



TenneT Holding B.V.

Integrated Annual Report 2020

Towards a new balance



Key figures 2020

Overarching indicators



Internal Engagement Index 82%
2017: 85%



Reputation survey
Fairly strong to very strong

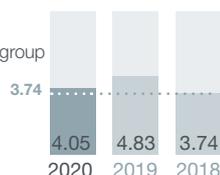


Energise our people and organisation



Safe workforce
Total Recordable Incident Rate group
(including contractors)

4.05



Healthy workforce
Absentee rate
Netherlands Germany

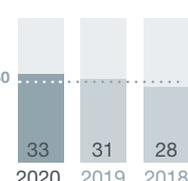
NL 2.7
GE 2.5

2020: NL 2.7, GE 2.5
2019: NL 3.4, GE 2.8
2018: NL 3.0, GE 3.0



Diverse workforce
Diversity
(% female inflow of total inflow)

33



Secure supply today and tomorrow



Grid availability

Onshore (in %)

99.9999%

2020: 99.9999%
2019: 99.9998%
2018: 99.9988%



Grid utilisation

Grid loading

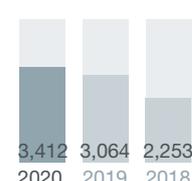
In 2020, we have had various initiatives regarding Grid utilisation and we are currently working on bringing it together in one key performance indicator



Future proof grid

Investments
(in EUR million)

3,412

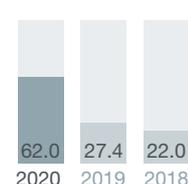


Drive the energy transition



Environmental impact % Greened
of our carbon footprint

62.0%



Unlocked flexibility

Number of GW
of new flexibility

Progress has been made in 2020, with the launch of the Equigy platform as one of the highlights.



Impact on energy system

Number of scalable/scaled
system initiatives

Completed various scalable/scaled system initiatives, such as the successful completion of three SINTEG projects.



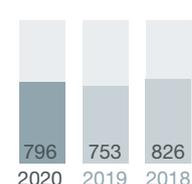
Safeguard our financial health



Healthy financial operations

Adjusted underlying
EBIT group* (in EUR million)

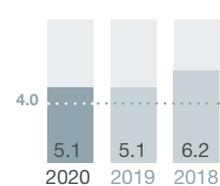
796



Satisfied capital providers

ROIC group* (in %)

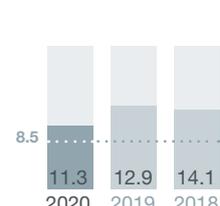
5.1



Safeguarded capital structure

Adjusted FFO/net debt* (in %)

11.3



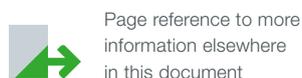
* Reference is made to the chapter Secure a solid financial performance and investor rating

In this year's report



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Disclaimer PDF print – this document is only a 'printed version' and is not the original annual financial reporting including the audited financial statements pursuant to article 361 of Book 2 of the Dutch Civil Code. These original annual financial reporting, including the audited financial statements and the auditor's report thereto are included in the single report package which can be found at <https://www.tennet.eu/company/investor-relations/financial-reports/>. In any case of discrepancies between this 'printed version' and the report package, the single report package prevails.



* These sections reflect the director's report as mentioned by Part 9 of Book 2 of the Dutch Civil Code.

2020 at a glance



Completion BorWin3

Our twelfth offshore grid connection project offers 900 megawatts of transmission capacity to bring the wind power produced at sea by the two connected wind farms to onshore Germany.



2 gigawatt project

In order to be able to connect more powerful offshore wind farms and thus bring more energy onshore, TenneT further developed in 2020 the best practices from the German 900 MW HVDC and Dutch 700 MW AC grid connection systems. This resulted in a worldwide unique 2 GW standard aimed to further reduce the costs of offshore wind to minimise the spatial and environmental impact and supports the vision towards larger offshore wind farms.

Top Employer

In 2020, TenneT received the Top Employer certificate in the Netherlands for attracting young talent through internships, traineeships and workplaces for talented refugees.

New organisational structure

A new structure and senior leadership team are launched, which will support the company's growth and its role in the energy transition in the Netherlands, Germany and neighbouring countries.



Improve biodiversity

Together with partners from the coalition "Groene Netten", TenneT will actively work to restore biodiversity around its high voltage connections. Together, the partners manage more than 800,000 kilometres of infrastructure in the Netherlands.



Crowd balancing platform

TenneT launches Equigy, a platform which will enable millions of European flexurers to actively offer flexible capacity of their electric cars, domestic batteries or solar panels to grid operators for the stabilisation of the electricity system.

Joint Declaration

The Netherlands and Germany sign a Joint Declaration of Intent to explore the options regarding investments and shareholding in TenneT and to develop a joint approach to strengthen the capital base of TenneT.

EUR 1 billion
Green Hybrid Bond

Large green debt issuer

TenneT sparks the hybrid market with a EUR 1 billion Green Hybrid Bond. TenneT is one of the largest corporate issuers of green debt in Europe, with over EUR 10 billion of green debt issued.

Nordlink

In December we started the trial operation of NordLink. NordLink is a 623 km long subsea cable for the exchange of Norwegian hydropower and German windenergy.



New Chief Operating Officer

The Supervisory Board has nominated Maarten Abbenhuis as Chief Operations Officer (COO) on the Executive Board of TenneT. He succeeds Ben Voorhorst, who will leave TenneT after an impressive career within TenneT of twenty-five years.

Completion Borssele Beta

Our second Dutch offshore grid connection project offers 700 megawatts of transmission capacity to bring the wind power produced at sea by the connected wind farms to the Netherlands.

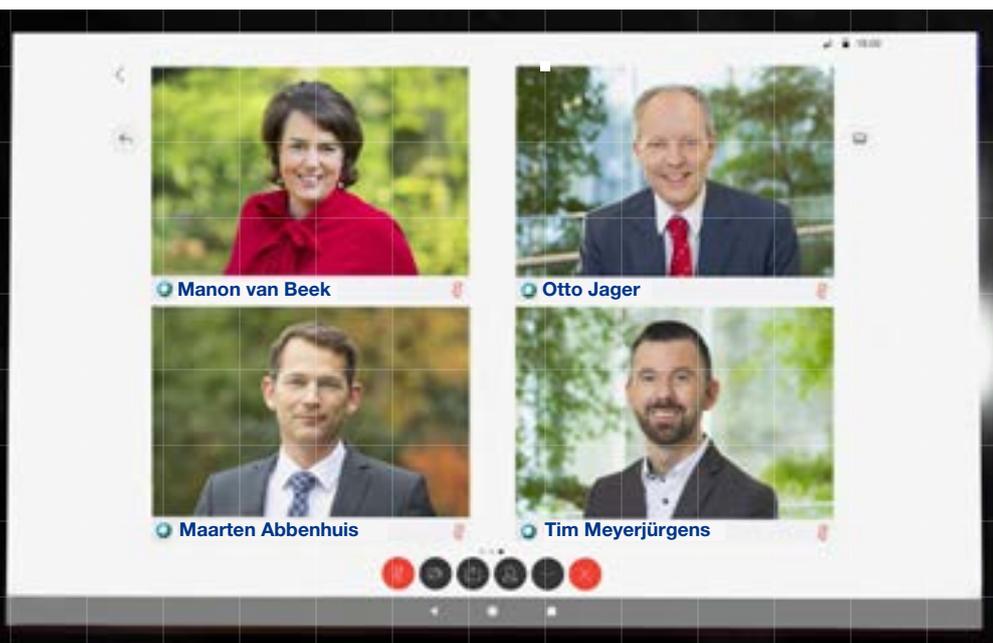


Power line for green energy

TenneT commissions the "Mittelachse" power line in Schleswig-Holstein, a new line which transports seven times the amount of green electricity between the Elbe and the Danish border.

Multi purpose interconnector

National Grid and TenneT explore the feasibility of connecting Dutch and British wind farms to the energy systems of both countries via subsea electricity cables called interconnectors. The development would be the first of its kind for the UK and the Netherlands in the North Sea.



Letter from the Board

Towards a new balance

We look back to an extraordinary year 2020 with important lessons for business and wider society. For TenneT, 2020 highlighted once again that our employees are our most important asset: amid unprecedented uncertainty caused by the COVID-19 pandemic they have proved to keep the balance between delivering security of supply and meeting the demands of the energy transition.

We are proud to have delivered on our mission to provide a robust security of supply performance of 99.9999% onshore grid availability and record investments of EUR 3.4 billion to expand and maintain our critical infrastructure. But we cannot rest and must work towards a new balance of meeting the climate targets of 2050 while addressing the challenges of making the energy system future-proof. With the European Green Deal giving a boost to the integration of large volumes of renewable energies into the electricity system, TenneT will continue contributing to a cleaner energy future. We are in international cooperation and industry partnerships to tap the energy potentials of the North Sea and develop new solutions to provide green electricity at socially acceptable costs. In doing so, we are playing our part to help Northwest Europe become one of the most sustainable and competitive regions in the world.

Europe has recently decided to step up its climate ambition and reduce its carbon footprint by 55% by 2030 compared to 1990. Further ahead, Europe aims to be climate-neutral by 2050. To reach these goals, the electricity infrastructure which sits at the heart of the transition to a net-zero carbon world is undergoing a fundamental redesign. With more fluctuating electricity generation and increasingly difficult planning & licensing procedures as well as deteriorating regulatory conditions, TenneT will need to work towards a new balance between growth and stability, between individual and societal needs and between investment incentives and the cost of the energy transition.

To successfully meet the future challenges, in 2020 TenneT started a transformation with a new organisational structure and a sharpened strategy based on four pillars. Pursuing our new purpose 'to connect everyone with a brighter energy future', we are helping build the sustainable, affordable and reliable energy system of tomorrow.



Energise our people and organisation

TenneT's 5,722 dedicated employees are our most important and valuable asset. Due to the COVID-19 pandemic, 2020 was a balancing act for everyone in our organisation, as we combined an extraordinary level of activity and company growth with efforts to keep our workforce safe, engaged and connected. More than 800 new colleagues were hired to contribute to the energy transition. Over 30% of these are female, also in the senior leadership team. A new organisational structure was introduced and TenneT was once again certified as a Top Employer. In an extraordinary year when normal working became a real challenge, we are proud that employees are highly engaged (82% positive) with their role at TenneT.

As safety is at the core of everything we do, we are keenly aware of the risks associated with our activities and believe that every safety incident is one too many. We deeply regret two fatal accidents that occurred in 2020 with our subcontractors. We are deeply saddened by these incidents, and our thoughts go out to the families and friends of these two workers. Early 2021, TenneT intensified the training programme in collaboration with all partners to continuously raise awareness and strive for improved safety leadership on the road towards zero harm.

TenneT's role in the future of society also brings new tasks for our employees. We are growing fast and will focus on speeding up our work in the coming years by further improving operational excellence. Employees are encouraged to contribute by developing new solutions and work on more efficient processes enabling them to provide an excellent service. Our restated company values of 'courage, ownership and connection' are the guiding principles for this exciting journey.

Sourcing the talent we need to grow is an ongoing endeavour in our organisation. For 2021 we plan to hire over 600 additional employees. We are actively recruiting on a highly competitive European market to attract dedicated people and also work closely with sectoral and regional educational institutions to train young professionals for technical jobs.



Secure supply today and tomorrow

Security of supply is of critical importance for all 42 million end-users in our service area and the core mission of TenneT. To keep our grid in balance is a growing challenge for system operators such as TenneT with a growing share and volatile nature of renewable energy. TenneT is proud to have achieved an onshore grid availability of 99.9999% in 2020.

Providing security of supply with increasing volumes of renewable energies also requires substantial infrastructure expansion. In 2020, TenneT made record investments in grid construction, despite the challenges of COVID-19. Our portfolio is on track and with EUR 3.4 billion invested in our network during the year, TenneT is one of the largest investors in Europe driving the energy transition. However, the magnitude and fast pace of grid construction, combined with the growing infeed of renewables, has also put our operational implementation under increasing pressure. Grid expansion and maintenance is a highly challenging work: not only does it demand a great deal of resources, but technical expertise is scarce and spatial procedures are more complex. It requires new forms of cooperation with suppliers, intensive local community management, long-term planning and continuous innovation.

On the road to the future, unlocking flexibility and system integration will be essential to enhance the efficiency of the energy system, reduce the need for grid expansion and to keep the grid balanced. As a response, and together with other leading European TSOs, we set up the crowd balancing platform Equigy in 2020. By using blockchain technology, the platform gives system operators access to the flexible electricity available in consumer-owned devices, such as electric vehicles or heat pumps.



Drive the energy transition

The North Sea, with its offshore wind potential, will undoubtedly become the new powerhouse of Northwest Europe. With Europe aiming to achieve 300 GW offshore wind by 2050, a further rapid and internationally coordinated expansion of the North Sea grid is needed, demanding new concepts and partnerships. TenneT is contributing to develop this region which requires a balance to reconcile regional, national and cross-border interests to forge new alliances between neighbouring countries and stakeholders.

In 2020, we carried out a record number of offshore activities and our windfarm connections continued to grow with the completion of the 12th offshore grid connection in Germany, BorWin3. Towards 2030, TenneT has committed to build at least fifteen new grid connection systems, of which five additional grid connections of 2 GW each in the North Sea. This will lead in total to an additional 18 GW generation capacity.

The future will see the coupling of energy markets through interconnection and smart integration into onshore grids. Driving this progress, TenneT announced a cooperation agreement to explore the feasibility of connecting Dutch and British wind farms to the energy systems of both countries. We are also investigating joint energy hubs in the North Sea with Denmark, in close cooperation with the German, Dutch and Danish governments.



Safeguard our financial health

TenneT's financial results in 2020 were solid and proved that we can keep a balance of strong and stable credit ratings while embarking on record financing. In 2020 underlying revenue of EUR 4.45 billion increased by 9% compared to 2019. Adjusted underlying EBIT group increased from EUR 753 million in 2019 to EUR 796 million in 2020. TenneT cherishes its position as a leader in sustainable finance. With more than EUR 10 billion of green debt and sustainable funding available, TenneT is the largest corporate issuer of green debt instruments in the Netherlands. In 2020, we successfully issued a green hybrid bond of EUR 1 billion and EUR 1.35 billion of green senior bonds. Furthermore, we are proud to have won the prestigious FD Henri Sijthoff award for outstanding financial reporting with our Integrated Annual Report 2019.

Looking forward, TenneT is determined to maintain a solid financial position as we prepare to facilitate an annual investment portfolio growing to EUR 5 to 6 billion within the next 5 years to drive the energy transition. In 2020, exclusive talks were held about a possible participation in TenneT by the German state, to secure future long term capital requirements. Also alternative options to attract additional capital will be further explored in 2021 with our shareholder and other stakeholders.

In addition to our capital requirements, we also call for a review of the regulatory frameworks in both, the Netherlands and Germany to make it future-proof and better suited to drive the energy transition. With a growth-driven business, TenneT is determined to continue investing responsibly and to generate an adequate return in a low-interest environment.

Towards a new balance

The energy transition is an enormous and compelling challenge, demanding players like TenneT to master complexity and agility. The time to shape the European transition is now and it can only be solved with a strong commitment of the EU and its member states to engage in a new balance of collaboration among governments, market players, industries, regulators and transmission system operators.

Over the past decade, TenneT has achieved substantial socio-economic benefits with its cross-border approach: markets have been integrated and contributed to the competitiveness of the Northwest European markets. For the future, TenneT will embark on a new balance of providing an unwavering high level of security of supply while undergoing a structural system change. It will endeavour to deliver grid expansion at an affordable cost for society. With investments reaching new records, financial stability remains crucial for TenneT.

TenneT is ready to play its part for the next phase of the transition, with the public interest always as guiding principle. We want to thank all our partners, stakeholders and employees for their contribution in 2020. In particular, we wish to thank our Supervisory Board members Pieter Verboom and Rien Zwitterloot and our colleague in the Executive Board, COO Ben Voorhorst, as they said farewell to TenneT in 2020 after a long record of service and tremendous contribution.

About TenneT



Profile

Climate change is a threat to the world. In Paris, in 2015, global commitments were made to limit global warming. In Europe, commitments have been made to combat climate change, too. By 2050, Europe wants to be the first climate-neutral continent. To this end, the European Commission has drawn up the European Green Deal, a programme covering all sectors of the economy and involving major changes and investments.

The energy transition is a crucial part of these commitments. As the first cross-border TSO, TenneT wants to play a pioneering role in this transition to a clean, circular economy. We have been showing successful examples of making an active contribution to the transition to a sustainable, reliable and affordable European energy supply for years. With approximately 24,000 kilometres of high-voltage connections, we ensure a secure supply of electricity to more than 42 million end-users. TenneT is also one of Europe's largest investors in national and cross-border transport capacity on land and at sea, bringing together the Northwest European energy markets and driving the energy transition in Europe.

In both Germany and the Netherlands, we see the climate ambitions reflected in our investment agenda. We are at the beginning of our next growth phase with new and major challenges. Integrating large amounts of renewable energy into a newly designed energy system at a socially acceptable cost is an important task. An energy system 'built' on renewable energy sources – wind and solar – is much more dynamic and complex. This leads to high demands on the design of the grid and requires ambitious investments and digital innovations. We are working with partners in the energy market to apply new, smart technologies and implement system integration in the future.

In order to be prepared, we started the transformation of TenneT in 2019. In addition to a new organisational structure, we have sharpened our strategy, which provides direction as a compass for making effective decision making choices. We have also developed an inspiring goal, a promise and clear starting points to guide us on our growth path.

Our purpose
To connect everyone with a brighter energy future

Our promise
Lighting the way ahead together

Our principles



Connection



Ownership



Courage

Our strategy and value creation

Our strategy

Our strategy helps us drive the changes we believe are needed for the energy system today and tomorrow. TenneT's strategy consists of four pillars.

Strategic goals

Energise our people and organisation



With an inclusive and safe environment where people enjoy coming to work. We will build a leadership model that empowers, inspires and creates growth opportunities, so everyone can perform at their best and work as one.

Secure supply today and tomorrow



By maintaining the grid to meet reliability targets and operating it to its maximum capability. We will design solutions for balancing the grid in the future, while meeting societal objectives and realising our grid projects as promised.

Drive the energy transition



As a green grid operator and thought leader, developing innovative instruments and establishing a key role in the energy data world.

Safeguard our financial health



By implementing a regulatory framework to support our strategy and by delivering a return in line with what our capital providers expect, as well as by raising the necessary external financing.

Our key activities

Securing the supply of electricity is our core task and main responsibility. We aim to ensure a safe, reliable and secure supply to more than 42 million end-users, 24 hours a day, 365 days a year. We are committed to this core objective today and in the future. Therefore we work together with our stakeholders and through partnerships to shape the future energy landscape. We believe that this requires a multidisciplinary decision-making process in which we do not only consider security of supply, but also how our decisions affect sustainability and affordability. We face a constant balancing act between these three dimensions, prompting us to make decisions that optimise trade-offs between them. Sometimes these dimensions can directly conflict with each other, which makes it difficult to find the right solution.

Our core tasks are to:

- Ensure a secure and continuous supply of electricity as the key objective of our operations.
- Provide transmission services by transporting electricity along the high-voltage grid from where it is produced to where it is consumed.
- Provide system services to balance supply and demand of electricity in the Netherlands and in a large part of Germany.
- Facilitate a smoothly-running, liquid and stable electricity market and support the large-scale, energy system transition to renewable energy sources.



Our principles

The energy transition is a challenge that requires new ideas, new technologies and new behaviours that build on the strong foundations we have laid. It requires us to do things differently and to learn from each other because we know that we do not have all the answers ourselves. As part of the transformation, we also sharpened our principles. These principles guide how we work together, also with all our stakeholders.

Connection

We are involved and work actively with other parties, with respect for opinions and differences. In the changing world, close collaboration with other transmission system operator (TSOs), distribution system operator (DSOs), customers, governments and regulators is becoming more and more important. This is not only on a national scale, but also on European level, for example in the offshore development and future sector coupling.

Ownership

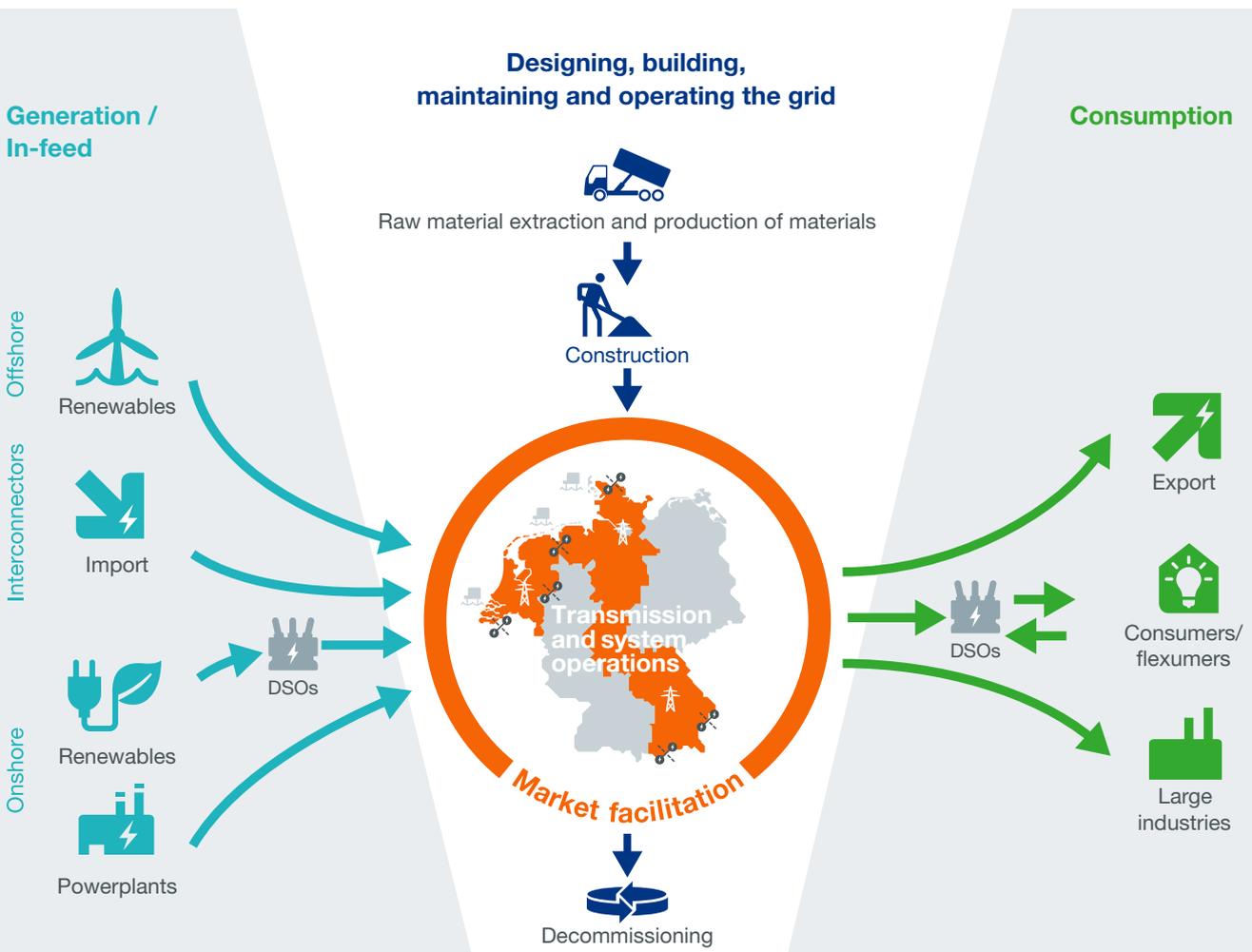
We are accountable for our words, actions and decisions. Our offshore portfolio is an example of how to bring sustainable energy into the European system. We plan annual investments growing to EUR 5-6 billion within the next 5 years in contributing towards a sustainable Europe in 2050.

Courage

We are honest, open and clear about what we think. We dare to make decisions, take initiatives and are willing to learn from our mistakes. We embrace the European Green Deal and challenge the implementation where needed.

We take action in joint EU projects such as the North Sea Wind Power Hub and system studies together with Gasunie to identify what is needed for a future reliable energy system. In full-filling our tasks, bringing more renewable

TenneT in the supply chain



energy sources to the grid we need to make decisions. Our focus is on the difficult and delicate balancing act of: sustainability, security of supply and affordability.

Our supply chain can be viewed from different perspectives. Horizontally, on the left, the sources of electricity generation are presented. In the middle we show how we design, build, maintain and operate the electricity grid in the Netherlands and the in a large part of Germany and facilitate the European energy market, through our interconnectors with our neighbouring countries over land and sea. On the right, we show the transport electricity to large industrial customers and to DSOs who distribute it to end-customers. On the vertical axis we illustrate the raw materials, such as steel, copper and aluminium, which are manufactured or mined by third parties and used in our projects to build and maintain our assets. These assets are crucial to operate our grid.

We want to be a green and responsible grid operator, taking steps to reduce our negative impacts and even creating positive impacts, wherever possible. We also strive to create a safe working environment while building and maintaining our grid. The energy transition is one of the most impactful challenges facing society. In the past decades, TenneT has become a key player in the energy market. In 2020, we implemented an internal transformation programme to help us fulfil this pivotal role and prepare for our next phase of growth.

As an independent European grid operator, TenneT harnesses the expertise of its people and partners, in its pursuit of a brighter energy future for everyone. To achieve this, we need to offer new ideas and technologies. It also demands that we do things differently, and that we learn from each other, across industries, because we know we don't have all the answers ourselves. It's why we're happy to collaborate and share knowledge and experience



Stakeholders

Input

How we create value



Customers



Debt investors



Employees



Governments



Local communities



Media



NGOs



Other European TSOs



Shareholders



Suppliers



Intellectual

Extensive knowledge of and experience with operating the system and integrating energy markets



Manufactured

Cables, lines, stations, offices and interconnectors



Human

Our skilled and motivated people



Natural

Energy, natural environment and materials to build, maintain and operate our grid



Financial

Regulatory return (Green) Financing



Social and relationship

Strategic partnerships and our engagement with (project) stakeholders



Energise our people and organisation



Secure supply today and tomorrow



Drive the energy transition



Safeguard our financial health

To connect everyone with a brighter energy future

How we operate

- Enable the energy market ←
- Designing the energy system ←
- Build the electricity grid ←
- Maintain the electricity grid ←
- Operate the electricity grid ←
- Enable the core activities ←

Output

Outcome & Impact



Deliver a high security of supply

With our knowledge and experience in operating the system and following up on our ambition to further integrate European energy markets, we are able to provide a secure supply of energy. In 2020, we have been able to achieve a **99.9999%** availability of our onshore grid. The instances we were unable to secure supply, were the result of **3** interruptions. Our knowledge, experience and vision with respect to an integrated European energy market is reflected in our grid and the **16** interconnectors that have been realised as of 2020.

Societal impact due to the availability of our grid.



Ensure critical infrastructure for society

With our assets, we ensure that we are able to fulfil our core activities and tasks. We keep building and maintaining our grid to realise the critical infrastructure, which helps us drive the energy transition and supports the economic development and human wellbeing of the people that live in our service area. **We expected to invest EUR 3,080 million in 2020, while we were able to realise 3,412 million.**



Create a sustainable workplace

Our goal is to create a working environment where our people feel safe and valued. We strive to bring out the best in our people to help them develop themselves and organise this in a way that energises them. That is why we track our **absentee rate, which was 2.7 in the Netherlands and 2.5 in Germany in 2020**. Next to this we monitor to what extent we are successful in our efforts to be an inclusive and diverse organisation (refer to page 36). And with respect to a safe working environment, we track the Total Recordable Incident Rate (TRIR). We were unable to achieve zero safety incidents this year, as we unfortunately also had 2 fatal incidents which has led to a **TRIR of 4.1 in 2020**.



Create value to transition to a low carbon economy

We want to drive the energy transition, because we believe we are able to make a significant contribution. Realising our investment programme and innovation portfolio will contribute to the climate targets in the Netherlands and Germany, which is essential on the pathway to a low carbon economy. In 2020 we realised 1.6 GWh additional offshore capacity, increasing the amount of connected renewable energy sources to the electricity grid in the Netherlands and Germany. At the same time, we ourselves have the firm ambition to be climate neutral as early as 2025, so that we too will contribute to part of the solution. In 2020 our (gross) carbon footprint was **2,448,640 tonnes CO₂**, which has been greened for **62.0%**.

Equivalent number of households that have been able to receive green electricity



Secure a solid financial performance and investor rating

TenneT is a regulated company, that has an important societal role. That is why we strive to make choices considering the impact on societal costs. To finance our grid investments, we raise the necessary financing and meet the expectations of our capital providers. This is reflected in various ways, such as our **ROIC of 5.1, FFO/Net Debt of 11.3% and our adjusted underlying EBIT group* of EUR 796 million**.



Solve societal challenges with stakeholders and through partnerships

We believe in the power of cooperation. Working together will help us achieve the next steps with respect to the energy transition faster and better. Furthermore, in realising our future grid, we engage with our stakeholders to consider societal objectives. That is why we also measure our reputation on a bi-annual basis. The outcome of this is a **reputation that can be classified as 'fairly strong to very strong'**.



* Reference is made to the chapter Secure a solid financial performance and investor rating.

with a wide range of stakeholders and experts. This approach will enable us to keep the lights on, while we work with others to design and deliver tomorrow's energy system.

How we create value

TenneT plays a pivotal role in society. By ensuring the supply of electricity, we make a fundamental difference to the people working and living in the areas we serve. Our work involves a wide range of stakeholders. Our relationship with them may have been originated by law or contracts (shareholders, governments, political parties and regulatory bodies), by internal or external cooperation (employees, suppliers, debt investors and rating agencies) or by the nature of the services we provide (customers, the media, NGOs, local communities and other European TSOs).

For more information about our stakeholders and how we engage with them, is included in 'Our stakeholders' section and on our [corporate website](#).

The way we create value is represented visually on the previous pages, using the concept of value creation as described by the International Integrated Reporting Council (IIRC). By means of the six inputs defined by this framework (financial, manufactured, intellectual, human, social & relationship and natural) we describe our input, output/outcome and impact. This model is the basis of our integrated annual report. Our inputs, through which we create impact for society, are influenced by our strategy, our core tasks, how we balance our decisions and how we operate. All of these are described in this chapter. More information on the specific inputs, our related outputs, outcomes and impacts are disclosed in the chapter 'Our Performance in 2020'.

The way we aim to create long-term value for the greater good is defined alongside the six inputs from our value creation model. Here we aim to:

Deliver a high security of supply. We have extensive experience in operating the electricity grid and have a clear vision on how to design the system to secure supply efficiently and effectively. This is how we deliver on our promise and fulfil our role to keep the lights on in a way that is sustainable for years to come.

Ensure critical infrastructure for society. We build and maintain the electricity grid, which has a vital role in the lives of our stakeholders. With the materials and products we use to build and maintain our grid, such as our cables, stations and interconnectors, we realise the critical

infrastructure that enables us to transport electricity. This supports the daily lives and activities of people and businesses in the areas we serve.

Create a sustainable workplace. Our people are our most important assets and essential to realising our ambitions. Our programs and actions, how we train our people and how we create an inclusive environment where people are energised to work, help us create a stable, safe and sustainable workplace.

Create value to transition to a low carbon economy. Our aim is to drive the energy transition. Realising our investment programme and innovation portfolio will contribute to achieving the climate targets in the Netherlands and Germany, which is essential to achieving a low-carbon economy. Looking at our business from this point of view, we create positive impact by connecting renewable energy sources to the electricity grid. This however does have an impact and dependencies related to the use of energy sources, the natural environment and the materials we need to build, operate and maintain our grid.

Secure a solid financial performance and investor rating. In order to create long-term value, we are focussed on maintaining a healthy financial position. Our main sources of funding are our regulatory revenue and externally raised capital, which is increasingly from 'green' financing. Maintaining our strong credit rating by retaining a balanced equity to debt ratio is essential to safeguard our financial health, lowering our financing costs and delivering a return on capital that meets the expectations of our capital providers.

Solve societal challenges with stakeholders and through partnerships. We operate in a multi-stakeholder landscape. We need to build strong relationships with our stakeholders to fulfil our societal role. On the one hand, this is visible in the connections we make as we undertake our projects, such as engaging with local communities, NGOs and local governments to gain acceptance. On the other hand, we also aim to build new relationships through partnerships. These forms of collaboration are essential to find the answers and innovations we need to shape the energy landscape of the future. Our current relationships and social connections help us achieve this and we aim to expand these further.

Our ambition is to show our societal impacts as part of our value creation. We have succeeded in doing so for some areas and are further developing other areas in the coming years. This year, we started to show the societal impact in

two important new areas: the societal value related to the availability of our grid and related to connecting more renewable energy to our grid. The latter is shown in the tonnes of CO₂ emissions that we have been able to avoid in 2020 and the equivalent number of households that has been to switch to 100% renewable energy in 2020. More information can be found in the chapters '[Deliver a high security of supply](#)' and '[Create value to transition to a low carbon economy](#)'.

Explaining how our strategy creates value

Our Integrated Annual Report 2020 has been set up alongside the outputs of our value creation model.

The image below shows how this is connected to our four strategic pillars and where more information about each topic can be found.

Connectivity table

Strategic pillar	Chapter	Topics in materiality matrix	Key KPI's	SDG
Overarching	 	<ul style="list-style-type: none"> Stakeholder engagement 	<ul style="list-style-type: none"> Internal engagement index Reputation survey 	
 Energise our people and organisation		<ul style="list-style-type: none"> Health and development of our people Diversity and inclusiveness Safety Talent attraction 	<ul style="list-style-type: none"> Absentee rate % female inflow Total Recordable Incident Rate 	
 Secure supply today and tomorrow	 	<ul style="list-style-type: none"> Security of supply Responsible supply chain practices (Cyber) security Accessibility of our grid 	<ul style="list-style-type: none"> Grid availability Investments 	
 Drive the energy transition	 	<ul style="list-style-type: none"> Our own environmental impact Driving energy transition Stakeholder engagement Strategic partnerships Driving energy transition 	<ul style="list-style-type: none"> Sustainability performance # of GW of new flexibility # of scalable / scaled system initiatives 	
 Safeguard our financial health		<ul style="list-style-type: none"> Financial health 	<ul style="list-style-type: none"> Adjusted underlying EBIT group ROIC Group Adjusted FFO/Net debt Group 	

About our connection with our stakeholders and the world around us

Our stakeholders

TenneT is a key player in the European energy landscape. Our vital role involves a wide range of stakeholders, including shareholders, local communities, employees, regulators, investors, NGOs, politicians, media, customers, suppliers and other European TSOs. Strong collaboration with partners is needed to drive the energy transition.

On a daily basis, we interact with our stakeholders and we aim to manage our relationships in the best way possible. Every two years, we conduct a survey to assess how well we are performing in the perception of these key stakeholders. The most recent survey has resulted in a 'fairly strong to very strong' reputation among them. Furthermore, we strengthened our organisational structure in 2020 so we can work more closely together with local

communities impacted by our projects. This helps us connect even better with people that are living in areas where we plan to build new infrastructure. In dialogues (workshops, talks, events and online sessions) we are building awareness and understanding. In these interactions, we listen to the concerns of local stakeholders to see how we can address them properly. We measure our community relations efforts through stakeholder surveys.

To read more about our stakeholder outreach, please visit our [corporate website](#).

These are examples of how we interact with our stakeholders. If you would like to know more about our stakeholders and what we have done, please visit our corporate website.

The external developments we (fore)see

In this section we describe important developments facing us now and in the future. Due to the nature of our business, we need to look far ahead, as far as 2050. If we want to realise our goals regarding these timeframes, we must start preparing now.

Economic developments

We expect that volumes will increase due to the global trend of electrification. That is reason why we keep on investing in our grid to make sure that we are able to transport electricity from where it is generated (e.g. from wind farms at sea) to where it is consumed. In each scenario we foresee, we need to significantly invest in our grid.

Furthermore, we see our customer base is changing. As technical developments and government incentives make renewable energy sources more accessible, our customer base will include more so-called 'flexumers', identified as consumers who also deliver electricity back to the grid.

Political developments

Governments are stepping up their ambitions to tackle climate change and accelerate the transition to a low carbon economy. The European Commission announced its 'Green Deal' in 2019 with a new target to reduce its carbon

footprint until 2030 by 55% instead of 40%. This is an important milestone on the path to becoming the first climate-neutral continent on the planet by 2050. The Green Deal is an umbrella for approximately 50 legislative initiatives touching on every part of TSOs business. It includes i.e. the EU climate law, the EU offshore strategy, the EU sector coupling strategy and the EU taxonomy legislation. Within the current draft of the EU taxonomy legislation, electricity TSOs' investments are classified as "sustainable" investments which has a positive impact on our strategic pillar "financial health". And the new US administration decided to rejoin the Paris Agreement.

Elsewhere, China is raising its climate ambitions, as well as Canada. And the new US administration decided to rejoin the Paris Agreement. In 2019, TenneT sharpened its strategy to support the strengthened climate ambitions of the Dutch and German governments. This requires close cooperation with governments, regulators and other stakeholders. In this context, the legislative and regulatory frameworks in Germany and the Netherlands should help us to fulfil our role, not slow us down. However, in the energy landscape, we notice that current developments in technology, innovation and societal demand and

acceptance are changing at a pace that our regulators cannot always keep up with.

To meet the 55% target set by the EU, both the Dutch and German governments are expected to speed up their CO₂ reduction efforts in the transition from conventional electricity generation to renewables. In Germany, the 'Kohleausstieg' (coal phase-out) and shutting down of coal-powered plants such as in the Netherlands are recent examples. We see that the energy mix is increasingly greener, as the contribution of solar and wind energy grows each year. For TenneT, this means that many additional wind farms will need to be connected and integrated into the energy system before 2030. Clarity is already needed in 2021 on the designation of new offshore wind areas in the North Sea. This creates new challenges. Many new renewable energy sources, often at locations far away from our existing grid, need to be connected. This also fuels discussions about the need to maintain our high level of grid redundancy, the so-called n-1 criterion. Another constant challenge is to balance the grid with a higher infeed of renewables, which is typically intermittent. In this context, we must prepare for situations when there is no sun or wind ('Dunkelflaute'). We are therefore working hard to innovate, invest in and support new technologies, such as better weather prediction models, dynamic line rating, green hydrogen and decentralised flexibility that we can call upon for balancing the supply and demand of electricity. We also are keen to unlock innovation through the stakeholders we work with and to encourage governments and regulators to remove barriers to help us find new solutions and partnerships.

In the Netherlands, the cabinet serves in a caretaker capacity as of January 2021. The result of this is that the Dutch parliament decided on topics that are considered to be 'controversial' and therefore are postponed for a new cabinet to follow up on after the elections in March 2021. Important topics for TenneT are fortunately not considered to be 'controversial' and are not affected by the resignation of the Dutch cabinet earlier this year.

Other developments (including megatrends)

The materials we use have a limited supply. Resource scarcity is a trend we take seriously. Therefore we include it in our strategy with our circularity ambitions and our aim to lead as a green and responsible grid operator. This helps us ensure we are a sustainable and resilient company that can serve our customers now and for generations to come.

We also see scarcity in human resources. Our people are our most important asset. We are currently working diligently on multiple levels to ensure we are best equipped for future growth. With our Transforming TenneT programme, we are able to face the challenges ahead. The scarcity of technical talent, combined with demographic changes such as the ageing society, are relevant risks for us which we are actively working to mitigate.

The current COVID-19 pandemic is an unforeseen development with a global impact. As with other businesses, it has taught us new ways of working. The implications and opportunities of working remotely affect our current and future employees. The same goes for our potential contractors in tender procedures. Information can be found in our 'Create a sustainable workplace' chapter.

As we build our grid, the need for more critical infrastructure is challenged by growing urbanisation and the scarcity of available land routes. Space is getting tighter which requires creative and innovative solutions. We are in continuous dialogue with governments, NGOs, local communities and other critical infrastructure companies to find acceptable solutions. Fostering consensus, understanding and acceptance among our stakeholders is crucial and it is not always easy to find a balance between the needs of the parties involved. Building a reliable, affordable and sustainable grid requires us to take all demands into consideration to try to find the right balance. That is the balancing act we need to perform, all the time. This inevitably means that we need to make choices. That is why we believe that we have a key role to play in moving to a low carbon economy and driving the energy transition. We will work together with our partners, bring everybody to the table and work on solutions that last for decades to come.

The Sustainable Development Goals and TenneT

The Sustainable Development Goals were determined by the United Nations as the new global goals where member states should work on together which they should translate to national policy. The aim is to create a sustainable future for all people. The cooperation between governments and other important partners such as businesses and NGOs are key in ensuring that we can achieve these goals together. TenneT has embraced these Sustainable Development Goals (SDG). In 2018, we assessed the way we aim to contribute achieving those goals.



Our main global challenge

The world is facing major global challenges, including climate change. This affects TenneT's core business. At the same time, this is the global challenge our choices and business conduct have the most impact on. That is why we have identified SDG 13 as the main societal challenge we contribute to. How do we ensure a transition to a sustainable energy system at a socially acceptable cost while maintaining security of supply? The impact of climate factors is also becoming increasingly important in our activities and business operations.



Ensure access to affordable, reliable, sustainable and modern energy for all

To us, SDG 7 is one of the SDGs we feel that we contribute most with our core business activities. The underlying target we contribute to is target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix. This is clearly reflected in TenneT's activities. We are investing in connecting offshore wind farms for around 26 GW. In 2020, two large offshore projects were completed: Borssele Alpha near the Dutch coast in the North Sea and BorWin3 in the German North Sea, connecting an additional 1.6 GW of offshore wind energy to our grid. Onshore, we are facilitating the fast-growing supply of solar energy with grid extensions and smart solutions. With this, we are able to contribute to the increase of renewables in the energy mix in the Netherlands and Germany and to drive the energy transition.



Build a resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

Another main SDG our core activities can contribute to is SDG 9. Our societal role is linked to target 9.1: Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

By ensuring that we drive the energy transition and by operating as a European TSO, we support economic development and human well-being by empowering society, as our goal is to secure supply not only today but also tomorrow. To ensure that our grid is reliable, sustainable, resilient and of high quality, we invest in our grid. By designing a grid that is able to secure supply now and in the future, considering a changing energy mix. By building and maintaining our grid and by connecting our grid to other European countries around us, which helps us to operate the grid and ensure a high grid availability for the areas we serve. An example of this is the progress we made with respect to NordLink, the first direct power connection between Germany and Norway. The high-voltage DC link will enable the exchange of 1,400 MW of renewable energy – wind power from Germany and hydropower from Norway. NordLink is thus making a contribution to the energy transition in Germany and Europe. Completion is expected in early 2021, which will bring our total of interconnections up to 16. By increasing the number of interconnectors, we create more opportunities to import and export electricity. This can benefit a more cost-efficient supply, as electricity with a lower price on the other side of the border can be imported and could create positive effects to make supply of electricity more affordable.

Furthermore, we also continue to investigate the way we can make our grid more resilient, for instance due to the effects of climate change. Extreme weather conditions and or chronic physical risks such as rising sea levels are factors we consider. More information on this has been included in our [Key risks](#) section.

Other SDGs

Next to this, we are aware that in the execution of these activities, we also have an impact on other SDGs. This relates to SDG 5 and SDG 8 when we look at policies relating to our people (including our contractors) and SDG 12, SDG 14 and SDG 15 with respect to the choices we make that affect our planet. SDG12 for instance, relate to our circularity ambitions, which also has an effect on climate change. Reducing the use of virgin materials, such as copper, will have a positive effect on the planet and climate change as this will avoid emissions in the extraction phase for instance.



How we addressed the effects of the COVID-19 pandemic

As the pandemic struck, we quickly adopted all measures imposed by both the German and Dutch governments. As for many other businesses, emergency public health measures had a significant impact across our organisation. We adapt to the new circumstances and implemented innovative new ways of working to ensure business continuity with minimal disruption. We are proud of how our employees adapted to these new circumstances. In total, 103 colleagues became infected by COVID-19 in 2020.

To coordinate our response and manage new routines to ensure our people stayed safe during the pandemic, TenneT put its risk management measures into action. Specialist teams were set up to handle the situation: a crisis team, a business continuity team and a 'plan ahead'-team.

What was the impact of COVID-19 on TenneT's strategy?

Securing supply today and tomorrow

To secure supply today and tomorrow, our maintenance and construction projects are key. In this regard, the COVID-19 pandemic presented further challenges in 2020. For example, the limited availability of materials created some initial backlog in our maintenance schedule.

By sharing and moving essential supplies between projects – such as steel for overhead lines – we tried to minimise disruption as much as possible. We reached out to all our contractors to keep in touch and help each other where possible, for example when bottlenecks occurred or planned deliveries had to be postponed. We appealed to all our partners to remain reasonable and flexible and supported them where possible.

Looking ahead, we might face possible delays to future projects as public health restrictions have made the usual planning and permitting process hard to sustain. This is particularly true for our onshore projects, where the permitting process relies on face-to-face stakeholder meetings in local communities. In line with government safety measures, all of these in-person meetings had to stop during the pandemic. Some of these can now continue online, but the knock-on effect from the delay in this essential pre-construction activity will pose challenges. We did however demonstrate good progress with online consultations in 2020. We successfully held virtual tender meetings with potential suppliers for our SuedLink, SuedOstLink and BorWin5 projects. This is the first time we have virtually engaged with suppliers during a tender process. The success of the negotiations showed the possibility for this efficient way of working in the future, requiring less travel time and expense.

Despite the challenges in 2020 caused by the pandemic, we were determined to keep our investment portfolio on track. During the year, we maintained the momentum of our ambitious grid expansion and investment programme.

Driving the energy transition

Closures and emergency health restrictions in some of the international ship yards where we construct our offshore platforms put the timescale of several projects under pressure. Fortunately these did not cause any critical delays. In many cases, our teams locked down on-site – staying away from their families on end to keep construction on track.

A fortuitous by-product of the restrictions imposed during the pandemic had a favourable effect on some elements of our CO₂-footprint, due to fewer people travelling to work and lower energy consumption at our offices.

Energise our people and organisation

During 2020, the pandemic impacted the roll-out of our new TenneT organisation. The inability for colleagues to meet in person was a particular challenge for the formation of new teams. However, the pandemic also provided an unexpected opportunity to accelerate the process of change, helping to embed new ways of working faster than might have been possible otherwise. For example, cross-border teams in the new organisational structure quickly adapted to remote working routines that foster virtual collaboration. Leaders of the new units – including leaders who had not previously led remote teams – have been trained in the skills of motivating and collaborating with their teams in a virtual setting.

Aware of the need to care for mental well-being during the pandemic, we are also providing training in the psychological aspects of people management, building empathy, self-awareness and psychological safety skills. Throughout this period, TenneT continued to recruit and we welcomed 818 new colleagues in 2020. Our onboarding and application process was brought online, so necessary vacancies could still be fulfilled.

As well as giving our employees the opportunity to improve their home office, we also paid attention to their personal circumstances. We are conscious that working from home involves specific challenges for different people, both physical and mental. Making sure our people stay connected with their colleagues and paying attention to work life balance and exercise are particularly important in the new reality. To facilitate this, we shifted our health and vitality initiative,

Always Energy, into an online programme and provided webinars and real-time engagement to ensure the wellbeing of our colleagues was fully supported.

Safeguarding our financial health

Specific to the COVID-19 situation and this strategic pillar is the situation regarding our EEG levies. Together with the three other German TSOs, TenneT is responsible for the financial management of the 'Renewable Energy Sources Act' (Erneuerbare Energien-Gesetz (EEG)), which has a significant impact on TenneT's cash flow, although it does not affect our financial performance. Based on this law, German end-users pay a levy to finance the green energy transition in Germany. The EEG levy is used to subsidise the EEG feed-in tariffs which are paid to producers of renewable energy who receive a guaranteed price for their produced green electricity exceeding the market price. The EEG levy is determined based on forecasted renewable energy volumes and electricity prices for the subsequent year.

To prevent negative EEG balances and the necessity of additional short-term bridge financing, a liquidity buffer is included in the EEG levy. TenneT raised an additional 12-month liquidity financing of EUR 1.5 billion and uncommitted financing of EUR 0.5 billion in 2020 at very low interest rates, to cover for the effect of significant unforeseen variations in renewable energy volumes and wholesale electricity prices. This will be revised in 2021.

Forward looking statements on COVID-19

The general expectation is that the impact of the pandemic will decrease during 2021, especially with the roll-out of vaccinations. Up to now we consider ourselves fortunate that the effects are low, but the longer the lockdown scenario stays, it might have an impact on our business. We remain focussed on strengthening the resilience of our people and we will closely monitor developments. Looking ahead, the shift to virtual working has opened new possibilities for attracting talent. Being located close to one of our offices is no longer so essential, allowing us to draw on a broader geographic and more diverse talent pool. For example, we are now accessing labour markets in Spain, Romania, Poland and other European countries. To extend this opportunity, we are undertaking a new accelerator project in our People Unit to help us tap into new talent pools, with an emphasis on building a more attractive employer brand and using new communications techniques to connect with potential candidates.

Performance in 2020

We describe our performance in 2020 in the following six chapters, each describing one of the six outputs/outcomes as mentioned in our value creation model.

Deliver a high security of supply

TenneT has a crucial role to fulfil for society. We are entrusted with transporting electricity and ensuring a secure and reliable supply of electricity 24 hours a day, 7 days a week and 365 days a year. This is what energises and connects everyone who works at TenneT.

Securing a reliable supply of electricity every day, around the clock, is not an easy task. TenneT operates the grid in the Netherlands and a large part of Germany and as a European TSO, we are also connected with other grids in Europe via 15 cross-border interconnections. These play an important role in strengthening the security of supply in Germany and the Netherlands.

With knowledge and experience built over the last decades, we are dedicated to the secure supply of electricity at present and far into the future.

