilise the reserve capacity in the grid, also known as the emergency capacity, for feeding in renewable energy. A brief description of these three smart products is given below.

Time-limited capacity

Where a transmission limit has been imposed on our customers, the time-limited capacity solution includes a solution which enables them to be admitted to the grid earlier. In such cases, we make agreements with our customers about the hours in which they may make use of the transmission capacity they require. For example, a solar farm that installs a battery to enable energy generated during the day to be stored and fed into the grid in the evening can be connected to the grid several years earlier than before. We started offering and rolling out this solution on a small scale in 2022. A total of 40 customers have now been offered this solution, and 14 of them have accepted it. We expect to scale up the roll-out further In 2023.

Dynamic feed-in

Dynamic feed-in is a smart solution that is particularly interesting for connections that want to feed back into the low-voltage and medium-voltage grid with a connection up to 2 MVA. If a transmission limit is imposed on these customers because the voltage on the power grid is becoming too high, dynamic feed-in makes it possible to arrange active and reactive power to avoid this limitation. Such customers can then be admitted to the grid earlier. The greatest potential of this solution is in rural areas at the end of the cable, because this is where voltage bottlenecks mainly occur.

Use of emergency capacity (using DER)

Most parts of the power grid have reserve capacity that can be used during outage situations and maintenance to ensure that electricity still remains available. This emergency capacity is therefore very important for reliability but is used on average only one to two weeks a year. Customers who want to feed electricity in may also be connected to this emergency capacity. This means that they can feed electricity in, just like any other customer, but they have to scale back or switch off production during outage situations and maintenance. The Distributed Energy Resources (DER) device enables us to give producers of wind and solar power access to the emergency capacity. A special DER team currently offers the solution to customers with an existing connection. We will scale this up further in 2023.

New tariff models and contract types

We are working on new tariff models and contract types due to the increased volatility of electricity prices. We are encouraging their use at individual, regional and national levels. In 2022, Liander received requests for some 1,000 MW of transmission capacity for batteries (2021: approximately 100 MW). If we connect these batteries in the conventional manner, this would adversely affect possibilities for other connections. In consultation with market parties, we have therefore accelerated the introduction of different connection terms and conditions for integrating large-scale batteries. These conditions mean that contractors cannot charge their batteries during peak demand and cannot discharge them if too much is being generated. In exchange, they receive compensation or pay a lower grid tariff. We expect to conclude the first contracts in 2023. Eventually, anyone who applies for a large-scale battery will be given such a contract. Different forms of connection terms and conditions are now being tested, including capacity-limiting contracts and alternative transmission rights (non-firm Transmission Connection Agreement).

Innovation

We worked on various innovative ways of making better use of the power grid in 2022:

Smart charging for electric cars

Smart charging is needed for the large-scale integration of charging infrastructure. The Flexpower3 pilot project in Amsterdam was completed at the end of 2022. This trial involved using flexible charging speeds at public charging points for electric cars. The charging speed varies depending on the total number of cars charging at a particular moment and the capacity available on the power grid at that moment. The results of the trial showed that smart charging will enable three to four times the number of charging points to be installed within the limits of the existing power grid. The concept will be followed up in the national scaling-up programme Smart Charging for Everyone.

Prerequisites for flexibility

A number of prerequisites need to be satisfied before flexibility can be introduced to make better use of the grid. We are working hard on these prerequisites. We are installing measuring equipment at many more places in the grid to obtain real-time information about the energy flows through our grids. Furthermore, we are developing the knowledge, software and capabilities to be able to regulate these energy flows, for example, by using a real-time interface to scale back solar panel energy generation during a major production peak. We are also providing access to data and sharing it with market parties and other stakeholders to enable them to respond better to fluctuations in the energy markets and the load on the grid.

Using hydrogen

Sustainably produced hydrogen is an important part of the envisaged future 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 decisions about hydrogen. When making changes to the gas network, we want to ensure that the network is ready for the introduction of hydrogen. We want to learn how to effectively use our existing gas networks for this purpose. We are exploring this for example in projects in Lochem and Oosterwolde.

Execute more work

To achieve the energy system of the future, production will have to increase even further. This means investing in solutions aimed at increasing capacity by installing more than 20,000 transformer substations, building 56 stations, upgrading 100 stations, laying 40,000 km of cable, replacing 1,200 km of gas network and creating some 100,000 public heating network connections in existing buildings in the period to 2030. This will require us to develop and steer innovative, integrated and cost-efficient solutions, using various approaches.

Joint planning to carry out the work

We are working intensively with our public-sector partners to shorten the completion time for the energy infrastructure. We have set up task forces in Noord-Holland and Amsterdam to jointly coordinate the expansion of the energy infrastructure. We also discuss and agree projects with our stakeholders to ensure that expectations and responsibilities for keeping to the schedule are clear to all parties. Our proactive communication about planning in the region helps us to offer our customers prospects.

Proactively organise people, materials and services in a timely manner

We are able to smartly secure more labour capacity by offering large, long-term work packages using innovative approaches. This lets us complete the work more efficiently, faster and with more stability. We aligned our organisation accordingly in 2022. One example of this is the expansion of the Lelie (NuLelie) grid in Friesland and the Noordoostpolder. Liander contracted three contractors/consortia for this sizeable programme, each of which is responsible for a range of projects in a subarea. The chosen contractors will prepare the work, lay cables and install transformer substations throughout the region in the coming years. The right procedures have to be followed in each municipality to obtain permits and buy land. Liander always carries this out in close collaboration with the relevant municipality. Furthermore, in 2022 we started working on tendering procedures that ensure more equal relations and better prospects in our collaborations, whereby the scaling up of the labour market and working innovatively become part of how we contract material and component suppliers and contractors. The improved prognoses underpin our overall tendering calendar. In partnership with suppliers, we were able to limit the impact of material scarcity on our production last year. The improved prognoses, the long-term overview of developments in the market and the creation of buffer stocks for four to six months of the most critical materials – distribution transformers and cables – also increased the security of the supply of materials and components.

Recruit technicians and adopt smart training

We continue to relentlessly invest in the necessary scaling up of the number of technicians so that we can carry out more work. Increasing the recruitment, training and retention of technicians is at the heart of this. We mainly invest in specific, condensed training courses. Modular training programmes in which theory and practice are more closely aligned are being developed for technicians, foremen and engineers. These programmes will be a better match for their knowledge, experience and learning needs and enable them to be deployed more quickly. The Technology Action Plan is also a significant step towards ensuring sufficient staff for the sector as a whole. Public authorities, employers' organisations and technical sectors are working together in this programme to attract, train and retain talented technical workers. The planned labour matching platform is expected to help significantly in matching supply and demand, thereby increasing recruitment and widening the human resource pool.

Simplifying, innovating and digitalising work processes

Technical labour capacity is and will remain scarce, which makes it a continuing obstacle to carrying out more work. Consequently, we are also looking for a solution on other fronts. Examples include simplifying, innovation and digitalising, so that we can more effectively deploy the capacity we do have. Alliander is working with the sector on many initiatives in this area. One example is the compact connection module. This is a new plug & play component for network operators with which objects in the public space, such as a charging point or street lighting, can be connected faster, more safely and even without the use of tools. Such innovations are needed to be able to do more work in the same amount of time. Process innovations such as these will make the total task less labour intensive and less complex.

Development of district heating networks

Our public heating networks ensure optimum deployment of renewable sources for the lowest costs to society and with transparent prices for consumers. The approach encourages the development of new, local sources of heat and the further greening of the network. The collective system provides access to the full potential of locally available sustainable sources, such as aquathermal energy, residual heat from data centres, biomass and geothermal energy. In 2022, we joined our subsidiary Firan in developing district heating networks in various municipalities.

- In conjunction with the municipality of Montferland and the Plavei housing corporation, we connected 222 rented homes in the Bloementbuurt district of Didam to a modular district heating system in the period up to spring 2022.
- In Zaanstad, we connected the regional safety office and part of the new residential area of Oosterzijderpark to the district heating network.
- In Harderwijk, we started constructing a district heating network with aquathermal energy for the new Waterfront residential area.
- We concluded a partnership agreement to develop a district heating network for the district of Helbergen in Zutphen in conjunction with the municipality of Zutphen, the housing corporation ieder1, the energy cooperative ZutphenEnergie and the Directorate-General for Public Works and Water Management.
- Wijmakenenergie in Apeldoorn was selected last year as the heating supplier for the future district heating network in the district of Kerschoten.
- In conjunction with the municipality of Amsterdam, housing corporations and other partners, we are exploring the possibility of connecting old and new buildings to a district heating network in various locations in Amsterdam.

Collaboration to take the local heat transition a step further

An important milestone in the local heat transition will be the setting up of the Gelders Warmte Infra Bedrijf, which was provisionally agreed by the Provincial Council in 2022. In creating this public organisation for district heating infrastructure, the Province of Gelderland, Alliander, Oost NL and seven municipalities in Gelderland will lay the foundations for accelerating the development and construction of local district heating networks in Gelderland.

Changes to the law

Alliander's activities, and particularly those of Liander, are heavily regulated by legislation and regulations. These rules often predate the energy transition, and there is an urgent need for a legislative framework that will help to realise the transition. Alliander is consulting with relevant stakeholders to work out the details of the legislation required for the energy transition.

Integrated Energy Act

The current Electricity Act and Gas Act are set to be modernised and merged in the new Energy Act. The act is expected to come into force in 2024. Alliander endorses the objective of the Energy Act, which is to create an integrated and future-proof legislative framework for the energy system. An area that requires attention is how the Energy Act can be quickly amended in response to the rapidly changing challenge: the act must take account of the current situation and tightened European regulations, while also anticipating the flexible and digital energy system of 2030.

The new Energy Act sets out a solid framework, but the success of the energy transition depends on further detailing in key areas. An integrated energy system that incorporates new energy carriers such as hydrogen, and includes flexible solutions, is of great social importance, however the law does not yet provide for this adequately. In its consultation response, Netbeheer Nederland therefore urges rapid elaboration of secondary legislation, even before the bill is presented to parliament. Developments continue to emerge at lightning speed and 2030, although a few years away, is actually 'tomorrow' in terms of energy infrastructure construction. Furthermore, there is a pressing need for 'rules of play' to facilitate the process of drawing up socially responsible plans in conjunction with public authorities and other local players.

Changes to connection time rules

The ACM wishes to give large-volume and small-volume consumers maximum clarity about when they will be connected to the electricity network. However, Liander is obliged to find a balance in the work package in the face of the exponentially increasing demand for network capacity and the restrictions caused by limited labour capacity and space. The proposal by the regulator to introduce reasonable connection times for our customers primarily emphasises connecting all customers within a reasonable period of time. This limits the options for network expansions, which are urgently required in the coming years. The network operators are working together with all supply chain partners to find long-term solutions. By implementing major expansions now, we can ensure that connections can be realised more easily in the future. We are continually optimising work processes, and by working closely with stakeholders and supply chain partners, we can ensure a targeted response to future demand.

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. While we are already working on open district heating networks, this process can only really accelerate once the new Heating Act comes into force. Legislation should be supportive of the accelerated roll-out of district heating networks, while also ensuring that consumers are properly protected. In the context of the proposed Collective Heating Supply Act, which will be presented to the Dutch parliament in late 2023, the government is investigating the possibility of bringing most of the district heating networks into public ownership. To implement this, a number of crucial conditions must be met first, including financing, sufficient labour capacity and appropriate legislation and regulations, to allow network companies to make a significant contribution to the heating transition.

Heating Transition (municipal instruments) Act

The proposed Heating Transition (Municipal Instruments) Act was published for consultation in early 2022 and will be presented to the Dutch parliament in early 2023. The objective of the act is to amend the Gas Act and Environment & Planning Act and to give municipalities the authority to designate specific districts where a sustainable energy supply will be introduced to replace natural gas (the authority to designate). This implies that the network operator's existing natural gas transmission obligation and authority in that particular residential district will expire after a certain date. The act is expected to come into force on 1 January 2024.

ACM enforcement waiver order for hydrogen project in Lochem

As hydrogen is expected to play an important role in the sustainable energy supply of the future, the network operators wish to gain experience with hydrogen distribution. However, there is currently no legislative framework governing the hydrogen-related activities of network operators. In anticipation of the required legislative amendments, the ACM published the Temporary Framework for Hydrogen Pilots in 2022. Based on this framework, the ACM issued an enforcement waiver order on 20 October 2022 that permits Liander to distribute hydrogen to households in Lochem.

Environment & Planning Act

The minister for Housing and Spatial Planning wants the Environment & Planning Act to come into force on 1 January 2024. Alliander intends to comply with the Environment & Planning Act and the underlying decrees and regulations and to actively work with the authorities to deploy instruments under the new environment and planning legal system that directly help us fulfil our task. We are actively working to ensure compliance with the Digital System for the Environment & Planning Act.

Flexibility and tariffs

Alliander is working with the sector on various initiatives to use available network capacity as efficiently as possible at times when more transmission capacity is available. This must be supported by legislation and regulations. Proposals for rule changes were therefore submitted in 2022 that would allow alternative (non-firm) transmission rights to be offered to ensure that customers can no longer claim the right to contracted but unused transmission capacity ('use it or lose it'). The network operators have collectively proposed a framework for the use of large batteries to reduce network congestion. This deployment framework will be worked out in greater detail in the coming period in consultation with the relevant stakeholders.

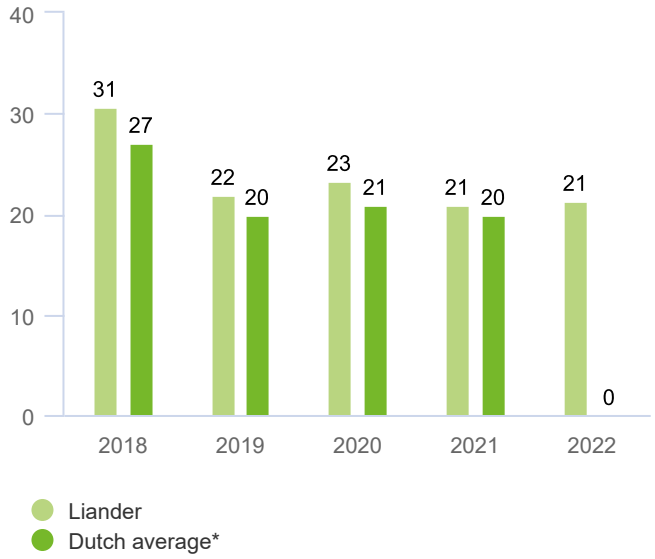
National Network Congestion Action Programme

In 2022, Alliander worked with the other network companies, public authorities and market parties on a National Network Congestion Action Programme. The programme was presented to the Minister for Climate and Energy Policy at the end of the year. It contains three priorities: accelerated expansion of the network, greater focus on making better use of the network and increasing the flexible capacity. The actions will be developed further under the leadership of the Ministry of Economic Affairs and Climate Policy in 2023. The network companies and authorities are also working on a programmatic approach to developing the energy system. This approach focuses on aligning the future demand for and supply of energy. On this basis, decisions must be made about the associated energy infrastructure – what must be built where and when?

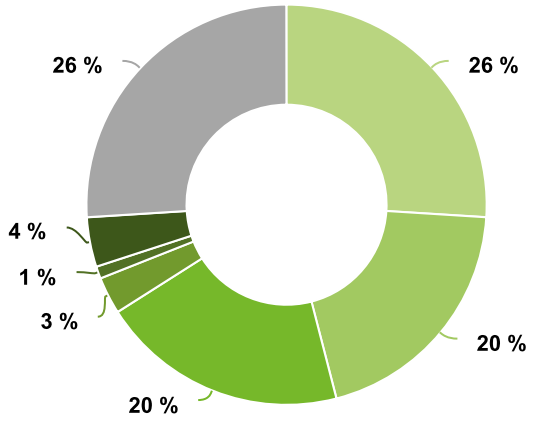
Excellent network management

Supply reliability of the electricity grid

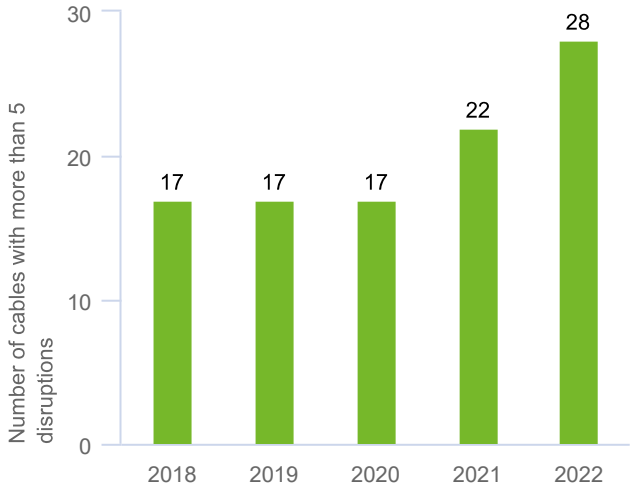
In 2022, our customers were without electricity for an average of 21.3 minutes (2021: 20.9 minutes). This rise reflects an increase in medium-voltage grid outages during the hot summer period. At the same time, the average duration of each individual power outage was shorter than in 2021, making the annual outage duration only a little higher compared to 2021. The number of repeat outages in 2022 was 28, partly due to an increase in the number of outages, excavation damage and dormant outages.



* The average for the Netherlands in 2022 is not yet known.



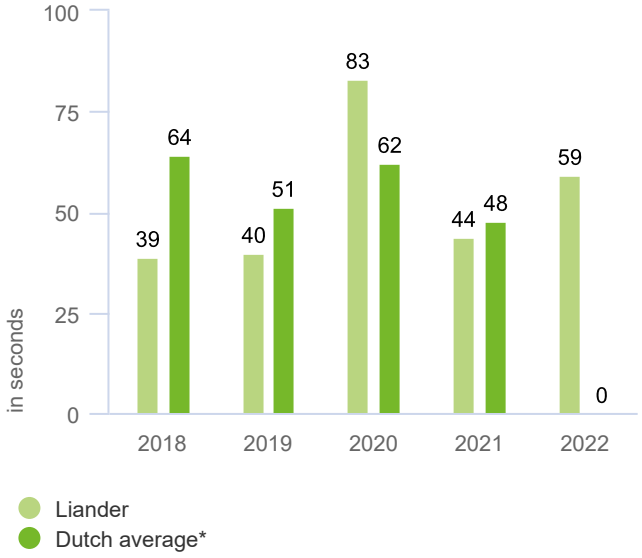
- Aging, wear: 26%
- Excavation work: 20%
- Internal defect: 20%
- Security: 3%
- Manufacturer: 1%
- Soil movement: 4%
- Other: 26%

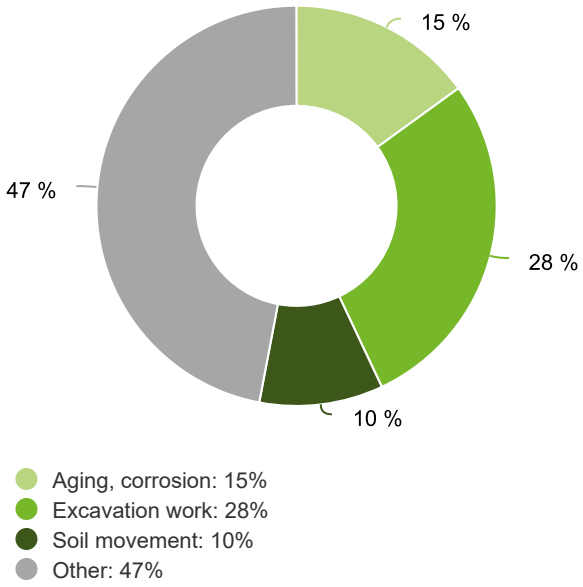


Supply reliability of the gas grid

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 2022 is not yet known.

Access to energy

As a network operator, we believe that energy should be accessible and affordable for everyone. Disconnections happen at the request of the energy supplier. We exercise restraint in disconnecting households that have trouble paying their bills. The unprecedented rise in energy prices led to 1.2 million low-volume consumers becoming at risk of being unable to pay their energy bills in the winter of 2022-2023. Disconnecting consumers as a consequence of the current energy prices, which are making it difficult for some customers to pay their energy bills, is a worrying development. The Dutch government has introduced a number of temporary measures, including the energy price cap, to ensure that fewer people will be unable to pay their energy bills and consequently that we as a network operator receive fewer requests from suppliers to disconnect customers.

We and other parties have agreed not to disconnect customers when we suspect energy poverty. The parties involved in this are the other network operators, the Netherlands Authority for Consumers and Markets (ACM), the Dutch Ministries of Economic Affairs & Climate Policy and Social Affairs & Employment, energy suppliers, the Association of Netherlands Municipalities (VNG) and debt counselling agencies. We do everything we can to ensure that an appropriate solution is found for customers dealing with such problems. The municipality of Amsterdam has started a pilot project to come to the aid of vulnerable households. For a period of three months, Liander will provide the municipality with the addresses on the list of households whose energy is to be cut off. This will enable municipal debt counsellors to help these vulnerable households to prevent their debts from multiplying and avoid having their energy cut off.

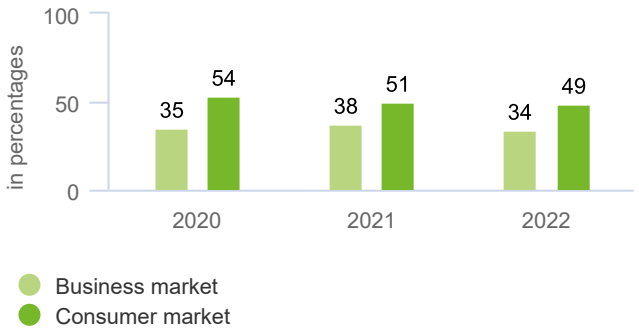
Disconnections during wintry weather

During extreme winter weather, we take appropriate action to ensure that everyone has access to electricity and heat. In this context, we go further than the law requires. The law states that we must stop disconnecting customers if the temperature in De Bilt (the site of the Royal Netherlands Meteorological Institute) drops below zero for a 48-hour period. Every week, we take a look ahead to determine whether the average temperature will be below zero in any 24-hour period. We do not disconnect anyone during the public holidays in December.

Customer convenience

The key determining factor of customer satisfaction is the convenience they perceive in their contact with us. 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 in consumer and business markets



Customer convenience rated by business customers

In 2022, customer convenience measured by the Net Effort Score (NES), as rated by business customers, came out at 34%, compared with 38% in 2021. This decrease is partly due to a lower rating for contact prompted by service requests. Perceived customer convenience during the establishment of a connection has remained stable, but this figure is under pressure. The challenges here are still difficulties with the connection period and the associated communication.

Customer convenience rated by consumers

Our score for the consumer market stood at 49% in 2022. It was 51% a year earlier. The most important points for attention continue to be the long wait between submission of a request and the work being carried out, and the communication during the intervening period. Lengthier lead times and growing backlogs, due in part to shortages of meters and operational technical staff, contribute to the inconvenience customers perceive.

Nonetheless, we did see some positive developments in 2022, such as the increase in the number of service jobs in the measurement. Somewhat less inconvenience was perceived during remediation jobs and when combined work was carried out.

Sharp rise in number of customer queries

The number of customer queries rose sharply last year. They were mostly about the status of an application, the smart meter and sustainability. The Customer Contact Centre (CCC) handled over 30% more customer queries by phone in 2022 than in 2021. There were 364,361 calls compared to 278,474 in 2021. The effect of this was that telephone access came under substantial pressure and customers experienced a great deal of inconvenience. Access declined at one point to 48%, but improved in the closing months of 2022.

Furthermore, we received over 40,000 customer queries through social media (webcare) in 2022. This also had an impact on the accessibility of the CCC. Improvements have been made in recent months by substantially scaling up capacity. This is reflected in the accessibility and the reduction in work in progress. Improvements have also been made to the ‘frequently asked questions’ page on the Liander website and to the personal communication with our customers to manage expectations about lead times.

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?

As a network operator, we are preparing not only our gas and electricity networks for a sustainable future, but also our market facilitating systems and services. We are working towards a new situation of more awareness and choices in energy generation and consumption, and a sustainable energy system which is reliable, accessible and affordable. We cannot do this alone. To achieve this goal, all parties jointly need to have a clear view of the energy system in 2050 and how we get to that point.

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 topics	SDGs	Customer groups
A) Facilitation of the energy transition D) Cooperating on innovation F) Climate change, energy usage and CO_2 G) Access to affordable energy N) Corporate social responsibility in the supply chain O) Environmental themes not related to climate	7 AFFORDABLE AND CLEAN ENERGY 11 SUSTAINABLE CITIES AND COMMUNITIES 12 RESPONSIBLE CONSUMPTION AND PRODUCTION 13 CLIMATE ACTION	Customers Shareholders Investors

Objectives and results for sustainable business operations

Net CO_2 emissions from business operations

116 2022 result in kilotons

≤ 116 2022 objective in kilotons

167 kilotons in 2021[1]

Circularity[2]

28%[3] 2022 result

≥ 35% 2022 objective

27% in 2021

1 *The net CO_2 emissions figure for 2021 has been restated based on the most recent emission factors (2021).*

2 *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.*

3 *This score is discussed in more detail under 'Circular Procurement' later in this section.*

Sustainability is accelerating in all sectors

Unabated growth in the number of customers generating renewable energy

Each year, we connect more charging points, wind turbines and solar farms to the power grid. In addition, 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 2022, we again saw an increase in the number of registered connections with an active feed-in installation in our service area, from 618,000 to approximately 773,000 (up 25%). That represents 13% of our total connections. The Netherlands now has the highest installed PV capacity per head of population.

Sustainable developments in our service area

Solar energy installed capacity

5,874 MW

4,734 MW in 2021

Wind energy installed capacity

1,850 MW

1,756 MW in 2021

Quantity of green gas fed in

66.0 million m^3

59.2 million m^3 in 2021

Number of public charging points

12,850

10,595 in 2021

High energy prices are rapidly boosting demand for sustainable solutions

The high energy prices spurred many of our customers to invest in insulation and in making their homes more sustainable last year. Insulation is a crucial factor in lowering energy consumption, since most of the energy consumed in the built environment is used to heat homes and other premises in the winter. Where heating using electric heat pumps is the best solution, sufficient insulation helps to reduce the peak in energy consumption. Houses and offices can then be disconnected from the natural gas network.

As winter approached, the high energy prices led to consumers using electric heaters more. If everyone used electric heaters, they could overload the power grid and lead to more outages. However, a scenario analysis revealed that there is little risk of many more outages on the low-voltage grid this winter due to the use of electric heaters.

High and volatile energy prices lead to behavioural change

The high energy prices and the growing share of sustainably generated energy are leading to major fluctuations in the price of electricity during the day. These large price differences are accelerating the use of flexibility and thus also the demand for new contract types. For example, the number of energy storage projects increased rapidly to allow more flexible balancing of energy generation and consumption.
We saw a rapid increase in the number of consumers with a dynamic energy contract (from 10,000 to 250,000) in the second half of 2022.

Consumers with these contracts pay an energy price that varies per hour. The hourly prices in these contracts are agreed with the suppliers the day before. These contracts have proven to be cheaper on average than variable contracts during the past few months. They are particularly beneficial for customers with flexible loads, such as electric boilers, electric cars or home batteries. 1.4% of our low-volume consumers had a dynamic price contract at the end of 2022. This may be the start of a trend that could potentially have a major effect on our network load.

Our customers are requesting solutions for balancing supply and demand locally

Our customers are increasingly asking us for solutions that make it possible to exchange energy locally in response to the available local network capacity. These customers are open to the idea of organising as groups in 'energy hubs' or energy communities. By coordinating generation and demand locally, less network capacity is required and industrial estates can expand or become more sustainable. It may be possible to combine this local exchange with a future sustainable energy system, in which generation and consumption are located close together and where the need for energy transmission can be greatly reduced by coordinating supply and demand locally with flexibility on both sides. Alliander is developing innovative ways of facilitating this approach. We aim to establish partnerships in which other parties deploy solutions and we add our own solutions, such as ENTRNCE, a local market platform.

Electrification in the area of mobility

The number of charging points for electric vehicles will grow in the coming years. This applies to all variants: home charging, public and semi-public charging, rapid charging and charging at work. We connected 2,255 public charging points in 2022 (2021: 2,136). In the period up to and including 2025, we expect demand for charging points in Liander's service area to increase to about 35,000 charging points.

Sustainable heating supply

The transition to a new, sustainable heating supply affects all companies, consumers and public authorities in our service area. Liander is helping with the implementation of the heating transition. Choosing new heating solutions is a complex puzzle in many areas. What heat sources are available in the area? What types of building are there? What ambitions does the municipality have? The plans leading to the best-fit energy infrastructure for a sustainable future are varied. We are also investigating how long gas networks are expected to remain in use, how much we should invest in them and whether it may be possible to use the network for other applications.

Customers switch to sustainable heating supply

At Alliander, we see it as our role to effectively facilitate the process of making the built environment sustainable, to inform customers about the best way of doing so and to work together with municipalities and housing corporations. To this end, we have a contact person for each municipality to discuss and contribute ideas for the Transition Vision Statement for Heating, the district implementation plans and the housing corporations' sustainability plans. In 2022, 8,000 residents stopped using natural gas (around 2.5 times as many as in 2018). This was partly due to the increased gas prices. However, we have identified several urgent challenges to implementing the sustainability plans in the built environment.

For example, Alliander notes that the authorities focus heavily on individual energy savings and heating solutions to make the built environment more sustainable. Alliander expects there to be between 800,000 and 1.3 million (hybrid) heat pumps across the Netherlands by 2030 thanks to various national incentive schemes. However, a differentiated approach to the transition for each area is essential for optimal heating solutions at the local level. The development of district heating networks is not living up to expectations. This is partly because municipalities have to coordinate this development (which requires supporting legislation).

Hybrid heat pumps as part of the transition path to a sustainable energy system

Hybrid heat pumps have a very important role to play in making the demand for heating in the built environment more sustainable. In a hybrid heat pump system, an electric heat pump heats the home when the outside temperature is moderate. An existing gas-fired central heating boiler provides additional capacity at peak times on cold winter days and sometimes heating for tap water. This hybrid solution is suitable for almost all existing homes and requires only limited additional insulation. This means the system is a good way for residents to make most of their energy consumption sustainable relatively quickly, while waiting for an appropriate route for the transition to a fully sustainable heating solution at a later stage, such as an all-electric heat pump system, a collective sustainable heating system or the hybrid solution in combination with sustainable green gas or hydrogen.

A hybrid heat pump works well as part of an energy system that integrates multiple energy carriers optimally. The electricity required for the hybrid heat pump is largely generated from wind and solar power in the spring and autumn. This percentage is increasing every year. An additional benefit is that the hybrid use of electricity and sustainable gas aligns very well with the existing capacity of our gas and electricity networks. If the electricity network threatens to become overloaded, the system can switch to a sustainable gas. The average peak electrical power of a hybrid heat pump is also much lower than all-electric heat pumps.

Sustainable gases

Hydrogen

Sustainably produced hydrogen is an important part of the envisaged future energy supply. It is capable of absorbing seasonal differences and providing energy-intensive industries in particular with the energy volumes they require. 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. However, it is crucial that clear choices are made in the period up to 2025. Major investments must be made in either the electricity network or hydrogen to meet the 2030 targets for energy-intensive industries. In the past year, we have seen that many energy-intensive companies are bringing forward that decision due to the high gas prices. This demands broad agreement on the transition programme up to 2030.

We are exploring the use of hydrogen in various projects. A major goal is to learn how our existing networks can be used effectively. One example is the pilot in Lochem, where twelve existing, occupied homes are heated with hydrogen supplied though the existing natural gas pipelines. In this pilot, Alliander will work with residents during the coming three years to determine whether hydrogen could be a good alternative for heating homes. A new natural gas pipeline was installed for the residents in the street who are not taking part in the pilot. The ACM and State Supervision of Mines (SodM) have approved this. Alliander has achieved a world first with this pilot.

In our pilot in Oosterwolde in 2022, an electrolyser was installed next to a solar farm. The goal of this project is to gain a better understanding of the role that electrolysers can play as a solution to transmission restrictions in the electricity network and the technical and regulatory changes that this requires.

As well as carrying out pilot projects, we are now working on regular investments. We are working with the Port of Amsterdam to build a low-pressure hydrogen network for industry in the port area. Alliander is also part of the HyDelta research programme, in which Netbeheer Nederland has a stake. HyDelta primarily focuses on the transport, distribution and consumption of hydrogen.

First Liander gas technicians qualified to work with hydrogen

In 2022, the first Liander gas technicians passed the exam that qualifies them to work with hydrogen. This represents an important step in the energy transition and specifically the pilot that was launched in Lochem in Gelderland at the end of the year, where some of the homes in the Berkeloord district have been heated with hydrogen since October. Working with hydrogen seems at first to be similar to the work the technicians carry out on the natural gas network every day. But while the network is made up of the same components, working with hydrogen involves different and additional procedures. Just as with the gas and electricity networks, working safely is the most important part of this training programme.

Green gas

In 2022, 25 green gas providers fed in 66 million cubic metres of green gas to the Liander network. The volume of green gas in our network has increased linearly since 2013. The target in the Dutch Climate Agreement is that 2 billion cubic metres of green gas should be fed into the Dutch gas networks by 2030, compared to a total of more than 200 million cubic metres nationwide today. The government has announced the intention to mandate the mixing of green gas into the supply to the built environment to accelerate this transition. An acceleration in the growth of green gas is expected from 2023 as a result of this measure. Together with Netbeheer Nederland, Liander is preparing for the expected growth in both the number of green gas providers and the volume of green gas in our networks.

Liander facilitates the feed-in of green gas by granting providers access to the gas network and ensuring that the gas they produce can be transported to consumers. We do so by examining the transmission capacity of the network as well as the opportunities for using the green gas they produce. This can be a challenge in the summer in particular, as much less gas is consumed then. We consider the traditional solutions employed by network operators, such as links between networks and increasing the capacity of pipelines, and more innovative solutions.

Powercrumbs, an Arnhem-based start-up, won the third Alliander Innovation Challenge. Their idea helps resolving the problem of finding a use for green gas in the summer months when it cannot be fully fed into the gas network. It involves storing the excess green gas at high pressure in mobile storage containers located with the producer. Powercrumbs already employs this technique for biogas from sewage treatment plants. Trucks then transport the containers to construction projects in the local area, where the green gas is used as a sustainable fuel for generators. It replaces diesel and therefore delivers major environmental benefits thanks to the low emissions of nitrogen, particulate matter and greenhouse gases. A pilot launched in 2023 will examine whether this supply chain can be used for excess green gas in the summer.

The green gas booster is another innovation that facilitates the feed-in of green gas. This successful pilot is nearing completion and can be deployed in the gas network where required. A booster is a compressor station that ensures that green gas from a low-pressure network can be fed into a higher-pressure network so that it can reach more consumers. This allows more green gas to be fed in during the summer.

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 capacity of our energy network for sustainable energy, our CO_2 emissions, the circular use of materials, our efforts to promote biodiversity, a diverse and inclusive corporate culture and our performance as an employer. We discuss the latter topics in the section An attractive and inclusive employer with equal opportunities for all.

Working towards climate-neutral operations by 2023

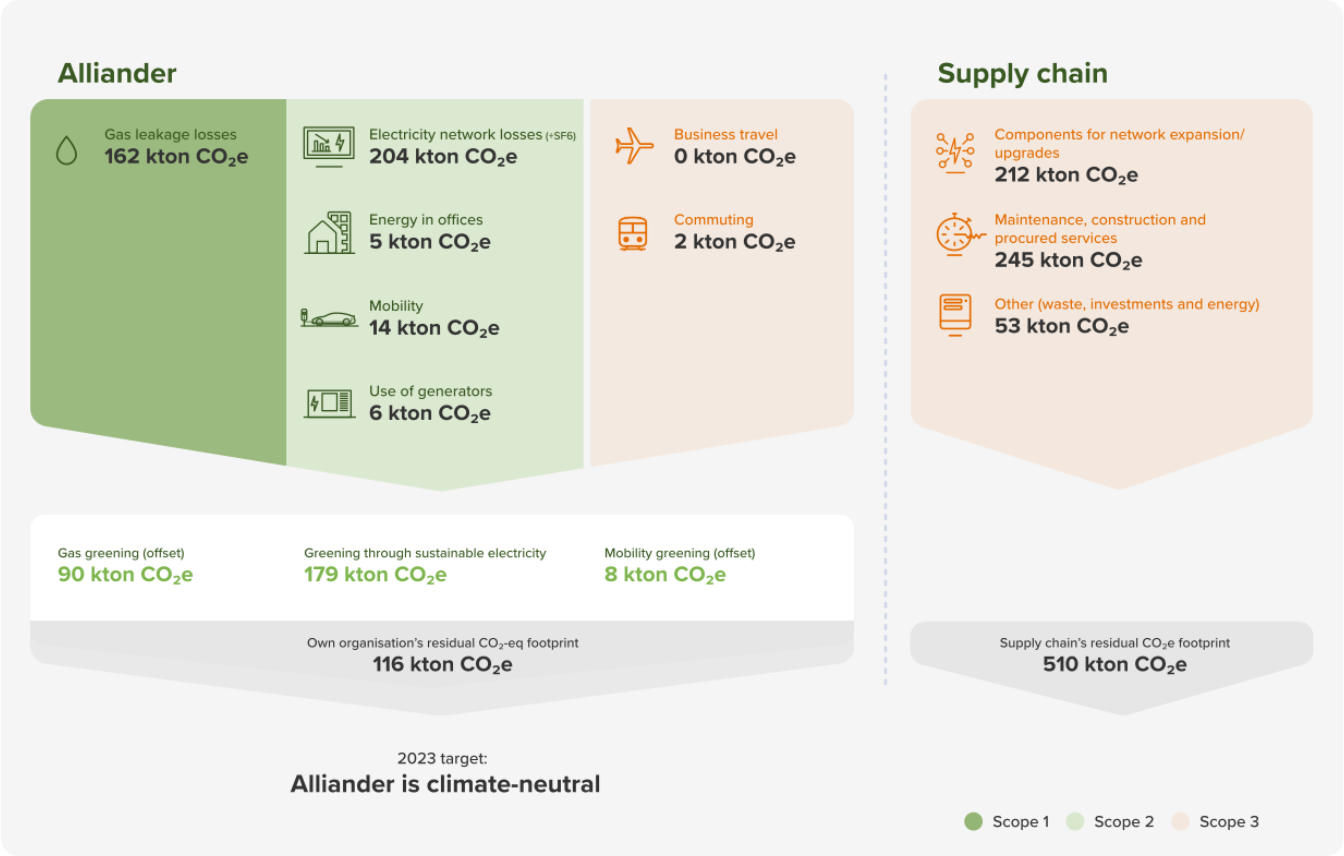
Alliander is working towards having climate-neutral operations by 2023. In other words, Alliander will have net zero CO_2 emissions caused by our network activities, offices and vehicles in 2023. In 2022, we were already at 85% of this objective. We are working to improve this score by reducing our CO_2 emissions and by becoming more sustainable. Our vehicle fleet is increasingly electric or hybrid, gas consumption in our buildings is falling and we are continuing to reduce the environmental impact of our network losses for electricity.

Our direct gross emissions in 2022 were lower than in 2021. Our network losses fell. We did not reduce our environmental impact to the same extent as in previous years. It is still our objective to become climate neutral in 2023.

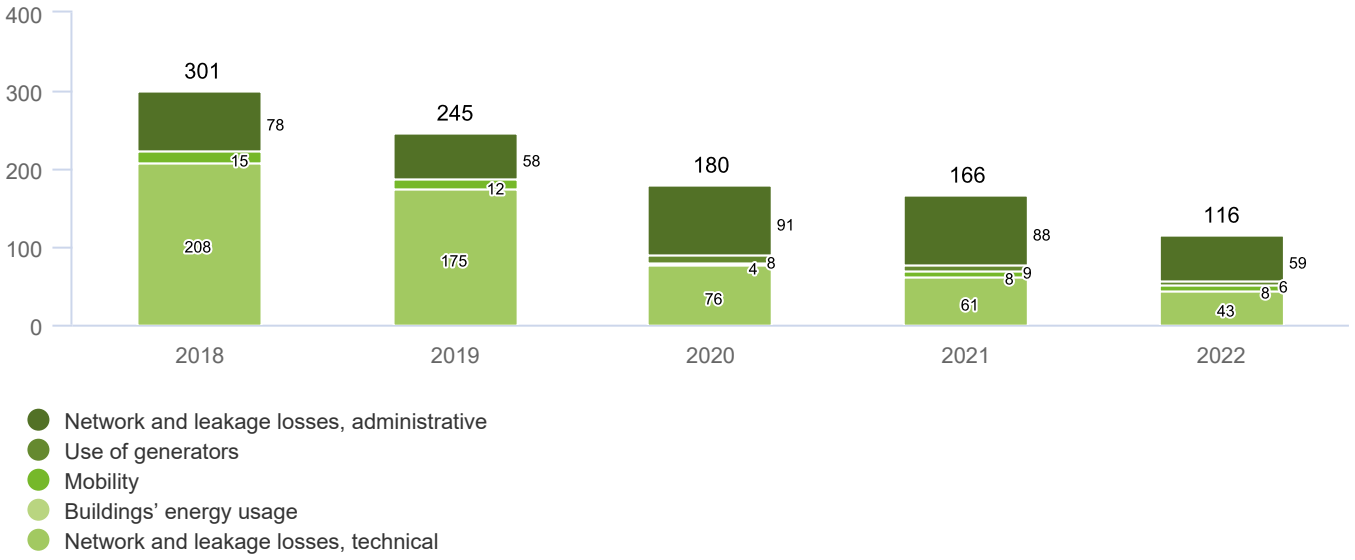
Emissions in our supply chain

We investigated the supply-chain-related 'scope 3' CO_2 emissions further in 2022. These include the emissions released by our suppliers when making, transporting and delivering products and providing services. As an organisation, we have an indirect influence on the scale of these emissions. Therefore, they are not covered by the scope of our own internal climate objectives. Scope 3 emissions are largely calculated based on emission indicators per economic sector, multiplied by Alliander's expenditure in the sector in question.

The supply-chain-related emissions in 2022 amounted to 510 kilotons of $CO_{2\text{-eq}}$. This is higher than our direct gross emissions under scopes 1 and 2. CO_2 reduction is one of the award criteria in our tendering processes. We began identifying an appropriate target for our scope 3 emissions in 2022. This revealed that the way that parties in our sector calculate scope 3 emissions varies widely. Furthermore, the costs of eliminating these emissions entirely can be high. In 2023, we will publish a proposal for improved collaboration within the sector and a potential common target.



Alliander's net CO_2 emissions [1]



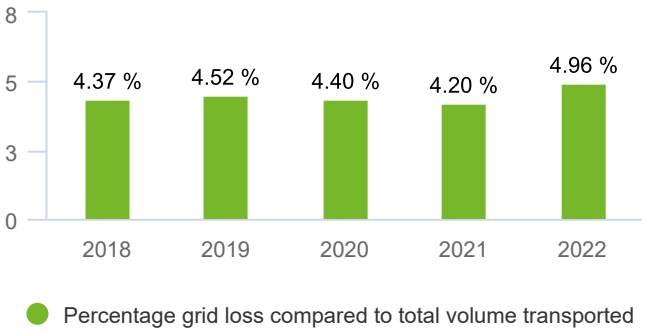
1 The net CO_2 emission result for the years 2018-2021 was restated based on the most recent data and emission factors.

Internal CO_2 price agreed with the regulator

Since 2021, we have 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 greater weight as a result. The higher CO_2 price is part of a sector-wide agreement between all network operators, which was initiated and is coordinated by Alliander. Following intensive discussions led by Alliander, the ACM approved the price agreements between the network operators in February 2022. All Dutch network operators now perform their calculations using the same price of €100 per ton of CO_2. This price will progressively increase during the coming years. The introduction of the higher internal CO_2 price means that simple measures are more likely to present a positive business case. In addition, this new guideline forces us to look more closely at the use of SF_6 in our transformers.

Emissions from network and gas leakage losses

Network and leakage losses that arise mainly during the distribution of electricity and gas account for 92% of our gross CO_2 emissions. We saw an increase in network losses in 2022. This is probably due to the strong growth in renewable energy feed-in and the ensuing higher load on the network. Electricity network losses cost us about €264 million in 2022 and can only be mitigated to a limited extent. Nevertheless, we take action each year to reduce both our technical and administrative network losses, as described below. The network losses percentage is an accurate approximation. We report the final figures after two years in the Five-year summary appendix.



Greening network losses with renewable energy

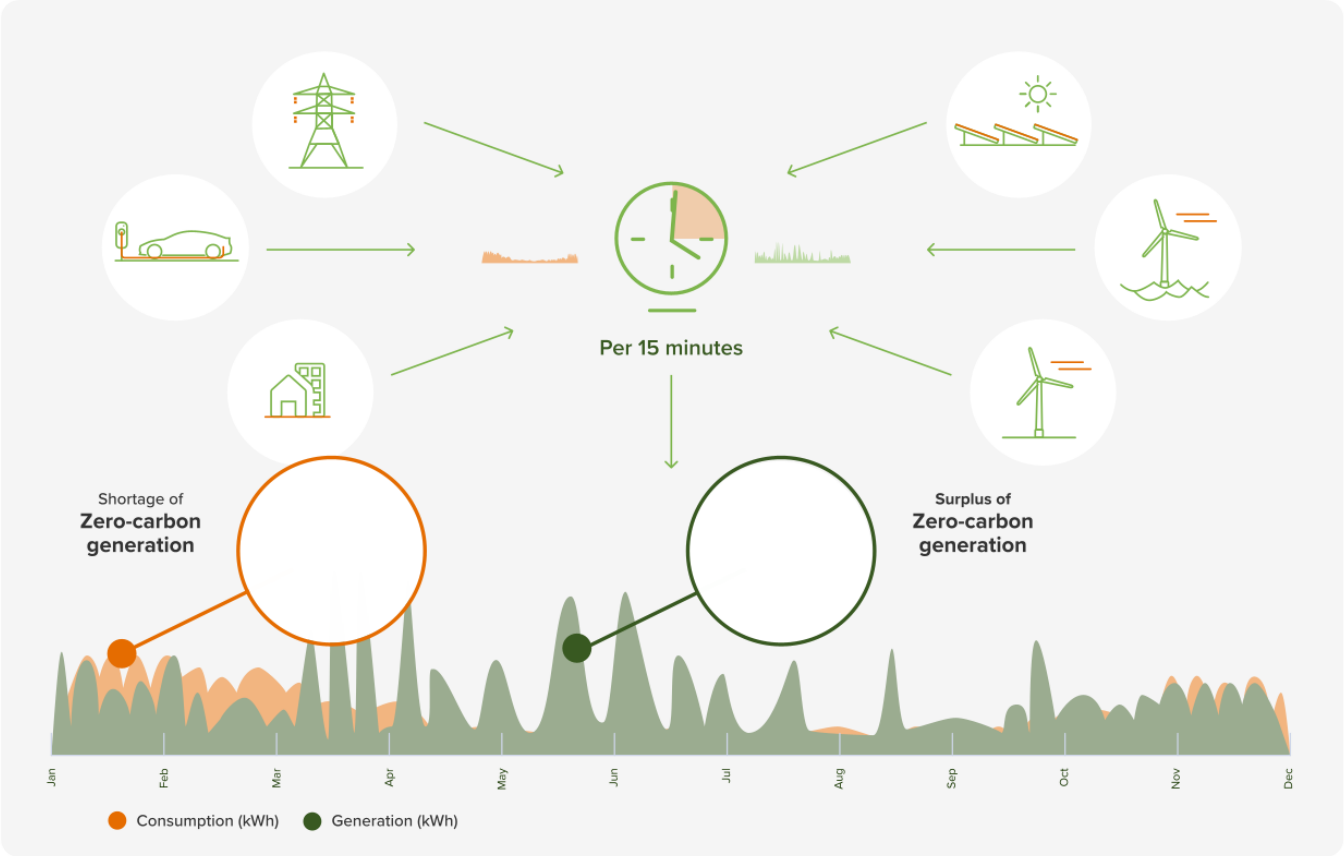
Alliander is offsetting its network losses by generating additional renewable energy in the Netherlands. We made 175 kilotons of our total network losses sustainable with Guarantees of Origin in 2022 and also received 28% of the electricity network losses as green electricity. We have made a conscious decision to progressively green our procurement for network losses with electricity from investments in renewable sources. This approach ensures that our network losses are low-CO_2 and supports growth in renewable energy generation. By employing contracted additional green certificates in 2022, we made 86% of the total electricity network losses sustainable with Dutch wind-power certificates and around 56% of the gas network losses sustainable with EU Gold Standard certificates.

24/7 matching

Alliander recognises that purchasing electricity sustainably with Guarantees of Origin does not take account of the simultaneity of generation and consumption. Because the electricity network must remain balanced at all times, the system works better if network users coordinate the timing of their consumption and (purchased) generation. This concept is known as 24/7 matching. We calculated the matching score for Alliander for 2022 based on the consumption due to network losses, electricity consumption in offices and electric-vehicle mobility. Our own generation from solar panels on the roof and wind power purchased with Guarantees of Origin was then offset against this consumption. The matching was calculated on a quarterly basis to ensure alignment with the Dutch electricity market. The result for 2022 was a matching score of 58.9%.

We are investigating how we can increase this score in the coming years. This may include diversifying the generation technology of the electricity we purchase or by adding storage or demand management.

24/7 consumption and origin of electricity purchased by Alliander



Technical network losses

The total technical electricity network losses rose by 8% in 2022 compared to 2021. This increase in technical network losses was mainly due to the increased network load compared to 2021, which resulted from an increase in local sustainable generation. This meant that our cables had to carry higher loads at certain times of the day. This resulted in higher network losses. We expect further increases in sustainable energy feed-in to eventually lead to a higher load and thus higher network losses.

Our total gas-related network losses stayed stable relative to 2021. 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. In view of the steep rise in energy prices, we looked closely in 2022 at how to minimise that impact. Disconnections and the absence of contracts automatically lead to higher administrative network losses for the network operator. Measures implemented by the national government in partnership with suppliers and network operators kept the number of disconnections and customers without a contract to a manageable level.

We rely partly on the efforts of the police and judiciary, with whom we have collaborative agreements, to help us detect fraud. In 2022, we continued to improve our fraud detection and recovery of losses suffered due to the absence of contracts for new and existing connections. We recovered more administrative network losses and achieved better results in 2022 than in 2021.

Emissions from buildings

The energy consumption in our offices and buildings fell in comparison to 2021. This was primarily due to reduced gas consumption. This was partly the result of the replacement of the gas-heated logistical locations in Nijkerk and Apeldoorn and the opening of the central distribution centre on Laan van Zodiak in Apeldoorn, which does not use natural gas. The energy purchased for buildings is fully greened through Guarantees of Origin.

The construction of our new, sustainable Amsterdam Westpoort location, which replaces Amsterdam Spaklerweg, is proceeding steadily. Our offices in Apeldoorn and Amsterdam will be energy neutral once they are completed. We began major renovations at our locations in Doetinchem and Leeuwarden in 2022. Both projects will be completed in 2023. We also moved out of the data centre on Hofmanweg in Haarlem and moved to a new, more sustainable data centre on Oudeweg in Haarlem.

The remaining Alliander offices will meet the A, B or C energy label criteria by 2023 at the latest.

Emissions from vehicle fleet

The number of kilometres travelled rose by 86% in 2022 compared to 2021. Partly as a result of this, the amount of fuel consumed by lease cars and service vehicles increased by 14%. The main reason was that more employees commuted to and from work following the COVID crisis. Our compensation system for travel costs was amended in response to price increases. We will reassess whether to continue using the standard compensation rates in 2023.

We have imposed strict standards for CO_2 and nitrogen emissions from lease cars (max. 100 grams CO_2/km). Diesel cars are not permitted and we encourage the use of electric vehicles. Like all other Alliander employees, lease car drivers can also use an NS business card for train journeys. In 2022, we prepared to take the decision to transition to a fully electric vehicle fleet. The associated policy is expected to be implemented in 2023. We provide a more detailed summary of the emissions from our vehicle fleet in the Other non-financial information appendix.

Top rung on the CO_2 performance ladder

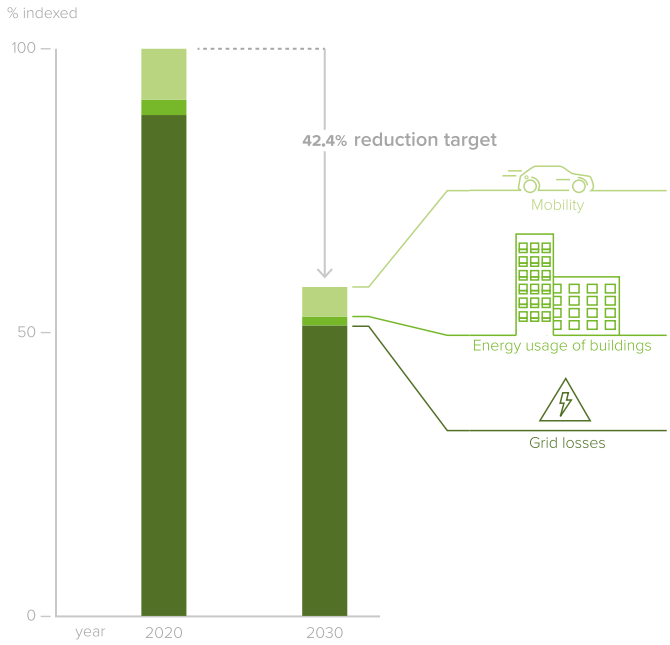
We assess our approach to and the reduction of our climate footprint based on the criteria for the CO_2 performance ladder. We have now performed at the highest level for several years. This demonstrates our understanding and implementation of the following:

- 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 are transparent about our performance and ambitions (level 4)
- we work on innovations with our supply chain partners (level 5)

CO_2 reduction is one of the award criteria in our tendering processes. We know the CO_2 emissions of our main suppliers, we have achieved the level-3 and level-4 objectives and we are committed to the government's CO_2 reduction programme. In 2022, the operation and scope of our certification were reassessed externally and confirmed.

Science-based targets

Science-based targets are business objectives that align with the two-degree scenario in the Paris Agreement. In 2022, we signed up to the Science-Based Target Initiative (SBTi) for verification in 2023. In 2020, it was determined that Alliander's CO_2 reduction policy for scope 1 and scope 2 emissions is in line with the science-based targets. This goal can be broken down into the maximum CO_2 emissions per sector and 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 about 21% by 2025 in comparison to 2020, and 42.4% by 2030. We are also obliged in 2023 to define our objectives for scope 3 emissions for the final verification.



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 have been part of the Alliander risk management framework since 2021. This means that climate risks are included in the annual risk session with the Management Board. The results give an initial impression of the risks that may arise due to climate change.

Outcomes in 2022 and follow-up action

The results indicate a potentially high risk of damage and loss of company 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 concluded that more research on climate scenarios is needed to increase the accuracy of our assessment of the possible risks due to climate change. A Climate Adaptation working group is investigating the potential physical effects of climate change on network components and energy infrastructure under the Netbeheer Nederland banner. The group is also developing proposals for climate adaptation measures. This is in line with the TCFD's recommendation and will be developed further in 2023.

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

Biodiversity

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 new standards for sustainable power station design. In 2022, we published a brochure that explains how we integrate sustainability into our power station construction projects. We began preparing an assessment framework and associated standards for green roofs in partnership with Movares. To speed up developments relating to biodiversity, we formed a partnership with Naturalis in 2022 to translate Alliander's far-reaching ambitions for biodiversity into specific actions. We also began a study of the measurement of the impact on biodiversity in partnership with Naturalis and the Impact Institute.

Ecological Main Structure - Infrastructure

Alliander participates in a broader coalition of infrastructure companies, which see opportunities to use the land they own and manage for large-scale nature recovery. In total, the national infrastructure companies in the Netherlands manage roughly 900 km^2 of land, so a collaboration among these companies to promote biodiversity will have a national impact. The 'Ecologische Hoofdstructuur Infra' project (Ecological Main Structure - Infrastructure) started in 2020. This led to the start of a pilot in 2022, in which we are investigating the extent to which it is possible to implement biodiversity measures at our medium-voltage facilities or even to design them in a nature-inclusive way.

Mowing policy

We carried out a pilot in 2022 at our Westwoud substation in which sheep are used instead of mowing. The long-term experiment into reducing the nutrients in the soil in the switching areas that began in 2021 was continued in 2022. We implement our mowing policy with the assistance of the Dutch butterfly foundation (Vlinderstichting). A policy was agreed in 2022 that prevents the use of chemical pesticides in paved switching areas. An investment proposal to gradually make the switching areas greener was also approved.

Supply chain responsibility and circular procurement

The energy transition poses major procurement and logistical challenges for our organisation. Our supply chain partners play a crucial role in achieving our objectives. Alliander's annual procurement expenditure is approximately €2 billion for products and services. This will increase considerably in the coming years due to the energy transition. Contractors, components, energy purchasing and transmission tariffs are the main areas of procurement expenditure. Our societal role means that our procurement needs to be socially responsible.

Alliander must continue to accelerate, despite the scarcity of raw materials in the market, shortages due to the coronavirus pandemic, high energy prices, a tight labour market and geopolitical conditions, including the war in Ukraine. Our goal is to always weigh up price, quality and sustainability when procuring parts, materials and services.

Contributing to sustainability

Our procurement policy contributes directly to Alliander's CSR policy. Together with our suppliers, we aim to make a net positive contribution to SDG 12 (Responsible Production and Consumption). We do so by entering into new forms of collaboration with our suppliers, adopting innovations as they appear on the market and forming partnerships. Our procurement department upholds 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. They include, for example, provisions relating to human rights, working conditions, use of raw materials, recycling and CO_2 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. The employees of contractors and subcontractors must comply with these protocols and standards as well. In 2022, we further developed an 'easy CSR' toolkit that is accessible and broadly applicable to all Alliander purchases. This gives the supplier choices for making a concrete contribution to Alliander's CSR goals.

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 a network management-wide CO_2 price guideline ensures we prioritise investments and purchased components that offer a greater CO_2 reduction.

Code of conduct for suppliers

Alliander is committed to ensuring that suppliers comply with the Alliander Code of Conduct for Suppliers. 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. If the code is violated, we may impose sanctions. Suppliers can expect Alliander to deal with them in accordance with ethical business practices; we subscribe to and apply the principles of the EU Taxonomy including the OECD guidelines and ILO convention. More information can be found in the EU Taxonomy section elsewhere in this report. 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

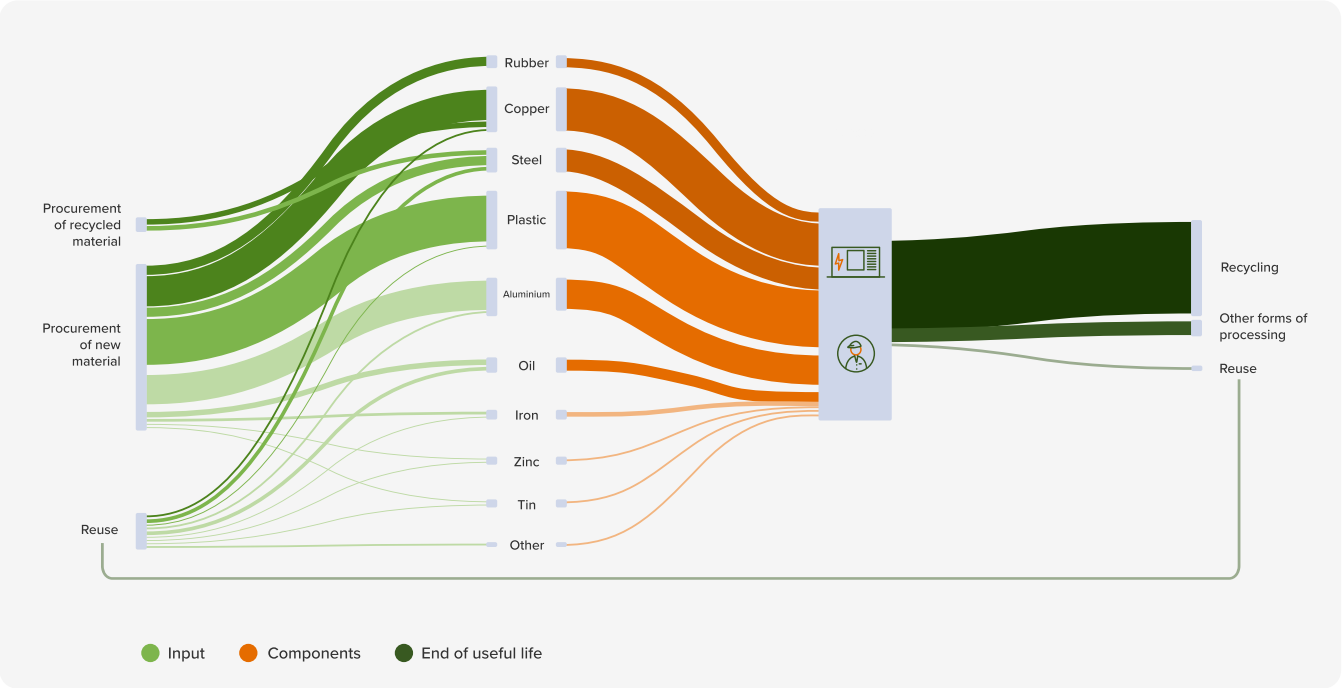
Each year, we carry out multiple supply chain audits. In 2022, we performed a total of 23 audits to assess the quality of the products and services supplied (2021: 14). No critical deficiencies in respect of CSR aspects were reported. During the audits, compliance with the Code of Conduct and with the 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 2022.

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 the parties concerned and inform them 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. Circular procurement is integrated in our procurement processes. 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 them with data provided by DNVL, an independent research and consultancy firm. In 2022, we focused more on verifying the accuracy of the raw materials passports. All network operators use the same format for the raw materials passport: a shared understanding of circular performance is a prerequisite for effective impact management.

Circular materials flow



This figure shows the key materials that support our primary process. The percentages of plastics (jacketed pipes, cables, gas pipes), copper and aluminium (base metal for cables) are high. Understanding the composition of our materials helps us manage risk against the backdrop of internationally increasing demand for raw materials for the energy transition. The impact of the use of materials is not only determined by the quantity of the material used but also depends on the impact on human health, the ecotoxicity and scarcity of the material, and the CO_2 footprint. These impacts are expressed in the eco-costs per kilogram of material. If materials are recycled or reused, these eco-costs will be significantly lower. In the figure showing the material flows, it can be seen that the level of reuse in the total material flows is still relatively small; however, any increase in reuse will also reduce the eco-costs.

Circular energy economy

The global energy transition is making products and raw materials increasingly difficult to source. Network operators and suppliers can act to mitigate this risk now by investing in a circular energy economy. Network operators and suppliers must work together to speed up innovation in products that are very long-lasting and vital to our society. To achieve this, a shared roadmap on circularity needs to be formulated and agreed quickly, as the demand for materials is expected to increase exponentially across the world by 2030.

Circular procurement

In 2022, circular procurement accounted for 28% of total procurement (2021: 27%). This is lower than our target (35%). This was caused by the greatly increased demand for materials, combined with the market situation. This forced us to find new suppliers and take action to guarantee the delivery of installations. In 2021, we also started calculating our circular procurement percentage on the basis of more rigorously validated raw material passports. That has prompted us to adapt our long-term objective. We aim to achieve 45% circularity in our procurement by 2027.

We focus on the following flows and principles to further implement circular operations:

- We optimise utilisation of the materials we already have, for example through 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.

Making the best use of what already exists: reuse

Redeployment contributes to both the energy transition and the raw materials transition. By redeploying network components from the low-voltage, medium-voltage, high-voltage and gas domains, we make sure we can fulfil our task and reduce costs at the same time. Reuse also allows us to postpone new investments and reduces our reliance on the supplier market, which is already stretched to the breaking point. In 2022, we reduced our costs by €11 million by reusing materials and overhauling network components. In addition, we reduced CO_2 emissions by 780 tons by redeploying network components with a raw materials passport. We had 51 refurbished compact stations produced by refurbishment partners. To ensure that as many components as possible are returned for use in refurbishment projects, we opened recycling stations at our logistics and operational support sites in Almere, Ermelo and Apeldoorn. The technicians can now hand in leftover materials at these stations. We initiated a study last year to investigate how best to reuse power transformers. The results will be available in 2023.

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?

Safety is a value that underpins our work: making sure everyone gets safely home, based on genuine concern for one another. It is our job to ensure that employees, customers, residents, suppliers, contractors and passers-by get home safely every day. We, and everyone who works with us, are responsible for this. Alliander continuously takes action to improve and guarantee 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 topics	SDGs	Customer groups
E) Safe working practices and safe infrastructure I) Data security, privacy and cybersecurity N) Corporate social responsibility in the supply chain	8 DECENT WORK AND ECONOMIC GROWTH 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Customers Employees

Objective and result for sustainable and safe working environment

Lost Time Injury Frequency (LTIF)

1.7 2022 result

- [1] 2022 objective

2.6 in 2021

1 *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.*

Safe working practices

Working safely is part of good operational management. We apply the Alliander Life Saving Rules to achieve this. However, the challenges we see for Alliander in the coming years will lead to increased safety risks. On balance, we are having to handle a much higher workload, under high pressure, with many new employees. It is our duty to make sure everyone gets home safely. Every accident is one too many. Although we are making good progress, too often things still go wrong, or almost go wrong. Regrettably, 88 accidents occurred at work in 2022 (2021: 69). These incidents mostly involved falls and trips, traffic accidents, impacts and being hit by moving parts. Unfortunately, two incidents resulted in serious injuries.

Changes are required if we are to fulfil our mission in terms of safety. Not only do we need to strengthen our existing safety system, structure and training, we also need to ensure that safety is embedded in our behaviour and that everyone feels co-responsible for safety. To achieve this, we launched a transition programme to improve safety in 2022. This transition focuses on three key aspects: safety controls, broad safety expertise and safe behaviour.

Safety controls

In 2022, we introduced a new mobile app that allows colleagues to report dangerous situations and incidents to their manager. Accidents, near misses 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 targeted management action can be taken (nationally if necessary). An occupational health and safety risk assessment and evaluation is carried out periodically for each organisational unit. Improvements are noted and discussed with management.

Broad safety expertise

All our colleagues and our partners' staff have the knowledge and skills to work and act safely. We embed this in employee selection, assessment, training and education by explicitly defining the skills required for each role. We assess colleagues' technical and personal skills and keep them in line with the required standard. In 2022, 2,001 employees and 272 contracted parties passed their safety training exams. We arranged workshops on safety dilemmas, CER and learning from incident reports. We showed each other that we can engage in open-minded conversation and are ready to listen to each other.

Safe behaviour

A broad social norm applies whereby everyone is responsible for their own and others' safety. We expect everyone to visibly display the desired level of safety in their behaviour. We do this by making managers explicitly responsible for safety and a socially safe workplace. We ensure that safety and safety dilemmas are discussed. Finally, we communicate the safety framework clearly by zooming in on the agreements that have been made and good examples. We monitor safe behaviour during safety inspection rounds. This may lead to open discussion between employees, contractors and managers when unsafe behaviour is observed. As a result, unsafe situations and risks can be addressed more effectively, and the level of safety awareness increases. During Safety Week in October, many teams arranged extra safety inspection rounds. A number of managers talked explicitly with their own teams about safety and how to handle situations in which you are tempted to engage in unsafe behaviour. Above all, we showed each other that we can engage in open-minded conversation and are ready to listen to each other.

Safety in the supply chain

Safety is not just a matter for our own organisation. We achieve safety in collaboration with our supply chain partners, contractors, suppliers, customers and local residents. There were 24 incidents involving injury suffered by contractors' staff and 17 incidents in which our work led to injuries suffered by passers-by. We are responsible for implementing measures to prevent accidents involving employees, including those of our supply chain partners, and passers-by. We therefore endorse the Safe Energy Networks Governance Code. We also evaluate and discuss incidents in the Contractors Platform. The purpose is to learn so that we can improve our work processes and continuously increase safety at work.

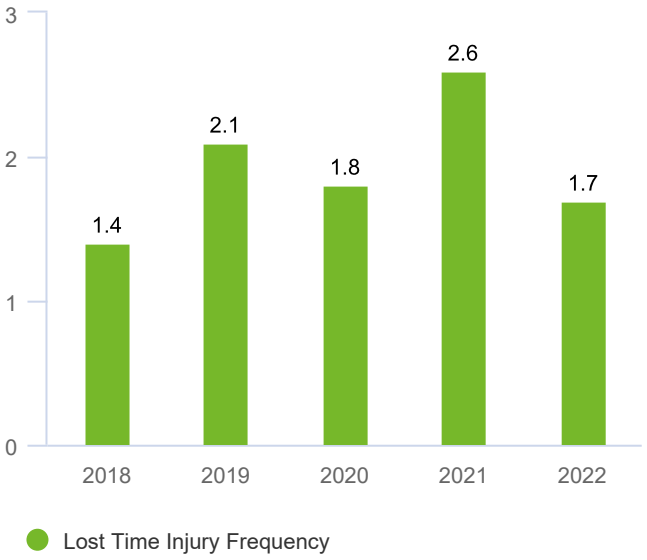
Primary process certification

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 if necessary by certification according to ISO 55001, NTA 8120, ISO 14001, ISO 27001 and the Safety Culture Ladder. An overview of the certificates and their scope is provided in Other non-financial information.

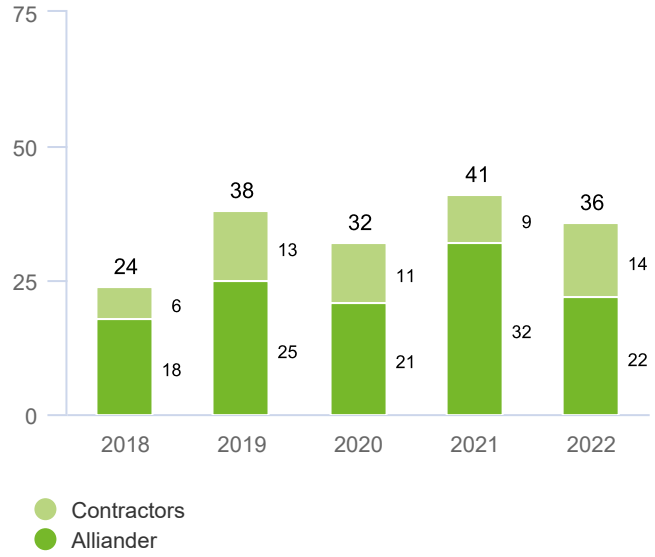
Lost Time Injury Frequency

Lost Time Injury Frequency (LTIF) expresses the number of accidents resulting in sickness absence per one million worked hours. The LTIF in 2022 was 1.7, which is an improvement relative to the LTIF in 2021 (2.6).

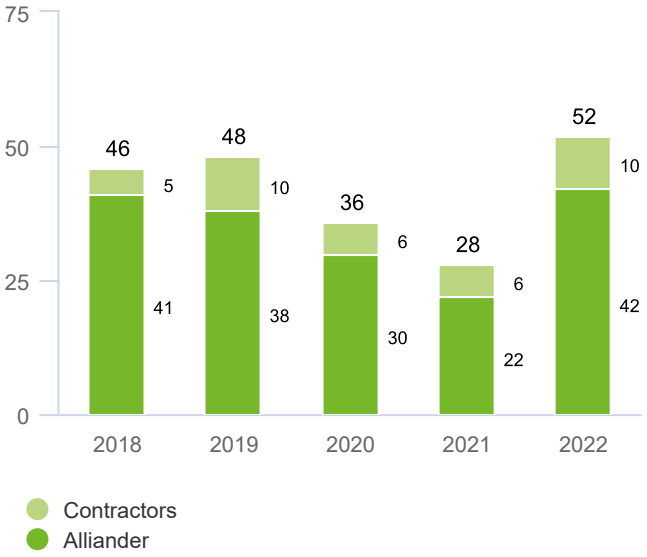
Employees can report dangerous situations and incidents to their manager or supervisor through immediately accessible (digital) channels.



Lost Time Accidents



Accidents with no lost time



Score on the Safety Culture Ladder

In November 2022, an external auditor assessed Alliander's position on the Safety Culture Ladder. We have now achieved level 3 on the ladder. This year is noteworthy because Alliander as a whole was assessed, rather than the individual organisational units. Our attention for safety and readiness to address safety in our projects and the fact that we actively discuss safety were seen as positive aspects. Furthermore, the collaboration with contractors is better. But there were still areas for improvement. For example, the auditor felt that we should discuss and analyse the underlying causes of unsafe behaviour more explicitly and further improve safety among subcontractors and self-employed workers.

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.

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

In 2019, the remediation plan for grey cast-iron and asbestos cement gas pipes was brought forward by eight years to 2032. In 2022, Liander removed over 150 kilometres of grey cast-iron and asbestos cement gas pipes, in accordance with this schedule. 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 mains 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.

Asbestos in above-ground systems and buildings

in 2022, asbestos assessments were completed for a number of 50kV switching systems. In addition, in the distribution activity area, we continued the remediation work in spaces that needed to be tackled according to the industry-wide colour coding policy (red and orange). We expect to complete the asbestos remediation work for these selected spaces in 2027.

Resolving and preventing outages

We set up an investigation when incidents arise in the electricity network. A damage investigation team (SOT) conducts the investigation to identify damage and faults in Liander components. The purpose is to identify the possible cause and gather information on the assets' failure. This allows us to revise or set up maintenance programmes and improvement actions. In 2022, we completed 150 damage investigations, consisting of 136 in the medium-voltage and low-voltage domains and 14 in the high-voltage domain.

Security at electricity substations

Unfortunately, we experienced a wave of break-ins at electricity substations in 2022. This can lead to unsafe situations for the intruders and our colleagues, and impair network safety and safety at customer sites. We therefore started installing temporary surveillance cameras in 2022. We are also working on structural measures to bring security up to the right level at our substations. For example, we are installing permanent camera systems at critical substations.

Other safety measures

- In 2022, as part of a multi-year programme, we replaced a large number of substation locks to prevent doors being left open.
- The Safety in MSR programme has been initiated in response to a number of incidents resulting in serious injuries in inadequately or partially shielded medium voltage rooms (MSR). This programme aims to replace this type of system as a preventive measure over the next 20 years, while at the same time taking action to make working in these spaces as safe as possible.
- In 2022, the industry as a whole worked on formulating sector-wide draft agreements and processes for decommissioned connection lines that are still present. They ensure that network operators work in a uniform manner.

Privacy and security

Privacy

Protecting the personal data of our customers, employees and other stakeholders has Alliander's continuous attention. We aim for an increasing level of maturity when it comes to privacy, for example by setting up a new central, automated Privacy Control Framework for optimising privacy control measures. We also devoted effort to Privacy by Design, which involves ensuring that privacy is part of a product or service under development from the start of the process. We perform targeted validation checks on all IT applications as part of that effort. We worked additionally on an identity and access control policy for uniformly setting up, verifying and revoking authorisations.

Data breaches

In 2022, we were informed that a company that personalises access cards for us had suffered a ransomware attack. The compromised personal data unfortunately included the access card details of a small group of Alliander employees. All the affected colleagues and former colleagues were personally informed by email and the leak was reported to the Dutch Data Protection Authority.
In 2022, we investigated a total of 21 data breaches. As eight of these incidents involved centralised processing, the network operators bear joint responsibility for them. Of the 21 identified data breaches, nine incidents involved a breach for which a duty to report applied in line with the GDPR (five Alliander reports and four sector reports).

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. Last year, increased threat levels in several areas further highlighted the importance of security for our organisation. There is a need for better data protection in view of geopolitical developments such as the war in Ukraine. In addition, there was a sharp increase in cyber attacks. However, cybersecurity expertise is not readily available, so attracting and retaining qualified employees has become a challenge.

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.

Security strategy

Since 2022, Alliander has pursued four fundamental security strategies:

1. In the digitalisation portfolio, we apply 'Security by Design' to firmly anchor security. This means that we include security in the plans and ideas from the beginning in our initiatives, whether they be in-house developments or products and services that we purchase from others.
2. We implement an Alliander-wide information security management system to manage security consistently and keep it up to date.
3. We apply business continuity management to minimise the impact of an emergency on business processes: i.e. we prepare for an emergency and know what to do if one occurs.
4. We are working to achieve security maturity level four according to the Norea standard by explicitly defining security processes and making them quantifiable. In early 2023, we will measure our current level.

Alliander is not alone in recognising the importance of cybersecurity, politicians are also increasingly interested in this topic. The need for adequate cybersecurity for vital industries is considered self-evident, both in Dutch political circles and from a European perspective. In the coming years, the regulatory and supervisory pressure on Alliander pursuant to laws and regulations is expected to increase further with the introduction of the NIS2 Directive, the NCCS and the CER Directive. Risk assessments and supply chain security are important aspects in this context. Therefore, the past year was devoted to identifying and aligning with developments in laws and regulations, IT fundamentals and cybersecurity.

In 2022, Liander, Alliander Telecom, Utility Connect and Kenter renewed their ISO27001 certification. Qirion achieved ISO27001 certification as of January 2023.

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 7,700 people (7,300 FTEs), including agency 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 and are proud of what they do. Alliander wants to be an organisation where they enjoy working in a pleasant atmosphere with colleagues, customers, suppliers and partners on the energy supply for a sustainable future.

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 topics	SDGs	Stakeholder groups
C) Completion of work package K) Attracting and developing talent M) Organisational capacity for change		Employees

Objectives and results for employees[1]

Employee absenteeism

4.8% 2022 result

≤ 4.3% 2022 objective

4.6% in 2021

Employee survey score - engagement

82% 2022 result

≥ 81% 2022 objective

81% in 2021

Women in leadership positions

28.3% 2022 result

≥ 31.0% 2022 objective

28.1% in 2021

People with poor employment prospects

90[2] 2022 result

≥ 130 2022 objective

77 in 2021

1 *The results stated here are explained in more detail in the rest of this section.*

2 *The number of employees with poor prospects in the labour market comprises 90 jobs created under the Dutch Participation Act, amounting to 73.2 FTEs.*

Hybrid working

The challenges of the energy transition require us to adopt a different way of working. Productivity needs to increase and we will have to plan our time more efficiently enabling us to handle more work. The COVID-19 pandemic has shown us how agile we already are. We found a way to work separately yet together in a single online environment. At the same time, we have noticed that employees have a need for in-person contacts. Indeed, this is essential in some cases in order to do the job well. 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. Adjustments are made as necessary to achieve this.

Hybrid working is a crucial fringe benefit for many Dutch employees. In view of this, it is also part of our HR retention policy. When onboarding new colleagues, we highlight hybrid collaboration. In addition, when remodelling and designing new office buildings, we consider how to facilitate hybrid working for employees as optimally as possible. We set up office locations so that employees can alternate between online and in-person collaboration with each other with maximum ease. Design and evaluation involve close consultation with users. Examples of measures are extra telephone booths and meeting locations and improved IT facilities. This approach helps us create the best working environment for all our colleagues.

Getting the job done

The shortage of technicians is one of the major barriers holding back the energy transition. Alliander expects to have to recruit over 2,500 additional technicians. At the same time, technicians have more and more job vacancies to choose from each month. In December 2022, there were 55 vacancies per 1,000 jobs in the energy sector, according to Statistics Netherlands (year end 2021: 55). This means that we not only put effort into attracting and training new technicians but also invest in new target groups (such as highly skilled migrants) and commit to retaining our technicians by offering them more extensive career opportunities.

In an increasingly tight technical labour market, we managed to recruit more technicians in every quarter of 2022. A total of 387 technicians were successfully hired. We achieved this result through close cooperation between the recruitment and business departments, and effective labour market communication. We proactively seek out and address our target audiences digitally and during events. In 2022, we also started to expand our recruitment teams.

Labour market, training and retention

In 2022, Alliander developed its Labour Market & Training Vision, which acts as a roadmap for its ambitions in the labour market and the field of education in an extremely tight labour market. This led to the creation of the Multidisciplinary Labour Market, Training and Retention Team (MDT AS&B). This team takes an integrated approach to the issue of labour shortages.

In 2022, this multidisciplinary team worked to develop an updated training programme for mechanics, foremen and technicians. That programme is called Focused Training. Learning and working are brought closer together in the programme. The training course consists of several modules that tie in with the knowledge and experience that lateral entrants and migrant workers, for example, already possess. We also opened a unique training centre for high-voltage technicians at the Anklaar electricity substation in October. Students can get their basic training here faster and more safely. This way of learning is more effective and more fun than simulated exercises at a high-voltage station. Each year, about 30 new technicians graduate from this course, ready for the work they will do in practice. In addition, the MDT intensified cooperation with education institutions. This has resulted directly in joint teaching initiatives in education and in stronger profiling of technical subjects and IT among young people.
In our strategic workforce planning, we try to anticipate the skills needed for the energy supply of the future. Whenever possible, we retrain colleagues. When doing so, we assess as precisely as possible when we can begin retraining. Unfortunately, retraining will not be possible for all positions. In that case, we offer assistance through our Career Centre.

Progress has also been made in the technical sector. Central government, the employer organisations and the technical sectors have jointly launched the Technology Action Plan to address the structural shortage of technicians. The action plan consists of a broad package of measures to attract and recruit more people into technical jobs, strengthen technical education, appeal to new target groups, promote technical labour migration and increase labour productivity through innovation. In November, the action plan was presented to the five responsible ministers. In the coming period, the measures outlined in the action plan will be fleshed out further. Alliander is closely involved via our employers' association WENB. We also share our experiences and expertise, to ensure that the proposed measures tie in with the practical requirements.

Alliander's own technical college

The number of courses taken by new and experienced colleagues at Alliander's technical college ('Alliander Technische Bedrijfsschool') amounted to 1,962 in total. These courses corresponded as much as possible to real-life situations and were arranged at various training locations. We also deployed innovative forms of learning in 2022, such as the HoloLens. This HoloLens allows students see the object they need to work on. The HoloLens also projects instructions, so that the student can practice 'for real'. They can also access video clips, 3D models and photos via this lens. Alliander and its technical college are involved as partners in labour market platforms such as mbostart.nl and TechGelderland.

Revamped recruitment campaigns

For several years, we have conducted intensive recruitment campaigns internally and externally to publicise vacancies for technicians. In August 2022, we launched the '100 Good Reasons Campaign'. The goal of this campaign is to get more technicians and IT professionals interested in Alliander as an employer. In 2022, employees were also able to introduce new technicians to Alliander through the internal referral programme. The programme attracted 425 potential candidates in 2022, 109 of whom were offered a contract.

Recognition of Acquired Competences (EVC)

Since 2022, employees can start a Recognition of Acquired Competences track. This track is designed for employees who do not quite meet a specific educational requirement but do have previously acquired competences. Recognition of these previously acquired competences exempts them from part of the training programme, letting them complete their training more quickly.

Refugees with residence permits

In 2022, nine refugees with a residence permit received their secondary vocational education (MBO) level 3 diplomas as senior low-voltage and medium-voltage distribution mechanics. 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.

An agile and responsive organisation

Alliander can only facilitate a changing energy system if we focus on our shared goal, and organise ourselves effectively and as a single team. In 2022, we substantially improved our agility, effectiveness and cost-efficiency. We achieved this through better prioritisation and by encouraging a 'What can be done?' mindset: if a lack of capacity in the network means that something cannot be done, how can we still help our customers? We have shared relevant best practices on the Intranet and in other resources.

In the 'Performing Together' approach, we offer teams an opportunity to improve their effectiveness and reflect with each other on results and behaviour so that they can perform better together. At the managerial level, we explain more clearly what we expect from our managers: Alliander's leaders should connect with others by being open to them and paying attention to what motivates them. Professional expertise is central to our leadership profile. The initial actions to promote development in line with the leadership profile have been implemented and we will continue to focus on this in the coming year.
Through communication on our Intranet, we are encouraging a transition towards a culture where colleagues speak their mind. Sometimes this involves directly stating how you are affected personally, but it is also about exhibiting exemplary behaviour as a manager in being receptive to criticism. We see that colleagues are starting to give each other critical feedback more and that, in spite of the increasing lack of tolerance in society, most of the communication within Alliander remains enquiring and constructive in nature.

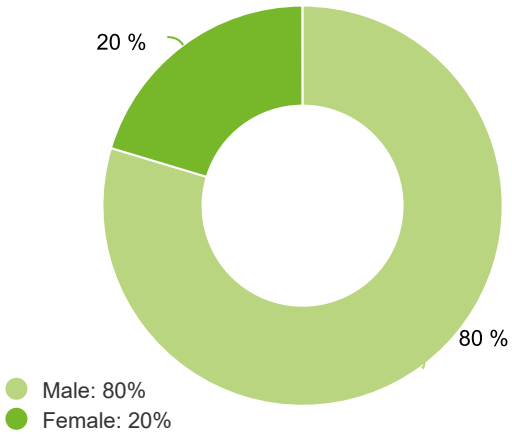
Composition of the organisation

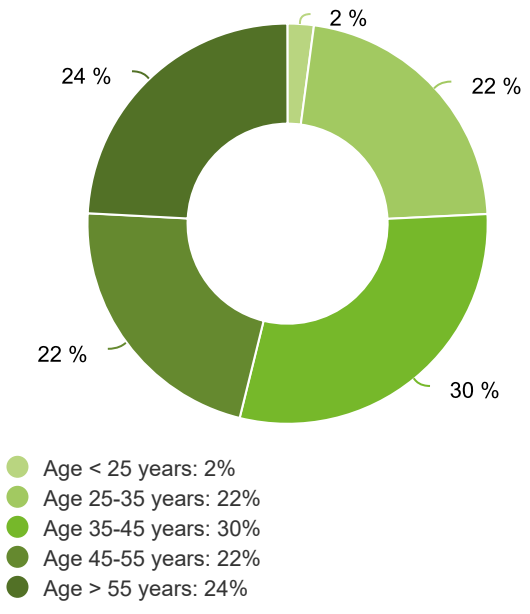
We are building the energy system of the future for everyone and with everyone. We therefore actively aim for a diverse workforce. We work on this through leadership development, training and awareness, and in our recruitment and selection.
Our HR policy pursues diversity on the basis of three pillars. 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. Regarding employment benefits, we conduct an equal work/equal pay analysis each year. This year, we went through remuneration with a fine toothcomb to bring salaries up to the same level. The final pillar is the inclusive organisational culture, which involves leveraging across our various employee networks. We actively target KPIs such as women in leadership positions and the number of jobs we create for people with poor prospects in the labour market.

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.

Employee breakdown by gender and age





Cultural diversity

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 the external networks of 'Wij zijn Nexus', Echo (a mentoring programme for graduates with a migrant background) and Agora (a network organisation that supports diversity and inclusion). We do not measure cultural diversity as yet.

The partnership with Echo takes the form of a mentoring programme for final-year university students to introduce them to Alliander, and also gives employees in leadership positions within Alliander an opportunity to broaden their knowledge and develop their cultural sensitivity.

Internal employee networks

Our internal networks for diversity & inclusion and connection actively encourage employee participation and thereby contribute to an inclusive culture. There are five networks within Alliander: 'Wij zijn Nexus' (a multicultural network), Lianne (a women's network), Pride (an LGBHTQ+ network), Tension (a youth network) and Mission Possible (for people with occupational disabilities), which went live on Diversity Day.

Offering opportunities to people with poor employment prospects

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. In 2022, we offered a total of 90 people a job or work experience placement (2021: 77). This is lower than the target, mainly due to incorrect assumptions and expectations regarding the deployment and supervision of people with poor prospects in the labour market, and the support they require. The HR department is working on this issue in consultation with the business side.

Alliander wins awards for diversity

Alliander is one of the companies that endorses the Diversity Charter drawn up by SER Diversity at Work. In 2022, Alliander won the SER Diversity at Work Award for its 'Through Different Eyes' initiative. This interactive workshop consisted of sessions to discuss the question: 'What is an inclusive culture and how do we create it?' The panel of judges praised the 'step-by-step approach' and the use of VR glasses to make the experience more penetrating. In addition, Alliander and E-Care Reverse Logistics won the 2022 Inclusive Business of the Year Award. The reason for the award was the joint work-learning programme, which gives people with poor job prospects an opportunity to develop further in technical subjects.

Diversity Day and Coming Out Day

On 4 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. The theme this year was 'I see what you don't', and employees were able to participate in a virtual reality experience, online webinars, master classes and live streams, among other activities. Additionally, we focused on diversity and inclusion on Coming Out Day, which was 11 October in 2022.

Diversity targets and achievements at the board and senior management level

The Dutch Diversity Act came into effect on 1 January 2022. The Diversity Act seeks to achieve a better balance in the ratio of men to women in the management boards, supervisory boards and senior management of large companies (such as Alliander). For 2022, Alliander set itself the target of achieving a ratio of at least 31% women and at least 31% men on the Management Board, on the Supervisory Board and at the senior management level (the first hierarchical layer below the Management Board).

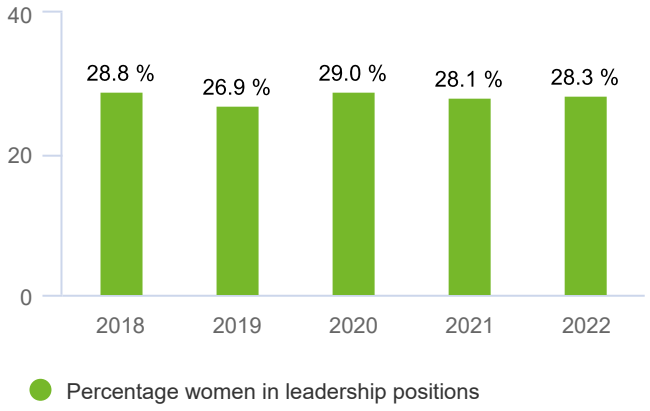
At year end 2022, 25% of the Management Board members were female. The percentage of women on the Supervisory Board was 40%. For further details, please refer to the Supervisory Board report. The percentage of women in senior management was 28.6% at the end of 2022.

	Objective for 2021	Performance in 2021	Objective for 2022	Performance in 2022	Notes
Supervisory Board	At least 30% is female	2 women (40%) 3 men (60%)	At least 31% is male, at least 31% is female	2 women (40%) 3 men (60%)	No vacancies and/or new appointments in 2022
Board level (Management Board)		1 woman (25%) 3 men (75%)	At least 31% is male, at least 31% is female	1 woman (25%) 3 men (75%)	No vacancies and/or new appointments in 2022
Senior management (N-1)			At least 31% is male, at least 31% is female	8 women (28.6%) 20 men (71.4%)	New specified target for board level and senior management following new gender diversity law (Ingrowth Quota Act). Previously there was only a general target for women in leadership positions.

This section explains Alliander's approach to diversity and the policy on diversity in a broad sense. It highlights the targeted management action to fill leadership positions by recruiting female candidates and internally promoting female employees, and to ensure equal pay between men and women as important instruments for increasing the percentage of women in these positions.

Percentage of women in leadership positions

The percentage of women in managerial positions at the end of 2022 was 28.3% (2021: 28.1%). The target here is to have women in at least 33% of leadership positions by 2024. To achieve this goal, we are putting extra effort into retaining female employees and taking action to make sure women make up half the influx of new managers (which is currently one-third women and two-thirds men). Although this is challenging in today's tight labour market and within an industry that is seen as a male domain, this situation will not change fast enough if we fail to act and the perception that engineering is men's work will continue to prevail. Alliander is convinced that the energy system should be created for everyone, with everyone.



Master classes for inclusive leadership and development programmes

As part of our leadership programme, we offer diversity and inclusion master classes and practical tools to ensure active discussion of the topic and encourage concrete action to improve the gender ratio and achieve an inclusive work culture. This includes specific interventions through which we support and challenge women with potential and ambition. For example, there is a cross-mentoring programme and boardroom coaching in partnership with Talent to the Top, a leadership programme run by Direction, the annual nomination of a Young Talent by Stichting Topvrouw van het Jaar and Agora network's mentoring programme. In addition, women can participate in the activities organised by Lianne, our women's network.

Attractive employer

In March 2022, the last COVID-19 containment measures were lifted. From then on, the coronavirus crisis team followed developments in the background. In the autumn, the government instructed companies to draw up their own plan for controlling the coronavirus. In response to this instruction, the crisis team prepared the Alliander Coronavirus Roadmap based on different levels of risk and corresponding measures. The phase that applies at any given time depends on a number of factors, such as the impact of the coronavirus on daily life, the national measures that apply and sickness absence within Alliander. Fortunately, the roadmap did not need to be used.

Health and sustainable employability

In order to fulfil our social task, i.e. achieving the energy transition, we must focus on sustainable business operations. This will require continuous investment in our people. Alliander is actively committed to being a sustainable and valuable employer. This means that we pay close attention to retaining and attracting the right people and helping them to get the best out of themselves and the organisation. In this context, it is important that we see the energy we invest in our people reflected in their commitment, agility, vitality and active effort to be and remain employable. In addition to attention for employability in the dialogue between managers and employees, Alliander is improving the long-term employability of its people through a special budget and a vitality programme.
The explosive increase in the work we have to do and the extremely tight labour market require extra attention for keeping our employees employable and preventing absenteeism. With colleagues leaving the company and a limited influx of new colleagues, our employees perceived the workload as high. Absenteeism for mental-health reasons therefore continued to be an area of explicit focus in 2022. The dialogue with employees about the workload therefore remained important. In addition, several initiatives have been rolled out in the organisation to strengthen self-management among employees and managers. For example, we offer coaching through our career centre, AllianderFit for employee health, training courses relating to self-management ('Eigen Regie') and coaching with requirements ('Eisend Helpen') for managers and a broad selection of training courses through the GoodHabitz platform.