The challenges of doing so are growing. There is an increasing appetite for and dependence on electricity and we operate in a more dynamic and volatile energy landscape, with a higher proportion of renewable energy sources coming into the grid. TenneT is ready to find solutions to these challenges, through the strength of our employees and partnerships with others.

Our performance in 2020

Onshore grid availability 2019: 99.9998% 2018: 99.9988%	Performance	Target	Status	Trend
	99.9999%	99.9996%		Our onshore grid availability was one of our best performances in the past decade.
Offshore grid availability 2019: 93,2% 2018: 94,5%	Performance	Target	Status	Trend
	94.03%	93.97%		Our offshore grid availability was above target.

Securing supply today

We operate our grid from four control centres, two in Germany and two in the Netherlands. From these locations, we can operate the grid, monitor the stability and performance of the network and internationally coordinate beyond our borders. As a European TSO we have a shared responsibility to ensure a stable electricity supply throughout the continent.

Operating the grid to ensure a secure supply means constantly maintaining the balance between real-time supply and demand of electricity. In order to do this, we must plan days, weeks and months ahead to make sure that supply and demand are aligned. TenneT's teams plan and manage this balance on a daily basis, tackling challenges as they arise.

One of these is the rising amount of renewable energy sources (RES) being connected to the grid. In 2020, these increased by 3% compared to 2019. Overall, RES in-flow into our grid has increased by 40% compared to 2015.

The infeed of renewable energy can be volatile. If more or less electricity than expected is provided, this can create additional challenges for our system operations teams and the market participants, such as generators, Balance Responsible Parties (BRP) and customers. This occurred for example in June 2020, when we saw a steep increase of the RES in-feed into our grid and the grid of the DSOs. This required us to disconnect wind and solar farms to avoid overloading our 150 kV network in the Netherlands. To reduce the risk of this happening again, we are improving our weather forecasting tools to make our RES predictions more accurate.

Another example occurred on September 15th 2020, when we faced a new challenge in a large part of the Western European grid. In the early evening, there were very high electricity wholesale and imbalance prices, caused by high demand during high temperatures. This situation was combined with a shortage of electricity production. Low production was caused by very low wind infeed together with a fast decrease of solar infeed caused by the sunset. Conventional, gas and coal-fired electricity production could not meet the required steep ramping up rates.

Thanks to the ongoing efforts of our teams, we maintained our high security of supply in 2020, with an onshore grid availability of 99.9999%. This is among the highest reliability levels in the world.

Although we are proud of this achievement, it does unfortunately mean there were still occasions when we experienced interruptions in our supply of electricity. One such instance occurred in March 2020, in our Eindhoven-West substation. Although the outage lasted only a few minutes it impacted almost 50,000 households.

Maintaining security of supply also depends on our ability to expand and modernise our grid and to keep it in the best possible condition. To perform essential maintenance work on our infrastructure, planned outages are necessary for our people to work safely. As our project portfolio grows, we need to be able to execute these planned interventions and outages more frequently. We also coordinate planned outages internationally, to ensure cross-border connections remain open at all times.

We report our onshore and offshore grid availability separately, since they are technically different. Our offshore connections have less built-in redundancy than our onshore grid. We reported an offshore grid availability of 94.03%, which was on target (93.97%) and higher than last year. Although we are pleased to have achieved this, we also regret instances where defects appear. An example of this is the COBRACable interconnection between Denmark and the Netherlands. In September 2020, a defect related to the sea cable was discovered. As a result, it was cut at a depth of 40 metres on the seabed and lifted up to find the exact fault locations and to replace them. Following this work, the COBRACable was operational again at the beginning of 2021.

Securing supply tomorrow

As well as securing supply for consumers in our service areas in 2020, we are also focused on fulfilling our responsibility in the future.

An important requirement to achieve this in a fast-changing energy landscape is finding new sources of flexibility to balance demand and supply and manage grid congestion. Until now, flexibility has been mainly sourced from fossil fuelled power plants, which increases and decreases production depending on the power system's needs. However, as the share of renewables in our electricity mix is expected to continuously grow in the next decades fossil power plants will be less and less available for system and grid balancing. Hence, maintaining today's high level of security of supply requires the early development of alternative flexibility sources.

We are working on new solutions to create more flexibility and in 2020. We are becoming more dynamic and innovative in the way we access flexibility in the markets, using daily automated trading to tap into available power in the fastest and most efficient way.

As well as making more efficient use of the markets to meet our flexibility requirements, we also pursue technological innovations. An example is the launch of our Equigy project in April 2020. TenneT, Swissgrid (the Swiss TSO) and Terna (the Italian TSO) formed a consortium to develop a standardised European electricity crowd balancing platform. Supported by blockchain technology, the platform allows TSOs to build flexible balancing reserve by tapping into the power stored in decentralised devices, such as electric vehicle batteries and heat pumps. By allowing TSOs to access the electricity stored in devices like these, consumers can take part in the energy system and be compensated accordingly. In December, the four founding TSOs established Equigy as a company.

Another important development to futureproof our systems is our Control Room of the Future programme. This initiative includes the update of our current operational system, which is used by our controllers to execute all our transport and system services. More information on this and other projects can be found in [‘Solve societal challenges with stakeholders and through partnerships’](#).

Facilitating the market

TenneT believes that an integrated European electricity market best serves the people and businesses in our area. It also allows neighbouring countries to work together for a more secure and stable supply of electricity. Therefore we work hard to connect our grid to the countries around us and continue to expand and improve our interconnection network. An example of this is our NordLink project.

This direct current interconnector links German wind power to Norwegian hydro power. This project has transported its first megawatts of renewable energy in final trials. Completion is scheduled for early 2021.

Societal impact due the availability of our grid

Transporting electricity to large industries and via DSOs to millions of households literally powers and empowers society. This is our main task and also our main societal impact as a company. Designing, building, maintaining and operating a grid that is available all the time is the most important impact TenneT can have for society. To ensure that the people living in the areas we serve are able to live their lives and organisations can do their work. Achieving this impact requires each part of the energy supply chain to work together, therefore this achievement is not just the result of merely our role, but this is an estimated societal impact we make together with others in the supply chain, such as electricity generation companies and distribution system operators. Nevertheless, having an electricity grid that was available to supply electricity to its customers for 99.9999% of the time onshore creates value. To investigate how much value this creates, we used academic research as a basis.

The supply of electricity has a certain value, which we used in our assessment. This year, we decided to start with the estimated societal value as a result of the availability of the Dutch part of our grid, as the research is related to the Dutch situation. This assessment shows that the estimated societal value created by the availability of our grid surpasses the gross domestic product (GDP) of the Netherlands, which was over EUR 800 billion in 2019. This is because the supply of electricity does not only create economic value, but also broader and more intangible estimated societal impacts, such as being able to enjoy leisure time. For more information on this assessment and our methodology, please refer to the Additional CSR document on our website. We will continue to further develop this and other societal impact indicators in the next years and invite other to help us with this.

Cyber security

Delivering a high security of supply is only possible when we have taken all steps to ensure the integrity and stability of our grid. This requires us to consider all risk scenarios, including potential security threats ranging from copper theft to terror or cyber-attacks. We treat the possibility of a severe outage resulting from security incidents and attacks with the utmost severity. A successful attack cannot be ruled out entirely, despite us having physical and digital prevention measures in place that are continuously assessed, optimised and tested. To this end, we develop, align and carry out contingency plans together with national authorities.

What could prevent us from realising our goals?

In 2020 the COVID-19 pandemic was the main challenge to ensure a secure supply of power. It is likely to continue presenting challenges in 2021. In the first half of 2020, TenneT was able to prove its level of preparedness. However, the continuing public health measures and ongoing uncertainty about duration may lead to a critical increase of the sickness rate (physical and mental) within companies in the power supply chain.

Aside from COVID-19, the further increase in the infeed of renewables continues to present challenges for how we operate our grid in its current form. Essential investments are required to ensure our grid is future-proof and can facilitate the energy transition. We continue to develop new and innovative ways to improve our way of working to secure supply of electricity today and tomorrow. TenneT has defined and started multiple strategic initiatives to ensure the preparedness of the grid. Uncertainty remains on potential political decisions, on a national and/or European level concerning the phase out of conventional energy production and the future expansion of renewables. These changes may influence (re-)investment decisions of power producers, resulting in a shortage of electricity production and thereby reducing the options for TSOs in the connected European grid in the short term. However, in the long term, this should help the evolution of a green grid.

New technology plays a crucial role in mitigating risks related to security of supply. In particular, TenneT sees opportunities in the field of digitalisation and resulting possibilities in automation, robotics, prognosis and block-chain technologies to improve the utilisation of the grid, without increasing operational risk. In this regard, we are exploring the potential of big data to improve our capacity to predict the weather and assess levels of consumer demand. Sophisticated data analytics can also help us

determine the condition of our assets and reduce demand on the grid at peak times by connecting decentralised batteries.

Technological innovation plays an important role in achieving the ambitions of the energy transition. Although there are many innovations in the energy sector, there are currently no decisive breakthroughs that will simultaneously guarantee security of supply, affordability for society and competitiveness of industry prices. It is not yet clear which technology developments hold the most promise.

We assume it will most likely be a mix of digitalisation, big data, market and price models, sector coupling, new types of cables, lines and other assets to transmit energy. As new technologies are introduced, either physical assets or software solutions, there could be an increased risk of outages caused by malfunctioning. TenneT demands high quality standards from its suppliers and service providers. As an additional measure, TenneT builds test procedures, test periods and guarantee periods into its project planning and supplier contracts. As such, TenneT is actively involved in defining standards and developing partnerships with market partners and suppliers.

An example of this is related to an increased demand for underground cabling. As this is rather new technology for extra high-voltage, both AC and DC, we partnered up with others in pilot projects. The level of maturity of these projects is still to be proven, but with this, we are working together with others to find new solutions.

In the longer term, these uncertainties can be added to those surrounding the level of European collaboration to foster cross-border solutions, progress with sector coupling, integrated decarbonisation and the ongoing politics of the green industry.

In addition, cyber and terror risks remain an ongoing risk across our sector. To ensure we can handle cyber-related risks and any repercussions, we continuously work on understanding our cyber risks (and how best to handle them) in collaboration with internal and external allies. We have ISO 27001 certification for information security in place in Germany and underway in the Netherlands. We also carry out penetration tests and crisis management exercises every year.



“Safety got a new connotation during this strange time”

Herman Harreman
Site Manager DoWin5

Deliver a high security of supply

Locked down in Dubai

TenneT colleague Herman Harreman stays committed to critical project during lockdown

When the COVID-19 pandemic forced parts of society to shut down in 2020, many of TenneT's specialists working in the field went into lockdown on location, so they could continue to work on our critical projects. With no possibility for travel, this meant some of our people spending long periods away from their families in far-away countries.

Herman Harreman, who has travelled extensively for TenneT throughout his 27-year career, is an example. When he said goodbye to his wife in January to work on the construction of our HKZ Alpha and Beta platform in Dubai, he expected to be home again before long. Little did he know he wouldn't see her or his family again until October, as his team went into lockdown in Dubai, with no possibility for overseas travel. “Due to supply more than one million households with clean wind energy per year, HKZ Alpha and Beta is a crucial project for TenneT and society as a whole. The company needed the team to stay to continue working on the project, so it didn't fall behind schedule. I was happy to do this, but it was a challenging time. Our team of about 15 people was effectively confined to solitary lockdown, including three weeks when we could not go out at all in Dubai.” Thanks to the team's dedication and commitment, the project was not delayed by COVID-19.

Back home, the TenneT team did everything they could to help Herman and his colleagues in the field. “I stayed in very close daily touch with the COVID-19 crisis team at our head office, which made us feel supported and connected. We also made sure we had regular online gatherings among our team to make sure everyone was doing ok,” says Herman, who was officially in charge of safety. “The meaning of safety in a broader sense took on a new meaning for me during this strange time,” he adds.

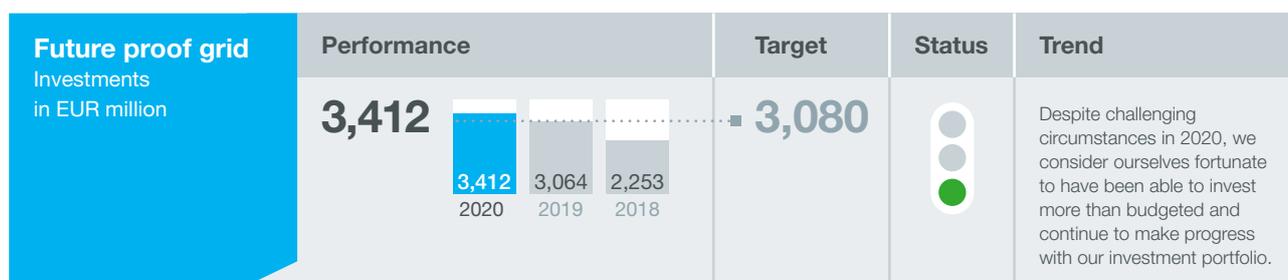
Ensure critical infrastructure for society

At TenneT, our unwavering task is to provide society with a secure and sustainable supply of electricity, while driving the energy transition and facilitating the European cross-border energy market.

Our extra high-voltage electricity grid forms the backbone of this mission. It transports electricity over long distances, providing power to homes and businesses across our region. With the materials and products we use to build and maintain our grid, such as our cables, stations and interconnectors, we create the critical infrastructure that people and businesses depend on every day.

In the years and decades ahead, the decisions we take to develop the onshore and offshore electricity grid will play a vital role in setting the pace of the energy transition. Connecting more and more renewable energy sources to the grid and safely transporting green electricity over long distances is a technological and engineering challenge, and a mission that we are proud to fulfil.

Our performance in 2020



Despite the challenges in 2020 caused by the COVID-19 pandemic, we were determined to do our utmost best to keep our investment portfolio on track. We sustained the momentum of our ambitious grid expansion and investment programme, continuing to meet the demands of the energy transition, while maintaining a secure and affordable supply of electricity. With annual planned investments growing to EUR 5-6 billion within the next 5 years, TenneT is heavily investing in the energy transition in Europe, making an important contribution to meet national climate targets and to connect society to a brighter energy future.

We invested EUR 3,412 million in the Dutch and German high-voltage grids in 2020, an 8.9% increase compared to EUR 3,064 million in 2019. We are proud that 2020 was a record year of investment for TenneT, achieved under challenging circumstances.

Despite the global pandemic, we worked hard to meet the milestones of our grid expansion plan, with some projects even completed ahead of schedule.

The way that our people lived up to our principles to achieve this, particularly our teams in the field, was inspiring. Our ability to stay on schedule, as much as possible, was also helped by bringing in flexible labour from abroad and by sharing and moving essential supplies – such as steel for overhead lines – between projects. With this level of logistical agility, our principles of ownership, courage and connection were truly demonstrated by everyone involved.

Of course, COVID-19 caused challenges and setbacks. Closures and lockdowns in some of the overseas shipyards where we construct our offshore platforms put the timescale of several offshore projects under pressure, but fortunately these did not cause any critical delays in 2020. In many cases, our teams locked down on-site – staying away from their families for weeks in order to keep our work on track. Strengthened by this determination in the face of adversity, we were able to complete and commission several key projects on budget and on time and we also began work on milestone projects for the future.

During 2020 we submitted our onshore and offshore investment plans to our regulator in the Netherlands, the Authority for Consumers and Markets (ACM), which is a

bi-annual requirement. These plans contain the measures and investments needed over the next years to keep the quality and transmission capacity of the electricity network in the Netherlands at the desired level.

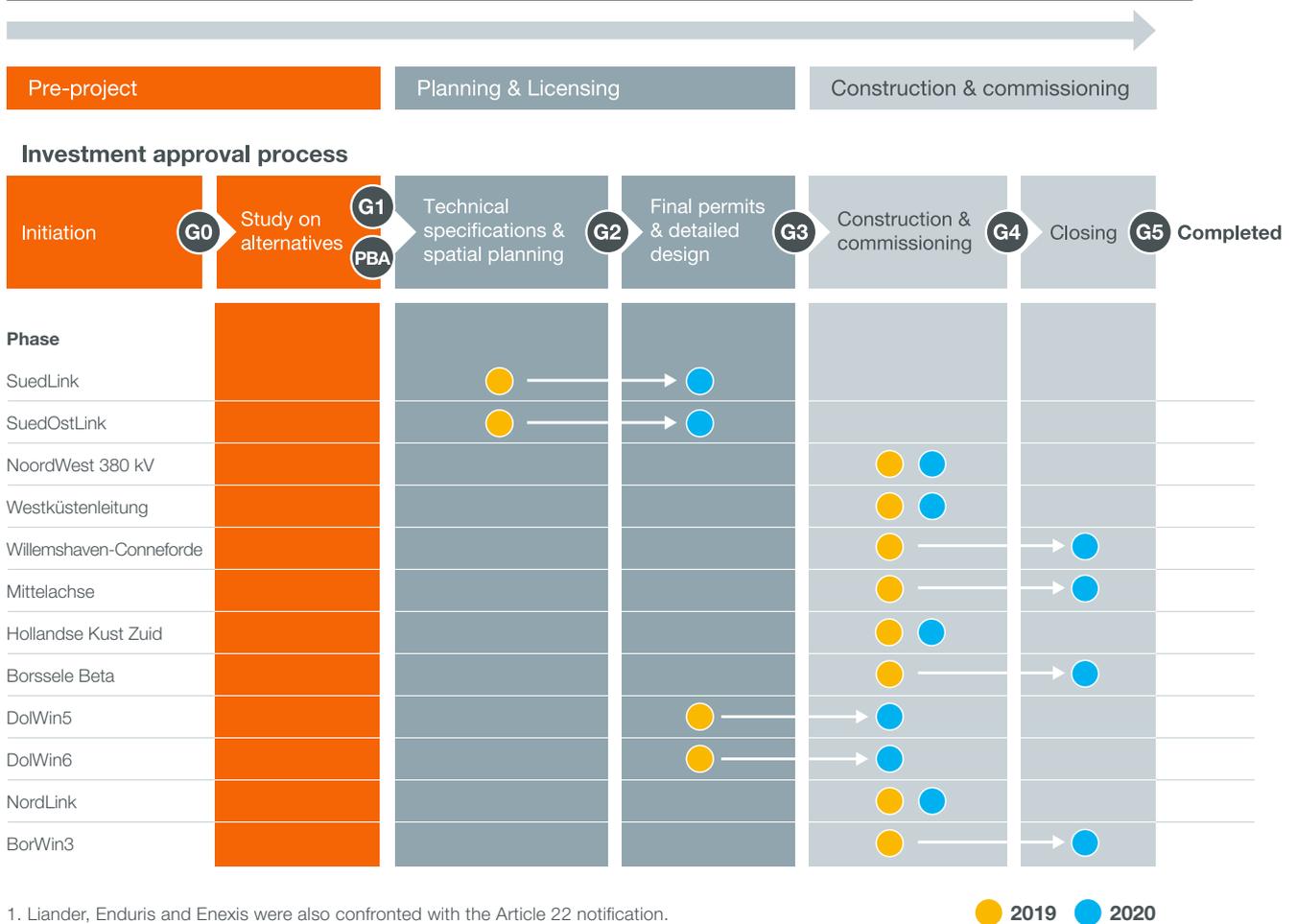
The ACM approved the investment plan therewith confirming the need and necessity of these investments. ACM however also concluded that TenneT cannot solve its capacity bottle necks in due time. Consequently ACM reported in accordance with Article 22 of the Electricity Act to the Minister of Economic Affairs and Climate (EAC) that TenneT is not capable of timely realising its capacity investments. In its communication ACM explained the underlying causes and stressed the importance of all parties working together to facilitate TenneT (and the other grid

companies¹) to realise the investments on time. Further details about our investment projects can be found on our [corporate](#) website.

Our progress with respect to our offshore investment portfolio

In 2020, governments at several levels set increasingly ambitious climate targets. The European Commission raised the bar by introducing a new target to reduce its carbon footprint by 55% in 2030, replacing its original 40% target. Furthermore, the European Commission also published its offshore wind strategy as part of the European Green Deal, with an ambition to create offshore wind capacity of 60 GW by 2030 and 300 GW by 2050.

Our progress with respect to key projects related to our investment portfolio



Our investment process can be divided into three phases. The Initiation phase starts with identifying capacity constraints. At this stage, it is decided to either accept the capacity constraint or to solve it with infrastructure. If the decision is the latter, the next phase is initiated. In the Planning & Licensing phase other elements are considered, such as the spatial planning of the project. When a final investment decision has been made, permits are requested and final design details are formalised. A project is tendered to award a contract for the Construction and Commissioning phase of the project. When the project is administratively closed, it is formally completed.

National governments are also setting increasingly ambitious targets for harnessing North Sea wind power and we continue to push ahead with our investment programme to help meet these goals. The German government has set a target to connect 6.5 gigawatts (GW) of wind energy to the grid by 2020 and 20 GW by 2030. This corresponds to the energy output of about 20 large power plants. TenneT has already exceeded the 2020 target, as our offshore connection systems provide more than 7 GW of offshore wind energy to the onshore grid. By 2030, TenneT expects to have seven more of these grid connections completed in the North Sea, which will lead to a total of more than 17 GW generation capacity.

The Dutch government is also targeting further expansion of offshore wind energy in the North Sea. In its Offshore Wind Energy Roadmap, the government states that 10.6 GW of offshore wind farms are expected to be built and connected to the onshore grid by 2030. This would provide an amount of electricity equivalent to 40% of the current electricity consumption of the Netherlands.

In order to be able to connect more powerful offshore wind farms and thus bring more energy onshore, TenneT pooled and further developed in 2020 the best practices from the

German 900 MW HVDC and Dutch 700 MW AC grid connection systems. The result is a new approach of connecting future grid connections with a transmission capacity of 2 Gigawatt (GW) by using 525 Kilovolt (kV) HVDC systems. This new 2GW standard aims to further reduce the costs of offshore wind to minimise the spatial and environmental impact and supports the vision towards larger offshore wind farms and a North Sea wide Hub-and-Spoke system, combining wind power connection, coupling of energy markets through interconnection and smart integration into the main onshore grids.

TenneT has committed to deliver at least five 525 kV high-voltage direct current offshore connections, between 2028 and 2030. We are creating a standardised way of working for these projects which allows us to realise these projects faster and at lower cost.

Offshore achievements in 2020

- At the beginning of 2020, the 12th offshore grid connection in Germany was completed with BorWin3. This brings the total connection capacity in the German North Sea to over 7 GW. We are rapidly moving to the next stages of our offshore developments.

Partnerships for North Sea offshore wind connection

For many years, TenneT has worked with partners to find solutions, including how we can harness the full potential of offshore wind. An important example of this is the North Sea Wind Power Hub (NSWPH) consortium – consisting of TenneT, Energinet and Gasunie. This started in 2016 to explore how to connect and integrate, securely and affordably, several hundreds of GW of offshore wind in the North West European energy system. In the summer of 2019, the consortium presented its findings in a series of concept papers. It concluded that a modular hub-and-spoke concept was technologically and economically the most advantageous. This would consist of a sequence of 10-16 GW hubs connecting offshore wind to (and providing interconnection between) multiple countries, combined with onshore or offshore power-to-gas. In October 2020, the NSWPH was awarded funding by the Connecting Europe facility

(CEF) for a maximum of EUR 14 million to develop this project further. With this support, the NSWPH will further explore the options for a first international hub and spoke project in the early 2030s. This will be undertaken through detailed technical and energy system related studies and extensive interaction with stakeholders. In December, the Dutch and Danish government signed an agreement of intent enabling TenneT, Gasunie and Energinet to carry out further research into a joint energy hub in the North Sea.

In 2020, TenneT also joined forces with National Grid, the British TSO. Together we announced a cooperation agreement to explore the feasibility of connecting Dutch and British wind farms to the energy systems of both countries via subsea interconnectors. The development would be the first of its kind for the UK and the Netherlands in the North Sea.

- In February, TenneT announced that two 2 GW offshore grid connections will be built in the IJmuiden Ver wind energy area, alongside the eight 0.7 Gigawatts (GW) AC grid connections already planned. Grid connections like this will be important to help the Netherlands achieve its target for 40% of all its electricity to come from offshore wind farms by 2030.
- In July, TenneT received the 'Grid Readiness' certification for Borssele Beta – a new high-voltage connection for the offshore wind farms Borssele III, IV and V off the southern coast of the Netherlands. It has a total capacity of 700 MW, equivalent to the electricity consumption of around 1 million homes. This essential project for the energy transition was completed one month earlier than planned, within budget.
- In August 2020, TenneT awarded contracts for converter stations and cables for the longest offshore DC connection to date – the 230 km connection for BorWin5 in Germany, with a transmission capacity of 900 MW.
- NordLink, the first direct connection between the German and Norwegian high-voltage grids, reached a milestone in September as it transported the first amount of renewable energy in final trials.

Our progress with respect to our onshore investment portfolio

- Important progress was made with the strategically important 700 km, EUR 10 billion, SuedLink project. This is the largest infrastructure project for the energy transition in Germany, connecting wind-generated electricity from Germany's north coast to energy-intensive industry in the south of the country. The commissioning of the cables for the link will take place in 2026 at the earliest. TenneT and fellow German TSO TransnetBW have opted to use plastic-insulated underground DC cables with a voltage level of 525 kV. As these can transmit more electricity, only half as many cables are required compared to a conventional 320 kV solution. Lower transmission losses and less civil engineering work mean the SuedLink cables will have a lower impact on the environment.
- A milestone was also reached in the SuedOstLink, a 580 km connection from near Magdeburg to near Munich in Germany. This is another important connection in the energy transition and a joint project together with another fellow German TSO, 50Hertz. The project managed to finish the spatial planning (Bundesfachplanung) as the first DC onshore Project. The permitting phase (Planfeststellung) has now begun and corridors are being worked out for the routing. In addition, contracts for the cable production and laying were awarded in Q2 and negotiations for the converter are progressing well.

SuedOstLink will thus establish another backbone for grid stability and transition capacity along the north-south axis of Germany.

- TenneT and Danish Energinet completed the expansion of one of the two existing interconnectors to improve market integration between Denmark and Germany. The project increases the cross-zonal connection between Western Denmark and Northern Germany to a maximum net transfer capacity of minimum 2,500 MW.
- In October TenneT brought the Wilster-West substation, in Schleswig-Holstein, northern Germany, into service. This is a central hub for the transport of electricity from the north to the south of Germany. In the future three new extra high-voltage lines from TenneT will converge here: West Coast Line, NordLink and SuedLink.
- Also in October, another important network expansion project for the energy transition went into operation – a new 380 kV line between Wilhelmshaven and Conneforde. The short 30 km line connects wind power from the coast into the onshore grid. This is also the first AC line in the German grid with two underground cabling cable sections in the 380 kV three-phase network.
- In the Northern Netherlands, TenneT is constructing a new 380 kV line between Eemshaven and Vierverlaten – Noord-West 380 kV. Civil works started in 2020 and the first pylons were erected at the end of the year. Furthermore, civil works started for the Zuid-West 380 kV West project, – a new 380 kV line to be constructed in the South West of the Netherlands.

Maintain the grid to meet reliability targets

Adequate maintenance is essential to operate our grid to its maximum capacity. We regularly assess if our assets are in the appropriate condition and perform maintenance, repairs and other activities until operational end of life is reached. The advanced application of data analytics increases our ability to predict failures and thereby the effectiveness of our maintenance strategies. We are harmonising and integrating our maintenance strategies across different geographies and asset classes to make use of these developments. Risk-based maintenance approaches, based on FMECA studies, aim to optimise overall risk and maintenance workload. Our maintenance strategy also focuses on maximising the efficiency of replacing end-of-life equipment at our ageing estate of substations. That is, our approach aims to keep our assets in the best operational conditions without needing significant down-time.

In the operations, two main trends are influencing maintenance activities: our aging network and inflow of renewables. Aging existing infrastructure leads to a large volume of replacement projects and increased maintenance

Sustainable supply chain practices

Our contractors and suppliers are important partners to realise our investment portfolio. We require them to adhere to our supplier code of conduct, particularly regarding sustainable practices. These are not only related to environmental impact, but also to moral, ethical and safe working standards. These standards are based on the principles of the UN Global Compact, which TenneT committed to in 2015. The labour principles are championed by the International Labour Organisation ILO. We are committed to the OECD (Organisation for Economic Cooperation and Development) guidelines, as are the Dutch and the German governments. For more information on this, please refer to the 'Additional CSR Data' document on our website.

As we rely on our suppliers to provide essential components and materials for our work, such as pylons and power lines, we want to ensure that none of them are involved, directly or indirectly, in conduct that does not meet our policies and quality standards. This can relate to product specification, environmental performance or human rights.

Our policy is to visit suppliers, ask them detailed questions on these issues and discuss with them how to make improvements where necessary. In 2020, we performed 24 supplier visits. It is our policy to not accept suppliers who fail to meet our standards. In 2020, 23 suppliers met our standards, or were given the opportunity to after taking corrective actions and 1 supplier was not approved.

In 2020, we joined six other international TSOs in a call for action to further integrate sustainability into procurement practices. TenneT sent a statement to over 2,000 companies we work with calling on them to work with us in making more sustainable choices. We are enhancing the way we manage human rights within our supply chain, by defining new metrics, monitoring and steering mechanisms. A scan performed in 2019 showed that our human rights risks are predominantly related to our supply chain as we buy our parts on the global market. The most salient issues identified were fair business practices, human rights, ethics and labour rights.

demands. At the same time, a substantial inflow of renewables is followed by a large increase in grid reinforcement and expansion projects, as well as new customer connections. The projects and maintenance activities that result from these demands require outage windows and technical resources. To meet the growing demand for resources, TenneT is not only actively working on increasing capacity of both internal and contractor staff, but also extracting efficiencies in the execution by integrating activities in the stages of planning and scheduling, as well as by introducing innovative methodologies and technology. To be concrete, the following developments can be mentioned: clustering maintenance activities and combining those with project activities, providing execution personnel with a real-time overview of allocated work packages, and introducing programs that not only allow TenneT to hire skilled personnel, build additional competences, but also to retain them in the long run. Furthermore, a roll-out of a new corporate ERP system, introduction of new mobile solutions in the field, use of

sensors and real-time data replacing physical inspections, as well as optimisation of digitalization (such as by use of Building Information Modelling) are to boost efficiency and yields from the existing data.

What could prevent us from realising our goals?

Society and governments expect a swift transition towards renewable energy. To ensure secure supply today and tomorrow the execution of a large investment portfolio is essential. This portfolio consists of investments in new assets as well as replacing, repairing and maintaining existing assets. This presents a high workload for TenneT and our entire supply chain. We face scarcities in markets for materials, resources, services and other supplies. This situation is exacerbated by demands from other TSOs, DSOs and other infrastructural companies worldwide as well as by the lack of skilled staff available to us and our suppliers in the labour market. This may lead to increases in prices as well as delays in the realisation of our investment portfolio.

To cope with this, TenneT has updated its supply chain management and focuses among other things on new sourcing models. These include long-term partnerships accompanied by improved demand planning and standardisation, revising harmonised contract models and tender procedures. We also actively support the development of new technology, production facilities and the sourcing of alternative suppliers and service providers. Furthermore, we employ external project management service providers to staff construction projects in the onshore grid. To counterbalance a lack of internal resources, we pro-actively perform analyses to ensure adequate succession planning.

Ageing infrastructural assets are a challenge in realising our investment portfolio. We continuously work to optimise our organisational processes, including lean decision-making, an emphasis on employee training, and the use of probabilistic schedule analyses. We have made additional resources available for maintenance work and are increasing the efficiency and flexibility of our maintenance programme by monitoring and simplifying internal processes. We consider bottlenecks in outage planning in addition to an increasing duration of unplanned outages still to be a risk.

In a highly dynamic market, there is a certain risk associated with the emergence of new players who may overstretch themselves, fail or go out of business. This may also increase a risk of unreliable supplier support or unavailability of (spare) parts. To mitigate these risks, TenneT assesses the financial stability of suppliers and prescribes the long-term availability of parts and services as one of its contractual pre-conditions.

In addition, our engagement with stakeholders treads a fine line between societal and local interests. What is good for and desired by society is not always welcomed by the local communities affected by our projects. We communicate with a large number of stakeholders, assess different technological options, routing options, interdependencies of work packages between different projects and challenges in the political environment. Delays in licensing (especially mandatory permits issued by authorities) as well as challenges arising from the use of innovative technology (e.g. newly designed 525 kV DC cabling) can also cause delays in project schedules.

TenneT mitigates these risks by identifying possible constraints and the cost of viable solutions in the early stages of the decision-making process, communicating transparently with regional stakeholders, working closely with authorities, enforcing high quality standards and closely monitoring our suppliers and deliverables. We are aware that we will not always meet the requirements from local opposition. The approval process is influenced by the wish to accelerate procedures but at the same time empower local authorities.

Certain environmental developments in Europe pose a challenge to us and may delay projects. These include various European government policies on perfluoroalkylated substances (PFAs) and nitrous oxide. This is embedded in our daily operation.

On the other hand, opportunities in this area, such as digitalisation, could reduce costs and help us achieve a secure energy transition. This may come with some strict requirements, not only regarding data security, but also especially for information management and human resources in terms of designing, developing, maintaining and operating systems. Therefore, TenneT continuously develops its IT capabilities, enhancing its organisation, training employees and reviewing the performance of IT service providers.

Looking ahead, we face possible delays to future projects as the COVID-19 pandemic has made the usual planning and permitting process difficult to sustain. This particularly holds for onshore projects, for which the permitting process relies on face-to-face stakeholder meetings in local communities. For public health safety, we were unable to have these face-to-face meetings due to the measures taken to stop the spread of the COVID-19 virus. Some of these can now continue online, but the knock-on effect from the delay in this pre-construction phase will pose challenges. We managed however to make good progress with online consultations in 2020. We successfully held virtual tender meetings with potential suppliers for our SuedLink, SuedOstLink and BorWin5 projects. This was the first time we have engaged online with suppliers during a tender process and the success of the negotiations showed the possibility for a more efficient way of working in the future, requiring less travel time and expense.



Yolande Verbeek

Managing Director Operations
Uniper Benelux

Ensure critical infrastructure for society

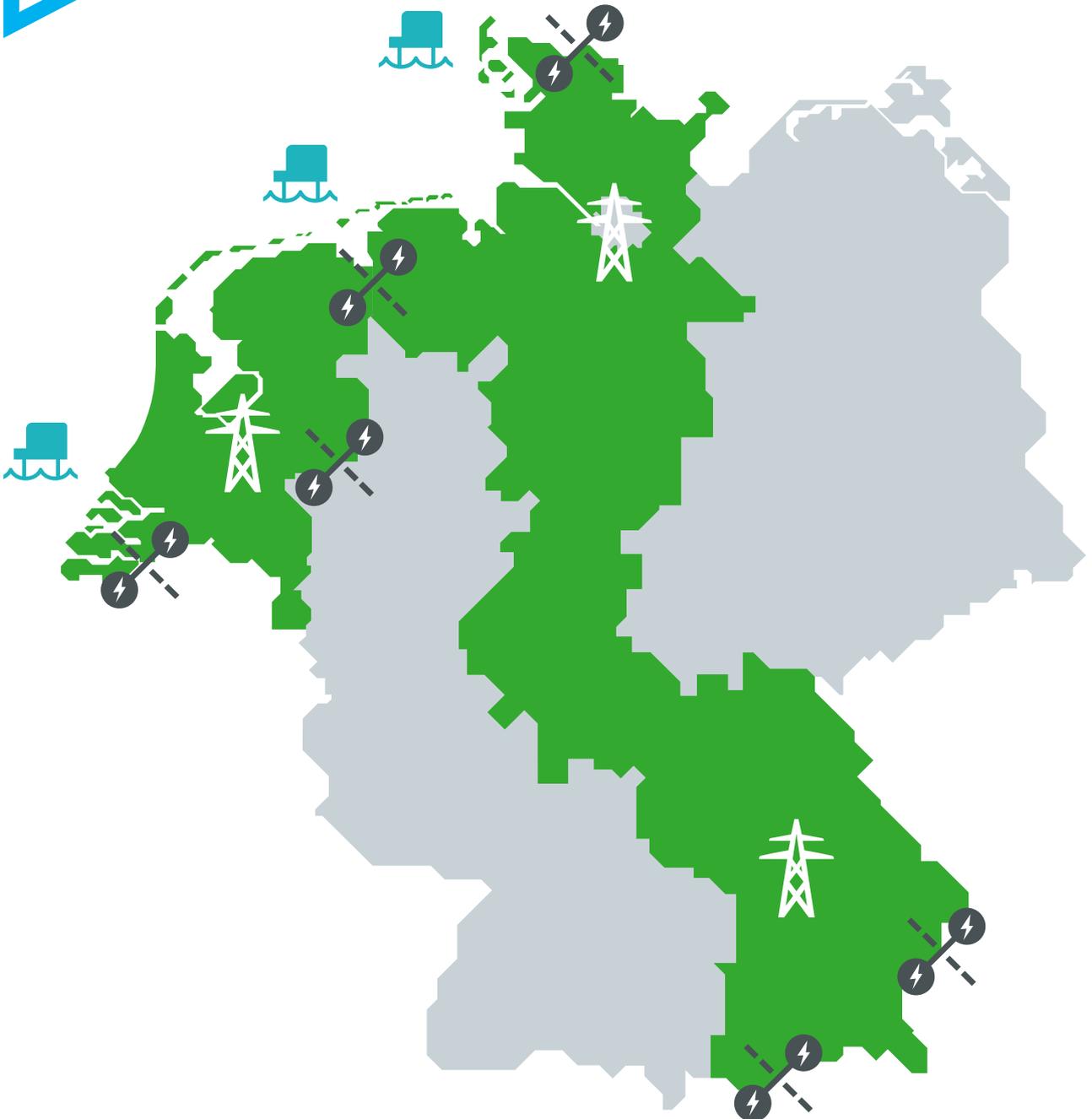
Hydrogen: a critical link in the puzzle of the energy transition

The energy transition is a puzzle with many pieces, players, and dimensions. TenneT aims to play its part to solve this, working closely with various parties. One of these is Uniper, a leading international energy company and front-runner in the development of ‘green hydrogen.’

“Green hydrogen is a crucial part of the puzzle in moving towards a carbon neutral energy system,” says Uniper’s Yolande Verbeek. “However, the necessary hydrogen infrastructure, both up- and downstream, requires thoughtful coordination and an EU-wide level playing field of regulations and support. We need substantial investments in all parts of the hydrogen value chain. At this stage, hydrogen is similar to the early days of wind energy: it needs support to get off to a flying start – but it will be the future and will be competitive sooner than many of us may think,” says Verbeek, who adds that the pipe infrastructure for natural gas, such as that owned by Gasunie, the Dutch national gas company, could be used. “We are already working closely together. The challenges can only be solved if we face them together and take initiative.”

“We need substantial investments in all parts of the hydrogen value chain.”

interconnectors	substations	Technical data:
16	468	
completed offshore connections	KMs of circuit	pylons over
14	23,866	27,000



Create a sustainable workplace

To secure the supply of electricity and drive the energy transition, we rely on the dedication, passion and talent of our most important asset, our people: ‘People are at the heart of TenneT’.

In recent years, we have prepared our people and transformed our organisation so we are ready to meet the challenges society expects from us. We have re-imagined how we harness and nurture the talent of our people, allowing them to perform at their best, with new ways of working and in a safe, inclusive and stimulating environment. Adaptiveness and innovation will be central to fulfilling our role in the green energy future, and our

success will depend on our ability to attract and retain the best talent. We are changing our culture, streamlining our processes, sharpening our talent and performance management processes and building leadership that empowers, inspires and creates opportunities for growth and learning. This is why energising our people and organisation is an integral part of our strategy.

Our performance in 2020

Safe workforce TRIR (including contractors)	Performance	Target	Status	Trend
	4.05 4.05 2020 4.83 2019 3.74 2018	3.74 in 2023		Regrettably, there were two fatal incidents in 2020. This also impacted our overall performance and we did not meet our target this year.
Healthy workforce Absentee rate Netherlands / Germany	Performance	Status	Trend	
	NL 2.7% GE 2.5% 2020 NL 2.7, GE 2.5 2019 NL 3.4, GE 2.8 2018 NL 3.0, GE 3.0		Absentee rate is showing a decrease compared to 2019. However, given the COVID-19 circumstances it is difficult to compare both years.	
Diverse workforce Diversity (% female inflow of total inflow)	Performance	Target	Status	Trend
	33%	30% in 2023		Upward trend in our ability to attract female talent, with a positive effect on the overall population.

Organise for our people to perform at their best and to work as one company

As of 1 July 2020, TenneT's new organisational structure came into being, together with a sharpened strategy and the first steps towards a renewed culture, guided by a new purpose, promise and principles. At the core of this transformation is a commitment to create a sustainable and rewarding workplace for our 5,722 internal and external employees, empowering our people to perform at their best.

Our new organisational structure aims to enable faster action and decision-making with more personal empowerment, clearer roles, and better cooperation across borders and departments. Our strategy can only be executed if we operate as an integrated European TSO. To achieve this, we introduced a new model for TenneT based on functional steering across borders, with greater empowerment at lower organisational levels. It streamlines our structure into 'One TenneT' with 22 new units led by senior leaders who were appointed into their roles in May 2020. Our senior leadership is a diverse team comprising 50% German and 50% Dutch leaders, of whom 32% are female. Six of these senior leaders are new at TenneT.

Our decision-making processes have been streamlined, with more emphasis on ownership and empowerment. Four new decision-making committees (Future Design, Asset, Integrated Work Planning and Systems & Market) replaced multiple existing committees and structures, making our decision-making more effective and less complex. The new organisation had been designed to create a unified company-wide view, supported by end-to-end processes across the entire value chain.

During 2020, the COVID-19 pandemic presented challenges for the implementation of our TenneT transformation. Not being able to meet in person posed difficulties for teams to grow accustomed to the new structure and ways of working. However, the pandemic also provided an unexpected opportunity to accelerate the process of change, allowing us to embed new routines faster. For example, cross-border teams in the new organisational structure quickly adapted into remote working routines and virtual collaboration. Recognising that this process can be challenging, leaders of the new units – including those who had not previously led remote teams – were trained in the skills of motivating and collaborating with their teams in a virtual setting.

We adapted to help our people perform at their best, such as facilitating working from home by providing everybody with the opportunity to improve their home office. We were also conscious that working from home involves specific challenges for different people, physical and also mental. Making sure our people stay connected with their colleagues and paying attention to work life balance and exercise are all important in the new working reality. To facilitate this, we shifted our mental and physical health and vitality programme, Always Energy, into an online programme and provided webinars and real-time engagement to ensure the wellbeing of our colleagues is fully supported.

To measure how we are succeeding in energising our people and organisation and to create this sustainable workplace, we measure the absentee rate in the Netherlands and in Germany. This has resulted in an absentee rate of 2.7 in the Netherlands (2019: 3.4) and 2.5 in Germany (2.8 in 2019). Although the absentee rate has improved, we consider that this image is a bit distorted due to the unusual year we had in 2020 and the circumstances our employees have been and are still working with. Furthermore, we conducted our employee survey in Q4 of 2020. This resulted in an employee engagement score of 82%. The methodology for this survey was updated compared to the prior employee engagement survey, as some questions were confusing. Using the current methodology, the prior employee engagement score was 85%, thus a 3 percent decrease.

Future-proof our organisation by recruiting the best talent

One of the most important ways to help our organisation achieve its strategic goals is to recruit the right people. We currently need to hire hundreds of people per year to keep pace with the growth of our business and the demands for our services. In 2020, our workforce grew from 4,913 to 5,722, but we continue to need more talent to achieve our strategic goals. That is why we continue to recruit and also aim to bring out the best in our current workforce with additional training for their current role or to help them develop to new positions. This also helps to retain talent. During 2020 with the Transforming TenneT programme, many colleagues transferred internally into new roles and opportunities which helped in their professional development.

We are not alone in the need for talent, as other TSOs and players in the renewable energy business compete for the best people. The resulting skills shortage makes hiring enough people of the right quality a constant challenge.

However, it is a challenge that makes us think more creatively. The changing nature of our business – with more emphasis on data, for example – means we can hire from a broader pool. Today, mathematicians, economists, digital engineers and data scientists can find a role in our business in ways not previously possible.

The COVID-19 pandemic and resulting shift to virtual working has also opened new possibilities for attracting talent. Being located close to one of our offices is no longer so essential, allowing us to draw on a broader geographic and more diverse talent pool. For example, we are now targeting labour markets in Spain, Romania, Poland and other countries. To extend this work, we are undertaking a new accelerator project in our People Unit to help us reach new talent pools, with an emphasis on building a more attractive employer brand and using new communications techniques to connect with potential candidates.

Build leadership that empowers, inspires and creates opportunities for growth and learning

The next phase of our transformation is about shifting mind-set and behaviour. This will enable our employees to be responsive to and ready for all the opportunities and risks facing us in the fast, changing energy landscape. Central to this is embedding a new leadership model that puts our leaders in the driving seat of our transformation, building a new way of working that is open, curious, courageous and focused on learning and growing.

Training for our leaders in our new organisation began in May 2020, with the launch of the Lead Your Team programme. With a focus on people and change management, this is based on the competencies our leaders and all employees will need to meet the challenges ahead. A mandatory requirement for all leaders of the new TenneT departments, Lead Your Team is designed to be a shared journey, helping to embed our principles of Ownership, Courage and Connection and working together with leaders towards a new culture with new behaviours and ways of working.

The training features a carefully selected programme of online workshops, designed to build leadership skills, drive change, and collaborate effectively across departments and borders. The training not only meets the physical challenges of the COVID-19 pandemic by teaching virtual communication, but also the psychological aspects of people management during the pandemic, building skills for empathy, self-awareness, resilience and psychological safety.

As part of becoming a learning organisation, we have also developed the Grow For It learning journey, for all 5,722 TenneT employees. This immerses our people in our culture and strategy and builds a full understanding of our Purpose, Promise and Principles. To further embed our company strategy within all layers of our organisation, we also organised a Strategy Week within TenneT in November 2020. Workshops were held for each strategic pillar with employees invited to learn and share their thoughts with respect to our renewed strategy.

Bring out the best in our people in an inclusive and safe environment where people are proud of coming to work

Inclusion & Diversity

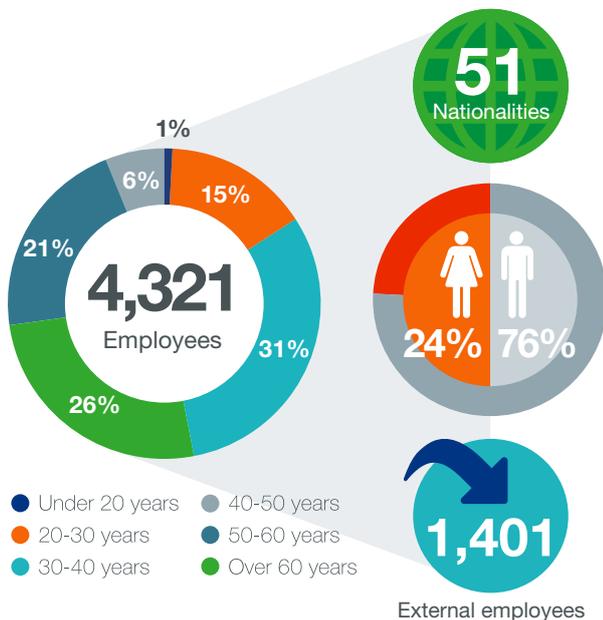
We believe that a diverse working environment – not only in terms of gender, religion, culture and socio-economic background, but also personality, experience and geographic backgrounds – helps us perform better and deliver better value for stakeholders and society. And for diversity to really show its power, it needs inclusion as a key building block. Encouraging diversity while promoting a culture of inclusion will help foster a culture of equal opportunity.

Our aim is to strengthen our focus on inclusion in all phases of the employee journey. This starts with our employer branding, to be an attractive employer for potential colleagues. Next to this we also aim to broaden our recruitment approach and are developing new ways to find the right talent.

As we expand our recruitment to more countries, we aim to monitor closely the diversity of our employees in terms of nationalities. Another new way is to recruit using broader job profiles based on competencies, instead of looking for the perfect match based on education and experience. This approach requires more on-the-job training.

Regarding our ambitions in gender diversity, we have made good progress as we met our 2023 targets for the key performance indicators in this area in 2020. We aimed for 30% female board members in our Executive / Supervisory Board by 2023 and recorded 44% in 2020. Our ambition is also to have 22% of the people hired in management positions and of our workforce in general to be female. We met this target as we recorded 29% of our management positions were female hires and an overall ratio of 24% female employees, which compares favourably to peers in the oil and gas industries and other TSOs.

Diversity at TenneT



Even though we exceeded our 2023 targets this year, we continue to work on this to ensure that we also reach our ambitions in the years to come.

Furthermore, we feel it's our responsibility to reach out to those who need extra support in the labour market, helping us grow towards a workforce which fairly reflects the European society we serve. An example of this is our partnership with Rising You, where we support employment opportunities for refugee talent at our contractors. Attracting more talent in this way also helps TenneT. For example, our collaboration with Refugee Talent Hub in the Netherlands, led to TenneT providing work opportunities to 7 former refugee talents in 2019 / 2020, with 2 finding permanent employment with TenneT in 2020.

Safety

For TenneT, safety is a core business value. Every day we are aware of the risks associated with our activities and believe that every safety incident is one too many. TenneT wants every employee to return home safely at the end of each working day. That is why we measure the Total Recordable Incident Frequency Rate (TRIR), which indicates how many incidents (needing medical treatment or even more severe) have occurred per one million hours worked. In 2020, the TRIR was slightly lower than the preceding year, but it is still not at the level we want it to be. We continue working with colleagues and contractors to improve the TRIR and avoid potential accidents.

Four out of every five accidents occur with our contractors, as they perform most of the work in high-risk environments, such as on construction sites, and at sea.