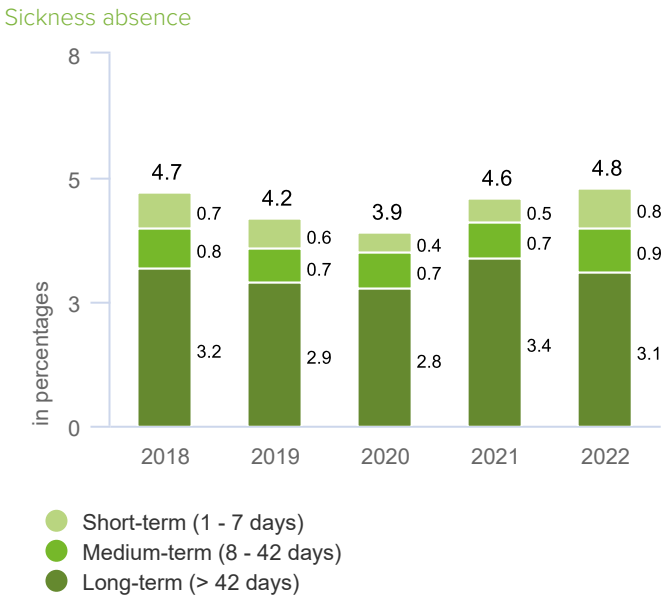
Financial support for employees

The arrangements agreed in the bargaining process for the 2023 NWb collective labour agreement included employer action to help employees in managing their financial affairs. An example is ensuring that they have a good understanding of their personal financial situation as the starting point for making considered choices. Alliander offers employees the opportunity of better understanding or maintaining a good overview of their financial situation through the Geldvinder platform, where they can also optionally seek advice from an independent financial coach.
In the case of current or former employees who need financial help due to unexpected, high medical expenses that the health insurance company or another scheme does not cover, we also offer support via Alliander's Personnel Fund. This foundation decided at the end of 2022 to create a temporary support scheme with retroactive effect from 1 January 2022 to 31 December 2023. Among other things, the support scheme includes a lower threshold for applying for support via the fund, a contribution towards energy costs and reimbursement of the Staff Fund contribution for all those who successfully submit a request for support.

Sickness absence

In 2022, the sickness absence rate was 4.8% (2021: 4.6%). The Netherlands' average in our sector was 4.8% at the end of the third quarter of 2022 (the figure for the whole of 2022 has not yet been published). There was significant long-term sickness absence in the period up to and including September. That declined towards the end of the year, but medium-term absence emerged in its place. This was probably due to COVID-19. The frequency of sickness absence also increased somewhat. We expect the effort put into the Periodic Employability Consultations, 'Eigen Regie' training course and case management for absenteeism to pay off.

Alliander is assisted by an external occupational health and safety service when dealing with sickness absence and absenteeism issues. If they wish, employees can make an appointment themselves, including for preventive purposes. Managers who have questions and require advice on counselling employees who are ill, absent or reintegrating can contact both the internal reintegration advisers and the occupational health and safety service for assistance. As at 31 December, WGA benefits (under the Resumption of Work (Partially Fit Persons) Regulation) had been granted to eight individuals in 2022 (2021: eight).



Employee satisfaction

We use the Central Employee Barometer to measure how satisfied all colleagues are with our work at Alliander. We do so by asking questions on numerous topics. As in 2021, Alliander's employees feel engaged and are inspired and satisfied by their work. Engagement and satisfaction with Alliander have further increased. With regard to our shared goal, we see that the answers vary and that there is not yet an organisation-wide recognition of what our objectives are. Furthermore, there is room for improvement in the interpretation of that shared goal in terms of individual contributions, to ensure that everything we do makes a real difference for the energy transition.
In the area of physical safety, we have become more critical of ourselves. Employees indicate that more attention should be paid to this aspect. A positive trend can be seen in regard to personal safety, which does not alter the fact that more than 7% of colleagues reported

being treated inconsiderately by a colleague last year. We remain committed to ensuring that this type of behaviour does not occur in the future. The new 'Through Different Eyes' intervention can help people learn to recognise such situations and teach bystanders what they can do.
The perceived workload decreased significantly in several areas of the organisation. Even so, the barometer shows that more colleagues are now looking around for a job outside Alliander. Because our social task requires the availability of a large workforce, retention remains our primary focus. There are also teams where the workload is still perceived as high or very high.
The various organisational units and teams have been informed of the most important points for improvement. The barometer results are a good starting point for a dialogue.

Alliander scores highly as a good employer
In the Management Team 500 list published on the MT/Sprout platform, Alliander is ranked the best utility company when it comes to being a good employer. The MT500 summarises the results of an annual survey conducted by the University of Amsterdam to assess the reputation of Dutch companies among managers, decision makers and executives.

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 2022, Alliander invested 2.9% of its wage bill in employee training (2021: 2.8%). We offer various training programmes and opportunities for development to make teams better able to perform and learn. In addition, the right professional knowledge and skills are available when needed and we apply a broad approach to talent development, both professional and personal. 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

Following collective bargaining negotiations, the employers and unions reached agreement on the new NWb collective labour agreement, which comes into effect on 1 January 2023. A 4.0% structural wage increase and a one-time payment of €1,250 are among the important results. We agreed furthermore on the outline for a new Sectoral Social Plan. In addition, we decided to extend the Vitality Scheme and make it available to part-timers. The package includes an agreement on diversity and inclusion as well. We realise that we live in times of significantly rising costs. We discussed inflation and our need to show our employees that we value them highly at some length with the unions. We are pleased that, in addition to the agreements on sustainable employability, diversity & inclusion and other topics, the unions are also satisfied with the wage arrangements laid down in this agreement.

Career centre

The career centre supports all Alliander employees who are reviewing their career and employment options because their job has changed, or may be about to change or be terminated. A total of 23 colleagues became redundant in 2022 (2021: 84), and 340 (2021: 330) people made use of our career centre. Thanks to this assistance, 64 employees managed to find a new job or an appropriate alternative (2021: 91). 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. The Alliander Foundation spent a total of €275,000 on various projects and activities in 2022.
In 2022, the Alliander Foundation also celebrated its fifteenth anniversary. To mark this milestone, all colleagues were given four hours off for voluntary work. Over 1,400 colleagues participated in this initiative. Many societal team activities were organised and there were also special anniversary activities in which colleagues could participate individually. In addition, as in other years, colleagues could obtain support for their own voluntary work or set up an action for a good cause. There was also an opportunity for pleasantly surprising people going through a difficult period or who are lonely, with a fun activity or gift.
Alliander is proud that the Foundation supports employee volunteering. In turn, the employees experience benefits such as an opportunity to broaden their horizons and increased workplace happiness.

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 (2021: 3.7).

Review by the Works Council

2022: a stable base in an unstable world

"As the new Works Council for the 2022-2024 period, we formulated our own vision, Objectives, Goals, Strategies and Measures (OGSM) and key priorities based on Alliander's vision and strategy. The key priorities relate to the balance between control and participation, between acting as an outstanding employer and as outstanding employees, and between fulfilling Alliander's task and resilience. The Works Council aims to use this basis to contribute to Alliander, precisely by proactively and effectively representing the interests of the employees in the discussions with Alliander's board and management. In 2022, in addition to regular meetings with the Management Board, we handled 12 requests for advice and 6 requests for consent on digitalisation, State participation and the on-call and breakdown service, among other topics."

"The new year started with the formation of the new Works Council, a group of 13 members, most of whom were new to the role. The start of the new Works Council's activities coincided with tumultuous developments in the world around us. Although the coronavirus containment measures were gradually being relaxed, working from home remained the norm. And, at a time when we in the Netherlands were slowly regaining our freedom, a serious threat to freedom arose in Ukraine. The war in Eastern Europe had an effect on all of us. We all immediately felt the consequences of the conflict, not least the network operators, who found themselves having to cope with a full-blown energy crisis."

Energy poverty

"As the situation in Ukraine developed, 'energy poverty' emerged as a phenomenon. Some of our employees also found themselves struggling to make ends meet each month. The sudden sharp increase in electricity and gas prices hit everyone directly in their wallets. The Works Council used its influence and advocated measures to strengthen the purchasing power of employees. Examples were company schemes that compensate for inflation, increases to the travel allowances, increases to the standby and breakdown service allowances, sundry expense allowances for employees working in the field and arrangements to help employees with debts. In that light, the Works Council is pleased with the industry-wide agreement not to disconnect customers who cannot pay their bills. That decision illustrates how seriously we take our social role."

Withstanding shocks

"Alliander has proved itself to be a stable organisation in this ominous situation that has caused turmoil in the energy sector. In our role as the Works Council, we see considerable progress has been made in the transformation to 1Alliander. Despite the turmoil, Alliander showed that it can up its game. Some employees are still working mainly from home at present. The new organisation is effective and has proven its ability to withstand shocks.
This gives us confidence that Alliander can cope with the impact that new laws on energy and heating will have on Alliander's organisation. The impending legislation will potentially have a significant impact on our organisation. For example, the new Heating Act proposes, among other things, that collective district heating networks will pass into public hands, possibly resulting in an important role for network operators. In addition, the Energy Act means that Kenter will have better opportunities for growth outside Alliander. Hence the initiative to start investigating the sale of Kenter. This is a development that we, as the Works Council, are closely involved in, with an advisory role."

Personal safety

"There were further external developments that impacted our internal organisation. The year 2022 will go down in the history books as the year in which abuse came to light in TV programmes such as The Voice and DWDD, for example, and even in the Dutch Lower House. In other words, personal safety (or the lack of it) and inclusion became even more of a hot topic. As a cross-section of Dutch society, this issue is inevitably also relevant in our organisation. Making it possible for people to come forward with their story is extremely important in an increasingly diverse Alliander. The basis for doing your job well is to feel accepted as you are and to feel safe in your interactions with managers, colleagues, suppliers or customers."

Survey investigating employee retention

“At the same time, we face an increasingly tight labour market. As a result, employee retention has become an important theme for the Works Council. The Works Council, in cooperation with the specialist committees, conducted a major employee retention survey. The outcomes have led to talks with our directors about how to keep employees permanently committed to us. The findings also played a role in the collective bargaining negotiations between Alliander and the trade unions. Furthermore, they have provided valuable input for drawing up company regulations and the terms and conditions of employment.

Employee retention will continue to be a focal topic for us as the Works Council, both in 2023 and the years to come. It is especially important in an unstable world in which employees attach great importance to a pleasant, safe and stable working environment in which they can perform optimally and develop effectively. The Works Council continues to work to achieve this situation.”

On behalf of the Alliander Works Council,
Nico Büskens

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 topics	SDGs	Stakeholder groups
G) Access to affordable energy		Shareholders Investors Customers

Objectives and results for creditworthiness

Credit rating

Result in 2022:
S&P A+/A-1/stable outlook
Moody's Aa3/P-1/stable outlook
2022 target:
To retain a solid A rating profile

S&P A+/A-1/stable outlook
Moody's Aa3/P-1/stable outlook in 2021

FFO/net debt

19.2% 2022 result

≥ 15.0% 2022 objective

25.8% in 2021

Interest cover

12.1 2022 result

≥ 3.5 2022 objective

17.2 in 2021

Net debt/(net debt + equity)

43.8% 2022 result

≤ 60.0% 2022 objective

36.7% in 2021

Solvency ratio

49.0% 2022 result

≥ 30.0% 2022 objective

53.8% in 2021

Developments in 2022

Funding the energy transition

The increasing demand for electricity, resolving capacity bottlenecks in the network and implementing expansions have led to a substantial growth in network operators' work packages in the Netherlands. Alliander is no exception: compared to the previous year, investments rose by 21% to €1.2 billion in 2022. The expected rise in demand for energy will lead to even higher investments in the coming years. In addition, we have to deal with considerable price rises as a consequence of the scarcity of technical staff, external contractors and materials. The TenneT procurement costs will also remain high due to the growing work package.

Furthermore, the higher energy prices, caused in part by the war in Ukraine, have caused the cost of our network losses to increase by about a factor of three, putting them at over a quarter of a billion euros in 2022. On the other hand, the abolition of the municipal sufferance tax offset these increases to some extent. The increase led to substantially lower profits for 2022 (€198 million; 2021: €242 million).

The sharp growth in investments in combination with lower profits led to a substantial funding shortfall, which could not immediately be covered by a change in the tariffs because of the regulatory framework. Although a proportion of the higher costs of network losses is reflected in our tariffs for 2023, this is not sufficient to cover the rise in expenditure. In the current system, all investments by the network operators are funded in advance and are only recouped through the tariffs over a period of 40 years on average. Particularly in the current situation of rising investments, this leads to funding shortfalls and thus an increase in the debt position. Net debt rose by over €800 million in 2022.

As a means of absorbing funding shortfalls, Alliander issued a green bond with a face value of €500 million at the beginning of September 2022. In addition, the State and the network companies of Alliander, Enexis and Stedin came to a negotiation agreement at the end of 2022 about the conditions under which the State will be able to contribute capital in the future, and thus become a shareholder in the network companies. These conditions were recorded in a Framework Agreement and sent to the Lower House of the Dutch parliament by the Finance Minister, Sigrid Kaag, and the Minister for Climate and Energy Policy, Rob Jetten, in November 2022. Reinforcing the networks companies' equity is a crucial precondition for being able to continue making investments and to avoid even more pressure on investments in the gas and electricity networks. Should the State decide in the future – at the request of the network companies – to become a shareholder, this will be subject to certain conditions. The Framework Agreement describes these conditions, such as the time required for an accession request and agreements about governance. The Framework Agreement serves as a basis for a possible participation contract in which more detailed arrangements will be recorded if and when the State's accession as a shareholder becomes a real option. The Framework Agreement will be put to the shareholders at the General Meeting of Shareholders on 19 April 2023 for their decision.

Developments relating to associates

On 10 January 2022, Alliander sold its shares in the contractor Stam Heerhugowaard Holding B.V. (Stam) to the Van Gelder Group. On 31 December 2022, Alliander also sold InfraSignal GmbH, which incorporates activities related to traffic management systems in the city of Berlin, to a subsidiary of the German federal state of Berlin. The announcement was made at the beginning of December that the associate Kenter will be sold in 2023. Accordingly, it is classified as 'Held for sale'. Among other things, this means that Kenter's assets will not be depreciated as of that date. Alliander expects to complete the sale and be able to present the buyer in 2023.

Additions to the reporting scope

Reporting obligations in line with EU taxonomy – as set out in the EU's Sustainable Finance Action Plan to make the European economy more sustainable – were extended in 2022. Alliander's reporting had to comply with the first two requirements in 2021.

Alliander's financial policy is explained in further detail in this chapter. Furthermore, the financial results and position in 2022 in terms of the cash flows and financing are also presented, followed by taxation, regulatory developments and the EU taxonomy. The chapter ends with a look ahead at the results expected for 2023.

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.

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 and associated standards are important 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. Security deposits paid and received in the context of network losses are excluded from the ratio calculations.

Financial policy

The financial policy remained unchanged in 2022:

- FFO/net debt ratio: at least 15%
- Interest coverage: at least 3.5
- Net debt/(net debt + equity): maximum of 60%
- Credit rating: solid A rating profile
- Compliance with regulatory requirements for network operators

Ratios on the basis of Alliander's financial policy

	norm	31 December 2022	31 December 2021
FFO/net debt	> 15%	19.2%	25.8%
Interest cover	> 3,5	12.1	17.2
Net debt/(net debt + equity)	< 60%	43.8%	36.7%
Solvency	> 30%	49.0%	53.8%

Almost all ratios deteriorated compared to the previous year, particularly as a result of a lower FFO in combination with an increase in net debt.

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 2022.

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 section Our impact on society. 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 endorses the importance of sustainability and so the company's sustainability targets play a prominent role in the management of the business and external financing. Alliander is able to issue green bonds and green Euro Commercial Paper (ECP). The company also has a committed Sustainability Linked credit facility. This financing structure is a financial incentive for Alliander to make sustainable investments and to conduct its business sustainably. 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 2022, there were 136,794,964 issued and paid-up shares. Contact with shareholders primarily takes place during the shareholders' meetings. The company and its shareholders also meet outside of the shareholders' meetings. A summary of the various shareholder dialogue structures can be found on the Alliander website.

Institutional investors

Institutional bond investors, such as asset managers, insurance companies and pension funds, provide a large part of our loan capital 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, in February 2022 we met with investors to discuss the 2021 figures. This discussion included various other topics such as the progress made in the energy transition, the increase in investments, measures to expand our financing capacity, the convertible shareholder loan and the new regulatory period.

Banks

Alliander has access to a back-up credit facility of €900 million, committed by seven banks. The facility runs until December 2026, with the option to extend it by one year in 2022 and again in 2023, up to December 2028 at the latest. In 2022, all the participating banks committed to the first extension to December 2027. 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

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. The long-term credit ratings of both S&P and Moody's remained unchanged in 2022. Changes have taken place in the composition of the ratings. S&P granted Alliander the status of Government Related Entity (GRE) on 14 February 2023. The consequence of this designation is that the rating moves up one notch. At the same time, S&P downgraded its standalone credit rating by one notch. At year-end 2022, 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. They discussed the developments in the regulations, the increase in demand for electricity, the associated increase in investments, and the measures taken to expand our financing capacity, including the Framework Agreement with the Dutch State. 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 2022

Introduction to Alliander's finances

Almost 90% of Alliander's income comes from the regulated activities of network operator Liander and 10% 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 2022. This annual report will appear in the second quarter of 2023.

The main expenditure relates to work maintaining and extending the electricity and gas networks and the operating expenses connected with all other activities. We invested more than €1.2 billion in 2022, mainly in the replacement and expansion of our networks. This investment equates to roughly 40% of our total expenditure. Expenditure on operating expenses, such as procurement network losses, TenneT's transmission capacity and employee benefit expenses, accounts for over 50% of our 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 2022 together amounted to approximately 5% of our overall expenditure. Finally, we pay corporate income tax to the tax authorities. This accounts for another 2% of our outgoings approximately.

Cost-effective and efficient operations

We launched a company-wide cost-saving programme in 2018. The foundation of the programme is to continuously work on increasing cost awareness throughout the organisation and to critically consider which activities are really necessary for performing the job we do – without compromising on safety or quality. The objective of this programme is not only to cut costs, but also to increase productivity. In addition, the programme focuses on simplifying and improving processes, by standardising and digitalising the activities for example. Moreover, we focus on tightening up procurement agreements and reducing indirect costs, for example by adjusting internal and external policies and reducing the deployment of contract staff.

The savings achieved (including improvements in efficiency) have amounted to some €195 million since the start of the programme.

Income statement for 2022

Net profit amounted to €198 million in 2022, which was €44 million less than in 2021 (€242 million). This drop in the profit is due to the costs being over €75 million higher than in 2021. The main reason was higher procurement costs associated with network losses. This increase in costs contrasts with an increase in net revenue of €30 million.

The net profit is affected every year by incidental items, which, in 2022, had a positive impact of €25 million on our profit. Net profit excluding exceptional items was €173 million, €57 million less than the comparable profit in 2021.

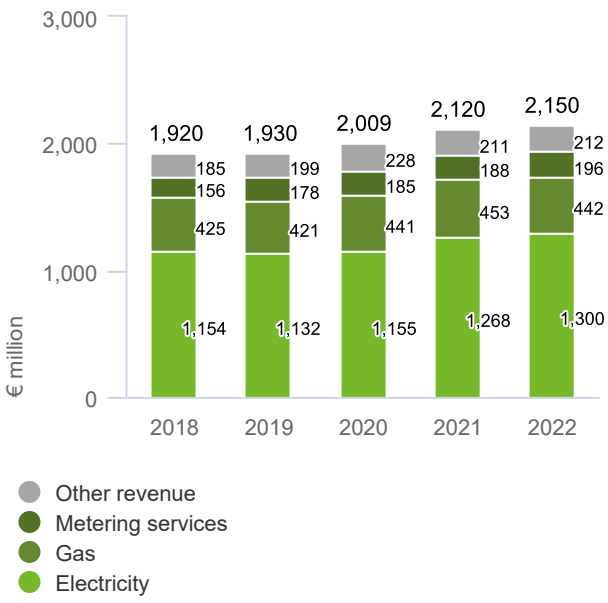
The most notable developments in our profit were as follows:

Net revenue

Net revenue in the 2022 financial year rose by €30 million compared with the previous year, from €2,120 million to €2,150 million. This was mainly due to the higher regulated revenue from electricity, which was €32 million more than in 2021. Revenue from low-volume consumers was €14 million higher in 2022, due to both a larger number of connections and higher tariffs. Greater volumes transmitted to high-volume consumers led to an increase in revenue of €15 million in total. The higher amortisation of investment contributions explains €3 million of the increase in revenue.

The greater number of connections also led to higher revenue from metering services (€8 million). In contrast, the regulated revenue from gas was €11 million lower than in 2021 due to both lower tariffs and fewer connections.

Net revenue



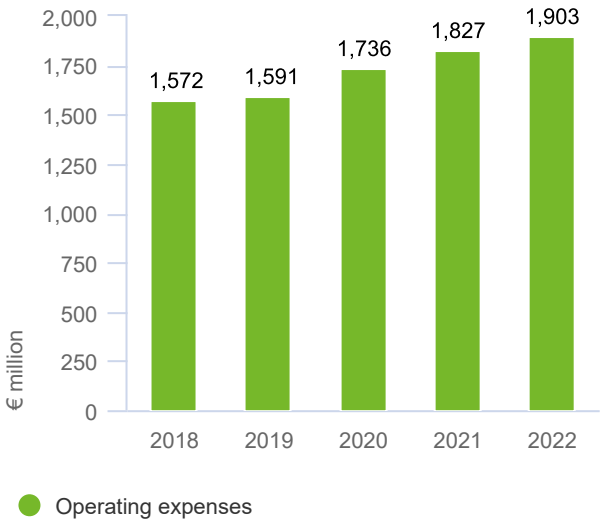
Operating expenses

Operating expenses rose from €1,827 million in 2021 to €1,903 million in 2022. This €76 million increase was primarily caused by the following factors:

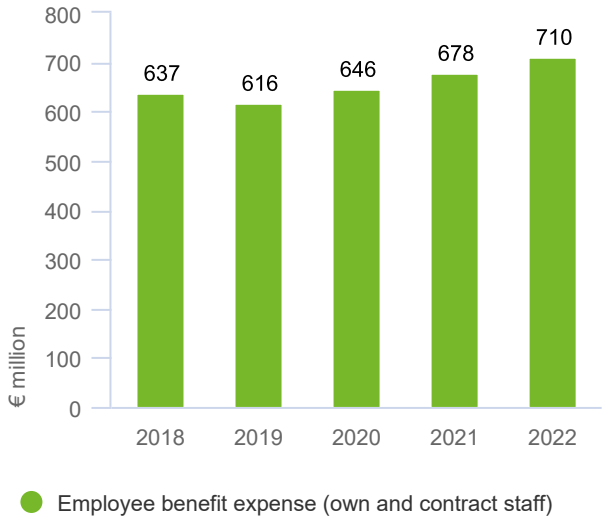
- The increase in energy prices led to procurement costs associated with network losses that were €149 million higher compared to 2021.
- The increase in investments in recent years in combination with the application of the declining balance method of depreciation to the gas network resulted in a higher depreciation expense of €41 million.
- The cost of procuring transmission capacity rose by €24 million as a result of the higher tariffs set by TenneT.
- The cost of hiring agency workers rose by €28 million. This rise was caused by the temporary deployment of staff because job vacancies could not be filled and by hiring specific expertise for projects.
- In addition to the abovementioned cost increases, there was a reduction in costs in 2022 due to the discontinuation of the municipal sufferance tax. As of 2022, municipalities may no longer charge this levy, which reduced costs by almost €155 million.

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

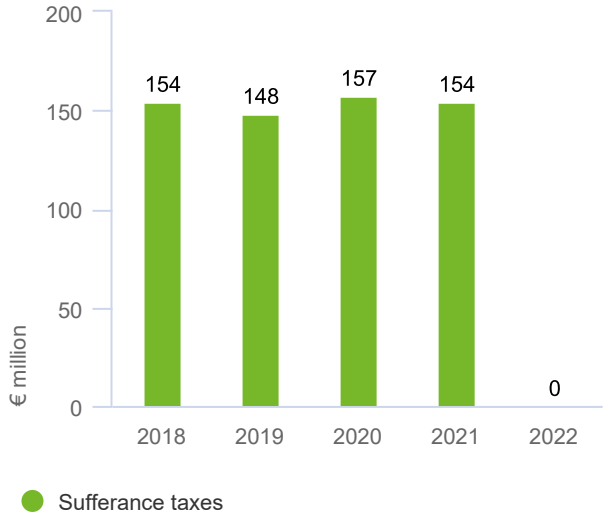
Operating expenses



Employee benefit expenses (permanent and temporary)



Sufferance tax[1]



1 As of 2022, there are no more sufferance tax charges.

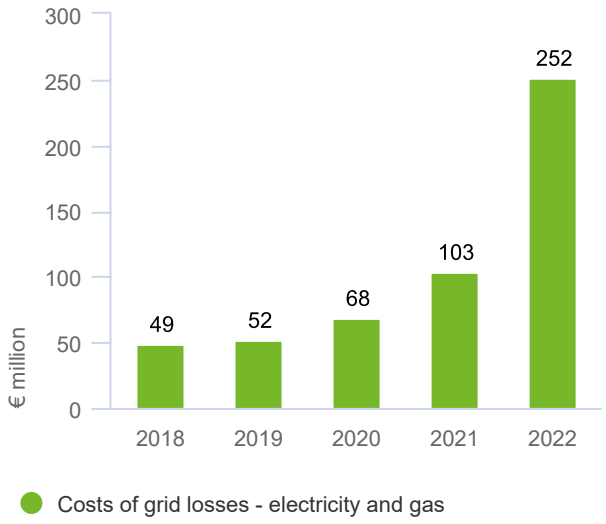
Employee benefit expenses

The total employee benefit expenses for both internal and external employees were €32 million higher than in 2021. Despite the sale of Stam, including 130 FTEs, the workforce grew by 223 FTEs in 2022 compared to 2021. The average costs per FTE also increased in 2022 due to a wage increase in the collective labour agreement (2%) and a one-off payment of €1,250 per FTE. In contrast, the costs of provisions for employee benefits fell by €7 million. On balance, this led to an increase of €9 million in costs for our own staff compared to 2021.
The number of agency FTEs increased by over 100. These agency workers were hired to ensure sufficient staffing for the work package and specific expertise for ongoing projects, such as digitalisation projects.
Our own-company capitalised production was on balance €11 million lower than in 2021. Production by our own staff was higher than in 2021, partly due to the larger workforce. In contrast, the sale of Stam led to more activities being carried out by external contractors, which is not recognised in own-company capitalised production.

Sufferance tax

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. The income item of €1 million in 2022 is due to the settlement of positions from previous years. Consequently, costs were down by €155 million compared to 2021 (€154 million).

Costs of network losses - electricity and gas



Transmission capacity costs

Costs of grid losses - electricity and gas

The costs of grid losses, at €252 million, were up by €149 million compared with 2021. The main reason for these higher costs is the price effect: the increase in energy prices led to much higher market cost of procurements associated with grid losses. Besides the price effect, we had to procure higher volumes. An increase is visible in both the cost of procurements associated with electricity network losses (increase of €102 million) and procurement costs associated with gas network losses (increase of €47 million). Since 1 January 2020, the network operators have had a statutory obligation to purchase gas to compensate for grid losses.

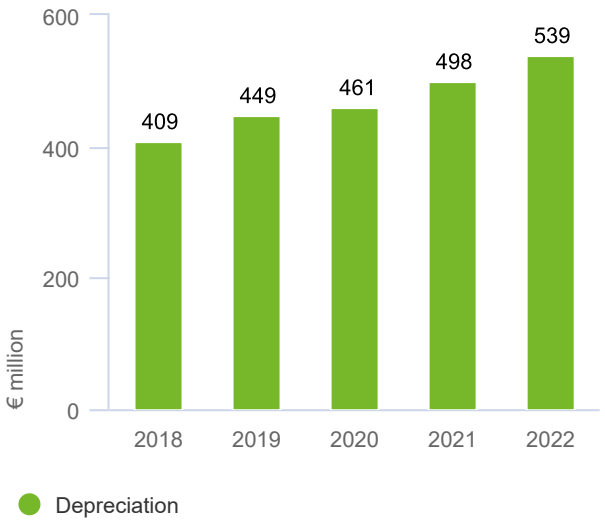
Transmission capacity costs

Transmission capacity costs in 2022 amounted to €291 million, an increase of €24 million compared to the previous year (2021: €267 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. These tariffs have risen due in part to the investments TenneT has to make, inflation and rising energy prices.

Depreciation and impairment

The depreciation and amortisation charges and impairment losses on non-current assets amounted to €539 million, which is an increase of €41 million compared with the preceding year (2021: €498 million). The increase in depreciation charges is due on the one hand to the higher level of investments, and on the other hand to the application of the declining balance method to the gas network as of 2022. This change is largely to reflect an expected decreased utilisation of our gas assets as alternative energy sources become more predominant. The declining balance method has been chosen as this method is better suited to the expected future decrease in the number of users of the gas network. Alliander also estimates that the decrease in the number of users of the gas network will not lead to large-scale decommissioning of the gas assets. Despite a decrease in the number of users of the gas network, the gas mains infrastructure will remain largely operational. In addition, it is expected that natural gas will continue to be of relevance, along with sustainable alternatives such as green gas and hydrogen. Therefore, this does not imply a reduction in the useful life of the gas assets.

Depreciation and impairment



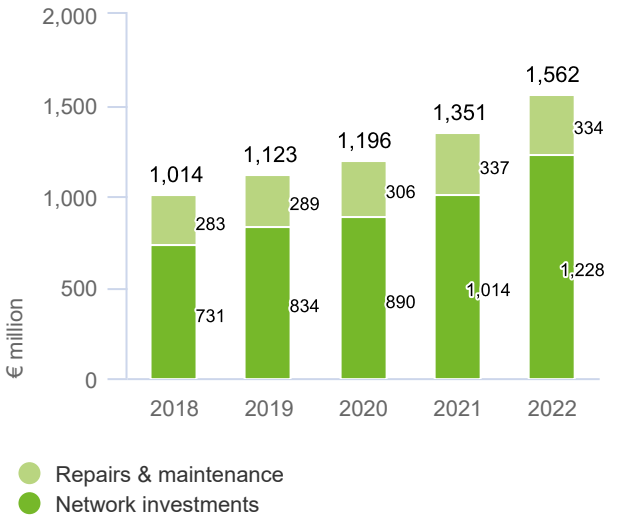
Operating profit

The graph on the right shows the operating profit for the last five years. The large profit in 2018 stands out: this was a direct consequence of the sale of Allego. The low profit in 2022 also stands out: this was mainly caused by the rise in the cost of network losses.

Network investments and maintenance costs

The graph shows the changes in maintenance costs and investments in the network over the last five years. Total expenditure on network investments and maintenance costs in 2022 was €1,561 million, an increase of €200 million compared with 2021 (€1,351 million). The increase was caused by higher investments (€213 million), whereas the costs of maintenance and outages remained relatively stable.

Maintenance costs and network investments



Incidental items

Alliander's results can be affected by incidental items and fair value movements. Alliander defines exceptional 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 2022, exceptional items had a positive impact of €26 million on our net profit. In 2021, exceptional items provided a gain of €12 million. This means that the net profit adjusted for these exceptional items was €76 million lower than in 2021. The middle column in the table below shows the exceptional items, with an explanation below.

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	
	2022	2021	2022	2021	2022	2021
Revenue	2,150	2,120	-	-	2,150	2,120
Other income	63	61	13	17	50	44
Total purchase costs, costs of subcontracted work and operating expenses	-1,658	-1,634	10	-10	-1,668	-1,624
Depreciation and impairments	-539	-498	-	-3	-539	-495
Own work capitalised	294	305	-	-	294	305
Operating profit	**310**	**354**	**23**	**4**	**287**	**350**
Finance income/(expense)	-53	-45	-	-4	-53	-41
Result from associates and joint ventures	3	5	4	6	-1	-1
Profit before tax	**260**	**314**	**27**	**6**	**233**	**308**
Tax	-62	-72	-1	6	-61	-78
Profit after tax from continuing operations	198	242	26	12	172	230
Profit after tax from discontinued operations	-	-	-	-	-	-
Profit attributable to minority interests	-	-	-	-	-	-
Profit after tax	**198**	**242**	**26**	**12**	**172**	**230**

Other income

(2022: €13 million; 2021: €17 million)

We sold our shares in our subsidiary Stam at the beginning of 2022, which produced a book profit of €13 million; this is recognised under 'other income'.

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.

Total procurement costs, costs of subcontracted work and operating expenses

(2022: €10 million income, 2021: €10 million expense)

The exceptional income of €10 million in 2022 relates to the release of two provisions. One is a provision of €3 million made following a dispute concerning the past sale of an associate and the other is a provision for a loss-making contract at one of the subsidiaries. Part of this provision was also released to the benefit of the result in 2021. In addition, the exceptional expenses in 2021 of €10 million comprised the cost of organisational adjustments (€5 million) and the payment of €10 million paid under an earnout arrangement for the former shareholders in 450connect.

Depreciation and impairment

(2022: nil, 2021: €3 million)

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

Total finance income/expenses

(2022: nil, 2021: €4 million expense)

The exceptional expenses for 2021 of €4 million related to the early termination of two cross-border lease transactions.

Tax

(2022: €1 million income, 2021: €6 million income)

The income in 2022 is the result of the impact of the aforementioned exceptional items on corporate income tax (€1 million, 2021: €1 million). In addition, the exceptional income in 2021 comprised the revaluation of deferred tax assets of €5 million due to the announced increase in the corporate tax rate.

Profit/loss from associates

(2022: €4 million income, 2021: €6 million income)

The payment of €4 million from a trust office in which Alliander holds 100% of the depositary receipts for shares has been classified as exceptional income, which has been recognised as the result of the non-consolidated participating interest. The income item in 2021 followed 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	2022	2021	2022	2021	2022	2021	2022	2021
Operating income								
External income	1,949	1,935	251	229	-	-	2,200	2,164
Internal income	3	5	351	399	-354	-404	-	-
Operating income	**1,952**	**1,940**	**602**	**628**	**-354**	**-404**	**2,200**	**2,164**
Operating expenses								
Operating expenses	1,675	1,601	592	617	-354	-404	1,913	1,814
Operating profit	**277**	**339**	**10**	**11**	**-**	**-**	**287**	**350**

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 €1,953 million, operating income in 2022 was up by €13 million compared with 2021. This increase is due to the higher number of connections and an increase in the regulated tariffs. Operating expenses for Liander rose by €98 million, particularly due to the higher procurement costs associated with network losses, higher depreciation due to the high level of investment and the application of the declining balance method of depreciation to the gas network, and to the higher tariffs charged by TenneT for procuring transmission capacity. As a result, the operating profit of €254 million was €85 million lower than in 2021. This decline is partly due to the sale of Stam in January 2022.

Other

The 'Other' segment covers the entirety of the other operating segments within the Alliander group, such as the activities of Kenter, Qirion, Alliander AG, Firan, TReNT, the service units, corporate staff departments and the new activities. At €251 million, external operating income in 2022 was up by €22 million compared with 2021. Operating profit for 2022 amounted to €9 million (2021: €11 million profit).

Balance sheet

The abridged balance sheet as at 31 December 2022 is shown below.

	Alliander N.V.	
€ million	31 December 2022	31 December 2021
Assets		
Non-current assets	9,726	9,167
Current assets	804	1,026
Assets held for sale	162	16
Total assets	**10,692**	**10,209**
Equity and liabilities		
Total equity	4,570	4,470
Non-current liabilities	5,098	4,694
Short-term liabilities	1,008	1,036
Liabilities held for sale	16	9
Total equity and liabilities	**10,692**	**10,209**

The significant changes in the balance sheet as at 31 December 2022 compared to the situation as at 31 December 2021 are explained below. Detailed information on balance sheet items is given in the financial statements.

- Non-current assets increased by €559 million. This increase is mainly explained by the high level of investment, in particular in the electricity networks.
- Current assets fell by over €200 million, mainly due to the lower cash balance as a result of the negative cash flow of €419 million.
- The assets and liabilities held for sale relate mainly to Kenter.
- Equity increased by €100 million, mainly as a result of the profit of €198 million achieved in 2022 on the one hand, and the dividend of €100 million paid over 2021 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 €404 million compared to 2021. This was mainly due to the green bond issued with a face value of €500 million.

Cash flow

Consolidated cash flow statement

A summary of the cash flow statement for 2022 is shown below.

€ million	2022	2021
Cash flow from operating activities	572	664
Cash flow from investing activities	-1,175	-639
Cash flow from financing activities	184	301
Net cash flow	**-419**	**326**

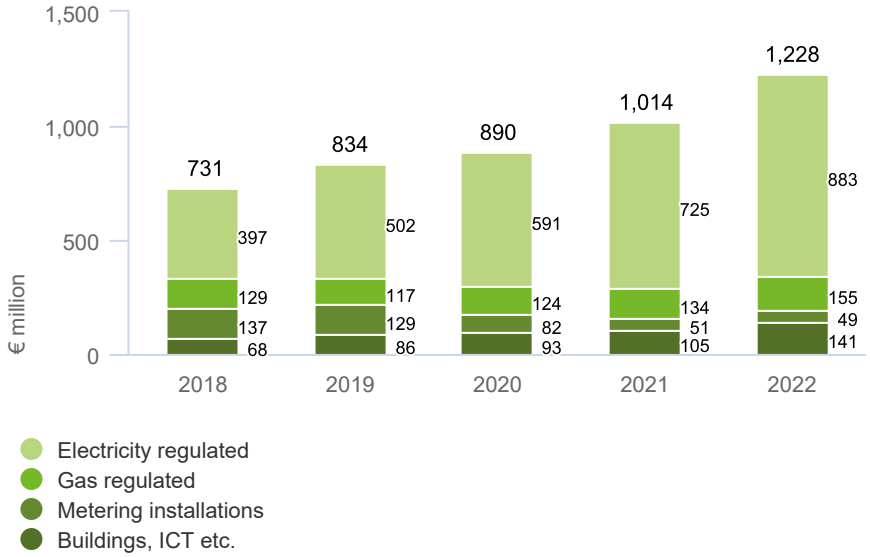
Cash flow from operating activities

The cash flow from operating activities in 2022 amounted to €572 million (2021: €664 million). The decrease of €92 million compared to 2021 was mainly due to the movement in working capital. In particular, larger inventories were held in order to be able to implement projects on time. In addition, net profit was €44 million lower in 2022 than in 2021.

Cash flow from investing activities

The cash outflow from investing activities in 2022 was €1,175 million, compared with an outflow of €639 million in 2021. Of this difference, €221 million was due to higher investments and lower investment contributions. In addition, security deposits of €100 million relating to the cost of network losses were paid in 2022. And bonds worth €198 million were repaid in 2021 due to the premature termination of two cross-border lease (CBL) transactions.

Investments



In 2022, the investments increased by €214 million relative to 2021. This is almost entirely due to the increased investments in the power grids (€158 million) 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. Compared to 2021, investments in the gas networks rose by €21 million. Investment in 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 €49 million in 2022. 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).

Free cash flow

€ million	2022	2021
Cash flow from operating activities	572	664
Acquisition/sale of associate	12	27
Investments and divestments in non-current assets	-1,229	-1,014
Paid deposits	-100	-
Construction contributions received	142	149
Loans received	-	199
Free cash flow	**-603**	**25**

The free cash flow in 2022 was an outflow of €603 million, compared with a free cash inflow in 2021 of €25 million. This difference is almost entirely due to higher investments, security deposits paid and the redemption of the General Electric notes in connection with the early termination of two CBL contracts in 2021.

Cash flow from financing activities

The cash flow from financing activities for 2022 amounted to €184 million (2021: €301 million). The green bond issued in 2022 led to an incoming cash flow of €498 million. In addition, €300 million was raised from ECP financing. This was largely offset by items such as the contractual repayment of bonds under the EMTN programme (€400 million), the dividend distribution of €101 million and repayments on security deposits received in the past worth €72 million.

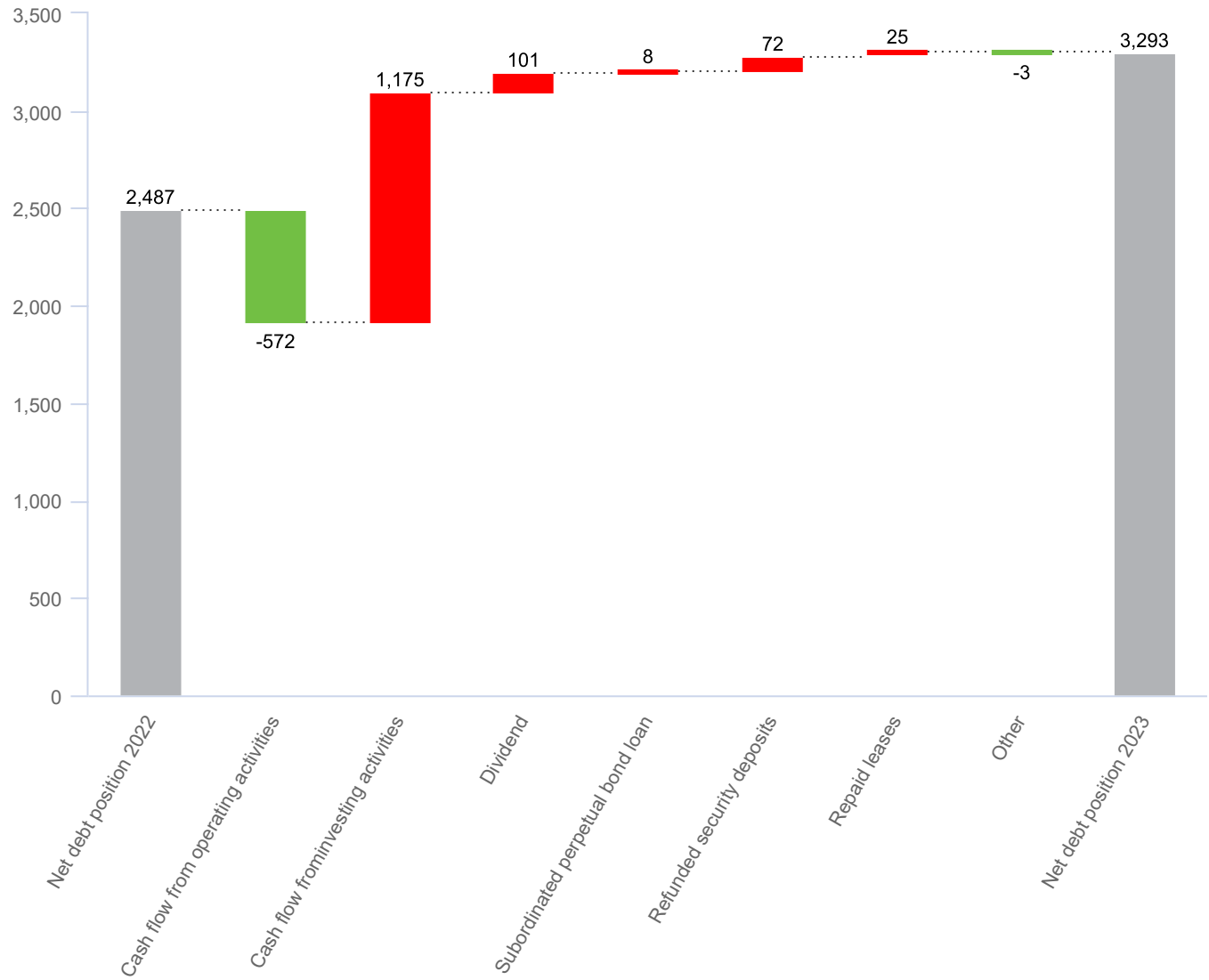
In 2021, the subordinated loan issued previously led to an incoming cash flow of €599 million. Another incoming cash flow of €72 million was due to security deposits received in 2021. This was offset by lease payments (€206 million) due to the premature termination of two CBL contracts, repayment obligations (€48 million) and the dividend distributed (€94 million).

Financial position

Development in debt position

The development in the net debt position during 2022 is shown below.

Development in net debt position



The net debt position rose by €806 million to €3,293 million at year-end 2022 (31 December 2021: €2,487 million). This rise is a direct result of much higher investments in 2022 in relation to the cash flow from operating activities.

Net debt position

Net debt position

€ million	31 December 2022	31 December 2021
Long-term interest-bearing debt	3,000	2,630
Short-term interest-bearing debt	426	481
Lease liabilities	123	123
Gross debt	**3,549**	**3,234**
Cash and cash equivalents	205	624
Total cash and cash equivalents and investments	**205**	**624**
Net debt in accordance with the annual financial statements (IFRS)	**3,344**	**2,610**
50% of the subordinated perpetual bond loan	248	248
50% of the convertible shareholders loan	-299	-299
Receiver / paid deposits	-	-72
Net debt on the basis of Alliander's financial policy	**3,293**	**2,487[1]**

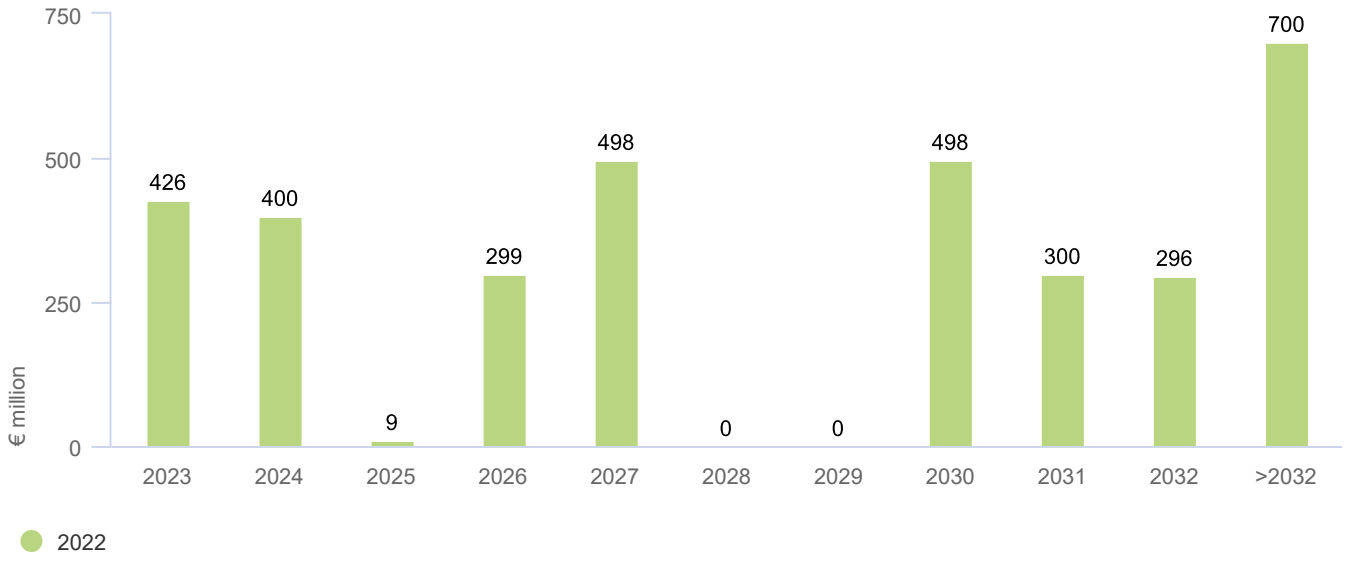
1 Amended due to change in definition.

Alliander has an EMTN programme worth €5,000 million. This was previously €3,000 million but was increased as of 15 July 2022. As at 31 December 2022, the carrying amount of the outstanding bonds was €2,090 million (nominal value €2,100 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. At year-end 2022, €300 million in ECP loans were outstanding (2021: nil).

Interest-bearing debt

The repayment schedule for the interest-bearing debt as at year-end 2022 was as follows:

Repayment schedule for interest-bearing debt



The amounts scheduled for repayment in 2024, 2026, 2027, 2030 and 2032 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 five green financing facilities since 2016, including four 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 of August 2022. (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 2022 is included.