We deeply regret two fatal accidents that occurred during 2020. In May 2020, an employee of one of our contractors suffered fatal injuries after a fall when dismantling a temporary pylon frame. The work was executed on an overhead line between Wilhelmshaven and Conneforde, Germany. In November 2020, an employee of one of our contractors suffered fatal injuries, after he became trapped under a heavy winch which was transported in the vicinity of Ehringshausen. We are deeply hurt by these incidents, and our thoughts go out to the families and friends of these two workers.

To prevent accidents, we strive to constantly enhance our employees' safety awareness and devote ongoing attention to optimising our processes. To this end, our Executive Board signed a new Occupational Health and Safety (OHS) policy in August 2020. The policy includes adopting integrated risk-based approaches to safety, based on a continuous improvement process. Apart from prominent risks, softer OHS elements are included as well, like psychological safety (everybody should feel free to speak up), safety culture (having an open and pro-active safety culture within TenneT and its supply chain), and becoming a learning organisation (by sharing information on incidents and best practices to prevent incidents). To embed this comprehensive approach to safety and to make it part of our TenneT culture, we need strong safety leaders, who take ownership for safety, show courage and are connected. To embed this mind-set and new approach across TenneT, we intend to launch a new multi-year corporate Safety Leadership programme at the start of 2021 for all leaders at TenneT.

At the end of 2020 we determined new priorities with respect to safety, striving for more resilience. Next year we will operationalise this concept into practical approaches for our employees. Another initiative that further develops a strong safety culture in TenneT, was successfully passing the Safety Culture Ladder (SCL) follow-up audit. This means TenneT maintained its SCL level 3 certification in 2020.

Safety also played an important part in the establishment of the new TenneT organisation in July 2020. With new structures, positions and people, we aimed to create a safe start from day one. For all our new leaders, and those leaders with a new position (approximately 70), TenneT's Safety and Security department conducted a safety training to onboard the new leaders about safety processes,



procedures and requirements at TenneT, as well as explaining what is expected from a TenneT leader when it comes to safety.

What could prevent us from realising our goals?

The scarcity of qualified short-term and long-term staff remains a key risk. To address this, we focus on tailored sourcing approaches and aim to build an image of TenneT as an attractive employer, as well as actively working on internal succession planning. We are interacting more with potential employees, actively participating in career events and reaching out to students during their studies. We are investing in our future talent pipeline, including initiatives to attract potential employees such as our International Trainee Programme and our High Voltage Trainee programme.

Our ever-challenging pipeline of investment projects and maintenance tasks inherently results in an increased risk of injuries and even fatalities. This also applies, perhaps to a greater extent, to the work of our suppliers. They might consider and apply safety values that are different to TenneT's. We continue to educate our contractors and subcontractors what safety means at TenneT, build awareness of this and to implement safety as one common goal.

Progress made with TenneT's organisational transformation in 2020 boosted confidence in our ability to deliver our strategy. The new organisation structure within TenneT has now been in force since mid-2020, accompanied by the Grow For It and Lead Your Team learning journeys. This important work will help TenneT's people execute our new strategy. Further organisational improvements are ongoing until 2021 and later, including a new end-to-end process structure and implementation of one ERP-system. Although some efficiency can be lost during organisational changes in the short term, this is currently compensated by the high motivation of our employees and efficiency gains we expect in the longer run due to Transforming TenneT. Nevertheless, we remain alert to risks, for example if expected organisational enhancements take longer to embed or the ongoing COVID-19 pandemic affects the Transforming TenneT process.

Tim van Zuijlen

Trainee Technical Assistant

Create a Sustainable workplace

COVID-19 career-switch: from lighting events to technical maintenance at TenneT

Tim van Zuijlen switched careers in the middle of the COVID-19 pandemic, moving to TenneT from an events agency. “That whole business was knocked out by COVID-19 and will be for the foreseeable future, so I really needed to look around,” says Tim.

At TenneT, Tim can draw on his experience of setting up high lighting rigs for large events and festivals. Now, he is applying these skills as a Trainee Technical Assistant, helping to meet TenneT’s ongoing need for skilled technicians. “I am a technical guy and I love working at heights and with high voltages, which makes TenneT perfect for me.”

In two years’ time, Tim and about ten others – ranging from other career-switchers to recent graduates – will be trained to work on maintenance in the field for TenneT. Given the nature of his work, Tim particularly likes TenneT’s focus on safety and teamwork. “I really appreciate this. Everyone looks out for each other and is very safety-conscious. That’s very important in this business.”



“Everyone looks out for each other and is very safety-conscious.”

Create value to transition to a low carbon economy

In order to fulfil our ambition to drive the energy transition, we aim to lead as a green and responsible grid operator. This does not only mean providing the renewable energy solutions that enable the transition – it also means reducing our own climate footprint and promoting sustainability throughout our supply chain.

To this end, we measure our progress of our sustainability performance. This relates to our ambition to 'lead as a green grid operator'. This sustainability performance

consists of three main impact areas: Climate, Circularity and Nature. Each area has specific indicators where we track how we are performing and if we are realising our ambitions.

Our performance in 2020

Climate	Performance	Target	Status	Trend
	CO ₂ footprint of our substations, offices and mobility (net emission in tonnes of CO ₂)	Climate neutral in 2025 ^{1,2}		We have been able to make progress in lowering our net carbon footprint, mainly due to greening more of our grid losses. However, we were unable to fully meet our 2020 climate ambition due to mobility.
Circularity	Performance	Target	Status	Trend
	<ul style="list-style-type: none"> Reduction of virgin copper use Reduction of non-recyclable waste 	25% reduction in 2025 ^{3,4}		Progress has been made to gain more insights on our virgin copper use and the amount of non-recyclable waste. More information will be disclosed when this is available.
Nature	Performance	Target	Status	Trend
	<ul style="list-style-type: none"> (Net) impact on nature Environmental incidents 	Zero impact on nature in 2020		We regret the environmental incidents and the oil leakages from cables. On the other hand we are proud of the positive biodiversity measures we have taken.

¹ To be climate neutral for our substations, offices and mobility in 2020.

² To be fully climate neutral (SF₆ emissions, grid losses, energy use offices, stations and mobility of our employees) in 2025. SF₆ leakage (%) < 0.28% in 2020, SF₆ leakage (kg) < 1,106kg in 2020.

³ In 2025 25% less impact of virgin copper use.

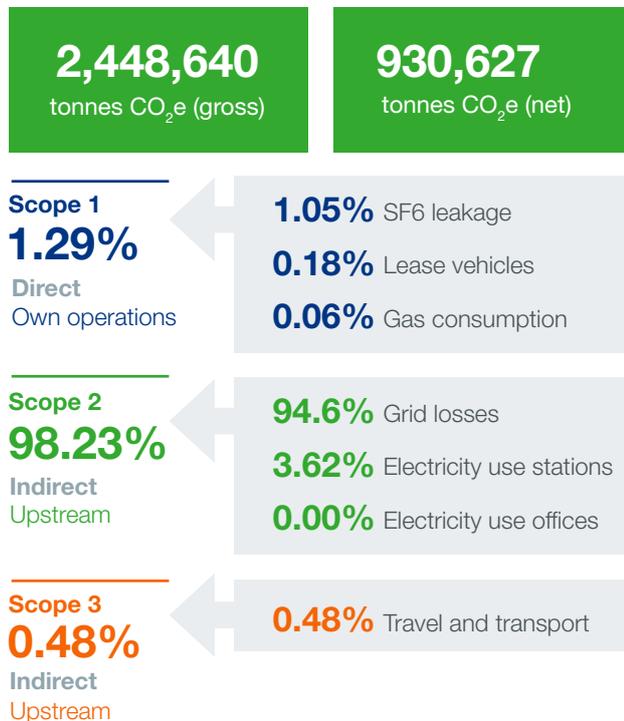
⁴ In 2025 25% less impact of non-recyclable waste.

Climate

In 2020, TenneT formulated its new company purpose: 'To connect everyone with a brighter energy future'. Consequently, we strive to ensure that people living in the areas we serve have access to sustainable electricity through our grid.

That is the reason, we have defined our key impact metric for climate as the equivalent number of households able to switch to 100% renewable electricity, such as wind and solar. Currently, we have started by including our offshore operations and a selection of renewable energy sources

Carbon footprint



directly connected to our grid. With this, we have been able to provide 9.7 million equivalent households able to switch to 100% renewable energy.

As we connect more and more renewable energy sources (RES) to our grid, we measure our climate impact in terms of avoided emissions. Naturally, these climate figures are not only achieved through our own operations, but also through our partners in the energy sector, such as electricity generation companies and distribution system operators. Working together in 2020, we thus avoided 12.3 million tonnes of CO₂ equivalents. More information (such as the methodology) on these impact metrics is included in our Additional CSR data document.

TenneT also measures climate impact resulting from its own operations. Our biggest climate impact results from our grid losses, accounting for 95% of our carbon footprint. The next largest impact is related to our operations (offices, substations and mobility) and those resulting from the leakage of SF₆ gas. Through a range of initiatives targeting these three areas, TenneT strives to become climate-neutral by 2025.

Overall, we achieved a 10% increase in gross carbon emissions in 2020 (compared to the carbon footprint of 2019 adjusted for the effect of the development in conversion factors) and a decrease of our net carbon

emissions of 40%. This is related to the development in our grid losses, which we describe in more detail below.

Grid losses

Approximately 95% of TenneT's CO₂ footprint is due to grid losses. Grid losses inevitably occur during power transmission and result from the difference between the energy fed into the grid and the withdrawal. To reduce our net carbon footprint, we will 'green' our electricity consumption with the use of guarantees of origin. Next to the energy use of all our offices and stations, this applies to 100% of the grid losses in the Netherlands and, as of this year, also approximately 47% of the grid losses in Germany. To compensate for the CO₂-footprint of our German grid losses, we purchase certificates of origin in the relevant amount cancelled in the Netherlands.

Grid losses depend, among other things, on the current, the voltage, but also on the distance electricity is transported. The latter is increasing, as wind and solar electricity are often generated in remote areas, far from where most people consume it. Our grid losses increased to 5,530 GWh in 2020, compared to 5,035 GWh in 2019. As such, there is a tension between grid-losses and the measures we take to drive the energy transition. They inevitably increase as we expand our grid and introduce more RES into the system. An alternative to expanding our grid is to make smarter use of it, but this also presents a paradox. While building less has clear environmental benefits, grid losses will grow if we utilise our existing assets at higher levels.

Mobility

As for many other companies adapting to the COVID-19 pandemic, the way we work has changed significantly in the past year, with government restrictions requiring employees to work from home. This also resulted in a reduction of our carbon footprint with respect to our mobility and energy use at our offices.

We regard this as a consequence of the COVID-19 situation and not an excuse to stop taking actions to reduce our carbon impact. That is why we have adopted a new action plan to reduce the environmental impact of our mobility, encouraging our employees to travel less and if they do, to use green transportation. We are also greening our company car fleet with electric vehicles. In Germany, we are developing a bike-leasing scheme and, if successful, we will also introduce it in the Netherlands. Promoting sustainable travel is part of a wider commitment via the "Anders Reizen" initiative to halve the CO₂ emissions of all TenneT's business travel by 2030. We are currently exploring how to translate these ambitions into policy.

Substations

During 2020, we continued to reduce the carbon footprint of our substations with a goal to be climate neutral by 2025. We do this for instance by taking lower climate impact into account in the design when replacing existing substations. An example of how we are addressing this is the project related to our 150 kV station in Etten, the Netherlands. The facility is at the end of its life and needs to be replaced. As we do so, we are taking lower climate impact into account in the design, for example by using solar panels, better isolation and LED lighting. Plans were finalised this year and construction will start in 2021.

Supply chain

To reduce CO₂ emissions even further, we are taking steps across our supply chain by motivating contractors to reduce their footprint. For example, during the year we started testing a new certification process, requiring suppliers to demonstrate their carbon reduction measures. Furthermore, we integrated an environmental cost indicator (ECI) which allows us to calculate the CO₂ footprint directly into each project's cost evaluation. Having piloted this approach with some of our offshore contractors, we are now extending it further in our operations, for instance in our BorWin6 and 2 GW projects.

SF₆ gas

Sulfur hexafluoride (SF₆) is a gas used by TSOs to protect electrical power stations and distribution systems by interrupting electric currents. Although it is a highly effective circuit-breaker, insulator and extinguisher, it is also a powerful greenhouse gas, over 23,000 times more polluting than CO₂.

Although SF₆ accounts for approximately 1% of our climate footprint, any leakage is damaging to the environment, which is why we continue to find ways to minimise and avoid them across our network. We are also aware of the growing environmental concern about the use of this gas and have accelerated our efforts to explore alternative solutions with pilot projects during 2020.

An example of this is our Westerlee station, where we awarded the tender to a supplier that proposed an alternative gas GIS solution. We motivate our suppliers to accelerate the exploration of alternative technologies. We toughened our approach to SF₆ in our Future of Offshore programme. This provides a roadmap for our offshore projects, setting out clear policies and working practices. As part of this, we are exploring the possibility to exclude SF₆ from bidders' proposals, requiring them to use alternative solutions. We are already using a new approach to work without SF₆ in our BorWin5 project and will use this as a test case for future projects.

This year, we achieved a 0.24% leakage rate, which was comparable to 2019 (0.24%). As we look beyond 2020, we have committed to keep SF₆ leakage below a target of 0.28% until 2025. Knowing that our asset base will increase considerably due to large-scale network expansions, this objective is challenging, but we remain committed to reduce this element of our climate footprint. In the meantime, we are compensating for the carbon emissions from SF₆ leakages, which we have done in full for our 2020 performance in this area.

Linking finance to our climate performance

To make progress against our climate ambitions even more visible, we have linked our financing costs to our climate performance. Secure access to finance is essential to ensure that we maintain the pace of our investment portfolio. An example of this is our EUR 3.3 billion sustainable Revolving Credit Facility (RCF), which is linked to sustainability performance indicators and targets. In practice this means that, depending on the realisation of our climate-related KPIs, a discount is applied to the interest margin on the RCF. This is related to the green percentage of energy use of our stations (100% in 2020 vs 100% in 2019) and our offices (81% in 2020 vs 84% in 2019). It is also linked to SF₆ (refer to SF₆ section above) and to the net carbon impact of mobility per employee against the total number of employees (2.1 in 2020 vs 3.4 in 2019).

Circularity

Recycling materials and reducing waste is key to the growth of the circular economy. We share this commitment, with our circularity ambitions focused on minimising our use of scarce materials, re-using materials where possible, and reducing non-recyclable waste in our operations.

We need copper, steel, aluminium and many other raw materials to expand our grid. Although we must work with these materials, we aim to reduce our impact by increasing our focus on circularity. We focus on copper, as it is expected to become scarce in the near future and we have a high dependency on it in our operations.

In 2020, we took our first steps to report our circularity performance. This year will serve as a base year for measuring our progress, with a target to reduce the use of virgin copper and non-recyclable waste by 25% in 2025. Our aim is to reduce, re-use and recycle our waste as much as possible. For example, in our projects we separate sand, soil and concrete from construction sites so they can be recycled. From a circularity perspective, the materials left over at the end of one process can be the input for another. These materials also have a remaining value, so there is an



additional incentive not to dispose of them. Unfortunately, we have not found solutions for all the materials we use, such as synthetic materials used to make temporary roadways on construction sites. We are in contact with our suppliers and look for partnerships to help reduce our non-recyclable waste.

To maximise circularity we need insight in our material usage in projects. Therefore we request material passports in our tenders. This records all raw materials used in a specific product, stating which include recycled and recyclable material. This way, the passport provides transparency of resource mix, and provides a basis to increase the circularity of product components. Working with our contractors, we aim to include a raw material passport system in all our new tenders, giving us a comprehensive view of circularity in our supply chain. For both our non-recyclable waste and our virgin copper use, we have made progress by working together with our suppliers to obtain preliminary insights on the percentage of waste that is non-recyclable and the percentage of virgin copper, which will be included in the projects that have been tendered in 2020. Unfortunately, as not all data is available yet when this report is published, we will disclose this information in our Additional CSR data document, which we will update when the data is available. Based on our current insights from our previous year's waste reporting related to a significant part of our German operation, our estimate is that around 60-75% of the copper we use is virgin copper and around 10-25% of our waste is non-recyclable.

We also pursue innovations in underground cabling, allowing us to increase the sustainability and circularity of the materials used. An example is the innovative plastic-insulated 525 kV underground cables for our SuedLink and SuedOstLink projects. This is the first time these cables have been used worldwide, setting new standards in technology, and reducing environmental pollution. As well as being fully recyclable, the cables can transmit significantly more power than conventional 320 kV cable systems. This means that less cables are needed, allowing the route to be narrower, with less civil engineering work required. This significantly reduces the impact on the environment.

We are also researching the use of these more resource-friendly and higher capacity cabling systems in our offshore projects. This should lead to a standardised cable system that TenneT can use in the BalWin, (German North Sea) and IJmuiden Ver (Dutch North Sea) projects as well as in future projects with the same power and voltage. We have reached agreements with eight cable manufacturers to develop a new standard for a DC submarine 525 kV cable

system instead of the existing technology of 320 kV standard. This new cable system will be required for our 2 GW offshore grid connections in Germany and the Netherlands, which will set a new standard for connecting offshore wind farms (see Critical Infrastructure chapter).

Nature

Unfortunately, we have an unavoidable impact on nature as we build, maintain and operate our assets in the natural landscape. However, we also aim to create positive impacts, such as promoting biodiversity at our substations and considering our impact on nature early in the process of realising a project. By doing so, we ultimately aim to have a zero net impact on nature.

Regarding our negative impacts on nature, we were unable to meet our goals in 2020 as we aimed for a 17% reduction of our 2019 oil leakages from cables (maximum of 1,529 litres). We reported 57 environmental incidents, which is a bit more than the 50 incidents reported in 2019 and 5,391 litres of oil leaked from cables (1,842 litres in 2019), mainly in the Western Netherlands. These cables are relatively old and are therefore more prone to leakage, with great difficulties to locate and repair leaks in time. Nevertheless, we regret the amount of oil leaked and the negative impact this had on the environment near our assets. We are working on resolving these leakages and finding ways to further improve in this area going forward. On the other hand, we are pleased with the progress we made to create more positive impact on nature. TenneT is involved in a coalition called 'Groene Netten' comprised of companies that operate critical infrastructure in the Netherlands. Together, the coalition members manage over 922 square kilometres of ground and water with an impact on nature. This is related to more than 800.000 kilometres infrastructure. In 2020, Groene Netten has presented the 'ecologische hoofdinfrastuctuur', a digital map which can be used to work together and increase biodiversity in our projects. Amongst other things, this has the potential to bring together data such as biodiversity hotspots, ground water levels and relevant GIS data to help identify opportunities for biodiversity protection.

To achieve our ambitions, we created a nature roadmap, which sets the targets for the coming year and our definition of zero impact on nature. As part of this, we announced in May 2019 a plan to promote biodiversity at all of our 468 high-voltage substations in the Netherlands and Germany, especially as regards to protecting and increasing bird and insect populations.

The plan builds on positive results from a pilot project at three substations in the Netherlands, revealing that nature-friendly

maintenance of these sites, including non-linear “sinus” grass mowing, conserved up to 72% of the insect populations. This way of maintaining the grass around our assets has been shown to have a positive effect on biodiversity. We also extended our biodiversity substation pilots in Germany in 2020, related to the two projects at Irsching and Wurgau. This includes conducting a bio-diversity study at each location and identifying what measures can be taken to protect and promote different species, as well as sinus mowing and planting European flower seeds to attract birds and bees.

We are taking the same bio-diversity approach underneath our powerlines, with so-called “flower lines” of insect and bird-friendly planting. An example is our ‘Honey Highway’ undertaken in early 2020, this is a rich bio-diverse landscape along the 110 kV cable connection between Bolsward and Heerenveen, running for over 30 kilometres. After soil restoration work, flowers were sown on several strips. Many of these biodiversity projects are performed in co-operation with our project partners, such the project consortium (Siemens, Ganesa and Van Oord), Visser Smit Hanab and others.

In our offshore projects, we have a similar approach. For example, we are involved in a research project with a consortium of partners including Wageningen Marine Research and the Naturalis Biodiversity Center Nederland, in which we are studying the effects of electromagnetic fields from subsea power cables on North Sea marine life. For new offshore projects, we aim to have nature-inclusive design built into tender proposals. In 2020 we concluded a tender to build two new 700 MW offshore wind substations in the Dutch North Sea, Hollandse Kust Noord and Hollandse Kust Zuid. These are our first new offshore projects to incorporate nature-inclusive design, which will make them our most sustainable platforms when they become operational. Examples of nature-inclusive design are: fish hotels, artificial reefs, eco-friendly scour protection and ecological cable crossings.

Together with NGOs, such as the North Sea Foundation, we have come up with possible measures to improve biodiversity for marine life near and at our assets. We are currently including this element as part of our tender procedures and this concept will be used in the Hollandse Kust (Noord) offshore project – due to come on stream in 2023.

What could prevent us from realising our goals?

The decarbonisation of society has an impact on business, regulatory frameworks, financing, and the availability and prices of products and services.

National and European actions to achieve climate goals are becoming more concrete. Examples include the European Green Deal, setting new goals for renewable energy production, the use of (green) hydrogen and the stimulation of green and ethical investments. These factors are increasing the scale and pace of TenneT’s investment portfolio and increasing the relevance of future projects, such as system integration with gas infrastructure.

When considering risks to our ambition as a green and responsible grid operator, we should consider the global economic and political context. These include a potential economic slowdown resulting from anti-pandemic measures, regulatory changes, geopolitical conflicts, financial market turmoil and rapid advances in technology. On a positive note, the new US administration has decided to return to an international consensus on climate targets, but “trade “games”” may continue. A severe economic crisis could impact the current focus on climate change and energy transition. However, it currently seems more likely, that national and European-level investments in infrastructure projects might be used to stabilise the economy. Nevertheless, the affordability of projects could come under increased scrutiny, as could the question to what extent society is willing to accept the cost of the energy transition.

Due to the nature of TenneT’s business, we must consider climate-related risks and opportunities in order to achieve our strategic goals. To this end, we have adopted the recommendations from the Taskforce for Climate-Related Financial Disclosures. We discuss climate-related risks and opportunities in workshops and dialogues with senior leadership and embed these elements into our strategy and risk procedures. An example of this is considering the impact of climate adaptation, including scenarios related to drought, flooding and more extreme weather events, such as in Noordwaard, where flooding submerged part of a pylon (Mast 58) on the 380 kV line between Krimpen aan den IJssel and Geertruidenberg. We designed a new steel base for the mast, coated to withstand water, and raised the pylon by 4 metres – all while maintaining the power supply. This has never been done before in the Netherlands. For more information on how we have assessed our climate related financial disclosures and opportunities, please refer to the Governance and risk management chapter of this report.



Maria van der Heijden

Director of MVO Nederland, a foundation setting out a network for entrepreneurs in the new economy

Create value to transition to low carbon economy

TenneT joins fellow infrastructure operators to work towards a greener future

With its focus on establishing a new circular economy through collaboration and sharing of best practices, MVO was ideally positioned to set up the so-called “Groene Netten” coalition. This comprises other companies that, like TenneT, operate critical infrastructure in the Netherlands, including railways, cables, tunnels and pipes, stretching over 800 square kilometres of land throughout the Netherlands. The participants, ProRail, Rijkswaterstaat, KPN, Alliander, Enexis, TenneT, Gasunie and Stedin, aim to ensure the management of their infrastructure is climate neutral and circular.

“One of the big successes of Groene Netten can be seen in our biodiversity work. For example, ecologists advise to allow for longer grass around infrastructure, so insects can thrive. We are now applying that approach as much as possible,” says Maria van der Heijden, who also shares her knowledge and best practice more broadly with other interested parties, such as local municipalities. “Everyone works at their own speed, but we are all working towards the same vision. It is very inspiring. TenneT has a good role to play as a public company with ambitious goals for the energy transition.”

“Everyone works at their own speed, but we are all working towards the same vision.”

Secure a solid financial performance and investor rating

Providing the infrastructure that we need for a secure and reliable supply of electricity – today, and in the future – requires constant vigilance, efficient operations, and sustainable investments. Broad and sustainable access to financing is a prerequisite to implement our strategy and realize our investment portfolio. This requires a strong financial performance, a strong investor rating and a robust and reliable regulatory framework. That is why it is important to us to secure a sound financial future.

Within the next five years, we are committed to invest EUR 5 – 6 billion annually to play our part in the European transition to sustainable energy. It is up to us to ensure that

this is financed with the right mix of equity and debt. In doing so we must always balance affordability against the need for security of supply and sustainability.

Our performance in 2020

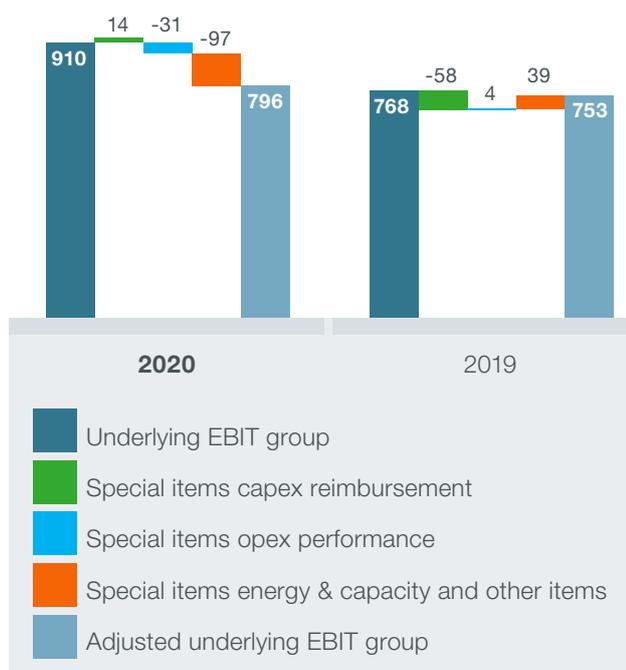
	Performance	Target	Status	Trend
Healthy financial operations Adjusted underlying EBIT group ¹⁾ (EUR million)	796 796 2020 753 2019 826 2018	712		Adjusted underlying EBIT group was higher compared to 2019, due to higher regulatory reimbursement as a result of new investments.
Satisfied capital providers ROIC group (%)	5.1% 5.1 2020 5.1 2019 6.2 2018	4.0%		ROIC was above budget, mainly due to higher EBIT.
Safeguarded capital structure²⁾ Adjusted FFO/ Net debt group	11.3% 11.3 2020 12.9 2019 14.1 2018	8.5%		FFO to Net Debt has developed according to expectation. The increase of the FFO was offset by a bigger increase in the net debt position.

1. Reference is made to next page.
2. Reference is made to Note 17 of the financial statements.

Deliver a return on capital in line with the expectations of our capital providers

Underlying EBIT group*

EUR million



* Refer to note 2 of the financial statements.

Special items Capex reimbursement are related to an adjustment of the useful lives of tangible fixed assets. Special items OPEX mainly relate to the higher OPEX offshore reimbursement for previous years in the Netherlands due to the Income Decision by ACM. Special items Energy & Capacity and other items is mainly related to the release of the provision for offshore liabilities.

Raising the necessary external financing

As our investment portfolio grows, so does our need for additional financing. To attract funds from the capital markets we use a range of instruments, including green debt and equity financing. In mid-2020, we issued green hybrid securities of EUR 1 billion, which were 2.5 times oversubscribed, underlining strong market appetite. In addition we secured a EUR 250 million loan from the European Investment Bank to finance the new Zuid-West 380 kV high-voltage connection between Borssele and Tilburg in the Netherlands. In November, we issued green bonds of EUR 1.35 billion.

Together with the three other German TSOs, TenneT is responsible for the financial management of the 'Renewable Energy Sources Act' (Erneuerbare Energien-Gesetz (EEG)), which has a significant impact on TenneT's cash flow, although it does not affect our financial performance. Based on this law, German end-users pay a levy to finance the green energy transition in Germany. The EEG levy is used to subsidise the EEG feed-in tariffs which are paid to producers of renewable energy who receive a guaranteed price for their produced green electricity exceeding the market price. The EEG levy is determined based on forecasted renewable energy volumes and electricity prices for the subsequent year.

To prevent negative EEG balances and the necessity of additional short-term bridge financing, a liquidity buffer is included in the EEG levy. TenneT raised an additional 12-month liquidity financing of EUR 1.5 billion and uncommitted financing of EUR 0.5 billion in 2020 at very low interest rates, to cover significant unforeseen variations in renewable energy volumes and wholesale electricity prices.

As a result of the Climate Programme 2030 ('Klimaschutzprogramm 2030') the four German TSOs will receive EUR 10.8 billion from the German government to finance the EEG in 2021. TenneT will receive 32% of this amount in three instalments (January 2021: EUR 1,632 million, May 2021: EUR 960 million and October 2021: 864 million) and will use the payments to finance payments made to renewable energy producers.

During 2020, our A- credit rating from Standard & Poors and our A3 rating from Moody's were reaffirmed – which underpins our ability to secure financing for the future. We also saw an improvement in our Environmental, Social and Governance (ESG) evaluations from external rating agencies. For example, Sustainalytics ranked us in the 'low risk' category and among the frontrunners in our sector. Meanwhile, our ISS / Oekom rating remained at level B.

In 2020 a declaration of intent between the Dutch and German governments was signed and published to stress the mutual energy policy interests. The declaration includes arrangements to expand collaboration on energy between the two countries and to explore a possible participation by the German state in TenneT with additional equity capital.

Maintain a regulatory framework to support our financial strategy

A forthcoming financial challenge could be a possible policy change in Germany concerning redispatch costs. These cover the system operations measures we need to take to manage congestion on our grid. Traditionally, TSOs are compensated for these grid stabilisation measures, but a proposed policy change in Germany calls for this compensation to be capped. We consider this proposed policy change to be suboptimal, since redispatch costs inevitably increase as renewable energy generation is prioritised and more volatile renewable energy is fed into the grid. As a result, redispatch is a temporary and inevitable cost of driving the energy transition. In 2020 grid stability measures, such as redispatch costs, reached EUR 257 million in Germany, compared to EUR 264 million in 2019.

A further financial challenge stems from mid-2019, when TenneT's efficiency scores were updated by CEER's TCB18 European Efficiency Benchmarking. TenneT's efficiency score in the Netherlands dropped significantly. It is expected this will have a significant short-term impact on our revenues. Since the general and specific reports did not provide sufficient insights, a shadow benchmark has been performed, showing large differences between the two benchmarks. How the results of the shadow benchmark will be reflected in the method decisions will become clear in the next months.

The nature of our business and the scale of the energy challenge requires us to think 30 or more years ahead to assess how we need to invest today and tomorrow. Our investments in electricity infrastructure have a long-term character. The technical and regulatory life time of investments can range from 20-50 years. Therefore these investments need to be supported by a regulatory framework with a long-term focus. While regulatory periods are typically only established for a period of 3-5 years the underlying methodologies are providing a stable long-term regulatory framework in both the Netherlands and Germany. This relates to the recognition of investments in the Regulatory Asset Base (RAB), methods used to determine the cost of capital, and the fact that TSOs do not incur a volume risk.

This stability is needed and recognised by investors and serves as a prerequisite for being able to finance the increased level of investments. The stability also has benefits for our customers as it reduces risk and consequently leads to lower tariffs as investments can be financed very efficiently.

What could prevent us from realising our goals?

In order to fund our investment portfolio and raise the required financing, TenneT needs to secure an appropriate credit rating by attracting sufficient additional equity. As such, we work closely together with the Dutch Ministry of Finance on alternative solutions for equity financing.

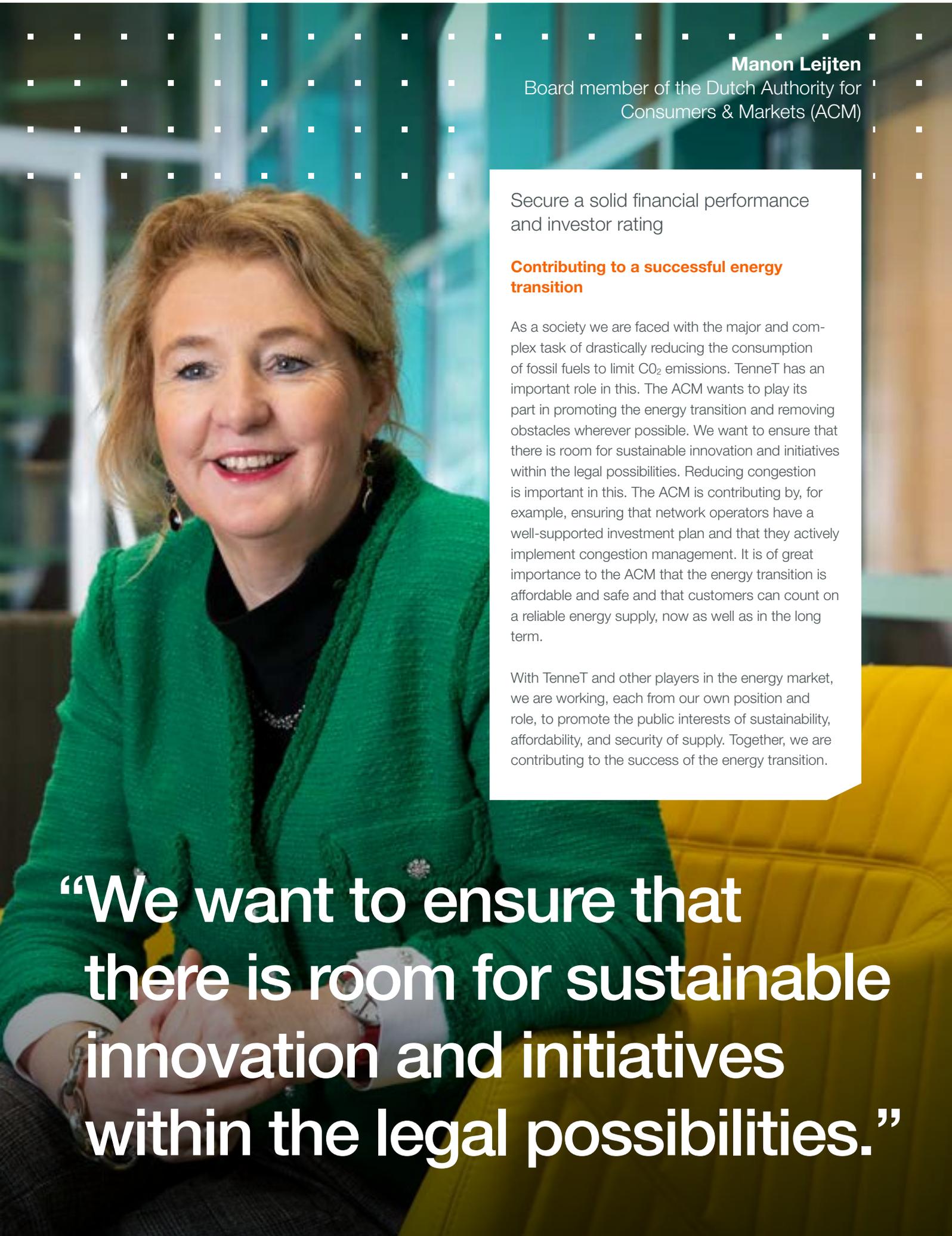
Our revenues are predominantly dependent on the regulatory frameworks in the Netherlands and Germany. The growing concern about the increasing cost of energy is putting more pressure on the reimbursement systems. Adverse changes in any of the regulatory systems might impact our financial performance.

The regulatory reimbursement schedules (revenue cap) in both the Netherlands and Germany aim to allow TenneT to recover the efficiently incurred costs including a market based return. The regulatory methods underlying the revenue cap are typically established for a period of 3-5 years. The main risks for TenneT are that market returns are continuously decreasing as a result of the low interest environment on the capital markets and that it is increasingly difficult to accurately forecast efficiently incurred expenses for future periods as the past no longer reflects the future due to the significant developments in the electricity market.

Both developments could lead to significant deviations between the allowed revenue in a given year of the regulatory period and the actual costs needed to run the business. Although this risk is partially mitigated by the fact that TenneT receives additional income on top of the revenue cap for specific investments it remains an area of debate between TenneT, Regulators and Market Parties.

This risk and the resulting regulation is also a very important factor in financing investments as credit rating methodologies assign significant weight on their assessment of the regulatory regime. As such TenneT strives for reasonable regulatory solutions that treat TSOs and customers fairly and thus provide a fair long term solution for both parties. This also supports the credit rating and leads to efficient costs of capital which is also in the interest of our customers.

Investments in green businesses and economies are increasingly favoured by large investors and banks. To date, this has resulted in a relatively high attractiveness to provide debt and equity to TenneT's infrastructure projects. However, this could be diminished by lower regulatory rates of return on capital as determined by the national regulatory authorities.



Manon Leijten

Board member of the Dutch Authority for Consumers & Markets (ACM)

Secure a solid financial performance and investor rating

Contributing to a successful energy transition

As a society we are faced with the major and complex task of drastically reducing the consumption of fossil fuels to limit CO₂ emissions. TenneT has an important role in this. The ACM wants to play its part in promoting the energy transition and removing obstacles wherever possible. We want to ensure that there is room for sustainable innovation and initiatives within the legal possibilities. Reducing congestion is important in this. The ACM is contributing by, for example, ensuring that network operators have a well-supported investment plan and that they actively implement congestion management. It is of great importance to the ACM that the energy transition is affordable and safe and that customers can count on a reliable energy supply, now as well as in the long term.

With TenneT and other players in the energy market, we are working, each from our own position and role, to promote the public interests of sustainability, affordability, and security of supply. Together, we are contributing to the success of the energy transition.

“We want to ensure that there is room for sustainable innovation and initiatives within the legal possibilities.”

Solve societal challenges with stakeholders and through partnerships

At TenneT, we want to connect everyone with a brighter energy future. To do this, we aim to drive the energy transition, enabling the shift to renewable, fossil-free power. Ambitious climate targets require a social, political, economic and technical evolution, driven by collaboration and collective thought leadership. The challenge is too big for any player to tackle alone.

That is why we use the power of strategic partnerships to drive scalable solutions in fields like flexibility, integration of renewables (offshore wind and solar) and digitalisation. And because the energy transition requires a host of new skills and technologies, we are broadening our partnerships in new sectors, such as data, automotive and green hydrogen, and scaling up from pilots to full projects. This way, we trust to find the solutions we need for a green energy future. We don't only draw on the power of partnerships to meet technological challenges – other forms of collaboration also help us meet our strategic goals to safeguard our financial health and energise our people and organisation.

A representative sample of our collaborative efforts is provided below.

Our performance in 2020

Partnerships to drive the energy transition

Our aspiration is to drive, not just facilitate the energy transition. To do this, we aim to work with other ambitious players to find ways to transition to a low-carbon economy. To this effect, we are working on large-scale offshore wind integration, ways to reduce our environmental footprint and design the energy system of the future.

Scaling up offshore wind power: North Sea Wind Power Hub

An accelerated deployment of large-scale offshore wind hubs in the North Sea is expected to play an important role in achieving the Paris climate targets and establishing the North Sea as Europe's renewable energy 'power house' of the future. Our collaboration on the North Sea Wind Power Hub project exemplifies this vision. This partnership consists of Gasunie, Energinet and TenneT (and the Port of Rotterdam as a strategic partner). The project entails the evaluation and development of concepts for an internationally coordinated roll out of 'hub-and-spoke' power hubs in the North Sea. These will connect onshore energy markets with offshore wind power and use smart solutions to integrate wind-powered electricity into the onshore energy grid, including power to gas technology.

Building model solutions for the future: SINTEG

TenneT is a partner in the Smart Energy Showcases – Digital Agenda for the Energy Transition (SINTEG). This involves the creation of large-scale showcase regions that can be used to develop and demonstrate model solutions for a secure, efficient, and environmentally compatible energy supply. The programme is focused on building smart networks, linking energy supply and demand, and on innovative grid technology and operating strategies. It addresses key challenges of the energy transition, including the integration of renewables into the system, flexibility, digitisation, system security, energy efficiency and the establishment of smart energy systems and market structures. The project makes an important contribution to the digital transformation of energy supply and the overall energy transition.

Solutions for integrating North Sea wind power: NSON II

TenneT, together with project partners Fraunhofer IEE, Leibniz University Hanover and University of Kassel, has been invited by the German Federal Ministry of Economic Affairs and Energy (BMWi) to participate in this research project, which explores the cost efficient and international integrated connection of offshore wind energy in the North Sea. TenneT's main input is in system and grid control and optimised (grid-) planning and operation of offshore systems.

Advancing HVDC Offshore Transmission Networks: PROMOTioN Offshore

TenneT is a key player in this leading European research programme that aimed for an offshore grid development plan, which was concluded in the end of 2020.

The programme aims to develop meshed HVDC offshore grids, based on cost-effective and reliable technological innovation in combination with a sound political, financial and legal regulatory framework.

Finding cleaner alternatives for SF₆ gas

As we want to minimise the emission of greenhouse gases from our operations, we are implementing pilot projects to

investigate alternatives to this highly-pollutive SF₆ as an isolating and switching gas in our technical installations. This includes collaborations with Siemens and GE with whom we are testing the use of different gas mixtures in the field, such as Fluornitrile and Fluoroketone and natural gases. Work in this area was further boosted this year with an order placed for a 145 kV Gas Insulated Switchgear for BorWin5, replacing SF₆ with an alternative gas.

Harnessing the power of hydrogen: Element Eins

TenneT is working with Gasunie and Thyssengas to develop solutions using the gas network to distribute and store electrolysed hydrogen as a flexible energy source. The partners are working on a pilot project called Element Eins. This involves the construction of a power-to-gas installation with a capacity of 100 MW in Lower Saxony, Germany, which is expected to come into operation gradually from 2022 onwards. By bringing electricity and gas together in this way, we can create an integrated energy system, capable of serving our needs in a green energy future. The German federal government has selected the project as one of 20 'living laboratories of the energy transition' for a government grant, reflecting its strategic importance.

MVO Nederland and Groene Netten

TenneT is a member of MVO Nederland, a Dutch network of entrepreneurial businesses aiming to build a climate-neutral, inclusive and circular economy with fair supply chains. We are also part of a coalition called the Groene Netten, which is supported by MVO Nederland. Here we are working with companies that manage other critical infrastructure in the Netherlands, such as roads, rail, telecom, gas and electricity infrastructure. We work together on themes such as circularity and biodiversity. For more information on this, please refer to the chapter 'Create value to transition to a low carbon economy.'

Unlocking flexibility in the grid with crowd balancing: Equigy

Feeding volatile wind and solar power into the electricity system creates a complex challenge: keeping the grid balanced, while ensuring security of supply. Traditionally, TSOs have used fossil-fuelled power plants to provide the flexible power needed to keep the grid balanced. Now, they are looking for renewable sources of flexibility. One innovative solution is to access energy stored in privately owned decentralised energy sources, like electric vehicles, home batteries and heat pumps. To harness the flexibility offered by these storage devices, TenneT has teamed up with other TSOs in Italy and Switzerland to create a European crowd-balancing joint-venture, called Equigy.

The platform uses blockchain technology to register and validate a multitude of transactions with owners of distributed energy sources. It gives TSOs visibility of the flexible capacity offered by home-storage devices and allows them to manage the transactions securely. So far, Equigy has been launched in the Netherlands, Germany, Italy, and Switzerland, but it is a platform designed to accommodate a bigger scale. The plan is for it to progressively roll out in other European countries and discussions with other TSOs and partners (manufacturers of electric appliances and aggregators) are ongoing. For more information on Equigy: www.equigy.com.

Partnerships to secure supply, today and tomorrow

In a fast-changing energy landscape, we understand that the way we secure supply today might not be the same to secure supply tomorrow. Innovative solutions and partnerships will be crucial to this, not just to build more assets, but also to make smarter use of our grid. We are involved in multiple collaborative initiatives to increase grid utilisation through new technologies and data solutions.

Optimising system operations for the energy transition: InnoSys 2030

In InnoSys 2030, TenneT is working with partners to find new solutions to help shape the future energy landscape. This programme was initiated by the German government and the four German TSOs to find innovative solutions to boost grid flexibility and automation, thereby allowing existing grid networks to handle greater capacity while ensuring security of supply and preventing system failure. InnoSys aims to design future-proof electricity systems, optimised for the complexities of renewable energy in the years ahead.

Working together with other European TSOs in ENTSO-E

TenneT works together with other TSOs in the European Network of Transmission System Operators for Electricity (ENTSO-E). This is a collaboration of 42 TSOs from 35 countries working together in key areas including establishing technical and market-related network codes, coordinating plans to develop European infrastructure and promoting technical cooperation between TSOs. As a member of ENTSO-E, TenneT is helping to build a more integrated European electricity market, contributing to a sustainable energy landscape, and ensuring electricity in Europe is affordable, sustainable and secure.

Developing the energy grid of the future: Kopernikus project ENSURE

TenneT is a key partner in the Kopernikus project ENSURE in which scientists, industrial companies and civil society organisations are developing the energy grid of the future. The Kopernikus projects are among the largest research initiatives in Germany in the field of the energy transition. Their aim is to make it possible for Germany to be climate-neutral by 2050. Power-to-X technologies play a key role in this, as they can transform electricity into other forms of energy, for example fuels (Power-to-Fuel), gases (Power-to-Gas), and heat (Power-to-Heat). In this way, electricity will become a raw material for gas, heating and transport. Another challenge is to re-design the electricity grid so it can cater for volatile in-feeds from renewable energy sources. A re-designed power grid is an essential requirement for a successful energy transition. The ENSURE project develops potential concepts for such a grid and the route to its realisation.

Partnerships to energise our people and organisation

Partnerships for Refugee Talent

We are hiring refugee talent in the Netherlands and Germany providing apprenticeships and vocational training to them. To find qualified refugee talents in the Netherlands, we partnered up with the Refugee Talent Hub and TENT Partnership – both initiatives linking refugee talent and employers, with paid employment as the goal. The Refugee Talent Hub and TENT Partnership provide a network, bringing affiliated employers into contact with job-seeking newcomers through small-scale, customised meet & greet meetings. In 2019 / 20 TenneT Netherlands gave 7 newcomers work opportunities, with 2 finding permanent employment with TenneT in 2020. TenneT Netherlands provided a learning path ('opleidingstraject') for these 7 refugee talents to learn more about the company and gain insights into the working culture in the Netherlands. In addition to this learning path for newcomers, their leaders and teams have been coached to be more inclusive and understand the cultural background of refugee talent.

Cooperation with educational institutes

Sharing expertise and insights with educational institutes plays an important part in building knowledge for our sector and also educating the new generation of technical talent. In the Netherlands we collaborate with Netbeheer Nederland in the MBO-Covenant Klimaattechniek. This is a collaboration between the educational sector, government and grid operators and includes agreements to create more training positions and job guarantees for technical MBO students. By creating more opportunities for technical

talent, we hope to alleviate the skills shortage in the energy sector. TenneT is further tapping into talent of the future via the Integrated High-Voltage Laboratory at TU Delft. Through this, TenneT can gain insight into the latest knowledge and research undertaken by Masters and PhD students.

Partnerships to safeguard our financial health

Our cooperation with co-investors

To finance the expansion of offshore grid connections, TenneT cooperates with external co-investors such as Copenhagen Infrastructure Partners (CIP) and Chubu Electric Power. Via separate legal entities the co-investors contribute equity and receive economic participation rights in return. Their contribution helps to ensure adequate financial ratios. Furthermore their participation strengthens TenneT's interest in a reliable and stable regulatory framework as reasonable co-investors interests are communicated towards policy makers and regulators.

Raise the necessary funding: TenneT's house banks

Without a solid financial position, TenneT would be unable to achieve its strategic goals and fulfil its role in the energy transition. Our financial stability is built on our good relationship with our shareholder, the Dutch state, and through close contacts with the banks participating in TenneT's Revolving Credit Facility (RCF).

ABN AMRO, BNG, BNP Paribas, Commerzbank, Deutsche Bank, HSBC, ING, Lloyds, Rabobank, NatWest and SMBC are participating in our current sustainable RCF of EUR 3.3 billion. The majority of these house banks also participated in TenneT's 2009 RCF, showing our commitment to long-term relationships.

With the support of our house banks we issue the necessary debt to finance our projects and have become one of the largest corporate issuers of sustainable, green debt financing in Europe. In 2020, TenneT issued with the support of its banking partners EUR 2.35 billion of Green (Hybrid) Bonds. Through this partnership, we are able to secure a solid financing and ensure that we can drive the energy transition in a more affordable way.

What could prevent us from realising our goals?

To be able to drive the energy transition and lead as a green grid operator, it is important to create societal acceptance of the energy transition. Lack of acceptance could lead to the inability to fulfil our ambitions and delay the transition to a low-carbon economy.



Societal acceptance of our infrastructure remains important. TenneT's construction and operation of substations, underground cables and transmission lines, and investments in sustainable energy solutions may affect a large number of people and interests. Because grid expansion projects take years to develop and cost billions of euros, the impact of project delays, difficulties or shutdowns may be significant.

The expansion of our high-voltage electricity grid may significantly alter landscapes in a way that can affect the livelihood of surrounding residents. The debate with respect to potential health risks related to our overhead transmission lines and magnetic fields is ongoing. As TenneT, our aim is to comply with rules and regulations and take sufficient caution in the construction and operation of our assets.

We are also currently working together with the respective authorities and other involved stakeholders to include their views as we are in the process of updating our policy with respect to magnetic fields.

In our view, forming long-term partnerships within and outside the TSO work field is an opportunity to drive the energy transition. Initiatives like integration of energy system, crowd balancing and big data need strong partnerships between several industries and local and national governments.