Allocation table: use of funds available from green financing facilities

€ million	Net carrying amount	Weighting factor	Weighted sum
Renewable energy	3.653	41%	1.498
Smart meters	504	100%	504
Fibre optic network	47	100%	47
Total energy efficiency	**551**	**100%**	**551**
Sustainable buildings	64	100%	64
Total green asset portfolio			**2,113**

€ million	Instrument (ISIN)	Date of issue	Maturity date	Principal sum
Green bond loan	XS1400167133	22	22	300
Green bond loan	XS2014382845	24	24	300
Green, privately placed bond loan	XS2152901315	8	8	100
Green bond loan	XS2187525949	10	10	500
Green bond loan	XS2531420730	9	9	500
Total green financing	-	-	-	**1,700**

The table shows that the net carrying amount of green assets at 31 December 2022 was €2,113 million. This represents an increase of €285 million since 31 December 2021. As a result, €413 million in green financing capacity was available as at year-end 2022. A new long-term green financing was arranged in 2022: a green bond for a nominal amount of €500 million.

The weighting factor for the renewable energy asset category as at year-end 2022 has been set at 41% (source: energieopwek.nl). This relates to the share of renewable energy generation in the total electricity production capacity 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. 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. Our tax policy is published on our public website. Alliander subscribed to the VNO-NCW Tax Governance Code in July 2022. The elements of the code are:

- A clear tax strategy
- A clear governance strategy
- Compliance with tax laws and regulations
- A constructive relationship with the tax authorities
- Maximum transparency about tax payments

In December 2022, Alliander signed a new horizontal monitoring agreement with the Dutch Tax and Customs Administration for a period of three years.

Most of Alliander's activities are subject to Dutch tax law, 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 2022

€ million	Netherlands	Germany
Corporate income tax	59	1
Dividend tax	15	0
Wage tax	183	2
VAT	172	3
Total	**429**	**6**

Regulatory developments in 2022

The regulatory period 2022 to 2026 started in 2022. 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. In the opinion of the regional network operators, the ACM has taken too few measures in its method decision for electricity to allow sufficiently for the break in the trend as a consequence of the energy transition.

The ACM has now acknowledged this as regards the exponential rise in the cost of network losses and the expected costs of congestion management, and has taken interim measures. These measures mean that the ACM will apply retrospective costing for the consequences in 2022 and 2023, using a method that is still to be determined.

Appeal proceedings for method decisions

The network operators have launched appeals against the method decisions for regional network operators for gas and electricity because the network operators believe that more adjustments have become necessary, in addition to the measures for network losses and congestion management, and this should lead to higher income. These proceedings are now in their final stages. The Dutch Trade and Industry Appeals Tribunal (CBb) is expected to publish its judgment in the second quarter of 2023.

Liander hopes that the regional network operators have been able to persuade the CBb that the method decision for electricity in particular needs to be adjusted. This is a legal assessment of the method. At the moment it is uncertain whether the CBb will be able to agree with the grounds for the appeal and if so, to what extent this will lead to higher income. This is a material matter of major importance that also affects the extent of our financing requirements.

Regulation in the longer term

The ACM and the network operators started a study of the regulatory method for the longer term in 2022. The energy transition signifies a break in the trend of network operators' cost developments and raises the question of what requirements a regulatory method should meet when it comes to setting permitted income and tariffs.

As input, network operators have drawn up a list of bottlenecks that need to be taken into account when developing a new method. The primary requirement for a new regulatory method, according to the network operators, should be that revenue is in line with the development of actual costs. This touches on a more fundamental question of what the regulatory method should focus on. The focus should largely be shifted to the current social task of the energy transition. The focus in the present method is on efficiency, and these two aspects conflict.

The ACM hopes to be able to consult on alternative regulatory frameworks in the course of this year and then present a proposed pathway at the end of this year.

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:

- Redirect 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 ecologically 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;
- Pollution prevention and control;
- Protection and restoration of biodiversity and ecosystems.

In line with regulations, Alliander reports according to the EU taxonomy. The obligation for 2022 only concerns the first two environmental objectives (mitigation of and adaptation to climate change), with reporting on climate-related and ecologically sustainable business activities.

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

- Alliander's operations have to be assessed against the EU taxonomy to establish whether they qualify as climate-related business activities on the basis of the definition (i.e. are eligible).
- The assessment of the climate-related business activities involves determining whether they meet the criteria for substantial contribution to the environmental objectives, and also meet the criteria for doing no significant harm in relation to the other five environmental objectives.
- Whether the minimum safeguards are met with regard to human rights, corruption, tax and fair competition will be determined at the corporate level.
- Business activities are ecologically sustainable (i.e. aligned) according to the EU taxonomy if they meet the previous three conditions.
- Three financial KPIs are reported per activity: Revenue, CapEx (investments) and OpEx (operating expenses), both in amounts and in percentages.

Business activities that are eligible under the EU taxonomy

The EU taxonomy defines which business activities are climate-related and thus qualify as eligible under the taxonomy. The business activities 'Transmission and distribution of electricity' (code 4.9) and 'District heating/cooling distribution' (code 4.15) were designated climate-related for 2021. As regards 2022, the business activities 'Transport by motorcycles, passenger cars and light commercial vehicles' (code 6.5) and 'Acquisition and ownership of buildings' (code 7.7) are reported on; although they do not generate revenue, they do contribute to Alliander's sustainable objectives as supporting business operations. The business activities that do not qualify under the EU taxonomy mainly concern the distribution of natural gas. The business activities that are eligible under the EU taxonomy were assessed on the basis of the 'climate mitigation' objective. They do not overlap, so that there is no duplication in the reported figures.

Ecologically sustainable business activities

The conditions for meeting the minimum safeguards were published at the end of 2022. Because of this, Alliander was unable to carry out a systematic analysis in 2022 to identify and assess risks of breaching human rights in the production chain. This is also the reason why we do not yet fully meet the requirements of the minimum safeguards and why Alliander's operations are not yet fully aligned with the EU taxonomy. More details about the minimum safeguards are given below.

Climate-related but ecologically non-sustainable business activities

The infrastructure for distributing electricity is part of the European electricity network and so this facilitative business operation meets the most important criterion relating to substantial contribution. However, direct connections between the network and third-party production units with emissions exceeding 100g CO_2/kWh do not meet the requirements. Energy meters that are not smart meters are likewise excluded. The financial value of these activities is therefore included in a separate line. Electricity distribution meets the 'Does no serious harm' (DNSH) criteria for the other environmental objectives; a climate impact assessment has been carried out and the criteria relating to circularity, pollution prevention and biodiversity are satisfied.

Heat distribution fully complies with the substantial contribution criteria (more than 50% of the distributed heat is residual heat) but not with the DNSH criteria; for instance, a climate impact assessment specifically for the district heating networks has not been carried out. It is also not possible to demonstrate that the DNSH criteria for the marine environmental objective or for pollution prevention have been met.

As regards transport by motorcycle, passenger cars and light commercial vehicles, only some of the passenger cars meet the emission requirement of no more than 50g CO_2/km as set in the substantial contribution criteria. The information to determine whether these vehicles also meet the DNSH criteria for the other environmental objectives is not yet available from the lease companies who supply the vehicles or any other source.

As regards acquisition and ownership of buildings, we have determined the locations at which investments have been made in new-build or renovation. These projects meet the substantial contribution criteria as regards energy efficiency. We should also point out that no climate impact assessment has been performed for this business operation to determine which measures have to be taken for climate adaptation. With regard to new construction, DNSH criteria for the other four environmental objectives also apply, but no information is available to determine whether these criteria are met.

Non-climate-related business activities

Natural gas distribution and other (supporting) operations are not considered to be climate-related business activities under the EU taxonomy and are therefore not eligible for the EU taxonomy.

Minimum safeguards

The requirements the EU taxonomy imposes in the minimum safeguards are based on international treaties relating to human rights and labour laws and on guidelines for Corporate Social Responsibility. There are many similarities with the SDGs, which Alliander has reported on for several years in its annual report.

The minimum safeguards concern four topics:

- Human rights
- Bribery and corruption
- Tax
- Fair competition

The requirements focus on having policy and processes in place to comply with these treaties and guidelines, and on transparency if breaches occur.

Policy has been established for all four topics, for example in the form of codes of conduct and reporting systems. Within the scope of risk management and control, processes and instruments have been set up to implement this policy. Policy monitoring and accountability are ensured with periodic reports on the results, findings and follow-up of measures.

An effective Human Rights Due Diligence (HRDD) process containing six elements will have to be set up for the topic of human rights to safeguard due care. Alliander considers human rights to be a very serious topic and it has taken various steps in recent years to safeguard human rights. HRDD elements are currently part of our standard procurement processes, such as the tendering procedure where various requirements are placed on tendering parties and annual audits are carried out at suppliers and contractors. To comply fully with the minimum safeguards, these steps will be further integrated into our operations in the coming year and brought into line with the details of the specific elements in the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises.

Financial information

The revenue under the EU taxonomy is consistent with IFRS reporting standards and is therefore equal to the net revenue as included in the financial statements under note 21. The revenue is then allocated to Alliander's various business operations on the basis of the EU taxonomy. The table shows which items in each operation comply with the EU taxonomy.

The CapEx relates to investments in property, plant and equipment (note 3), investments in intangible assets (note 4) and additions to right-of-use non-current assets (note 3). The portion of the total investments that concerns climate-related business activities was determined by identifying the economic activity to which each asset group is related and assessing whether this activity is mentioned in the EU taxonomy.

The OpEx under the EU taxonomy is defined as the non-capitalised direct costs for preserving the assets. Based on this definition, Alliander has only classified maintenance and outage costs as operating expenses under the EU taxonomy. We have determined which part of these maintenance and outage expenses is associated with climate-related business activities.

Revenue 2022

Economic activities	Code	Absolute revenue	Proportion of revenue	Substantial contribution criteria: Climate change mitigation	Substantial contribution criteria: Climate change adaptation	DNSH criteria (Does Not Significantly Harm): Climate change adaptation	DNSH criteria (Does Not Significantly Harm): Water and marine resources	DNSH criteria (Does Not Significantly Harm): Circular economy	DNSH criteria (Does Not Significantly Harm): Pollution	DNSH criteria (Does Not Significantly Harm): Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of revenue
		€ m	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%
A. Taxonomy-eligible activities												
A.1 Environmentally sustainable activities (Taxonomy-aligned)												
CapEx of environmentally sustainable activities (A.1)												
Transmission and distribution of electricity	4.9	1.511	70,3%	100%	0%	Yes	n/a	Yes	Yes	Yes	No	0%
Distribution of district heating and cooling	4.15	4	102%	100%	0%	No	No	n/a	No	Yes	No	0%
Transport by motorcycle, passenger car or light commercial vehicle	6.5	0	0,0%	100%	0%	No	n/a	No	No	n/a	No	0%
Acquisition and ownership of buildings (< 2020)	7.7	0	0,0%	100%	0%	No	n/a	n/a	n/a	n/a	No	0%
Transmission and distribution of electricity	4.9	12	0,6%	0%	0%	Yes	n/a	Yes	Yes	Yes	No	0%
Revenue of Taxonomy-eligible, but not environmentally sustainable activities (A.2)		1.527	71,0%									
Distribution of gas (NACE 35.22)		519	24,1%									
Other business operations		104	4,8%									
Revenue of Taxonomy-non-eligible activities (B)		622	29,0%									
Total for Alliander (A+B)		**2.150**	**100,0%**									

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CapEx 2022

Economic activities	Code	Absolute CapEx	Proportion of CapEx	Substantial contribution criteria: Climate change mitigation	Substantial contribution criteria: Climate change adaptation	DNSH criteria (Does Not Significantly Harm): Climate change adaptation	DNSH criteria (Does Not Significantly Harm): Water and marine resources	DNSH criteria (Does Not Significantly Harm): Circular economy	DNSH criteria (Does Not Significantly Harm): Pollution	DNSH criteria (Does Not Significantly Harm): Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of CapEx
		€ m	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%
A. Taxonomy-eligible activities												
A.1 Environmentally sustainable activities (Taxonomy-aligned)												
CapEx of environmentally sustainable activities (A.1)												
Transmission and distribution of electricity	4.9	921	74,3%	100%	0%	Yes	n/a	Yes	Yes	Yes	No	0%
Distribution of district heating and cooling	4.15	11	0,9%	100%	0%	No	No	n/a	No	Yes	No	0%
Transport by motorcycle, passenger car or light commercial vehicle	6.5	7	0,6%	100%	0%	No	n/a	No	No	n/a	No	0%
Acquisition and ownership of buildings (< 2020)	7.7	45	3,6%	100%	0%	No	n/a	n/a	n/a	n/a	No	0%
Transmission and distribution of electricity	4.9	4	0,3%	0%	0%	Yes	n/a	Yes	Yes	Yes	No	0%
CapEx of Taxonomy-eligible, but not environmentally sustainable activities (A.2)		988	79,7%									
Distribution of gas (NACE 35.22)		173	14,0%									
Other business operations		79	6,4%									
CapEx of Taxonomy-non-eligible activities (B)		252	20,3%									
Total for Alliander (A+B)		**1.240**	**100,0%**									

OpEx 2022

Economic activities	Code	Absolute OpEx	Proportion of OpEx	Substantial contribution criteria: Climate change mitigation	Substantial contribution criteria: Climate change adaptation	DNSH criteria (Does Not Significantly Harm): Climate change adaptation	DNSH criteria (Does Not Significantly Harm): Water and marine resources	DNSH criteria (Does Not Significantly Harm): Circular economy	DNSH criteria (Does Not Significantly Harm): Pollution	DNSH criteria (Does Not Significantly Harm): Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of OpEx
		€ m	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%
A. Taxonomy-eligible activities												
A.1 Environmentally sustainable activities (Taxonomy-aligned)												
OpEx of environmentally sustainable activities (A.1)												
Transmission and distribution of electricity	4.9	136	73,4%	100%	0%	Yes	n/a	Yes	Yes	Yes	No	0%
Distribution of district heating and cooling	4.15	2	1,3%	100%	0%	No	No	n/a	No	Yes	No	0%
Transport by motorcycle, passenger car or light commercial vehicle	6.5	0	0,0%	100%	0%	No	n/a	No	No	n/a	No	0%
Acquisition and ownership of buildings (< 2020)	7.7	5	2,5%	100%	0%	No	n/a	n/a	n/a	n/a	No	0%
Transmission and distribution of electricity	4.9	0	0,1%	0%	0%	Yes	n/a	Yes	Yes	Yes	No	0%
Total eligible and non-aligned		143	77,3%									
Distribution of gas (NACE 35.22)		42	22,7%									
Other business operations		0	0,0%									
OpEx of Taxonomy-non-eligible activities (B)		42	22,7%									
Total for Alliander (A+B)		**185**	**100,0%**									

Our plans for 2023

Investments

Alliander's work package will continue to grow significantly in 2023. We anticipate that gross investments, mainly for replacing and expanding the networks, including the necessary investments in IT, will total in excess of €1,200 million in 2023 as well. As a consequence of the fast-growing demand for transmission, the power grid is becoming increasingly congested, resulting in limits on transmission. Besides the traditional way of solving this issue by laying additional cables, Alliander is also boosting its efforts to make better use of the grids as a temporary measure until the grid can be upgraded and expanded.

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 2023. In combination with the dividend that will be paid in 2023 on the profit in 2022, this will result in Alliander having to borrow, as was the case in 2022. We will furthermore continue on the course we set for strengthening our equity, among other things by formalising the Framework Agreement with the Dutch government.

Implementation of the CSRD

As a Public-Interest Entity (PIE), Alliander will be required to report in line with the CSRD (Corporate Sustainability Reporting Directive) from 1 January 2024. This is a statutory obligation that will apply from the 2024 financial year; an account of this must be disclosed in the 2024 annual report. Furthermore, this account will be included in the scope of the external auditor's audit/review assignment. Implementation will therefore start in 2023 to make sure Alliander complies with the requirements as of 1 January 2024.

Our impact on society

The energy transition has accelerated massively. The amount of energy from fossil sources that we distribute decreased while the percentage of energy from non-fossil sources increased. Further growth in feed-in from decentralised systems was partly responsible for this development. This is beneficial for the climate and for meeting the goals of the Climate Agreement. Our impact via this sustainability development and our primary role in the energy transition is very significant: we add value across a broad spectrum. We see this in areas such as access to energy, safety and security, the environment, circularity, the development of our investments and effects on work and social cohesion.

We quantify our social impact by expressing our positive and negative effects on the environment in euros, in a manner that is as objective as possible. When we issue statements on this topic, they are couched in societal terms: the impact may be limited at group level, but perceived as extremely large in an individual context, for example the impact of an accident or energy costs. Our aim is to contribute to broad prosperity in society by reducing the negative impact and increasing the positive impact. In doing so, we contribute to the global climate objectives, as agreed at the Conference of the Parties (COP) level, and to the United Nations' 2030 Sustainable Development Goals (SDGs).

Impact and SDGs

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 our calculations and measured results, we want to actively involve our stakeholders in our development, the contribution we make to the SDGs, the choices we make regarding the SDGs we want to contribute to and our value creation in a broad sense.

SDG	Description	Indicators
	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.	Financial capital Manufactured capital Natural capital Intellectual capital
	We work non-stop on ensuring a safe and fair working environment for all our employees and an inclusive corporate culture.	Human capital
	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.	Manufactured capital Intellectual capital
	The agreements in the Regional Energy Strategies (RES) and the elaboration 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.	Social capital
	We are acutely aware of the impact of our operations on the planet, and strive to make our business operations climate-neutral and circular.	Natural capital
	Climate change leads to our assets being subject to changing physical conditions, such as drought and flooding. We are giving increasing attention to how to respond and adapt to the consequences of climate change in relation to the energy network and our assets.	Natural capital

Most significant results in 2022

+	Progress towards a sustainable energy system has accelerated. The amount of energy distributed by us fell, while the share of energy from non-fossil sources increased. Gas and electricity distribution's positive contribution to customers' perceived well-being declined due to the recent cost development, which can be seen in the decreasing price valuation and reduced access to energy.	
−	The rise of decentralised energy causes heavier loads on local energy networks, which will lead to larger network losses in the future. Upgrading and expanding the networks also means greater demands on resources and materials. This results in increasing social costs in the area of natural capital.	

Our Sustainability and Corporate Responsibility report

Alliander follows the 'six capitals model' of the International Integrated Reporting Council (IIRC). In the model, we mainly quantify and monetise the impacts where we can make the largest contribution to society, both in terms of our direct activities 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. For basic assumptions, calculations and comparative figures, please refer to the Accountability document.

Alliander tops the list of impactful companies

Alliander finished first in the Erasmus Corporate Impact Index for the third time in a row. This is the list of companies with the greatest expected societal impact in the Netherlands. The Impact Index looks at five components: good governance, the relationship with the outside world, sustainability, financial health and being a good employer. We score highly because of our key role in the energy transition and because we transparently report on our overall impact on society.

Details of our impact in 2022

Our 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, safety and security risks and the effects of interruptions in the energy supply. The section below provides a more in-depth explanation of our negative and positive impact on each type of capital. We have collaborated with other energy network operators to improve the comparability of our results as individual organisations in terms of financial capital, manufactured capital, human capital and natural capital.

Our impact model

Capital value decrease	(€ million)		Capital value increase
Financial capital			
Purchase/sale of associates and subsidiaries	12		
Other revenue	56	53	Tax
Contributions received	142	612	Dividends, repayments and interest
Raised capital, received repayments and interest	660	419	Change in cash reserves
Payments by customers (business)	591	710	Payments to employees
Payments by customers (households)	1,476	1,980	Payments to suppliers
Manufactured capital			
		5.8	Contribution of heating transmission to consumer well-being
		25	Contribution of solar energy feed-in to well-being
			Digital security: preventing cybercrime and hacking
Change in economic value of traditional assets (internal)			External change in value of assets
Value of goods procured for business customers	245	489	Value of energy transmission for business customers
Value of goods procured for gas transmission	713	2,354	Contribution of gas transmission to consumer well-being
Value of goods procured for electricity transmission	949	2,110	Contribution of electricity transmission to consumer well-being
Intellectual capital			
			Development of new market models and open platforms
			Technological development
			Change in value of intangible assets
Geen impact gekwanticeerd		2.2	Value of data collection for market facilitation
Natural capital			
Environmental damage due to waste	0.1		
Environmental damage through procurement of materials	39		
Climate change due to CO_2 emissions	187		
Further environmental impact			*Geen impact gekwanticeerd*
Social capital			
			Contribution to social cohesion in the Netherlands
			Contribution to social cohesion in communities
			Contribution to improved institutions and regulations
Digital security: privacy breaches		12	Value of change in Alliander's reputation
Human capital			
Safety incidents in the immediate environment			
Economic value of labour			Employee development
Work-related sickness absence and employee accidents (safety)	0.7	72	Well-being effects of having work

Amounts are in millions of €

Quantified in millions of € *Not quantified in millions of €*

Financial capital: investing in future-proof networks and the energy transition

Relationship with SDGs

Our impact is reflected by the investments we make to increase the share of renewable energy transmitted through our networks. At the same time, we aim to keep the social cost of accessing energy in the future as low as possible. Ensuring universal access to affordable, reliable energy (SDG 7.1) is a priority. Our impact on SDG 9 is reflected in our activities to build a future-proof energy infrastructure and our use of innovative techniques, such as in hydrogen projects. We invest in local and regional energy networks that support shifts in supply and demand patterns.

Impact

Financial capital is related to a number of aspects, including the salaries paid to our employees. An increase in the number of employees and the collective bargaining pay rise increased that impact by €32 million. In addition, suppliers receive payments for goods, services and operating assets; this generates work and income for other parties. Due to intensified investments and the influence of sharply increased procurement costs, the value of the payments made to suppliers increased by 26% in 2022. Our impact on taxes remitted decreased due to a lower profit. On balance, we contribute to the energy transition, the regional economy and employment through our financial capital.

Manufactured capital: less energy transmission, lower contribution to consumer well-being

Relationship with the SDGs

Achieving timely access to energy for our customers is our daily priority. This contributes directly to the level of well-being and prosperity that customers experience (SDG 7.1). Energy distribution and transmission are our manufactured capital and reflect the value that energy has for our customers. We are also working to increase the share of renewable energy (SDG 7.2). We contribute to SDG 9.1, which involves developing high-quality, reliable, sustainable and resilient infrastructure, including regional and cross-border infrastructure. In doing so, we support economic development and human well-being, with a strong emphasis on affordable and equitable access to energy for all.

Impact in terms of reliability

The reliability of energy transmission depends on the impact of faults and outages. Last year, the gas outage duration in our service area increased by 34%, which compares unfavourably with a lower outage duration across the industry as a whole. This led to a small negative adjustment to our gas transmission-related impact on consumers.
In the electricity domain, the duration of electricity outages and their frequency increased by 2% and 31% respectively. Duration and frequency fell in the industry as a whole. This led to a negative adjustment to our electricity transmission-related impact on consumers (minus €2.9 million).

Energy is directly related to well-being; higher prices negatively impact the well-being of a growing group

Our main impact on manufactured capital is our contribution to the well-being experienced by consumers through the use of energy. We analyse this impact by looking at the transported volume, the price and households' willingness to pay for energy. According to economic theory, the value of a product to a customer is at least equal to the price paid but can be even greater if the customer's willingness to pay is higher than the price.

Due to geopolitical developments, energy prices have risen sharply over the past year. Households' willingness to pay is expected to respond to this change, subject to a time lag. Households started saving energy and substantially less energy was transported. These effects reduce our contribution to consumer well-being. This impact applies to the total value for all customers. We are aware that there are significant differences in the level of well-being experienced by different groups in society. This is reflected to some extent by the emergence of energy poverty (an aspect of social capital).

Impact on consumers

Due to the situation in the energy market, the geopolitical situation relating to energy and a relatively mild winter, we are seeing lower distributed volumes of gas. As a result, the associated well-being expressed in monetary terms fell by €664 million.
We facilitate customers by offering open and sustainable district heating networks in a number of regions. The number of heat connections for small-volume consumers increased, so the monetary value of the well-being value associated with the heat connections increased proportionately.

The total amount of electricity distributed has fallen. The high energy prices led to lower consumption. As a result, the associated well-being expressed in monetary terms fell by €174 million. The amount of energy fed back into the electricity network by consumers increased further in 2022. We are seeing an increase of some 26% in the number of connections with solar panels. The increase in solar power feed-in by consumers resulted in a positive contribution to perceived well-being of €25 million. Our goal of connecting all the new decentralised generation capacity in our areas each year was not achieved.

Impact on business customers

We are seeing an increase in electricity connections and a decrease in gas connections among our business customers. The energy transition is also clearly visible here. The impact value of the electricity distribution activities increased by about 9.2% to €446 million; the impact value of the gas distribution activities decreased by 6.5% to €43 million. The total impact value of electricity and gas transmission for business customers rose from €453 million in 2021 to €489 million in 2022.

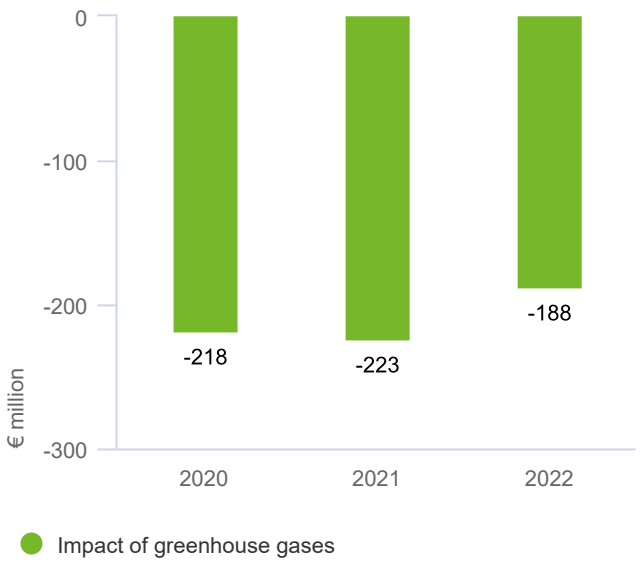
Natural capital: decrease in climate pressure

Relationship with the SDGs

Alliander embraces SDGs 7, 12 and 13 in its wish to reduce the negative impact of its operations on natural capital in the form of raw materials usage, waste, effects on biodiversity, air, water and soil quality and effects on climate change. We contribute to the international emissions reduction targets that are designed to limit global warming to 1.5 degrees. We also contribute to SDG 7. We do not yet measure the impact of measures designed to achieve climate adaptation at the level of our assets (SDG 13).

Impact on climate costs

The decrease in the volume of gas and electricity distributed and cleaner production of electricity have led to a decrease in climate costs. This is reflected by the 16% decrease in the negative impact of our $CO_{2\text{-eq}}$ emissions, which fell to €187 million. The mild winter and higher energy prices are the main factors behind the decline in total energy use. The fall in carbon intensity per kWh due to a cleaner energy mix magnified the effect of this decrease. Compared to 2021, there was a decrease in the electricity emission coefficient from 0.338 to 0.291 kg CO_2/kWh. The percentage share in our own organisation's total climate footprint remained virtually unchanged.



Impact on eco-costs

Due to the growing work package, the volume of materials purchased increased by about 10,800 tons. As a result, our negative impact in terms of the circular use of materials increased from €34 million to €39 million in 2022. By means of circular procurement, we were able to reduce the negative impact by €3.3 million. As a result, we achieved an 8% reduction in the total costs of the ecological damage that occurs when exclusively new primary raw materials are used. The fact that a very large percentage by weight of our waste materials is recycled or reused means that we have a limited negative impact in terms of waste: €0.1 million.

Total negative impact on natural capital of materials and the procurement of primary and secondary materials

Human capital: well-being through satisfied employees

Relationship with the SDGs

Our impact on SDG 8 is reflected in our positive contribution to the well-being of employees and to employment in the Netherlands, and our efforts to positively influence working conditions and workers' rights elsewhere. Our procurement and tendering policy reflects our desire to encourage corporate social responsibility. Contractors who work for us must meet the same safety standards as those we adhere to in-house. In our labour market policy, we pay extra attention to specific groups. As a result, we contribute to SDG 8.5: achieving full and productive employment and decent work for all women and men, including young people and persons with disabilities, and equal pay for work of equal value. With regard to internships and learning experiences, the Quota Act, recruiting and selecting women for leadership positions, people with a non-Western immigration background and our diversity policy, please refer to the explanation in the section Composition of the organisation.

Impact

The impact on well-being of being in a job has risen by 15% to €72 million (2021: €61 million). This is mainly due to higher job satisfaction compared to the previous year (80% versus 76%). In addition, the increase in positive impact comes from the increase in the number of employees in 2022. People in subsidised employment have also been included in the impact analysis since 2021; this relates to labour participation via Step2Work. This impact has remained almost the same due to a similar number of positions for people with poor job prospects.

Long-term work-related sickness absence or safety incidents have a dampening effect on the positive value of being in work. In 2022, we saw a more negative impact compared to 2021. The impact comprises a negative effect of €0.53 million due to work-related absence and an effect of €0.17 million attributable to safety incidents. This brings the total negative impact value to €0.7 million.

Continuous development and training of all our employees and efforts to raise awareness and provide support regarding health are not yet included in the impact measurement.

Social capital: exploratory study for broader measurement

Relationship with the SDGs

Our social impact is expressed in our connecting role. In the Regional Energy Strategies, we are the connecting factor between government bodies, energy companies and community initiatives. Within the framework of a collaborative planning process, we focus on meeting energy infrastructure needs and creating sustainable cities and communities (SDG 11). Participation and connectedness are important values in an open, inclusive and democratic society and nurture the trust that individuals have in each other and in institutions. Alliander attaches great importance to participation and inclusion in the energy transition. In a comprehensive exploratory study of our social impact in 2022, we considered how we relate to society in our role as a network operator, buyer and employer. Despite a predominantly positive picture, it appears that we can profile ourselves more emphatically and focus more on connection and participation in our working methods, for example through more direct interaction at the neighbourhood level in spatial plans, by making better use of the input and practical knowledge of supply chain partners and by promoting inclusion and diversity in the energy transition process and the composition of teams. The results of the exploratory study are the basis for further analysis of our social impact in society.

Impact

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.

In 2022, because Alliander's reputational position was not measured this year, we used a projection of the results from previous years that was adjusted for current developments in the sector. The net impact shows a reduction in our reputational value from €20 million in 2021 to €12 million in 2022. This is attributable to the loss of brand value suffered by other energy companies in Europe in relation to their income. This brand value is used to express our relative position as a monetary value.

Energy poverty

The increase in energy prices has led to a drop in energy consumption. However, much of the household energy usage is essential to meet daily needs, for example heating, cooking and telecommunications. For households with limited financial resources, energy is claiming an increasing share of their expenditure due to rising prices. As a result, more and more households are having difficulties paying their monthly energy bills. This is called 'energy poverty'. We stand for accessible and affordable energy for all and, in consultation with energy suppliers and the government, we take appropriate measures, for example exercising restraint in disconnections.

Intellectual capital: added value of market-facilitating data

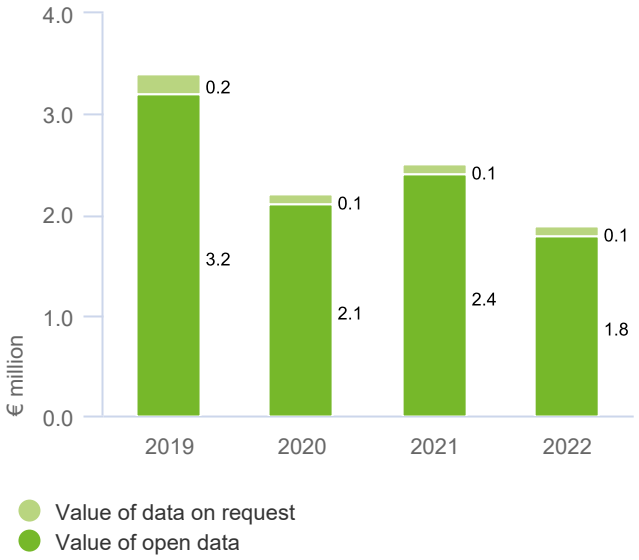
Relationship with the SDGs

The purpose of our innovation programme is to develop and apply innovations and smart solutions as rapidly as possible. 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.

Our indicators for intellectual capital are linked to SDG 9 and they are reflected in our activities to build a future-proof energy infrastructure and our use of innovative techniques, such as in hydrogen projects. Participation in international initiatives aimed at knowledge sharing and technology development and application is associated with SDG 7.4.

Impact

In 2022, the impact of market-facilitating data decreased by €0.5 million to €2 million due to a lower number of consultations. 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 this data generate value for society when the data is compatible with other applications employed by users. Making data available offers market opportunities for other companies. The decline in the use of the data is probably due to the delay in development plans for the construction sector, price developments in materials and labour shortages in various sectors.



Case study: Smart use of emergency power reduces emissions

Diesel generators are widely used as a reliable source of temporary power during foreseen and unforeseen work on the network. This technology leads to CO_2 emissions. Alliander has investigated the use of more sustainable alternatives, such as plant-based diesel (Hydrotreated Vegetable Oil, HVO) and batteries. When deploying these alternatives, considerations such as energy supply reliability, cost and the space required come into play. To understand the impacts of the different alternatives available to us, we conducted an impact analysis using data gleaned in a 2021 emergency power supply situation when a diesel generator was deployed in a village in Gelderland.

Situation and study question

Mobile generators were deployed at various locations in 2021. Over 2.9 million litres of fuel were used by the generators. So the deployment of these generators resulted in 8.8 kilotons of CO_2 emissions. The impact case study focused on the social benefits and costs of the different solutions for generating emergency power, both now and in the future. In all of the scenarios in the comparison, having energy available delivers the same level of well-being. The impact on the manufactured capital is constant.

The impact calculation is based on a situation involving scheduled maintenance work on the electricity network for a nine-day period in a village with a high density of low-rise buildings. The stakeholders in this case study are the customer, Liander, local residents and society at large (climate). For the case study, the impacts in terms of costs, climate change, and noise and odour nuisance were calculated based on the available data. Supply chain aspects related to the production of the options investigated, such as the eco-costs of the materials used and climate-related emissions, were not part of the study. The study explored the use of HVO diesel, a hybrid generator set with an HVO-powered engine and a battery, and a battery pack in comparison to the reference impact of a generator set running on type EN590 diesel fuel.

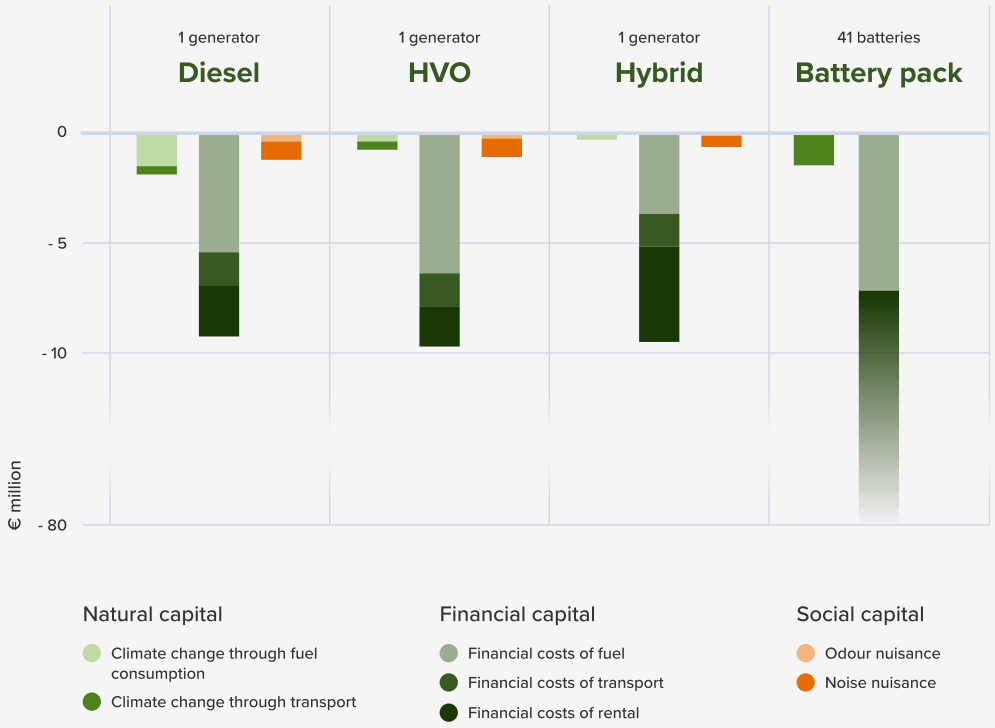
Results of the impact calculation

Liander incurs higher costs when a hybrid or battery generator is used rather than the diesel unit. In the case of HVO and diesel, fuel is the main cost component. In the case of hybrid generators, the rental costs are high and fuel consumption is lower. The battery pack alternative is associated with significantly higher costs due to the number of battery packs needed and transport back and forth. Deployment of this technology only becomes competitive when a lower level of facilitation is needed, for example, in the case of shorter deployment periods or in combination with local feed-in. The use of HVO and a hybrid technology requires a relatively small investment and may even lead to cost benefits if diesel prices rise.

For natural capital, the use of the hybrid generator has a favourable climate impact: switching from a diesel generator to HVO or a hybrid generator delivers a positive impact of €1,300 on climate costs. The climate cost of transportation to and from the site is €30 for diesel and HVO and €90 for the hybrid generator. The heavy battery pack has a higher climate cost: €900. In this case study, the use of battery packs proved not to be cost-competitive, as 41 battery packs would be required for sufficient capacity. But that picture may change if less capacity is needed, for example if the period of use is shorter, or the generator is used in conjunction with solar-power feed-in. Noise and odour pollution were further aspects considered in this case study. The battery pack generates hardly any noise. The noise emitted by the hybrid generator set is much less when it switches to the battery. The diesel and HVO generators have similar noise emission levels, equating to a negative impact value of €900. In addition, the diesel generator causes a perceptible odour nuisance in the surrounding area. In the case of the other options, little or no odour nuisance occurs.

Conclusion

In this case study, the hybrid alternative to diesel generators emerges as the best choice because of the positive impact in the event of a diesel price increase and the favourable scores for natural capital and social capital. By including these effects in our decision-making process when choosing between the options, in addition to the specific considerations such as space, availability, duration and cost, we and our suppliers increase social value creation.



Case study: initial experiences with a new energy system on Vlieland

On the island of Vlieland, more and more sustainable energy is generated locally. This development has led to new initiatives in several places that provide an alternative to upgrading the electricity network. In Vlieland's case, upgrading the network would mean running an additional undersea cable through the Wadden Sea, a World Heritage Site. In addition to high costs, this has implications for nature. So in 2020, it was decided to deviate from standard network management practice. A resistor array was installed to handle ad hoc energy peaks. These resistors dissipate the excess energy in the form of heat. This addition removed the need for a cable through the Wadden Sea for the time being.

However, delaying the Wadden Sea cable in combination with the resistor array is not a future-proof solution: further developments in the local energy supply will require an additional resistor array or make it necessary to install a Wadden Sea cable anyway. Furthermore, the current situation, in which energy is lost in some situations, is not optimal. So we are exploring how this can be done differently. Our approach includes looking beyond the standard procedures applied by network operators and considers value across a broad spectrum.

Together with the stakeholders on Vlieland (residents, municipality, energy corporation, a local swimming pool), we are investigating how to make social value transparent when choosing a solution. We are exploring how and whether we can contribute to an energy system that is capable of responding to the changing demands of the community and that contributes to broad societal value and the energy transition through a different approach.

Optimising the social benefit of energy and avoiding network capacity upgrades may open up a wider field of application. The swimming pool could potentially use some of the island's energy surplus. Other functions may also become part of a different type of energy system on the island. The key aspect in this process is that we collaboratively explore what smart combinations of energy supply and demand lead to a solution with positive social impact. The parties involved in the exercise are looking beyond their own interests and financial revenues in order to achieve a socially optimal result on the island, for the system as a whole.

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 2022.

Dilemmas

Do we accommodate peak loads, or do we transition to a flexible system?

The government is aiming for a 55% reduction in CO_2 by 2030. In its report on the Climate and Energy Outlook of the Netherlands, the PBL Netherlands Environmental Assessment Agency states that this goal is not yet on course to be achieved. Faster implementation of the plans and additional policies are needed to achieve the goal. For Alliander, this probably means a further significant increase in the size of our work package. Yet implementing the energy transition is already very challenging due to the shortage of technicians, space and materials. In addition, the energy system is physically reaching its limits in many places, both in terms of supply and feed-in, and the total installed capacity of solar power is already almost equal to the peak demand in the Netherlands.

One consequence of this is that the so-called 'copper plate principle' is no longer applicable in practice. This principle states that the system must be able to transmit and distribute all the electricity that a company or household wants to produce and/or use – regardless of the quantity or location – at any time. A number of parties value upholding this principle, and to date our market has always been based on it. If we are to continue to guarantee the 'copper plate principle', network operators will have to invest heavily in the electricity network to ensure that it can always transmit electricity during peak demand or peak generation. Significant effort is being put into expanding the electricity network, but it is not clear whether focusing exclusively on network upgrades will be enough to achieve the 2030 goals on time. It is also debatable whether such an approach is the most appropriate solution from a spatial planning perspective.

We face a clear dilemma: do we continue to look at the task based on the 'old' way of thinking or do we opt for a new approach, which is likely to clash with the principles currently in force? We think that it is legitimate to ask whether steering where and when electricity can be transmitted and distributed is perhaps a better solution from a social perspective. This is not only because of the infrastructure limitations and the social costs, but also because in the near future we will have to take a much more integrated look at the energy system and the availability of energy will fluctuate a great deal. This is obviously a broad societal issue that has an impact on the basic principle on which our energy system is built and deserves further attention in the coming time. This in no way diminishes the fact that we remain fully committed to upgrading and expanding our networks. And as long as our task exceeds what we can realistically build and implement, we will communicate clearly and transparently what we can do and when, and what we cannot do.

Capacity: do we go for availability or reliability?

In many places, there is no capacity available in our networks for connecting new customers at the present time. That is why we are fully committed to developing, applying and scaling up smart solutions that help make better use of the capacity available in our networks. If we are to get the most out of the existing networks, we must push past the old boundaries and establish new ones, in the knowledge that this might have an adverse effect on network reliability. For example, we want to safely increase the load on selected facilities: cables, transformers and – in congested areas – substations. The challenge is to achieve a socially acceptable trade-off weighing up the importance of energy availability on the one hand and the importance of reliability on the other. A further issue is the level of reliability that we can guarantee in a sustainable energy system, which is affected by weather conditions, seasonal changes and even by the day-and-night cycle. Solutions that offer flexibility, such as batteries and converting energy into hydrogen or heat, play an important role here. But the question remains whether we can maintain the current level of availability of 99.99% into the future and whether we as a society – in the light of the challenge we face and the importance of the energy transition – are prepared to adapt accordingly.

Achieving our social mission: do we choose a rigid or flexible approach?

Huge numbers of customers require electricity connections. We sincerely want to connect them and are disappointed that this cannot always be done quickly enough. The exponential growth in our work package and the severe shortage of staff and materials mean that we have to carefully weigh up where we allocate our resources. Moreover, using all our available resources to meet connection deadlines now may adversely affect implementation of the required network extensions and reinforcements. This would amount to a failure to take sufficient account of the interests of future customers. We try to find the best possible balance in this interplay of conflicting requirements. By implementing large-scale expansions now, we help bring about the energy transition and we ensure that connections can be made more smoothly in the future. This choice does mean that we are not always able to connect customers on time at present, and that connection lead times are increasing. Obviously, we are far from happy with this situation. We therefore recommend that customers contact us as early as possible. Timely consultation when making plans allows us to better match supply to demand. Our objective is to ensure that parties experience the least possible inconvenience due to the current shortages.

What have we learned?

Improve customer communication

The energy transition is increasingly affecting households and business owners. That means that customers have more questions and different questions. The large increase in customer contacts at our customer service centre in 2022 – 500,000 as opposed to 260,000 the year before – clearly illustrates this. In response, we significantly increased the capacity of our customer service centre in 2022. Customers always want to know where they stand, and we aim to answer their questions quickly and unambiguously. That is why we will take action in 2023 to improve our customer communications and create a system in which all information relating to a customer is available to us in one place. The system will give employees and customers information about the status of their request and communication.

Assign responsibilities at the level where consequences can best be overseen

The energy transition is in full swing. The task is enormous and requires our internal organisation to work in an even more result-oriented manner. Two years ago, we implemented a reorganisation in order to serve our different types of customer better and more effectively according to clearly defined processes.
After working in this new manner for two years now, we find that we have become more agile, reduced disruption in our operational process chains, increased production output and scaled up our internal digitalisation activities. But more is needed. We need to achieve effective results, fully understand the purpose of everyone's efforts and results and make this part of Alliander's culture. We can achieve this by focusing more proactively on results and becoming more effective in how we achieve those results. The implications for our organisation are that we must work more cross-departmentally in multidisciplinary teams, develop at a fast pace and take decisions quickly, and accept that mistakes may sometimes be made. We also need to look more fundamentally at underlying IT systems, rather than automatically building on what is already there. That will help us operate even more decisively as Alliander. We will continue to work on this transition during the years to come. This process is one of trial and error. We give each team and each colleague opportunities to learn and take responsibility in this respect.

In the energy transition, no single party oversees or directs everything

Last year, we and the NSOB Netherlands School of Public Administration analysed the energy transition from an ecosystem perspective. Among other things, this clearly revealed that social transitions, such as the energy transition, are the result of continuous individual actions and sometimes more collective movements, with no clear ‘control tower’ coordinating everything. In the energy transition, there is no single party that oversees or directs everything. In practice, we often expect the government to assume a lead role in transitions. However, the government is not capable of controlling all aspects on its own. Indeed, the call for more intervention and control on the part of the government is often an excuse for not taking action oneself. Parties involved in the energy transition can and should influence and change the system to a significant extent through their own actions and initiatives. This requires all the players in the energy system to show initiative and boldness, including network companies such as Alliander.