Christopher Jones

Part-time professor of Energy Law, EUI and former Deputy Director-General for Energy at the European Commission

Solving societal challenges with stakeholders and through partnerships

Equigy sees Europe move from analogue to digital energy legislation

Launched by a consortium of leading national TSOs – TenneT, Swissgrid and Terna – Equigy is one of the most innovative initiatives to help drive the energy transition in Europe. The blockchain-based platform allows TSOs to access electricity stored in small and distributed consumer-based units, such as electric vehicles and domestic heat pumps. This source of flexibility can be used to keep the grid in balance, offsetting intermittent in-flows of power from renewable energy sources.

Christopher Jones was involved from the start of the Equigy project to help assess what legal adjustments are needed at a European level to link batteries for crowd balancing. “Although it is of course extremely complex, technically, and legislatively, it is definitely doable. It is a matter of selectively adjusting some of our European energy regulations – which were after all drafted 20 years ago – for an entirely different system. We are moving from analogue to digital legislation.”

Professor Jones says Equigy has a crucial role in achieving Europe’s Green Deal Targets. “Equigy is a real game-changer and really puts the EU ahead. It is cost-effective, offers standardisation and has great potential for scale-up. It could play a crucial role in achieving our Green Deal Targets.”

“We are moving from analogue to digital legislation.”

Statements of the Executive Board

The Executive Board is responsible for designing and operating TenneT's risk management and internal control system, and for reviewing its effectiveness.

In control statement

The Executive Board is responsible for designing and operating TenneT's risk management and internal control system, and for reviewing its effectiveness.

The risk management and internal control system consists of the following elements:

- The enterprise risk management system aimed to identify, analyse, define mitigating measures and monitor the development of risks relevant to TenneT;
- The internal control framework aimed to manage and control critical processes, including control self-assessments to document the effectiveness of control processes;
- Business plans and quarterly reports with information on financial and non-financial objectives and their achievement;
- Internal audits of key processes and follow-up to audit findings with relevant management;
- Actions based on recommendations made in the external auditor's management letter;
- An upwardly cascading internal Letter of Representation (LOR) process, resulting in a company-wide LOR signed by the Executive Board;
- A compliance management system that enables TenneT to demonstrate its compliance with relevant laws and regulations, industry codes and standards, as well as its commitment to good corporate governance, best practices, ethics and stakeholder expectations.

The Executive Board periodically reviews and analyses the strategic, operational, financial and compliance risks to which TenneT is exposed. It also regularly assesses the design and effectiveness of the risk management and internal control system. The results of these assessments are shared with the Audit, Risk & Compliance Committee, acting as a committee of Supervisory Board, the Supervisory Board itself and the external auditor.

The risk management and internal control system does not provide absolute assurance that all corporate objectives will be fully achieved, nor does it give full assurance that material errors, losses, fraud or violations of laws and regulations will not occur in the operational processes and/or the financial reporting.

Taking the above into account, the Executive Board is of the opinion that TenneT's risk management and internal control system provides reasonable assurance that TenneT's financial reporting does not contain any errors of material significance and that the risk management and internal control system has operated effectively in the year under review.

Statement of responsibility

We confirm that, to the best of our knowledge, the financial statements for the period 1 January to 31 December 2020 have been prepared in accordance with IFRS, as adopted by the EU, and with Part 9, Book 2 of the Dutch Civil Code; that the disclosures in the financial statements are a true and fair view of TenneT's assets, liabilities, financial position and results as a whole; and that the disclosures in the annual report give a true and fair review of TenneT's financial performance, results and position, together with a description of the most significant risks and uncertainties the company faces. Furthermore, we confirm that to the best of our knowledge, the Group has adequate resources to remain in operation during the next 12 months and consequently the financial statements have been prepared on a going concern basis.

Arnhem, 8 March 2021

M.J.J. van Beek
O. Jager
T.C. Meyerjürgens
M.C. Abbenhuis

Our Executive Board



M.J.J. (Manon) van Beek

Chair Executive Board /
Chief Executive Officer

50, Dutch (f)

Initial appointment:

1 September 2018

End of first term:

31 August 2022

Other positions qualitate qua:

- Chair Aufsichtsrat TenneT TSO GmbH
- Member Board TenneT Verwaltungs GmbH

Other positions:

- Chair Supervisory Board Kanker.nl Foundation
- Chair Board Giving Back Foundation
- Chair Board Refugee Talent Hub Foundation
- Member of Advisory Board Top Woman of the Year Foundation (until 1 November 2020)
- General Member Board of German-Dutch Chamber of Commerce DNHK
- Council of the Thinktank Agora Energiewende
- Chair of the Roundtable for Europe's Energy Future (REEF)



O. (Otto) Jager

Member of the Executive Board / Chief Financial Officer

51, Dutch (m)

Initial appointment:

1 August 2013

Second appointment:

1 August 2017

End of second appointment:

31 July 2021

Other positions qualitate qua:

- Member Board TenneT TSO B.V.
- Member Board TenneT TSO GmbH

Other positions:

- Chair Advisory Council of the New CFO Executive Program, Erasmus University Rotterdam



T.C. (Tim) Meyerjürgens

Member of the Executive Board / Chief Operating Officer

45, German (m)

Initial appointment:

1 March 2019

End of first appointment:

29 February 2024

Other positions qualitate qua:

- Member Board TenneT TSO B.V.
- Member Board TenneT TSO GmbH
- Member Board TenneT Verwaltungs GmbH
- Member Board TenneT Offshore GmbH

Other positions:

- Member Executive Board WAB (Wind Energy Association Bremerhaven)
- Member Advisory Board Offshore Wind Energy MBA
- Member Board of Trustees German Offshore Wind Energy Foundation
- Member Advisory Board Federal Association of Wind Farms Offshore
- Member Board of Directors FGH (Forschungsgemeinschaft für Elektrische Anlagen und Stromwirtschaft e. V.)
- Board of Trustees FGE (Forschungsgesellschaft Energie e. V.)
- Member of the German National Committee of CIGRE



M.C. (Maarten) Abbenhuis

Member Executive Board / Chief Operating Office

47, Dutch (m)

Initial appointment:

1 January 2021

End of appointment:

31 December 2024

Other positions qualitate qua:

- Member Board TenneT TSO B.V.
- Member Board TenneT TSO GmbH

Other positions:

- Formal representative Vereniging Nederlandse EnergieData Uitwisseling (NEDU)
- Member Board Netbeheer Nederland (as of 14 January 2021)
- Member Cooperation Board TSCNET Services GmbH (as of 1 January 2021)



B.G.M. (Ben) Voorhorst

Member of the Executive Board / Chief Operating Officer

61, Dutch (m)

Initial appointment:

1 December 2007

Reappointment:

1 December 2019

End of appointment:

31 December 2020

Other positions qualitate qua:

- Member Board TenneT TSO B.V.
- Member Board TenneT TSO GmbH

Other positions:

- Member Board Netbeheer Nederland (Until 31 December 2020)
- Member Cooperation Board TSCNET Services GmbH (Until 13 January 2021)
- Member Supervisory Board ETPA
- Member Standing Committee on European Integration of the Advisory Board on International Issues
- Member Supervisory Board Energiefonds Overijssel B.V.

Supervisory Board Report



The Supervisory Board (SB) supervises the overall management of TenneT by the Executive Board (EB) and advises the EB on its strategy and policies. In 2020, TenneT re-organised its organisation for growth to provide a solid foundation to carry out its strategy. The SB is delighted to see a new Senior Leadership Team (SLT) underneath the EB consisting of one third female leaders, as well as an equal split between German and Dutch leaders. TenneT's ambition to be a leader in the European Energy Transition is changing the dynamics for TenneT and its stakeholders. At the same time, TenneT has managed to ensure an extremely high level of electricity grid reliability. Furthermore, TenneT needed, and will need, to secure sufficient funding for its enormous investment portfolio. This report describes the contribution of the SB to achieve all this.

Safety and security of supply

Safety is one of the main points of attention for the SB and is a topic that is close to the hearts of its members. Sadly, two fatal incidents occurred in 2020, during the course of construction work being performed for TenneT. The SB calls upon and challenges the TenneT organisation to do its utmost to prevent such incidents from happening. Safety to the SB means being intrinsically motivated to keep each other (both colleagues and third parties) safe and free from harm and to speak up if that should be at risk. The SB closely monitors TenneT's performance in the field of safety – as well as that of its contractors. This is discussed in every SB meeting, where lessons learned are shared extensively. Where TenneT is currently at level 3 of the Safety Culture Ladder, TenneT aims for level 4 in the near future. The SB advises and challenges the EB and the SLT to work towards continuous improvement, through an interactive Permanent Education Session on safety, amongst other things. The SB were very pleased to see that a safety leadership programme is being set up within TenneT throughout the whole organisation. The SB would like to see safety leadership throughout the whole

chain of producers, contractors, and service providers that TenneT works with and helps the EB and SLT to try and achieve this. TenneT is working on improving Safety by Design, to which the SB has lent its support. The SB was also pleased with the workshop that was organised within the SLT on psychological safety.

Furthermore, the COVID-19 pandemic has been shedding new light on safety and security of supply. This was also a recurring topic for the SB during its meetings throughout the year. Next to developments in COVID-19 employee cases, risks pursuant thereto and associated mitigation measures, the SB closely monitored business continuity. For TenneT employees affected by the pandemic, telephone helplines were set up. Where the longer-term effects of COVID-19 may only become manifest in 2021 or later, TenneT has taken extensive measures in the fields of grid operation, on- and offshore construction, maintenance and preservation, and in the office to deal with immediate and longer terms risks and opportunities. Fortunately, TenneT has proved to be resilient: to date, COVID-19 has only had a limited effect on the day-to-day business of TenneT.

Security of Supply

TenneT's grid performance, both onshore and offshore, was well on target. TenneT has started the 'Delivery Capability Expansion (DICE)' program to enable TenneT

to double its output capacity for maintenance, replacement, and grid expansion projects by 2023 in various ways. This project was discussed in-depth with the SB, leading to valuable insights and sharing of best practices.

Other main topics of attention

Sharpened strategy

TenneT's sharpened strategy is based on four pillars: (i) energise people and organisation, (ii) secure supply today and tomorrow, (iii) drive the energy transition and (iv) safeguard financial health.

In November 2020, the SB and the EB participated in the annual strategy session. Progress in respect of the sharpened strategy was discussed, and the following concrete initiatives of the strategy in action were highlighted:

- **Delivery Booster:** a bottom-up method to unlock substantial value from our resources. The SB was very pleased with the new planning app, which helps reduce maintenance work to free up resources and avoids double training modules for critical functions. This allows for a shorter training period and as such earlier availability of these people.
- **Grid booster:** creating two separate energy storage devices, one to be installed in the north and one in the south of the main grid congestions in Germany. These will act as a source and sink of a "virtual power line" in case of emergency.
- Attention has also been paid to 'being a green grid operator', amongst others where successful sustainability results in offshore tenders for the windfarm connections have been presented to the SB.

Financing

TenneT's future equity financing, needed to drive the energy transition, has been a very important topic for the SB. The SB welcomed the successful issuance of EUR 1 billion of green hybrid bonds in July 2020, as well as the successful issuance of EUR 1.35 billion of green senior bonds in November 2020.

The SB is closely monitoring and providing advice in respect of further equity financing and the negotiations that TenneT is engaged in with the German State regarding a possible participation of the latter in TenneT. These negotiations are conducted together with the Dutch Ministries of Finance and of Economic Affairs and Climate.

Further topics that were discussed with the EB and management were the financing plan, the financing structure, credit rating, forecasts on cash flow and liquidity and various debt financing instruments.

Investment portfolio

In 2020, the SB paid significant attention to TenneT's increasing investment portfolio. A multitude of project budget applications and exception reports were approved for projects that will be carried out on the basis of either the Investment Plan (for The Netherlands) or the Grid Development Plan (the NEP) for Germany. These investments are planned for a 10-year horizon and beyond.

The Energy Transition and international ambitions to realise a sharply increasing amount of renewable energy means that TenneT is requested to carry out a continuously growing number of projects. This necessitates securing further resources and integrated and innovative ways of carrying out this portfolio. The SB particularly welcomes the initiatives of the EB to enter into cooperation with other companies, such as Gasunie and Thyssengas, to explore the role that hydrogen solutions may play in the energy transition. The SB is engaged in ongoing dialogue on the strategic, societal and technical issues at stake, taking account of where potential legal and regulatory bottlenecks may occur and how to address these.

Maintenance and renewal efforts

Besides carrying out all investments necessary for the energy transition, TenneT also ensures a grid performance of nearly 100%. Keeping an electricity grid in operation secure to this high standard requires careful consideration of the timing and location of maintenance and renewal projects. The SB has taken careful note of the initiatives embarked upon by the organisation to free up critical resources for maintenance work earlier, for instance by eliminating superfluous training modules for supervising personnel. Maintenance and replacement projects may also be combined in a smart way to minimise planned grid outages.

HR Topics

On 1 July 2020, TenneT's changed organisation structure became a fact. The SB welcomed the streamlined design and the diverse, second-layer senior leadership team. In early 2020, the EB's remuneration policy was revised and may be revised again when a new equity financing solution is found. The remuneration policy for the SB is still under consideration by the Shareholder.

The SB also paid close attention to the topic of inclusion and diversity. The SB challenged the EB on its ambitions in this field, resulting in 2021 targets for female inflow of new employees of at least 30% and culturally diverse inflow of at least 10%. Furthermore, the SB discussed the mobility vision and action plan in line with TenneT's ambition to become a green grid operator.

2020 - 2021

All in all the SB have been able to strike a good balance between its various roles as employer, supervisor and sparring partner for the EB. This will be continued in 2021 with a focus on the equity financing solution, on the investment portfolio and on TenneT's renewed organisation. With all topics at play within the Netherlands, Germany and above all to drive the European Energy Transition, the SB was pleased to see that TenneT's unitary governance proved successful in 2020, just like in the years before. This facilitates a really (pro)active contribution to the system integration of Europe, of offshore and onshore and of electrons and molecules).

Composition of the Executive Board

The SB took a close look (with input from the EB) at the ideal (future) composition of the EB, also in view of the stepping down of COO Ben Voorhorst as statutory director as of 1 January 2021. The job profile for a new COO was determined in consultation with the relevant stakeholders, and a careful recruitment and selection procedure ensued. The SB is delighted that this has resulted in an internal candidate, Maarten Abbenhuis, taking over the role. Mr. Abbenhuis knows the organisation inside-out and is fully committed to realising the European energy transition, sustainably and safely. The SB is grateful for and would like to thank Mr. Voorhorst for his long and visionary leadership, helping TenneT become a leading TSO in Northwest Europe and a driving force behind the energy transition during his 25-year tenure.

Composition of the Supervisory Board

The appointment term of Pieter Verboom expired in September 2020, and that of Rien Zwitserloot in November 2020. They will not be replaced, as contemporaneously with the recruitment in 2019 of three new SB members, the SB had decided to carry on with five members. Of the five SB members, three are female, which makes percentage of female representatives on TenneT's SB is currently well above 30%. Furthermore, the whole SB represents various European nationalities. All SB members have extensive experience in the Netherlands, Germany and Europe and as such reflects the international character of the TenneT as a TSO.

To safeguard a high level of engagement for TenneT and avoid potential conflicts of interest, external positions of the members of the SB and the EB are discussed annually.

The composition of the SB complies with the Electricity Act, which stipulates that the majority of its members have no direct or indirect links to legal entities (or shareholders thereof) engaged in the production, purchase or supply of electricity or gas. It was noted that Essimari Kairisto is also a member of the SB of, and chairs the Audit & Risk Committee, of Fortum Oyj. It was concluded that this role currently does not result in a conflict of interest.

For more information on members of the SB as well as on the (re)appointment schedule, please visit our [website](#).

SB meetings

Ten SB meetings took place in 2020, with [94%] of SB-members present at the -mostly virtual- meetings. In addition, nine SB meetings were organised apart from the regular meeting schedule, mostly on the topic of the possible participation of the German State in TenneT.

Permanent education

Keeping the knowledge of the SB members up to date on various topics is essential. As part of the continuous permanent education plan, TenneT organised interactive workshops on black-outs, safety, cyber security and the European Green Deal. Next to that, SB members joined various TenneT webinars and events on topics like the European Offshore and Hydrogen agenda as well as on integrated grid planning. One project site-visit of the Shareholder, the SB and the EB to a combined transformer and switching station (handling 380 kV and 150 kV) took place early 2020, just prior to the COVID-19 pandemic. Due to the pandemic, subsequent site-visits were cancelled.

SB attendance 2020	Supervisory Board	Audit, Risk and Compliance Committee	Remuneration and Appointments Committee	Strategic Investments Committee
A.F. van der Touw (chair)	19/19	4/4	4/4	-
P.M. Verboom ¹⁾	15/16	3/3	-	-
R.G.M. Zwitersloot ²⁾	18/18	-	-	4/4
L.J. Griffith ³⁾	18/19	-	4/4	-
E. Kairisto ⁴⁾	18/19	4/4	-	2/2
A.C.C. van Els ⁵⁾	19/19	-	4/4	3/3
E. Schöne ⁶⁾	17/19	2/2	-	4/4
Total attendance	96.0%	100.0%	100.0%	100.0%

¹⁾ January – September 2020. Mr Verboom's term ended on September 17th, 2020

²⁾ January – November 2020. Mr. Zwitersloot's term ended on November 23th, 2020.

The Chair of the SIC was handed over on May 13th, 2020.

Mr Zwitersloot remains member of the Aufsichtsrat of TenneT TSO GmbH.

³⁾ Vice-chair as of September 18th, 2020

Mrs Griffith is also member of the Aufsichtsrat of TenneT TSO GmbH.

⁴⁾ Chair ARCC as of November 24th, 2020; Member SIC as of September 18th, 2020

⁵⁾ Chair SIC as of May 13th, 2020

⁶⁾ Member ARCC as of September 18th, 2020

Committees

Strategic Investment Committee

The SB's Strategic Investment Committee (SIC) reviews investment proposals exceeding EUR 50 million and advises the SB on such proposals. Nineteen project budget applications and exception reports were discussed within the SIC to prepare for these decisions by the SB. Where necessary, the SIC challenges proposed alternatives for projects, also looking at the technical, financial and societal aspects of these projects. The SIC also monitored timeliness, quality, cost efficiency and risks associated with large projects, on the basis of the quarterly investment reports. These quarterly progress reports on large projects were reviewed and discussed by the SIC and subsequently, by the SB.

These reports focused on project management, with specific attention paid to timely delivery, risk of delays and interruptions, and external requirements that could lead to delays and/or projects becoming more expensive. In 2020, areas of focus for the SIC continued to be the availability of material- and human resources and the supplier market, especially pro-active supplier management. In light thereof, the SIC also had various dialogues on TenneT's 'Delivery Capability Expansion (DiCE)' programme.

During 2020, the SIC met five times with both COOs present (with one exception, where only one COO attended), one meeting coincided with an SB meeting.

During 2020, the SIC consisted of Rien Zwitersloot (chair until May 2020 and member of the SIC until November 2020), Edna Schöne, Pieter Verboom (until September 2020), Ms Kairisto and Stijn van Els. Mr Van Els succeeded Mr Zwitersloot as chair of the SIC formally as of May 2020. Ms Kairisto joined the SIC ahead of Mr Verboom's SB membership term ending.

Audit, Risk & Compliance Committee

The SB's Audit, Risk & Compliance Committee (ARCC), monitors the company's financial reporting, including quarterly and annual reports, financing, risk management and internal control, internal audit, the independent external audit of the financial statements and the evaluation of the external auditor.

In 2020, the ARCC consisted of Pieter Verboom (chair until September 2020), Essimari Kairisto (chair from September 2020 onwards) and Ab van der Touw. Edna Schöne joined the ARCC after Mr Verboom's term ended. The committee held four meetings attended by the CEO (three meetings), the CFO (four meetings), the Head of Internal Audit and the company's external auditor. For relevant agenda topics, the (associate) directors for Financial Governance Services and Business Guidance as well as the Head of Compliance & Integrity also joined the meetings. The ARCC also spoke with the external auditor without any EB members present, as was also the case in previous years. No additional material topics arose from this meeting. As in previous years, the CFO had additional one-on-one meetings with the chair of the ARCC. The Head of Internal Audit also met with the members of the ARCC separately, among others to discuss the Audit Plan for 2021.

Management Letter

Deloitte, TenneT's new external auditor started its engagement as of 1 January 2020. The ARCC interacted with the external auditor and the EB in each ARCC meeting. Deloitte assessed the overall control environment of TenneT and reported no significant deficiencies. Key findings reported by Deloitte in its management letter related to decommissioning provisions, IT access management and the useful life of assets.

Risk management

Individual interviews were conducted with members of the ARCC as part of the 2020 annual strategic risk assessment. Accommodating the rapid growth of the investment portfolio and all resources necessary to achieve that, while at the same time controlling risks, remains a challenge. An overview of strategic risks is listed in the section 'Risk management and internal control'.

Compliance and integrity

Compliance and integrity require constant attention. The SB discussed the quarterly compliance and integrity reports with both the EB and the Head of Compliance & Integrity, with a focus on lessons learned from the cases investigated, as well as strengthening the compliance team and the compliance management system. The SB

appreciated a workshop on compliance and integrity organised with the EB and the SLT. The SB also welcomed the introduction of a new code of conduct, designed around the principles of ownership, connection and courage, as well as the launch of a refreshed Speak Up policy (formerly: Whistleblower policy), to encourage people to speak up whenever they have compliance or integrity concerns. An open and transparent culture is key to the continued success of TenneT.

Regulation

In all its supervisory activities, the SB took the regulatory framework in both the Netherlands and Germany into close account. The balance between regulatory requirements and value creation has proven to be delicate, especially as not every situation is covered by rules or regulations.

Integrated reporting and audit

The SB discussed TenneT's financial statements for the 2019 financial year, the 2020 internal quarterly reports and the 2020 interim results during the year, as well as the independent auditor's report, internal audit reports, results from internal risk and control assessments, the 2021 budget and the Integrated Performance Plan 2021-2023.

Financial statements

The SB examined the Integrated Annual Report 2020, the financial statements 2020 and the independent auditor's report, the assurance report of the independent auditor related to non-financial information, the management letter and the audit results report issued by TenneT's external auditor. This review was based on the ARCC's preparatory work and advice. As a result, the SB endorsed the documents and recommends that the General Meeting of Shareholders adopt the financial statements. The SB recommends that the General Meeting of Shareholders discharges the EB members from liability for its management of the company and releases the SB from liability for its supervision.

Remuneration & Appointments Committee

The SB's Remuneration & Appointments Committee (RAC), is tasked with the company's remuneration policy and the remuneration of individual board members. The RAC also establishes criteria for (re)appointing new statutory EB and SB members and supervises the recruitment process. Furthermore, it is responsible for management review and succession planning for the EB.

The RAC consists of Laetitia Griffith, Ab van der Touw and Stijn van Els and met five times, in accordance with the regular meeting schedule. The meetings were also attended by the CEO, the CFO and the Director People.

Succession planning

The current and future composition of TenneT's EB is of great importance to the SB, which makes succession planning crucial. As set out under composition of the EB, this topic was high on the SB's agenda given the search for a new COO. Inclusion and diversity remains a very important topic, particularly in terms of how to achieve a greater percentage of female leadership in the EB and the SLT as well as a good balance in terms of nationality and diversity of thinking. To that effect, the composition of, and the succession of SLT members and members of the next management layers was discussed.

Performance Dialogues

Furthermore, the RAC conducted performance dialogues with the members of the EB that were prepared by the RAC based on input gathered during a SB meeting not attended by the EB. As in previous years, during 2020 pairs of SB members had meetings with each individual EB member to gain more insight into the EB team dynamics as well as individual performance. Besides assessing the performance of the EB, the SB also discussed the performance of TenneT's wider SLT.

Inclusion and Diversity

Without inclusion (behaviours and social norms that ensure people feel welcome), diversity (employing a diverse team of people that reflects the society it serves) cannot exist. TenneT's beliefs with regard to inclusion and diversity are that connecting people of various types and backgrounds reflect TenneT's diverse stakeholders in society, that for growth it is necessary to think more broadly and more European, and that diversity helps generate better innovative and financial achievements.

TenneT strives to work with people from diverse backgrounds and ages, with a range of experience, skills, and knowledge. In addition, TenneT believes that diversity contributes to exploring new approaches and outside-the-box thinking that may contribute to a more efficient way of working. Bearing in mind the Dutch Civil Code and the Dutch Corporate Governance Code, the SB has set a gender diversity target of 30% female board members, both executive and non-executive. Even though the search for a new COO has not led to increased gender diversity, the SB strives for TenneT's EB to become more diverse in the coming years. As three out of five SB members

are female, the percentage of female representatives on TenneT's SB is currently well above 30%. Next to the executive levels, the SB is pleased with the diversity of TenneT's Senior Leadership Team as of 1 July 2020: more than 30% females, a 50-50% balance between Dutch and German based leaders and a good mix of internal appointments (16 out of 22) and external hires (6 out of 22). For the RAC inclusion and diversity will remain a top priority in 2021 with a focus on gender as well as cultural diversity.

Remuneration

In 2020, the SB reached a temporary agreement with the Shareholder on the remuneration policy for EB members. This policy will be applicable for the time being, under the current shareholder and equity financing structure. The SB aims to set up a remuneration policy which enables the company to attract suitable employees on all levels across Europe. Although the SB's responsibility does not extend beyond EB-members, any remuneration policy set for the EB impacts the entire company. The SB fully recognises that TenneT is a state-owned company and therefore has to respect certain limitations on remuneration packages. Nevertheless, the SB strives for a remuneration policy which adequately reflects the increasing complexity and size of the company.

Self-evaluation of the SB

The SB evaluated its own performance at the end of 2020. Several points to ensure better functioning of the SB and interaction with the EB have been shared and will be taken into account for 2021 and onwards.

Furthermore, the SB members filled out a capability matrix, in which each SB member's knowledge of various competencies has been listed. To further strengthen the SB capabilities and stay up-to-date, the SB will include topics like Regulation, Capital markets and Digitization into the 2021 permanent education calendar.

In 2020, each SB meeting ended with an evaluation of the meeting. The SB and EB openly shared their reflections on the quality of – and the interaction in – the dialogues, as well as the setting of the agenda and the quality of the documents. They also shared their thoughts on the effectiveness of online meetings.

Capabilities Matrix Supervisory Board

Competencies	A.F. van der Touw (chair)	P.M. Verboom (vice-chair/ until 17-9-2020)	L.J. Griffith (vice-chair from 17-9-2020)	R.G.M. Zwitserloot (until 23-11-2020)	E. Kairisto	S. van Els	E. Schöne
General management	●	●	●	●	●	●	●
Financial management	●	●	●	●	●	●	●
Capital market/ investor relations	●	●	●	●	●	●	●
Technology	●	●	●	●	●	●	●
IT	●	●	●	●	●	●	●
Risk management	●	●	●	●	●	●	●
Project management (large infrastructure projects)	●	●	●	●	●	●	●
Human resources	●	●	●	●	●	●	●
Marketing/Public Affairs/ Brand image	●	●	●	●	●	●	●
Regulation	●	●	●	●	●	●	●
Public sector/State owned companies	●	●	●	●	●	●	●
Political/managerial experience and network the Netherlands	●	●	●	●	●	●	●
Political/managerial experience and network Germany	●	●	●	●	●	●	●
International background/experience	●	●	●	●	●	●	●
Legal	●	●	●	●	●	●	●
Experience in energy-, industrial and/or financial sector	●	●	●	●	●	●	●
Knowledge of Dutch Corporate Governance Code	●	●	●	●	●	●	●
Corporate Social Responsibility	●	●	●	●	●	●	●

● = H ● = M ● = L

Contact with the works councils

Laetitia Griffith and Stijn van Els, both appointed SB members on the nomination by the Dutch Works Council, regularly met with members of the Dutch Works Council. As in previous years, other SB members also met with the Dutch Works Council to exchange information on what is at stake in both committees. Through their membership of the Aufsichtsrat of TenneT TSO GmbH, both Laetitia Griffith and Rien Zwitserloot were also in close contact with the representatives of the German Works Council in the Aufsichtsrat. The SB highly values frequent contact with employee representatives to maintain a good understanding of topics that are relevant to TenneT's employees.

The SB welcomed the joint session held in November with the Dutch Works Council and the EB on Corporate Social Responsibility, as it proved to be a good opportunity to share ideas about recruiting and mobility.

Company Secretary

The SB welcomed Ancella Anssems as new company secretary as per 1 January 2020 and thanks her for her unwavering support throughout the year.

Closing words

In 2020, TenneT once again performed very well, especially taking the COVID-19 pandemic into consideration. This success is due to the hard work, dedication, and loyalty of all TenneT employees, for which SB would like to thank everyone warmly.

The SB advised and supervised the performance of the EB during 2020, helping to ensure that TenneT continues to connect everyone with a brighter energy future. We look forward to continuing our work in 2021.

Remuneration policy

TenneT's remuneration policy primarily aims to offer remuneration at a level that will attract and retain qualified and capable statutory directors (including those from within the organisation). The remuneration policy meets the best-practice provisions on remuneration defined in the Dutch Corporate Governance Code. Since all of the shares in TenneT are held by the State of the Netherlands, TenneT's remuneration policy falls within the scope of the 2013 state participations policy ('Nota Deelnemingenbeleid Rijksoverheid 2013').

TenneT's revised remuneration policy has been approved by the Shareholder and is effective as of January 2020. The most important elements of the current remuneration policy are described below.

Employment market reference group

Remuneration for the statutory directors of TenneT has been set using a benchmark, comparison with organisations competing in the same business and employment markets as TenneT. These organisations include:

- International transmission system operators (TSOs);
- Operators of infrastructure;
- Installation /engineering companies;
- Building companies;
- Financial institutions.

This reference group is divided in three sub reference groups, (semi-)public, private and international TSOs. The remuneration level of the statutory directors is determined based on the level of the median of the sub-reference groups, taking into account the relevant job grading.

The Supervisory Board intends to review the remuneration policy for statutory directors once every four years. The Supervisory Board may resolve to do this as well in case of important policy changes, changes in shareholder structure or ownership and changes in the labour market. Such changes will be submitted to the shareholder for approval.

Remuneration norm

The benchmarking method as applied by TenneT results in a 'norm' level of remuneration for TenneT statutory directors that exceeds the maximum amount desired by the Shareholder of EUR 383,160 (level 2019). Upon the appointment of a new statutory director, the Supervisory Board shall, at the request of the Shareholder, limit the amount of remuneration. For 2020, this limit was set at EUR 400,537 for TenneT's Chief Executive Officer. The remuneration of the other statutory directors of TenneT has been capped at 90% of the remuneration of the CEO.

If, in the opinion of the Supervisory Board, the maximum remuneration as required by the shareholder leads to unacceptable risks to the organisation because no suitable candidates can be found to fulfil the role of statutory director, the Supervisory Board shall consult the Shareholder.

The Supervisory Board decides on the annual increase in salary. If the remuneration of a statutory director has reached its maximum, further increases will be limited to the structural increments as agreed upon in the collective labour agreement which is applicable to all Dutch TenneT employees.

Service agreement and compensation for early termination

In principle, with effect from 2017, employment contracts – with the exception of internal appointments – are concluded for a fixed term of four years. In the event that the employment contract is terminated prior to the expiry date, TenneT pays a maximum of one year's salary as a severance payment, unless the statutory director resigns voluntarily or the termination is the result of his or her actions.

Other allowances and secondary benefits

The total remuneration package for statutory directors includes an allowance for necessary out-of-pocket expenses, the use of a lease car (of a type comparable to those provided to statutory directors of similar organisations) including possible private use, accident and directors' and officers' liability insurance, and thirty days' paid leave per annum.

Secondary benefits also include a nominal contribution towards health insurance premiums and the choice of other flexible individualised benefits as well as a percentage of the fixed salary equivalent an employer's contribution to a life-course savings scheme which used to be a compensation component under a previous collective labour agreement.



These benefits are applicable to all TenneT, working under the Dutch collective labour agreement. The company does not extend any loans, loan guarantees or advances against future earnings to any statutory director.

Pensions

The retirement age of statutory directors is based on the statutory pension Dutch age for Dutch contracts and the German age for German contracts as the case may be. Statutory directors participate in the regular pension scheme of the country in which they are covered for social insurance.

The Dutch statutory directors participate in a pension arrangement as defined in the collective labour agreement and as applicable for all employees in the Netherlands. The employer and employee contribution for the statutory directors follow the same rules as applicable to all other employees. Dutch pension regulations define the pensionable salary up to the fiscal maximum of EUR 110,111 (gross pension, 2020).

Dutch statutory directors receive the same compensation as TenneT employees with an income above the fiscal maximum pension salary. The compensation is based on the fiscally allowed, age-dependent premium percentages up to fiscal maximum pension salary.

German statutory directors participate in the regular pension scheme ("Beitragsplan") or any other pension scheme that such statutory director may have already been entitled to.

Employment contracts of statutory directors appointed before 2011

The current remuneration policy as described above does not affect the agreed employment terms and conditions of statutory directors appointed before 2011.

Board remuneration

This section specifies the current remuneration for statutory directors as well as members of the Supervisory Board. As of 2020, no variable remuneration is applicable anymore for statutory directors, following a change in remuneration policy agreed by the shareholder. As a result, statutory directors' variable remuneration component has been converted into fixed salary as of 2020.

During 2020, the Executive Board of TenneT was composed of the following statutory directors:

	Position	Date of first appointment	End of 1 st term	End of 2 nd term	
M.J.J. van Beek	CEO	1 September 2018	31 August 2022		
B.G.M. Voorhorst	COO	1 June 2006			End of current term 31 December 2020
O. Jager ¹⁾	CFO	1 August 2013	31 July 2017	31 July 2021	
T.C. Meyerjürgens ²⁾	COO	1 March 2019	29 February 2024		
M.C. Abbenhuis	COO	1 January 2021	31 December 2024		

¹⁾ As of 1 March 2020 Mr. Meyerjürgens as statutory director.

Mr Jager announced that this second term will be his last term. Ms. Van Beek has a fixed-term employment contract with the company. Mr. Abbenhuis, Mr. Jager and Mr. Meyerjürgens all have open-ended employment contracts.

Remuneration of the statutory directors

Total remuneration

2020 (in EUR thousand)	Fixed remuneration	Variable remuneration (annual)	Total remuneration	Gross Pension	Net pension	Total pension	Other
M.J.J. van Beek	399	-	399	30	34	64	14
B.G.M. Voorhorst	359	-	359	29	36	65	21
O. Jager	359	-	359	28	23	51	21
T.C. Meyerjürgens ¹⁾	300	-	300	158	-	158	16
Total	1,417	-	1,417	245	93	338	72

¹⁾ From March 2020 Mr. Meyerjürgens is appointed as statutory director.

2019 (in EUR thousand)	Fixed remuneration	Variable remuneration (annual)	Total remuneration	Gross Pension	Net pension	Total pension	Other
M.J.J. van Beek	320	56	376	26	27	53	12
B.G.M. Voorhorst	286	50	336	25	35	60	16
O. Jager	283	50	333	24	23	47	20
Total	889	156	1,045	75	85	160	48

Fixed remuneration

In accordance with the indexation for employees as determined by the collective labour agreement for TenneT, the salaries of all statutory directors have been increased by 1% as of January 2020 and 3.5% as of February 2020.

Variable remuneration

In accordance with the revised remuneration policy approved by the shareholder, no variable remuneration will be applicable from 2020 onwards. Nevertheless, performance targets will continue to be set and evaluated by the Supervisory Board for each statutory director on an annual basis.

Pension cost

The pensions of all Dutch statutory directors are administered by the ABP Pension Fund. The pension accrual is based on an average pay system up to the fiscal maximum (gross pension). With respect to the fixed remuneration exceeding the fiscal maximum, the Dutch statutory directors may participate in a net pension system.

The pension of the German statutory director is registered in the Defined Benefit Obligation.

Other allowances and secondary benefits

All statutory directors have a company car available to them. The value of the private use of these cars as shown

in the table is based on the taxable value in the domestic country. The company does not reimburse its statutory directors for any personal income tax consequence resulting from the private use of leased cars.

For Dutch statutory directors the secondary benefits as shown in the remuneration table, include a contribution to health insurance and a budget for flexible terms of employment. Each statutory director received an allowance for necessary out-of-pocket expenses, of EUR 2,196 a year. This allowance is not included in the remuneration table as it is a compensation of expenses incurred and hence not considered a remuneration component.

The total remuneration paid to the statutory directors is reconciled to and further disclosed in the [note 4 of the consolidated financial statements](#).

Remuneration ratio

The remuneration ratio CEO to employees is measured by comparing the CEO's annual total compensation with the median annual total compensation, including fixed salary, variable remuneration and pension benefits of all other employees. The remuneration ratio CEO to senior management is measured by comparing the CEO's annual total compensation with the median annual total compensation, including fixed salary, variable remuneration and pension benefits of senior management employees.

	2020	2019	2018
Remuneration ratio to employees	5.6	5.4	5.6
Remuneration ratio to senior management	2.1	2.1	2.2

Remuneration of the Supervisory Board

The remuneration policy for the Supervisory Board defines the remuneration for the different roles and committees of the Supervisory Board. During 2020 each Supervisory Board member was serving on one or two committees.

The roles and responsibilities of members of the Supervisory Board were as follows:

	Supervisory Board	Audit, Risk and Compliance Committee	Remuneration and Appointments Committee	Strategic Investments Committee
A.F. van der Touw	Chair	Member	Member	
P.M. Verboom ¹⁾	Vice-chair	Chair		
R.G.M. Zwitersloot ²⁾	Member			Chair
L.J. Griffith ³⁾	Vice-chair		Chair	
E. Kairisto ⁴⁾	Member	Chair		Member
A.C.C. van Els ⁵⁾	Member		Member	Chair
E. Schöne ⁶⁾	Member	Member		Member

¹⁾ January – September 2020. Mr Verboom's term ended on September 17th, 2020

²⁾ January – November 2020. Mr. Zwitersloot's term ended on November 23th, 2020.

The Chair of the SIC was handed over on May 13th, 2020.

Mr Zwitersloot remains member of the Aufsichtsrat of TenneT TSO GmbH.

³⁾ Vice-chair as of September 18th, 2020

Mrs Griffith is also member of the Aufsichtsrat of TenneT TSO GmbH.

⁴⁾ Chair ARCC as of November 24th, 2020; Member SIC as of September 18th, 2020

⁵⁾ Chair SIC as of May 13th, 2020

⁶⁾ Member ARCC as of September 18th, 2020

The Shareholder agreed to an annual indexation of the Supervisory Board remuneration following TenneT's collective labour agreement, from 1 January 2015 onwards. As a result, Supervisory Board member remuneration increased by 1% as of January 2020 and 3.5% as of February 2020.

Supervisory Board member remuneration was as follows over January 2020 and from February 2020 onwards:

(EUR)		
Chair	30,425	per annum
Vice-chair	24,475	per annum
Member	21,840	per annum
Audit, Risk and Compliance Committee	7,350	per annum
Remuneration and Appointment Committee	5,760	per annum
Strategic Investment Committee	5,760	per annum

The total remuneration received by the Supervisory Board in their capacity as TenneT Supervisory Board members during 2020 was as follows, resulting in the following remuneration amounts as of 1 February 2020:

(in EUR thousand)	2020			2019		
	Fixed remuneration	Committee fee	Total	Fixed remuneration	Committee fee	Total
A.F. van der Touw	30	13	43	29	12	41
P.M. Verboom	18	10	28	23	12	35
R.G.M. Zwitserloot	20	5	25	21	5	26
L.J. Griffith	22	6	28	21	5	26
E. Kairisto	22	7	29	14	5	19
A.C.C. van Els	22	11	33	14	7	21
E.M Schöne	22	7	29	14	4	18
Total	156	59	215	136	50	186



Mast 58 Noordwaard (flooding)

Our Supervisory Board



**A.F. (Ab)
van der Touw**

Chair of the Supervisory Board / Member of the Audit, Risk & Compliance Committee / Member Remuneration & Appointments Committee

65, Dutch (m)

Initial appointment:

1 June 2018

End of first term:

31 May 2022

Principal position:

- Former CEO Siemens Nederland (until 1 April 2018)

Other positions:

- Member Board Deutsch-Niederländische Handelskammer (as of 1st June 2020 member instead of VP)
- Chair Supervisory Board Universiteit Leiden
- Chair Board Dutch Bach Association
- Chair Board Fonds Slachtofferhulp
- Chair Supervisory Board NIBA
- Member Board GAK Foundation
- (External) member Ondernemingskamer Gerechtshof 's-Gravenhage
- Chair Advisory Counsel Dutch Ministry of Defence
- Chair Advisory Counsel Dutch Ministry of Infrastructure
- Chair Platform voor Techniek Talent



**L.J. (Laetitia)
Griffith**

Member of the Supervisory Board / Chair of the Remuneration & Appointment Committee

55, Dutch (f)

Initial appointment:

1 July 2015

Expiry second term:

30 June 2023

Principal position:

- Former State Councillor in the Advisory Division of the Dutch Council of State

Other positions:

- Member of the Aufsichtsrat TenneT TSO GmbH
- Chair Supervisory Board Holding Nationale Goede Doelen Loterijen
- Chair board Nederlands Filmfonds
- Member of the Supervisory Board of Gassan Diamonds B.V.
- Member of the Supervisory Board of ABN AMRO Bank N.V.



**E.M. (Edna)
Schöne**

Member of the Supervisory Board / Member Strategic Investments Committee, Member of the Audit / Risk & Compliance Committee

49, German (f)

Initial appointment:

1 May 2019

Expiry first term:

30 April 2023

Principal position:

- Member Executive Board Euler Hermes AG

Other positions:

- Member of the Board 'Lateinamerikaverien'
- Member of the Executive Committee 'Ostausschuss der deutschen Wirtschaft'
- Member of the Executive Committee International Chamber of Commerce Germany
- Member of Unternehmensbeirat KfW Ipe



**E. (Essimari)
Kairisto**

Member of the Supervisory Board / Chair of the Audit, Risk & Compliance Committee / Member of the Strategic Investments Committee

54, German and Finnish (f)

Initial appointment:

1 May 2019

Expiry first term:

30 April 2023

Principal position:

- Former CFO Hochtief Solutions AG

Other positions:

- Member Supervisory Board Fortum Oyj
- Member Supervisory Board Applus+ SA
- Member Supervisory Board Freudenberg SE
- Chair 'Deutsch-Finnische-Gesellschaft e.V.' (from September 2020)



A.C.C. (Stijn) van Els

Member of the Supervisory Board / Chair Strategic Investments Committee / Member Remuneration & Appointments Committee

56, Dutch (m)

Initial appointment:

1 May 2019

Expiry first term:

30 April 2023

Principal position:

- Former CEO Shell Germany
- Commercial Director at Havenbedrijf Rotterdam N.V.

Other positions:

- Chair Supervisory Board IDA Foundation
- Chair Supervisory Board EVOS B.V.
- Member Advisory Council Dutch Ministry of Infrastructure



P.M. (Pieter) Verboom

Vice Chair Supervisory Board / Chair Audit, Risk & Compliance Committee

70, Dutch (m)

Initial appointment:

18 September 2012

End of second and last term:

17 September 2020

Principal position:

- Former CFO of RFS Holland Holding
- Former Executive Vice President and CFO of Schiphol Group

Other positions:

- Managing Director DESAJO BV
- Expert lay member of the Dutch Enterprise Court (until 1 April 2020)



R.G.M. (Rien) Zwitserloot

Member of the Supervisory Board / Chair of the Strategic Investments Committee

71, Dutch (m)

Initial appointment:

24 November 2010

End of third and last term:

23 November 2020

Principal position:

- Former CEO of Wintershall AG

Other positions:

- Member of the Aufsichtsrat TenneT TSO GmbH (until March 2023)
- Member of the Supervisory Board of Royal VOPAK N.V.
- Member of the Supervisory Board of Amsterdam Capital Trading Commodities Group B.V.
- Member of the Supervisory Board of Amsterdam Capital Trading FS Holding B.V.
- Member of the Supervisory Board of Vroon B.V.



Governance and risk management

Corporate governance

As a transmission system operator, TenneT plays an important role in society. We believe in having a solid governance structure, effective oversight and a transparent accountability to all stakeholders. To that end, we comply with the Dutch Corporate Governance Code (hereafter: the Code), insofar as it is applicable.

Corporate governance structure

TenneT's corporate governance structure comprises the Executive Board, the Supervisory Board and the General Meeting of Shareholders. Additionally our internal auditor and external auditor play an important role in this structure.

Executive Board

The Executive Board of TenneT Holding B.V. has four statutory directors. The Executive Board members have joint authority to represent the company. Each board member also holds limited individual power of attorney. Three members of the Executive Board of TenneT Holding B.V. are managing directors of TenneT TSO B.V., three members of the Executive Board are managing directors of TenneT TSO GmbH and one of these three members is managing director of TenneT Offshore GmbH.

The Executive Board is responsible for the management of the company, which includes regulated and non-regulated activities.

Supervisory Board

The Supervisory Board of TenneT Holding B.V. supervises the policies, management and the general affairs. It carries out its duties in the interests of the company and its stakeholders, and also takes into account relevant aspects of corporate social responsibility. TenneT has a two-tier board structure, as specified in the Electricity Act.

All information about the Supervisory Board (such as its rules and resignation schedule) is available on our [corporate website](#).

General Meeting of Shareholders

All shares in TenneT's capital are held by the Dutch state, which is represented by the Ministry of Finance. Under the Electricity Act, only the Dutch state may hold voting interests in the company. A General Meeting of Shareholders is held within six months after the end of each financial year. The General Meeting of Shareholders in 2020 was held on the 150/380 kV high voltage station Vijfhuizen. TenneT was pleased to welcome the Treasurer-General of

the Dutch State, Mr Rebergen to the General Meeting. The General Meeting included an open dialogue on the importance of the European Green Deal and the impact on TenneT and was concluded with a site visit. The meeting also discharged the Executive Board and Supervisory Board members from liability from their respective activities in the previous year. Other shareholder meetings are held as and when deemed necessary by the Executive Board, Supervisory Board or Shareholder.

External auditor

The General Meeting of Shareholders has the power to appoint external auditors to audit the financial statements prepared by the Executive Board. These auditors report to the Supervisory Board and the Executive Board, and their findings are presented in an independent auditor's report, an assurance report, a management letter and an audit results report. The General Meeting of Shareholders appointed Deloitte Accountants B.V. as TenneT's external auditor as per 1 January 2020.

The performance of the external auditor is evaluated by the Executive Board and the Audit, Risk & Compliance Committee and, if necessary, also by the entire Supervisory Board.

The external auditor attends all meetings of the Audit, Risk & Compliance Committee. It also attends Supervisory Board meetings when the independent auditor's report on the financial statements is discussed and the financial statements approved.

Internal auditor

The Head Internal Audit attends all meetings of the Audit, Risk & Compliance Committee. Internal Audit aligns its audit scope and reports directly to the Executive board and the Audit, Risk & Compliance Committee on minimum quarterly basis.

Compliance & integrity officers

TenneT has a Head Compliance & Integrity Officer, who is also a member of the Senior Leadership Team, and Local Compliance & Integrity Officers in both the Netherlands and Germany. All material compliance and integrity issues are shared and discussed with the Audit, Risk & Compliance Committee. Additionally, Compliance & Integrity officers report directly to the Executive board and the Audit, Risk & Compliance Committee on at least a quarterly basis.

Related parties

Related party transactions are disclosed in note 30 to the consolidated financial statements.

Diversity

Diversity is disclosed in the [Supervisory Board report](#).

Deviations from the Dutch Corporate Governance Code

Certain principles and best-practice provisions in the Code do not apply to TenneT. The reasons why and to what extent TenneT decided not to or could not adopt these particular principles and best-practice provisions are explained below:

2.1.3, 3.1.3: Not applicable: no Executive Committee has been established at TenneT.

2.3.8: Not applicable: no delegated Supervisory Board member is employed by TenneT.

2.3.2: If the Supervisory Board has more than four members, the Code stipulates that the board shall appoint from among its members an Audit Committee, a Remuneration Committee, and a Selection and Appointments Committee. The TenneT Supervisory Board has combined the tasks of the latter two committees into a Remuneration and Appointments Committee.

2.7.5 - 2.8.3, 3.3.2, 3.3.3: Not applicable: these provisions do not apply to TenneT because it only has one shareholder, being the Dutch state.

Chapter 4: Regarding paragraph 4.1 TenneT complies with the Code. Paragraphs 4.2 – 4.4 are not applicable to TenneT because it only has one shareholder, namely the Dutch state.

Chapter 5: Given TenneT's two-tier board structure, this chapter is not applicable.

Risk and opportunity management and internal control

State-of-the-art risk management and our internal control framework are key to efficient and effective risk-based decision making throughout the TenneT organisation.

Risk and opportunity management and internal control objectives

To actively apply and advance our risk management system, we periodically identify and continuously manage uncertainties (comprising risks and opportunities) affecting the realisation of TenneT’s strategic and operational objectives. By applying top notch standards within TenneT’s internal control system, we also enhance the efficiency and effectiveness of our day-to-day processes.