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 2022, 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 does not provide absolute assurance that 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

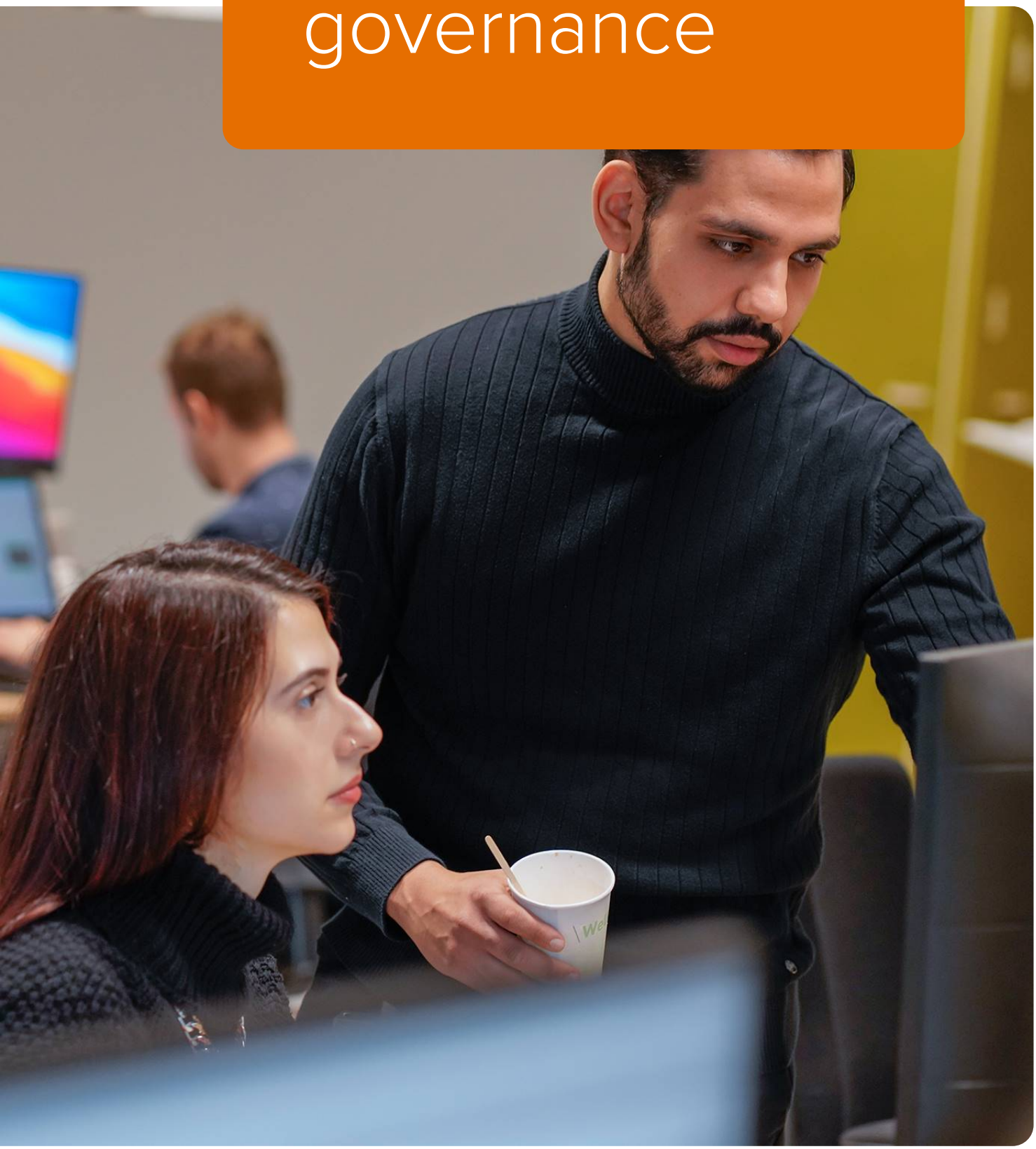
We state that:

- 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 2022 and of the business during the 2022 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, 6 March 2023

Maarten Otto
Walter Bien
Marlies Visser
Daan Schut

Corporate governance



Corporate governance

Corporate governance is about good business administration, adequate supervision and transparent accountability to all stakeholders. Given our key societal role in Dutch society, we attach great importance to good corporate governance. We therefore voluntarily apply the Dutch Corporate Governance Code where possible and if applicable.

Legal structure

The Alliander group is made up of various companies, including Liander, Qirion and Kenter. Alliance N.V. stands at the head of the Alliander group of entities. Alliander N.V. (Alliander) is a company with full statutory two-tier status. All of Alliander's shares are held by Dutch provincial and municipal authorities. Alliander has a two-tier board structure, with a strict separation between executive management and supervision. The Management Board manages and the Supervisory Board has oversight. Both Boards act independently of each other and are accountable to the General Meeting of Shareholders (AGM) in respect of the manner in which they carry out their tasks.

Dutch Corporate Governance Code

The Dutch Corporate Governance Code 2016 (the 'Code') is a code of conduct for Dutch companies with listed shares and is considered to provide general guidelines on good corporate governance. Alliander's shares are not listed and therefore we are under no legal obligation to apply the Code. Alliander applies the Code voluntarily however, where possible and if relevant. The Code is applied at the level of Alliander N.V. as a holding company. The Management Board and the Supervisory Board are responsible for Alliander's corporate governance and compliance with the Code.
The final version of the revised Code was published on 20 December 2022. The most notable changes in this version relate to long-term value creation, diversity and the role of shareholders. These are themes that Alliander also considers important and on which we have reported for a number of years. In 2023, Alliander will amend its Articles of Association, regulations and procedures to conform to the updated Code to the extent possible and applicable. The 2022 Management Board Report is based on the version of the Code adopted in 2016. In its 2023 Management Board Report, Alliander will report on its compliance with the updated Code for the first time.

Compliance with the Code

Some provisions of the Code are not applicable to Alliander or are applied differently by Alliander. In line with the 'comply or explain' principle, we either comply with the provisions of the Code by applying them or provide an explanation of the reasons for deviating from specific provisions. The areas where we deviate from the Code are explained below.

Deviation from the Code

- 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 AGM - in this case the Committee of Shareholders - of the proposed appointment. The salary components of the Management Board members are transparently reported in the Remuneration Report.
- Principle 4.1.10: AGM report – Alliander sends the report to all shareholders within three months of the AGM.
- Principle 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 bonds that 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 organises annual one-to-one 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 Alliander's website.

Some of the Code's provisions are not relevant for Alliander. This is for example because the two-tier regime applies and shares in Alliander are held by local and regional government bodies 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 sub vi, vii and 3.3.2 - 3.3.3: remuneration of the supervisory directors in shares, or shares held by supervisory directors
- 2.8.2 - 2.8.3: takeover bid
- 3.1.2 sub ii and iv to vii: remuneration policy
- 3.1.3: remuneration of the executive committee
- 3.4.1 sub 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

A complete ‘comply or explain’ summary regarding the application of the Code is available on our corporate website.

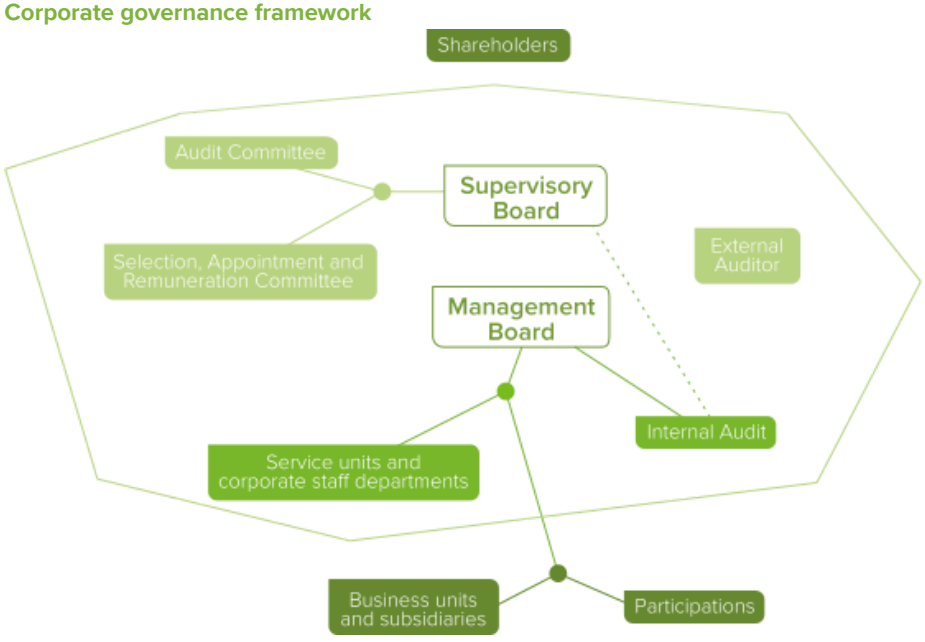
Corporate governance statement

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 sections of the 2022 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 sets of 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

As well as the statutory regulations and Articles of Association, the Management Board is also bound by its own by-laws. These by-laws contain provisions on the composition, tasks and powers of the Management Board, and on meetings and decision-making among other matters. 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 its group companies and weighs up the relevant interests of all the stakeholders when doing so. The Supervisory Board also gives due consideration to the social aspects of entrepreneurship that are relevant to the company. The Supervisory Board as a whole is responsible for the correct performance of its duties. The Management Board provides all the information and resources needed by the Supervisory Board for the proper performance of its duties in a timely manner. If the Supervisory Board and/or a member of the Supervisory Board considers it necessary, the Supervisory Board or member may obtain information from the Management Board, Internal Audit, the external auditor, the Works Council and/or other officers and external advisers of Alliander.

By-laws

The Supervisory Board also is bound by its own set of by-laws, as well as the statutory regulations and Articles of Association. These by-laws include 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. When nominating and appointing, consideration is given to the nature of the company, the activities and the desired expertise and background of the supervisory directors. The Committee of Shareholders and the Works Council have a priority right of recommendation with respect to one third of the members of the Supervisory Board.
The basic principle is that 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 an optional 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. A supervisory director can only be dismissed by the Enterprise Division of the Amsterdam Court of Appeal. The General Meeting of Shareholders may also withdraw its confidence in the Supervisory Board. Any such resolution will result in the immediate dismissal of the Supervisory Board members.
The members of the Supervisory Board step down in accordance with the retirement schedule established by the Supervisory Board. The retirement schedule is published in the Report by the Supervisory Board.

Supervisory Board Committees

Due to the volume, diversity and complexity of the topics to be dealt with, the Supervisory Board has set up 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 have their own meetings, which are in preparation for the plenary Supervisory Board meetings. In the Supervisory Board meeting, the committees report verbally and/or share draft or final minutes of the committee meetings. The recommendations of the committees form the basis for decision-making during the Supervisory Board meeting. The Supervisory Board remains collectively responsible for the decisions prepared by a committee. By-laws have also been established for these committees, which can be viewed on the corporate website and downloaded as required.

The Audit Committee supports the Supervisory Board in its supervision on matters such as the design, operation and effectiveness of the internal risk management and control systems, the integrity and quality of the financial reporting process, Alliander's financing and the relationship with the internal and external auditors.

The Selection, Appointment and Remuneration Committee is charged with making proposals to the Supervisory Board regarding 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 remuneration policy to be implemented for the Management Board and the Supervisory Board. The committee also prepares the annual Remuneration Report and discusses any HR-related issues that arise within Alliander.

Shareholders

Alliander's shareholders are exclusively Dutch governmental organisations. The four shareholding provincial authorities and the 70 shareholding municipalities are represented at the Annual General Meeting of Shareholders (AGM). The AGM is held each year, within six months of the end of the financial year. The points on the agenda include the review of the annual report, adoption of the financial statements, determining the dividend, discharging the members of the Management Board and Supervisory Board from liability and, if applicable, awarding the audit assignment for the financial statements to the external auditor. The AGM is also responsible for nominating the members of the Supervisory Board. Important board resolutions are also discussed and must be submitted to the AGM in accordance with the law and Articles of Association. A Committee of Shareholders has been appointed by the General Meeting of Shareholders and certain powers of the AGM have been transferred to that Committee 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.

Shareholders who individually or jointly represent at least 1% of the issued capital have the right to submit a written request in order to have an item placed on the agenda. Extraordinary shareholders' meetings may be held as often as the Management Board or the Supervisory Board deems necessary, or if this is required by the law, or if one or more shareholders jointly representing at least 10% of the issued capital submit a written request to this effect to the Management Board or the Supervisory 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. The performance of the internal audit function is reviewed at least once every five years by an independent third party. This assessment was carried out again in 2022, resulting in the internal audit quality certificate.

External auditor

The AGM appoints the external auditor, as nominated by the Supervisory Board. Among other tasks, the external auditor prepares the audit report and management letter and issues the audit opinion regarding the financial statements. The external auditor reports to the Supervisory Board and the Management Board on the investigations that have been carried out.

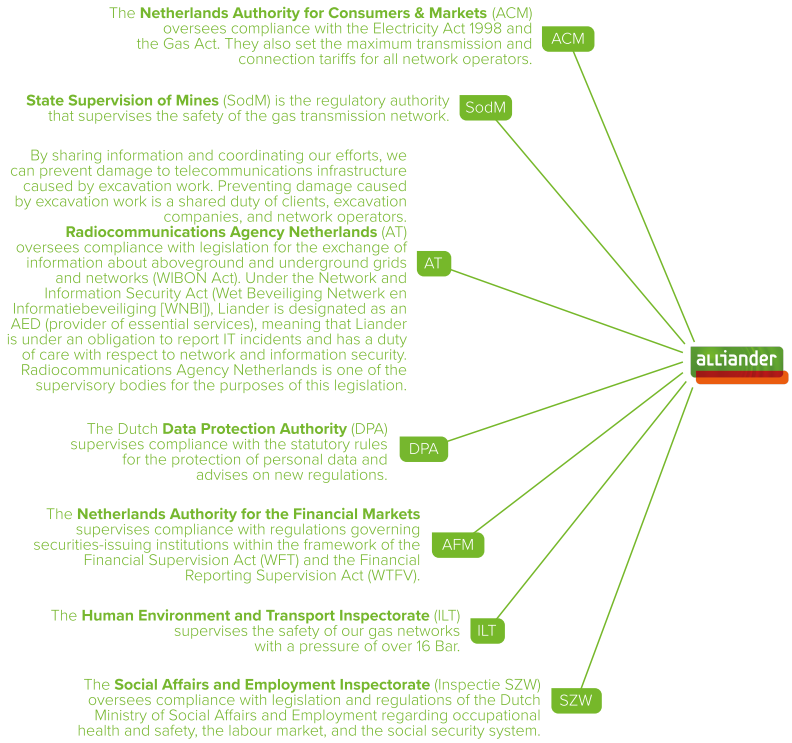
The Audit Committee reports annually to the Supervisory Board on the performance of, and relationship with, the external auditor. The Management Board gives the Audit Committee, and by extension the Supervisory Board, an opportunity to examine the most important points of discussion arising between the 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 Audit Committee, unless the Audit Committee decides otherwise. The external auditor attends at least that part of the meeting of the Supervisory Board in which the external auditor's report on the audit of the financial statements is discussed. The auditor also attends the part of the meeting of the Supervisory Board in which the six-monthly figures are discussed. Furthermore, the external auditor attends the annual AGM to answer any questions the shareholders may have regarding the auditor's opinion on the truth and fairness of the financial statements.

Deloitte Accountants B.V. has been Alliander's external auditor since the 2016 financial year.

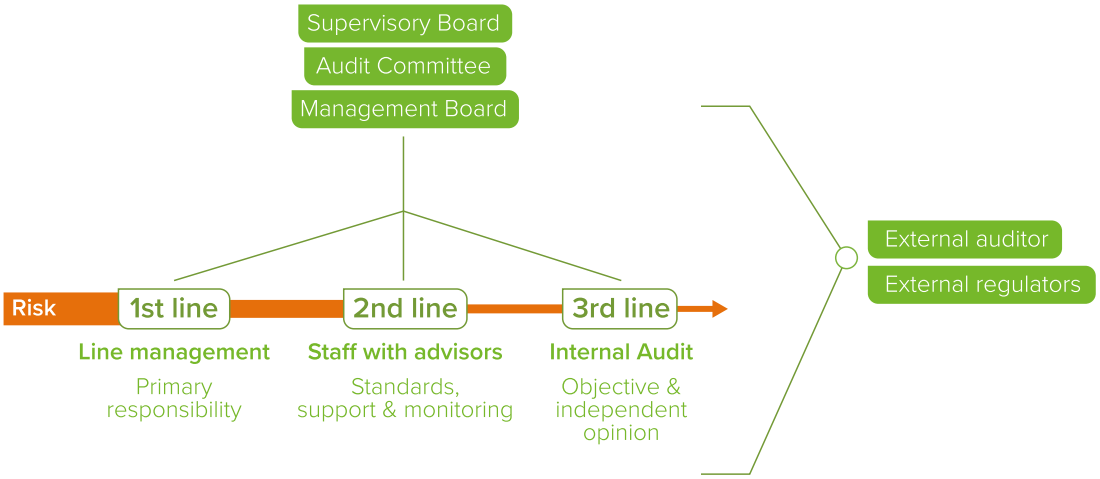
Other regulators

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 identifying, managing and monitoring 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. This line therefore 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. The third line gives 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 measures are in place to manage our risks, such as the Planning & Control Cycle, the Risk Management Framework, the Business Control Framework, the Quarterly In Control Update 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 and 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 risk acceptance guidelines. 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 organisational 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 socially and psychologically 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 24 investigations into fraud and incident reports in the year under review. This prompted the management involved to impose measures or sanctions in 12 cases, including terminating the employment contract by means of a settlement agreement. Apart from reports of fraud and incidents, there were 68 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. In the fourth quarter of 2022, the updated e-learning course on integrity was again distributed to all Alliander employees. The response and follow-up will be monitored in 2023. 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. Members of the Management Board and others also regularly post articles and blogs on the Intranet focusing on integrity risks.
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.

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 2022.

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 organisational 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. The security experts work 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 organisational units and the second-line activities focus on the digital resilience of the entire Alliander organisation.

Risks

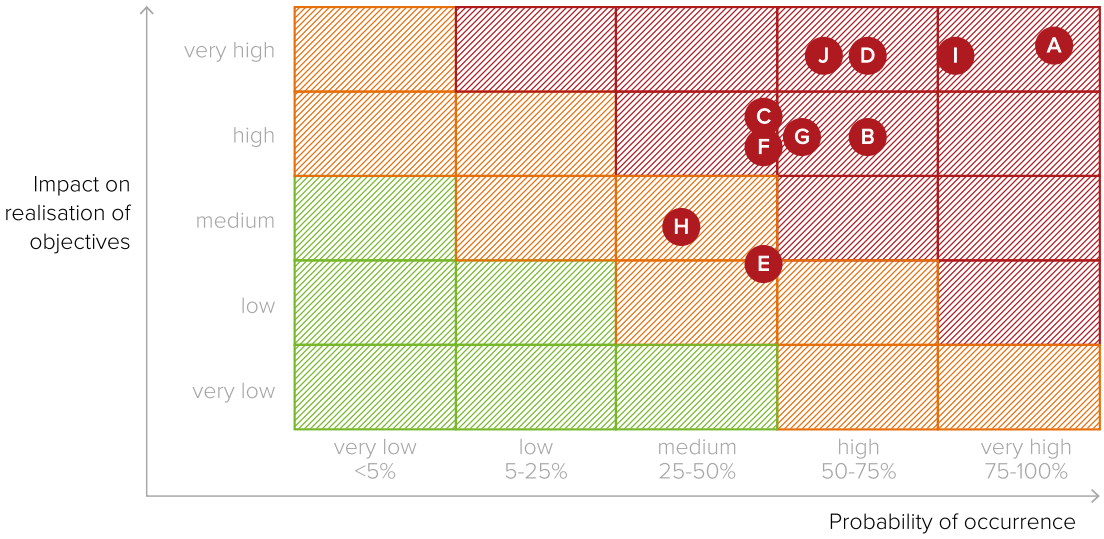
Alliander works hard to keep energy reliable, affordable and accessible for everyone. This work involves risks, including safety and financial risks. These risks cannot be entirely eliminated. However, risk management does provide insight into these risks, so that we can take informed decisions about 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 main current risks

A Completion of work package ↑
B Capacity for change →
C Safety →
D Long-term regulatory focus →
E Privacy →
F Future-proof IT landscape ↑
G Cybersecurity →
H Financing →
I Meeting customers' expectations →
J Future-proof investments →



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. In the 'Corporate governance', 'Statement by the Management Board' and 'Other information' sections, we provide more information on how risk management has explicitly been embedded in the organisation's governance and decision-making procedures. For more general information about risk management, go to www.alliander.com.

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.

The risk designations A to J in the matrix above are interactive. Clicking them produces an explanation of the relevant risk and details of how Alliander manages the risk. 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 faster than anticipated due to the energy transition and economic growth. The shortage of technical staff in the labour market, lengthy training and volatility in the forecasts concerning the type and volume of work make timely scaling up of capacity challenging. In addition, we are seeing a scarcity of certain materials in the market and a shortage of space. The result is that an increasing proportion of the work cannot be executed and is being postponed, which in turn leads to climate goals not being achieved. The stepping up of these climate objectives means even more pressure. Certainly in the medium term – up to 2032 – it looks as though we still have a major task ahead of us to get all the work done.

How is the risk managed?
Alliander is addressing the challenge associated with completion of its work package by acting to prevent the need for more work, making better use of network capacity, generating a higher work output and developing an infrastructure for district heating and sustainable gases. To limit the amount of work required, we gain a better picture of the customer's needs at an earlier stage and, together with stakeholders, we make plans for the future energy system. We prioritise the work where possible, and we develop smart solutions to ensure better utilisation of the available network capacity. Where possible, we form coalitions in the sector and the supply chain. We are making better use of the existing network capacity by applying smart solutions and encouraging customer flexibility. This reduces peak loads and enables more customers to be connected without expanding the grid. We can complete more work by focusing on early coordination with stakeholders, to shorten lead times for example. Furthermore, we are taking measures to recruit, train and retain technical personnel and to outsource work, and we are increasing productivity by simplifying, optimising and digitalising processes. Finally, we are developing infrastructure for district heating and sustainable gases that complements the work to maintain and expand the capacity for electricity.

What is the risk trend?
Rising. The 2023–2032 Multi-Year Plan shows that the work package is expected to increase further and thus remain at a challenging, high level. That, in combination with the scarcity of technical personnel, space and materials, significantly complicates realisation of the plan.

Capacity for change →

Probability
High.

Impact
High.

What is the risk?
The world around us is changing rapidly and the energy transition is in full swing. 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, certainly for the sake of our customers but also for each other. If we are unable to make the necessary changes, that could pose a threat to achieving our strategic goals.

How is the risk managed?
To increase the capacity for change, we are working on the basis of a common goal to create an agile, effective and cost-efficient organisation, a learning and high-performance organisation with a results-driven culture and the right leadership. This means addressing our strategy, our organisation and our culture and leadership. We work towards that common goal by adopting a clear strategy and making choices. Based on this strategy, critical success factors and performance indicators are defined for all levels of the organisation. We seek to have an agile, effective and cost-efficient organisation by being aware of each other's production processes, continuing to develop the organisation structure and implementing a new Alliander consultative structure. We make use of strategic staff planning so that we can quickly and proactively respond to staffing developments in a much more targeted manner. Finally, we work on becoming a learning and high-performance organisation with a results-driven culture and the right leadership by developing activities that focus on professional skills, lasting personal effectiveness and inclusiveness.

What is the risk trend?
Neutral. The past year has been devoted to working on the basis of a common goal by making choices at the 'strategic' level and translating them into a roadmap and business plans. Action has also been taken in the areas of leadership and culture. At the same time, we face the challenges of an organisation in which employees are under increasing pressure and the need for change is growing.

Safety →

Probability
Medium/high.

Impact
High.

What is the risk?
As a network company, we are responsible for managing and expanding energy networks for electricity, gas, biogas and district heating. These activities involve health and safety risks for our employees, contractors, customers and local communities. There are two types of safety risk: the one is the possibility of employees being injured when working on or near the grids, and the other is the potential for explosions, fire, suffocation, short circuit or other accidents that can occur as a result of an asset failure. Despite all the measures, there always remains the risk of an accident occurring that results in death or injury, especially now when Alliander's work package is increasing and we are working with less experienced staff and with new methods and technologies. The potential impact is huge.

How is the risk managed?
We lay the foundation for safety by working to ensure the safety of our networks and assets, working safely on the networks, and reinforcing our safety culture. We guarantee the safety of our grids by always making safety an integral part of the design and selection criteria when choosing new asset standards and in our calls for tenders. We evaluate incidents so that we can learn from them. We approach working safely on the grids by obtaining an understanding of the safety risks and translating the necessary measures into work instructions. We ensure that only qualified employees carry out the work. Managers supervise compliance with work instructions and the use of PPE by carrying out workplace inspections and safety observation rounds, among other measures. We also analyse incidents so that we can learn from them. Lastly, we seek to bolster the safety culture by discussing safe working practices in the workplace and learning from incidents. We do all of this with the aim of making safety an inherent part of our mindset and actions at work.

What is the risk trend?
Neutral. Safety was prominently on the agenda again in 2022. However, safety incidents are inherent to working with live cables and continue to occur.

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 notice a growing mismatch between policy, regulations and reality. This may affect our work in facilitating the energy transition and Alliander's objectives.

How is the risk managed?
This risk is basically managed by building long-term constructive relationships with the legislator and the regulator. Together with the legislator and regulatory authority, we discuss developments that are important for Alliander and potential bottlenecks that Alliander may encounter in practice. In those discussions, we emphasise the importance of a reasonable return and sufficient financial scope to perform our statutory duties. In addition, we discuss what is necessary for us to perform our role and fulfil our responsibilities effectively, now and in the future. Furthermore, we actively make proposals for required adjustments to national and European laws and regulations. Where relevant, we address issues collectively with other network operators within Netbeheer Nederland (the association of energy network operators).

What is the risk trend?
Neutral. Action is being taken to manage this risk, but uncertainty remains. With the presentation of the National Network Congestion Action Plan, the policy goals for the energy transition in the Netherlands have been embraced more resolutely by a market- and government-wide coalition of stakeholders. Financially, the Framework Agreement for future capital contributions by the State is now in place (also called the Night Watch Project). The new Congestion Management Code Decree came into effect in October 2022. We are also looking at mitigating interim measures given the rising costs of congestion management and network losses. Exactly when the Energy Act will come into effect remains uncertain and delays continue to arise; this puts it out of step with the speed of the energy transition. and necessitates innovation (including new policymaking directly in consensus with the market).

Privacy →

Probability
Medium/high.

Impact
Low/medium.

What is the risk?
As part of our energy network management activities, we have access to personal data. This includes, for example, data on connections, energy contracts, usage and costs. This personal data must be processed in compliance with the requirements of the General Data Protection Regulation (GDPR). Unlawful or incorrect use of personal data harms the data subjects and it can lead to fines and damage our reputation.

How is the risk managed?
We work on raising privacy awareness by training employees. We have a privacy policy for the design, implementation, management, monitoring and continuous improvement of privacy. We keep track of which personal data is processed and for what purpose in data processing registers. We provide access control for application users and administer and manage users of our IT systems. We also practice Privacy by Design when designing new processes or making changes to existing ones. Furthermore, we safeguard privacy in our data processing agreements with suppliers. Lastly, we have a procedure for assessing data breaches and for reporting incidents, where necessary, to the data protection authority in a timely and correct manner.

What is the risk trend?
Neutral. Last year, action was taken to manage this risk. Nevertheless, lawful processing of personal data (customer data, metering data, HR data) remains an ongoing area of concern in view of the legal requirements (legal basis/purpose). This also applies to the technical and organisational measures taken to ensure appropriate protection of personal data.

Future-proof IT landscape ↑

Probability
Medium/high.

Impact
High.

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

How is the risk managed?
We are investing in the long-term development of our core systems: we are prioritising making a blueprint of them and drawing up plans to tackle them. Business processes must be standardised to allow migration to standard IT building blocks (Fit4Future component). All digitalisation takes place under architecture in the digitalisation ecosystem. We are also scaling up the digitalisation effort further. All digitalisation efforts are linked to strategic milestones in order to prioritise them appropriately. We are restructuring part of the Agile Release Trains (ARTs) to achieve better alignment with the interests of Alliander as a whole, rather than focusing on specific business units.

What is the risk trend?
Rising. Ever-increasing demand and the unavoidable need to scale up the IT landscape are leading to an increasing risk. Given the immense challenge Alliander faces in fulfilling its task, the demand for rapid virtual solutions is increasing.

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. In addition, geopolitical developments are leading to increased threat levels and require better protection of data and business processes. 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 risk is managed through security by design, the information security management system, business continuity management and through appropriate definition and measurability of security processes. In all digitalisation initiatives, whether they involve self-build or purchased products and services, security by design is applied for optimal assurance of security. We implement an Alliander-wide information security management system to manage security within Alliander consistently and keep it up to date in a dynamic world. We facilitate business continuity management to minimise the impact of an emergency on business processes: i.e. we prepare for an emergency to the greatest possible extent and know what to do during and after an emergency. We set ourselves targets in terms of security maturity and the corresponding definition and measurability of processes and measures.

What is the risk trend?
Neutral. Given the external developments (Ukraine, increase in cyber attacks on organisations), the risk trend is unchanged despite the control measures that have been deployed.

Financing ➔

Probability
Medium.

Impact
Medium.

What is the risk?
As the Climate Agreement was further fleshed out, greater clarity was created on the level of investment needed for the energy transition. Network operators will see their investments increase considerably. Current regulatory methods provide for compensation during the service life of the asset in which an investment has been made, but not at the time of making the investment. We are largely financing investments that we will only be able to recoup over the course of 40 years. The increase in investments brings with it a significant increase in our financing needs that may, in the long run, put pressure on our financial ratios and our credit rating.

How is the risk managed?
Alliander has taken various steps to be able to meet future financial challenges. For example, Alliander continues to work on becoming a cost-conscious and efficient organisation and it focuses constantly on maintaining a healthy financial position by strengthening equity. However, additional capital is needed to fulfil our future investment tasks, despite the convertible bond loan that has already been arranged. Alliander, Enexis and Stedin have reached agreements with the State on a possible capital contribution in exchange for a shareholding by the State in the network companies. This is an important step in fulfilling Alliander's financing task. In addition to strengthening equity, we continue to work on a cost-conscious and efficient organisation in view of our investment task. The goal is to increase production and reduce organisational costs.

What is the risk trend?
Decreasing. In the past six months, good progress has been made towards structural control of this risk through the Framework Agreement for future capital contributions by the State.

Meeting customers' expectations ➔

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 performance 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. In the fourth quarter of 2022, we launched the vision on our customer service programme in which the organisation, as a Multidisciplinary Team (MDT), works to build a unified customer view that allows us to better serve customers. The goal is to give customers answers to their questions and provide information about the communication history for individual customers through one central customer system.

What is the risk trend?
Despite the control measures that have been put in place, this risk shows a neutral trend: customer service (for both large and small consumers) is increasingly under pressure due to increasing connection times and transmission shortages for the high-voltage, medium-voltage and low-voltage supply.

Future-proof investments ➔

Probability
High.

Impact
Very 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?
In line with our obligation in this regard, we connect customers to the electricity grid when they put in a request to that effect. We talk to customers to discuss the reason for the request and to offer them alternatives. The many investments for sustainable generation and the sites where generation infrastructure is placed for 20 years also pose a risk. Possible changes in political choices may result in the infrastructure for this renewable generation capability simply lying idle in the ground. In the short term, we produce quantitative information on which areas require investment over the next 20 years. We use this information as input for our local and national lobbying efforts to put the issue on the agenda and ensure that conscious political choices are made, so that the consequences can be managed. We are also conducting discussions in the relevant regions to get the problem on the agenda.

What is the risk trend?
Neutral. Despite the control measures put in place, this risk shows a neutral trend. In accordance with our task as a network operator, we connect customers to the electricity network where a request is made and we upgrade the networks in places where we expect many customer requests: this can lead to suboptimal investments that are not fully exploited during their useful life.

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 in 2022.

Topics

Strategy

In 2022, the Supervisory Board discussed topics that touch on the nature and implementation of the strategy and long-term value creation programme of Alliander at almost every meeting. This led to constructive dialogues that helped clarify the understanding of the topics. Actions to tackle network congestion, district heating network developments, cost control, the structural redesign of the IT landscape, customer service and the integrated approach to labour shortages were some of the topics that the Board discussed at length. The challenge of financing the energy transition was also a frequently discussed topic (see below under 'Long-term financing of the energy transition').

The annual strategy day of the Supervisory Board and the Management Board was held in November. The strategy day was an opportunity to come to a shared view of the future energy supply in the longer term (2030 and through to 2050). The Boards also assessed what this could mean in terms of the energy system, what network management should involve and the implications for the network companies in general and Alliander in particular.

The strategy day was arranged at the Apeldoorn-North location. During the day, the Supervisory Board also visited Apeldoorn-Noord business park, where Firan and Liander are working to create a local energy system in collaboration with companies based at the site.

Safety

Safety and tracking safety performance is a topic that appears on the Supervisory Board's agenda with great regularity. Last year, the Supervisory Board was informed in detail about the major power outage that occurred in Flevoland on 2 September 2022. This incident had a significant impact in the region, on customers, but especially on Alliander's employees. The Supervisory Board would like to express its appreciation for the initial assistance and follow-up care provided by and for the employees involved. This incident once again illustrated the importance of safety within Alliander.

All Alliander's organisational units attained rung 3 on the Safety Ladder in November 2022. With this achievement, Alliander demonstrates that safety is high on the agenda throughout the organisation and that all organisational units demonstrate a strong sense of responsibility in this regard. We also monitor accidents that lead to absence, using the quarterly reports. Regrettably, 88 accidents resulting in injury occurred at work in 2022 (2021: 69). These incidents mostly involved falls and trips, traffic accidents, impacts and working with electrics. Unfortunately, two incidents resulted in serious injuries. Furthermore, the Supervisory Board – in the presence of the Director of Safety, Environment & Quality – discussed the 'Everyone Safely Home' policy document at length. This presents a clear vision of how to further improve safety within the organisation and at the same time achieve a permanent change in behaviour. The Supervisory Board strongly endorses the importance of further improving the level of safety.

Attention was also given to personal safety. The Supervisory Board was informed about the actions taken within Alliander to improve personal safety and prevent transgressive behaviour. The Supervisory Board emphasises that transgressive behaviour in any form is inadmissible.

Kenter sale process

The Supervisory Board supports the Management Board's decision to start the process to sell metering company Kenter and endorses the strategic reasoning underpinning the sale. The restrictive laws and regulations that apply to Alliander as a public network company are the reason for the sale. Kenter can realise its potential more effectively in the commercial market. In addition, Alliander's major task of increasing work output, responding faster to developments and working with partners to design the energy network of the future means that Kenter is not getting the attention it deserves within Alliander. In the coming period, Alliander will enter into discussions with interested parties in the market. The objective is to have completed formal decision-making on the sale of Kenter in the summer of 2023.

Long-term financing of the energy transition

Additional equity will eventually be needed to guarantee Alliander's ability to continue to invest in a future-proof energy network while maintaining a healthy financial position. Strengthening equity is a crucial precondition for continuing to make investments in the energy transition at an acceptable cost to society.

Alliander, Stedin and Enexis and a representation of their shareholders have been in discussion with the Ministries of Finance and Economic Affairs and Climate Policy since the summer of 2021 about a possible future role for the State in strengthening the capital base of these three large regional network companies. The Supervisory Board has received frequent updates on the progress of these discussions. The three major regional network companies and a delegation of their shareholders have come to a negotiated outcome in

the form of a Framework Agreement. This Framework Agreement is a crucial step towards achieving a structural solution to the capital needs of the regional network companies.
The Supervisory Board has approved the conclusion of the Framework Agreement. The Supervisory Board believes that a good, balanced negotiation outcome has been achieved. In this negotiation agreement, the State makes it clear that it stands shoulder to shoulder with the regional network companies and their existing shareholders, to work on achieving the energy transition on the basis of shared responsibility and trust. The next step is further decision-making on the part of the shareholders at the Annual General Meeting (AGM) on 19 April 2023. After a positive decision by the shareholders, the Framework Agreement can be signed by the company.

Financial reporting

In line with normal practice, the Supervisory Board discussed the 2021 annual report and the financial statements, including the accompanying audit report, in the presence of the external auditor Deloitte, after which the 2021 annual report and the financial statements were approved. During the year, the Management Board submitted quarterly reports to the Supervisory Board for the purpose of comparing actual financial performance to the budget for 2022, the annual forecast for 2022 and the results achieved in 2021. One topic that was discussed at length in this context was the sharply increased procurement costs associated with network losses due to the increase in energy prices. In the view of the Supervisory Board, Alliander handled this well and appropriately by entering into discussion on this issue with the ACM along with the other regional network operators. In addition, the Supervisory Board discussed the 2022 six-monthly report, including the accompanying report of findings by Deloitte. The Supervisory Board concluded that the quarterly and six-monthly figures contained sufficient information to assess the actual financial results.
The Supervisory Board also discussed and approved the 2023–2027 business plan, including the 2023 budget. The Supervisory Board endorses the frameworks formulated by the Management Board with regard to the strategic principles underpinning the policy. The Supervisory Board's Audit Committee carried out intensive preparatory work on all these matters. The Supervisory Board believes that the level of control over financial reporting within Alliander is of a high standard.

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 2022 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 Supervisory Board concludes that the consultations between the auditor and the Management Board about the management letter and follow-up actions were productive and led to appropriate progress being made in further improving internal control. Compared to 2021, progress has been made on most issues, including the IT findings.
The Supervisory Board also notes that the auditor again found no significant shortcomings in relation to the 2022 financial year. The Supervisory Board endorses the conclusions of the Management Board about risk management and the 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. 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). 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.

Culture and behaviour

The Supervisory Board wants Alliander to be a diverse and inclusive organisation where everyone feels at home. Alliander attaches great importance to integrity and having an open, honest culture within Alliander.
In 2022, Alliander won the SER Diversity at Work Award. This award is given annually to companies that have made an outstanding effort to increase diversity and inclusiveness in the workplace. In addition, Alliander and E-Care Reverse Logistics won the 2022 Inclusive Entrepreneur of the Year Award for their joint work-learning programme, which gives people with poor job prospects an opportunity to develop further in technical subjects.
Culture and behaviour were discussed in the light of the results of the 2022 Central Employee Barometer. The Supervisory Board notes to its satisfaction that the vast majority of employees are highly satisfied. Furthermore, the six-monthly report on the findings and observations regarding the operation of and compliance with the Code of Conduct, reports received under the Whistleblower Policy (no use was made of this facility in 2022) and the results of the surveys was a good source of information to track and assess culture and behaviour. The Supervisory Board also made working visits and held informal lunch meetings with talented employees and with directors/managers, which helped the Board come to a better understanding of daily affairs and developments within the company. Talks with the Works Council are a significant opportunity to assess cultural issues. The observations contributed by Internal Audit and the external auditor also provide valuable information for monitoring culture and behaviour.

Cybersecurity

The Supervisory Board considered the approach to cybersecurity risk management and the cybersecurity measures within Alliander. During these discussions, Alliander's CISO updated the Supervisory Board on external threats in the area of cybersecurity. The number of ransomware attacks is increasing and they are becoming more professional. Computer viruses are also on the rise, and the war in Ukraine and increased geopolitical tensions have further increased the cybersecurity threat level. CISO also explained the risk-based cybersecurity approach. This approach, which focuses on both actions to tackle to external threats and internal processes and practices, underpins Alliander's cyber resilience. The Supervisory Board was also briefed on the various collaborations in the field of cybersecurity. For example, Alliander maintains close contacts with the National Cyber Security Centre and with the security teams of fellow network companies and other parties to ensure collective monitoring of (rapidly emerging) developments and appropriate joint follow-up action.

Sustainability

Social, economic and financial sustainability, the SDGs and impact measurement are an integral part of Alliander's strategy and day-to-day operations. Stakeholders increasingly value the sustainable character of Alliander. More information on sustainability initiatives can be found in the Report by the Management Board. We support these initiatives which, in our opinion, contribute to long-term value creation. One important achievement worthy of mention is that, for the third time in a row, Alliander finished first in the Erasmus Corporate Impact Index, a ranking of companies with the greatest social impact. In addition, Alliander's 2021 annual report finished in the top three of the FD Henri Sijthoff Prize, a prestigious award for the best annual reports in the Netherlands. The Supervisory Board compliments the organisation on this excellent performance and encourages Alliander to continue the course it is pursuing. In addition, the Supervisory Board approved a green bond issue in 2022. This aligns well with Alliander's strategy to contribute to making society more sustainable.

Other important matters

Other important matters that demanded the attention of the Supervisory Board in 2022 included:

- important court judgments in which Alliander was involved and new legislation and regulations relevant to Alliander (including the draft Energy Act, the draft *Collective Heating Supply Act and the Temporary Framework for Hydrogen Pilot Projects);*
- people development and succession planning;
- ancillary positions of the members of the Management Board and Supervisory Board;
- approval of the legal separation of the Almere and Duiven/Westervoort district heating networks from Liander;
- approval of the renewal of the Management Board's authority to issue ordinary shares and to limit or exclude the statutory pre-emptive right of existing shareholders in the issue of shares in connection with a possible conversion of the €600 million reverse convertible hybrid bond loan arranged in 2021;
- approval of the issue of a green bond for an amount of €500 million;
- approval of the 2022 Internal Audit annual plan.

Composition of the Supervisory Board and retirement schedule

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. At the end of that term, the Supervisory Board member may be reappointed again for a term of office of two years, renewable thereafter for a maximum of two years. Reappointment after a period of eight years must be reported and explained in the report by the Supervisory Board. The retirement schedule is shown below.

Name	Position	Term	First appointed	Current term
Annemarie Jorritsma	chair	second	2016	2020 - 2024
Frits Eulderink	member	first	2019	2019 - 2023
Thessa Menssen	member	first	2019	2019 - 2023
Gerard Penning	member	first	2021	2021 - 2025
Bert Roetert	member	second	2015	2019 - 2023

There were no changes to the composition of the Supervisory Board in 2022. In accordance with the retirement schedule, Bert Roetert, Supervisory Board member and chair of the Selection, Appointment and Remuneration Committee, will step down at the end of the AGM in 2023 as this date marks the end of his second four-year term of appointment. In anticipation of this resignation and to ensure continuity, the Supervisory Board chose to initiate early action to fill this vacancy. The Supervisory Board therefore prepared a job profile and started the recruitment process. The Supervisory Board has engaged an executive search firm for this recruitment. The recruitment and selection process was still ongoing at the end of 2022. The Supervisory Board intends to nominate a new supervisory director for appointment at the AGM on 19 April 2023.

Procedures and meetings

In 2022, the Supervisory Board convened eight times, with five regular scheduled meetings and three additional meetings. The regular meetings were preceded on each occasion by a closed session with just the Supervisory Board. The broad outcomes of the closed session were subsequently shared with the Management Board during the plenary part of the meeting. The complete Management Board attends the Supervisory Board meetings. The external auditor and senior managers also attend the meetings when invited to do so. 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 (to 1 September 2022)/Bram Sieben (from 1 September 2022) and Miranda de Bliek were the Supervisory Board's secretary and deputy secretary respectively in 2022. The secretary prepared the Supervisory Board meeting agendas, liaising with the chairpersons of the Management Board and the Supervisory Board.
Three additional meetings of the Supervisory Board were held, two in connection with the formal decision-making for entering into the Framework Agreement regarding the conditions for a possible future capital contribution by the State as a new shareholder in Alliander, and one meeting in connection with the intention to start the process for selling the metering company Kenter.

Supervisory Board committees

The Supervisory Board has two committees: the Audit Committee and the (combined) Selection, Appointment and Remuneration Committee. The committees each prepare decisions within their individual fields of action for adoption by the Supervisory Board and advise the Supervisory Board accordingly. 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 plenary Supervisory Board meeting, the committee chairs give a verbal summary of the discussions and the 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.

Composition of the committees

Name	Audit Committee	Selection, Appointment and Remuneration Committee
Annemarie Jorritsma		X
Frits Eulderink	X	
Thessa Menssen	X (chair)	
Gerard Penning	X	
Bert Roetert		X (chair)

Audit Committee

The Audit Committee met six times in 2022 in the presence of the CFO, the Director of Corporate Control, the Internal Audit manager and the external auditor. Internal specialists also attended some meetings and reported on relevant topics in their capacity as experts. Relevant topics requiring the approval of the entire Supervisory Board were submitted to the complete Supervisory Board along with a recommendation drawn up by the Audit Committee. During the year, the chair of the Audit Committee bilaterally discussed topical issues with the CFO. The Audit Committee held one meeting in private with the external auditor. This was a constructive and open discussion and the Audit Committee believes that the collaboration with the external auditor is productive and transparent. The chair of the Audit Committee also held one meeting in private with the Internal Audit manager. Based in part on a periodic review of Internal Audit quality conducted by an external independent expert party, the Audit Committee rates Internal Audit's work as good.

The agenda included regular topics such as the periodic internal and external financial reports, the business plan, taxation, (long-term) financing, management of the main business risks, fraud, treasury, the internal auditor's periodic reports and a review of the annual internal audit plan, the external auditor's audit plan, the 2021 annual report including the 2021 financial statements, the management letter and the auditor's report.
There was also specific focus this year on a number of topics including the issue of a green bond, project management and the plan of action for the tender and selection process for a new external auditor as of financial year 2024.

Selection, Appointment and Remuneration Committee

The committee met on three occasions in 2022. In addition to the committee members, the CEO and HRM director also attend the meetings. Topics of discussion in 2022 included the recruitment and selection of a new Supervisory Board member, leadership development and talent development. The results of the Central Employee Barometer were also discussed. The committee noted with satisfaction that the scores were good. The HR dashboard, which provides information on human resource developments, was also discussed. The committee additionally carried out preparatory tasks for the Remuneration Report and the annual remuneration meeting

with the Committee of Shareholders. Finally, on behalf of the Supervisory Board, the committee conducted the annual individual performance reviews with members of the Management Board. This was done this year in line with the organisation-wide Personal Result and Development system, using both feedback from colleagues and direct reports and the Management Board's own reflection on performance as input for discussion. The progress made relative to collective and individual goals and personal development were discussed.

Meeting attendance

Members' attendance percentages for Supervisory Board and committee meetings in 2022 were as follows:

Name	Supervisory Board (5)	Audit Committee (6)	Selection, Appointment and Remuneration Committee (3)
Annemarie Jorritsma	100% (5/5)	N/A	100% (3/3)
Frits Eulderink	80% (4/5)	83% (5/6)	N/A
Thessa Menssen	80% (4/5)	100% (6/6)	N/A
Gerard Penning	80% (4/5)	100% (6/6)	N/A
Bert Roetert	80% (4/5)	N/A	100% (3/3)

Independence and conflicts of interest

The Articles of Association and the Supervisory Board's by-laws contain provisions on independence and conflicts of interest. 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 members of the Supervisory Board are independent within the meaning of best practice provisions 2.1.7 to 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. None of the Supervisory Board members holds more than the maximum number of supervisory positions with large Dutch companies or major 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.
No material transactions involving potentially conflicting interests of Supervisory Board members took place in 2022.

Diversity

The Supervisory Board supports the view that diversity contributes to effective management and supervision. In addition to expertise, competencies and background, diversity also relates to aspects such as gender and age.
As a 'large legal entity', the provisions on the balanced allocation between men and women of seats on the Management Board and Supervisory Board pursuant to the Dutch Act on the appointment quota and target ratios ('Diversity Act') have applied to Alliander since 1 January 2022. The Supervisory Board observes a diversity policy for the composition of both the Management Board and the Supervisory Board, which gives consideration to the following elements:

- a balanced gender ratio with a target percentage of at least 33% women and at least 33% men;
- a complementary composition in terms of experience and professional background;
- a balanced age structure.

The composition of the Management Board remains unchanged relative to 2021 and represents a good balance in terms of diversity of knowledge, background, experience and age. The gender ratio in the Management Board is 25% women to 75% men, meaning that the target has not been met.

The composition of the Supervisory Board is also unchanged relative to 2021 and is in line with the established profile. The Supervisory Board believes itself to be sufficiently diverse in composition, both in terms of expertise and experience, and in terms of the age structure and the gender ratio. The gender ratio in the Supervisory Board is 40% women to 60% men, meaning that the target has been met.