The key objectives of TenneT’s risk and opportunity management and internal control system are:

- To identify and assess uncertainties with a potentially negative or positive impact on strategic and operational (department, process and project) objectives
- To create risk awareness and open culture of addressing risks and opportunities
- To provide a uniform risk management framework and tools, which enables the organisation to take risk based decisions founded on relevant, reliable and

timely information and to ensure efficient priority based resource allocation

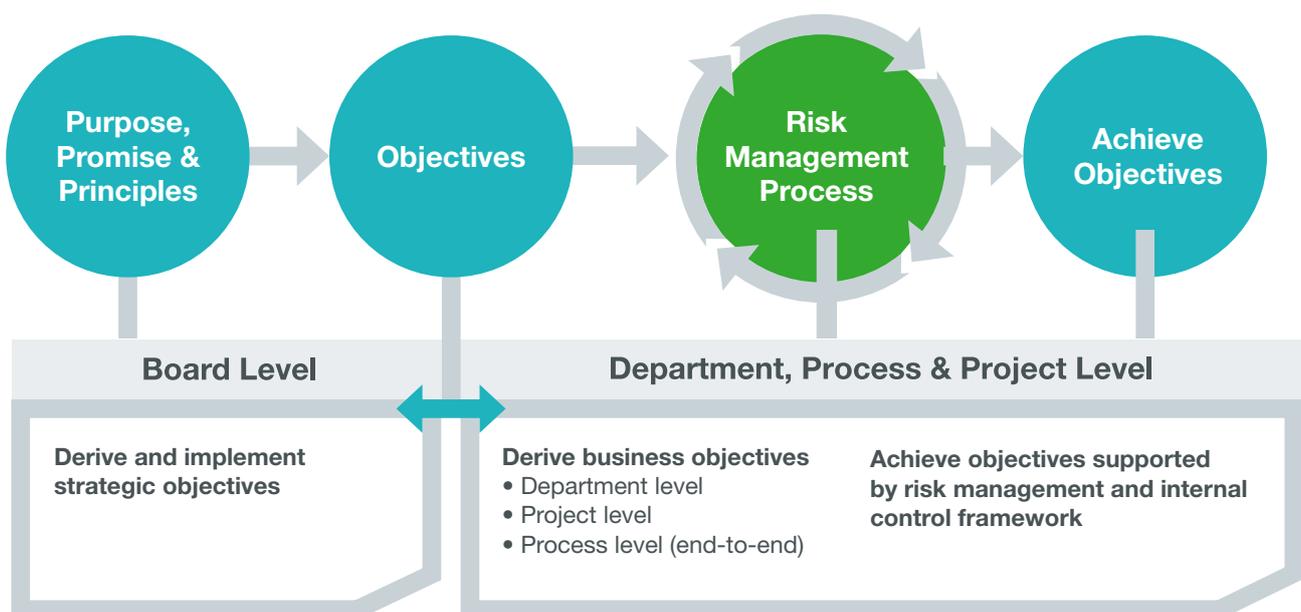
- To provide transparency to the boards, internal and external auditors and shareholders so they stay informed about the most significant risks potentially impacting strategic objectives

TenneT’s enterprise risk management and internal control frameworks are based on ISO 31000 and COSO standards and are compliant with the requirements of applicable laws and regulations like the Dutch Corporate Governance Code, the German Control and Transparency in Business Act and the German Accounting Law Reform Act.

Risk management at TenneT is clustered in:

- Strategic risk management
- Operational risk management, including project risk management
- Process risk management (such as internal control)
- Other risk domains, such as asset risk and portfolio management

Risk management and internal control

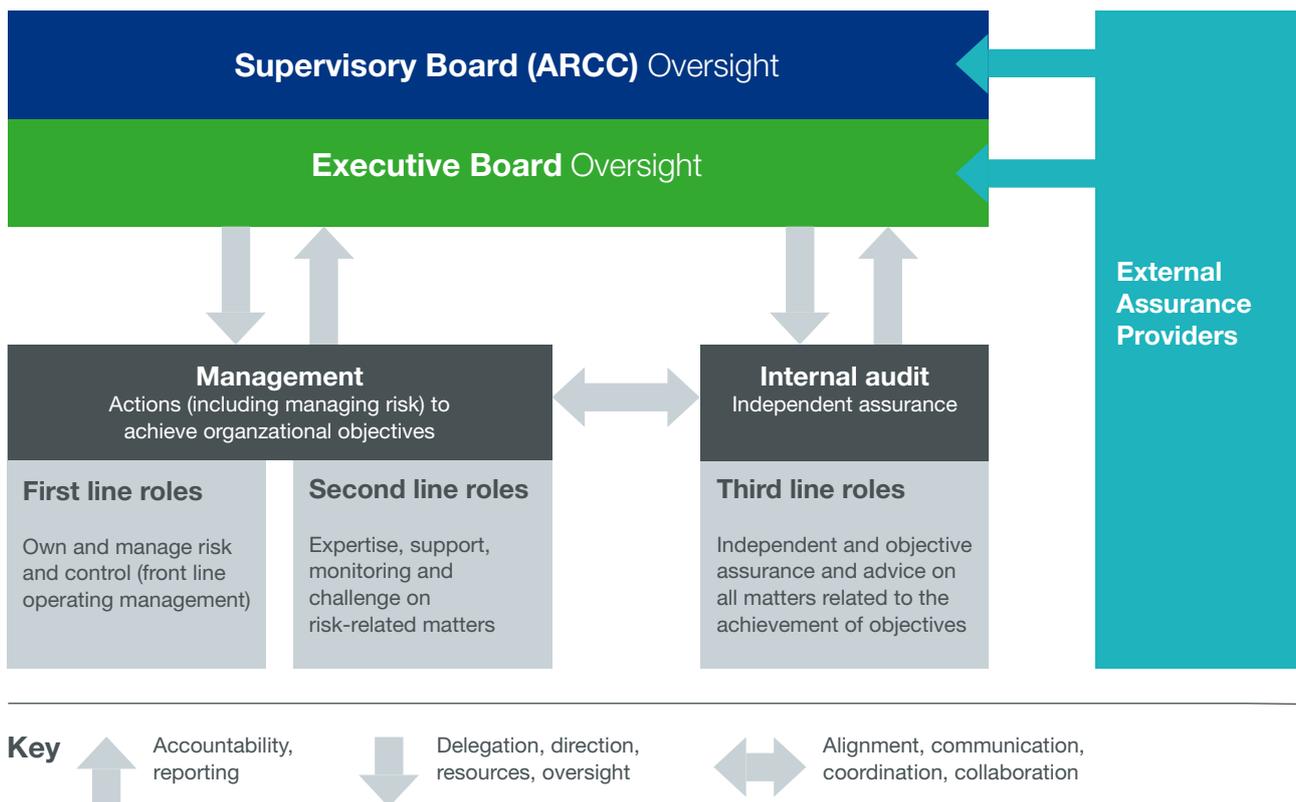


TenneT regards the following factors as crucial to realise the full value of risk management and internal control for the organisation. They are designed in line with stakeholder requirements and described in the corporate risk management policy:

- Structure: policies, IT-systems, reports, processes etc.
- People: roles and accountabilities, profile, education and skills etc.
- Competencies: risk culture and competencies at management level etc.

The principles of risk management should be taken into account in all activities performed at and for TenneT. Furthermore, at the heart of the governance system, risk management and internal control are interlinked with other second line functions and departments like risk transfer (insurances), business guidance, strategy & partnerships, safety & security, digital & process excellence, compliance & integrity and decentral specific risk management experts as well as third line functions, such as internal audit. Corporate risk management facilitates top down and bottom up dialogues and workshops as well as analysis on specific topics. The resulting outcomes provide management with insights to help take risk-based decisions that support the achievement of objectives set at all organisational levels.

Three lines



Risk management and internal control framework

TenneT reacted on the COVID-19 pandemic, which was not part of the top risks before, immediately by adopting its risk management approach, e.g. introducing a temporary team the “COVID-19 planning ahead team”. Its purpose was to assess changes in the risk landscape and required actions in all areas.

In 2020 the implementation of the in 2019 updated risk management and internal cycle continued. The aims are to further strengthen:

1. integration of risk management in the day-to-day business as well as decision-making committees
2. fostering the development of personnel on risk management and internal control and
3. managing the total costs of risks.

As a result, state-of-the-art assessment and prioritisation tools and tailor made approaches like adjusted bow-ties were introduced in strategic and operational risk management processes. Although decentralised working from home as one of the pandemic measures, this approach could be fostered by using modern IT-software to support workshops and dialogues. We also continued with the documentation of application controls and extension the scope of the internal control framework to further operational processes and IT general controls.

Strategic risk management (SRM)

SRM focusses on future events and trends which may affect strategic objectives in positive or negative ways (risks vs. opportunities). Corporate risk management helps the Executive Board to derive and assess uncertainties and design risk response strategies. Furthermore, TenneT's strategic risk position is shared and discussed with the Supervisory Board and the Audit, Risk & Compliance Committee. Regularly, the project risk position is presented to project steering committees, the executive board and the supervisory board investment committee.

In 2020 the COVID-19 planning ahead team directly reported and interacted with the Executive board in short intervals. Thereby, workshops were organised between respective business departments and the executive board. Taking a forward looking approach, potential risk scenarios were analysed. Per July 2020 the new strategy team was implemented. So the strategic risk assessment at the end of 2020 was performed in collaboration.

Operational risk management (ORM)

Operational risks affecting the various business units and corporate departments are regularly updated and evaluated with the help of interviews and workshops with Senior Leaders to assess the adequacy of the responses, progress on mitigation actions, specific developments and the performance on management letter findings and control deviations. TenneT's corporate risk management & internal control team facilitates the organisation to review its risks, opportunities, related responses, progress on mitigation actions, developments of influencing factors and the business' performance on management letter findings and control deviations.

Project risk management (PRM)

To meet challenges arising from our investment portfolio and related objectives, TenneT started in 2008 to implement project risk management, first with a focus on large projects. PRM aims to boost the likelihood of realising project goals on time, on budget and with a high level of quality. For all large projects, dedicated project risk managers systematically review and manage risks together with project leads within the quality and uniformity standards safeguarded by corporate risk management. Project risk management has reached a high maturity level within TenneT and works closely together with project claims and contract management. In the last 5 years project risk management was extended to plan and perform maintenance works in the grid.

Risk & portfolio management

To strengthen security of supply, TenneT's asset management uses condition monitoring and risk based assessments to plan maintenance and investments. Grid constraints are identified by analysing grid components and failures and by monitoring the necessary transport capacity. These constraints are assessed according to the risk they pose to TenneT's objectives. Should the risk exceed a predefined level, responses are proposed and included.

Internal control (IC)

Our internal control framework is designed to support and safeguard the realisation of our process objectives, as well as fulfil our legal obligations and establish the reliability of our internal and external reporting. To assess the effectiveness of this framework and identify opportunities for improvement, a control self-assessment is performed by control owners and validated by management twice a year. The risk management & internal control team performs quality assessments on the outcomes.



Internal audit randomly checks selected control self-assessments during the year to form an independent opinion. The outcomes of these control self-assessments provide direct input for the Letter of Representation procedure. Identified issues are reported to the risk management & internal control team, which monitor and follow up on mitigating steps with the relevant business owners. Overall control effectiveness and the scope of TenneT's internal control framework are part of our bi-annual report to the Executive and Supervisory Board.

In 2020 we continued to roll-out further the internal control framework to non-financial reporting processes and information technical general controls (ITGC). Additionally, a strong focus was on the review and update of the whole framework according to the new structural organisation per July 2020. This will continue in 2021 in supporting the implementation of the one TenneT process model. Furthermore, the implementation of the one ERP system is supported by internal control to strive for more automated and harmonised controls.

Compliance and integrity

A culture of compliance and integrity, or simply said “responsible behaviour”, is essential to be successful in a sustainable manner. We therefore aim to predict, prevent, detect and respond to compliance & integrity risks that threaten the realisation of TenneT’s strategy and objectives, and may lead to economic or reputational harm. The applicable laws and regulations as well as internal policies and procedures determine the framework and the boundaries within which we operate, but it is the way we behave and act within that framework that demonstrate our compliance and integrity culture. To achieve this, we need leadership, the right tone from the top and to act consistently with our principles Ownership, Courage and Connection.

Under the new organisational structure applicable as of 1 July 2020, the Compliance & Integrity department, including the privacy officers directly fall within the remit of the CEO. During the course of the year, the team has been further extended with additional resources, both in the Netherlands and in Germany.

With a view on the new organisation structure, the scope of the compliance & integrity function has been aligned internally and other risk related areas have been clearly allocated to other units within the organisation. Furthermore, the corporate compliance organisation, roles and responsibilities, interfaces, processes and tools have been set out in a charter and framework, which has been endorsed by the Executive Board in December. All these activities are aimed to have and maintain a compliance management system that is generally in line with the ISO 19600 standard. To enhance knowledge and awareness, together with the People unit, a training plan for company-wide compliance & integrity learning was developed, which will be rolled out as of 2021, and a communication plan was formulated.

TenneT has launched a new Code of Conduct; ‘The way we act’, which is shaped around the new Purpose, Promise and Principles. Closely related, the Speak Up business directive (formerly called Whistleblower policy) is entirely renewed and communicated. We stimulate our colleagues and stakeholders to speak up, address concerns with the leaders, trusted advisors or compliance & integrity and we also offer them a safe, secure and confidential portal where compliance and integrity concerns can be reported. In close cooperation with our Safety and Security unit, we have found the right balance in safeguarding data privacy, whilst being able to adequately manage and report on safety risks and incidents and the effects of the COVID-19 situation in our organisation.

All employees received invitations to e-learnings about REMIT, the European Regulation on Wholesale Energy Market Integrity and Transparency, and information security. All new employees received e-learnings about compliance & integrity, privacy and other general compliance & integrity topics, including safety & security as part of their online onboarding program, Empower online. As regards financial regulation, all so-called insiders have received information about their duties under the Inside Information business directive.

In 2020, 56 alleged compliance-related breaches were reported (2019: 23). We believe the increase in comparison to 2019 is the result of special attention made to compliance & integrity and demonstrates that people know where to find the Compliance & Integrity officers or where to report (anonymously) via the Speak Up portal. 7 of these alleged violations were reported via the Speak Up portal. Only 2 cases resulted in compliance investigations, of which 1 is closed and 1 pending. After an initial assessment, the other alleged breaches did not result in compliance investigations. Only in two individual cases, the breaches were of a material nature that led to disciplinary action or termination of employment. The outcome of the alleged breaches and investigations had no material negative impact on the company.

There have been 27 data leaks and/or irregularities in 2020 (2019: 35). If and when required, in total in 6 instances, they have been reported to the relevant authorities.

TenneT did not identify any fraud, bribery or corruption breaches which had a material impact in 2020. Material impact is defined in our risk matrix as a breach that has a significant adverse effect on TenneT’s reputation and/or financial position.

Risk appetite

Risk appetite is the amount and type of risk TenneT is willing to take or not to take, in pursuit of value, relative to its major business objectives.

TenneT’s risk appetite was set by the Executive Board for each of our strategic pillars. Executive Board and Management show commitment to those levels in daily practice. In terms of the amount of risk that we are willing to accept in relation to our strategic goals, we differentiate between the following categories:

- Risk averse (low risk appetite),
- Risk neutral (medium risk appetite)
- Risk-taking (high risk appetite).

The following graph summarises risk appetite and trends on risks and opportunities assessed by the Executive Board. To learn more about specific strategic risks please refer to the section ‘Our performance in 2020’.

Risk appetite and trend score

Strategic pillar	Description	Risk Appetite	Risk Trend	Opportunities Trend
 <p>Energise our people and organisation</p>	with an inclusive and safe environment where people enjoy coming to work.	<p>Low - + High</p> 	<p>Low - + High</p> 	<p>Low - + High</p> 
 <p>Secure supply today and tomorrow</p>	by maintaining the grid to meet reliability targets and operating it to its maximum capability.			
 <p>Drive the energy transition</p>	as a green grid operator and a thought leader.			
 <p>Safeguard our financial health</p>	by implementing a regulatory framework to support our strategy, and delivering a return in line with what our capital providers expect, and raising the necessary external financing.			

Key risks

Strategic pillar	Risks and opportunities	Mitigating measures
 <p>Energise our people and organisation</p>	<p>Risks</p> <ul style="list-style-type: none"> • Scarcity of qualified short and long-term staff. • Embedding organisational changes might take longer. • Challenging pipeline of investment projects and maintenance tasks could inherently increase the risk of injuries and fatalities particularly on the suppliers' side. • Increase of sickness rate (physically and mentally) within companies in the supply chain due to COVID-19 related governance measures. <p>Opportunity</p> <ul style="list-style-type: none"> • New ways of working in several areas of our business, such as in our tender procedures, community engagement and recruitment process for new employees. 	<ul style="list-style-type: none"> • Improving TenneT's attractiveness as employer, the succession planning and our interaction with potential candidates and students. • Educating our contractors and subcontractors and building awareness on TenneT's safety measures to implement it as common goal. • Providing support to our people to ensure mental and physical health for instance via our Always Energy programme.
 <p>Secure supply today and tomorrow</p>	<p>Risks</p> <ul style="list-style-type: none"> • Uncertainty about the future strategy on the phase out of conventional energy production and the future expansion of renewables could lead to adaptations and shortages in electricity production and reduced leeway for TSOs. • Scarcities in markets for (raw) materials, resources and services as well as the unavailability of skilled staff (internal and external) could lead to delays and cost increases in our investment portfolio. • Stakeholder engagement and permitting processes by authorities could cause project delays especially for innovative technologies. • Environmental developments and European policies could cause project delays. For example, in proceeding on project level due to uncertainty regarding environmental regulations such as PFAs and nitrous oxide. • Challenging permitting processes due to public health measures against the COVID-19 pandemic could lead to project delays and knock-on effects. • The introduction of new technologies could increase the risk of outages caused by malfunctions. • Long term projects going into operation at the same time could lead to knock-on effects. • Cyber and terror risk. • Failure of suppliers in a dynamic market environment with new players could lead to non-availability of support or (spare) parts. • Ageing infrastructure and bottlenecks in outage planning for maintenance could lead to unplanned outages. <p>Opportunities</p> <ul style="list-style-type: none"> • Digitalisation and digitisation could reduce costs and help achieve a secure energy transition. • New technologies (e.g. big data and data analytics) can support us in improving the utilisation of the grid, to forecast weather and to determine the condition of our assets. • Virtual consultations, tendering processes and negotiations could reduce costs and enable a more efficient way of supplier engagement. 	<ul style="list-style-type: none"> • Stimulating the development of alternative flexibility sources and pursue technological innovations • Supporting the development of new technology and production facilities. • Updating our supply chain management including among others new sourcing models, long-term partnerships, improving demand planning or revising contract models and tendering procedures. • Communicating transparently with regional stakeholders and working closely with authorities. • Performing virtual consultations as well as tender meetings with potential suppliers. • Employing external project management service providers and adequate succession planning. • Demanding high quality standards by supplier and service providers. • Including test and guarantee periods in project planning and supplier contracts to define standards and develop partnerships. • Identifying possible constraints and costs of viable solutions at an early stage. • Monitoring of M&A activities in markets (e.g. cable producers) and development of back-up plans. • Implementation of ISO 27001 (i.e. information security) and performance of penetration and crisis management testing. • Developing IT capabilities, organisation and trainings as well as reviewing IT service provider performance. • Optimising and simplifying organisational and decision making processes to increase efficiency and flexibility in our maintenance programme. • Assessing suppliers' financial stability and contractual prescribing long-term availability of parts and services. • Enforcing high quality standards and closely monitoring our suppliers and deliverables. • Improving our weather forecasting tools to make our RES predictions more accurate.

Strategic pillar	Risks and opportunities	Mitigating measures
 <p>Drive the energy transition</p>	<p>Risks</p> <ul style="list-style-type: none"> • Uncertain developments on national and European level to further integrate the European energy system. • Economic and political developments could influence the acceptance of costs associated with energy transition. • Lack of societal acceptance of the energy transition could lead to delays or inability to realize our ambitions. • Expansion of our grid could alter landscapes and affect surrounding residents. • Drought, flooding and other extreme weather events could directly or indirectly impacting our grid. <p>Opportunity</p> <ul style="list-style-type: none"> • Long-term partnerships with TSOs as well as between industries and local and national governments could further drive the energy transition. 	<ul style="list-style-type: none"> • Early involvement of stakeholders, proactive consultation about identified issues and transparent communication. • Use of digitalization for more efficient processes. • Complying with rules and regulation and take caution in construction and operation. • Cooperating with authorities and other stakeholder to update our policy regarding magnetic fields.
 <p>Safeguard our financial health</p>	<p>Risks</p> <ul style="list-style-type: none"> • Dependence on regulatory framework and political commitments and growing concern about the cost of energy are increasing the pressure on the reimbursement systems. • Lower regulatory rates of return on capital could diminish TenneT's attractiveness for investors. • Less favourable insurance market and limited options in risk transfer. <p>Opportunity</p> <ul style="list-style-type: none"> • Investments in green business and economies are more and more becoming part of strategies for large investors and banks. 	<ul style="list-style-type: none"> • Securing an appropriate credit rating by attracting sufficient additional equity. • Placing hybrid bond of EUR 1bn in July 2020.

Regulatory risks

	Regulatory risk	Risk-mitigating actions
General 	<ul style="list-style-type: none"> Inability to meet increasing efficiency targets imposed by incentive regulation, especially taking into account a strongly growing company and the need of investments in grid expansion and innovation. TenneT is unable to achieve a reasonable return on its invested capital as well as the full remuneration of operational costs as the regulated return continues to decline due to the low interest environment and stricter regulatory incentives. 	<ul style="list-style-type: none"> TenneT performs regular reviews of its processes and organisational structure and introduced lean management. Thereby, TenneT also initiated strategic dialogues with ACM, BNetzA and industry partners/suppliers. TenneT's strategy is to seek mutually acceptable results, however if needed legal action may be taken.
Europe 	<ul style="list-style-type: none"> The 'Clean Energy Package' (CEP) entered into force. It requires amongst others that TSOs provide to the market 70% of the total cross-border transmission capacity, an amount difficult to achieve without extensive and costly redispatch activities. The German government introduced an action plan to gradually achieve this target by 2024. Delays in fulfilment of this plan by TenneT could lead to material financial penalties. The ACM approved a derogation of TenneT from the CEP and approved an action plan which gradually aims to fulfil the targets in the Netherlands by 2026. 	<ul style="list-style-type: none"> In Germany, TenneT directly negotiates with Baltic Cable, BNetzA and Swedish agencies to achieve countertrading contracts and thus to avoid penalties. In the Netherlands TenneT monitors compliance against the conditions of the derogation.
The Netherlands 	<ul style="list-style-type: none"> Regulatory returns in the Netherlands are under pressure due to low interest rate environment. This implies a weakening of operational cash flows in times when TenneT is investing heavily. This impact is aggravated in the Netherlands as a real WACC system is applied which effectively pushes profitability into the future, while being Net Present Value (NPV) neutral. Furthermore, the ACM plans to replace the estimated risk-free rate for the actual risk-free rate, which exposes TenneT to more variability in cash flows and in the short term is likely to have a further negative impact on returns due to the policy of quantitative easing of the European Central Bank. The ACM has shared the preliminary decision on the application of the benchmark during a stakeholder group meeting in February 2021. ACM intends to gradually reduce TenneT's efficient cost level to 77.5% in 2025 and 2026, therewith respecting the grace period until 2025 which was granted in earlier method decisions. 	<ul style="list-style-type: none"> TenneT demonstrates that actual returns have not fallen as much as is expected in the methodology of ACM, therewith supporting its claim that the current method results in an understatement of the Return on Equity. Furthermore TenneT argues that ACM should also address the financeability of a TSO in its decision making, consequently TenneT argues in favour of a nominal WACC system, which is Net Present Value neutral for consumers. TenneT has prepared reports (shadow benchmark – based on the very same sample as ACM) to show that the 'low' efficiency score result from omissions in the model. Whilst ACM for now does not accept TenneT's argumentation, TenneT assesses, that it has a very strong legal position with evidence clearly showing that this score is understated.
Germany 	<ul style="list-style-type: none"> The Federal Ministry of Economic Affairs and Energy (BMWi) plans to introduce an incentive scheme to limit the maximum costs of redispatch and feed-in management that have to be reimbursed by the grid user. TenneT may be unable to limit redispatch and feed-in management costs in the target zone of the coming incentive regulation. Up to now redispatch and feed-in management costs are categorised as permanently non-influenceable. In the future (most probably from 2024 onwards) the costs will likely be incentivised by a bonus/malus mechanism. 	<ul style="list-style-type: none"> While an incentive scheme is very likely to be introduced from 2024 on, the four German TSOs argued for a transitional scheme ending with the current regulatory period (12/2023). The Federal Ministry of Economic Affairs and Energy (BMWi) was open for the proposal to introduce an intermediate bonus scheme. Discussions regarding the final scheme that will be used from 2024 onwards are still ongoing.

Climate related risks and opportunities

The Taskforce for Climate related Financial Disclosures provide recommendations for companies to improve and increase the reporting of climate related financial information. We have followed up on their recommendations, also in our risk assessment process and have identified

the following climate related risks and opportunities for TenneT, which we clustered below. Please note that there might be some overlap with risks also being mentioned earlier in the report, but this is to provide one structured overview in this section.

Climate related risks

Risks	How might this affect TenneT?	Risk mitigating actions
<ul style="list-style-type: none"> • Transition risks • Policy and legal risks  	<ul style="list-style-type: none"> • Policy and legal risks are related to our regulatory framework. Choices we make that can help society and us as a company to transition to a low carbon economy are subject to discussion with our regulator. Our regulatory framework is updated once every 5 years and this might pose a risk that if ambitions from governments in the areas we serve move faster than the spirit of the regulatory framework, this might be a constraining factor to drive the energy transition. 	<ul style="list-style-type: none"> • We mitigate this by lobbying on national and European level, run pilot projects and present business cases and focussing on those topics, which promise the highest benefit for the society, which are integration of power and hydrogen as well as flexibility and grid utilisation together with partners.
<ul style="list-style-type: none"> • Technology risk 	<ul style="list-style-type: none"> • A risk of stranded assets might occur in case a new technology is developed which makes them obsolete. 	<ul style="list-style-type: none"> • Mitigating actions include challenging the necessity of each investment and embrace other solutions, if those promise more societal value and actively work and invest in new technology as part of our strategy.
<ul style="list-style-type: none"> • Market risk 	<ul style="list-style-type: none"> • Our market risks relate to dealing with the higher infeed of renewable energy sources and impacting the way we balance our grid and market prices. Renewable energy sources are less predictable and cannot easily be increased in case of a higher demand. Differences in market prices can lead to too high requests for energy at one location, e.g. Southern-Germany, where not all energy can be transmitted to the users. In such situations additional measures are required to balance the grid, e.g. re-dispatch. 	<ul style="list-style-type: none"> • TenneT plans and builds DC-grid connections in Germany and interconnectors within Europe and we investigate the grid integration of green hydrogen and power grids as well as improving the quality of data to predict power production and consumption.
<ul style="list-style-type: none"> • Reputation risk 	<ul style="list-style-type: none"> • A reputation risk could occur when we are unable to deliver on our strategic goal to drive the energy transition. Also, when realising our assets, we also have a reputational risk if there is a growing resistance from local communities and governments, if we do not engage with our stakeholders properly ("not in my backyard"). Furthermore the overall cost of the energy transition is also a risk from a reputational perspective (affordability). 	<ul style="list-style-type: none"> • To mitigate this risk we aim to communicate in an open and transparent fashion. Next to this, we invite stakeholders in the planning and approval process of projects to voice their opinion which we consider in, for instance, the final route of a certain project. We also aim to balance affordability, sustainability and security of supply in all our investment decisions. Further mitigation takes place through the usage of professional planning, project management and costs forecasting.
<ul style="list-style-type: none"> • Physical risks • Acute  	<ul style="list-style-type: none"> • Acute risks are related to for instance (extreme) weather conditions that impact our assets. 	<ul style="list-style-type: none"> • Acute weather conditions are mitigated during the design, construction and maintenance of our assets, e.g. choice of location and the choice of materials.
<ul style="list-style-type: none"> • Chronic 	<ul style="list-style-type: none"> • Chronic physical risks can relate to rising sea and ground water levels for instance, where our assets might bear a risk due to this. 	<ul style="list-style-type: none"> • We monitor developments to gain more experience and insights related to the scenarios and effects. Examples include projects related to assets such as our Krimpen aan de IJssel substation and one of our pylons, which we both have elevated. • TenneT insures all substations and buildings during construction and operation against risks from natural catastrophes. Pylons and overhead-lines are not insured.

Climate related opportunities

Opportunities	How might this affect TenneT?
<ul style="list-style-type: none"> • Resource efficiency 	<ul style="list-style-type: none"> • Innovation and further developments in renewable energy production facilities result in decreasing production costs and decreasing of levies. Additionally, stronger decentralized power production and storage including self-balancing micro grids can relieve high-voltage grids. Furthermore, DC-interconnectors enhance the transmission of power of very long distances and connect renewable power production and demands in different countries. • Solutions related to flexibility help us to make smarter use of our grid. This might have a positive effect as this could lead to less grid expansion and therefore help us reduce the amounts of resources required to secure supply today and tomorrow.
<ul style="list-style-type: none"> • Energy source 	<ul style="list-style-type: none"> • TenneT is a leading investor in the energy transition and so we have been able to gain a vast amount of experience connecting renewable energy sources, such as offshore wind, to our grid. This experience helps us to further drive the energy transition together with partners and fulfil the future investment portfolio.
<ul style="list-style-type: none"> • Products and Services 	<ul style="list-style-type: none"> • Our project portfolio has significantly changed in order to meet national and European climate goals. Key projects are connecting offshore wind energy to our grid or to ensure that our onshore grid is prepared for a new energy future. The gathering and analysis of energy data may lead to new products and services provided by TSOs, such as TenneT.
<ul style="list-style-type: none"> • Markets 	<ul style="list-style-type: none"> • Strategies and objectives of financial institutes, banks and especially the European central bank provide opportunities for TenneT to attract sustainable financing at favourable terms and conditions by issuing green finance products to fund and refund our investments in green infrastructure projects.
<ul style="list-style-type: none"> • Resilience 	<ul style="list-style-type: none"> • Trends in the society, like the electrification of mobility result in higher demand on a stable grid and power supply. To ensure resilience integration of power and gas grids is a vital alternative. Digitalisation using technologies like automatization, robotics and block-chain will help to optimize grid utilisation while safeguarding a reliable supply of electricity.

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Consolidated financial statements

Consolidated statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2020	2019
Non-current assets			
Tangible fixed assets	8	20,859	18,541
Right-of-use assets	9	505	392
Intangible assets	10	212	160
Investments in joint ventures	12	673	605
Investments in associates	12	34	33
Deferred tax assets	6	37	83
Other financial assets	13	28	61
Total non-current assets		22,348	19,875
Current assets			
Inventories	14	65	66
Account- and other receivables	15	3,795	2,085
Income tax receivable	6	31	46
Cash and cash equivalents	16	567	901
Total current assets		4,458	3,098
Total assets		26,806	22,973

Consolidated statement of financial position

For the year ended 31 December (EUR million)

Equity and liabilities	Notes	2020	2019
Equity			
Equity attributable to ordinary shares	18	5,324	4,696
Hybrid securities	18	2,125	1,120
Equity attributable to owners of the company		7,449	5,816
Non-controlling interests	19	689	744
Total equity		8,138	6,560
Non-current liabilities			
Borrowings	20	10,217	9,137
Contract liabilities	21	376	340
Deferred tax liability	6	146	63
Provisions	22	1,282	1,163
Lease liabilities	9	327	286
Net employee defined benefit liabilities	23	405	361
Other liabilities		5	3
Total non-current liabilities		12,758	11,353
Current liabilities			
Borrowings	20	2,243	565
Contract liabilities	21	2	3
Income tax payable	6	2	242
Provisions	22	66	248
Other financial liabilities		85	79
Bank overdrafts	16	90	-
Lease liabilities	9	135	108
Account- and other payables	24	3,287	3,815
Total current liabilities		5,910	5,060
Total equity and liabilities		26,806	22,973

References relate to the notes starting with note 1 'Basis for reporting'. These form an integrated part of the consolidated financial statements.

Consolidated statement of income

For the year ended 31 December (EUR million)

	Notes	2020	2019
Revenue	3	5,025	4,422
Grid expenses	4	-2,252	-1,955
Personnel expenses	4	-239	-229
Depreciation and amortisation of assets	8,9,10	-1,074	-973
Other operating expenses	4	-171	-217
Other (gains)/losses		7	-6
Total operating expenses		-3,729	-3,380
Share in profit of joint ventures and associates	12	60	35
Operating profit		1,356	1,077
Finance income		2	3
Finance expenses	5	-197	-207
Finance result		-195	-204
Profit before income tax		1,161	873
Income tax expense *	6	-324	-250
Profit for the year		837	623
Profit attributable to:			
Equity holders of ordinary shares *	18	748	534
Hybrid securities	18	44	33
Owners of the company		792	567
Non-controlling interests	19	45	56
Profit for the year		837	623

Income tax 2019 changed from EUR 243 million to 250 million compared to last year's report. Further reference can be found in note 1 Basis for reporting.

Earnings per share attributable to the equity holders of ordinary shares

For the year ended 31 December (EUR per share)

	Notes	2020	2019
Basic and diluted earnings per share	7	3,740	2,670

Consolidated statement of comprehensive income

For the year ended 31 December (EUR million)

	Notes	Attributable to equity holders of the company						Non-controlling interest	Total equity
		Hedging reserve	Retained earnings	Unappropriated result*	Equity attributable to ordinary shares	Hybrid securities	Equity attributable to owners of the company		
		18	18	18		18		19	
2019									
<i>Other comprehensive income to be reclassified to profit or loss in subsequent years:</i>									
Amortisation of hedges	18	-2	-	-	-2	-	-2	-	-2
Taxation	6	-	-	-	-	-	-	-	-
		-2	-	-	-2	-	-2	-	-2
<i>Items not to be reclassified to profit or loss in subsequent years:</i>									
Re-measurement of defined benefit pensions	23	-	-137	-	-137	-	-137	-	-137
Taxation	6	-	40	-	40	-	40	-	40
		-	-97	-	-97	-	-97	-	-97
Total other comprehensive income 2019		-2	-97	-	-99	-	-99	-	-99
Profit for the year *		-	-	534	534	33	567	56	623
Total comprehensive income 2019		-2	-97	534	435	33	468	56	524
2020									
<i>Other comprehensive income to be reclassified to profit or loss in subsequent years:</i>									
Amortisation of hedges	18	-1	-	-	-1	-	-1	-	-1
Taxation	6	-	-	-	-	-	-	-	-
		-1	-	-	-1	-	-1	-	-1
<i>Items not to be reclassified to profit or loss in subsequent years:</i>									
Re-measurement of defined benefit pensions	23	-	-24	-	-24	-	-24	-	-24
Taxation	6	-	8	-	8	-	8	-	8
		-	-16	-	-16	-	-16	-	-16
Total other comprehensive income 2020		-1	-16	-	-17	-	-17	-	-17
Profit for the year		-	-	748	748	44	792	45	837
Total comprehensive income 2020		-1	-16	748	731	44	775	45	820

Unappropriated result 2019 changed from EUR 630 million to 623 million compared to last year's report. Further reference can be found in note 1 Basis for reporting.

Consolidated statement of changes in equity

For the year ended 31 December (EUR million)

(EUR million)	Notes	Attributable to equity holders of the company									Total equity
		Paid-up and called-up capital	Share premium reserve	Hedging reserve	Retained earnings	Unappropriated result	Equity attributable to ordinary shares	Hybrid securities	Equity attributable to owners of the company	Non-controlling interest	
		18	18	18	18	18		18		19	
At 1 January 2019		100	1,380	3	2,084	397	3,964	1,120	5,084	796	5,880
Profit for the year		-	-	-	-	534	534	33	567	56	623
Total other comprehensive income		-	-	-2	-97	-	-99	-	-99	-	-99
Total comprehensive income		-	-	-2	-97	534	435	33	468	56	524
Dividends paid	18	-	-	-	-	-120	-120	-	-120	-36	-156
Capital contribution	18	-	410	-	-	-	410	-	410	-	410
Capital repayment	18	-	-	-	-	-	-	-	-	-72	-72
Distribution on hybrid securities	18	-	-	-	-	-	-	-33	-33	-	-33
Tax on distribution on hybrid securities	18	-	-	-	7	-	7	-	7	-	7
Appropriation remaining prior year result		-	-	-	277	-277	-	-	-	-	-
At 31 December 2019		100	1,790	1	2,271	534	4,696	1,120	5,816	744	6,560
Profit for the year		-	-	-	-	748	748	44	792	45	837
Total other comprehensive income		-	-	-1	-16	-	-17	-	-17	-	-17
Total comprehensive income		-	-	-1	-16	748	731	44	775	45	820
Dividends paid	18	-	-	-	-	-112	-112	-	-112	-50	-162
Capital contribution	18	-	-	-	-	-	-	-	-	5	5
Capital repayment	18	-	-	-	-	-	-	-	-	-55	-55
Issue of hybrid securities	18	-	-	-	-	-	-	1,000	1,000	-	1,000
Distribution on hybrid securities	18	-	-	-	-	-	-	-39	-39	-	-39
Tax on distribution on hybrid securities	18	-	-	-	9	-	9	-	9	-	9
Appropriation remaining prior year result		-	-	-	422	-422	-	-	-	-	-
At 31 December 2020		100	1,790	-	2,686	748	5,324	2,125	7,449	689	8,138

Unappropriated result 2019 changed from EUR 630 million to 623 million compared to last year's report. Further reference can be found in note 1 Basis for reporting.

Consolidated statement of cash flows

For the year ended 31 December (EUR million)

	Notes	2020	2019
Operational activities			
Operating profit		1,356	1,077
Non-cash adjustments to reconcile profit to net cash flows:			
Depreciation, amortisation and impairment of assets	8,9,10	1,074	973
Result on disposal of assets	8	-	6
Share in profit of joint ventures and associates	12	-60	-35
Dividends received from joint ventures and associates	12	31	38
Movements in provisions and other (financial) liabilities and assets		101	70
		1,146	1,052
Working capital adjustments excluding EEG working capital:			
(Increase)/decrease in account- and other receivables	15	-85	-18
(Increase)/decrease in inventories		1	2
Increase/(decrease) in account- and other payables	24	-13	-71
Increase/(decrease) in contract liabilities	21	36	32
Increase/(decrease) in current financial liabilities		6	8
Cash generated from operation		-55	-47
Income tax paid (net)		-402	-200
Net cash flows from operating activities excluding EEG working capital		2,045	1,882
EEG working capital adjustments:			
(Increase)/decrease in EEG receivables	15	-1,625	-88
(Increase)/decrease EEG deposits > 3 months	15	-	250
Increase/(decrease) in EEG payables	24	-516	-718
		-2,141	-556
Net cash flows from operating activities		-96	1,326
Investing activities			
Purchase of tangible and intangible fixed assets	8,10	-3,413	-2,720
Proceeds from sale of tangible and intangible fixed assets	8,10	-	4
Capital contribution to joint ventures and associates	12	-44	-73
Acquisition of subsidiary		-12	-
Interest received		-	3
Net cash flows used in investing activities		-3,469	-2,786
Financing activities			
Net financing			
Proceeds from borrowings	20	3,316	1,731
Repayment of borrowings	20	-566	-756
		2,750	975

Continuation >

< Continuation

Consolidated statement of cash flows

For the year ended 31 December (EUR million)

	Notes	2020		2019	
Other financing activities					
Payment of lease liabilities	9	-169		-129	
Interest paid		-189		-167	
Dividends paid to ordinary shareholders of the company	18	-112		-120	
Proceeds from capital contributions	18	-		690	
Proceeds from issue of hybrid securities	18	1,000		-	
Distribution on hybrid securities	18	-39		-33	
Dividends paid and capital repayments to non-controlling interests	19	-100		-108	
			391		133
Net cash flows from financing activities			3,141		1,108
Net change in cash and cash equivalents			-424		-352
Cash and cash equivalents at 31 December	16	477		901	
Cash and cash equivalents at 1 January	16	901		1,253	
			-424		-352

Notes to the consolidated financial statements

We are continuously improving our financial reporting to make it more relevant and understandable to our stakeholders. These financial statements focus on the key (financial) topics for 2020. Unlike last year, the notes to the consolidated financial statements are disclosed following more or less the sequence of the balance sheet and profit & loss. Accounting policies are indicated with ⓘ, while key assumptions and estimates are identified by using 🚧 in front of the header.

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1 Basis for reporting

The accounting policies describe our approach to recognising and measuring transactions and balance sheet items in our financial statements. Accounting policies, including new European Union (EU) endorsed accounting standards, amendments and interpretations, relating to the consolidated financial statements as a whole are described below. This section also provides general guidance regarding assumptions, estimates and judgements used in the preparation of the financial statements. A more detailed description of accounting policies and significant estimates related to specific reported amounts is presented in the respective notes. Accounting policies which are deemed non-material are not presented in these financial statements. We consider an item material if, in our view, it is likely to have an impact on the economic decisions of primary users of these financial statements.

General

TenneT Holding B.V. and its subsidiaries are a leading electricity transmission system operator with activities in the Netherlands and a large part of Germany. In the Netherlands, our activities are conducted by TenneT TSO B.V. and its subsidiaries. In Germany, the activities are performed by TenneT GmbH & Co. KG and its subsidiaries.

The Dutch State owns the entire issued share capital of TenneT Holding B.V. Furthermore, TenneT Holding B.V. has issued hybrid securities which are deeply subordinated and are accounted for as part of equity attributable to equity holders of the Company. The registered office of TenneT Holding B.V. is located at Utrechtseweg 310, Arnhem, the Netherlands, with its statutory seat in Arnhem and a registration with the Dutch Commercial Register under number 09083317.

These consolidated financial statements of TenneT Holding B.V. and its subsidiaries (hereafter referred to as 'TenneT', 'the Company' or 'the Group') for the year ended 31 December 2020 were prepared by our Executive Board and authorised for issuance in accordance with a resolution of the Supervisory Board on 8 March 2021. The financial statements will be submitted for adoption at the General Meeting of Shareholders. These consolidated financial statements have been audited by Deloitte Accountants B.V.

Basis for preparation

These consolidated financial statements have been prepared in accordance with IFRS as adopted by the EU and Part 9, Book 2 of the Dutch Civil Code. The company financial statements for TenneT Holding B.V. have been prepared in accordance with the provisions of Part 9, Book 2, of the Dutch Civil Code.

These consolidated financial statements have been prepared on a going concern basis. The going concern basis presumes that the Group has adequate resources to remain in operation and that the Executive Board intends it to do so, for at least one year from the date of the end of the reporting period.

These consolidated financial statements are prepared on a historical cost basis, unless described otherwise in the accounting policy of a balance sheet position. They are presented in euros and all values are rounded to the nearest million (EUR 000,000), except when otherwise indicated.

Changes in prior year interpretations

Annual improvements cycle – 2015-2017

Since 1 January 2019 TenneT has applied the amendment on 'IAS 12 Income Taxes – Income tax consequences of payments on financial instruments classified as equity' that is part of the Annual Improvements Cycle 2015-2017. The amendments clarify that the income tax consequences of dividends are linked more directly to past transactions or events that generated distributable profits than to distributions to owners. Therefore, an entity recognises the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity recognised the originating transaction or event that generated the distributable profits giving rise to the dividend.

When applying this amendment on 1 January 2019 TenneT concluded that the past transaction that generated the dividend payment came solely from the income statement. Accordingly, the tax consequences were recognised in the income statement 2019. In 2020 TenneT reconsidered this conclusion, noting that a dividend payment to hybrid security holders does not necessarily directly link to the (result from the) income statement because even if the result is negative, the coupon repayment on our hybrid securities continues to accrue and should be paid in full before the Company can issue ordinary dividend to its shareholders. Additionally, our standing dividend policy corrects for hybrid security coupons in determining the dividend payment proposal. An adjustment of EUR 7 million is made from the consolidated statement of income 2019 to the consolidated statement of equity 2019. Comparative figures are changed accordingly.

Changes in EU-endorsed published IFRS standards and interpretations effective in 2020

Significant new and amended standards adopted by the Group

TenneT has not early adopted any standard, interpretation or amendment that has been issued but is not yet effective.

The IASB made amendments to the definition of materiality in IAS 1 and IAS 8. The new definition reads: Information is material if omitting, misstating or obscuring it could reasonably be expected to influence the decisions that the primary users of general purpose financial statements make on the basis of those financial statements. In line with the amendments we consider an item material if, in our view, it could reasonably be expected that the item has impact on the economic decisions of primary users of our general financial statements. The amendments to IAS 1 and IAS 8 are effective for annual periods beginning on or after 1 January 2020 and must be applied prospectively. The amendment did not have a significant impact on the financial statements of 31 December 2020.

IFRS standards issued but not yet effective and adopted by the Group

The IASB made an amendment to IFRS 16 Leases, to make it easier for lessees to account for COVID-19-related rent concessions such as rent holidays and temporary rent reductions.

The amendment exempts lessees from having to consider individual lease contracts to determine whether rent concessions occurring as a direct consequence of the COVID-19 pandemic are lease modifications and allows lessees to account for such rent concessions as if they were not lease modifications. It applies to COVID-19-related rent concessions that reduce lease payments due on or before 30 June 2021.

IFRS 16 specifies how lessees should account for changes in lease payments, including concessions. However, applying those requirements to a potentially large volume of COVID-19-related rent concessions could be practically difficult, especially in the light of the many challenges stakeholders face during the pandemic. This optional exemption gives timely relief to lessees and enables them to continue providing information about their leases that is useful to investors. The amendment does not affect lessors.

The Amendment is effective for annual periods beginning on or after 1 June 2020.

TenneT made no amendment to its current lease contracts due to COVID-19 and is also not planning to do that. Therefore this amendment has no impact on TenneT.

Basis for consolidation

The consolidated financial statements incorporate the financial statements of TenneT Holding B.V. and its subsidiaries as at 31 December 2020. A list of the legal entities included in the consolidation is included in note 30. Subsidiaries are consolidated from the date of acquisition, constituting the date on which control is obtained and continue to be consolidated until the date when such control ceases. The financial statements of subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies. All intercompany balances, transactions, unrealised gains and losses resulting from intercompany transactions and dividends are eliminated in full in consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If we cease to have control over a subsidiary, we derecognise the subsidiary's assets (including goodwill), liabilities and any non-controlling interest in the former subsidiary at the date control is lost (including the cumulative translation differences).

Furthermore, the fair value of the consideration received, the fair value of any investment retained and any surplus or deficit in statement of income are recognised. Acquisitions are accounted for using the acquisition method, where the purchase price is allocated to the identifiable assets acquired and liabilities assumed on a fair value basis and the remainder is recognised as goodwill.

Significant accounting judgements, estimates and assumptions

The preparation of financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities and the reported amounts of revenue and expenses during the reporting period. Such estimates are assessed continuously on the basis of previous results and experience, consultations with experts, trends, prognoses and other methods which we deem appropriate in each individual case. Actual results could differ from these estimates. Significant items containing estimates and assumptions are as follows:

Item	Note	Estimate/assumptions
Tangible fixed assets	8	Estimate of remaining useful life
Right-of-use assets and liabilities	9	Estimates of discount rate and expected extension or accelerated termination date
Intangible fixed assets	10	Estimate of recoverable amount and remaining useful life
Impairment review of goodwill	10	Estimate of cash flow projections and pre-tax discount rate
Grid expense payable	24	Amongst others estimate of electricity usage and energy prices
Provision for environmental management and decommissioning	22	Estimate of removal costs, removal dates, discount rate and price increases in the period leading up to removal
Tariffs related provision	22	Estimate of electricity usage and number of parties
Other provisions	22	Mainly relate to estimate of probability, realisation date and curtailed feed-in volumes and prices
Net employee benefit obligation	23	Financial, actuarial and demographic assumptions

Foreign currency

These consolidated financial statements are presented in euros, which is also the parent company's and all subsidiaries' functional currency.

Covid-19 impact

In March 2020 Europe was confronted with the outbreak of COVID-19. Several teams within TenneT are handling the situation: a crisis team, a business continuity team and a plan ahead team. We managed to keep our system operations, field operations and projects running in good order, despite challenging conditions. During 2020, COVID-19 had no material impact on the financial figures of TenneT. We refer to 'Our performance in 2020' for further elaboration on the impact of COVID-19 on TenneT.

Changes in presentation

As of 2020, the Dutch offshore revenue are no longer presented as part of the connection and transmission services but as part of the offshore (balancing) revenue. This change affected the classification in the consolidated statement of financial position, impacting the line items revenue for the year 2020 for EUR 149 million (2019: EUR 60 million). There was neither an impact on the consolidated statement of income nor on total equity.

2 Segment information

This section sets out the financial performance for the year in accordance with the way we manage our business (operating segments). We measure and assess our performance based on underlying financial information, which is explained further below.

We generate the majority of our revenue from our regulated operating segments in the Netherlands and Germany. Therefore close collaboration with our respective regulators to obtain agreements that provide reasonable compensation for the risks we face is key to us. Our involvement in certain limited non-regulated activities is closely related and ancillary to our core tasks.

Segment analysis

Our operating segments consist of:

- TSO Netherlands
- TSO Germany
- Non-regulated activities

For management information purposes, the performance of our regulated activities in the Netherlands and in Germany is considered separately into two segments (corresponding to the geographical distribution). This segmentation, based on separately applicable regulatory frameworks, is the key determinant for financial management of the business and for decision-making on budgets, allocation of resources and financing.

Financing activities (including finance income and expenses) are managed on a Group basis and amounts related thereto are not allocated to the segments. Transfer prices between the Netherlands and Germany are set at arm's length in a manner similar to transactions with third parties. These intercompany transactions are eliminated in the consolidation.

Our Executive Board is the chief operating decision-making body of the company (as defined by IFRS 8 'Operating segments'). Periodically, it monitors the performance of the respective operating segments for the purpose of performance management and decision making about resource allocation. The segment performance is based on underlying financial information, where EBIT and investments are the key metrics. The definition of EBIT equals operating profit. Performance of non-regulated activities is evaluated based on EBIT of these activities.

Underlying financial information is based on the principle of recognising regulatory assets and liabilities for all of our regulated activities. This implies that amounts resulting from past events and which are allowed to be received or required to be returned through future tariffs are recorded as an asset or liability, respectively. TenneT's Executive Board believes that the presentation of underlying financial information provides additional relevant insight in the actual business, financial performance, and as such economic reality. Furthermore this reflects the regulatory regime.

① Accounting policies applied for underlying financial information

Underlying financial information matches regulatory revenues and expenses in a corresponding reporting period and defers certain income items until used for investments or tariff reductions.



Matching is achieved by recognising regulatory deferral accounts. The key requirement for the recognition of regulatory deferral accounts is that an existing regulatory framework must be in place that permits the future reimbursement or requires the future settlement of regulated assets or liabilities, respectively. Consequently, a regulated asset is recognised in underlying financial information in respect of permitted reimbursements of current year expenses in future year's tariffs. Vice versa, a regulated liability is recognised in underlying financial information in respect of required settlements (i.e. repayments) of current year revenues through future tariffs. Furthermore, until 2015 certain investments in the Netherlands were financed via auction receipts resulting from auctioning available capacity on cross-border interconnections.

There are three customers in the German segment that generate revenues that are more than 10% of our total revenue. The revenue from these customers amount respectively EUR 816 million (2019: EUR 921 million), EUR 770 million (2019: EUR 724 million) and EUR 572 million (2019: EUR 662 million).

(EUR million)	2020			2019		
	Investments	Assets	Liabilities	Investments	Assets	Liabilities
TSO Netherlands	1,281	7,790	4,564	1,131	7,075	4,014
TSO Germany	2,121	19,637	14,271	1,925	16,977	11,836
Non-regulated activities	10	841	204	8	561	257
Total segments	3,412	28,268	19,039	3,064	24,613	16,107
Eliminations and adjustments	-	-968	730	-	-937	1,307
Consolidated underlying information	3,412	27,300	19,769	3,064	23,676	17,414

(EUR million)	2020		2019	
	Assets	Liabilities	Assets	Liabilities
TSO Netherlands	7,405	3,976	6,604	3,310
TSO Germany	19,517	13,747	16,736	11,526
Non-regulated activities	857	215	630	270
Total segments	27,779	17,938	23,970	15,106
Eliminations and adjustments	-973	730	-997	1,307
Consolidated IFRS information	26,806	18,668	22,973	16,413

IFRS investments are equal as underlying investments.

For an analysis of the underlying results see the 'Secure a solid financial performance and investor rating' section of the integrated annual report.

Regulatory deferral accounts: reconciliation to IFRS figures

The difference between underlying financial information - as presented in the segment information and board report - and IFRS reported figures is related to the recognition of regulated assets and liabilities, auction receipts and the measurement of tangible fixed assets. In the IFRS financial statements, revenue from contracts with customers is recognised when control of the goods or services is transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. In the underlying financial information revenues are recognised according to the permissible tariff decision adopted by the regulator. By doing so, volume and post calculation differences are directly matched to the related costs and therefore provide additional relevant insight to management for steering TenneT.

These differences also result in different deferred tax balances in underlying financial information compared to IFRS reported figures. No other differences between underlying financial information and IFRS exist.

Underlying financial information can be reconciled to reported IFRS figures as follows:

(EUR million)	2020			Total
	TSO NL	TSO Germany	Non-regulated	
Connection and transmission services	907	2,011	-	2,918
Maintenance of the energy balance	52	92	-	144
Operation of energy exchanges	4	-	-	4
Offshore (balancing)	153	1,082	-	1,235
Other	52	99	-2	149
Inter-segment	22	23	-	45
Total underlying revenue	1,190	3,307	-2	4,495
Inter-segment adjustments and eliminations	-22	-23	-	-45
Total underlying revenue from contracts with customers	1,168	3,284	-2	4,450
Grid expenses	-446	-1,666	9	-2,103
Other operating expenses	-483	-1,000	-14	-1,497
Share in profit of joint ventures and associates	1	30	29	60
Underlying operating profit	240	648	22	910
Revenue adjustment to IFRS	-44	619	-	575
Cost adjustment to IFRS	7	-136	-	-129
IFRS operating profit	203	1,131	22	1,356
Finance result				-195
Profit before income tax				1,161
Income tax expense				-324
Profit for the year				837

(EUR million)	2019			Total
	TSO NL	TSO Germany	Non-regulated	
Connection and transmission services	872	1,868	-	2,740
Maintenance of the energy balance	43	59	-	102
Operation of energy exchanges	2	2	-	4
Offshore (balancing)	66	1,012	-	1,078
Other	55	109	36	200
Inter-segment	25	15	-	40
Total underlying revenue	1,063	3,065	36	4,164
Inter-segment adjustments and eliminations	-25	-15	-	-40
Total underlying revenue from contracts with customers	1,038	3,050	36	4,124
Grid expenses	-393	-1,525	-	-1,918
Other operating expenses	-434	-1,005	-34	-1,473
Share in profit of joint ventures and associates	-	6	29	35
Underlying operating profit	211	526	31	768
Revenue adjustment to IFRS	-226	564	-	338
Cost adjustment to IFRS	7	-36	-	-29
IFRS operating profit	-8	1,054	31	1,077
Finance result				-204
Profit before income tax				873
Income tax expense				-250
Profit for the year				623

(EUR million)	Reconciliation IFRS to underlying figures					
	2020			2019		
	IFRS figures	Underlying items	Underlying figures	IFRS figures	Underlying items	Underlying figures
Revenue	5,025	-575	4,450	4,422	-338	4,084
Grid expenses	-2,252	149	-2,103	-1,955	50	-1,905
Personnel expenses	-239	-	-239	-229	-	-229
Depreciation and amortisation of assets	-1,074	-20	-1,094	-973	-21	-994
Other operating expenses	-171	-	-171	-217	-	-217
Other (gains)/losses	7	-	7	-6	-	-6
Total operating expenses	-3,729	129	-3,600	-3,380	29	-3,351
Share in profit of joint ventures and associates	60	-	60	35	-	35
Operating profit	1,356	-446	910	1,077	-309	768
Finance income	2	4	6	3	12	15
Finance expenses	-197	-14	-211	-207	-39	-246
Finance result	-195	-10	-205	-204	-27	-231
Profit before income tax	1,161	-456	705	873	-336	537
Income tax expense *	-324	135	-189	-250	114	-136
Profit for the year	837	-321	516	623	-222	401
Profit attributable to:						
Equity holders of ordinary shares *	748	-321	427	534	-222	312
Hybrid securities	43	-	43	33	-	33
Owners of the company	791	-321	470	567	-222	345
Non-controlling interests	46	-	46	56	-	56
Profit for the year	837	-321	516	623	-222	401
Basic and diluted earnings per share	3,740		2,135	2,670		1,560
Underlying items						
To be settled in tariffs		-353			-181	
Auction receipts		-179			-136	
Investment contributions		5			5	
Maintenance of the energy balance		-48			-26	
Revenue		-575			-338	
To be settled in tariffs		149			50	
Grid expenses		149			50	
Depreciation and amortisation of assets		-20			-21	
Total operating expenses		-20			-21	
Share in profit of joint ventures and associates		-			-	
Operating profit		-446			-309	

To be settled in tariffs

Revenue surpluses and deficits resulting from differences between expected (ex ante) and realised (ex post) electricity transmission volumes are incorporated in the tariffs of subsequent years in both, Germany and the Netherlands. In the underlying financial information, these surpluses and deficits are recorded as assets and liabilities, respectively, under 'to be settled in tariffs'. The expenses have to be settled in future tariffs in the coming years.

The underlying item to be settled in tariffs is part of revenue stream connection and transmission services EUR 353 million (2019: EUR 181 million).

Auction receipts & investment contributions

Auction receipts result from auctioning the available transmission capacity on cross-border interconnections. These receipts are not at our free disposal. In accordance with European law, auction receipts are to be used to invest in additional cross-border interconnections or to be refunded through tariff reductions. In the Netherlands, we have agreed with our regulator (Autoriteit Consument en Markt) to fully utilise auction receipts to reduce future tariffs. The current outstanding balance of auction receipts will be refunded via tariffs over the coming years. On 19 November 2019, an addendum to the original power agreement was signed. The agreements relate to the restitution of existing auction fees in order to limit the increase in net tariffs in 2020. In Germany, the use of auction receipts for investments is effectively achieved by reducing tariffs over a rolling 20-year period as of 2019.

Investments financed by using auction receipts are classified as investment contributions and are reported under 'liabilities'. A periodic amount equal to the depreciation charges, plus a portion of the operating expenses, is released to the statement of income, following the release scheme as described above.

The underlying item auction receipts is part of revenue stream operations of energy exchanges EUR 179 million (2019: EUR 136 million). The underlying item investment contribution is part of revenue stream other -/- EUR 5 million (2019: -/- EUR 5 million).

Maintenance of the energy balance

As system manager of the high-voltage grid in the Netherlands, we receive funds for performing certain statutory duties, such as the maintenance of the energy balance. The proceeds from these activities (i.e., imbalance settlements) may only be used after approval by the ACM. Imbalance settlements collected during the year are to be offset in transmission tariffs in the subsequent year. Consequently, these amounts are recorded as a liability and released in the subsequent year in the underlying financial information.

As the balancing group coordinator, the TSO in Germany is responsible for balancing the balancing groups in terms of energy. We balance surplus or shortfall balancing groups by means of control energy and bill the balancing group managers for the resulting costs. For this billing of balance imbalances, the so-called "Uniform balancing energy price across control zones" (reBAP) is used. As a result, TenneT TSO GmbH (TTG) receives higher payments from the balancing group managers than TTG pays to the power plant operators. The resulting additional revenues from the balancing energy billing system are to be deducted from the grid charges. Analogously, reduced revenues will increase future grid fees.

The underlying item maintenance of the energy balance is part of revenue stream maintenance of the energy balance EUR 48 million (2019: EUR 26 million).

Depreciation and amortisation of assets

Differences in depreciation and amortisation of assets occur due to the difference in accounting treatment of the regulatory deferral accounts and the related cash flows in order to determine the economic useful life and recoverable amount of the assets resulting from acquisitions and used for impairment analysis.

Between Underlying and IFRS there is no difference in depreciation method, but the amount of depreciation differs mainly due to an impairment under IFRS of the NorNed cable in 2015 of EUR 232 million which is not recognised under Underlying.

With regard to Germany, depreciation as well as assets in Underlying are higher due to higher acquisition costs resulting from an adjustment in connection with the Purchase Price Allocation in 2010.

3 Revenue

Connection and transmission services

Revenue from connection and transmission is regulated by the ACM in the Netherlands and by the BNetzA in Germany. Revenue from connection and transmission services includes revenue from services provided to DSOs and industrial clients (such as resolution of transmission restrictions, congestion management and reactive power management).

Revenue increased partly due to ongoing investments and a growing asset base.

Maintenance of the energy balance

We are responsible to ensure that electricity supply and demand is in balance at all times (i.e. the alternating current frequency in the power grid must be at 50 Hz continuously). If this balance is significantly disrupted, it may result in a power outage or even a black-out, depending on the length and severity of the imbalance. To ensure this balance, we contract and deploy (among others) reserve and emergency capacity to compensate unexpected fluctuations in supply and demand. The proceeds from maintaining this energy balance (e.g. imbalance settlements) fluctuate considerably and are refunded through regulated tariffs in both the Netherlands and Germany in subsequent years. The tariffs are set by both the German and Dutch regulator.

Operation of energy exchanges

This amount includes revenues resulting from the auctioning of cross-border (electricity transmission 'interconnection') capacity.

Offshore (balancing)

Total offshore (balancing) increased mainly due to the higher imputed return on equity and increasing offshore asset base.

Revenue from offshore (balancing) is regulated. Due to a regulatory decision in 2020, affecting the periods 2017-2020, an additional income pertaining to the years 2017-2019 ad EUR 29 million and additional income related to 2020 amounting to EUR 15 million has been recorded.

① Accounting policy

Revenue primarily represents the sales value derived from the connection and transmission of electricity together with the sales value derived from the provision of other services to customers during the year. Revenue from contracts with customers is recognised when control of the goods or services is transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

Revenues are from contracts with a single performance obligation. The assessment of unbilled connection and transmission services supplied to customers between the date of the last meter reading and year-end is subject to significant judgement. This assessment is primarily based on expected consumption and weather patterns.

If revenue received or receivable exceeds the maximum annual amount as determined by the regulator, ACM or BNetzA, an adjustment will be made to future tariffs to reflect this over-recovery. Under IFRS, no liability is recognised since this adjustment relates to the provision of future services. Similarly, no asset is recognised when a regulator permits increases to be made to future tariffs in respect of under-recovery.

Offshore (balancing) revenues in The Netherlands are accounted in accordance with the recognition and measurement principles of IAS 20. These revenues are not recognized until there is reasonable assurance that the Group will comply with the conditions attached to prerequisites for receiving this income.

4 Operating expenses

Grid expenses

(EUR million)	2020	2019
System services	1,238	1,179
Connection and transmission services	360	317
Maintenance of the energy balance	145	98
Maintaining and operating transmission grids	516	370
Other	-7	-9
Total	2,252	1,955

System services increased additionally due to higher costs related to feed-in management, transmission restrictions and grid losses. Increase of cost of maintaining and operating transmissions grids mainly related to higher insurance costs,

Personnel expenses

(EUR million)	2020	2019
Salaries	318	288
Social security contributions	47	40
Pension charges defined benefit plans	20	14
Pension charges other plans	23	19
Other personnel expenses	35	28
Capitalised costs for (in)tangible fixed assets	-204	-160
Total	239	229

Average workforce in FTEs (internal employees only)	3,927	3,526
Average workforce in FTEs employed in the Netherlands	1,712	1,538
Average workforce in FTEs employed in the Germany	2,215	1,988

Key management remuneration

Members of the Executive Board and Supervisory Board are regarded as key management. Aggregate remuneration of members of the Supervisory Board and Executive Board is as follows:

Supervisory Board (EUR thousand)	Fixed	Committee fee	Total
2020	156	59	215
2019	136	50	186

Executive Board (EUR thousand)	Fixed	Variable	Pension cost	Total
2020	1,543	-	370	1,913
2019	1,230	194	257	1,681

The aggregate Executive Board remuneration comprises remuneration of statutory directors of EUR 1,827 thousand (2019: EUR 1,253 thousand) and remuneration of non-statutory directors of EUR 86 thousand (2019: EUR 427 thousand). Since 2020 all members of the Executive Board are statutory directors. Pension remuneration equals (i) the contributions payable to the defined contribution plan for service rendered in the period or (ii), for defined benefit plans, the current service cost and, when applicable, past service cost.

Other operating expenses

(EUR million)	2020	2019
Accommodation and office expenses	71	66
Consultancy expenses	39	27
Hiring of temporary personnel	38	31
Travel and living expenses	10	16
Other expenses	13	77
Total	171	217

The decrease of the other operating expenses is mainly related to the release of the offshore liability.

The fees listed in the table below relate to the procedures applied to the Company and its consolidated Group entity by Deloitte Accountants B.V. The Netherlands (2019: EY network firms (including Ernst & Young Accountants LLP), the external auditor as referred to in section 1(1) of the Dutch Accounting Firm Oversight Act (Dutch acronym: Wta), as well as by other Dutch and foreign-based Deloitte individual partnerships and legal entities, including their tax services and advisory groups.

(EUR thousand)	2020	2019
Audit of the financial statements		
Deloitte Accountants B.V.	813	-
Deloitte GmbH Wirtschaftsprüfungsgesellschaft	833	-
Ernst & Young Accountants LLP	-	770
Ernst & Young Germany	-	592
Total audit of the financial statements	1,646	1,362
Other assurance services		
Deloitte Accountants B.V.	451	-
Deloitte GmbH Wirtschaftsprüfungsgesellschaft	52	-
Ernst & Young Accountants LLP	-	309
Ernst & Young Germany	-	172
Total other assurance services	503	481
Total assurance services	2,149	1,843
Other services (other Ernst & Young firms)	-	33
Total other services	-	33
Total audit fees	2,149	1,876

The financial audit fees include the aggregate fees in 2020 and 2019 for professional services rendered for the audit of TenneT's Integrated Annual Report and annual statutory financial statements of subsidiaries or services that are normally provided by the auditor in connection with the audits.

The other assurance fees include the aggregate fees invoiced for assurance and services for other audit services, which generally only the company's independent auditor can reasonably provide, such as comfort letter, regulatory statements and audit of grant statements.

① Accounting policy

We purchase electricity to supply our customers in The Netherlands and Germany and to meet our own energy needs. Substantially all our costs of purchasing electricity for supply to customers are recoverable at an amount equal to cost. The timing of recovery of these costs can vary between financial periods leading to an under- or over-recovery within any particular year that can lead to large fluctuations in the income statement. We follow approved policies to manage price and supply risks for our commodity activities.

Our energy procurement risk management policy and delegations of authority govern our commodity trading activities for energy transactions. The purpose of this policy is to ensure we transact within pre-defined risk parameters and only in the physical and financial markets where we or our customers have a physical market requirement. In addition, state regulators require TenneT Grid to manage commodity risk and cost volatility prudently through diversified pricing strategies. In both The Netherlands and Germany, we are required to file a plan outlining our strategy to be approved by regulators. In certain cases, we might receive guidance with regard to specific hedging limits.

Energy purchase contracts for the forward purchase of electricity that are used to satisfy physical delivery requirements to customers, or for energy that TenneT uses itself, meet the expected purchase or usage requirements of IFRS 9. They are, therefore, not recognised in the financial statements until they are realised. Disclosure of commitments under such contracts is made in note 28 as “Grid-related commitments”.

Operating expenses are expenses incurred during regular day-to-day business, such as system services, connection and transmission services, personnel expenses, depreciation and accommodation and travel costs. Operating expenses are recorded in the statement of income in the period they incurred.

5 Finance expenses

(EUR million)	2020	2019
Interest on borrowings and credit facilities	188	178
Capitalised interest on assets under construction	-11	-9
Interest on provisions	2	19
Interest on defined benefit pension plans	4	4
Interest on lease liability	2	2
Other finance expenses	12	13
Total	197	207

① Accounting policy

Finance expenses comprise mainly interest expenses, such as interest on borrowings and credit facilities, interest on provisions, interest on defined benefit plans and interest on lease liabilities. Finance expenses are recorded in the statement of income using the effective interest rate method.

6 Income tax

We strive to comply with all applicable tax legislation in a socially responsible manner, maintaining among the highest levels of transparency, quality and integrity. Management responsibility and oversight of our tax strategy lies with our ‘Chief Financial Officer’ (CFO), our Associate Director Financial Governance & Services and our Head of Tax who monitor our tax activities and report to the Executive Board and the Audit, Risk and Compliance Committee.

Our tax strategy is fully consistent with our corporate strategy. Building a transparent relationship with tax authorities based on mutual trust is an integral part of this strategy. We have built and are continuously improving our tax control framework to be ‘in control’ of tax risks and to allow the company to demonstrate to all its stakeholders, including the tax authorities, that the company fully complies with all applicable laws and regulations.

Income tax is payable in the Netherlands and Germany. In the Netherlands, we entered into a so called 'horizontal monitoring agreement' with the Dutch tax authorities. Based on transparency and mutual trust, this agreement is meant to ensure that tax positions are fully disclosed and agreed on in advance, as a result of which generally no tax audits are performed by the Dutch tax authorities. All corporate income tax returns in the Netherlands have been filed up to and including 2018. Corporate income tax paid in the Netherlands in 2020 amounted to EUR 36 million.

In Germany, corporate income and trade tax returns for all German entities have been filed up to and including fiscal year 2019. The German tax authorities have started the tax audit for the fiscal years 2017 to 2019. In 2020, we paid EUR 366 million of corporate income tax in Germany.

The key components of income tax expense are:

Consolidated income statement (EUR million)	2020	2019
Current income tax charge	190	339
Deferred tax:	134	-89
Income tax expense reported in the statement of income	324	250

* Current income tax charge 2019 changed from 243 into 250 due to reconsideration of the amendment on IAS 12 explained in note 1.

Consolidated statement of comprehensive income (EUR million)	2020	2019
Effect of re-measurement of defined benefit pensions	8	40
Income tax charged directly to other comprehensive income	8	40

Income tax on profits has been provided at the rates prevailing in the respective countries. In the Netherlands, a statutory corporate income tax rate of 25% is applied, while in Germany, on average, a marginal statutory corporate income tax rate of 29,53% is applied (including trade tax levied by municipalities or 'Gewerbsteuer'). Reconciliation between tax expense and the accounting profit multiplied by a statutory income tax rate of 25% is as follows.

(EUR million)	2020	2019
Profit before income tax	1,162	873
Statutory income tax rate of 25% (The Netherlands, 2019: 25%)	290	218
Effect of higher tax rate in Germany	46	39
Effect of future tax rate change in the Netherlands	1	9
Adjustments in respect to current and deferred tax of previous years	-3	-11
Non-deductible costs	1	1
Non-taxable income	-6	-3
Tax paid by third parties	-5	-3
At the effective income tax rate of 28% (2019: 29%)	324	250

The main reason for the higher effective tax rate of 28% compared to the statutory tax rate of 25% is the effect of the higher tax rate in Germany. The remeasurement of the deferred tax position due to the enacted rate change in the Netherlands has also increased the effective rate. The increase of the tax paid by third parties relates to the increase of third party income compared to 2019.

Deferred tax relates to the following:

(EUR million)	Statement of financial position		Statement of income	
	2020	2019	2020	2019
Auction receipts	-139	-185	-46	3
Investment contributions	-69	-62	6	1
Tariffs to be settled	-115	50	165	-33
Depreciation for tax purposes	-156	-101	56	-55
Provisions	378	323	-46	-42
Profit allocation to hybrid securities	-6	-5	-	-
Other	-2	-	-1	37
Net deferred tax assets/(liabilities)	-109	20		
Deferred tax expense/(income)			134	-89

The effect on leases is part of 'Other' and due to low interest not material.

Deferred taxes are presented in the statement of financial position as follows:

(EUR million)	2020	2019
Deferred tax assets	37	83
Deferred tax liabilities	-146	-63
Deferred tax, net	-109	20

The deferred tax assets mainly relate to TSO Germany. The current German tax law contains no time limits for deferred tax assets.

Movements in deferred tax positions are set out below.

(EUR million)	2020	2019
At 1 January	20	-109
Tax expense during the period recognised in statement of income	-134	89
Initial recognition of acquired companies (note 11)	-3	-
Tax income during the period recognised in other comprehensive income	8	40
At 31 December	-109	20

① Accounting policy

The tax charge for the period is recognised in the statement of income, equity or the statement of comprehensive income, in accordance with the relevant accounting treatment of the related transaction. Only for equity instruments tax is recognised in the statement of income instead of equity. The tax charge comprises both current and deferred tax.

Current income tax assets and liabilities are measured at the amount expected to be recovered from or paid to the tax authorities. The tax rates and tax laws used to calculate these amounts are those enacted or substantively enacted at the reporting date in those countries where we operate and generate taxable income.

Deferred tax is recognised using the liability method with respect to temporary differences between the tax bases of assets and liabilities and their respective carrying amounts for financial reporting purposes at the reporting date. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date in the relevant jurisdictions.

Deferred tax is generally recognised in respect of all temporary differences, the carry-forward of unused tax credits and any unused tax losses. Deferred tax assets (also in association with investments in subsidiaries, associates and interests in joint arrangements) are recognised to the extent that it is probable that taxable profit will be available against which the deductible temporary differences and the carry-forward of unused tax credits and unused tax losses can be utilised. This is assessed annually. Deferred tax is not recognised for the temporary differences arising from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered. There are no unrecognised carry forward losses per 31 December 2020 (2019: nil). Deferred tax assets and liabilities are recognised gross in the statement of financial position unless:

- the entity has a legally enforceable right to set off current tax assets against current tax liabilities and
- the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either:
 - the same taxable entity or
 - different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered. There are no unrecognised carry forward losses per 31 December 2020 (2019: nil).

7 Earnings per share

Earnings per share have been calculated by dividing profit for the year attributable to ordinary shareholder of the Group, after adjustment for the distribution on hybrid securities, by the weighted average number of ordinary shares outstanding during the year. The following table reflects the income and share data used for the basic and diluted earnings per share calculations:

(EUR million)	2020	2019
Profit for the year attributable to the ordinary shareholder of the company	792	567
Allocation to hybrid securities	-44	-33
Profit for the year attributable to equity holders of the company adjusted for the allocation to hybrid securities	748	534
Weighted average number of ordinary shares in issue (in thousands)	200	200

Accounting policy

Calculation of earnings per share is based on the profit for the year attributable to TenneT's shareholder and the weighted average number of shares outstanding during the year.

8 Tangible fixed assets

(EUR million)	High-voltage substations	High-voltage connections	Other assets	Assets under construction	Total
Cost					
At 1 January 2019	8,331	6,699	882	4,272	20,184
Additions	372	247	39	2,354	3,012
Transfers	1,524	1,401	44	-2,969	-
Transfer to intangible assets	-	-	-	-26	-26
Changes in estimations (note 22)	143	189	-	-	332
Disposals	-11	-6	-4	-4	-25
At 31 December 2019	10,359	8,530	961	3,627	23,477
Additions	260	324	60	2,698	3,342
Transfers	536	824	32	-1,392	-
Initial recognition of acquired companies (note 11)	-	-	11	-	11
Changes in estimations	-17	-90	-	-	-107
Disposals	-6	-	-2	-	-8
At 31 December 2020	11,132	9,588	1,062	4,933	26,715
Depreciation and impairment					
At 1 January 2019	2,020	1,843	272	-	4,135
Depreciation for the year	446	305	59	-	810
Impairment	2	-	-	-	2
Disposals	-6	-4	-1	-	-11
At 31 December 2019	2,462	2,144	330	-	4,936
Depreciation for the year	503	358	60	-	921
Disposals	-1	-	-	-	-1
At 31 December 2020	2,964	2,502	390	-	5,856
Net book value:					
At 1 January 2019	6,311	4,856	610	4,272	16,049
At 31 December 2019	7,897	6,386	631	3,627	18,541
At 31 December 2020	8,168	7,086	672	4,933	20,859

High-voltage substations include onshore and offshore transformer and converter stations. High-voltage connections consist of overhead and underground connections. Unlike lands for substations, lands surrounding high-voltage pylons and cables are generally not owned by the Group. Other tangible fixed assets consist of office buildings, office ICT equipment and other company assets.

In 2020 the discount rate for the decommissioning provision was set between 0.0% and 0.1% (2019: 0.4% and 0.7%) for OWF connections (see note 22). The discount rate has been adjusted in 2020 to better reflect current market assessments of the time value of money and the risks specific to the liability. Since the main part of the decommissioning provision was recognised as part of the carrying value of the related asset, changes in discount and inflation rate, if any, directly impact this carrying value.

The amount of borrowing costs capitalised during 2020 is disclosed in note 5. The effective interest rate used to determine the amount of borrowing costs capitalised was 2.1% (2019: 2.1%).

① Accounting policy

Tangible fixed assets are valued at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such costs include the cost of replacing part of the asset and borrowing costs for long-term construction projects if the recognition criteria are met. When significant parts of the asset are required to be replaced at intervals, such parts are recognised as individual assets with specific useful lives and depreciated accordingly. Likewise, when major maintenance is performed, its cost is recognised in the carrying amount of the asset as a replacement, if the recognition criteria are met. All other repair and maintenance costs are recognised in the statement of income as incurred. The present value of the expected cost for the decommissioning of an asset after its use is included in the cost of the respective asset, if the recognition criteria for a provision are met. Depreciation is calculated on a straight line basis.

An asset is derecognised on disposal or when no future economic benefits are expected from its use. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the statement of income when the asset is derecognised.

General and specific borrowing costs directly attributable to the acquisition, construction or production of the tangible fixed assets, are added to the cost, until such time that the assets are substantially ready for their intended use or sale. No borrowing costs are capitalised where the borrowing costs are directly compensated in the year of construction.

🔑 Key estimates and assumptions

To calculate depreciation amounts, the following useful lives of various asset categories are assumed:

Estimated useful lives tangible fixed assets	Years
Substations	
Switches and offshore converter stations	20-35
Offshore platforms	20
Security and control equipment	10-20
Power transformers	20-35
Capacitor banks	20-35
Telecommunications equipment	10-20
Connections	
Pylons/lines	35-40
Cables (subsea and underground)	20-40
Other	
Office buildings	40-50
Office IT equipment	3-5
Process automation facilities	5
Other company assets	5-10

Residual values, useful lives and methods of depreciation of assets are reviewed at each financial year-end and adjusted prospectively, if appropriate. Per our annual review, the estimated useful lives of certain regulatory assets have been extended per 1 July 2020, resulting in a decrease of EUR 15.3 million in the current financial year. The annual effect for 2021 and beyond is expected to be approx. EUR 30 million in lower depreciation charges. The change in estimates is related to the changed assumptions of the asset retirement obligation (note 22).

9 Right-of-use assets and lease liabilities

Right-of-use assets

(EUR million)	Land & buildings	Power plants	NordLink cable	Other right-of-use assets	Total
Cost					
Initial recognition IFRS 16	95	218	-	71	384
Additions	17	95	-	30	142
Depreciation	-11	-108	-	-15	-134
At 31 December 2019	101	205	-	86	392
Additions	7	14	249	3	273
Remeasurement	5	-39	-	2	-32
Depreciation	-11	-90	-7	-14	-122
Other movement	-9	-	-	3	-6
At 31 December 2020	93	90	242	80	505

Leased Land & Buildings

Land is mainly leased to set up pylons for transmission cables. These contracts run for a period of 2 - 170 years. Buildings are leased mainly as office space and storage space. These contracts run for a period of 1 - 36 years.

Lease contracts for buildings are negotiated individually and include a variety of different terms and conditions, including extension options.

Lease payments are in substance fixed, only a minority of the lease contracts contain clauses with reference to the CPI index.

Leased power plants

TenneT is committed to the use of grid reserve power plants representing lease commitments according to IFRS 16. The commitments have a maturity of 2-7 years and can be prolonged depending on the decision of regulatory authorities.

Lease payments are in substance fixed and TenneT had no power plant leases which contained variable lease payments. Lease contracts do not include any clauses with reference to an index or contractual rate.

Leased NordLink cable

With the commissioning of the NordLink interconnector cable in December 2020, the lease agreement between TenneT and NOKA was recognised, for which a right of use and a corresponding lease liability of EUR 249 million was recognised. The right-of-use asset will be amortised over the remaining lease term (until end of 2023), resulting in an amortisation of EUR 7 million in 2020. No extension option according to IFRS 16 is included in the lease contract. The lease liability was reduced by a high lease payment of EUR 51 million in December 2020 to EUR 199 million at year-end. The high lease payment results mainly from regulatory peculiarities in connection with the capitalisation of the interconnector cable in NOKA (lessor), e.g. an imputed depreciation for the entire year and not only pro rata is included in the calculation basis of the lease payment. The lease payments are in substance fixed.

Leased others

Telecom lease contracts (including fibreglass cables) run for a period between 3 and 36 years. For qualifying employees TenneT leases cars with a lease term between 1 and 10 years. TenneT does not purchase or guarantee the value of leased telecom assets or cars.

TenneT has several contracts with termination / extension options. In determining the lease term all relevant facts and circumstances that create a significant economic incentive to exercise those options are taken into consideration.

TenneT had no material 'sub lease' contracts in 2020 and 2019 and therefore no material income from subleasing right-of-use assets. TenneT has not entered into any sale and leaseback contracts. No lease contracts with residual value guarantees are entered into. No lease contracts have been concluded that contain restrictions or covenants.

Lease payments are in substance fixed, only some of the lease contracts have pre-determined lease payment changes.

Short-term leases and leases of low value

In some cases TenneT leases other assets with terms of 1 year. TenneT considers these assets to be of low-value or short term in nature and therefore no right of use assets and lease liabilities are recognised for these leases. The aggregate total of short-term lease expenses for more than one month and low value assets lease expenses amounted to EUR 2 million (2019: EUR 2 million).

Lease liability

(EUR million)	2020			2019		
	Current	Non-current	Total	Current	Non-current	Total
Lease liability Land & buildings	12	80	92	6	94	100
Lease liability power plants	42	48	90	93	114	207
Lease liability NordLink	68	131	199	-	-	-
Lease liability other leases	13	68	81	9	78	87
Total	135	327	462	108	286	394

(EUR million)	Lease liability Land & buildings	Lease liability power plants	Lease liability NordLink	Lease liability other leases	Total
Initial recognition IFRS 16	95	218	-	71	384
Addition	17	95	-	30	142
Interest	1	-	-	1	2
Repayments	-11	-102	-	-16	-129
Other movements	-2	-4	-	1	-5
At 31 December 2019	100	207	-	87	394
Addition	8	13	250	4	275
Interest	1	-	-	1	2
Remeasurement	5	-39	-	2	-32
Repayments	-12	-91	-51	-15	-169
Other movements	-10	-	-	2	-8
At 31 December 2020	92	90	199	81	462

The total cash outflow (including low value items and short term leases) in 2020 was EUR 171 million (2019: EUR 130 million). Future cash outflows of leases not yet commenced but to which TenneT is committed mainly relate to power plants leases and amount to EUR 46 million yearly from 2022 till 2032.

The maturity analysis of lease liabilities is disclosed in note 25.

(EUR million)	2020	2019
Depreciation expense of right-of-use assets	-122	-134
Short-term lease expenses	-2	-2
Interest expense on lease liabilities	-2	-2
Total amount recognised in profit and loss	-126	-138

① Accounting policy

At inception of a contract, TenneT assesses whether a contract conveys the right to control the use of an identified asset for a period in exchange for consideration, in which case it is classified as a lease.

TenneT recognises a right-of-use asset and a lease liability at the lease commencement date. The asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to restore the underlying asset, less any lease incentives received.

The lease asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term, considered to be indicated by the lease term. The lease asset is periodically adjusted for certain remeasurements of the lease liability and impairment losses (if any).

The lease liability is initially measured at the present value of outstanding lease payments, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, TenneT's incremental borrowing rate. If available, the interest rate implicit in the lease is used for discounting (e.g. car leases). Otherwise the incremental borrowing rate is used and shown in the table below.

	2020	2019
Under 5 year	0.00%	0.00%
5-10 years	0.50%	0.50%
10-15 years	1.10%	1.10%
15-25 years	1.60%	1.60%
Above 25 years	2.00%	2.00%

After initial recognition the lease liability is measured at the present value of the remaining lease payments using the effective interest method and is remeasured when there is a change in future lease payments arising from a change in an index or rate or if TenneT changes its assessment of whether it will exercise a purchase, extension or termination option. A corresponding adjustment is made to the carrying amount of the right-of-use asset with any excess over the carrying amount of the asset being recognised in the profit or loss.

Short-Term Leases and Leases of Low Value

TenneT has elected not to recognise right-of-use assets and lease liabilities for short-term leases (leases with a term of 12 months or less) and leases of low-value assets. TenneT recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term or another systematic basis if that basis is more representative of the pattern of the lessee's benefit. Furthermore we have elected not to recognise the lease of intangible assets.

10 Intangible assets

(EUR million)	Goodwill	Software	Customer contracts	Other intangible assets	Intangible assets under construction	Total
Cost						
At 1 January 2019	31	244	64	30	3	372
Additions	-	3	-	1	48	52
Transfer from tangible assets	-	2	-	-	24	26
Transfers	-	20	-	10	-30	-
At 31 December 2019	31	269	64	41	45	450
Additions	-	1	-	-1	66	66
Transfer from intangible assets under construction	-	3	-	-	-3	-
Initial recognition of acquired companies (note 11)	4	-	-	9	-	13
Transfers	-	35	-	-	-35	-
At 31 December 2020	35	308	64	49	73	529
Amortisation and impairment						
At 1 January 2019	-	200	48	13	-	261
Amortisation for the year	-	23	5	1	-	29
At 31 December 2019	-	223	53	14	-	290
Amortisation for the year	-	21	5	1	-	27
At 31 December 2020	-	244	58	15	-	317
Net book value:						
At 1 January 2019	31	44	16	17	3	111
At 31 December 2019	31	46	11	27	45	160
At 31 December 2020	35	64	6	34	73	212

As at 31 December 2020 and 2019, goodwill was allocated to the following cash generating units (CGUs): TSO Netherlands (EUR 3 million), TSO Germany (EUR 24 million) and non-regulated activities (EUR 8 million). The increase of EUR 4 million is related to the acquisition of Globalways GmbH. Refer to note 11 for more information.

During 2020 EUR 26 million (2019: EUR 16 million) of software was internally developed.

① Accounting policy

Intangible assets are measured at acquisition cost on initial recognition. The cost of intangible assets acquired in a business combination is their fair value at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and accumulated impairment losses. Except for capitalised development costs, internally generated intangible assets are not capitalised and expenses are reflected in the statement of income in the period in which they incur.

Goodwill is initially measured at cost and represents the excess of the consideration transferred over TenneT's interest in the value of the net identifiable assets, liabilities and contingent liabilities of the acquiree and the amount of the non-controlling interest in the acquiree. After initial recognition, goodwill is measured at cost less accumulated impairment losses.

At each reporting date, we assess whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the asset's recoverable amount is estimated. The recoverable amount is the higher of an asset's or CGU's fair value less costs of disposal and its value in use. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

Key estimates and assumptions

Estimated useful lives intangible assets	Years
Goodwill	Indefinite
Software	3-5
Customer contracts	10-14
Purchased rights to use land	25-45
Other	5-15

Intangible assets, with the exception of goodwill, are assumed to have a fixed useful life as shown above and are amortised over this useful life. The useful life is re-assessed each reporting period. Intangible assets are amortised on a straight line basis, as this best reflects the use of the asset.

Goodwill is assumed to have an indefinite useful life and is therefore not amortised, but is tested for impairment annually or more frequently, if events or changes in circumstances indicate a triggering event, either individually or at the CGU level.

Impairment testing of goodwill

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the CGUs (our operating segments, see note 2) or groups of CGUs expected to benefit from the synergies of the combination. Each CGU or group of CGUs to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is monitored for internal management purposes.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, an appropriate valuation model is used, if no recent market transactions can be identified.

The impairment calculation is based on detailed projections, which are prepared separately for each of the CGUs to which the individual assets are allocated. The projections reflect current regulatory parameters, taking into account expected future regulatory developments. Management believes that the resulting cash flows can be determined reliably and that they give an appropriate reflection of the CGUs cash flow generating potential.

The recoverable amount of the Germany CGU was determined based on a value in use calculation using cash flow projections from our three year business plan. The pre-tax discount rate applied to cash flow projections was 3.8% (2019: 3.8%). The cash flows beyond the three-year period until 2080 were estimated on the basis of regulatory allowed returns and invested capital. The terminal value is determined estimating the regulatory asset base as of December 2080. We concluded that the recoverable amount was significantly in excess of the carrying value and as such no impairment loss needed to be recognised and as such no impairment is required.

11 Business combinations

At 30 October 2020 TenneT acquired, through its subsidiary Relined GmbH, 100% of the shares of Globalways GmbH effective 1 January 2020 for a cash consideration of EUR 16 million. This company operates a network of internet connections via fibre glass cables. The acquisition consideration contains an additional earn-out option in 2021 and 2022 of both EUR 1.5 million. The purchase price allocation as presented below is preliminary.

(EUR million)	Book value of assets acquired	Fair value entries	Fair value of assets acquired
Tangible fixed assets	10	1	11
Intangible assets	-	9	9
Account- and other receivables	1	-	1
Liabilities			
Deferred tax liabilities	-	-3	-3
Loan to Relined GmbH	-4		-4
Account- and other payables	-2		-2
Net assets	5	7	12
Cash consideration			13
Deferred consideration			3
Total consideration			16
Goodwill arising from acquisition			4

① Accounting policy

Business combinations are accounted for using the acquisition method. The cost of the acquisition is measured as the aggregate of the assets and liabilities measured at their acquisition-date fair value (with a limited number of specified exceptions) including the amount of any non-controlling interest in the acquiree. For each business combination, we elect whether to measure the non-controlling interest in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred and included in administrative expenses.

Non-current assets held for sale are defined as non-current assets (other than financial instruments or property investments) immediately available for sale and highly likely to be sold within a year. Non-current assets held for sale have been stated at the lower end of the asset's carrying value and fair value less costs of disposal.

12 Investments in joint ventures, joint operations and associates

Joint ventures

We have, directly or indirectly, 50% equity stakes in BritNed Development Ltd. ('BritNed'), DC Nordseekabel GmbH & Co. KG ('NOKA'), DC Nordseekabel Beteiligungs GmbH, Reddyn B.V., Tenzs B.V. and TeslaN B.V. These investments are classified as joint ventures, for which only the investments in BritNed (legal seat: Arnhem, the Netherlands) and NOKA (legal seat: Bayreuth, Germany) are each considered as an investment of material value. Other joint ventures are considered immaterial and are therefore not further disclosed. The Group's share in profit (which is equal to other and total comprehensive income) of these immaterial joint ventures amounted to EUR 3 million in 2020 (2019: EUR 2 million).

BritNed

BritNed is a joint venture with National Grid International Ltd (National Grid), the British TSO. It owns and operates a 1,000 MW 'Direct Current'(DC) interconnector between the United Kingdom and the Netherlands. Operating costs and trading revenue are shared equally between TenneT and National Grid.

NOKA

In February 2015, partner companies Statnett SF, TenneT and KfW IPEX-Bank GmbH (KfW) made a final investment decision to establish an interconnector between Norway and Germany under the project name 'NordLink'. Ownership of the interconnector is equally split, with TenneT and KfW owning the Southern part through NOKA, a jointly owned company and Statnett owning the Northern part. At the moment the main activities of NOKA are the construction of the Southern part of the interconnector. Operating costs and trading revenue are shared equally between NOKA and Statnett.

The table below contains summarised financial information of material joint ventures and the reconciliation with their carrying amounts.

Statement of financial position (EUR million)	2020		2019	
	BritNed	NOKA	BritNed	NOKA
Non-current assets	483	888	454	780
Cash and cash equivalents	46	48	46	13
All other current assets	29	59	22	95
Non-current liabilities	-47	-80	-9	-72
Current liabilities	-72	-15	-65	-56
Equity	439	900	448	760
<i>Ownership TenneT</i>	50%	50%	50%	50%
Carrying amount of the investment	220	450	224	380

Statement of income (EUR million)	2020		2019	
	BritNed	NOKA	BritNed	NOKA
Revenue	88	78	91	32
Depreciation and amortisation	-16	-5	-16	-
Other costs	-12	-3	-12	-2
Operating profit	60	70	63	30
Finance income and expenses	-2	-2	-1	-3
Income tax expense	-14	-8	-11	-15
Profit for the year*	44	60	51	12
<i>Ownership TenneT</i>	50%	50%	50%	50%
Group's share in profit	22	30	26	6

* Profit for the year is equal to other and total comprehensive income.

BritNed had contingent liabilities of EUR 2 million (2019: EUR 2 million) mainly related to comfort letters issued. NOKA had contingent liabilities of EUR 13 million (2019: EUR 190 million) mainly related to investments in tangible fixed assets. The construction phase of NOKA's NordLink project is expected to be finalised in the next months which is the reason for the constant decline of the open amount for contingent liabilities.

None of our joint ventures are permitted to distribute profits without the consent from all shareholders or partners. In 2020 EUR 25 million dividend was received from BritNed (2019: EUR 28 million) and nil from other interests in joint ventures (2019: EUR 1 million). During 2020 we contributed EUR 42 million to NOKA's capital (2019: EUR 73 million).

Other interests in joint ventures amounted EUR 1 million at 31 December 2020 (2019: EUR 1 million).

Joint operations

In December 2020, TenneT established Equigy B.V. as a joint operation together with the Swiss and Italian TSOs.

Associates

At 31 December 2020 our substantial investments in associates consisted of a 34% interest in HGRT and a 25% interest in Open Tower Company B.V. (hereafter referred to as 'OTC'). In addition, the Group holds four immaterial investments in Energie Data Services Nederland B.V. (EDSN), European Market Coupling Company GmbH (EMCC), WL Winet B.V. and TSCNET Services GmbH (TSC). The Group's share in profit (which is equal to other and total comprehensive income) of these immaterial associates amounted to EUR 4 million in 2020 (2019: EUR 2 million).

The summarised financial information of the material associates and reconciliation with their respective carrying amounts, of the investment in the consolidated financial statements is as follows:

Statement of financial position (EUR million)	2020		2019	
	HGRT	OTC	HGRT	OTC
Non-current assets	91	86	91	92
Current assets	1	29	1	33
Other non-current liabilities	-	-161	-	-168
Current liabilities	-	-2	-	-3
Equity	92	-48	92	-46
<i>Ownership TenneT</i>	34%	25%	34%	25%
Carrying amount of the investment	31	-	31	-

Statement of income (EUR million)	2020		2019	
	HGRT	OTC	HGRT	OTC
Revenue	-	27	-	28
Depreciation and amortisation	-	-6	-	-6
Other costs, gains and losses	-	-7	-	-8
Operating profit	-	14	-	14
Finance income and expenses	10	-5	10	-5
Income tax expense	-	-2	-	-2
Profit for the year*	10	7	10	7
<i>Ownership TenneT</i>	34%	25%	34%	25%
Group's share in profit	3	2	3	2

* Profit for the year is equal to total and other comprehensive income.

HGRT

The legal seat of HGRT is in Paris, France. HGRT holds a 49% stake in EPEX. EPEX is the exchange for the power spot markets for the 'North West Europe' (NWE) region and the United Kingdom. At 31 December 2020, HGRT had no contingent liabilities outstanding (2019: nil). In 2020, EUR 3 million in dividends was received (2019: EUR 5 million).

OTC

OTC (legal seat: Vianen, the Netherlands) is a holding company and holds majority interests in four asset companies: Colonne B.V., Mobile Radio Networks Vehicle B.V. (MRNV), OTC Networks B.V. and OTC II B.V. These companies mainly own infrastructure assets specifically designed for terrestrial communications. OTC had no contingent liabilities as at 31 December 2020 (2019: nil). EUR 2 million dividend from OTC was received in 2020 (2019: EUR 4 million).

Effective 28 April 2020 Open Tower Company B.V. (OTC) established OTC Networks B.V., OTC holds 100% of the shares of OTC Networks.

Other

Our interest in other associates amounted EUR 3 million at 31 December 2020 (2019: EUR 2 million). From other associates we received EUR 1 million dividend.

① Accounting policy

A joint venture is an arrangement whereby the parties in the arrangement have joint control over the net assets of the joint arrangement. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities of the arrangement.

Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. An associate is an entity in which we have significant influence, but no control. Significant influence is the power to participate in the financial and operating policy decisions of the investor.

Investments in joint ventures and associates are accounted for using the equity method. Under the equity method, the investment in the joint venture or associate is initially recognised at cost. The carrying amount of the investment is adjusted to recognise changes in the Group's share of net assets of the investment since the acquisition date. Goodwill relating to the associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment.

For investments in joint operations the following is recognised in relation to TenneT's interest in it:

- Assets, including its share of any assets held jointly;
- Liabilities, including its share of any liabilities incurred jointly;
- Revenue from the sale of its share of the output arising from the joint operation;
- Share of the revenue from the sale of the output by the joint operation;
- Expenses, including its share of any expenses incurred jointly.

The statement of income reflects our share in the results of operations of the investment. Any change in other comprehensive income of those investors is presented as part of the other comprehensive income. In addition, when there is a change recognised directly in the equity of the investment, our share of any change is recognised in the statement of changes in equity. Unrealised gains and losses resulting from transactions between us and the investment are eliminated to the extent of the interest in the investment. When an associate or joint venture distributes dividend to us in excess of our carrying amount, a liability is recognised if TenneT:

- is obliged to refund the dividend;
- has incurred a legal or constructive obligation; or
- made payments on behalf of the associate.

In the absence of such obligations, the excess in net profit for the period is recognised. When the associate or joint venture subsequently makes profits, this is only recognised when they exceed the excess cash distributions recognised in net profit plus any previously unrecognised losses.

After application of the equity method, we determine whether it is necessary to recognise an impairment loss on our investment in the joint venture or associate. At each reporting date, we determine whether there is objective evidence that the investment is impaired. If such evidence exists, the amount of impairment is calculated as the excess of the carrying value of the investment over its recoverable amount and recognised in the statement of income.

On loss of significant influence over the joint venture/associate, any retained investment is valued at fair value. Any difference between the carrying amount of the investment on loss of significant influence and the fair value of the retained investment and proceeds from disposal is recognised in the statement of income.

13 Other financial assets

(EUR million)	2020	2019
Receivables from related parties	5	41
Fees for credit facilities available	5	6
Other	18	14
Total	28	61

The receivables from related parties mainly consisted of loans granted to NOKA and Mobile Radio Networks Vehicle B.V. (a 100% subsidiary of OTC) in an amount of nil (2019: EUR 36 million) respectively EUR 5 million (2019: EUR 5 million). The other position includes investments in several minorities. We contributed EUR 1 million in capital for these minorities.

① Accounting policy

Refer to note 27, accounting policies for financial instruments.

14 Inventory

Inventory primarily composed of oil which is used for measures taken at power plants that are standing by for TenneT. The provision for inventory is EUR 11 million (2019: EUR 6 million).

The fair value of inventory was not materially different from the carrying value.

① Accounting policies

Inventory is stated at the lower of cost and net realisable value. Cost comprises direct purchase costs and associated costs incurred in bringing inventories to their present condition and location. The net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

15 Account- and other receivables

(EUR million)	2020	2019
Amounts to be invoiced to EEG trade debtors	2,752	1,133
EEG trade receivables	15	9
Trade receivables	316	240
Amounts to be invoiced	490	520
VAT receivables	51	60
Interest receivable	-	4
Other	171	119
Total	3,795	2,085

EEG trade receivables and amounts to be invoiced to EEG trade debtors

In accordance with the Renewable Energy Sources Act (EEG) German TSOs like TenneT TSO GmbH are required to purchase electricity from producers of renewable energy at fixed feed-in tariffs. Subsequently such renewable energy is sold on power exchanges at spot prices.

EEG revenues and expenses are legally required to be administrated separately and are legally designated to be equal, except for certain potential bonus amounts payable to TenneT for marketing the energy on the power exchange. The EEG levy also includes an additional liquidity buffer to avoid a net financing need for the TSOs. We act as an agent with respect to these EEG services.