When selecting members of the Management Board and Supervisory Board, Alliander strives to choose the most suitable candidate. When filling future vacancies in the Management Board and Supervisory Board, diversity is an important consideration and attention is given to all aspects that are part of the diversity policy. For each vacancy, we discuss what is desired in the context of diversity. If candidates of equal suitability are found and the gender ratio target has not yet been met, preference will be given to the candidate that brings the composition in line with or closer to the gender ratio target.

When recruiting and selecting members of the Management Board and Supervisory Board, Alliander uses the services of specialised consultancies in addition to its own network. The close attention given by the Management Board, the Supervisory Board and the Selection, Appointment and Remuneration Committee to the recruitment and selection procedures and the professional guidance from external agencies are the main safeguards ensuring selection of the most suitable candidate.

Self-evaluation

In accordance with the Dutch Corporate Governance Code, the Supervisory Board evaluates its own performance at least once a year without the Management Board being present. This evaluation takes place once every three years under external guidance. As the 2021 evaluation was performed with the support of an external consultant, the Supervisory Board conducted the evaluation itself this year without external guidance. This included discussion of the performance of the Supervisory Board as a whole, the two committees and the individual Supervisory Board members. The collaboration between the Supervisory Board and the Management Board was also evaluated. The Management Board provided prior input for the evaluation of its collaboration with the Supervisory Board.
First, the Board reflected on the points requiring further attention identified in the 2021 self-assessment. These points concerned making a limited set of performance targets more measurable and transparent, thinking in terms of scenarios for 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 incisiveness of the questions posed by the Supervisory Board. We found in 2022 that these points had been addressed specifically, resulting in further improvements in our effectiveness as a supervisory body, adviser and employer.
Furthermore, the Supervisory Board noted that the collaboration between the Supervisory Board and the Management Board has again been strengthened. In addition, both the Management Board and the Supervisory Board experience the oversight as intensive but enjoyable. The year 2022 was an intensive one, requiring more consultation than usual with the Supervisory Board in view of the large number of internal and external developments. Another conclusion is that the shift made in the past year in the Supervisory Board meetings towards a greater emphasis on strategy and advice in discussions about current issues and important strategic tasks facing Alliander has led to an open, critical, in-depth and constructive dialogue with the Management Board. When approaching these tasks, the Management Board appreciates the added value of being able to call on the specific expertise of the Supervisory Board members in order to exchange ideas about solution directions and/or the development of a vision.

Contact with the Works Council

The Supervisory Board feels it important to maintain strong contacts with the Works Council; this contact gives us a feeling for what is really going on in the organisation. The new Works Council started in January 2022. Members of the Supervisory Board attend consultation meetings with the Works Council twice a year. 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 Works Council was also given the opportunity to make recommendations regarding the vacancy resulting from Mr Roetert stepping down in 2023.
In addition, the Works Council, the Supervisory Board and the Management Board came together for the annual theme meeting, in which they jointly discussed the main priorities of the new Works Council for the coming period in several rounds of talks at sub-group gatherings. Once again, cooperation between the Works Council, the Management Board and the Supervisory Board went smoothly this year. The Supervisory Board is pleased with the quality of the discussions and the open relationship with the Works Council and thanks them for this.

Contact with shareholders

The most important contact each year is the AGM, during which the Supervisory Board reports on how it has performed 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 13 April 2022, which was chaired by the chair of the Supervisory Board. The meeting discussed the 2021 report of the Management Board, adopted the 2021 financial statements and 2021 dividend and granted discharge to the Management Board and Supervisory Board for the 2021 financial year. In addition, the shareholders were informed about Alliander's strategy and the status of the talks with the central government on the capital requirements of the regional network companies.
Further contacts with the shareholders mainly run through the Management Board. The Management Board consults informally with the major shareholders on a regular basis. In 2022, the contacts with the main shareholders were intensified, mainly with regard to the talks with the government about a possible future role for the State in strengthening the capital base of the three large regional network

companies. Other topics of discussion included strategy, relevant investment projects within the Alliander group and legislative and regulatory developments. The Supervisory Board was consistently kept informed of these contacts. In addition, the Selection, Appointment and Remuneration Committee consulted with the Committee of Shareholders regarding the implementation of the Management Board remuneration policy. The Committee of Shareholders was also given the opportunity to make recommendations regarding the vacancy resulting from Mr Roetert stepping down in 2023.

The Supervisory Board is pleased with the good relationship and collaboration with the shareholders in the past year and appreciates the time and effort they put into Alliander.

Advice to shareholders regarding the financial statements

The 2022 financial statements were drawn up by the Management Board and audited by Deloitte Accountants B.V., which has issued an unqualified auditor's report. This report is included in the annual report under 'Other information'.
Both the financial statements and the findings of the external auditor based on 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. The members of the Management Board and Supervisory Board have signed the financial statements.
On 19 April 2023, the financial statements will be presented at the AGM for adoption. We recommend that the AGM adopts the 2022 financial statements, together with the dividend proposal for the 2022 financial year. 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 during the past financial year.

Word of gratitude

In 2022, the employees, the managers, the Works Council and the Management Board again worked with huge commitment to fulfil Alliander's social mission, sometimes under difficult circumstances. The Supervisory Board would like to express its appreciation for everyone's efforts and the results achieved in 2022. In addition, we would like to thank the shareholders and other stakeholders for their contribution and input and for their trust in Alliander.

Supervisory Board, 6 March 2023

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

Composition of the Management Board

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

Maarten Otto has been chair of the Management Board and Chief Executive Officer (CEO) since 21 May 2020. He is also responsible for the business and operations management of network operator Liander. He joined Alliander in 2017 and has held various positions in the company. Prior to that, he worked for the 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 has also completed postgraduate courses at VU Amsterdam and the London Business School.

Supervisory Board memberships/relevant other positions

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

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

Supervisory Board memberships/relevant other positions

- Member of the Board of Trustees of Stichting AAP (wild animal rescue foundation), chair of the Audit Committee
- Member of the Management Board of Inloophuis Stichting Huis aan het Water (cancer recovery retreat) (to 1 September 2022)

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

Member of the Board and COO

Marlies Visser has been a member of the Management Board and Chief Operating Officer (COO) since 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

- Member of the Supervisory Board of Attero

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 (Universal Smart Energy Framework, until 1 December 2022)
- 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

Composition of the Supervisory Board

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

- First appointed: 1 July 2016
- End of current term: 2024
- Alliander committee: member of the Selection, Appointment and Remuneration Committee

Background information

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 (to 1 February 2022), member of the Supervisory Board of Sandy HoldCo (Roompot) (from 1 February 2022), 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 Board Trustees of the Platform Talent voor Techniek ('Talent for Technology Platform')

F. (Frits) Eulderink (1961, Dutch nationality)

- First appointed: 26 September 2019
- End of current term: 2023
- Alliander committee: member of the Audit Committee

Background information

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, Dutch nationality)

- Nationality: Dutch
- First appointed: 26 September 2019
- End of current term: 2023
- Alliander committee: member of the Audit Committee

Background information

Ms Menssen was CFO and a member of the Management Board of BAM Group and before that she was CFO and COO of the Port of Rotterdam Authority.

Relevant other positions

Member of the Supervisory Board of Ordina[1], member of the Board of Trustees of Stichting Topvrouw van het Jaar (organisers of the Dutch Top Woman of the Year election), member of the Board of Trustees of the Scheepvaartmuseum (National Maritime Museum), member of the Board of Trustees of the Kröller Müller Museum.

G. (Gerard) Penning (1963, Dutch nationality)

- Nationality: Dutch
- First appointed: 1 February 2021
- End of current term: 2025
- Alliander committee: member of the Audit Committee

Background information

Mr Penning was Chief Human Resources Officer (CHRO) and a member of the Executive Board of ABN AMRO until 1 December 2022. 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, Dutch nationality)

- Nationality: Dutch
- First appointed: 19 February 2015
- End of current term: 2023
- Alliander committee: chair of the Selection, Appointment and Remuneration Committee

Background information

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 Management Board of Centraal Bureau Levensmiddelen (CBL, the Dutch Food Retail Association), 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], chair of Afvalfonds Verpakkingen (to 1 April 2021)

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

Remuneration report

Remuneration policy for the Management Board

General

The current remuneration policy was adopted by the General Meeting of Shareholders in May 2004 and was last amended in April 2006. 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 the WNT limit. 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 2022 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 (€114,866 for 2022). This implies that no further pension is accrued over the part of the salary that exceeds €114,866.

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 2022

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 WNT standard[1], 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 2022 is €216,000.

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 2022 calendar year, Mr Otto's base salary amounted to €248,000, including 8% holiday allowance. Mr Bien's base salary amounted to €245,000, including 8% holiday allowance. The base salary paid to Ms Visser amounted to €245,000, including 8% holiday allowance, while Mr Schut's base salary amounted to €243,000, also including 8% holiday allowance.

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 €114,866 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 2022, 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 €16,000 for Ms Visser, €15,000 for Mr Otto, €15,000 for Mr Schut and €15,000 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

	2022	2021
Ratio	3.7	3.7

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. Directors' 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 2022, 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 2023, will contain disclosures on the WNT requirements.

Financial Statements

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Consolidated financial statements

Consolidated balance sheet

€ million	Note	2022	2021
Assets			
Non-current assets			
Property, plant and equipment	3	9,091	8,501
Right-of-use assets	3	122	120
Intangible assets	4	317	320
Investments in associates and joint ventures	5	16	17
Other financial assets	7	39	60
Deferred tax assets	17	141	149
Total non-current assets		**9,726**	**9,167**
Current assets			
Inventories	9	141	63
Trade and other receivables[1]	10	330	333
Other financial assets	7	128	6
Cash and cash equivalents	11	205	624
Total current assets		**804**	**1,026**
Assets held for sale	33	162	16
Total assets		**10,692**	**10,209**
Equity and liabilities			
Equity	12		
Share capital		684	684
Share premium		671	671
Subordinated perpetual bond loan		495	495
Hedge reserve		5	-2
Other reserves		2,517	2,380
Result for the year		198	242
Total equity		**4,570**	**4,470**
Liabilities			
Long-term liabilities			
Interest-bearing debt	13	3,000	2,630
Lease liabilities	19	102	102
Deferred income	14	1,965	1,906
Provisions for employee benefits	15	18	28
Deferred tax liabilities	17	-	-
Other provisions	16	13	28
Total long-term liabilities		**5,098**	**4,694**
Short-term liabilities			
Trade and other payables	18	155	152
Tax liabilities		49	92
Interest-bearing debt	13	426	481
Lease liabilities	19	21	21
Provisions for employee benefits	15	35	38
Accruals	8, 18	322	252
Total short-term liabilities		**1,008**	**1,036**
Total liabilities		**6,106**	**5,730**
Liabilities held for sale	33	16	9
Total equity and liabilities		**10,692**	**10,209**

1 Trade and other receivables and current financial assets are shown separately in the consolidated balance sheet for 2022.

Consolidated income statement

€ million	Note	2022	2021
Income			
Revenue	21	2,150	2,120
Other Income	22	63	61
Total income		**2,213**	**2,181**
Operating expenses			
Purchase costs and costs of subcontracted work	23	-762	-623
Employee benefit expenses	24	-710	-678
Other operating expenses	25	-186	-333
Total purchase costs, costs of subcontracted work and operating expenses		**-1,658**	**-1,634**
Depreciation and impairments of non-current assets	26	-539	-498
Less: Own work capitalised		294	305
Total operating expenses		**-1,903**	**-1,827**
Operating profit		**310**	**354**
Finance income	27	1	62
Finance expense	28	-54	-107
Result from associates and joint ventures	5	3	5
Profit before tax		**260**	**314**
Tax	29	-62	-72
Profit after tax from continuing operations		**198**	**242**
Profit attributable to non-controlling interests		-	-
Profit after tax		**198**	**242**

The profit after tax for 2022 is almost entirely attributable to the shareholders of Alliander N.V.

Consolidated statement of comprehensive income

The comprehensive income was as follows:

€ million	Note	2022	2021
Profit after tax		**198**	**242**
Other elements of comprehensive income			
Items that will be reclassified subsequently to profit or loss			
Movement in hedge reserve	12	7	-
Comprehensive income after tax		**205**	**242**

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

Consolidated cash flow statement

€ million	Note	2022	2021
Cash flow from operating activities	30		
Profit after tax		198	242
Adjustments for:			
- Finance income and expense	27, 28	53	45
- Tax	29	62	72
- Result after tax from associates, joint ventures and third-party non-controlling interests	5	-3	-5
- Depreciation, amortisation and impairment	22, 26	456	422
- Paid earn out on sale 450connect		-	-24
- Book profit on sale of Stam		-13	-
Changes in working capital:			
- Inventories		-96	6
- Trade and other receivables		4	-33
- Trade and other payables, accruals and deferred income		35	46
Total changes in working capital		**-57**	**19**
Changes in deferred tax, provisions, derivatives and other		-20	-6
Cash flow from operations		**676**	**765**
Interest paid		-50	-37
Interest received		-	-
Dividend received		6	1
Corporate income tax paid (received)		-60	-65
Cash flow from operating activities		**572**	**664**
Cash flow from investing activities	30		
Investments in intangible assets	4	-1	-
Investments in property, plant and equipment	3	-1,228	-1,014
Construction contributions received from third parties	14	142	149
Cash flow from the acquisition of associates	1	-	-3
Cash flow from the sale of associates	22	12	30
GE notes redeemed	6	-8	-
Repayments of short-term debt	13	8	199
Paid deposits	7	-100	-
Cash flow from investing activities		**-1,175**	**-639**
Cash flow from financing activities	30		
Redemption EMTN		-400	-
ECP financing issued	13	300	2
Long-term debt issued	13	498	599
Long-term debt redeemed	14	-8	-48
Received deposits	13	-72	72
Redemption lease liabilities	19	-25	-222
Reimbursement on subordinated perpetual bond loan	12	-8	-8
Dividend paid		-101	-94
Cash flow from financing activities		**184**	**301**
Net cash flow		**-419**	**326**
Cash and cash equivalents as at 1 January		624	298
Net cash flow		-419	326
Cash and cash equivalents as at 31 December		**205**	**624**

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 2021		**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		-	-	-	-	-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**
Profit after tax for 2022		-	-	-	-	-	198	198
Result interest rate swap		-	-	-	7	-	-	7
Comprehensive income for 2022		**-**	**-**	**-**	**7**	**-**	**198**	**205**
Reimbursement subordinated perpetual bond loan after tax	12	-	-	-	-	-6	-	-6
Dividend for 2021		-	-	-	-	-	-101	-101
Profit appropriation for 2021		-	-	-	-	141	-141	-
Other movements[1]		-	-	-	-	2	-	2
Total movements		**-**	**-**	**-**	**7**	**137**	**-44**	**100**
As at 31 December 2022		**684**	**671**	**495**	**5**	**2,517**	**198**	**4,570**

1 This concerns rounding differences.

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 2022 financial statements were signed by the members of the Management Board and the members of the Supervisory Board on 6 March 2023. The Supervisory Board will submit the financial statements for adoption by the General Meeting of Shareholders on 19 April 2023. 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 2022, 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.

IFRS

Alliander's financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) as at 31 December 2022, 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 2022

The IASB and the IFRIC have issued new and/or amended standards and interpretations that are applicable to Alliander with effect from the 2022 financial year. The amendments to the standards and interpretations described below have been endorsed by the European Union.

- Amendment to IFRS 3: 'Reference to the Conceptual Framework';
- Amendment to IAS 16: 'Proceeds before Intended Use';
- Amendment to IAS 37: 'Onerous Contracts - Cost of Fulfilling a Contract';
- Annual Improvements to IFRS Standards 2018–2020:
  - Amendment to IFRS 1: 'Subsidiary as First-time Adopter';
  - Amendment to IFRS 9: 'Fees in the "10 per cent" Test for Derecognition of Financial Liabilities';
  - Amendment to IFRS 16: 'Illustrative Example 13' in 'Lease Incentives'.

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 IAS 1: 'Presentation of Financial Statements. Non-current Liabilities with Covenants';
- 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';
- Amendment to IFRS 16: 'Leases: Lease Liability in a Sale and Leaseback'.

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

2022

Alliander AG set up the company InfraSignal GmbH in 2022. Activities related to the construction and maintenance of traffic management systems in Berlin were transferred to this company by means of a legal demerger from Alliander Stadtlicht GmbH. As of 31 December 2022, the shares in InfraSignal GmbH were transferred to the municipality of Berlin. Alliander N.V. furthermore set up two companies in 2022, and then transferred the heating networks in Almere and Duiven/Westervoort were transferred from Liander N.V. to these companies. These new companies were offset by the sale of Stam Heerhugowaard Holding B.V. This sale took place on 10 January 2022.

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. It was offset by the sale of a 75% share in 450connect GmbH in 2021 for the sum of €36 million.

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.

Alliander Digital Solutions B.V. was added to the existing cash-flow generating units (CGUs) as a separate CGU in 2022.

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.

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 the 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.

With the exception of gas assets, property, plant and equipment are depreciated using the straight-line method over the expected useful life of the various components comprising the asset in question, taking into account the expected residual value. Since 1 January 2022, the variable declining balance method has been used for depreciation of the gas assets. For more information, please refer to changes in estimations for 2022.

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 estimations

2022

Since 1 January 2022, the variable declining balance method has been used for depreciation of the gas assets. An acceleration factor of 1.2 is applied. The change in depreciation methodology is largely in response to an expected decrease in the utilisation of our gas assets as alternative energy sources become more predominant. The declining balance method has been chosen as this method is better suited to the expected future decrease in the number of users of the gas network. The acceleration factor of 1.2 is based on the expected rate at which the number of users of the gas network will decrease.

Alliander also estimates that the decrease in the number of users of the gas network will not lead to large-scale decommissioning of the gas assets. Despite a decrease in the number of users of the gas network, the main gas network infrastructure will remain largely operational. In addition, it is expected that natural gas will continue to be of relevance, along with sustainable alternatives such as green gas and hydrogen. Therefore, this does not imply a reduction in the useful life of the gas assets.

From 1 January 2022, the amortisation pattern of the contributions received in advance for the gas assets will also be adjusted according to the variable declining balance method, with the effect that the net depreciation charges (gross depreciation less the amortised contributions) for the gas assets will follow a declining pattern.

As a result of the change in the estimation method, gross depreciation charges relating to gas assets were €23 million higher in 2022 and amortised contributions were €4 million higher. The net depreciation expense is therefore €19 million higher than it would have been if the straight-line depreciation method had been retained.

2021

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

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.

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 as part of a 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 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. Since 2021, the primary focus with regard to the calculation of the provision for obsolete inventories is no longer on the rate of inventory turnover, but rather on whether the inventories are deployable. 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 these pension plans are essentially 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 in 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

Alliander did not enter into any new business combinations in 2022.

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 final acquisition price for Ebatech was set at a fair value of €3 million.

Note 2 Segment information

Alliander distinguishes the following reporting segments in 2022:

- 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. It is Alliander's largest business unit, accounting for almost 90% of the revenue.

The 'Other' segment covers the entirety of the other operating segments in the Alliander group, such as the activities of Qirion, 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. 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 and new activities and the income from network management activities in Germany. The eliminations result from the internal services provided by corporate staff departments and service units (such as IT and Shared Services). 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	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
Operating income												
External income	1,949	1,935	251	229	-	-	2,200	2,164	13	17	2,213	2,181
Internal income	3	5	351	399	-354	-404	-	-	-	-	-	-
Total income	**1,952**	**1,940**	**602**	**628**	**-354**	**-404**	**2,200**	**2,164**	**13**	**17**	**2,213**	**2,181**
Operating expenses												
Purchase costs and costs of subcontracted work	783	673	79	108	-100	-158	762	623	-	-	762	623
Operating expenses	659	764	501	483	-254	-246	906	1,001	-10	10	896	1,011
Depreciation and impairments	432	384	107	111	-	-	539	495	-	3	539	498
Own work capitalised	-199	-220	-95	-85	-	-	-294	-305	-	-	-294	-305
Total operating expenses	**1,675**	**1,601**	**592**	**617**	**-354**	**-404**	**1,913**	**1,814**	**-10**	**13**	**1,903**	**1,827**
Operating profit	**277**	**339**	**10**	**11**	**-**	**-**	**287**	**350**	**23**	**4**	**310**	**354**
Finance income	1	50	58	61	-58	-60	1	51	-	11	1	62
Finance expense	-58	-111	-54	-41	58	60	-54	-92	-	-15	-54	-107
Share in results of associates and joint ventures after tax	4	2	-5	-3	-	-	-1	-1	4	6	3	5
Tax	-57	-69	-4	-9	-	-	-61	-78	-1	6	-62	-72
Profit after tax from continuing operations	**167**	**211**	**5**	**19**	**-**	**-**	**172**	**230**	**26**	**12**	**198**	**242**
Profit attributable to non-controlling interests	-	-	-	-	-	-	-	-	-	-	-	-
Profit after tax	**167**	**211**	**5**	**19**	**-**	**-**	**172**	**230**	**26**	**12**	**198**	**242**
Segment assets and liabilities												
Total assets	9,412	8,654	3,701	3,838	-2,420	-2,283	10,692	10,209	-	-	10,692	10,209
Non-consolidated investments in associates	4	3	13	14	-	-	16	17	-	-	16	17
Non-consolidated investments in joint ventures	-	-	-	-	-	-	-	-	-	-	-	-
Liabilities (long-term and short-term)	6,824	6,158	3,800	3,463	-4,517	-3,891	6,106	5,730	-	-1	6,106	5,729
Other segment items												
Investments in property, plant and equipment	1,114	935	114	79	-	-	1,228	1,014	-	-	1,228	1,014
Number of permanent staff at year-end	3,241	3,024	2,999	2,814	-	-	6,240	5,838	-	-	6,240	5,838

The profit after tax for 2022, like that for 2021, is almost entirely attributable to the shareholders of Alliander N.V.

Reclassification to reported and incidental items

The exceptional income of €10 million in operating expenses in 2022 consists of the release of two provisions. One is a provision of €3 million made following a dispute concerning the past sale of an associate and the other is a provision for a loss-making contract at one of the subsidiaries. The exceptional expenses included in operating expenses in 2021 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 amounting to €5 million were also incurred in 2021.

The sale of our shareholding in Stam had a positive impact of €13 million on operating income in 2022. In 2021, the partial sale of 450connect GmbH had a positive impact of €17 million on operating income.

The €4 million share in profit after tax for associates and joint ventures relates to the payment from a trust office in which Alliander holds 100% of the depository receipts for shares.

The 'tax' item is a direct consequence of the aforementioned exceptional items.

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).

		Segmentation of consolidated revenue by product					
€ million	Total	Transport and connection service Electricity	Transport service Gas	Connection service Gas	Metering Service small consumers Electricity	Metering Service small consumers Gas	Other activities
Revenue 2022	**2,150**	1,300	324	117	104	60	245
Revenue 2021	**2,120**	1,268	340	113	99	59	241

Net revenue in 2022 was €2,150 million (2021: €2,120 million), with other income of €63 million (2021: €61 million).

In total, external revenue came in at €2,213 million (2021: €2,181 million).

Seasonal influences

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

Geographical segmentation

	External income		Property, plant and equipment		Intangible assets		Non-consolidated associates and joint ventures	
€ million	2022	2021	2022	2021	2022	2021	2022	2021
The Netherlands	2,163	2,108	9,033	8,445	317	320	9	7
Rest of the world	50	73	58	55	-	-	7	10
Total	**2,213**	**2,181**	**9,091**	**8,500**	**317**	**320**	**16**	**17**

'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 2021					
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 1 January 2021	**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**
Movements 2022					
Investments	1	802	78	347	1,228
Divestments	-	-22	-22	-	-44
Depreciation	-5	-315	-152	-	-472
Reclassifications and other movements	-2	64	63	-129	-4
Reclassification to assets held for sale	-6	-	-112	-	-118
New consolidations	-	-	-	-	-
Total	**-12**	**529**	**-145**	**218**	**590**
As at 31 December 2022					
Historical cost	177	13,227	2,080	684	16,168
Accumulated depreciation and impairments	-59	-5,789	-1,229	-	-7,077
Carrying amount as at 31 December 2022	**118**	**7,438**	**851**	**684**	**9,091**

Investments

Investments in property, plant and equipment during the financial year totalled €1,228 million (2021: €1,014 million).

Divestments

Divestments in 2021 and 2022 related to the decommissioning of buildings, network assets and other plant and equipment.

New consolidations

No new entities were added to the consolidated companies in 2022. Ebatech was added in 2021.

Impairments

There were no impairments in 2022 or in 2021.

Reclassification to assets held for sale

The reclassification to ‘assets held for sale’ relates to Kenter and the Spaklerweg site in Amsterdam.

The reclassification in 2021 related to Stam’s assets. In that same year, the site of our premises in Leeuwarden was reclassified 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 2022 was approximately €340 million (year-end 2021: €300 million).

There are conditional and unconditional contractual rights and obligations relating to the remaining CBL transaction. At the end of 2022, a total of $655 million was held on deposit with several financial institutions or invested in securities in connection with the transaction (2021: $715 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 2022, 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 $32 million (2021: $22 million). The strip risk is affected to a great extent by market developments.

The sub-subleases to Vattenfall Warmte for the district heating networks in Duiven-Westervoort and Almere Stad belonging to Alliander N.V. were also terminated by operation of law in December 2021. It has been agreed with Vattenfall that the district heating networks will continue to be leased as far as possible on the basis of the agreements in the terminated sub-subleases to Vattenfall Warmte up to 1 December 2023. The total carrying amount of the subleased district heating networks and associated meters as at year-end 2022 was €98 million (2021: €95 million).

Right-of-use assets

€ million	Land and buildings	Other plant and equipment	Total
As at 1 January 2021			
Historical cost	15	93	108
Accumulated depreciation and impairments	-8	-34	-42
Carrying amount as at 1 January 2021	**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**
Movements 2022			
Investments	2	9	11
Divestments	-	-	-
Depreciation	-7	-16	-23
Lease adjustments	16	-	16
Reclassification to assets held for sale	-	-2	-2
Total	**11**	**-9**	**2**
As at 31 December 2022			
Historical cost	91	95	186
Accumulated depreciation and impairments	-13	-51	-64
Carrying amount as at 31 December 2022	**78**	**44**	**122**

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 lease adjustments relate for example to expansions and indexations. The reclassification to 'assets held for sale' relates to Kenter as at year-end 2022 and to Stam as at year-end 2021.

Note 4 Intangible assets

€ million	Goodwill	Other intangible assets	Total
As at 1 January 2021			
Historical cost	495	47	542
Accumulated depreciation and impairments	-188	-11	-199
Carrying amount as at 1 January 2021	**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**
Movements 2022			
Investments	-	1	1
Reclassification to assets held for sale	-	-3	-3
Depreciation	-	-1	-1
Total	**-**	**-3**	**-3**
As at 31 December 2022			
Historical cost	495	26	521
Accumulated depreciation and impairments	-191	-13	-204
Carrying amount as at 31 December 2022	**304**	**13**	**317**

The reclassification to 'assets held for sale' relates to Kenter.

Goodwill allocation by segment

€ million	2022	2021
Liander	286	286
Other	18	18
Total	**304**	**304**

Of the goodwill allocated to Liander as at year-end 2022, €209 million (2021: €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 (2021: €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 2022, 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 2022 financial year, Liander applied a pre-tax fair discount rate of 3.7% (2021: 4%). This figure will increase to 6.8% in 2027. 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 8.0% was applied for the telecom networks (2021: 7.1%). 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% was applied for the impairment test performed on the assets of Warmtenet Hengelo. The outcome did not lead to impairment, or a reversal of impairment, nor to an adjustment of the provision for loss-making contracts (€1 million).

Note 5 Investments in associates and joint ventures

	Associates		Joint ventures		Total	
€ million	2022	2021	2022	2021	2022	2021
Carrying amount as at 1 January	**2**	**1**	**15**	**5**	**17**	**6**
Movements						
Transfers of subsidiaries	-	-	-	3	-	3
Revaluation of non-controlling interest	-	-	-	9	-	9
Investments	-	-	2	3	2	3
Share in results	4	1	-	-3	4	-2
Dividend and other movements	-4	-	-3	-2	-7	-2
Total	**-**	**1**	**-1**	**10**	**-1**	**11**
Carrying amount as at 31 December	**2**	**2**	**14**	**15**	**16**	**17**

Investments in both years related to payments of share premium.

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.

Share in results of associates and joint ventures

	Associates		Joint ventures		Total result	
€ million	2022	2021	2022	2021	2022	2021
Share in						
Profit or loss from continuing activities	4	1	-	-3	4	-2
Profit or loss from discontinued activities	-	-	-	-	-	-
Other comprehensive income	-	-	-	-	-	-
Total comprehensive income	**4**	**1**	**-**	**-3**	**4**	**-2**

Alliander has concluded arrangements with associates and joint ventures for granting financing and credit facilities totalling €26 million as at year-end 2022 (2021: €26 million). Under these facilities, an amount of €17 million was drawn down as at 31 December 2022 (2021: €19 million). Additionally, as at year-end 2022, there was a receivable under this heading amounting to €24 million in relation to overdraft facilities (2021: a liability of €0.2 million).

Note 6 Investments in bonds

€ million	Investments in bonds
Carrying amount as at 1 January 2021	**147**
Movements 2021	
Currency translation differences	9
Divestments	-156
Total	**-147**
Carrying amount as at 31 December 2021	**-**
Movements 2022	
Currency translation differences	-
Divestments	-
Total	**-**
Carrying amount as at 31 December 2022	**-**

The 'investments in bonds' item was zero at year-end 2022 (2021: zero).

Note 7 Other financial assets (including current portion)

€ million	Loans, receivables and other
Carrying amount as at 1 January 2021	**66**
Effective interest rate 2021	1%
Movements 2021	
Loans and interest repaid	-3
Other movements	1
Loans granted	2
Total	**-**
Carrying amount as at 31 December 2021	**66**
Effective interest rate 2022	1%
Movements 2022	
Loans and interest repaid	-9
Paid security deposits	100
Other movements	2
Loans granted	8
Total	**101**
Carrying amount as at 31 December 2022	**167**
Non-current portion of other financial assets	**39**
Current portion of other financial assets	**128**

The carrying amount of the other financial assets as at year-end 2022 included a current receivable due from Meridiam (€27 million), a current receivable in respect of security deposits paid (€100 million), a receivable due from the municipality of Amsterdam for the Spaklerweg site (€7 million) and a non-current receivable due from EDSN (€17 million).

Note 8 Derivatives

	Current assets		Non-current assets		Short-term liabilities		Long-term liabilities	
€ million	2022	2021	2022	2021	2022	2021	2022	2021
Foreign exchange contracts	-	-	-	-	-	-	-	-
Carrying amount as at 31 December	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Derivatives are measured at fair value.

A bond was issued in 2022 on the basis of the Euro Medium Term Notes Programme. An interest-rate swap was used to fix the fixed-rate bond loan at the time of announcement of the loan. At the same time as the bond loan was issued, the interest-rate swap was settled with a positive result. This is recognised in the cash-flow hedge reserve in equity.

As at year-end 2022, the value was zero (2021: zero).

Note 9 Inventories

€ million	2022	2021
Raw materials and consumables	127	35
Finished goods	14	28
Carrying amount as at 31 December	**141**	**63**

The impairment of inventories in 2022 was €0.2 million (2021: €1 million).

Note 10 Trade and other receivables

€ million	2022	2021
Trade receivables	60	76
Impairment of trade receivables	-10	-8
Trade receivables net	50	68
Corporate income tax	20	17
Other receivables	59	25
Accrued income and prepayments	201	223
Carrying amount as at 31 December	**330**	**333**

At the end of the financial year, impairment of receivables totalled €10 million (2021: €8 million). The impairment of receivables recognised in the income statement in 2022 as an expense amounted to €3 million (2021: €2 million). For further information, see the credit risk section of note 34.

The other receivables include an amount of €30 million (2021: €8 million) due from non-controlling interests. This refers in particular to Reddyn.

Note 11 Cash and cash equivalents

€ million	2022	2021
Cash held at banks	55	44
Deposits	150	580
Carrying amount as at 31 December	**205**	**624**

The effective interest rate on cash and cash equivalents ranged from -3.44% to 2.46% (2021: -1.03% to -0.26%). Cash and cash equivalents are held almost entirely in euros. In 2022, 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 (2021: €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 2022, 136,794,964 shares were in issue (2021: 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 both 2019 and 2022 to mitigate the interest-rate risk attached to the new EMTN financing of €300 million and €500 million respectively. As a result, the interest-rate risk was mitigated to a large degree in the run-up to the bond issue.
In 2019, two forward starting interest-rate swaps were entered into for this purpose in the run-up to the bond issue. When the bond loan was issued, both the interest rate swaps were settled. 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 2022 after deduction of the deferred tax was a negative amount of €2

million (2021: €2 million).
In 2022, five forward starting interest-rate swaps were entered into. The swaps were redeemed when the loan was contracted. After deduction of the deferred tax, a positive result of €7 million was achieved, which is recognised in the hedge reserve in equity. The hedge reserve will be released in the income statement over the term of the loan (up to 8 September 2027).
The total hedge reserve at the end of the financial year was a positive amount of €5 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 of Vattenfall Warmte N.V. As at the end of the reporting period, the shareholders' equity of Indigo BV amounted to €2.5 million. 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 2022 amounted to €1.6 million negative. In 2017, Alliander acquired a 75% interest in Warmte-Infrastructuur Limburg Geothermie B.V. As at year-end 2022, the equity of this company was a negative amount of €2.3 million. Warmtenetwerk Didam B.V. was set up in 2021, with Alliander having a 95% share. As at year-end 2021, the equity of this company amounted to €1.0 million positive.
In accordance with the basis of Alliander's consolidation, these companies were consolidated in full, with separate disclosure of a non-controlling interest in the consolidated equity. Given the small size of these non-controlling interests, they are not disclosed separately in the balance sheet as at year-end 2022 and 2021.

Note 13 Interest-bearing debt

The movements in new loans, repayments and security deposit repayments during the year resulted in cash flows; the 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	2022	2021
Carrying amount as at 1 January	**3,111**	**2,487**
Movements		
New loans	797	599
Loans repaid	-410	-48
Currency translation differences	-	1
Received deposits	-72	72
Total	**315**	**624**
Carrying amount as at 31 December	**3,426**	**3,111**

Short and long-term interest-bearing debt

	Effective interest rate		Short-term portion		Long-term portion	
€ million	2022	2021	2022	2021	2022	2021
Subordinated loans	2.1%	2.2%	-	8	599	599
Private and green loans	1.1%	1.1%	126	1	310	436
Euro Medium Term Notes	1.5%	1.4%	-	400	2,090	1,592
Euro Commercial Paper	1.7%	0.0%	300	-	-	-
Other	0.0%	0.0%	-	72	1	3
Carrying amount as at 31 December			**426**	**481**	**3,000**	**2,630**

The short-term interest-bearing debt, amounting to €426 million as at year-end 2022 (2021: €481 million), is made up of the current portion of the long-term debt (€126 million) and commercial paper issued (€300 million).

On 9 September 2022, Alliander issued green bonds with a total value of €500 million and a term of 5 years. Bonds were issued at a price of 99.631% and a coupon rate of 2.625%. The revenues will be used to enable more investments in the power grid for the energy transition. Prior to issuing these green bonds, Alliander renewed its Green Finance Framework in August 2022.

As at year-end 2022, a carrying amount of €2,090 million (face value €2,100 million) had been issued under the EMTN programme. The bonds issued under the EMTN programme are listed on Euronext Amsterdam.

At the end of 2022, the amount open under the ECP programme was €300 million (2021: zero).

Maturities of interest-bearing debt

€ million	2022	2021
Less than 1 year	426	481
Between 1 and 2 years	400	125
Between 2 and 3 years	9	400
Between 3 and 4 years	299	9
Between 4 and 5 years	497	299
Over 5 years	1,795	1,797
Carrying amount as at 31 December	**3,426**	**3,111**

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	2022			2021		
	Contributions	Subsidies	Total	Contributions	Subsidies	Total
Carrying amount as at 1 January	**1,894**	**12**	**1,906**	**1,824**	**13**	**1,837**
Contributions received	142	-	142	149	-	149
Amortisation recognised as income	-83	-	-83	-76	-1	-77
Other	-	-	-	-3	-	-3
Carrying amount as at 31 December	**1,953**	**12**	**1,965**	**1,894**	**12**	**1,906**

Note 15 Provisions for employee benefits

€ million	Short-term portion		Long-term portion		Total	
	2022	2021	2022	2021	2022	2021
Long-term employee benefits						
Post-employment benefits	-	-	1	2	1	2
Other long-term employee benefits	7	10	16	22	23	32
Termination/reorganisation benefits	3	3	1	4	4	7
Total	**10**	**13**	**18**	**28**	**28**	**41**
Short-term employee benefits						
Short-term employee benefits	25	25	-	-	25	25
Carrying amount as at 31 December	**35**	**38**	**18**	**28**	**53**	**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 119% at the end of 2022; the current funding ratio is 110%, while the contribution rate for the retirement and dependants' pension was 25.9% of pensionable pay in 2022. The contribution rate for the retirement and dependants' pension will be 27.9% in 2023. The contribution rate for the ABP incapacity pension (AOP) will be 0.8% in 2023.

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 2023 are expected to total €97 million (of which an expected €68 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 €1 million at the end of 2022 (2021: €2 million), made up as follows:

	Short-term portion		Long-term portion		Total	
€ million	2022	2021	2022	2021	2022	2021
Liability for pensions and post-employment healtcare insurance for retired employees	-	-	1	2	1	2
Actuarial value of obligations as at 31 December	**-**	**-**	**1**	**2**	**1**	**2**

Other long-term employee benefits

	Short-term portion		Long-term portion		Total	
€ million	2022	2021	2022	2021	2022	2021
Long-service benefits	1	1	10	13	11	14
Long-term sickness leave and disability benefits	5	7	5	8	10	15
Unemployment benefits	1	2	1	1	2	3
Carrying amount as at 31 December	**7**	**10**	**16**	**22**	**23**	**32**

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

- Long-term sickness benefits: this benefit covers the obligation to continue paying all or part of an employee's salary during the first two years of sick leave;
- Incapacity benefits: 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 2022, an amount of €3 million was withdrawn from the reorganisation provision (2021: €5 million added). The provision for employment termination payments and reorganisations totalled €4 million at year-end 2022 (2021: €7 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 2021	**2**	**33**	**11**	**46**
Movements 2021				
Released	-	-	-5	-5
Added	-	7	9	16
Benefits paid	-	-8	-8	-16
Total	**-**	**-1**	**-4**	**-5**
Carrying amount as at 31 December 2021	**2**	**32**	**7**	**41**
Movements 2022				
Released	-	-23	-	-23
Added	-	19	3	22
Benefits paid	-	-6	-6	-12
Reclassified to short-term liabilities	-	-	-	-
Total	**-**	**-10**	**-3**	**-13**
Carrying amount as at 31 December 2022	**2**	**22**	**4**	**28**

Assumptions

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

	2022	2021
Mortality tables	AG2020 Mortality Table / Start year = 2022	AG2020 Mortality Table / Start year = 2021
Discount rates	2,85%-4,81%	0%-0,65%
Expected future salary increases	4.0%	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. This item amounted to €25 million at year-end 2022 (2021: €26 million). The decrease of €1 million mainly relates to the decrease in other non-interest-bearing debts to staff (-€1 million).

Note 16 Other provisions

€ million	Other provisions
Carrying amount as at 1 January 2021	**30**
Movements 2021	
Added	8
Utilised	-1
Released	-9
Total	**-2**
Carrying amount as at 31 December 2021	**28**
Movements 2022	
Added	-
Utilised	-1
Released	-10
Discontinued consolidations	-4
Total	**-15**
Carrying amount as at 31 December 2022	**13**

The other provisions as at year-end 2022 amounted to €13 million (2021: €28 million). The release of €10 million concerns the release of a provision for a loss-making contract in one of the subsidiaries and the release of a provision made in the past on the sale of a subsidiary.

Note 17 Deferred tax

The deferred tax item is made up as follows:

Deferred tax assets

€ million	2022	2021
Differences in valuation of property, plant and equipment	140	148
Other differences	1	1
Carrying amount as at 31 December	**141**	**149**

This item amounting to €141 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 €140 million in respect of property, plant and equipment (2021: €148 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 2022, there was a total unrecognised deferred tax asset of €20 million (year-end 2021: €19 million), made up of:

- tax loss carryforwards from our activities in Germany: €18 million (2021: €17 million), which have not been recognised due to the projected results for the German entities in the medium term;
- an amount of €3 million (2021: €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 2021	**155**	**3**	**158**
Movements 2021			
Realised temporary differences	-12	-2	-14
Change in rate of corporate income tax	5	-	5
Total	**-7**	**-2**	**-9**
Carrying amount as at 31 December 2021	**148**	**1**	**149**
Movements 2022			
Realised temporary differences	-7	-	-7
Reclassification to assets held for sale	-1	-	-1
Change in rate of corporate income tax	-	-	-
Total	**-8**	**-**	**-8**
Carrying amount as at 31 December 2022	**140**	**1**	**141**

The decrease of €8 million in deferred tax assets in 2022 consists of the realisation of temporary differences. The realisation of temporary differences accounted for in the income statement consists of an expense of €3 million. The movement in balance-sheet items that are recognised directly in equity is €3 million. A sum of €1 million relates to the reclassification to ‘held for sale’. The ‘Other movements’ item amounted to €1 million.

Note 18 Trade and other payables

€ million	2022	2021
Trade payables	107	90
Invoiced instalments on work in progress	1	6
Other payables	47	56
Carrying amount as at 31 December	**155**	**152**

'Other debt' includes €19 million owed to a company in which Alliander has a non-controlling interest (2021: €23 million).

Accruals and deferred income

At year-end 2022, accruals and deferred income came to €322 million (2021: €252 million). This item includes anticipated amounts in respect of the procurement of network losses and energy transmission (2022: €152 million; 2021: €50 million), invoices still to be received for subcontracted work among other things (2022: €166 million; 2021: €105 million) and payable municipal sufferance tax (2022: €4 million; 2021: €70 million).

Tax liabilities

Tax liabilities amounted to €49 million (2021: €92 million) and include payable wage tax and VAT.

Note 19 Leases

Finance lease receivables

The receivables in respect of finance leases as at year-end 2022 were as follows:

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2022				
Future minimum lease receivables	-	2	1	3
Unearned finance income	-	-1	-	-1
Present value of finance lease receivables	**-**	**1**	**1**	**2**
As at 31 December 2021				
Future minimum lease receivables	-	2	-	2
Unearned finance income	-	-	-	-
Present value of finance lease receivables	**-**	**2**	**-**	**2**

Receivables in respect of finance leases concern the rental of transformers and batteries.

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	2022	2021
Less than 1 year	24	25
Between 1 and 2 years	14	25
Between 2 and 3 years	14	25
Between 3 and 4 years	14	21
Between 4 and 5 years	13	16
Over 5 years	93	76
Total as at 31 December	**172**	**188**

Operating leases at year-end 2022 relate to the rental of transformers and buildings 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 2022				
Future lease payments of the on-balance lease liabilities	22	49	58	129
Future finance expenses on the on-balance lease liabilities	-1	-3	-2	-6
Present value of the on-balance lease liabilities	**21**	**46**	**56**	**123**
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	0	-1	-2	-3
Present value of the on-balance lease liabilities	**21**	**47**	**55**	**123**

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

Besides the above lease liabilities, there was an undiscounted amount of €9 million in lease liabilities to which Alliander had committed but that had not yet started at year-end 2022, relating mainly to lease vehicles. At year-end 2021 this was €5 million.

Note 20 Contingent assets and liabilities

Rights and obligations arising from leases

Please refer to note 19 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	2022	2021
Capital expenditure commitments regarding property, plant and equipment	851	597
Other purchasing commitments	902	398
Total as at 31 December	**1,753**	**995**

Contracts with purchase or revenue guarantees have also been recognised in 2022.

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 2022, Alliander had issued parent company guarantees amounting to €18 million (2021: €30 million), including parent company guarantees of €5.0 million (2021: €5.0 million) for non-controlling interests. Bank guarantees amounting to €0.3 million had been issued on Alliander's behalf as at year-end 2022 (2021: €0.9 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 2023 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 may 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	2022	2021
Electricity transport and connection services	1,300	1,268
Gas transport and connection services	442	453
Metering services	196	188
Other revenue	212	211
Total	**2,150**	**2,120**

Net revenue in 2022 was €2,150 million, up by €30 million compared with 2021, mainly due to the increase of €33 million in the regulated revenue from electricity. Revenue from low-volume consumers was €14 million higher than in 2021, due to both a larger number of connections and higher tariffs. Greater volumes transmitted to high-volume consumers led to an increase in revenue from these customers of €15 million in total. The remaining increase of €3 million can be explained by the higher amortisation of investment amounts.

The regulated revenue from gas was €11 million lower due to both lower tariffs and the reduced number of low-volume consumers. The revenue from metering services increased by €8 million as a result of both the higher number of connections and the higher tariffs. Revenue from other products came to €212 million, which is in line with the revenue in 2021.

Note 22 Other income

€ million	2022	2021
Amortisation of subsidies	-	1
Operating contributions and other income	36	34
Lease income from operational leases	27	26
Total	**63**	**61**

'Other income' in 2022 amounted to €63 million (2021: €61 million). As in 2021, income as a result of the sale or partial sale of a subsidiary has been recognised under 'Other income' in 2022.

Sale of Stam

In January 2022, we sold our subsidiary Stam, which led to a profit on the sale of €13 million; this item is recognised under 'Other income'.

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, another 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 the 75% stake		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	2022	2021
Grid losses	252	103
Transport capacity and restrictions	291	267
Billing and payment collection	31	29
Contractors, materials and other	188	224
Total	**762**	**623**

Compared with 2021, the purchase costs and subcontracted work rose by €139 million to €762 million. The costs of network losses were €149 million higher due to the high energy prices paid for procuring electricity and gas. The cost of transmission capacity rose by €24 million as a result of the higher tariffs set by TenneT. The cost of contractors and materials fell by €36 million as less work was subcontracted compared to the previous year.

Note 24 Employee benefit expense

€ million	2022	2021
Salaries	420	409
Social security premiums	51	50
Pension costs:		
- Contributions paid to multi-employer plans that are accounted for as defined-contribution plans	62	60
Termination benefit expenses	3	5
Other long-term employee benefit expenses	-4	7
Other staff costs	21	18
External personnel	157	129
Total	**710**	**678**

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
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**
2022				
Contributions paid to multi-employer plans	62	-	-	62
Added to provision	-	3	19	22
Released from provision	-	-	-23	-23
Total 2022	**62**	**3**	**-4**	**61**

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, please refer to the disclosures in note 15. External staff costs amounted to €157 million (2021: €129 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 6,214.

Number of permanent staff (FTEs)

	2022	2021
Employed in continuing operations		
-Average during the year	6,102	5,936
-As at 31 December	6,214	5,991
-Number of permanent staff outside the Netherlands	150	144

WNT

On 1 January 2013 the Act on the Standardisation of Remuneration of Senior Executives in the Public and Semi-Public Sector (WNT) came into operation. The act lays down rules governing the maximum remuneration of senior executives in the public and semi-public sector. The amount is set annually by a ministerial ruling.