EEG trade debtors and receivables consisted of the accrual of unbilled EEG levy mainly for the month December, the outstanding invoices for the EEG levy, the accrual for horizontal balancing amounts (i.e. unsettled charges to the other German TSOs) and energy trading revenues. EEG trade receivables were not at our free disposal. Refer to note 24 for the EEG accounts payable.

As a result of the Climate Programme 2030 ("Klimaschutzprogramm 2030") the four German TSOs will receive EUR 10.8 billion from the German government to finance the EEG in 2021. TenneT will receive 32% of this amount in three instalments (January 2021: EUR 1,632 million, May 2021: EUR 960 million and October 2021: 864 million) and will use the payments to finance payments made to renewable energy producers.

Refer to note 16 for EEG deposits.

Trade receivables

As at 31 December, the ageing analysis of the trade receivables was as follows:

(EUR million)	Total	Not past due	Past due		
			0-30 days	31-60 days	More than 60 days
2020	316	281	2	2	31
2019	240	207	18	3	12

Changes in the provision for expected credit losses were as follows:

(EUR million)	2020	2019
At 1 January	13	12
Charge for the year	4	4
Utilised	-1	-2
Unused amounts reversed	-	-1
At 31 December	16	13

As at 31 December 2020, receivables with an initial value of EUR 7 million (2019: EUR 4 million) were fully provided for.

Amounts to be invoiced

The majority of the amounts to be invoiced related to unbilled grid fees and rechargeable offshore costs in Germany.

① Accounting policy

Refer to note 27, accounting policies for financial instruments.

16 Cash, cash equivalents and bank overdrafts

Cash and cash equivalents consist of:

(EUR million)	2020			2019		
	At free disposal	Not at free disposal	Total	At free disposal	Not at free disposal	Total
Collateral securities	-	85	85	-	79	79
EEG funds	-	5	5	-	589	589
EEG deposits < 3 months	-	-	-	-	30	30
Deposits	475	-	475	-	-	-
Cash at bank	2	-	2	202	1	203
Cash and cash equivalents	477	90	567	202	699	901
Bank overdrafts	-90	-	-90	-	-	-
Total cash and cash equivalents used in cash flow statement	387	90	477	202	699	901

Funds related to EEG activities have been legally separated as required by BNetzA. EEG Funds are not at the Group's free disposal. For further reference regarding EEG we refer to note 15 Cash at banks carry interest at floating rates based on daily bank deposit rates.

① Accounting policy

In the consolidated statement of cash flows, cash and cash equivalents include cash at bank, deposits held at call with banks, other short-term highly liquid investments with remaining maturities of three months or less and are presented net of outstanding bank overdrafts. Securities are deposits on collaterals that serve as financial security for auction and energy exchange transactions. A matching obligation is recognised towards the party that deposited the funds on the collateral. Securities are initially stated at fair value and subsequently at amortised cost.

17 Capital management

The primary objective of our capital structure is to ensure that we have a solid financial position to absorb changes in the regulatory environment and to enable us to execute our extensive investment programme which is essential for the success of the energy transition in the Netherlands and Germany. The majority of the funding for our investment programme is sourced from the debt capital markets i.e. from institutional investors, commercial banks and international financial institutions (e.g. the European Investment Bank).

To maintain excellent access to financial markets at favourable conditions, we have defined capital management objectives, policies and processes which include:

1. maintaining a senior unsecured long-term credit rating of at least A3/A-;
2. maintaining a long-term average Funds From Operations (FFO) to Net debt based on 'underlying' financial information of at least 8.5%;
3. diversifying the maturities of long-term funding instruments to limit refinancing risk;
4. maintaining liquidity through cash and undrawn committed credit lines covering at least our net cash requirement on a rolling 12-month forward-looking basis.

1. Maintain a senior unsecured credit rating of at least A3/A-

As of 31 December 2020 TenneT Holding B.V. had the following senior unsecured credit ratings from Standard & Poor's and Moody's Investor Service, which comply with our financial policy.

Credit rating at 31 December 2020 and 2019	Long-term rating	Short-term rating
Standard & Poor's	A- (stable outlook)	A-2
Moody's Investor Service	A3 (stable outlook)	P-2

2. Maintain a long-term average FFO/Net debt ratio based on underlying financial information of at least 8.5%

To maintain a solid financial position, we intend to maintain a long-term average adjusted FFO/Net debt ratio of at least 8.5% based on underlying financial information (see note 2), which meets the minimum requirements for an A-/A3 long-term unsecured credit rating as formulated by the credit rating agencies Standard & Poor's and Moody's Investor Service.

A reconciliation of the Adjusted FFO and net debt is provided in the following table.

Based on underlying information (EUR million)	2020	2019
Net profit for the year	516	401
+ amortisation, depreciation and impairments	1,094	994
+ result on disposal of assets (non-cash)	-	8
Total FFO	1,610	1,403
Capatilised interest on assets under construction	-11	-9
Interest on provisions	2	19
50% Hybrid interest	-22	-17
FFO Adjusted	1,579	1,396
Net debt		
+ Long term borrowings	10,217	9,137
+ Short term borrowings	2,243	565
+ Bank overdrafts	90	-
- Cash and cash equivalents at free disposal	-476	-202
+ Lease liabilities	462	394
+ Net employee defined benefit liabilities	405	361
+ 50% Hybrid loan	1,063	560
Net debt	14,004	10,815
Adjusted FFO/net debt	11.3%	12.9%

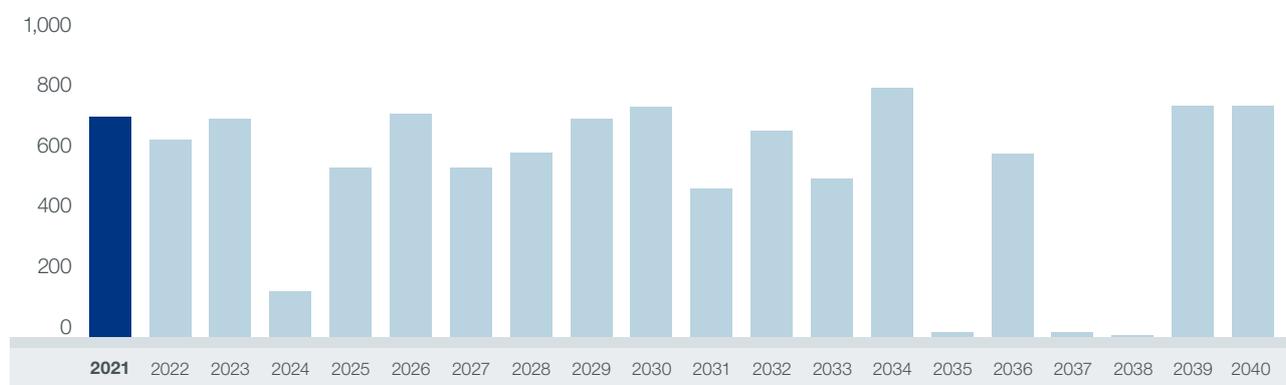
* Net profit for the year 2019 changed from 408 into 401 and cash and cash equivalents at free disposal changed from -202 into -194 due to reconsideration of the amendment on IAS 12 explained in note 1.

3. Diversify maturities of long-term funding instruments to limit refinancing risk

To minimise refinancing risk, we aim to diversify the maturity profile of our senior debt. As of 31 December 2020, our interest bearing debt (excluding bank overdrafts and credit facilities to temporary finance the EEG) had the following annual redemption profile:

Annual redemption of debt

EUR million



4. Maintaining liquidity through cash and undrawn committed credit lines covering at least our net cash requirement on a rolling 12-month forward-looking basis

We monitor the liquidity of the Group on a rolling 12-month forward-looking basis. This means that the sum of (i) cash and cash equivalents, (ii) undrawn committed credit facilities and (iii) 12-month net cash flow from operating activities should be sufficient to meet the expected aggregate of scheduled debt repayments, investments in fixed assets and dividend payments over the subsequent 12 months. The 12-month liquidity requirement was met on 31 December 2020 and 31 December 2019.

18 Equity

Paid-up and called-up capital

The Company's authorised share capital amounted to EUR 500 million (2019: EUR 500 million), divided into one million shares of EUR 500 each. Of these shares, two hundred thousand shares have been issued and paid-up.

Share premium reserve

The share premium reserve consists of the capital contribution granted by the shareholder of ordinary shares, the Dutch State represented by the Ministry of Finance.

Hedging reserve

The hedging reserve related to the cumulative result of sold forward-starting interest rate swaps (hereafter referred to as 'FSIRS'), classified as cash flow hedges. The interest rate swaps were sold at the moment Euro Medium Term Notes ('EMTN') were issued in 2010 and 2011. The end term of the original FSIRS is 2020 and 2021. As at 31 December 2020, the 2021 FSIRS amounts to nil.

Retained earnings

Part of the retained earnings has been presented as legal reserve. For more details see note 40.

Hybrid securities

Hybrid securities are deeply subordinated securities and are, with the exception of common equity, the most junior instruments in the capital structure of the company. The hybrid securities are undated and do not default on non-payment of coupons (unless such payment was mandatory following a resolution or payment of a dividend to common shareholders, i.e. as so called 'dividend pusher').

The holders of the hybrid securities have limited ability to influence the outcome of a bankruptcy proceeding or a restructuring outside bankruptcy. Consequently, the hybrid security holders cannot oblige us to pay distributions or redeem the securities in part or in full. Payment of distributions on and redemption of the securities is at our sole discretion. As a result, the hybrid securities are classified as part of the equity attributable to the company's equity holders.

On 31 December 2020, we had EUR 2.1 billion of green hybrid securities outstanding divided in two tranches. The first tranche is a EUR 1.1 billion green hybrid security that bears an optional, cumulative coupon of 2.995%, payable at TenneT's discretion annually on 1 June of each year. As at 31 December 2020, the unpaid cumulative dividend amounts to EUR 18 million (2019: EUR 18 million), relating to the period 1 June until 31 December and payable on 1 June 2021.

In July 2020, TenneT issued a second tranche of EUR 1 billion of green hybrid securities. These green hybrid securities bear an optional, cumulative coupon of 2.374%, payable at TenneT's discretion annually on 22 October of each year. As at 31 December 2020, the unpaid cumulative dividend amounts to EUR 5 million, relating to the period 23 October until 31 December and payable on 22 October 2021.

Dividend distribution

In 2020 a common full-year dividend of EUR 112 million (EUR 560 per share) to our ordinary shareholder was distributed (2019: EUR 120 million). In agreement with the State of the Netherlands we have established a dividend policy with a pay-out of 35% of the underlying profit for the year, after payments of distributions to hybrid securities holders and minority investors. We made a distribution to the holders of hybrid securities of EUR 39 million during 2020 (2019: EUR 33 million). The appropriation of the 2020 profit is at the free disposal of the General Meeting of Shareholders.

19 Non-controlling interests

The proportion of economic interests held by non-controlling interests in the Group's subsidiaries is as follows:

% Non-Controlling Interests	Country	2020	2019
TenneT Offshore 2. Beteiligungsgesellschaft mbH ("TO2")	Germany	69%	69%
TenneT Offshore 8. Beteiligungsgesellschaft mbH ("TO8")	Germany	63%	63%
TenneT Offshore DolWin3 Beteiligungs GmbH & Co. KG ("TOD3")	Germany	67%	67%
TenneT Offshore DolWin3 Verwaltungs GmbH ("TODV")	Germany	67%	67%
ETPA Holding B.V. ("ETPA")	Netherlands	50%	50%

The Group has the power to control TO2, TO8, TOD3 and TODV and holds 51% of the voting rights in these entities. TenneT also holds 50.002% of the voting rights and has the power to control ETPA. Movements in the non-controlling interest, to the extent material, is summarised below.

Movement schedule Non-Controlling interests (EUR million)	TO2	TO8	TOD3
At 1 January 2019	246	261	289
Profit attributable to non-controlling interests	14	19	23
Dividends paid	-5	-31	-
Capital repayment	4	-	-76
At 31 December 2019	259	249	236
Profit attributable to non-controlling interests	8	16	22
Dividends paid	-13	-37	-
Capital contribution	4	1	-
Capital repayment	-	-	-55
At 31 December 2020	258	229	203

The non-controlling interest in TO2, TO8, TODV and TOD3 are held by Copenhagen Infrastructure Partners (CIP), which owns respectively 69% for TO2, 63% for TO8 and a 67% economic interest for TODV and TOD3 in the adjusted (for certain regulatory effects) profits of these companies and 49% of the voting rights.

Financial information of these subsidiaries, to the extent material, is summarised below on a consolidated basis before intercompany eliminations and in conformity with our accounting principles.

Statement of financial position (EUR million)	2020		
	TO2	TO8	TOD3
Non-current assets	978	1,410	1,658
Current assets	168	155	168
Non-current liabilities	-661	-1,045	-1,413
Current liabilities	-113	-155	-86
Equity	372	365	327
Attributable to owners of the parent	114	136	124
Attributable to non-controlling interests	258	229	203

	2019		
Statement of financial position (EUR million)	TO2	TO8	TOD3
Non-current assets	1,068	1,525	1,667
Current assets	152	134	95
Non-current liabilities	-712	-1,129	-1,310
Current liabilities	-135	-132	-116
Equity	373	398	336
Attributable to owners of the parent	114	149	100
Attributable to non-controlling interests	259	249	236

	2020		
Statement of income (EUR million)	TO2	TO8	TOD3
Revenue	148	222	182
Depreciation and amortisation	-82	-102	-96
Other expenses	-31	-52	-23
Operating profit	35	68	63
Finance income and expenses	-18	-32	-25
Income tax expense	-6	-11	-4
Profit for the year	11	25	34
Other comprehensive income	-	-	-
Total comprehensive income	11	25	34
Attributable to non-controlling interests	8	16	22

	2019		
Statement of income (EUR million)	TO2	TO8	TOD3
Revenue	168	240	125
Depreciation and amortisation	-83	-100	-89
Other costs	-37	-54	-14
Operating profit	48	86	22
Finance income and expenses	-22	-38	-28
Income tax expense	-8	-15	2
Profit for the year	18	33	-4
Other comprehensive income	-	-	-
Total comprehensive income	18	33	-4
Attributable to non-controlling interests	14	19	23

(EUR million)	2020		
	TO2	TO8	TOD3
Net cash flows from operating activities	80	157	156
Net cash flows used in investing activities	-9	-1	-88
Net cash flows from financing activities	-71	-156	-68
Change in cash and cash equivalents	-	-	-

(EUR million)	2019		
	TO2	TO8	TOD3
Net cash flows from operating activities	136	182	131
Net cash flows used in investing activities	-69	-5	-44
Net cash flows from financing activities	-67	-177	-87
Change in cash and cash equivalents	-	-	-

20 Borrowings

(EUR million)	Effective interest rate	Maturity	Redemption schedule	2020	2019
0.875% green bond 2015 EUR 500 million	0.96%	Jun-21	At maturity	-	499
4.50% bond 2010 EUR 500 million	4.60%	Feb-22	At maturity	499	499
4.625% bond 2011 EUR 500 million	4.70%	Feb-23	At maturity	499	499
0.75% green bond 2017 EUR 500 million	0.87%	Jun-25	At maturity	497	496
1.000% green bond 2016 EUR 500 million	1.04%	Jun-26	At maturity	499	499
1.75% green bond 2015 EUR 500 million	1.83%	Jun-27	At maturity	497	497
1.375% green bond 2018 EUR 500 million	1.49%	Jun-28	At maturity	496	495
1.375% green bond 2017 EUR 500 million	1.41%	Jun-29	At maturity	498	498
0.875% green bond 2019 EUR 500 million	0.98%	Jun-30	At maturity	495	495
4.75% bond 2010 EUR 200 million	4.92%	Jun-30	At maturity	197	196
1.250% green bond 2016 EUR 500 million	1.35%	Oct-33	At maturity	494	493
2.0% green bond 2018 EUR 750 million	2.04%	Jun-34	At maturity	746	745
1.875% green bond 2016 EUR 500 million	1.97%	Jun-36	At maturity	493	492
1.500% green bond 2019 EUR 750 million	1.58%	May-39	At maturity	739	739
0.125% green bond 2020 EUR 600 million	0.20%	Nov-32	At maturity	594	-
0.500% green bond 2020 EUR 750 million	0.54%	Nov-40	At maturity	744	-
Non-current interest-bearing bonds				7,987	7,142
4.12% loan 2010 EUR 150 million	4.12%	Jan-21	At maturity	-	150
4.40% loan 2010 EUR 40 million	4.40%	2016-2021	Linear	-	3
4.71% loan 2010 EUR 40 million	4.71%	2016-2022	Linear	3	6
2.74% loan 2012 EUR 150 million	2.74%	Sep-23	At maturity	150	150
4.44% loan 2010 EUR 140 million	4.44%	2016-2023	Linear	22	32
0.72% loan 2015 EUR 500 million	0.72%	2018-2032	Linear	379	414
0.77% loan 2015 EUR 150 million	0.77%	2018-2037	Linear	120	128
0.813% loan 2016 EUR 125 million	0.81%	2019-2038	Linear	106	113
0.05% loan 2020 EUR 100 million	0.05%	2025-2042	At maturity	100	-
0.436% loan 2020 EUR 350 million	0.44%	Sep-26	Linear	350	-
Non-current interest-bearing loans				1,230	996
0.646% green Schuldschein 2016 EUR 77 million	0.67%	May-22	At maturity	77	77
0.989% green Schuldschein 2016 EUR 100 million	1.01%	May-24	At maturity	100	100
1.310% green Schuldschein 2016 EUR 55 million	1.32%	May-26	At maturity	55	55
1.500% green Schuldschein 2016 EUR 50 million	1.51%	May-28	At maturity	50	50
1.750% green Schuldschein 2016 EUR 43 million	1.76%	May-31	At maturity	43	43
1.750% green Schuldschein 2016 EUR 95 million	1.76%	May-31	At maturity	95	95
2.000% green Schuldschein 2016 EUR 80 million	2.01%	May-36	At maturity	80	80
Non-current interest-bearing Schuldschein				500	500
1.61% USPP 2019 EUR 160 million	1.63%	Jan-29	At maturity	160	160
1.83% USPP 2019 EUR 295 million	1.85%	Jan-31	At maturity	295	294
2.01% USPP 2019 EUR 45 million	2.02%	Jan-34	At maturity	45	45
Total non-current interest-bearing USPP				500	499
Total non-current interest-bearing borrowings				10,217	9,137

Continuation >

< Continuation

(EUR million)	Effective interest rate	Maturity	Redemption schedule	2020	2019
2.125% bond 2013 EUR 500 million	2.22%	Nov-20	At maturity	-	500
0.875% green bond 2015 EUR 500 million	0.96%	Jun-21	At maturity	500	-
Current interest-bearing bonds				500	500
EEG related loans 2020 EUR 1,528 million	0.22%	Jan-21	At maturity	1,528	-
Current interest-bearing EEG related loans				1,528	-
4.12% loan 2010 EUR 150 million	4.12%	Jan-21	At maturity	150	-
4.71% loan 2010 EUR 40 million	4.71%	Nov-21	Linear	3	3
4.40% loan 2010 EUR 40 million	4.40%	Nov-21	Linear	3	3
4.44% loan 2010 EUR 140 million	4.44%	Nov-21	Linear	11	11
0.72% loan 2015 EUR 500 million	0.72%	Sep-21	Linear	34	34
0.77% loan 2015 EUR 150 million	0.77%	Jan-21	Linear	8	8
0.813% loan 2016 EUR 125 million	0.81%	Oct-21	Linear	6	6
Current interest-bearing loans				215	65
Total current interest-bearing borrowings				2,243	565
Total borrowings				12,460	9,702

Changes in borrowings arising from financing activities are as follows:

(EUR million)	(Non) - current interest-bearing bonds	(Non) - current interest-bearing loans	Non-current interest-bearing Schuldschein	Current interest-bearing EEG related loans	Non-current interest-bearing USPP	Total
At 1 January 2019	6,404	1,817	499	-	-	8,720
Cash inflow from new borrowings	1,232	-	-	-	499	1,731
Cash outflow from redemptions	-	-756	-	-	-	-756
Amortisation (non-cash)	6	-	1	-	-	7
At 31 December 2019	7,642	1,061	500	-	499	9,702
Cash inflow from new borrowings	1,338	450	-	1,528	-	3,316
Cash outflow from redemptions	-500	-66	-	-	-	-566
Amortisation (non-cash)	7	-	-	-	1	8
At 31 December 2020	8,487	1,445	500	1,528	500	12,460

TenneT has a Revolving Credit Facility (RCF) of EUR 3.3 billion as of November 2019. In October 2020, we reached an agreement to extend the maturity date of our EUR 3.3 billion RCF. EUR 3.0 billion is now available till November 2025 and EUR 0.3 billion till the original maturity date of November 2024.

The amount of borrowing costs (including fair value adjustment) capitalised was EUR 64 million (2019: EUR 59 million).

For more information about the fair value see note 26.

The EEG related loans are redeemed in January 2021. Interest on EEG related loans is charged to the EEG levies. For further information see note 15.

① Accounting policy

Refer to note 27, accounting policies for financial instruments.

21 Contract liabilities

The majority of the contract liabilities relates to investment contributions received from third parties for the construction of new substations, grid connections or increased connection capacity and amounted to EUR 374 million (2019: EUR 339 million). The change was due to received contributions of EUR 48 million minus EUR 13 million amortisation. The current part of the investment contributions amounted to EUR 2 million (2019: EUR 3 million) and has been presented separately in the statement of financial position. The non-current part has a maturity up and till 2060.

① Accounting policy

Contract liabilities are recognised when payments are made or the payments are due (whichever is earlier) before a related performance obligation is satisfied. Contract liabilities are recognised in accordance with the related contract. At initial recognition contributions received from third parties are measured at fair value, presented as contract liabilities ('investment contributions') and are subsequently recognised as revenue over the related asset's useful life.

22 Provisions

(EUR million)	2020			2019		
	Current	Non-current	Total	Current	Non-current	Total
Environmental and decommissioning	15	1,144	1,159	15	1,127	1,142
Tariff related	21	101	122	123	5	128
Other	30	37	67	110	31	141
Total	66	1,282	1,348	248	1,163	1,411

(EUR million)	Environmental management and decommissioning	Tariff related	Other	Total
At 1 January 2019	676	33	153	862
Addition	122	98	8	228
Utilisation	-6	-3	-5	-14
Changes in estimations	334	-	2	336
Unused amounts reversed	-3	-	-17	-20
Imputed interest	19	-	-	19
At 31 December 2019	1,142	128	141	1,411
Addition	117	-1	22	138
Utilisation	-	-2	-8	-10
Changes in estimations	-94	-2	2	-94
Unused amounts reversed	-8	-1	-90	-99
Imputed interest	2	-	-	2
At 31 December 2020	1,159	122	67	1,348

Provisions for environmental management and decommissioning

Provisions for environmental management and decommissioning serve to cover future obligations in relation to high-voltage connections and underground cables and to cover the decommissioning costs. In 2020 EUR 117 million was added (2019: EUR 122 million) for future decommissioning costs for projects constructed during 2020. Changes in estimates related to the provision for decommissioning amounted to EUR 94 million negative (2019: EUR 334 million), mainly due to a decrease of the discount rate used. Both were not recognised through the statement of income. There was no material decommissioning of substations in 2020. The first decommissioning of an offshore grid connection is expected to start in 2029.

Tariff related provisions

Tariff-related provisions relate to uncertain regulatory compensations of EUR 91 million and to provisions for system service fees in the Netherlands. We charge electricity consumers a fee for system services performed. Following a change in law, the court in the Netherlands concluded that only parties with a direct connection to a grid maintained by a TSO are required to pay system service fees for the period prior to 31 December 2014. Consequently, we are required to refund amounts paid by certain parties to us without a direct grid connection. These refunds can be recouped by us through future tariffs. In 2020, EUR 1 million (2019: nil) of the provided amount matured and was released through the statement of income.

Other provisions

The majority of the other provisions relate to risks associated with delays and interruptions of offshore connections in Germany. The connection of OWFs presents additional technical and organisational challenges. A number of factors, including a lack of supplier resources required for the construction of offshore grid connection systems, as well as weather conditions and the application of new technologies, hindered the timely realisation and/or interrupted the operational phase of offshore grid connection systems. TenneT based its assumptions and estimates on parameters available at the time the consolidated financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising that are beyond control. Such changes are reflected in assumptions when they occur.

① Accounting policy

Provisions are recognised when there is (i) a legal or constructive obligation as a result of past events, (ii) it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and (iii) when the amount can be reliably estimated. The provisions are measured at the present value of estimated cash flows to settle the obligation, based on expected price levels. The cash flows are discounted at a current pre-tax rate that reflects the risks specific to the liability. The interest unwinding is recognised in the statement of income as a finance cost.

Estimated future costs are reviewed annually and adjusted as appropriate. Changes in estimated future costs and discount rates for decommissioning costs are recognised as changes in estimations in the tangible fixed assets. For all other provisions changes in estimated future costs and discount rates are recognised in the statement of income.

🔧 Key estimates and assumptions

The estimated decommissioning provision involves 1) decommissioning costs and 2) assessing the expected remaining useful life of relevant asset. The main uncertainties to the decommissioning costs are the removal method (currently assuming reverse installation) and the uncertainties around equipment and vessel availability and market rates at expected time of decommissioning. At this point, there is also limited benchmark information available. Decommissioning costs are provided for at the present value of expected costs to settle the obligation. The useful life of the offshore grid connections is estimated at 20 years. This provision assumed a discount rate between 0.0% and 0.1% (2019: between 0.4% and 0.7%) and an inflation rate of 1.8% (2019: between 2.0% and 3.0%). A change in the discount rate of 1 percent point could have a maximum impact of EUR 155 million on the asset value and liability value.

A discount rate of 0.0% is applied for environmental management provisions (2019: 2.2%). A change in discount rate of 1 percent point could have a maximum impact of EUR 2 million on the related book value.

A discount rate of 0.0% was applied for other provisions (2019: 1.49%). A change in discount rate of 1 percent point could have a maximum impact of EUR 4 million on the related book value.

The estimated amount of risks associated with delays and interruptions concerning the Group's offshore activities in Germany is based on the number of offshore grid connections and the compensation paid to the operators of offshore grid connections.

We are of the opinion that the recorded provisions reflect the best estimate of the probable outflow of resources. However, uncertainty about the assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of these provisions in future periods.

Due to the business TenneT operates in and TenneT's legal structure, TenneT faces several contingent liabilities. In general the following issues are recognised as contingent liabilities at TenneT:

- Possible impact of the Dutch and German regulatory frameworks on the TenneT's business financial conditions and net income;
- Operational risks and risks related to material projects;
- Impact of environmental issues;
- Risks relating to the structure of TenneT;
- Risks relating to the financing of TenneT;
- Factors which are material for the purpose of assessing the market risks.

The uncertainties relating to the contingent liabilities makes a reliable estimation of the financial impact impossible.

23 Net employee defined benefit liabilities

Pension plans Germany

We have defined benefit plans for the majority of our German personnel. Said personnel are mainly employed based on the collective labour agreement of 'Tarifgruppe Energie' and thus enjoy benefits in the form of old-age, disability and surviving dependents' pensions. The large majority of the benefit obligations are based on pension schemes that define annual pension claims based on respective employee's pensionable income of the particular year. Furthermore, each employee is allowed to defer a certain amount of compensation to raise the annual pension claim within defined bounds.

The Group contributes to two post-employment defined benefit plans in Germany: a works council agreement called 'Betriebliche Alterssicherung' (hereafter referred to as 'pension scheme 2001') and a works council agreement called 'Beitragsplan' (hereafter referred to as 'pension scheme 2008'), as well as to a small number of individual pension commitments. The pension obligations related to these plans are partly covered by assets held in two Contractual Trust Arrangements (CTA) administrated by 'Helaba Pension Trust e.V.' (Helaba). According to German law, TenneT remains ultimately liable for fulfilling these pension obligations.

Pension scheme 2001

This scheme covers employees who started their employment with TenneT Germany on or before 31 December 2007 (or later, if the individual employment contract was agreed on or before 1 April 2008). The scheme became effective on 1 January 2001 and absorbed older plans. As part of the transition in 2001 to the new plan, employees were guaranteed a vested pension claim based on the old plan for their years of service prior to the transition. The plan offers benefits in the form of old-age, disability and surviving dependents' pensions and is composed of the employer-funded basic level based on the respective employee's yearly pensionable income, the employer-funded top-up level based on the respective company's performance and the employee-funded supplementary level which allows employees to increase their pension entitlement through deferred compensation. Yearly fixed pension claims are calculated with a fixed internal interest rate that sum up to the total earned pension benefits of the respective employee.

Pension scheme 2008

This scheme covers employees who started their employment with TenneT Germany after 31 December 2007 (unless the individual employment contract was agreed before 1 April 2008, for which the pension scheme 2001 applies). This scheme offers benefits in the form of old-age, disability and surviving dependents' pensions.

Pension cost is composed of the employer-funded basic level based on the respective employee's yearly pensionable income, the employer funded top-up level based on the respective company's performance and the employee-funded supplementary level which allows employees to increase their pension entitlement through deferred compensation. If the employee contribution to the supplementary level reaches a certain level, the company pays an additional contribution of one-third of the respective basic level contribution.

Annually, for each year a contribution to the pension claims is calculated with an interest rate that is recalculated based on the weighted average current yield of German Federal Government Bonds (Bundesanleihen) with different maturities (10, 20 and 30 years) reflecting the average duration of the plan. The annual pension claim contributions for all years of service sum up to the total earned pension benefits of the respective employee.

Differences between the plans are limited and refer mainly to the way internal interest rates and the pensionable income are determined. Therefore disclosure in the notes below shows the combined plans.

Components of the net benefit expense recognised in the statement of income were as follows:

(EUR million)	2020	2019
Current service costs (note 4)	14	14
Past service cost - plan amendments (note 4)	6	-
Net interest costs (note 5)	4	4
Net benefit expense	24	18

The funded status of the plans and the amounts recognised in the statement of financial position were as follows:

(EUR million)	2020	2019
Defined benefit obligation	514	465
Fair value of plan assets	-107	-104
Benefit liability	407	361

The short-term part of the benefit liability is presented as part of note 22 provisions.

(EUR million)	2020	2019
Defined benefit liability long-term	405	360
Defined benefit liability short-term	2	1
Total defined benefit liability	407	361

Changes in the present value of the long-term defined benefit obligation ('DBO') over the year were as follows:

(EUR million)	2020	2019
Defined benefit obligation at 1 January	465	302
Current service costs	14	14
Past service costs	6	-
Interest costs	5	6
Contributions by plan participants	2	2
Benefits paid	-4	-4
Re-measurements on obligation	26	145
Defined benefit obligation at 31 December	514	465

Re-measurements on obligation are EUR 24 million, mainly due to the change of the discount rate from 1.05% to 0.7%.

Changes in the fair value of plan assets of the year were as follows:

(EUR million)	2020	2019
Fair value of plan assets at 1 January	104	94
Actual return on plan assets	3	8
Contributions by employer	4	5
Benefits paid	-4	-3
Fair value of plan assets at 31 December	107	104

Major categories of plan assets as a percentage of the fair value of the total plan assets were as follows:

	2020	2019
Quoted in active markets:		
Equity instruments	32%	36%
Debt securities	47%	43%
Other	4%	5%
Unquoted investments:		
Debt securities	5%	5%
Real estate	11%	9%
Cash	1%	2%

Re-measurements, including actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions, recognised in the statement of comprehensive income were as follows:

(EUR million)	2020	2019
Accumulated balance at 1 January	258	121
Re-measurements during the year	24	137
Accumulated balance at 31 December	282	258

Re-measurements of the year originate from:

(EUR million)	2020	2019
Re-measurements from actuarial gains(-)/losses in DBO	26	145
Exceeding return on plan assets (over net interest incl. in net liability)	-2	-8
Accumulated balance at 31 December	24	137
<i>Thereof:</i>		
actuarial gains(-)/losses from experience	-7	-4
actuarial gains(-)/losses from changes in demographic assumptions	-	-
actuarial gains(-)/losses from changes in actuarial assumptions	33	149

Effective 2020, an additional agreement was made to address the negative impacts of the current low interest rate environment. Part of this addition is a provision that introduces a floor to internal return for employees and capital conversion rate to calculate final pension payments. The floor is set by 2,5% for the year 2020 and 3,0% thereafter.

① Accounting policy

For defined benefit plans, pension costs are determined using the projected unit credit method. Re-measurements, comprising of actuarial gains and losses, the effect of the asset ceiling (excluding net interest) and the return on plan assets (excluding net interest), are recognised in other comprehensive income in the period in which they occur. Re-measurements are not reclassified to statement of income in subsequent periods.

Service costs comprising current service costs and, if applicable, past-service costs, gains and losses on curtailments and non-routine settlements are recognised as personnel expenses in the consolidated statement of income. Interest is calculated by applying the discount rate to the net defined benefit liability or asset and is recognised as part of the finance result in the statement of income.

Prepaid pension costs relating to defined benefit plans are capitalised only if they lead to refunds to the employer or to reductions in future contributions to the plan by the employer.

🌱 Key estimates and assumptions

Pension obligations and pension entitlements that are known on the reporting date are valued using economic trend assumptions including, among others, salary growth rates and pension increase rates, that are intended to reflect realistic expectations, as well as variables specific to reporting dates such as discount rates. The principal assumptions used in determining the pension obligation were as follows:

	2020	2019
Discount rate	0.70%	1.05%
Inflation rate	2.00%	2.00%
Future salary increases	2.50%	2.50%
Future pension increases	1.75%	1.75%

Assumptions regarding future mortality experience are set based on actuarial advice in accordance with published statistics and actuarial experience. An increase in each of the main assumptions would have had the followings effects:

(EUR million)	2020	2019
0.25% change of discount rate	-25	-27
0.5% change of salary increase rate	2	2
0.5% change of pension increase rate	2	2
Change of 1 year in life expectancy	17	18

The sensitivities indicated are computed based on the same methods and assumptions used to determine the present value of the defined benefit obligations and are based on variations in a single variable only. Note that the sensitivity analyses may not be representative of an actual change in the defined benefit obligation, as it is unlikely that changes in assumptions would occur in isolation.

Due to the strong development of plan assets and the change in (statutory) discount rates, we expect to have an obligation to contribute to plan assets in 2021 of EUR 3 million. We expect the following, undiscounted, benefit payments from the plan:

(EUR million)	2020	2019
Within the next 12 months	5	5
Within 2-5 years	25	23
Within 5-10 years	41	38
More than 10 years	382	365
Total	453	431

Pension plan the Netherlands

For the majority of our Dutch personnel we have a multi-employer scheme at ABP Pension Fund (ABP) in the Netherlands. The pension contribution rate for 2020 was 17.43% of the pensionable salary. In 2021 we expect to contribute EUR 25 million, based on 2020 number of employees, to the multi-employer scheme administered. Compared to the total participants in the ABP pension fund, our share in ABP is limited. We are not liable for deficits in the multi-employer plan.

ABP has indicated that it is unable to provide the kind of company-specific information required by IFRS for defined-benefit pension schemes. As such, this scheme is treated as if it were a defined contribution scheme.

Since the financial situation of the ABP pension plan at 31 December 2015 was inadequate from a regulatory perspective, ABP filed a recovery plan, which was approved by De Nederlandsche Bank (DNB) during the course of 2016. In accordance with this recovery plan, ABP evaluates how recovery is progressing at the start of each year. Progress is measured by means of the policy funding ratio at the end of the preceding year. The policy funding ratio is the 12-month moving average of the nominal funding ratio. ABP's policy funding ratio as at 31 December 2020 was 93.2% (2019: 95.8%) which is above the critical regulatory coverage rate level under which pensions would have to be reduced.

① Accounting policy

Payments to defined contribution plans are charged as an expense in the period to which they relate.

24 Account- and other payables

(EUR million)	2020	2019
EEG accounts payable	1,245	1,761
Accounts payable	473	269
Payables in connection with tangible fixed asset purchases	337	424
Grid expenses payable	911	1,045
Interest payable	104	105
Social securities and other taxes payable	35	19
Payables to related parties	11	7
Other payables	172	185
Total	3,288	3,815

EEG accounts payable

Refer to note 15.

Payables in connection with tangible fixed assets purchases

Payables in connection with tangible fixed assets purchases relate to unbilled services and deliveries for onshore and offshore investment projects.

Grid expenses payable

The grid expenses payable consist mainly of accrued expenses for (i) feed-in management and (ii) redispatch measures.

Key estimates and assumptions

In terms of accrued expenses for measures taken to restore the imbalance of the electricity grid, we procure balancing services and ask various generators to come on or off the grid to help balance supply and demand or to manage 'constraints' (i.e. bottlenecks) in the electricity grid. At year-end, we record an accrual for all balancing costs. The accrual is based on actual volumes (if available) or forecast volumes derived from models. Several assumptions are made in these models such as weather conditions, requested volumes and capacity per plant. Prices are based on the underlying contracts and/or historical data. The complexity of the electricity market and uncertainties in assessing variable renewable energy production makes estimating the grid expenses payable a complex task.

Other payables

Other payables mainly comprise compensation payments to offshore wind farm operators (OWFs), personnel related liabilities and accruals for which invoices were not yet received.

Key estimates and assumptions

Compensation payments to OWFs are based on amounts of electricity which could not be fed into the grid. The pass-through accrual is based on a comparison of the costs incurred and the revenue generated by the offshore grid surcharge.

25 Financial risk management

Our business activities are exposed to a number of financial risks such as interest rate risk, credit risk, liquidity risk and refinancing risk, which are described in detail in this note. Our financial risk management strategy primarily focuses on protecting liquidity, equity capital and net profit in order to safeguard our ability to continue active operations while providing an adequate return to our shareholders. Our approach to managing financial risks, including a number of specific disclosures (such as a maturity analysis of contractual undiscounted financial obligations) required by accounting standards, are set out in this note. For details about regulatory risks we refer to the 'Risk Management' section of our Executive Board report.

Risk management related to financing activities is conducted by our Treasury department under policies included in the Treasury Statute approved by our Executive Board. The Treasury Statute was updated in 2020. The Treasury department's objective is to facilitate the realisation of our financial and strategic objectives from a funding and financial risk perspective. The Treasury Statute includes principles covering specific areas such as interest rate risk, liquidity risk, the use of derivatives and the investment of excess liquidity. The use of all ordinary course financial instruments is permitted, provided these are used solely to cover open positions. Any speculative use of financial instruments is explicitly not authorised.

Interest rate risk

We are exposed to interest rate risk on our debt portfolio. To limit this risk, our policy is to base the majority of our loan portfolio on fixed interest rates. As of 31 December 2020, the long-term loan portfolio was entirely based on fixed interest rates. An increase or decrease in interest rates of 2 percentage points would result in an increase or decrease of EUR 8 million in our net interest cost (2019: EUR 4 million).

Furthermore, there is a risk that interest payable on borrowings exceeds the interest compensation received by TenneT under the prevailing regulatory systems. The ACM has set the relevant interest rate which will linearly decrease from 3.58% in 2016 to 2.29% in 2021. In 2022 a new regulatory period will start in the Netherlands. In Germany, actual interest costs are compensated up to a level customary to the market. The BNetzA determines marketability on the basis of reference interest rates published by the Deutsche Bundesbank. Currently we expect that actual costs of debt for TenneT are below the predefined maximum reference rates. Therefore, there is currently no risk for TenneT.

Credit risk

In general we are exposed to the risk of loss resulting from counterparties' defaulting on their commitments including failure to pay or make a delivery on a contract. Our exposure to credit risk from operating activities and treasury activities is inherent to our business activities.

Operational credit risk

In respect of our operating activities, we have a credit policy in place, which takes into account the risk profiles of our counterparties. We also have policies in place to monitor the financial viability of counterparties.

In both the Netherlands and Germany, we are responsible for maintaining the balance between supply and demand of energy. The associated costs are covered by income from parties with balance responsibility, which are charged for any imbalances attributable to them. Any surplus is deducted from subsequent tariffs for system services. For certain situations, securities in the form of bank guarantees and collaterals are held as protection against the default risk of parties with balance responsibility. With respect to investment projects, we require counterparties to deliver bank guarantees or collaterals as a protection against defaults.

The management of energy exchanges, the execution of the Renewable Energy Act in Germany and the maintenance of the energy balance between supply and demand requires transfer of large cash amounts. Our policies are aimed at minimising the risks associated with the clearing transactions in connection with these cash flows.

Credit risk on trade and other receivables is limited, because most of our trade and other debtors have a low risk of default. Consequently, TenneT has no material collateral as security and no insurance for credit risk. The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets disclosed in note 13 and 15. The movement of the allowance for expected credit losses of trade receivables is included in note 15.

The provision rates for expected credit losses are based on groupings of various customer segments with similar loss patterns (such as customer type and arrears in payments). Any expected credit losses for financial guarantee contracts and commitment letters (if any) are also provided for. The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, trade receivables and other financial assets are written-off if there is no reasonable expectation of recovering the contractual cash flows. The Group considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, TenneT may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group.

Financial credit risk

In 2020, financial credit risk arose mainly from our transactions and positions with several financial institutions. As at 31 December 2020, the maximum credit risk amounted to EUR 475 million (2019: EUR 36 million).

In 2020 these funds are related to funds at free disposal. In 2019 these funds related to EEG and are not at our free disposal and are legally separated from our cash at bank. In accordance with EEG legislation, shortfalls are reimbursed through the subsequent year's EEG levy. As a result, there is no credit risk on the side of TenneT TSO GmbH regarding the EEG funds and these are therefore not included in the aforementioned credit risk amount.

In accordance with our treasury policies, counterparty credit exposure is monitored frequently against the counterparty credit limits. We have concentration limits in place when funds are placed on deposit or when financial derivatives are entered into. At 31 December 2020 we had EUR 475 million free at disposal. These deposits had a maturity of less than 3 months (2019: nil), see note 15. At 31 December 2020 we had nil deposits with third parties for EEG cash amounts (2019: EUR 30 million) and no financial derivatives outstanding.

Management does not expect any significant losses from non-performance by treasury counterparties.

Liquidity risk

Liquidity risk is defined as the risk that the Group cannot meet its short-term financial obligations. Our objective when managing liquidity is to be able to meet our short-term obligations at all times. Liquidity is monitored every quarter on a rolling 12-month forward-looking basis. The liquidity requirement was met each quarter including 31 December 2020 and 31 December 2019.

The following maturity schedule presents our financial obligations on a contractual, non-discounted basis:

(EUR million)	Notes	<1 month	1 to 3 months	3 to 12 months	1 to 5 years	More than 5 years	Total
At 31 December 2020							
Lease liabilities	9	12	23	103	263	125	526
Borrowings	20	158	47	683	2,592	8,972	12,452
EEG related Borrowings	20	1,528	-	-	-	-	1,528
Account- and other payables	24	1,011	517	1,660	-5	-	3,183
Other financial liabilities		85	-	-	-	-	85
Total		2,794	587	2,446	2,850	9,097	17,774
At 31 December 2019							
Lease liabilities	9	10	19	87	202	139	457
Borrowings	20	7	48	692	2,777	7,771	11,295
Account- and other payables	24	2,091	417	1,200	1	-	3,709
Other financial liabilities		79	-	-	-	-	79
Total		2,187	484	1,979	2,980	7,910	15,540

Our borrowings, have a diversified maturity profile, which reduces refinancing risks (see also note 20).

In order to minimise our exposure to liquidity risk, we have a EUR 3.3 billion committed revolving credit facility (RCF) at our disposal for general corporate purposes. At 31 December 2020, this facility was undrawn. Furthermore, we had EUR 250 million of undrawn long-term loan commitments from the EIB available at 31 December 2020. Finally, we had EUR 450 million of short-term uncommitted credit facilities available at year end drawn EUR 90 million (2019: nil).

On 31 December 2020 we had EUR 1.35 billion committed credit facilities and EUR 0.5 billion uncommitted credit facilities available (drawn EUR 1.528 billion) to finance temporary fluctuations in working capital related to our clearing activities for renewable energy in Germany. In accordance with EEG legislation, shortfalls are reimbursed through EEG levy and/or government contributions for the subsequent years.

The EEG has a significant impact on TenneT's working capital position and to prevent negative EEG bank account balances and additional short-term bridge financing, a liquidity buffer is included in the EEG levy. Nevertheless, TenneT raised additional committed financing of EUR 1.5 billion and uncommitted financing of EUR 0.5 billion in 2020, due to significant unforeseen variations in renewable energy volumes and electricity prices.

As a result of the Climate program 2030 ("Klimaschutzprogramm 2030") the four German TSOs will receive EUR 10.8 billion from the German government to finance the EEG in 2021. TenneT will receive 32% of this amount in three instalments (January 2021: EUR 1,632 million, May 2021: EUR 960 million and October 2021: 864 million) and will use the payments to finance payments made to renewable energy producers.

The size of our credit facilities is such that we expect that all substantial adverse financial developments and events can reasonably be expected to be accommodated and that continuation of day-to-day operations is ensured for at least 12 months. The terms and conditions of our credit facilities include negative pledge and pari passu clauses. No security interest over any of the Group's assets has been provided. All credit facilities have floating-rate interest conditions.

We also have access to diversified funding sources through our medium-term note (EMTN) programme and our commercial paper (CP) programme. Both programmes significantly reduce our dependency on the banking sector.

We expect to meet our financial obligations for 2021 with (i) cash and cash equivalents, (ii) funds from operations, (iii) unused credit facilities and (iv) capital market transactions. We expect to meet our financial obligations for the subsequent years through various capital market transactions and equity contributions and intend to manage future refinancing risks by spreading the tenors of new financing arrangements.

Refinancing risk

There is a risk of a lack of access to equity on a sustainable basis. This risk reflects the inability to raise additional equity in a timely fashion in case of unexpectedly large increases in our investment portfolio or negative regulatory developments. Actions taken in order to mitigate this risk are: (i) an active financing strategy to create and maintain an optimal capital structure as well as to diversify funding sources and manage financial risks, (ii) a proactive approach of potential investors and active discussion with our shareholder to contribute additional equity and (iii) lobbying activities to ensure that regulatory frameworks remain adequate to safeguard regulators income and returns to investors.

Commodity price risk

Energy purchase contracts for the forward purchase of electricity or gas that are used to satisfy physical delivery requirements to customers, or for energy that the Group uses itself, meet the expected purchase or usage requirements of IFRS 9. They are, therefore, not recognised in the financial statements until they are realised. Disclosure of commitments under such contracts is made in note 28.

Under IFRS, where these supply contracts are not accounted for as finance leases, they are considered to comprise two components, being a forward purchase of power at spot prices, and a forward purchase of environmental certificates at a variable price (being the contract price less the spot power price). With respect to our current contracts, neither of these components meets the requirement to be accounted for as a derivative. The environmental certificates are currently required for compliance purposes, and at present there are no liquid markets for these attributes. Accordingly, this component meets the expected purchase or usage exemption of IFRS 9. We expect to enter into an increasing number of these contracts, in order to meet our compliance requirements in the short to medium term. It is possible that in future, if and when liquid markets develop, and to the extent that we are in receipt of environmental certificates in excess of our required levels, this exemption may cease to apply, and we may be required to account for forward purchase commitments for environmental certificates as derivatives at fair value through profit and loss.

26 Fair values

The table below provides an overview of the carrying value and fair value of financial instruments, including IFRS treatment and the level in the valuation hierarchy. The instruments are measured at fair value.

(EUR million)	Notes	Carrying amount		Fair value		Hierarchy
		2020	2019	2020	2019	
Financial liabilities						
<i>Borrowings:</i>						
- Borrowings – bonds	20	8,487	7,642	9,478	8,354	Level 1
- Borrowings – other	20	2,445	2,060	2,665	2,203	Level 2
- Borrowings – EEG related	20	1,528	-	1,528	-	Level 2
Total		12,460	9,702	13,671	10,557	

As at 31 December 2020, no instruments carried at fair value were held (2019: nil). Furthermore, we concluded that the fair value of the loans and receivables, cash and cash equivalents, account- and other payables and other financial liabilities approximate their carrying amounts at year end 2020, due to the short-term maturities of these instruments.

The following hierarchy by valuation technique was used to calculate the fair value of assets and liabilities:

- Level 1: Measurement based on quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Measurement based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- Level 3: Measurement based on inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

The fair value of the level 2 borrowings is based on discounted cash flows. A change in the assumptions used to calculate the fair value will not result in a significantly different outcome. There were no transfers between the fair value hierarchy levels during 2020 or 2019.

27 ⓘ Accounting policies for financial instruments

Financial assets

All financial assets are recognised initially at fair value, net of directly attributable transaction cost.

After initial recognition financial assets are measured at amortised cost, fair value through other comprehensive income (OCI) and fair value through profit or loss. All TenneT's financial assets are classified as amortised cost, because the following two conditions are met:

- The financial assets are held within a business model with the objective to hold financial assets in order to collect contractual cash flows.
- 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.

Financial assets at amortised cost are subsequently measured using the effective interest (EIR) method and are subject to impairment.

The Group recognises an allowance for expected credit losses (ECLs) for financial assets. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. For trade receivables and contract assets, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date.

Financial liabilities

All financial liabilities are recognised initially at fair value and, in case of loans and borrowings and payables, net of directly attributable transaction costs. The Group's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts.

After initial recognition at fair value, interest-bearing loans and borrowings are subsequently measured at amortised cost using the EIR method. Gains and losses are recognised in statement of income when the liabilities are derecognised as well as through the EIR amortisation process. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included as finance expense in the statement of comprehensive income.