WNT reporting

The WNT is 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 2023, 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 2022 annual report. The following tables disclose the remuneration of the members of the Management Board. The remuneration of the Management Board amounted to €1.15 million in 2022 (2021: €1.10 million). The remuneration of the Supervisory Board amounted to €0.12 million in 2022 (2021: €0.11 million).

Total gross annual remuneration chargeable to the financial year

	Fixed salary	
€ thousand	2022	2021
M.J. Otto	248	230
W.Th. Bien	245	236
M.I. Visser	245	237
F.D. Schut	243	235
Total	**981**	**938**

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	2022	2021
M.J. Otto	26	26
W.Th. Bien	26	26
M.I. Visser	26	26
F.D. Schut	26	26
Total	**104**	**104**

Social security contributions and other benefits

€ thousand	2022	2021
M.J. Otto	15	15
W.Th. Bien	15	14
M.I. Visser	16	15
F.D. Schut	15	15
Total	**61**	**59**

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	2022	2021
A. Jorritsma-Lebbink, Chairman	32.4	31.4
B. Roetert	21.6	20.9
T. Menssen	21.6	20.9
F. Eulderink	21.6	20.9
G.R. Penning[1]	21.6	19.1
Total	**118.8**	**113.2**

1 Appointed as of 01 February 2021.

Note 25 Other operating expenses

€ million	2022	2021
Added to/released from provisions	-5	2
Premises and transport	22	16
Rent and leases	21	18
Corporate staff and IT	79	77
Sufferance tax and other tax	5	160
Other	64	60
Total	**186**	**333**

Other operating expenses amounted to €186 million in 2022 and were therefore €147 million less than in 2021 (€333 million). These lower expenses are due to municipalities no longer being permitted to charge sufferance tax as of 2022. This led to a reduction of €155 million in the costs compared to 2021.

The amount recognised for rent and leases in 2022 includes €2 million in short-term leases and €0.2 million in low-value leases. These amounts are the same as in 2021. The remainder of the costs concerns the service costs under the lease contracts.

Auditors' fees

The auditors' fees were as follows:

€ million	2022	2021
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 2021 and 2022.

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
2022					
Depreciation	5	315	23	152	495
Divestments	-	22	-	22	44
Impairments	-	-	-	-	-
Total 2022	**5**	**337**	**23**	**174**	**539**
2021					
Depreciation	6	283	21	151	461
Divestments	2	23	-	12	37
Impairments	-	-	-	-	-
Total 2021	**8**	**306**	**21**	**163**	**498**

Note 27 Finance income

€ million	2022	2021
Other finance income	1	51
Currency translation differences	-	11
Total	**1**	**62**

The decrease in finance income in 2022 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 in 2021.

Note 28 Finance expense

€ million	2022	2021
Loans from third parties	-51	-40
Currency translation differences	-	-11
Other finance expense	-3	-56
Total	**-54**	**-107**

The decrease in finance expenses in 2022 is mainly due to the book loss on the repayment of the lease obligations related to the premature termination of two CBLs in 2021. In addition, the finance expenses for long-term loans were higher in 2022 due to the issue of a convertible subordinated loan at year-end 2021.

Note 29 Tax

€ million	2022	2021
Current tax expense	-59	-63
Movement in deferred taxes	-3	-9
Total	**-62**	**-72**

The tax expense in the 2022 financial year amounts to €59 million. The movement in deferred taxation is €3 million.

The corporate income tax charge for the Alliander N.V. tax group, as recognised in the financial statements, amounts to €55.5 million. This is the balance of the corporate income tax calculated over the profit for 2022 (€56 million), the corporate income tax for previous years of €1.5 million and the corporate income tax on movements in balance-sheet items recognised directly in equity of minus €2 million.

The table below provides a reconciliation between the corporate income tax rate in the Netherlands and the effective tax rate:

Reconciliation of effective corporate income tax rate

%	2022	2021
Enacted corporate income tax rate in the Netherlands	**25.8**	**25.0**
Impact of:		
Substantial holding privilege	-1.5	-
Change in corporate income tax rate	-	-1.5
Losses not accounted for	-0.5	-0.3
Other permanent differences	0.5	-
Effective corporate income tax rate	**24.3**	**23.2**

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 2022 amounted to 24.3% (2021: 23.2%). The difference compared with the nominal tax rate of 25.8% is mainly due to the effect of the substantial-holding privilege (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 2022 amounted to €572 million (2021: €664 million). The decrease of €92 million compared to 2021 was mainly due to the movement in working capital. In particular, larger inventories were held in order to be able to implement projects on time. In addition, net profit in 2022 was almost €44 million lower compared with 2021.

Cash flow from investing activities

The cash outflow from investing activities in 2022 was €1,175 million, compared with an outflow of €639 million in 2021.

Of this difference, €221 million was due to higher investments and lower investment contributions. In addition, security deposits relating to the cost of network losses worth €100 million were paid in 2022 and bonds worth €198 million were repaid in 2021 as a result of the premature termination of two CBL transactions.

Cash flow from financing activities

The cash flow from financing activities for 2022 amounted to €184 million (2021: €301 million). The green bond issued in 2022 led to an incoming cash flow of €498 million. In addition, €300 million was raised from ECP financing. This was largely offset by items such as the contractual repayment of bonds under the EMTN programme (€400 million), the dividend distribution of €101 million and repayments on security deposits received in the past worth €72 million.

In 2021, the subordinated loan issued previously led to an incoming cash flow of €599 million. Another incoming cash flow of €72 million was due to security deposits received in 2021. This was offset by lease payments (€206 million) due to the premature termination of two CBLs, repayment obligations (€48 million) and the dividend distributed (€94 million).

Note 31 Licences

Liander N.V. owns networks for the transmission of electricity and gas in the Netherlands. In accordance with the Dutch Electricity Act 1998 and the Dutch Gas Act, Liander N.V. has appointed itself network operator for the gas and electricity networks for a ten-year period (expiry date: 10 December 2030). Liander 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 2022, the remaining shares were held by 73 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	2022	2021
Sales of goods and services		
Associates	-	1
Joint ventures	118	109
Total	**118**	**110**
Purchase of goods and services		
Associates	34	28
Joint ventures	199	185
Total	**233**	**213**

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 2022, Alliander had a receivable of €17 million (2021: €19 million) for loans granted to related parties, a receivable of €24 million (2021: €0.2 million) in respect of overdraft facilities with related parties and a non-current interest-bearing liability of €270 million (2021: €270 million) in connection with the issue of the convertible shareholder loan in 2021.

Note 33 Assets and liabilities held for sale and discontinued operations

2022

Assets held for sale and liabilities in respect of assets held for sale at year-end 2022 all relate to the assets and liabilities of Kenter B.V. and the Spaklerweg site in Amsterdam.

€ million	Assets held for sale	Liabilities held for sale
Kenter	155	16
Spaklerweg	7	
Total	**162**	**16**

A new owner will be sought for Kenter. Alliander expects to complete the sale and be able to present the buyer in 2023. Following on from the contract of sale agreed in 2014, the Spaklerweg site is expected to be transferred to the municipality of Amsterdam in the course of 2023.

2021

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. The transfer was completed on 10 January 2022. 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.

No operations were discontinued in 2022 or 2021.

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 purchasing 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 2022, 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.

Exchange rates

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

	2022	2021
USD	1.071	1.139

Interest rate risk

General

Alliander had no interest rate swaps outstanding as at year-end 2022 or 2021.

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 2022						
Assets						
Loans, receivables and other financial assets	0.9%		145	1	22	168
Cash and cash equivalents	-3,44% - 2,46%	Variable	205	-	-	205
Total assets			**350**	**1**	**22**	**373**
Loans received						
Subordinated loans	2.1%	Fixed	-	-	-599	-599
Private and green loans	1.1%	Fixed	-126	-11	-300	-437
Euro Medium Term Notes	1.5%	Fixed	-	-1,196	-894	-2,090
Euro Commercial Paper	1.7%	Fixed	-300	-	-	-300
Other		Variable	-	-	-4	-4
Lease liabilities	0,0% - 3,1%	Fixed	-21	-46	-56	-123
Total liabilities			**-447**	**-1,253**	**-1,853**	**-3,553**
As at 31 December 2021						
Assets						
Investments in bonds	0.0%	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**

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

Alliander made use of derivative financial instruments in 2022 and in preceding years as a complete or partial hedge against the risks of fluctuations in the fair value of financial assets and/or liabilities and in its commitments.

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 with respect to which Alliander has receivables 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, 73% (2021: 93%) 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 $655 million (2021: $715 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	2022	2021
Not overdue	28	37
0-30 days	16	22
31-90 days	6	8
91-360 days	5	6
> 360 days	7	5
Carrying amount as at 31 December	**62**	**78**

The major part of the provision for bad debts is calculated using a graduated scale based on historical figures. The remainder is based on an assessment of individual accounts. The fair value of collateral obtained relating to overdue accounts and bad debts written off was zero at year-end 2022 and at year-end 2021.

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	2022	2021
Carrying amount as at 1 January	8	10
Utilised (trade receivables written off)	-2	-7
Released from/added to allowance account charged to income	4	5
Carrying amount as at 31 December	**10**	**8**

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 2022, Alliander had a committed credit facility of €900 million (up to 10 November 2027). 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 2022, Alliander has an ECP programme totalling €1.5 billion, under which an amount of €300 million was outstanding at the end of the financial year (2021: zero) and an EMTN programme of €5 billion (previously €3 billion, but increased as of 15 July 2022), €2.1 billion of which was outstanding as at 31 December 2022 (2021: €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).

Margin calls were triggered for Alliander in 2022 and Alliander also made margin calls. As at year-end 2022, Alliander held no security deposits in respect of these margin calls (2021: €72 million), but they have given rise to a receivable of €100 million (2021: zero).

Liquidity risk in 2022 and 2021

€ million	Carrying amount	Contractual cash flows			
		Less than 1 year	1 - 5 years	Over 5 years	Total
As at 31 December 2022					
Loans received					
Principal amounts	-3,426	-425	-1,211	-1,800	-3,436
Interest	-	-52	-162	-727	-941
Lease obligations	-123	-22	-49	-58	-129
Accounts payable	-155	-155	-	-	-155
Other payables	-409	-405	-	-4	-409
Off balance sheet commitments					
Lease liabilities	-	-2	-7	-	-9
Total	**-4,113**	**-1,061**	**-1,429**	**-2,589**	**-5,079**
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**

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 2022 or 2021.

Fair value of other financial instruments

Alliander had no financial instruments recognised at fair value at year-end 2022 or 2021.

Fair value of financial assets and liabilities measured at amortised costs

€ million	Note	31 December 2022		31 December 2021	
		Fair value	Level	Fair value	Level
Non-current assets					
Investments in bonds and other financial assets	6.7	51	2	61	2
Liabilities					
Non-current liabilities					
Finance lease liabilities	19	-	2	-	2
Interest-bearing debt:					
Euro Medium Term Notes	13	-1,831	1	-1,648	1
Other interest-bearing debt	13	-492	2	-1,002	2
Total non-current liabilities		**-2,323**		**-2,650**	
Short-term liabilities					
Interest-bearing debt:					
Euro Medium Term Notes	13	-	1	-409	1
Euro Commercial Paper	13	-300	2	-	2
Other interest-bearing debt		-143	2	-85	2
Total short-term liabilities		**-443**		**-494**	
Total liabilities		**-2,766**		**-3,144**	

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. In the context of Alliander's financial framework, the convertible shareholder loan issued in December 2021 is treated as 50% equity and 50% borrowed capital. In the context of IFRS, this loan is treated as 100% borrowed capital.

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	2022	2021
Net result on derivatives held for trading:		
Fair value changes in currency instruments	-	-2
Net result on investments in bonds	-	9
Net result on financial liabilities at amortised cost:		
Interest charges on financial liabilities at amortised cost	-52	-96
Interest gains on cash equivalents, loans granted, trade receivables, other receivables and deposits	1	51
Currency translation differences	-	-
Fees paid and received other than for the calculation of the effective interest rate	-2	-7
Net finance income and expense	**-53**	**-45**
Impairments of trade receivables	-4	-5
Other operating expenses	**-4**	**-5**

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

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

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

Determination of the provision for employee benefits

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

Useful lives, residual values, and impairment of property, plant and equipment

The measurement of the carrying amount of property, plant and equipment uses estimates regarding depreciation periods, derived from the expected technical and economic lives of the assets concerned, depreciation methods 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. 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. From 2022, the declining balance method with an acceleration factor of 1.2 is the depreciation method used for all gas assets (connections, pipelines and low-volume meters).

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 that could potentially lead to the recognition of an impairment, such as suspension of payments 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.

Other information

The assumptions with respect to risks and financial instruments are stated in note 34.

Note 36 Events after balance sheet date

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

Company financial statements

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

€ million	Note	2022	2021
Assets			
Non-current assets			
Property, plant and equipment	37	235	220
Right-of-use assets	37	104	102
Intangible assets	38	68	68
Investments in subsidiaries and associates	39	2,788	2,671
Other financial assets	40	2,607	2,649
Total non-current assets		**5,802**	**5,710**
Current assets			
Other receivables	41	62	33
Current financial assets	41	27	-
Receivables from subsidiaries	41	2,179	1,468
Cash and cash equivalents	42	202	619
Total current assets		**2,470**	**2,120**
Assets held for sale		2	-
Total assets		**8,274**	**7,830**
Equity and liabilities			
Equity	43		
Share capital		684	684
Share premium		671	671
Subordinated perpetual bond loan[1]		495	495
Hedge reserve[1]		5	-2
Other reserves		2,517	2,380
Result for the year		198	242
Total equity		**4,570**	**4,470**
Liabilities			
Long-term liabilities			
Interest-bearing debt	44	2,999	2,626
Lease liabilities	45	89	88
Provisions	46	23	34
Total long-term liabilities		**3,111**	**2,748**
Short-term liabilities			
Current and accrued liabilities	47	573	595
Lease liabilities	45	18	17
Derivatives	48	-	-
Total short-term liabilities		**591**	**612**
Total liabilities		**3,702**	**3,360**
Liabilities held for sale		2	-
Total equity and liabilities		**8,274**	**7,830**

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

Company income statement

€ million	Note	2022	2021
Revenue			
Own work capitalised		43	37
Other income		321	326
Total income	50	**364**	**363**
Operating expenses			
Costs of subcontracted work and other external expenses	51	-86	-70
Employee benefit expenses	52	-110	-117
Social security premiums	52	-11	-11
Depreciation and impairments of non-current assets	53	-67	-78
Other operating expenses	54	-95	-95
Total operating expenses		**-369**	**-371**
Operating profit		**-5**	**-8**
Proceeds from receivables included in non-current assets and securities	55	61	66
Interest and similar expenses	56	-53	-40
Profit before tax		**3**	**18**
Tax	57	-2	-3
Share of profit/loss from investments in affiliated companies	58	197	227
Profit after tax		**198**	**242**

Company statement of comprehensive income

€ million	Note	2022	2021
Net profit		198	242
Movement in hedge reserve	43	7	-
Comprehensive income		**205**	**242**

Notes to the company financial statements

Accounting policies

The company financial statements of Alliander N.V. (Chamber of Commerce company reg. no. 34108286) have been prepared according to the provisions of Part 9, Book 2, of the Dutch Civil Code. The accounting policies used are the same as those used for the consolidated financial statements, in accordance with the provisions of Section 362, subsection 8 of Part 9, Book 2, of the Dutch Civil Code, with investments in group companies accounted for on the basis of net asset value.

The company financial statements of Alliander N.V. comprise the company balance sheet, the company income statement, and the company statement of comprehensive income. The notes to the company financial statements constitute an integral part of the company financial statements of Alliander N.V.

The measurement of the entities included in the consolidation is performed at net asset value, whereby the company's economic interest is measured at fair value on initial recognition, with the carrying amount subsequently increased or reduced by the company's share in the results. Dividends received are deducted from the carrying amount.

The functional currency of Alliander N.V. is the euro. Unless otherwise stated, all amounts are in millions of euros. For the detailed policies, reference is made to the accounting policies for the consolidated financial statements.

Note 37 Property, plant, equipment and right-of-use assets

Property, plant and equipment

€ million	Land and buildings	Other plant and equipment	Assets under construction	Total
As at 1 January 2021				
Historical cost	177	501	11	689
Accumulated depreciation and impairments	-58	-399	-	-457
Carrying amount as at 1 January 2021	**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**
Movements 2022				
Investments	-	4	61	65
Divestments	-2	-	-1	-3
Depreciation	-5	-41	-	-46
Reclassifications and other movements	2	10	-13	-1
Reclassification to assets held for sale	-	-	-	-
Total	**-5**	**-27**	**47**	**15**
As at 31 December 2022				
Historical cost	166	524	69	759
Accumulated depreciation and impairments	-55	-469	-	-524
Carrying amount as at 31 December 2022	**111**	**55**	**69**	**235**

Investments

Investments in property, plant and equipment during the financial year totalled €65 million (2021: €47 million). They related to investments in hardware, software and accommodation.

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 2021			
Historical cost	7	67	74
Accumulated depreciation and impairments	-4	-27	-31
Carrying amount as at 1 January 2021	**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**
Movements 2022			
Investments	1	7	8
Depreciation	-6	-13	-19
Lease-adjustments	15	-	15
Reclassification to assets held for sale	-	-2	-2
Total	**10**	**-8**	**2**
As at 31 December 2022			
Historical cost	85	71	156
Accumulated depreciation and impairments	-10	-42	-52
Carrying amount as at 31 December 2022	**75**	**29**	**104**

These assets relate to business premises and lease vehicles. The lease adjustments relate among others to expansions and indexations.

Note 38 Intangible assets

€ million	Goodwill	Other intangible assets	Total
As at 1 January 2021			
Historical cost	68	-	68
Accumulated depreciation and impairments	-	-	-
Carrying amount as at 1 January 2021	**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**
Movements 2022			
Depreciation	-	-	-
Total	**-**	**-**	**-**
As at 31 December 2022			
Historical cost	68	-	68
Accumulated depreciation and impairments	-	-	-
Carrying amount as at 31 December 2022	**68**	**-**	**68**

Intangible assets as at year-end 2022 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 also note 4.

Note 39 Investments in subsidiaries and associates

€ million	Investments in subsidiaries	Investments in associates	Total
Carrying amount as at 1 January 2021	**2,456**	**1**	**2,457**
Movements 2021			
Dividends received	-150	-	-150
Result for the year	227	-	227
Issue of share capital	137	-	137
Total	**214**	**-**	**214**
Carrying amount as at 31 December 2021	**2,670**	**1**	**2,671**
Movements 2022			
Dividends received	-82	-	-82
Result for the year	197	-	197
Issue of share capital	1	-	1
Other changes	1	-	1
Total	117	-	117
Carrying amount as at 31 December 2022	**2,787**	**1**	**2,788**

In 2022, Alliander received €82 million (2021: €150 million) in dividend from its subsidiaries. The investment of €1 million in 2022 relates to a capital contribution invested in one of Alliander N.V.'s subsidiaries.

The dividends received from subsidiaries and capital contributions invested in them resulted 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 2021	**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**
Movements 2022				
Reclassification to current receivables	-	-	-28	-28
Loans paid	-	-12	-1	-13
Realised temporary differences	-1	-	-	-1
Total	**-1**	**-12**	**-29**	**-42**
Carrying amount as at 31 December 2022	**14**	**2,575**	**18**	**2,607**

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 2022 was 1.3% (2021: 1.5%). 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 2022, the fair value was €2,421 million (2021: €2,536 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 were applied, namely 1.3% (2021: 1.5%) for associates operating in the regulated market, 2.3% (2021: 2.5%) for 'Stable Business' associates and 3.3% (2021: 3.5%) 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 2022, 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 2022 did not include any restricted cash (2021: zero).

Note 43 Equity

The statement of changes in equity is included in the consolidated financial statements.

Note 44 Long-term liabilities

Interest-bearing debt

€ million	2022	2021
Carrying amount as at 1 January	**3,035**	**2,482**
Movements		
New loans	797	599
Loans repaid	-409	-48
Currency translation differences	2	2
Total	**390**	**553**
Carrying amount as at 31 December	**3,425**	**3,035**

Long-term loans including the short-term portion

	Effective interest rate		Short-term portion		Long-term portion	
€ million	2022	2021	2022	2021	2022	2021
Subordinated loans	2.2%	2.2%	-	8	599	599
Private and green loans	0.0%	1.1%	126	1	310	435
Euro Medium Term Notes	0.0%	1.4%	-	400	2,090	1,592
Euro Commercial Paper	0.5%	0.0%	300	-	-	-
Carrying amount as at 31 December			**426**	**409**	**2,999**	**2,626**

Subordinated loans

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

Maturities of interest-bearing debt

€ million	2022	2021
Less than 1 year	426	408
Between 1 and 2 years	400	125
Between 2 and 3 years	10	400
Between 3 and 4 years	299	9
Between 4 and 5 years	497	299
Over 5 years	1,793	1,794
Carrying amount as at 31 December	**3,425**	**3,035**

Note 45 Finance lease liabilities

Lease liabilities as at year-end 2022 were as follows:

€ million	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
As at 31 December 2022				
Future lease payments of the on-balance lease liabilities	19	43	50	112
Future finance expenses of the on-balance lease liabilities	-1	-3	-1	-5
Present value of the on-balance lease liabilities	**18**	**40**	**49**	**107**
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**

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 €8 million in lease liabilities to which Alliander had committed but that had not yet started at year-end 2022. This concerned lease vehicles. At year-end 2021 this was €3 million.

Note 46 Provisions

€ million	Long-service benefits	Termination benefits	Other provisions	Total
Carrying amount as at 1 January 2021	**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**
Movements 2022				
Released	-5	-1	-20	-27
Added	3	3	16	22
Utilised	-1	-2	-5	-8
Reclassification to short-term liabilities	-	-	1	1
Major curtailments and settlements	-	-	-	-
Total	**-3**	**-**	**-8**	**-11**
Carrying amount as at 31 December 2022	**10**	**1**	**12**	**23**

Long-service benefits are accrued in advance through this provision for all Alliander 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. The 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 2022 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 totalled €10 million at year-end 2022 (2021: €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 2022, an amount of €3 million was added to the reorganisation provision (2021: €6 million). The provision for severance payments/reorganisations, including the current portion of €3 million, totalled €4 million at the end of 2022 (2021: €4 million).

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

Note 47 Current and accrued liabilities

€ million	2022	2021
Amounts owed to suppliers and trade credits	19	21
Tax and social security contributions	48	89
Liabilities in respect of pensions	7	7
Interest-bearing debt	426	408
Other liabilities and accruals	73	70
Total short-term liabilities	**573**	**595**

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 €4 million for non-controlling interests (2021: €8 million). As at year-end 2022, interest-bearing liabilities chiefly concerned the short-term loan under the ECP programme.

Note 48 Derivatives

There were no derivatives on the balance sheet at year-end 2022 or 2021.

Note 49 Contingent assets and liabilities

Lease liabilities

Please refer to note 45 in the notes to the company 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 2022, Alliander had issued parent company guarantees amounting to €18 million (2021: €30 million), including a parent company guarantee of €5.0 million (2021: €5.0 million) for non-controlling interests. Bank guarantees amounting to €0.3 million had been issued on Alliander's behalf as at year-end 2022 (2021: €0.9 million).

Investments and other purchasing commitments

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

€ million	2022	2021
Capital expenditure commitments	14	42
Other purchasing commitments	139	103
Total	**154**	**145**

Note 50 Operating income

€ million	2022	2021
Own work capitalised	43	37
Other income	321	326
Total	**364**	**363**

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

Note 51 Costs of subcontracted work and other external expense

€ million	2022	2021
Contractors, materials, external personnel and other	86	70
Total	**86**	**70**

Note 52 Employee benefit expense

€ million	2022	2021
Salaries	102	101
Social security premiums	11	11
Pension costs:		
- contributions paid to multi-employer plans that are accounted for as defined-contribution plans	17	17
Termination benefit expenses	1	2
Long-term employee benefit expenses	-12	-1
Other staff costs	11	8
Subtotal	**130**	**138**
Charged to other organisational units	-9	-10
Total	**121**	**128**

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. Employee benefit expenses are charged to the organisational units where these employees work. Employee benefit expenses in the income statement totalled €121 million in 2022 (2021: €129 million), and relate to employees working in the Alliander N.V. corporate staff departments and service units.

The number of employees, based on a 38-hour week (FTEs), at year-end 2022 was 1,365 (2021: 1,284). The proportion of costs attributable to the direct deployment of Alliander staff on projects at other organisational units has been deducted from Alliander's employee benefit expenses.

Remuneration of the Management Board and the Supervisory Board

Please see note 24 for further information.

Note 53 Depreciation and amortisation

€ million	Land and buildings	Other	Total
2022			
Depreciation	5	60	65
Divestments	2	-	2
Total 2022	**7**	**60**	**67**
2021			
Depreciation	5	68	73
Divestments	3	2	5
Total 2021	**8**	**70**	**78**

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

Note 54 Other operating expenses

€ million	2022	2021
Items charged by subsidiaries	2	3
Premises and transport	5	5
Rent and leases	6	6
Corporate staff and ICT	58	55
Accountancy, notary and consulting expenses	16	11
Other tax	1	1
Other	7	14
Total	**95**	**95**

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

Note 55 Finance income

€ million	2022	2021
Interest income on money market loans and deposits	-	1
Finance income on loans from group companies	61	65
Total	**61**	**66**

The finance income from loans to group companies was down by €4 million compared with 2021 as a result of lower interest rates.

Note 56 Finance expense

€ million	2022	2021
Loans from third parties	51	38
Other finance expense	2	2
Total	**53**	**40**

Finance expenses were €13 million higher than in 2021 due to the new finance raised, including the shareholder loan.

Note 57 Tax

€ million	2022	2021
Current tax expense	-3	-5
Movement in deferred tax	1	2
Total	**-2**	**-3**

The effective tax rate was 67%. The difference with respect to the nominal rate (25.8%) is explained by permanent differences between results for tax purposes and commercial results. The recognised tax expense of €3 million is made up of a tax charge of €2 million for the 2022 financial year, a charge of €1 million due to permanent differences and the movement in deferred tax of €1 million positive.

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

€ million	2022	2021
Result from interests in subsidiaries and associates after tax	197	227
Share of profit/loss from investments in affiliated companies	**197**	**227**

Coming in at €197 million after tax, the share in the profits of participations was down by €30 million compared to 2021, primarily as a result of lower profits at network operator Liander.

Proposed profit appropriation for 2022

The Management Board has decided, with the approval of the Supervisory Board, to add €116.6 million of the profit to the 'Other reserves'. The remaining profit of €81.9 million is at the disposal of the General Meeting of Shareholders. This equates to 45% of the profit after tax, specifically excluding exceptional items and costs associated with projects for shareholders.

The dividend for 2022 is €19.2 million less than for 2021, owing to the lower net profit for 2022.

Events after the balance sheet date

No events occurred after the balance-sheet date which should be disclosed.

Subsidiaries and other participations

As at 31 December 2022

	Based in	%
Consolidated subsidiaries		
Liander N.V.* **	Arnhem	100%
Qirion B.V.* **	Duiven	100%
Alliander Digital Solutions B.V.* **	Arnhem	100%
Nuon Elektriciteitsnetwerken I B.V.	Amsterdam	100%
Nuon Elektriciteitsnetwerken II B.V.	Amsterdam	100%
Alliander Corporate Ventures B.V.* **	Arnhem	100%
Alliander Telecom N.V.*	Amsterdam	100%
Kenter B.V.*	Arnhem	100%
123meetbedrijf B.V.*	Helmond	100%
Kenter GmbH	Brandenburg	100%
Kenter Belgium B.V.	Zaventum	100%
QTERRA B.V.*	Arnhem	100%
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%
Entrnce AB	Malmö	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%
Warmtenetwerk Duiven/Westervoort B.V. **	Arnhem	100%
Warmtenetwerk Almere B.V. **	Arnhem	100%
Alliander A.G. **	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	25%
Warmtenetwerk Harderwijk B.V.	Harderwijk	25%
Duurzame Energie Netwerken Noord-Holland B.V.	Zaanstad	50%
Warmtenetwerk Zaanstad B.V.	Zaandam	31%
450connect GmbH	Köln	25%
BAS B.V.	Amersfoort	17%

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

** Direct subsidiaries of Alliander N.V.

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

Independent auditor's report

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

Report on the audit of the financial statements 2022 included in the annual report

Our opinion

We have audited the financial statements 2022 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 2022, and of its result and its cash flows for 2022 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 2022, and of its result for 2022 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 2022.
2. The following statements for 2022: the consolidated income statement, the consolidated statements of comprehensive income, changes in equity and cash flows.
3. The notes comprising material policy information.

The company financial statements comprise:

1. The company balance sheet as at 31 December 2022.
2. The company profit and loss account for 2022.
3. The notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opnion

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 € 24 million. The materiality is based on 4% of the cash flow from operating activities. 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 € 1,2 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 the auditing standards, we considered the assumed fraud risk 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.

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), and testing the substantiation for 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 the Legal departmentand 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, Alliander N.V. 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.

Given the nature of Alliander N.V.'s business and the complexity of European public procurement regulations, the Act on Independent Network Management, the Electricity Act 1998 and the Gas Act, there is a risk of non-compliance with the requirements of such laws and regulations.

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. 2022 financial statements. This includes an evaluation of the liquidity and financing elements in Alliander's business plan 2023-2027, and the underlying developments and assumptions for both the short term and long term.

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 38-40 and 112 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 matter

Property, plant and equipment

Description

In determining the carrying amount of property, plant and equipment amounting to € 9,091 million as at 31 December 2022, significant assumptions and judgments are applied, both in determining the amounts that should be capitalized and in assessing the useful lives and depreciation methodology 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. In 2022, the Company changed the estimation method in relation to the depreciation methodology for gas assets.

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.

Change in estimation method: As it is better suited to a situation of decreasing use of the gas network, as of 2022 a variable declining balance method is applied to the gas assets. We agree with this change in estimate and understand that it is consistently applied by the large regional network operators. We have established that the variable declining balance method has been properly applied and that the explanation of this change in estimate is adequate.

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 2022 amounts to € 2,150 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, in conjunction with the mitigating procedures of Alliander.

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 other information included in the annual report

The annual report contains other information, in addition to the financial statements and our auditor's report thereon.

The other information consists of:

- The Management board’s report (page 4-126).
- 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 regarding the management report and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of the other information, including the Management Board's Report in accordance with Part 9 of Book 2 of the Dutch Civil Code, and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Engagement

We were engaged by the supervisory board as auditor of Alliander N.V. on July 29, 2015, as of the audit for the year 2016 and have operated as statutory auditor ever since that financial year. In December 2019 we were reappointed for the audit of the financial years 2020 and 2021 and in December 2021 we were reappointed for the audit of the financial years 2022 and 2023. The Supervisory Board is mandated to this end by the shareholders.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audit of public-interest entities.

Description of responsibilities regarding the financial statements

Responsibilities of management and the supervisory board for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, management is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the financial statements using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

Management should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The supervisory board is responsible for overseeing the company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit assignment in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgement and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included 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 accountinestimates 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, March 6, 2023

Deloitte Accountants B.V.

B.C.J. Dielissen

Assurance report of the independent auditor on Alliander's sustainability information

To the shareholders and the supervisory 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 2022 ('the Report'). Our engagement consisted of a combination of limited assurance (leading to a 'conclusion') and reasonable assurance (leading to an 'opinion').

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 2022.

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

We were engaged to provide limited assurance on the following chapters ('the reviewed information'):

- Our story about 2022 (page 4-7).
- About this report (page 8-10).
- Profile of Alliander (page 11-24).
- How we create value, presented in the chapters:
  - Our network: high supply reliability at a low cost (page 26-37);
  - Making the energy supply and our organisation sustainable (page 38-50);
  - Ensuring a safe energy network, a safe working environment and a safe data environment (page 51-55);
  - Being an attractive, inclusive employer with equal opportunities for all (page 56-65);
  - A creditworthy company with solid returns (page 66-87);
  - Our impacy on society (page 88-97), including impactcases;
  - Dillemas and lessons learned (page 98-99).

We did not perform review procedures on the information about the EU Taxonomy as disclosed in the chapter 'EU Taxonomy' on page 83-86.

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 2022.

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

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 8-9) and the extensive materiality assessment presented in the chapter 'Other Information, Materiality test' (page 204-205).
- The table "Objectives and results" in the chapter "Profile of Alliander" (page 22-24).

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'.

We are independent of Alliander N.V. in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of ethics for professional accountants, a regulation with respect to independence) and other relevant independence requirements in The Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch code of ethics).

We believe that the audit evidence and assurance evidence we have obtained is sufficient and appropriate to provide a basis for our opinion and conclusion.

Reporting criteria

The reporting criteria used for the preparation of the sustainability information are the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and the applied supplemental reporting criteria as disclosed in the chapter 'Other information' of the annual report.

The sustainability information is prepared in accordance with the GRI Standards. The GRI Standards used are listed in the GRI Content Index as published on the company's website.

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.

Consequently, the sustainability information needs to be read and understood together with the reporting criteria used.

Materiality

Based on our professional judgement we determined materiality levels for each relevant part of the sustainability information and for the sustainability information as a whole. When evaluating our materiality levels, we have taken into account quantitative and qualitative considerations as well as the relevance of information for both stakeholders and the company.

We agreed with the supervisory board that misstatements which are identified during the audit and which in our view must be reported on quantitative or qualitative grounds, would be reported to them.

Limitations to the scope of our audit

The sustainability information includes prospective information such as ambitions, strategy, plans, expectations and estimates and risk assessments. The sustainability information includes information based on climate-related scenarios that is subject to inherent uncertainty because of incomplete scientific and economic knowledge about the likelihood, timing or effect of possible future climate-related impacts. 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.

The references to external sources or websites in the sustainability information are not part of the sustainability information as audited by us. We therefore do not provide assurance on this information.

Our opinion is not modified in respect of these matters.

Responsibilities of the management board and the supervisory board

The management board is responsible for the preparation of reliable and sustainability information in accordance with the reporting criteria as included in the 'Reporting criteria' section, including the identification of stakeholders and the definition of material matters. The management board is also responsible for selecting and applying the reporting criteria and for determining that these reporting criteria are suitable for the legitimate information needs of stakeholders, taking into account applicable law and regulations related to reporting. The choices made by the management board regarding the scope of the sustainability information and the reporting policy are summarised in chapter 'Other non-financial information' of the annual report.

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

The supervisory board is responsible for overseeing the sustainability reporting process of Alliander.

Our responsibilities for the review and audit of the Report

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

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 during our audit.

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.

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.
- Het kennis nemen van de werkzaamheden uitgevoerd door de interne audit-afdeling van Alliander.
- 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 audit and significant findings, including any significant findings in internal control that we identify during our audit.

Amsterdam, March 6 2023

Deloitte Accountants B.V.

B.C.J. Dielissen

Opinion of the Alliander stakeholder panel

Dear reader,

As in previous years, Alliander convened a stakeholder panel to review its annual report. We are pleased to have been given this opportunity to use our expertise and backgrounds to provide feedback on the draft annual report at an early stage, which we believe will enable Alliander to gear the report more closely to the wishes and needs of the stakeholders and society in general.

Alliander's role in the energy transition

During our discussions, we were given an extensive introduction to the most significant challenges facing Alliander, after which we spoke at length about the challenging role Alliander has in facilitating the energy transition. Alliander is an organisation with a complex task to perform. The Netherlands is in transition, the energy system is in transition and so is Alliander. Developments in the outside world have put energy at the forefront of everyone's mind. But to make the energy transition a success, investments in the networks alone are not enough; we are well aware that a different perspective, a more flexible system and more flexible behaviour are also needed. Alliander has a major, changing and increasingly proactive role to play in this societal issue. Alongside all the fine ambitions to accelerate the process, we feel we should point out that customers currently want to go faster than the system can deliver. We are curious to know where Alliander wants to go with this, which concrete steps will be taken, and what this means for customers and the speed of the energy transition.

Clarifying the cost of the energy transition to society will help in this regard. This is already happening at the local and provincial levels, but not always nationally. No actor has stepped up at the macro level. We understand that this is a role which up to now has been far removed from the network operators' day-to-day activities, but who else should do it? The discussion about this and the draft report make it clear that Alliander and the other network operators are increasingly taking on this role and are having more of an impact. We are pleased to see this.

The information in the draft report provides very extensive information about developments, activities, results and challenges. Nonetheless, we would like to see a change of perspective in the tone: there is much talk of bottlenecks and difficulties, but they often also provide a unique opportunity, no matter how complex it may be. In this sense, 2022 was also the year of the mandate and of opportunities. We have read about the internal solutions-oriented mindset in the draft report: "How can it be done?" Our challenge to Alliander is to describe the themes in its annual report more from that perspective and to be more proactive in setting the course. Customers, suppliers and public authorities want to hear from network operators how they see the energy system in 2030, 2040 and 2050. This could be something to reflect on in the annual report.

The role of sustainability and impact in the annual report

Apart from discussing Alliander's role, we also talked specifically about the sustainability of activities and the organisation's impact on society. For many years, Alliander has been one of the frontrunners when it comes to measuring and reporting on the ESG impact. The common terminology and CO_2 price the Dutch infrastructure operators have developed for this is something we very much welcome. In the view of the panel, impact deserves to be linked more explicitly with the other topics. The annual report will gain cogency if the monetised impact of activities is included in the account from the beginning. And certainly if Alliander can demonstrate that it promotes value creation and that thinking in terms of value is embedded in the organisation.

The information about EU taxonomy is too technical and is still too isolated. Because this is the first time it is being reported, some context would be helpful to explain the EU taxonomy, its purpose, and why Alliander sees it as a useful way of creating a 'consistent' European language for sustainability. Who is Alliander writing this report for? It would be better to demonstrate how Alliander – on the basis of its evolving role – complies with EU taxonomy, how it has value for society and what its vision is. This would make the report an exciting, comprehensive story.

Another thing the panel feels is missing in the report is the theme of a 'Just Transition' and the social consequences the energy transition will have for those at the bottom of the economic ladder in society. This ties in with the alleged differences between urban and rural communities. We are aware that Alliander's room for manoeuvre is limited here, but we recommend broadly keeping it on the agenda. It would also be good to see how the ESG governance at Alliander has worked. Furthermore, the stakeholder panel is interested in how the ESG governance is set up.

Other recommendations from the panel

Use visual elements in reporting

We recommend guiding readers of the report through Alliander's narrative. The reading guide at the beginning of the report contains technical information which does not help in this regard. Consider moving these texts to an appendix. The report would benefit from more visual elements in other sections: the panel would like to see more images and stories in 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. This could be done through photos, but also by additionally embracing SDG 5: Gender Equality.

Doing more than is compulsory

We appreciate the steps Alliander is taking to make the report more transparent, but the information is still defensive on a number of points. An example of this is the way Scope 3 supply chain emissions are reported. Stakeholders, and investors in particular, would prefer to know where you go further than what is required by the legislator. What is your vision and what is compulsory?

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? Why did something succeed or why did it not? The relationship between results, objectives and activities could be more explicit. Make sure that figures are in line with what your partners and those in the sector communicate. These vary in some places.

Alliander's dilemmas

Like last year, the stakeholder panel took time to reflect on a number of Alliander's dilemmas. We recognise and endorse the topics discussed, which make it abundantly clear what a difficult role Alliander has to play and how limited its influence is in the regulated domain. This does not detract from the fact that we question whether some of what is presented is actually a dilemma. Although information is given on the issue of the 'copper plate principle', we expect the organisation to take a more persuasive position and consider the consequences of such a position in relation to the organisation's objectives. We advise Alliander to let the details of the dilemmas speak for themselves.

A final word

Alliander's reporting is of a high quality, as confirmed by its top-three listing for the Financieel Dagblad's Sijthoff Prize last year. 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,

Anne-Jaap Deinum – Director of Federatie Elektrotechniek
Teresa Fogelberg – Sustainability leader, former deputy chief executive of GRI, Chair of Transparantie Benchmark, Impact Economy Foundation
Arthur Krebbers – Head of Corporate Climate & ESG Capital Markets, NatWest Markets
Harold Lever – Chair of research group Underground Networks, Bouwend Nederland
Harriët Tiemens – Director of Groene Metropoolregio Arnhem-Nijmegen
Yelly Weidenaar – Director of Talent naar de Top

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 2022 annual report with the panel members in December. It was discussed during an online meeting held on 19 December 2022, attended by the CFO Walter Bien and the CTO Daan Schut. 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.

Response from the Management Board

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.

Role of the energy system

Alliander aspires to be a co-designer of the energy system. As a public partner with vast knowledge of the energy system, we are well positioned to arrive at a timely and optimal organisation of the energy system in conjunction with our stakeholders. This cannot be done from a blueprint, but requires a vision of the contours of the energy system. In conjunction with the industry, we are for example looking regionally at which transition paths are possible and which of these are optimal, suboptimal or even very undesirable from an energy system perspective.

EU Taxonomy

The extent to which Alliander complies with the taxonomy is described in great detail in the section headed 'Creditworthy company'. The observation that we as Alliander could do more to integrate the new taxonomy is correct. We believe that it is a powerful instrument provided by the European Commission to steer the debate in society about the grey and the green economy. We have enhanced the information on the EU taxonomy. A considerable proportion of our investments is directly related to the energy transition, and these investments are increasing substantially in time and volume.

Social impact of the energy transition

The social effects of the energy transition have our constant attention. We see that they are a consequence of choices mostly made at the national and regional levels. Alliander is in favour of a just and inclusive energy transition, and we will explain how we fulfil our own responsibilities in this regard in more detail in 2023. We focus attention on energy poverty when discussing the topic of access to energy and in the section on impact.

Visualisation

The report has accordingly been improved in a number of places. We have added a few examples to the impact section by depicting specific information in the form of charts, such as the impact of circular procurement. We have also added visual elements to the section on the EU taxonomy to show the extent to which we comply with it.

Diversity

We have reported more extensively on diversity than we did last year. We are aware that this information is still incommensurate with the effort we put in. We will take this on board for the 2023 reporting year. We will also investigate the suggestion about SDG 5.

Supply chain emissions

We are glad to hear that the stakeholder panel categorises Alliander as a pioneer when it comes to transparency. In our view, the norm is dictated not by the law, but by those things we consider to be appropriate for society or which should be solved or prevented. This is the reason why we have been voluntarily reporting on our impact on society since 2016. The stakeholder panel finds that we still have some way to go in terms of our scope 3 CO_2 emissions. We have been reporting on this in detail in our annual report since 2021 and in 2023 we will work hard to find an appropriate pathway to reduce these emissions. This opens the door to closer involvement with the Science Based Target initiative.

Meaningful results

We believe that we are explicit about what our goals and results are in our table of objectives and performance. In addition, every value creation section starts with a summary of the relevant indicators. We consider bottlenecks and setbacks in the section on dilemmas and lessons learned.

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 topics and the impacts of these topics on the economy, the environment and people (including human rights) forms the basis for the integrated annual report and takes place at an early stage of the reporting process. The materiality test depends on a dual assessment: on the one hand, various stakeholder groups assess the relevance of different topics and, on the other hand, we make an assessment of what the impact of these topics is on the company and on the wider world.

2022 Topics

We reassessed our material topics for 2022. We also evaluated the impact of these topics with topic owners and specialists at Alliander and specified them once again. In addition to the impact on the environment and stakeholders, the risk presented by the topic for the organisation is also included as a measure for the impact. We saw a few changes as a result of the reassessment. For example, in 2022 Alliander was found to have a greater impact on various topics affecting the economy, the environment and people compared to other years. These topics were: 'Completion of work package', 'Collaboration on innovative solutions', 'Climate change, energy consumption and carbon emissions', 'Attracting and developing talent', 'Collaboration and dialogue with stakeholders', 'Corporate social responsibility in the supply chain', 'Diverse and inclusive organisation', 'Environmental topics not related to the climate' and 'Access to green capital'. There are various reasons for this, such as labour shortages, which are related to the challenges Alliander is experiencing in completing the work package, and the rising energy prices, which have an impact on access to affordable energy. The fifteen most relevant topics were used as a guide in defining the content of the annual report, and they are covered at length in the stakeholder sections. With respect to the previous year's top fifteen, the topic of 'Environmental topics not related to the climate' has been added this year and the topic of 'Corporate Governance and business ethics' has been removed from our top fifteen. The topic of 'Environmental topics not related to climate' has been made more specific, with details about circular operations.

The process in five steps

The relevance of various topics was assessed by the various stakeholder groups in 2021. At the same time an internal assessment looked at the impact of these topics on the company. We reassessed the impact of the topics in 2022.

Step 1: identification of relevant aspects and topics

The first step consisted in putting together a list of social topics that are relevant to the organisation, using the list of aspects included in the GRI Universal Standards as a guideline. We investigated which current social topics could be relevant for Alliander using information derived from various sources and trend research. This led to some modifications to the list of topics compared to previous financial years.

Relevance to stakeholders

The relevance of the topics from the stakeholders' perspective was determined in 2021 by means of a digital questionnaire sent to a representative group of stakeholders. This gave a clear picture of the material topics for our stakeholders. The result is a summary prioritising the topics having the most relevant impact from the point of view of the stakeholders.

Impact on Alliander

The extent and effect (impact) of the topics were determined once again in 2022 by an internal panel of topic owners and specialists, who took the materiality score from the previous reporting year as the benchmark. Once again, the current and potential impacts that Alliander could have on the economy, the environment and people (including human rights) were considered with respect to the materially relevant topics. 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 for the company, including human rights
- the estimated impact on our immediate surroundings
- the relative magnitude of the impact.
- the potential and direct impacts

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 this impact analysis and the materiality matrix were discussed internally and made available to the Management Board. One of the conclusions was that the topics where Alliander has or could have the most impact 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 topics.

Step 3: GRI aspects of relevance to Alliander

Topics that rate high on the materiality scale are linked to the GRI topic standards. 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 topics to stakeholders on the Y-axis and the impact Alliander has or could have on society on the X-axis shows the impact of a particular topic 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 topics for Alliander's annual report. Alliander groups the results of the materiality analysis into three categories:

Key topics

These are the 15 topics in the materiality matrix that stand out in the eyes of a large group of stakeholders and which have an impact on society. 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 topics 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 dealt with at length in the annual report, but further information is disclosed in the appendices to the report and clarified in the GRI Content Index where necessary.

Potential topics

These are topics that currently receive a lower priority rating from the majority of stakeholders and have a lesser impact on society. 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. Organisational units 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

When collecting social information and data, a distinction is made between qualitative information and quantitative data. 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 2021 annual report.

Energy and CO_2 data

We calculate the CO_2footprint, 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: Other non-financial information.

Impact data

The attribution values were redetermined for 2022 using a revised method, which is explained in the Impact Analysis Accountability document included with this annual report. The 2021 impacts have been recalculated using the 2022 attribution values for comparison purposes.
Reference: Impact Analysis Accountability document.

Facilitating the energy transition

Input and relationships relevant to topic

Description of the topic
Private individuals and businesses increasingly generate their own energy. Large-scale renewable energy generation is part of national and regional agreements. This development necessitates continuous feed-in, input and consumption of energy in the network. Network operators like Alliander are tasked with constantly adapting their network capacity to meet society's needs and keeping the network future-proof. The energy transition requires major investments in and optimal usage of our energy networks.

Impact
Feed-in and input of renewable energy 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. Investments in the energy networks create jobs at Alliander and its supply chain partners. Expansion of the networks potentially leads to an increased requirement for materials and increasing demand in product supply chains, which then increases pressure on scarce raw materials and on working conditions at our partners and companies in the supply chain, both in the Netherlands and internationally. The energy transition is having a significant impact on Alliander's organisation. The rapidly increasing demand for connections, expansion of the network capacity and diversity in the types of connection present major challenges in terms of labour capacity, financing, planning and execution.

Relationship with Alliander's impact model
Indicators for manufactured capital and natural capital. See also the topic: Corporate social responsibility in the supply chain.

Relationship with risks
Long-term regulatory focus, Capacity for change, Financing, Meeting customers' expectations

Stakeholder expectation
Alliander is in continuous contact with stakeholders regarding the energy transition. Customers rightly expect to be helped within the specified periods. Collaboration is crucial in managing the major challenges we face in the Netherlands. Alliander aspires to contribute to the design of the energy system by advising on socially desirable outcomes that are beneficial for the energy system in terms of feasibility, the social costs and the spatial impact. For example, we advise the parties involved in the Regional Energy Strategies (RES) on the optimal wind-solar ratio and we cluster excessively large-scale supply and demand for energy. We also contribute our expertise when considering the most suitable heating system alternatives per area in the Transition Vision Statements for Heating. Through umbrella organisations and industry associations, we are in close contact with various groups in society.

Relationship with strategy and goals
Accessibility

Our long-term objective
Municipalities have drawn up plans setting out how they intend to wean each district off natural gas. Alliander contributes its knowledge and experience at the design stage so that suboptimal choices and unnecessary costs for society can be avoided. 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.

Alliander's assessment and contribution
Alliander is responding actively to the changing energy landscape. We have innovations available, 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. Legal agreements and conditions need to be updated in certain respects to allow an effective response to the demands of the changing energy system. We are currently engaged in intensive discussions on this topic with our stakeholders and legislative bodies.

Lessons learned
See Our dilemmas.

Stakeholder information
- Support for customers in making choices in the section 'Making the energy supply and our organisation sustainable' section

Reliability of supply

Input and relationships relevant to topic

Description of the topic
Uninterrupted availability of energy through grids and installations that are keenly attuned to the needs of our customers and society as a whole.

Impact
The prosperity value of energy transmission for society is high and it makes a strong contribution to the well-being of customers. Interruptions in the availability of energy lead to a major impairment of customer well-being. The scope and duration of an interruption potentially have an impact on social functions such as health care, public transport and production processes, and therefore also on the economy and people's well-being. The reliability of our networks is a core issue for the organisation. In the event of interruptions, we act immediately and can activate resources and scale up quickly. The use of IT tools in the network, for example, allows us to deal with some of the faults at an early stage. Prolonged interruptions have a financial impact due to compensation obligations and additional repair and recovery costs for the organisation.

Relationship with Alliander's impact model
Indicators for manufactured capital

Relationship with risks
Safety, Capacity for change, Meeting customers' expectations, Cybersecurity, Future-proof investments

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. We send them specific information by text message indicating the expected duration of the problem.

Relationship with strategy and goals
Safety, Long-term regulatory focus, Required capacity and competences, Anticipating and keeping up with the energy transition, Cybercrime

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.

Alliander's assessment and contribution
We work daily to secure a continuous energy supply, both now and in preparation for the future. We invested over €1.2 billion in total, with the greatest proportion being spent on increasing the reliability of the networks. Our electricity outage duration was 21.3 minutes in 2022. The number of repeat outages was 28.

Lessons learned
See Our dilemmas: availability versus reliability.

Stakeholder information
- Reliability of supply in section 'High reliability of supply at low costs'

Completion of work package

Input and relationships relevant to topic

Description of the topic
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.

Impact
Any delay in executing the work package leads to delays in the activities of our customers and contract principals. The social impact of access to energy is considerable, and any restriction on access reduces its contribution to social value creation.

Relationship with Alliander's impact model
Indicators for financial and manufactured capital

The increase in the size of the work package has an impact on our organisation. This is reflected in increasing investment costs, a growing need for financing and pressure on financial ratios. We are taking steps to organise the workload more smartly to reduce the impact on the organisation.

Relationship with risks
Work package completion, Capacity for change, Meeting customers' expectations.

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.

Relationship with strategy
Excellent network management

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 assessment and 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.

Lesson learned
To limit the amount of work required, we gain a better picture of the customer's needs at an earlier stage and, together with stakeholders, we make plans for the future energy system.

Stakeholder information
- High reliability of supply at low costs
- Regional information

Working together on innovative solutions

Input and relationships relevant to topic

Description of the topic
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.

Impact
In our innovation programme, our focus lies on creating and implementing innovations and smart solutions that reduce the work on the networks and the costs incurred for those networks. 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. We link the indicators for intellectual capital to SDG 9 and they are reflected in our activities to build a future-proof energy infrastructure and our use of innovative technologies, such as hydrogen projects for the built environment as a replacement for natural gas.

Relationship with Alliander's impact model
Indicator for intellectual capital, Cooperation in the field of technology. New market models and platforms have a positive impact on Alliander.

Relationship with risks
Long-term regulatory focus, Capacity for change, Future-proof investments

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. Alliander is involved in and initiates projects with local residents, municipalities, research institutes and sector initiatives and evaluates the project results with them.

Lesson learned
Proactively organise people, materials and services in a timely manner.

Relationship with strategy
Accessibility

Our long-term objective
Technical and economic developments make new solutions 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 technologies and working methods.

Alliander's assessment and contribution
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 2022, the amount of solar and wind energy that customers fed into our network increased substantially again. In Lochem and Oosterwolde, we started projects for hydrogen networks. In Arnhem, we developed Green Gas storage with Powercrumbs.

Stakeholder information
- Section 'Making the energy supply and our organisation sustainable'

Safe working practices and safe infrastructure

Input and relationships relevant to topic

Description of the topic
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. To achieve this, we ensure that we understand the risks and take action to mitigate them. The measures we take include procuring safer materials and better work equipment, improving working methods and training our employees and contractors to boost their competence.

Impact
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. This also applies to the role of commissioning party in which we take responsibility for external employees. Our impact extends to contractors and supply chain partners (see also the topic Corporate social responsibility in the supply chain). Safe and responsible working conditions are a basic human right, covered by national and international legislation and agreements such as OECD, ILO and UN treaties. Safety incidents can also involve other stakeholders such as citizens and visitors or passers-by at locations where we are working.

Relationship with Alliander's impact model
Human capital

Relationship with risks
Safety, cybersecurity

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.

Lesson learned
We can discuss and analyse the underlying causes of unsafe behaviour more explicitly and further improve safety in respect of subcontractors and self-employed workers.

Relationship with strategy
Reliability

Our long-term objective
Everyone safely home! With zero avoidable accidents. That is Alliander's safety ambition. In addition, Alliander promotes a proactive culture where safety comes first. The goal is a permanent behavioural change that we will demonstrate by attaining rung 4 on the Safety Culture Ladder in 2025. We aim for an LTIF of 1.0 or less.

Alliander's assessment and contribution
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 2022, there were 22 lost-time accidents and 42 accidents that did not result in sickness absence. This was partly why the LTIF increased to 1.7. Contract employees were involved in 14 lost-time accidents and 10 that did not result in sickness absence.

Stakeholder information
- Safety in the section 'A safe energy network and safe work and data environment'
- Fit and healthy employees in the section 'An attractive, inclusive employer with equal opportunities for all'

Climate change, energy consumption and carbon emission

Input and relationships relevant to topic

Description of the topic
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.

Impact
Our activities produce climate-related emissions, within our operations and those of supply chain parties, and when the energy we distribute is used. Our overall CO_2 footprint has a negative impact. Core processes account for 97% of our operations-related emissions. The climate impact of emissions attributable to customers and supply-chain partners is many times greater. We have established goals and programmes to reduce our impact. We are implementing technical improvements in our networks, insulating our buildings and switching to electric vehicles wherever possible, and we turn network losses green through participation in Dutch wind farms. The impact of the climate and energy topic on Alliander is reflected in the costs we incur for mitigation measures and climate adaptation, and the appreciation shown for our approach by capital providers.

Relationship with Alliander's impact model
Indicators for natural capital.

Relationship with risks
Long-term regulatory focus, Capacity for change

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. We work together on climate adaptation measures with sector companies and local and national representatives.

Lesson learned
Internal CO_2 price must be agreed with the regulator.

Correlation with strategy
Accessibility, affordability

Our long-term objective
We contribute to the international emissions reduction targets that are designed to limit global warming to 1.5 degrees. We also contribute to SDG 7. We do not yet measure the impact of climate adaptation measures (SDG 13).
We strive to reduce our carbon emissions: on balance, we want to be climate neutral by 2023.

Alliander's assessment and contribution
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 2022 was: 116 kilotons of $CO_{2\text{-eq}}$ (2021 recalculated: 166 kilotons of $CO_{2\text{-eq}}$).

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 topic

Description of the topic
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.

Impact
Gas, district heating and electricity transmission make a significant contribution to the well-being of consumers by letting them heat their homes, use lighting and household appliances, and travel by electric vehicle. Not having access to energy, or only having limited access to energy, has a major impact on people's well-being and personal development. We are aware that there are significant differences in the level of well-being experienced by different groups in society.

The topic has an impact on the core of Alliander's mission: providing access to sustainable, affordable and reliable energy.

Relationship with Alliander's impact model
Indicators for manufactured capital

Relationship with risks
Long-term regulatory focus, Capacity for change, Meeting customers' expectations

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. This applies primarily to all households, businesses and organisations that are or wish to be connected to the networks in our service area. Independent regulatory bodies such as the ACM assess our service provision.

Lesson learned
Cooperation with municipalities, central government and energy suppliers to prevent disconnections.

Relationship with strategy
Accessibility

Our long-term objective
Ensuring that the transition to renewable energy is realised in a controlled manner so that the energy system of the future remains affordable, reliable and accessible to everyone on equal terms. We aim to complete all connections 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.

Alliander's assessment and contribution
We adhere to national arrangements not to disconnect households during wintry conditions. We work together with municipalities and partners on regional energy arrangements. Where natural gas-free solutions are chosen, alternatives are provided.

Stakeholder information
- Our strategy
- High reliability of supply at low costs

Data-driven network management

Input and relationships relevant to topic

Description of the topic
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.

Impact
The development of more and better data contributes to social and intellectual capital as well as to more efficient and cleaner production. When used like this, knowledge and data can help resolve issues related to the energy transition, raw materials and realisation of the work. Data and the input of data do not automatically guarantee the desired result. Critical analysis of social effects and potential negative impacts is necessary to ensure reliability and safety. The impact on Alliander consists of enhanced productivity and future-proofing in addition to possible exposure to cybersecurity risks.

Relationship with Alliander's impact model
Indicator for intellectual capital

Relationship with risks
Privacy, Cybersecurity, Future-proof IT landscape

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.

Lesson learned
See Our dilemmas. Assign responsibilities at the level where the consequences can best be overseen.

Relationship with strategy
Accessibility, reliability

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.

Alliander's assessment and contribution
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.

Stakeholder information
- Digitalisation in the section 'High reliability of supply at low costs'

Data security, privacy, and cybersecurity

Input and relationships relevant to topic

Description of the topic
Data exchange has become a permanent social and economic phenomenon. Data exchange and storage, and privacy-sensitive information, require maximum safeguards at all times.

Impact
The security and privacy risks inherent in the management of personal data by Alliander and the energy suppliers can potentially have a negative impact on social capital (reduced digital security). The assets and systems for the mitigation of cybercrime and hacking risks make a positive contribution to our manufactured capital. Any breach of data security and safety systems could have a major impact on Alliander and lead to adverse social effects.

Relationship with Alliander's impact model
Indicators for social capital and manufactured capital

Relationship with risks
Privacy, Safety, Cybersecurity

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.

Relationship with strategy
Reliability

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 law implementing the General Data Protection Regulation (GDPR). Customers and employees can be confident that Alliander handles personal data with care and acts immediately if the data integrity is threatened.

Alliander's assessment and contribution
We are obliged to meet statutory and other requirements for all personal data that we 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 have set up a data processing register in which we document all our personal data processing activities. Finally, we use Data Protection Impact Assessments (DPIA) to perform prior risk assessments whenever we plan to process large volumes of data or highly sensitive data. 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.
Factors such as the increased use of employee data, more extensive deployment of contractors and intensification in the distribution of energy data have led to a greater focus on cybersecurity since 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.

Lesson learned
A hack of privacy-sensitive data used for employee badges led to new security measures.

Stakeholder information
- Privacy and security in the section 'A safe network and safe work and data environment'

Customer satisfaction

Input and relationships relevant to topic

Description of the topic
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.

Impact
Customer satisfaction is an indicator for the sense of well-being and comfort derived from the availability of energy. A decline in customer satisfaction ultimately has a negative effect on the added value experienced by customers. The impact on Alliander is reflected in benchmark comparisons and ratings by external assessors, among other things. In extreme cases, regulators may even decide to impose a financial penalty.

Relationship with Alliander's impact model
Indicator for manufactured capital

Relationship with risks
Work package completion, Privacy, Cybersecurity, Capacity for change, Meeting customers' expectations

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.

Lesson learned
Huge increase in customer requests led to increased front-office and back-office effort.

Relationship with strategy
Reliability

Our long-term objective
Customer convenience will rise further in the coming years and will remain higher than the national benchmark of Dutch network operators. Customer satisfaction as measured by the Net Effort Score (NES): consumers at least 53%, businesses at least 37%.

Alliander's assessment and contribution
We work daily on our customer satisfaction, 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. Our goal for customer convenience for 2022, measured by the NES score, was to exceed 53% among consumers and 32% in the business market. The actual result for consumers was 49% (-2% compared to 2021) and 34% for business customers (-4%).

Stakeholder information
- Customer convenience in section 'High reliability of supply at low costs'

Talent acquisition and development

Input and relationships relevant to topic

Description of the topic
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.

Impact
Employee development has a positive impact on human capital as well as on the general level of education and training in the job market. By providing work that connects with social developments, we also increase our impact. High employee job satisfaction increases our attractiveness as an employer and enhances the social value of our achievements and results. The current lack of technically schooled workers and experienced professionals in the labour market has a dampening effect on production and manufactured capital.

Relationship with Alliander's impact model
Human capital

Relationship with risks
Safety, Capacity for change, Completion of work package

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.

Lesson learned
Cooperation in the Technology Action Plan, the national strategy for recruiting more technicians, and creation of the multidisciplinary Labour Market, Training and Retention Team.

Relationship with strategy
Accessibility, reliability

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.

Alliander's assessment and contribution
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 387 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 2022, Alliander invested 2.9% of its wage bill in employee training (2021: 2.8%).

Stakeholder information
- Recruitment in the section 'An attractive, inclusive employer with opportunities for all'

Collaboration and dialogue with stakeholders

Input and relationships relevant to topic

Description of the topic
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.

Impact
Stakeholders have an interest in the social impact that we have on the forms of capital relevant to them. Interconnection and participation improve communication and foster solutions; this strengthens the social capital. For Alliander, the impact of the energy transition and social developments means there is a need for contact and dialogue with stakeholders in all phases of the work. Changes in laws and regulations may have an impact on Alliander's operations.

Relationship with Alliander's impact model
Indicators for financial and social capital

Relationship with risks
Long-term regulatory focus, Capacity for change

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.

Relationship with strategy
Continuous evaluation of stakeholder relations in respect of our tasks; alignment regarding the social aspects of the future energy supply.

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 assessment and contribution
We organise our stakeholder relations appropriately. Contact takes place on a regular and ad hoc basis and, where necessary, according to legal requirements, and through a variety of channels, depending on the topic, its intensity and the relationship with the choices we make as an organisation on a daily basis.

Lesson learned
Supervisory Board's response to the stakeholder panel.

Stakeholder information
Interaction with stakeholders

Organisational capacity for change

Input and relationships relevant to topic

Description of the topic
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.

Impact
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. The high demand in society for connections and capacity means that we have to work both faster and smarter. Nevertheless, we cannot always meet our commitments within the deadlines, and customers experience adverse effects on their well-being and business affairs. The pressure to do more and work differently has an impact on employees, i.e. human capital, but also opens up development and training opportunities.

Relationship with Alliander's impact model
Indicators for manufactured capital

Relationship with risks
Capacity for change, Completion of work package

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.

Lesson learned
We are committed across the board to Performing Together.

Correlation with strategy
Excellent network management is the basis

Our long-term objective
We work with focus, set priorities, and adapt our organisation to changing needs and circumstances as and when necessary.

Alliander's assessment and contribution
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.

Stakeholder information
- Profile of Alliander:Our strategy
- Increasing the organisation's effectiveness in the section 'High reliability of supply at low costs'

Corporate social responsibility in the supply chain

Input and relationships relevant to topic

Description of the topic
Our procurement expenditure increases considerably each year. The expansion and maintenance of our networks and the assets for supporting those activities result in a substantial demand for materials. 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.

Impact
We have a large impact on supply-chain partners through the growing value of the goods and services we procure from them. This generates jobs and economic capital. The extraction of raw materials and production of specific materials and components takes place at numerous production sites worldwide. This has an indirect impact on the environment and working conditions in the Netherlands and worldwide. The procurement of materials, generation of waste and emissions of CO_2 and other substances cause ecological harm. Safety and working conditions have an impact on human capital. Lengthy global supply chains lead to risks in terms of human rights compliance. It is possible that we indirectly contribute to the impact on circumstances elsewhere. The developments in supply chains and elsewhere have an impact on deliveries to Alliander. Shortages, logistical problems and conflicts affect the completion of the work package and inventories (manufactured capital) and can lead to price disadvantages or losses in terms of financial capital.

Relationship with Alliander's impact model
Indicators for financial, manufactured and social capital

Relationship with risks
Capacity for change, Future-proof investments

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.

Correlation with strategy
Reliability, affordability, accessibility

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 comply with the Alliander Code of Conduct including minimum ILO, OECD and UN requirements.

Alliander's assessment and contribution
As well as promoting continuous awareness of our Code of Conduct, which is mandatory for all suppliers, we purchased 28% of our procurement volume based on circular principles in 2022. We focused more on the accuracy of the raw materials passports. 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. The assessment of how suppliers recognise and comply with fundamental requirements relating to human rights, safety and the environment is part of our CSR and procurement policy.

Lessons learned
When production relocates from sites in Europe to more risky countries in terms of working conditions, safety and the environment, we aim to perform a new audit in the local setting. We then reassess the working conditions, safety and environmental aspects.

Stakeholder information
- Supply chain responsibility in the section 'Making the energy supply and our organisation sustainable' section.
- High reliability of supply at low costs

Other environmental topics: Circular operations

Input and relationships relevant to topic

Description

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 acted to integrate circularity into the impact of our business operations.

The global demand for materials and products seriously impacts stocks of raw materials, requires a great deal of energy and leads to increased scarcity of critical materials. Alliander procures large quantities of materials such as assets containing metal, electronic equipment, meters and clothing. The energy transition and growing demand mean that our requirement for resources is increasing dramatically, which has a corresponding effect on the associated impact. The procurement, usage, waste and emissions of CO_2 and other substances cause ecological harm. Production conditions in supply chains can have negative effects on working conditions. As a result, we have an impact on natural and human capital all over the world. By the same token, developments in supply chains and elsewhere have an impact on deliveries to Alliander. Shortages, logistical problems and conflicts affect the completion of the work package and inventories (manufactured capital) and can lead to price disadvantages or losses in terms of financial capital.

Relationship with Alliander's impact model

Indicators for financial, manufactured, natural and social capital.

Relationship with risks

Capacity for change, Future-proof investments

Stakeholder expectation

With an annual procurement volume of about €1.5 billion, we are a major purchaser of products and services. Stakeholders expect us, together with our suppliers, to ensure that our procurement is as sustainable as possible. If we and our suppliers can move in unison towards greater circularity, we can generate a significant positive impact through our supply chains. We know from experience that this requires different arrangements and practices.

Relationship with strategy

Reliability

Our long-term objective

We are actively seeking to improve our performance in terms of circularity. For example, we are planning circular solutions with our suppliers, working to extend the useful life of assets and redeploying materials for a second life in our operations. Our waste policy focuses on prevention and proper separation.

Each year we improve our circular procurement and redeployment performance.

Alliander's assessment and contribution

Pooling redeployment initiatives across organisational units generates significant financial savings and reductions in CO_2 emissions. By proactively having compact stations refurbished, we were able to deliver 51 units internally and boost feasibility through the short lead times. We cooperate with supply-chain partners and other network companies and explore further opportunities for applying circular principles. The proportion of procurement that is circular is gradually increasing. Ultimately, we will limit damage to natural capital by reducing the use of new products and raw materials.

Lesson learned

High demand for materials to implement the energy transition necessitates a joint roadmap and approach for a circular economy.

Stakeholder information

- Organisation: Circular Operations

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. Our shareholders join us in looking at how we can be financial stable in the long term and how we can fund our investments solidly. 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, and the organisational units and staff departments in question 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 2022 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 Dutch 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 (e.g. Consumers' Association [*Consumentenbond*], Association of Homeowners [*Vereniging Eigen Huis*])	Collaboration, relationship management, dialogue, service improvements	Digital panel Quantitative research Complaints and mediation (per case) Qualitative research (various) Dialogue	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 Consultative meetings, individual contact. Biennial 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, 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 of parliament, 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 Foundation Rural Energy Services Global Gas Network Initiative Global Intelligent Utility Network coalition Global Smart City & Community Coalition HIER Opgewekt Klimaatverbond Nederland Management Community MVO Nederland Natuur & Milieu NG Infra Nudge Open Compliance and Ethics Group Sharing & Analysis Centre Smart Energy Collective Springtij Stichting de Energiebank Stichting USEF Stichting New Energy Coalition Talent naar de top The Open Global Data Urgenda World Economic Forum	Collaboration with knowledge institutions in the private and public sectors, 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, Corporate social responsibility in the supply chain, Corporate governance and business ethics, Data security, privacy and cybersecurity, Access to affordable energy, Climate, energy and CO_2, Organisational capacity for change

Alliander endorses	In 2022, we participated in the following Dutch social initiatives
• ILO Conventions • OECD guidelines • EU Taxonomy	• Sector-wide employment arrangement • Climate Agreement and Regional Energy Strategies • Womens Inc. incubators, *Talent naar de Top* charter, *Diversiteit in Bedrijf* charter • Collective labour agreement for network companies • Carbon pricing agreement between 5 network operators • Resource passport agreement between 8 infrastructure operators

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 Profile of Alliander: 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 into account 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 and consistent climate-related financial risk disclosures for companies. The aim is to give investors, financial institutions and other stakeholders a better understanding. The recommendations focus on physical, transition and legal risks.

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.

Strengths

- Security of energy supply
- Attractive employer
- Central role in energy supply
- Climate-neutral policy
- Professional skills and energy network knowledge

Weaknesses

- Retention of engineering capacity
- Organisational agility
- Future-proof IT landscape

Opportunities

- Smart technology and innovations to reduce workload and network investments
- Collaboration with parties to implement the heating transition
- Use knowledge and tools for customers and peer companies

Threats

- Cybercrime
- Insufficient long-term regulatory focus
- Shortage of engineering capacity
- Scarcity of components and raw materials
- Long-term financing: regulatory model in dynamic context of the energy transition
- Strongly growing work package
- Inflation and rising energy transition costs

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.

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.

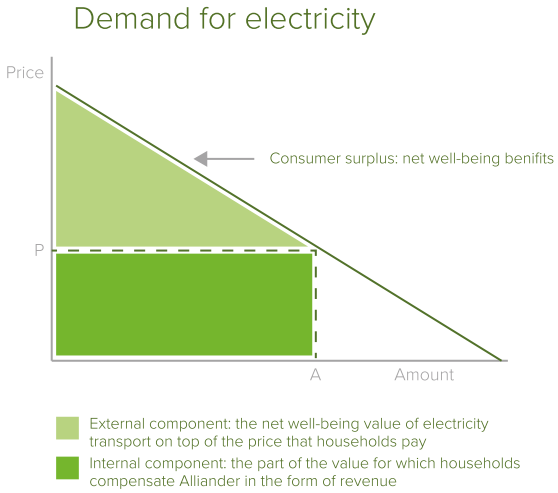
Financial capital

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 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. 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. 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.

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.

Alliander's electricity mix ratio (the respective shares of oil, natural gas, coal and nuclear power) is assumed to be 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 Eco-cost materials indicator is based on the four largest network component categories: cables, pipelines, transformers and smart meters. The scope of materials included in the analysis is largely the same as that for our reporting on the Circular Procurement KPI. Scarce materials in the smart meters have been added to this scope, as defined in the raw materials passport. But a limitation has also been introduced in the scope since the KPI's 'other' category is not included in the impact measurement.

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, 2022: 6.

For this year, we are assuming that Alliander's relative reputation in comparison with its peers has remained the same. To do this, we are using a projection of the results from previous years. The difference between the respective impacts in 2021 and 2022 is therefore due to sector change, as reflected in the brand value method.

Intellectual capital

The value of data collection for market facilitation is calculated on the basis of 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 2022 and 2021

The figures from last year have not been adjusted to take account of the new attribution values. In line with the sector agreement, the attribution values from 2020 have been fixed for three years for comparison purposes. All the sector agreements can be consulted in the Impact Measurement Handbook for Infrastructure Companies.
The 2021 figures for 'Financial capital' have been corrected. An error was found in the allocation ratio between the payments by business customers and payments by consumers. The 'Purchase/Sale of associates and subsidiaries' had also been calculated using the wrong source data.
The 2021 impact on reliability of distributing energy for consumers has been adjusted. This was because the benchmark figures not only included the low- and medium-voltage outages, but also the high-voltage outages. The adjustment specifically had an effect on the electricity figure, which led to this indicator being changed from €-0.8 million to €-2.9 million.

Financial capital

€ million	2022	2021	2021JV
Purchase/sale of associates and subsidiaries	-12	-33	-3
Payments to suppliers	1,980	1,577	1,577
Dividends, repayments and interest	612	359	359
Payments to employees	710	678	678
Tax	53	214	214
Increase in cash reserves	419	-326	-326
Contributions received	-142	-149	-149
Other revenue from non-core business activities	-56	-62	-98
Payments by customers (business)	-591	-556	-866
Raised capital, received repayments and interest	660	-865	-865
Payments by customers (households)	-1,476	-1,488	-1,177

Manufactured capital

€ million	2022	2021	2021JV
Value of goods procured for electricity transmission	-949	-972	-972
Contribution of electricity transmission to consumer well-being	2,110	2,284	2,285
Contribution of solar energy feed-in to well-being	25	20	20
Value of goods procured for gas transmission	-713	-881	-881
Contribution of gas transmission to consumer well-being	2,354	3,018	3,018
Value of goods procured for business customers	-245	-197	-197
Value of energy transmission for business customers	489	453	453
Contribution of heating transmission to consumer well-being	5.8	0.7	0.7

Intellectual capital

€ million	2022	2021	2021JV
Value of data collection for market facilitation	2.0	2.5	2.5

Natural capital

€ million	2022	2021	2021JV
Environmental damage due to waste	-0.1	-0.1	-0.1
Environmental damage through procurement of materials	-39	-34	-45
Climate change due to CO_2 emissions	-187	-223	-223

Social capital

€ million	2022	2021	2021JV
Value of change in reputation of Alliander	12	20	4

Human capital

€ million	2022	2021	2021JV
Work-related sickness absence and employee accidents (safety)	-0.7	-0.6	-0.6
Well-being effects of having work	72	61	60

Impact measurement disclosures

The downloadable Alliander Impact Analysis accountability document offers more in-depth insight into the information contained in the annual report plus supporting evidence.

Connectivity matrix

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

Ensuring a high reliability of supply at low costs

Material topics	Indicators	Performance in 2021	Performance in 2022	Objective for 2022	Long-term goal	Contribution to SDG
Reliability of supply	Electricity outage duration in minutes[1]	20.9	21.3	23	Having a high reliability of supply	SDG 7.1
	Gas outage duration in seconds	44	59	-		SDG 7.1
	Number of repeat outages concerning unique cable numbers with more than five interruptions	22	28	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 affordable energy	Number of customer connections	5.8 million	5.9 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: 51% Business: 38%	Consumer: 49% Business: 34%	Consumer: higher than 48% Business: higher than 40%	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	618	148[2]	400	The focus in the coming years will be on increasing the network capacity.	SDG 9.1
Completion of work package	Number of transmission restrictions	898	2,535	Maximal 1,144	Maximum of 5,800 transmission restrictions in 2027	SDG 7.1
	Investments in the networks in millions of euros	1,014	1,228	1,192	In the long term, make annual investments of more than €1,500 million.	SDG 9.1

Making the energy supply and our organisation sustainable

Material topics	Indicators	Performance in 2021	Performance in 2022	Objective for 2022	Long-term goal	Contribution to SDG
Facilitation of energy transition	Number of feed-in installations at our customers	618,000	773,000	The capacity to connect all new locally generated energy in our areas.	Having the capacity each year to connect all new locally generated energy in our areas.	SDG 7.2 and SDG 11.3
Climate change, energy consumption and CO_2 emissions	CO_2 emissions in kilotons	166[3]	116	Maximum 116	Climate-neutral operations.	SDG 7.2, SDG 11.3 and SDG 13.3
Corporate social responsibility in the supply chain Other environmental issues: circular operations	Primary assets procured on a circular basis as percentage of total	27%	28%	At least 35%	45% circular procurement in 2027.	SDG 12.5
Cooperating on innovation	Application of innovations in partnership	-	See collaborations with partners	-	Collaborating with partners on the application and realisation of innovations.	

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

Material topics	Indicators	Performance in 2021	Performance in 2022	Objective for 2022	Long-term goal	Contribution to SDG
Safe working practices and safe infrastructure	Lost Time Injury Frequency (LTIF)[4]	2.6	1.7	None	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 the Dutch Data Protection Authority	12[5]	9[5]	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 topics	Indicators	Performance in 2021	Performance in 2022	Objective for 2022	Long-term goal	Contribution to SDG
Safe working practices and safe infrastructure	Number of employees on sick leave due to an accident	32	22	0	Safety is key to our operations. We create a proactive safety culture.	SDG 8.8
	Training costs as percentage of total wage bill	2.8%	2.9%	3.0%	3.0%	SDG 8.5
Attracting and developing talent	Number of apprenticeships offered to employees with poor employment prospects	77	90[6]	At least 130	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	Employee survey: Engagement	81%	82%	At least 81%	Being a top-class employer: an innovative and successful company where we develop future-oriented knowledge and competencies.	SDG 8.5

Being a creditworthy company with solid returns

Material topics	Indicators	Performance in 2021	Performance in 2022	Objective for 2022	Long-term goal	Contribution to SDG
Access to affordable energy (responsible investment policy)	Credit rating	S&P: A+/A-1/stable outlook Moody's: Aa2/P-1/stable outlook	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.	SDG 9.1
	FFO/net debt	25.8%	19.2%	FFO/net debt: at least 15%[2]		SDG 9.1
	Interest cover	17.2	12.1	Interest coverage: at least 3.5		SDG 9.1
	Net debt/(net debt + equity)	36.7%	43.8%	Net debt/(net debt + equity): maximum 60%.		SDG 9.1
	Solvency ratio	53.8%	49.0%	Solvency ratio: at least 30%		SDG 9.1

* The theme of collaboration and dialogue with stakeholders relates to all of our material topics. See also the stakeholder table elsewhere in this annual report.

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 Smart Cable Guard has largely been rolled out according to plan. Because of the focus on resolving congestion issues, many tens of thousands of measuring points will be installed in the grid in the coming years. The number of new Smart Cable Guards to be installed will decrease as a result.

3 The net CO_2 emissions figure for 2021 has been restated based on the most recent emission factors

4 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.

5 Eight of the data breaches reported to the Dutch Data Protection Authority were situations where the network operators had joint responsibility as the breaches concerned centralised processing (2021: 7).

6 The number of employees with poor prospects in the labour market comprises 90 jobs created under the Dutch Participation Act, amounting to 73.2 FTEs.

Five-year summary

€ million	2022	2021	2020	2019	2018
Result					
Revenue	2,150	2,120	2,009	1,930	1,920
Total income	2,213	2,181	2,055	1,970	2,068
Total operating expenses	-1,903	-1,827	-1,736	-1,591	-1,572
Operating profit	310	354	319	379	496
Profit after tax	198	242	224	253	334
Balance sheet					
Net working capital	-90	-132	-117	-91	-117
Property, plant and equipment	9,091	8,501	7,958	7,476	7,072
Total assets	10,692	10,209	9,422	8,791	8,345
Equity	4,570	4,470	4,328	4,224	4,129
Total interest-bearing debt	3,426	3,111	2,487	2,062	1,796
Total financing	7,996	7,581	6,815	6,286	5,925
Capital expenditure on non-current assets	1,228	1,014	890	837	732
Cash flows					
Cash flow from operating activities	572	664	634	638	638
Cash flow from investing activities	-1,175	-639	-775	-713	-496
Cash flow from financing activities	184	301	286	88	-103
Free cash flow	-603	25	-141	-75	143
Ratios					
Non-current interest-bearing debt as % of total interest-bearing debt	88%	85%	100%	86%	82%
FFO/Net debt	18.6%	25.8%	24.1%	29.0%	32.2%
Interest cover	11.7	17.2	14.2	13.3	12.9
Equity as % of total assets less deferred income (solvency)	48.9%	53.8%	53.1%	55.6%	57.3%
Shares (as at 31 December)					
Number of shares issued (thousand)	136,795	136,795	136,795	136,795	136,795
Dividend to be paid	101	114	94	114	150
Other					
- Electricity					
Active connections as at 31 December (x 1,000)	3,343	3,276	3,236	3,207	3,169
New connections (x 1,000)	46	43	39	42	40
Cables laid (km)	2,840	2,027	1,563	1,115	899
- Gas					
Active connections as at 31 December (x 1,000)	2,549	2,539	2,542	2,543	2,533
New connections (x 1,000)	4	4	9	16	20
Mains laid (km)	92	60	22	66	141
- Volumes transported					
Electricity (GWh)	25,651	27,262	28,946	28,548	29,858
Gas (million m3)	4,672	6,056	5,632	5,860	6,090
Percentage grid losses[1]	6.43%	4.21%	4.40%	4.52%	4.37%
- Other					
Number of disconnections (consumer and business market)	5,791	3,210	3,756	4,038	3,958
Facilitated supplier switches (x 1,000)	526	918	1,128	851	968
Annual electricity outage Liander (minutes)	21.3	20.9	23.2	21.9	30.6
Average number of permanent staff (fte)	6,102	5,936	5,786	5,686	5,712

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.

ECP
Eurocommercial Paper: Short-term debt instruments issued on the international money market.

EMTN
Euro Medium Term Note: Long-term debt instruments issued on the international capital market.

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.

High-voltage network (HV)
Network intended for the transmission of electricity at a voltage greater than 35 kV and operated as such.

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.

Low-voltage network (LV)
Network intended for the transmission of electricity at a voltage less than or equal to 1 kV in the case of an AC voltage network, and less than or equal to 1.5 kV in the case of a DC voltage network, and operated as such.

LTIF (Lost Time Injury Frequency)
Number of accidents resulting in time off work times a million divided by the number of worked hours.

Medium-voltage network (MV)
Network intended for the transmission of electricity at a voltage level greater between than 1 kV, but less than or equal to 35 kV, and operated as such.

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
Gross investments less contributions to these investments 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 movements in deferred tax assets and liabilities, the equity component in the payment for hybrid loans, incidental items and fair value movements, plus the net 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, incidental items and fair value movements divided by the net finance income and expense adjusted for the equity component in the payment for hybrid loans, exceptional items and 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.

Other non-financial information

CO_2 and energy

This section provides a detailed review of Alliander's energy consumption and the CO_2-related impacts of Alliander. 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 $CO_{2\text{-eq}}$ without a greening policy. Gross emissions in 2022 amounted to 394 kilotons of $CO_{2\text{-eq}}$ (48% less than in 2012); including greening, our own organisation's net emissions amounted to 116 kilotons of $CO_{2\text{-eq}}$. 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 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. Furthermore, the office in Duiven and Arnhem Bellevue are 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.

	2022	2021	2020
Energy consumption of buildings			
Gas consumption in buildings (m^3)	667,698	1,069,106	920,301
Electricity consumption in buildings (kWh)	8,089,425	8,202,984	8,095,728
Fuel consumption of vehicle fleet (litres)			
Petrol	1,297,752	1,115,626	1,103,185
Diesel	2,608,933	2,770,679	3,102,545
LPG	1,774	2,154	4,960
Electricity (kWh)	3,299,113	2,432,381	358,201
Commuter traffic, business travel, air travel (km)	16,453,833	8,846,583	11,157,113

GJ	2022	2021	2020	Conversion factor[1]
Energy consumption of buildings				
Gas and heat consumption	25,709 GJ	37,600 GJ	32,367GJ	35.17 official calorific value of Dutch natural gas
Electricity consumption[2]	29,122 GJ	29,531 GJ	29,145GJ	conversion factor 3.6, SI unit conversion factor
Total energy usage in buildings	**54,831 GJ**	**67,131 GJ**	**61,512GJ**	
Energy consumption for transport & mobility				Conversion factor
Petrol	42,047 GJ	36,146 GJ	35,743GJ	conversion factor 32.4
Diesel	93,400 GJ	99,190 GJ	111,071GJ	conversion factor 35.8
LPG	46 GJ	56 GJ	129GJ	conversion factor 26
Electricity	11,877 GJ	8,757 GJ	1,290GJ	conversion factor 3.6
Total energy usage for transport & mobility	**147,370 GJ**	**144,149 GJ**	**148,233GJ**	
Total energy usage	**202,201 GJ**	**211,280 GJ**	**209,775GJ**	

1 Source for calorific values and conversion factors: 'calorische waarde' (joostdevree.nl)

2 The value of the electricity feed-in to the grid is 3.2 GJ.

CO_2-emissions and carbon footprint

A sector-wide uniform scope 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_2 emissions (tons)	2022	2021[1]
Scope 1		
Gas consumption in buildings	1,392	2,014
Heat use in buildings	39	32
Natural gas network leakage loss	162,131	152,102
Lease & company cars:	13,812	13,397
SF_6 emissions	1,405	1,441
Use of generators	6,399	8,848
Total for scope 1, own organisation	**185,179**	**177,834**
Scope 2		
Electricity in buildings	3,284	3,330
Network losses on electricity, technical	135,147	186,627
Network losses on electricity, administrative	67,908	121,210
Total for scope 2, own organisation	**206,338**	**311,167**
Scope 3		
Commuter traffic	2,253	1,419
Business and air travel	207	66
Total for scope 3, own organisation	**2,460**	**1,485**
Total for scopes 1, 2 and 3, own organisation	**393,977**	**490,486**
Greening/Offsetting		
Greening network losses E	174,697	272,323
Greening network losses G	90,017	40,048
Greening of gas consumption in buildings	1,431	2,046
Greening of electricity consumption in buildings	3,284	3,330
Greening of vehicle fleet	8,150	7,102
Total for greening, own organisation	**277,580**	**324,850**
Total for own organisation including greening	**116,397**	**165,637**
Scope 3 - Supply chain emissions		
Components for network expansion/upgrades	212,408	205,830
Maintenance, construction and procured services	244,419	164,382
Other (waste, investments and energy)	53,264	75,555
Total for scope 3, supply chain emissions	**510,091**	**445,767**
Total footprint	**626,488**	**611,403**

1 Emissions in 2021 in scopes 1 and 2 restated according to the most recent emission factors

Most of the figures included in the tables and graphs in this report are taken from the underlying source systems. Some figures, however, are derived from third-party records and/or reports.

Assumptions and estimates are used in calculating the carbon footprint and the energy consumption. 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 2021 electricity labels have been used for the 2022 annual report. This gives a figure for the CO_2 coefficient of 0.14414 kg CO_2/kWh. This includes an adjustment of 2% for tank-to-wheel. Of the gross carbon footprint, 52% is attributable to network losses in the electricity infrastructure. As of 2020, network operators are obliged to purchase the natural gas leakage losses over a larger part of the supply chain. This means that it now represents a much higher proportion of our carbon footprint. Gas leakage losses accounted for 41% of the gross footprint in 2022, 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 2022 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.

		2022	2021[1]	2020	2019	2018
Net $CO_{2\text{-eq}}$ emissions	kt	116	166	180	245	301
Net revenue	€ million	2,150	2,120	2,009	1,930	1,920
Net CO_2-eq emissions/net revenue	tonne/€ million	54	78	90	127	157

1 Emission figures for 2021, 2020, 2019 and 2018 have been restated according to the most recent emission factors

Our carbon footprint per million euros in revenue has been greatly reduced in recent years through targeted measures.

Transport

Alliander's greatest impact relates to the activity of distributing energy to end users. The quantities are as follows:

	2022	2021	2020
Electricity transmission	25,651 GWh	27,262 GWh	29,723 kWh
Gas transmission	4,672 million m^3	6,056 million m^3	5,600 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.

	2022	2021	2020
Energy intensity ratio	94 GJ/€ million (202,201/2,150)	100 GJ/€ million (211,280/2,120)	104 GJ/€ million (209,775/2,009)

* 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 2022 was 66 million m^3, a 12% increase compared with 2021. This involved connections to 24 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.
- Biogas: 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 a landfill site. 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 integral to all organisational units and is included in the Planning & Control cycle. All organisational units perform an analysis of the qualitative and quantitative impacts that 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 organisational units 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 issues 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, as presented in the social reports, is gauged by such means as customer surveys, employee surveys, shareholders' meetings, round table meetings and the expert panel.

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 2022 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 organisational units are required to submit social information, collected for example for the stakeholder dialogue, the materiality test and GRI activities. The organisational units form the first line of defence and are responsible for supplying reliable information. The business controllers of each organisational unit form the second line of defence and ensure that their organisational unit 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.

Additional information

Description	31-12-2022	31-12-2021
Date of report	6-Mar-23	24-Feb-22
Customer		
Frequency of power outages (SAIFI)	0.351	0.267
Power outage duration SAIDI (minutes)	21.3	20.9
CAIDI (minutes)	60.6	78.2
Efficiency of transmission and distribution: total network losses as % of total feed-in	4.96%	4.81%
Total length of leased fibre optic infrastructure	4,962km	4,986km
Total length of fibre optic infrastructure	4,275km	4,279km
Newly built fibre optic infrastructure	146km	121km
Number of buildings disconnected	5,791	3,210
Employee		
Percentage of employees eligible for pension plan in 5 years' time	24%	25%
Percentage of employees eligible for pension plan in 10 years' time	35%	36%
Employees on a fixed-term employment contract (number)	853	592
Percentage of men on a fixed-term employment contract	77%	81%
Percentage of women on a fixed-term employment contract	23%	19%
Employees on a permanent employment contract (number)	5,566	5,571
Percentage of men on a permanent employment contract	80%	81%
Percentage of women on a permanent employment contract	20%	19%
Employees on a full-time employment contract or agency/contract staff contract (number)	5,995	5,799
Percentage of men on a full-time employment contract or agency/contract staff contract	85%	88%
Percentage of women on a full-time employment contract or agency/contract staff contract	49%	11%
Employees on an agency/contract staff contract (number)	1,256	1,151
Percentage of men on an agency/contract staff contract	81%	83%
Percentage of women on an agency/contract staff contract	16%	16%
Employees on a part-time employment contract or agency/contract staff contract (number)	1,680	1,514
Percentage of men on a part-time employment contract or agency/contract staff contract	15%	53%
Percentage of women on a part-time contract or agency/contract staff contract	51%	47%
Total workforce (number)	7,675	7,313
Total direct employees (FTEs)	6,214	5,991
Total agency workers (FTEs)	1,155	1,172
Percentage of employee covered by and subject to collective provisions in employment contracts	99.93%	99.93%
Inflow of male employees (number)	706	539
Inflow of female employees (number)	242	133
Outflow of male employees (number)	435	381
Outflow of female employees (number)	121	91
Employees aged <25 years	136	113
Employees aged >= 55 years	1,551	1,577
Employees aged 25-35 years	1,420	1,288
Employees aged 35-45 years	1,901	1,790
Employees aged 45-55 years	1,411	1,395
Employees in leadership positions (number)	472	469
Male employees (number)	5,112	4,959
Female employees (number)	1,306	1,203
Percentage of female employees in leadership positions	28.3%	28.1%
People with poor employment prospects (number)	90	77
People with poor employment prospects (FTE)	73.2	62
Gender pay ratio	100.6%	101.3%
Absenteeism	4.8%	4.6%
Absenteeism, men	4.4%	4.4%
Absenteeism, women	6.4%	5.4%
Accidents resulting in fatalities (including contractors and third parties)	0	0
Number of cases of complaints regarding occupational health and safety lodged through the formal complaints mechanism	72	51
Percentage of workforce represented on formal occupational health and safety committees of employer and employee	99.9%	99.9%
Number of reported cases of undesirable behaviour (and discrimination) by employees	57	33
Number of employees who have completed safety training (and passed the associated exam) this year	2,001	1,789
Number of contract employees who have completed safety training (and passed the associated exam) this year	272	205

Environment		
Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental legislation and regulations	2	0
Number of environmental incidents reported to the relevant authorities	8	9
Number of non-financial sanctions imposed on account of non-compliance or inadequate compliance with environmental legislation and regulations	13	1
Water consumption (m^3)	11,390	6,029
Office waste: paper (tonnes)	530	736
Office waste: secure shredding service paper (tonnes)	43	51
Office waste: miscellaneous (tonnes)	217	239
Office waste: paper (tonnes)	2	9
Industrial waste: metal (tonnes)	7,742	7,044
Industrial waste: wood (tonnes)	239	288
Industrial waste: plastic (tonnes)	712	724
Industrial waste: soil (tonnes)	1,723	1,023
Industrial waste: miscellaneous (tonnes)	4,727	4,788
Hazardous waste (tonnes)	583	926
Waste: total weight for the year (tonnes)	16,517	15,828

Governance and Society		
Significant financial support from governments (lower tax rate, subsidies, credit, investment premiums)	€ 2,069,261	€ 1,518,625
Accidents and health impacts on citizens in relation to company assets/legal proceedings relating to health and safety of customers and/or third parties	0	1 closed, 0 ongoing
Monetary value of significant sanctions imposed on account of non-compliance with legislation and regulations regarding the delivery and use of products and services	€ 0	€ 25,000
Current legal proceedings against the company brought by third parties where the charge includes corruption/fraud (number)	0	0
Companies with which ties have been severed on account of corruption/fraud (number)	0	0
Employees confronted with measures in relation to corruption/fraud (number)	12	5
ISO 9001 Certificate		ISO 9001
ISO 14001 Certificate		ISO 14001
Requirements for a safety, quality and capacity-management system for electricity and gas network management		NTA 8120
HSE Checklist		HSE Checklist
CO_2 performance ladder		CO_2 performance ladder
ISO 55001 Asset Management		ISO 55001 Asset Management

Cover photo: learning in practice

Under the supervision of experienced technicians, 50 student technicians perform maintenance work on the power grid in Dronten. In addition, they are expanding the grid to meet the ever-increasing demand for electricity. It is a unique opportunity to prepare students for work in practice.

March 2023

Alliander N.V.

Visiting address: Utrechtseweg 68,
6812 AH Arnhem
Postal address: P.O. Box 50, 6920 AB Duiven
info@alliander.com
www.alliander.com

This report is a translation of the Dutch annual report 2022 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 2022 will prevail.

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