28 Contingencies and commitments

Off-balance sheet rights and obligations related consist of the following categories:

(EUR million)	2020	2019
Investment related off-balance items		
<i>Off-balance sheet rights</i>		
Bank guarantees received	1,227	1,765
Comfort letters received	1,202	878
Total	2,429	2,643
<i>Off-balance commitments</i>		
Capital commitments	7,133	4,059
Comfort letters issued	776	774
Total	7,909	4,833
Other off-balance items		
<i>Other off-balance rights</i>		
Government guarantees received	-	300
Other off-balance sheet rights	-	76
Total	-	376
<i>Other off-balance obligations</i>		
Grid-related commitments	920	1,109
Other off-balance sheet commitments	43	69
Total	963	1,178

The expected cash flows in respect of capital commitments are equal to the amounts in the above table. For comfort letters issued, no cash flows are expected.

Bank guarantees received

Bank guarantees received include guarantees for investment projects.

Comfort letters received

The majority of comfort letters received is from construction companies involved in the construction of German onshore and offshore projects.

Capital commitments

Capital commitments are commitments entered into with regard to the purchase of tangible fixed assets.

Approximately EUR 2.7 billion of capital commitments are payable within the next 12 months (2019: EUR 2.2 billion).

Comfort letters issued

The comfort letters issued relate to offshore projects in Germany.

Government guarantees received

TenneT benefited from a financial guarantee issued by the Dutch State for an amount of EUR 300 million which expired in February 2020, relating to its (indirect) investment in TenneT TSO GmbH.

Grid related commitments

Grid-related commitments included received but unused auction receipts in the Netherlands amounting to EUR 322 million (2019: EUR 470 million).

Other

Other off-balance sheet commitments mainly consisted of:

- TenneT's commitment to provide the NOKA joint venture with sufficient funds for the construction of the Southern Part of the NordLink cable;
- Several parties claim compensation for the delay or non-availability of the offshore grid connection. The related legal proceedings are still pending. If and to the extent the claims are (partly) justified and the payments resulting therefrom could not be passed through to the end customers, the binding rulings may have a negative impact on the financial position;
- TenneT TSO B.V. is currently involved in a claim procedure because of alleged wrongful termination of construction contracts and in a counter claim procedure against this counter party regarding financial settlement & damages due to the alleged non-fulfilment of the construction contracts;

For these items it is not practicable possible to determine the financial effect and possible timing of cash outflows.

Various other off-balance sheet commitments and contingencies as well as other off-balance sheet rights existed but were immaterial from a disclosure perspective. The majority of these claims relate to (i) construction contracts and planning damage where additional payments would be capitalised, or (ii) claims relating to compensation for delays and interruptions where any compensation would be pass-through for TenneT or (iii) claims relating to refunds of transmission services, which would be compensated in future tariffs. In the unlikely event that these claims would prevail in court, this could have a material impact on the company's financials.

Environmental obligations

The Group is exposed to risks regarding environmental obligations arising from past activities. For example, a number of sites have to be decontaminated and restored to their original condition before being handed back at the end of the contractual period. Under current legislation, environmental plans and any other measures to be adopted have to be agreed with local, regional and national authorities as appropriate. As soon as such plans are approved or other legal obligations arise, a provision is formed based on the most reliable estimate possible of future expenses. The Executive Board is of the opinion that the currently recognized provisions are adequate, based on information currently available. However, given the degree of difficulty in making estimates, this does not guarantee that no additional costs will arise going forward.

29 Related parties

Note 30 provides an overview of legal entities included in the consolidated financial statements.

TenneT has entered into transactions with the following related parties:

- State of the Netherlands: TenneT Holding B.V. is controlled by the Dutch State, which owns 100% of the Company's ordinary shares (refer to note 18);
- Joint ventures NOKA and BritNed (refer to note 12);
- Associates HGRT and OTC (refer to note 12) and indirect associate Mobile Radio Networks Vehicle B.V. (refer to note 13);
- Members of the Executive and Supervisory Board of TenneT Holding B.V. (refer to note 4).

30 Consolidated subsidiaries

The following legal entities were included in the consolidation of TenneT Holding B.V.:

Subsidiary	Legal seat	Country	Voting interest		Economic interest		
			2020	2019	2020	2019	
Direct subsidiaries							
ETPA Holding B.V.	Amsterdam	Netherlands	50%	50%	50%	50%	
NLink International B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
NOVEC B.V.	The Hague	Netherlands	100%	100%	100%	100%	
Relined B.V.	Utrecht	Netherlands	100%	100%	100%	100%	
TenneT Duitsland Coöperatief U.A.	Arnhem	Netherlands	100%	100%	100%	100%	*
TenneT Green B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
TenneT Orange B.V.	Arnhem	Netherlands	100%	100%	100%	100%	
TenneT TSO B.V.	Arnhem	Netherlands	100%	100%	100%	100%	
TenneT TSO Duitsland B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
Indirect subsidiaries							
B.V. Transportnet Zuid-Holland	Voorburg	Netherlands	100%	100%	100%	100%	*
CertiQ B.V.	Arnhem	Netherlands	100%	100%	100%	100%	
Duvekot Rentmeesters B.V.	Bathmen	Netherlands	100%	100%	100%	100%	
ETPA B.V.	Amsterdam	Netherlands	50%	50%	50%	50%	
Nadine Netwerk B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
Omroepmasten B.V.	Vianen	Netherlands	100%	100%	100%	100%	
Saranne B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
Stichting Beheer Doelgelden Landelijk Hoogspanningsnet	Arnhem	Netherlands	N/A	N/A	N/A	N/A	
TransTenneT B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
DC Netz DoWin4 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz HeWin1 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz SylWin2 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
Globalways GmbH	Stuttgart	Germany	100%	0%	100%	0%	
NOVEC GmbH	Emsbüren	Germany	100%	100%	100%	100%	
Relined GmbH	Emsbüren	Germany	100%	100%	100%	100%	
TenneT GmbH & Co. KG	Bayreuth	Germany	100%	100%	100%	100%	**
TenneT Offshore 1. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	31%	31%	
TenneT Offshore 2. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	31%	31%	
TenneT Offshore 8. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	37%	37%	
TenneT Offshore 9. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	37%	37%	
TenneT Offshore Dolwin3 Beteiligungs GmbH & Co. KG	Bayreuth	Germany	51%	51%	30%	30%	**
TenneT Offshore Dolwin3 GmbH & Co. KG	Bayreuth	Germany	51%	51%	30%	30%	
TenneT Offshore Dolwin3 Verwaltungs GmbH	Bayreuth	Germany	51%	51%	33%	33%	
TenneT Offshore GmbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT TSO GmbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT Verwaltungs GmbH	Bayreuth	Germany	100%	100%	100%	100%	
WL Winet GmbH (in liquidation)	Emsbüren	Germany	100%	100%	100%	100%	***

* For these companies TenneT has issued a declaration of liability as referred to in Book 2, Part 9, Section 403 of the Netherlands Civil Code.

** This company, which has been consolidated in these financial statements, has opted for the exemption of Section 264b of the German Commercial Code.

*** WL Winet GmbH exists since 2016 but never showed a positive result. Although sales were increasing, management didn't expect an improvement of the result due to the lack of finding qualified personnel. Therefore it was decided to liquidate WL Winet GmbH. The liquidation commenced on 1 March 2019.

As TenneT is able to exercise direct control over its management and financial and operational policies, the consolidation includes Stichting Beheer Doelgelden Landelijk Hoogspanningsnet, a foundation which temporarily manages funds arising from the maintenance of the energy balance and auctioning of cross-border capacity by TenneT TSO B.V.



31 Events after the reporting period

No significant events occurred after the reporting period.

Company financial statements

Company statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2020	2019
Non-current assets			
Investments in subsidiaries	36	8,651	7,552
Investments in joint ventures and associates	37	31	29
Other financial assets	38	9,828	6,655
Total non-current assets		18,510	14,236
Current assets			
Other financial assets	38	2,093	1,777
Account- and other receivables	39	14	30
Cash and cash equivalents		475	194
Total current assets		2,582	2,001
Total assets		21,092	16,237

Equity and liabilities	Notes	2020	2019
Equity	40		
Paid up and called-up capital		100	100
Share premium		1,790	1,790
Revaluation reserve		22	32
Reserve for participating interests		94	62
Reserve for internally generated assets		55	62
Hedging reserve		-	1
Retained earnings		2,515	2,117
Unappropriated result		748	532
Equity attributable to ordinary shares		5,324	4,696
Hybrid securities		2,125	1,120
Equity attributable to owners of the company		7,449	5,816
Non-current liabilities			
Borrowings	41	10,217	9,137
Deferred tax liability		6	5
Total non-current liabilities		10,223	9,142
Current liabilities			
Borrowings	41	2,243	565
Bank overdraft		90	-
Account- and other payables	42	1,087	714
Total current liabilities		3,420	1,279
Total equity and liabilities		21,092	16,237

Company statement of income

For the year ended 31 December (EUR million)

(EUR million)	Notes	2020	2019
Revenue		-	-
Other operating expenses		-6	-3
Other gains/(losses)		-	-
Total operating expenses		-6	-3
Share in profit of joint ventures and associates		5	-
Operating profit		-1	-3
Finance income	33	159	177
Finance expenses	34	-202	-192
Finance result		-43	-15
Profit before income tax		-44	-18
Income tax expense		1	-9
Profit from subsidiaries	36	835	593
Profit for the year		792	566

Income tax expense 2019 changed from EUR -1 million to -9 million compared to last year's report. Further reference can be found in note 1 Basis for reporting.

Notes to the company financial statements

These notes contain information about the company financial statements of TenneT Holding B.V. Details related to TenneT Holding B.V.'s financial results and position are provided, as well as a description of the specific accounting policies applied when compiling these company financial statements.

32 Company accounting policies

The company financial statements for TenneT Holding B.V. have been prepared in accordance with the provisions of Part 9, Book 2 of the Netherlands Civil Code. The same principles governing valuation and the determination of results (including the principles governing the classification of financial instruments as equity or liability) have been applied when compiling the company financial statements and the consolidated financial statements, as permitted by Article 2:362, clause 8 of the Netherlands Civil Code.

Expected credit loss (ECL) provisions for receivables from subsidiaries will be eliminated as intercompany positions. Changes in these ECL provisions will impact the carrying amounts of the financial assets in the company statement of the financial position due to a possible provision. This will result in a difference between the company equity and the consolidated equity. No ECL provision was deemed necessary.

33 Finance income

Result on finance income is mainly related to the interest received on intercompany loans and other in-house financing activities (see note 37). The intercompany agreements have terms equivalent to those that prevail in arm's length transactions.

34 Finance expenses

Finance expenses mainly relate to interest on borrowings and credit facilities (2020: EUR 187 million; 2019: EUR 178 million).

35 Personnel expenses

TenneT Holding B.V. did not employ any personnel in 2020 (2019: nil), and as such did not incur any personnel expenses in those periods. The members of the Executive Board and Supervisory Board of the Company received their remuneration, as disclosed in note 4 of the consolidated financial statements, from other entities within the Group.

36 Investments in subsidiaries

Changes in investments in subsidiaries can be broken down as follows:

(EUR million)	2020	2019
At 1 January	7,552	6,690
Share in result	835	593
Capital contribution	284	410
Dividends received	-3	-44
Re-measurement of defined benefit pension	-17	-97
At 31 December	8,651	7,552

Investments in subsidiaries related to the legal entities included in the consolidation as disclosed in note 30 of the consolidated financial statements.

① Accounting policies

The investments in subsidiaries are measured at net asset value. The net asset value of a participating interest is determined by valuing the assets, provisions and liabilities and calculating the result using the accounting principles applied to the consolidated financial statements.

When our share of losses in an investment equals or exceeds our interest in this investment, (including separately presented goodwill or any other unsecured non-current receivables, as part of the net investment), we do not recognise any further losses, unless we have incurred legal or constructive obligations or made payments on behalf of this investment. In such case, we will recognise a provision.

37 Investments in joint ventures and associates

Investments in joint ventures and associates mainly related to HGRT. In 2020, TenneT's share in HGRT's result amounted to EUR 5 million (2019: EUR 3 million) and EUR 3 million (2019: EUR 5 million) dividends were received. In 2019 the carrying amount was adjusted to better reflect the equity value of the investment. Further reference is made to note 12 of the consolidated financial statements.

38 Other financial assets

(EUR million)	2020	2019
Receivables from subsidiaries	9,818	6,646
Other financial assets	10	9
Total	9,828	6,655

Receivables from subsidiaries mainly related to intercompany loans and cash management activities of TenneT Holding B.V. The agreed interest rate for the intercompany loans is our cost of fund rating +0.125%. These receivables are unsecured. The movement schedule is as follows:

(EUR million)	2020	2019
At 1 January	6,655	6,232
Additions	3,377	1,941
Repayments	-93	-1,408
Transfer to current	-110	-109
Other movements	-1	-1
At 31 December	9,828	6,655

Besides non-current other financial assets, the company had EUR 2.1 billion (2019: EUR 1.8 billion) of current other financial assets which were related to receivables from subsidiaries. Certain subsidiaries have guaranteed the payment to creditors of TenneT Holding up to an aggregate amount of EUR 2.5 billion (2019: EUR 2.5 billion).

39 Account- and other receivables

Account- and other receivables mainly relates to income tax receivable.

40 Equity

(EUR million)	Reserve Participating interests	Reserve for internally generated assets	Hedging reserve	Revaluation reserve	Total legal reserve
At 1 January 2019	61	22	3	43	129
Result NOKA and HGRT	5	-	-	-	5
Dividend NOKA and HGRT	-4	-	-	-	-4
Internally generated intangible assets	-	52	-	-	52
Depreciation on internally generated intangible assets	-	-12	-	-	-12
Depreciation revaluation tangible fixed assets	-	-	-	-11	-11
Amortisation of hedges	-	-	-2	-	-2
At 31 December 2019	62	62	1	32	157
Result NOKA and HGRT	35	-	-	-	35
Dividend NOKA and HGRT	-3	-	-	-	-3
Internally generated intangible assets	-	55	-	-	55
Depreciation on internally generated intangible assets	-	-62	-	-	-62
Depreciation revaluation tangible fixed assets	-	-	-	-11	-11
Amortisation of hedges	-	-	-1	-	-1
At 31 December 2020	94	55	-	21	170

The statement of changes in equity and disclosures to that statement are included in the consolidated financial statements. For details on the hybrid securities see note 18.

The revaluation reserve covers the IFRS 1 revaluation of tangible fixed assets in 2004. The reserve for participating interests relates to HGRT and NOKA, for which we do not control payment of dividends. In the consolidated financial statements, the revaluation reserve, the reserve for internally generated assets and the reserve for participating interests were included in retained earnings.

The legal reserves are not freely distributable.

Appropriation of result for the year ended 31 December 2019

The annual report 2019 was approved in the General Meeting held on March 11, 2020. The General Meeting has determined the appropriation of result in accordance with the proposal being made to that end.

The appropriation of the 2020 profit is at the free disposal of the General Meeting of Shareholders and has not been recorded in the financial statements.

41 Borrowings

Details on borrowings are included in the consolidated financial statements, see note 20.

42 Account- and other payables

(EUR million)	2020	2019
Payables to subsidiaries	983	606
Interest payable	104	105
Other payables	-	3
Total	1,087	714



43 Events after the reporting period

See note 31 of the consolidated financial statements.

Arnhem, 8 March 2021

Executive Board TenneT Holding B.V.

M.J.J. van Beek

O. Jager

T.C. Meyerjürgens

M.C. Abbenhuis

Supervisory Board TenneT Holding B.V.

A.C.C.. van Els

L.J. Griffith

E. Kairisto

E.M. Schöne

A.F. van der Touw

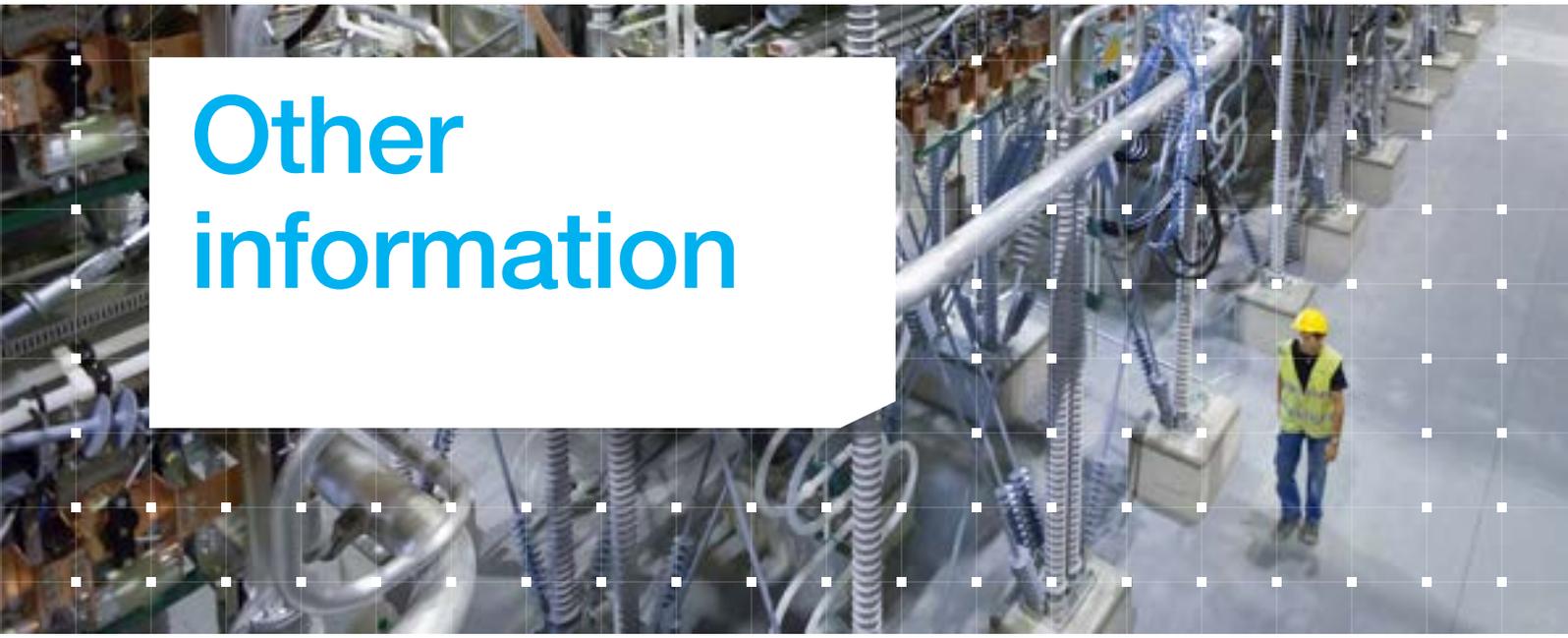
TenneT Holding B.V.

Utrechtseweg 310

6812 AR Arnhem

The Netherlands

Chamber of Commerce register 09083317



Other information

Profit appropriation

Profit appropriation is governed by Section 38.3 of the Articles of Association, which states the following “To the extent that the profit is not used to make up prior losses in accordance with the provision of paragraph 2, it shall be at the free disposal of the general meeting. In the calculation of the profit amount to be distributed on every share, only the amount of the compulsory payments on the nominal amount of the shares shall be taken into consideration. In the event of a tied vote on a proposal to distribute or reserve profits, the profits to which the proposal relates shall be reserved”.

Independent auditor's report

To: the Shareholder and Supervisory Board of TenneT Holding B.V.

Report on the audit of the financial statements 2020 included in the integrated annual report

Our opinion

We have audited the accompanying financial statements 2020 of TenneT Holding B.V. (the “**Company**” or “**TenneT**”) based in Arnhem, The Netherlands. The financial statements include the consolidated financial statements and the company financial statements.

In our opinion:

- the accompanying consolidated financial statements give a true and fair view of the financial position of TenneT Holding B.V. as at 31 December 2020, and of its result and its cash flows for 2020 in accordance with International Financial Reporting Standards as adopted by the European Union (“**EU-IFRS**”) and with Part 9 of Book 2 of the Dutch Civil Code; and
- the accompanying company financial statements give a true and fair view of the financial position of TenneT Holding B.V. as at 31 December 2020, and of its result for 2020 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

1. The consolidated statement of financial position as at 31 December 2020;
2. The following statements for 2020: the consolidated statement of income, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows; and
3. The notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

1. The company statement of financial position as at 31 December 2020;
2. The company statement of income for 2020;
3. The notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the “Our responsibilities for the audit of the financial statements” section of our report.

We are independent of TenneT Holding B.V. in accordance with the EU Regulation on specific requirements regarding statutory audit of public-interest entities, the Wet toezicht accountantsorganisaties (Wta, Audit firms supervision act), the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at EUR 60 million. The materiality is based on 7% of underlying operating profit, as set out in note 2 of the consolidated financial statements. The applied percentage of 7% is at the lower end of the range reflecting this is our first year as auditors of TenneT. 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.

Component audits are performed using the materiality levels determined by the judgement of the group engagement team, considering materiality for the consolidated financial statements as a whole and the reporting structure of the group. For the largest reporting entities, the audits are performed using the following component materiality levels:

- TenneT TSO GmbH (“**TSO DE**”): of EUR 38.4 million;
- TenneT TSO B.V. (“**TSO NL**”): EUR 28.8 million; and
- TenneT Holding B.V.: EUR 24 million.

For the other reporting entities, the component materiality levels did not exceed EUR 24 million.

We agreed with the Supervisory Board that misstatements in excess of EUR 3 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

TenneT Holding B.V. is the head of a group of entities. The financial information of this group is included in the consolidated financial statements of TenneT Holding B.V.

Because we are ultimately responsible for the opinion, we are 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 reporting entities. Decisive were the size and/or the risk profile of the reporting entities or operations. On this basis, we selected reporting entities for which an audit had to be carried out on the complete set of financial information or specific items.

In establishing the overall group audit strategy and plan, we determined the type of work that needed to be performed at the components by the group engagement team and the component auditors.

Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work at those components to be able to conclude whether sufficient appropriate audit evidence was obtained as a basis for our opinion on the group financial statements as a whole, also considering COVID-19 related travel restrictions. For each component we determined whether we required an audit of their complete financial information or whether other procedures would be sufficient.

Our group audit mainly focused on significant group entities TenneT Holding B.V., TSO DE and TSO NL, because combined they make up more than 90% of the group’s revenue, underlying operating profit and assets. We included additional reporting entities in the scope of our group audit to have additional audit coverage on the group’s consolidated financial statements, and performed other procedures with respect to residual risk in components and account balances that have not been included in audit scope.

The group consolidation, financial statements disclosures and certain centrally coordinated accounting topics were audited by the group engagement team. These topics included among others treasury and corporate income tax. Specialists were involved in the areas of tax, accounting, decommissioning, pension, data analysis and information technology.

We have obtained the following audit coverage of the group with our audit procedures:

Audit coverage	
Revenue	99%
Underlying operating profit	97%
Assets	99%

Due to the COVID-19 travel restrictions during 2020 we were not able to visit Germany. Consequently, we revised our strategy for direction and supervision of the TSO DE component auditors. The group engagement team among others held audit planning calls with all the individual component auditors, held bi-weekly update calls with component management and the component auditors, and conducted remote file reviews to evaluate the work undertaken and to assess their findings.

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

Scope of fraud and non-compliance with laws and regulations within our audit

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

Consideration of fraud - Description

In identifying potential risks of material misstatement due to fraud, we obtained an understanding of TenneT and its environment, including its internal controls. We evaluated TenneT's fraud risk assessment and made inquiries with management, those charged with governance and others within TenneT, including but not limited to the functions (i) Internal Audit, (ii) Compliance & Integrity and (iii) Financial Governance & Services. We evaluated several fraud risks factors to consider whether those factors indicated a risk of material misstatement due to fraud. We involved our forensic specialists in our risk assessment and in determining the audit response.

Following these procedures, and the presumed risks under the prevailing auditing standards, we considered the fraud risks in relation to management override of controls, including evaluating whether there was evidence of bias by the Executive Board, the executive leadership team and other members of management, which may represent a risk of material misstatement due to fraud. Furthermore, we identified and considered the fraud risk related to classification of operational expenditure as capitalized expenditure due to the differences in related regulatory accounting and thus future revenues.

Consideration of fraud - Response

- We made inquiries of management, those charged with governance and others within TenneT regarding the risk of material misstatements in the financial statements due to fraud, their process for identifying and responding to the risk of fraud, the internal communication regarding their views on business practices and ethical behaviour and whether they have knowledge of any actual, suspected or alleged fraud affecting the Company.
- We obtained an understanding of how those charged with governance exercise oversight of management's processes for identifying and responding to the risks of fraud in the Company and the internal control that management has established to mitigate these risks.
- We evaluated whether unusual or unexpected relationships have been identified in performing analytical procedures, that may indicate risks of material misstatement due to fraud.
- We held discussions amongst team members and component auditors to identify fraud risk factors and considered whether other information obtained from our risk assessment procedures indicated risks of material misstatement due to fraud.
- We determined overall responses to address the assessed risks of material misstatement due to fraud at the financial statement level or at the assertion level by:
 - assigning and supervising personnel with the adequate knowledge, skills and ability;
 - evaluating whether the selection and application of accounting policies by TenneT, particularly those related to subjective measurements and complex transactions, may be indicative of fraudulent financial reporting;
 - incorporating an element of unpredictability in the selection of the nature, timing and extent of our audit procedures which was achieved given this was our first year audit and TenneT did (thus) not have a detailed expectation of our audit approach;
 - testing the appropriateness of journal entries recorded in the general ledger and other adjustments made in the preparation of the financial statements;
 - evaluating whether the judgments and decisions made by management in making the accounting estimates included in the financial statements indicate a possible bias that may represent a risk of material misstatement due to fraud. Management insights, estimates and assumptions that might have a major impact on the financial statements are disclosed in note 1 of the financial statements. Grid expense payables and the provision for decommissioning were

focus areas in our audit as the related account balances are subject to significant management judgment. Reference is made to the section “Our key audit matters”;

- performing a retrospective review of management judgments and assumptions related to significant accounting estimates reflected in prior year financial statements; and
- evaluating whether the business rationale of significant transactions suggests that they may have been entered into to engage in fraudulent financial reporting or to conceal misappropriation of assets.

The procedures described are in line with the applicable auditing standards and are not primarily designed to detect fraud. Our procedures to address fraud risks did not result in a Key Audit Matter.

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

Consideration of compliance with laws and regulations

As part of obtaining an understanding of TenneT and its environment we obtained a general understanding of (i) the legal and regulatory framework applicable to TenneT and the industry in which it operates and (ii) how TenneT is complying with that framework. We assessed the laws and regulations relevant to the Company through discussion with management, those charged with governance and others within TenneT, including but not limited to the functions (i) Internal Audit, (ii) Compliance & Integrity, (iii) Legal Affairs, (iv) Regulatory Affairs and (v) Financial Governance & Services. We have read related minutes and reports. We involved our forensic specialists in our evaluation.

As a result of our risk assessment procedures, and while realizing that the effects from non-compliance could considerably vary, we considered adherence to (corporate) tax law and financial reporting regulations, the requirements under EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code with a direct effect on the financial statements as an integrated part of our audit procedures, to the extent material for the related financial statements. We obtained sufficient appropriate audit evidence regarding provisions of those laws and regulations generally recognized to have a direct effect on the financial statements.

Apart from these, TenneT 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 TenneT’s business and the complexity of energy laws and regulations in The Netherlands and Germany, as well as environmental laws, there is a risk of non-compliance with the requirements of such laws and regulations. In addition, we considered relevant laws and regulations applicable to listed companies.

Our procedures are more limited with respect to other laws and regulations that do not have a direct effect on the determination of the amounts and disclosures in the financial statements. These laws and regulations compliance may be fundamental to the operating aspects of the business, to TenneT’s ability to continue its business, or to avoid material penalties (e.g., compliance with the terms energy laws in The Netherlands and Germany or compliance with environmental regulations) and therefore non-compliance with such laws and regulations may have a material effect on the financial statements. In addition, we considered major laws and regulations applicable to listed companies. 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 and others within TenneT 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 the 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.

Our key audit matters

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

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

Key Audit Matters	How the key audit matter was addressed in the audit
<p>Investments in grid connections</p> <p>Securing supply and facilitating the integration of sustainable energy sources into the high-voltage grid require substantial investments and flexible access to (equity) funding. TenneT plans to invest an amount growing to EUR 5-6 billion annually within the next 5 years in on- and offshore grid connections.</p> <p>We have included this as a key audit matter because of:</p> <ul style="list-style-type: none"> the financial significance of the capital expenditures; and the risks associated with large investment projects, complexity in procurement, construction and timely completion. 	<p>We have tested the internal control environment related to tangible fixed assets through testing of operating effectiveness of relevant controls, including controls related to investment approval and the financial closing of assets under construction as well as the periodic determination of the useful life of tangible fixed assets. In addition, we have tested relevant controls for design and implementation around the liquidity forecast safeguarding TenneT's ability to finance investments.</p> <p>At yearend, we have performed test of details on the additions and other movements. We obtained and discussed internal management reports about progress of the key assets under construction.</p> <p>Observation</p> <p>No reportable matters were identified as a result of our procedures.</p>
<p>Provision for decommissioning of (offshore) assets</p> <p>Decommissioning of offshore assets will be an important topic over the next 20 years for TenneT as a large part of these assets come to the end of their economic life. Furthermore, moving towards a renewable future involves significant investments in offshore assets, requiring recognition of new provisions. The corresponding provisions are based on estimates of costs, timing of decommissioning, discount rates and inflation.</p> <p>We have included this as a key audit matter because of:</p> <ul style="list-style-type: none"> the significance of the provision and additions for the year triggered by the start of construction of new (offshore) assets; and the uncertainty involved in measuring the provision and sensitivity to changes in key assumptions, including the cost base, the inflation rate and the discount rate. 	<p>We have obtained management's position papers on the cost assumptions and alignment of the methodology across The Netherlands and Germany. Our audit procedures include testing of design and implementation of relevant controls around the periodical assessment of these assumptions and the evaluation of the financial model used to calculate the provision.</p> <p>Our substantive audit procedures further include an assessment of the reasonability of the key assumptions (including involvement of a specialist with regards to the cost assumptions) through comparison with observable market data and procedures to address the completeness of the provision.</p> <p>Furthermore, we evaluated the appropriateness of the disclosure of the accounting policy and estimation uncertainty of these provisions.</p> <p>Observation</p> <p>We considered management's key assumptions, to be within the reasonable range of our own expectations.</p>
<p>Accrual for in-feed management expenses</p> <p>Due to a larger share of renewable energy production in Germany, supply of energy may sometimes exceed demand. In such instances, TenneT initiates redispatch measures to maintain the energy balance on its grids at 50 Hertz. If there is no redispatch possibility on the transmission grid, TenneT will direct distribution system operators to curtail producers of (renewable) electricity to secure system stability. These producers are then entitled to reimbursement for their lost in-feed.</p> <p>We have included this as a key audit matter because the accrual for in-feed management is significant and subject to estimation uncertainty in assessing variable renewable energy production, where TenneT is dependent on information from other market participants.</p> <p>Moreover, final settlement of in-feed management measures may take up to six years to resolve due to regulatory terms.</p>	<p>We obtained an understanding of the external factors and market processes that drive the estimation uncertainty, including an evaluation on the correlation between average wind developments and in-feed management expenses for 2019 and 2020.</p> <p>We have tested the internal control environment related to the in-feed management expenses by testing design and implementation of relevant controls. This includes an assessment of the methodology applied by TenneT to estimate the accrual at reporting date.</p> <p>We performed the following combination of substantive testing procedures:</p> <ul style="list-style-type: none"> We tested quantity (GWh) and pricing data of the accrual estimation with underlying contract and counterparty quantity data. We performed back-testing of historical estimates, primarily aimed to test quantity estimations (GWh) with the use of observable market data, as well as the pricing estimations of the transactions based on contracts. We evaluated underlying drivers of historical estimate updates to the current period estimates. <p>Observation</p> <p>Our procedures did not identify material observations and we considered management's key assumptions (quantity and price) to be within the reasonable range of our expectations.</p>
<p>First year engagement</p>	

Key Audit Matters	How the key audit matter was addressed in the audit
<p>Initial audit engagements involve numerous considerations not associated with recurring engagements. The audit transition, including the audit of the opening balance has been identified as a key audit matter as it involves additional planning activities and considerations to establish an appropriate audit strategy. We have included this as a key audit matter because scientific research indicates a higher rate of audit errors for initial audit engagements, resulting from lack of understanding of the business drivers, control environment including information systems understanding and financial flows. That may result in insufficiently substantiated risk assessments as well as inadequate internal controls and substantive testing evidence.</p>	<p>To address the pervasive risk on our first year audit engagement, we have e.g. performed the following procedures:</p> <ul style="list-style-type: none"> • We have read various sector and Company reports and evaluated the content of those for our risk assessment of the audit of TenneT. • We have set-up 'audit transition-labs' with both financial and operating management of TenneT, providing us with a good initial understanding of the business drivers, control environment, financial flows and information systems. • We have performed an in-depth review of TenneT's accounting policies and disclosure practices, and subjected the integrated annual report to various quality reviews. • We held transition meetings with the predecessor auditor on holding and component level, as well as performed a review on their audit file to rely on the opening balance sheet work done by them. <p>Observation</p> <p>Following these procedures, we believe that we obtained sufficient and appropriate audit evidence that mitigated the pervasive risk on our first year audit engagement</p>

Report on the other information included in the integrated annual report

In addition to the financial statements and our auditor's report thereon, the integrated annual report contains other information that consists of the:

1. Director's Report, consisting of:
 - About TenneT;
 - About our connection with our stakeholders and the world around us;
 - Our Performance in 2020; and
 - Governance and risk management;Supervisory Board Report.
2. Other Information as required by Part 9 of Book 2 of the Dutch Civil Code.
3. Other information included in the integrated annual report.

Based on the following procedures performed, we conclude that the other information:

1. is consistent with the financial statements and does not contain material misstatements; and
2. contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

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

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of the other information, including the Director'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 appointed by the General Meeting as statutory auditor of TenneT Holding B.V. on 18 December 2019. The audit of the financial year 2020 is our initial audit engagement.

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.

European Single Electronic Format (“ESEF”)

The Commission Delegated Regulation (EU) 2019/815 of 17 December 2018, supplementing Directive 2004/109/EC of the European Parliament and of the Council with regard to regulatory technical standards on the specification of a single electronic reporting format, stipulates that the integrated annual report of the Company has to be prepared in an ESEF. The requirements to be met are set out in the aforementioned delegated regulation (the “RTS on ESEF”).

In our opinion, the integrated annual report made up in XHTML format, including the partly tagged consolidated financial statements as included in the reporting package by the Company, has been prepared in all material respects in accordance with the RTS on ESEF.

Management is responsible for preparing the integrated annual report including the financial statements in accordance with the RTS on ESEF, whereby management combines the various components in a reporting package. Our responsibility is to obtain reasonable assurance for our conclusion whether the integrated annual report in this reporting package, is in accordance with the requirements. We have taken into consideration what is stated in Alert 43 ‘Vaststellen dat voldaan is aan ESEF-vereisten’ as issued by The Royal Netherlands Institute of Chartered Accountants.

Our procedures included:

- obtaining an understanding of the Company’s financial reporting process, including the preparation of the reporting package;
- obtaining the reporting package and performing validations to determine whether the reporting package containing the Inline XBRL instance document and the XBRL extension taxonomy files have been prepared in accordance with the technical specifications; and
- examining the information related to the consolidated financial statements in the reporting package to determine whether all required tagging has been applied and whether they are in accordance with the RTS on ESEF.

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, and for the preparation of the Director’s Report in accordance with 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 scepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included e.g.:

1. 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.
2. 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.
3. Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
4. Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
5. Evaluating the overall presentation, structure and content of the financial statements, including the disclosures.
6. Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

We communicate with management and the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identified during our audit. In this respect we also submit an additional report to the audit committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.



From the matters communicated with the Supervisory Board, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Rotterdam, 8 March 2021

Deloitte Accountants B.V.

Signed by J.A. de Bruin

Assurance report of the independent auditor with respect to the 2020 Sustainability Information of TenneT Holding B.V.

To: the Shareholder and the Supervisory Board of TenneT Holding B.V.

Our conclusion

We have reviewed the 2020 sustainability information included in the Integrated Annual Report for 2020 (the “**Sustainability Information**”) of TenneT Holding B.V. (“**TenneT**”) based in Arnhem. A review is aimed at obtaining a limited level of assurance.

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

- the policy and business operations with regard to sustainability; and
- the thereto related events and achievements for the year 2020, in accordance with the reporting criteria as included in the section ‘Reporting Principles’.

The Sustainability Information consists of the performance information in chapters ‘2020 at a glance’, ‘Letter from the Board’, ‘About TenneT’, ‘Our Performance in 2020’ (excluding the sections ‘Secure a solid financial performance and investor rating’ and ‘Statements of the Executive Board’) and the section ‘About this report’ in the 2020 Integrated Annual Report.

Basis for our conclusion

We have performed our review on the Sustainability Information in accordance with Dutch law, including Dutch Standard 3810N ‘Assurance-opdrachten inzake maatschappelijke verslagen’ (Assurance engagements relating to sustainability reports) which is a specified Dutch Standard that is based on the International Standard on Assurance Engagements (ISAE) 3000 ‘Assurance Engagements other than Audits or Reviews of Historical Financial Information’. This assurance engagement is aimed at obtaining limited assurance. Our responsibilities under this standard are further described in the section ‘Our responsibilities for the review of the Sustainability Information’.

We are independent of TenneT in accordance with the ‘Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten’ (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in The Netherlands. This includes that we do not perform any activities that could result in a conflict of interest with our independent assurance engagement. Furthermore we have complied with the ‘Verordening gedrags- en beroepsregels accountants’ (VGBA, Dutch Code of Ethics).

We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Reporting criteria

The Sustainability Information needs to be read and understood together with the reporting criteria. TenneT is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

The reporting criteria used for the preparation of the Sustainability Information are the Sustainability Reporting Standards of the Global Reporting Initiative (“**GRI**”) and the applied supplemental reporting criteria as disclosed in the chapter ‘About the report’ of the 2020 Integrated Annual Report.

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

Limitations to the scope of our review

The Sustainability Information includes prospective information such as ambitions, strategy, plans, expectations and estimates. Inherent to prospective information, the actual future results are uncertain. We do not provide any assurance on the assumptions and achievability of prospective information in the Sustainability Information.

The references to external sources or websites in the Sustainability Information are not part of the Sustainability Information as reviewed by us. We therefore do not provide assurance on this information.

Responsibilities of the Executive Board and the Supervisory Board for the sustainability information

The Executive Board is responsible for the preparation of the Sustainability Information in accordance with reporting criteria as disclosed in the chapter 'Reporting Principles', including the identification of stakeholders and the definition of material matters. The choices made by the Executive Board regarding the scope of the Sustainability Information and the reporting policy are summarised in the chapter 'Our strategy and value creation' of the Integrated Annual Report.

The Executive Board is also responsible for such internal control as the Executive 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 reporting process of TenneT.

Our responsibilities for the review of the sustainability information

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

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

Misstatements can arise from fraud or errors and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users taken on the basis of the Sustainability Information. The materiality affects the nature, timing and extent of our review procedures and the evaluation of the effect of identified misstatements on our conclusion.

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

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

Our review included amongst others:

- Performing an analysis of the external environment and obtaining an understanding of relevant social themes and issues, and the characteristics of TenneT.
- Evaluating the appropriateness of the reporting policy and its consistent application, including the evaluation of the results of the stakeholders' dialog and the reasonableness of management's estimates.
- Obtaining an understanding of the reporting processes for the Sustainability Information, including obtaining a general understanding of internal control relevant to our review.
- Identifying areas of the Sustainability Information with a higher risk of misleading or unbalanced information or material misstatements, whether due to fraud or error.
- Designing and performing further assurance procedures aimed at determining the plausibility of the Sustainability Information responsive to this risk analysis. These procedures consisted amongst others of:
 - interviewing management, KPI owners and/or other relevant staff at corporate and business level 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; and determining the nature and extent of the review procedures for KPI's. For this, the nature, extent and/or risk profile of the KPI's are decisive. Based thereon we selected the KPI owners or other relevant who we will interview. Due to the COVID-19 travel restrictions during 2020 we were not able to execute the on-site visits. Consequently, we revised our strategy in which we performed the interviews and documentation inspection virtually. For selected KPI's we performed remote documentation inspections with the KPI owners that were intended with the goal to:
 - obtaining assurance information that the Sustainability Information reconciles with underlying records of TenneT;
 - reviewing, on a limited test basis, relevant internal and external documentation; and
 - performing an analytical review of the data and trends.
- Evaluating the consistency of the Sustainability Information with the information in the Integrated Annual Report which is not included in the scope of our review.
- Evaluating the presentation, structure and content of the Sustainability Information; Considering whether the Sustainability Information as a whole, including the disclosures, reflects the purpose of the reporting criteria used. Assessing whether the Sustainability Information has been prepared in accordance with the Sustainability Reporting Standards Core option of the GRI.

We communicated with the Executive and Supervisory Board regarding, among other matters, the planned scope, timing and outcome of the review and significant findings that we identified during our review.

Rotterdam, 8 March 2021

Deloitte Accountants B.V.

Signed by J.A. de Bruin

About this report

Scope of this report

The scope of this report is TenneT B.V. and the subsidiaries in which it has a controlling interest (generally speaking a voting interest of over 50%). For example, our 50% stake in BritNed and BritNed's activities are not included in our results. This integrated report covers the full year 2020, i.e. 1 January 2020 to 31 December 2020. TenneT's Integrated Annual Report 2020 was published on 12 March 2021 and is available [online](#).

The 2019 Annual Report was published on 12 March 2020.

In 2020, there were no significant acquisitions or divestments impacting our non-financial reporting. A complete overview of all the entities consolidated in this Integrated Annual Report can be found in [note 31 of the consolidated financial statements](#). Our reporting policy in the event of acquisitions or divestments can be found in Notes to the consolidated financial statements, 11 Business combinations. For non-financial performance we report acquisitions and divestments from the day of purchase or when an entity is sold respectively. We recognise that in the event of acquisitions, reporting improvements may be required which may result in data being estimated.

Reporting principles

Our non-financial qualitative and quantitative information is prepared according to the Global Reporting Initiative (GRI) Standards, following the in-accordance option: 'Core'. We also adhere to the sector guidelines for our industry (G4 sector disclosures - electric utilities). For more information, please refer to the reporting guidance document on our corporate [website](#).

The GRI context index, as included on our corporate website, shows which GRI aspects are material to TenneT and refers to those sections in the report describing this aspect. In addition, and in accordance with the policy on state-owned companies (*Nota Deelnemingenbeleid Rijksoverheid 2013*), TenneT complies with the Dutch Corporate Governance Code, as laid down in the Corporate Governance section of this report.

We have used the Integrated Reporting (IR) framework, as defined by the International Integrating Reporting Council (IIRC) as a basis for this integrated report. This allows us to be transparent about our impact as an organisation. The financial information in this report was prepared in accordance with IFRS, as adopted by the EU, and complies with Section 9 of Book 2 of the Dutch Civil Code.

Furthermore, our Integrated Annual Report complies with the EU directive on the disclosure of non-financial and diversity information, which was translated to Dutch legislation and has been mandatory for annual reports since 2017.

This report is also a Communication on Progress, i.e. an update on how we implement the 10 principles of the United Nations Global Compact (UNGC). We have endorsed these principles since 2015, not just to underline our own commitment, but also to drive CSR performance in the value chain. The UNGC principles are the basis of our TenneT Supplier Code of Conduct and mandatory for all suppliers. New suppliers who do not meet our standards during factory audits, are disqualified from our tender procedures. Our Communication on Progress document can also be found on our website.

In 2015, the UN launched the Sustainable Development Goals (SDGs). These goals are accepted worldwide as driving sustainability. The section in our integrated annual report '[The Sustainable Development Goals and TenneT](#)' describes our impact and the contribution we make to the SDGs that are most relevant to our business.

Stakeholders and materiality

In accordance with the applied reporting principles, this integrated report covers topics considered material to our organisation. TenneT uses the materiality principle to determine which subjects to include in the report and which activities and supply chain to take into account. Our corporate website (www.tennet.eu) includes additional information which was not considered material for integrated-reporting purposes. How we defined the material topics and the results of this assessment can be found in the materiality section. The fact that we report on selected topics does not mean we do not manage aspects that are not considered material to our business. Our activities and CSR policy are broader and are not limited to the outcome of the materiality analysis. For more detailed information, go to the [CSR section of our website](#).

In 2019, we performed our materiality analysis, which is performed on a bi-annual basis. This is based on a survey of stakeholders in which we ask them to provide their views on the importance of specific aspects included on the topic list. Furthermore, TenneT's economic, social and environmental impact was determined through internal analysis. This determines whether our impact per topic is either high, medium or low. This, together with the outcome of the stakeholder questionnaire, is the basis of the materiality analysis. This resulted in four key material topics: financial health, security of supply, stakeholder engagement and driving the energy transition. The materiality process is thoroughly embedded in the TenneT organisation. The final step in the validation process was the approval of the CSR board, which included both the CEO and CFO. After validation by the CSR board, the materiality analysis was completed and resulted in the following matrix.

Materiality



Subject

- | | | |
|--|--------------------------------------|----------------------------------|
| 1 Financial health | 6 Safety | 11 Driving the energy transition |
| 2 Security of supply | 7 Talent attraction | 12 (Cyber) security |
| 3 Our own environmental impact | 8 Responsible supply chain practices | 13 Accessibility of our grid |
| 4 Health and development of our people | 9 Stakeholder engagement | |
| 5 Diversity and inclusiveness | 10 Strategic partnerships | |

Scope and boundaries

The table below provides a clear overview of the material topics, their impact, our contribution and the boundaries. A detailed disclosure of our management approach on each material topic can be found in the CSR section of our website.



	Reference	Why material?	What is the impact?	What is our role?	What are the boundaries?	Key Performance Indicators (KPIs)	Targets/ambitions	Unit(s) responsible within organisation
Material topic								
Security of supply	Deliver a high security of supply	Our main task is to ensure security of electricity supply to over 42 million people across the Netherlands and Germany.	Electricity is the backbone of the economy of the countries we operate in.	We are responsible for maintaining a balance between supply and demand; we operate and manage the high-voltage grid.	We are responsible for transmission services. Production is the responsibility of producers, distribution lies with DSOs.	Security of supply: uptime in %	99.9999% grid availability onshore 93.97% grid availability offshore	Asset Management (AM) Large Projects departments (LPG), (LPN), (LPD), (LPO) System Operations (SO) Grid Field Operations, Maintenance & (Baseload) Projects (GFO)
Financial health	Have a solid financial performance and reputation	Having a solid financial performance and reputation will enable us to drive the energy transition against lower societal costs. We need to invest in onshore and offshore grid infrastructure to realise the energy transition over the next ten years, which includes additional investments in underground DC cables in Germany following the German government's decision hereon. Therefore it is important to carefully make the right investment decisions and to manage them properly to be sure we are doing the right things.	To finance our investments, we plan to increase our investment level up to EUR 5-6 billion per year within the next 5 years	We are responsible for realising the investment programme and living up to our stakeholders' expectations.	We are responsible for realising our investment portfolio. The investment programme is based on the task we are given by the Dutch and German governments.	Adjusted underlying EBIT group FFO/Net debt ROIC	EUR 3,080 million	Strategic Investment Committee Supervisory Board Business Guidance Corporate (BGD)
Stakeholder engagement	About TenneT	To drive the energy transition, we believe that partnerships are essential to transition to a low carbon economy in a better and faster way. Furthermore, we believe it is crucial to connect with local communities, NGOs and politicians at the earliest stage of a project to address their concerns and gain their understanding and acceptance.	There is increasing public attention with respect to the impact of climate change and with that the topic of transitioning to a low carbon economy. This can also impact the opposition to grid expansion, especially where new assets are concerned.	To enter into partnerships that can unlock new possibilities and to be honest, open and fair to all stakeholders involved.	The decision to expand the grid is taken by the Dutch and German governments. Executing our work and explaining the necessity of it is our responsibility.	Corporate reputation	Live up to our values (i.e. being responsible, engaged and connected) when addressing our stakeholders' concerns.	Public Affairs & Communications (PUC)
Drive the energy transition	Deliver a high security of supply, Solve societal challenges with stakeholders and through partnerships	With our knowledge, experience and vision with respect to the future energy landscape, we believe that we can serve society by helping to drive the energy transition in an effective and efficient manner.	National governments in the area we serve have committed themselves to national and international climate agreements. We are an important stakeholder to them to help realise this.	To lead as a green grid operator, be a thought leader in the energy transition, develop innovative instruments to unlock flexibility and establish a pivotal role in the energy data world to facilitate innovation.	Our boundaries with respect to leading as a green and responsible grid operator are not restricted to our own organisational boundaries. We strive to also consider our impact in our supply chain. For our Carbon emissions we consider not only our scope 1 and scope 2, but we have also started with identifying scope 3 emissions.	Carbon footprint Amount of GWh of offshore capacity realised	Live up to our values (i.e. being responsible, engaged and connected) when addressing our stakeholders' concerns	Large Projects departments (LPG), (LPN), (LPD), (LPO) Digital & Process Excellence (DPE) Strategy and Partnerships (STP)

For most of our figures, our reporting focus is on our own operations, although we do take some aspects of the value chain into account in our carbon footprint and safety (TRIR). We recognise that reporting outside our gate (so-called 'value chain reporting') provides a better overview of our impact. We have therefore decided to include the impact of our offshore operations in our carbon footprint reporting.

EU Directive on Non-Financial and Diversity Information

Our annual report complies with the EU directive on non-financial reporting. The table below provides a clear overview of where the different aspects of this directive are reported.

	A description of the policies pursued, including due diligence.	The outcome of those policies.	Principle risks in own operations and within value chain.	How risks are managed.	Non-financial key performance indicators.
Topic					
Relevant social and personnel matters (e.g. HR, safety etc.)	Create a sustainable workplace				
	Create value to transition to a low carbon economy	Create value to transition to a low carbon economy	Create value to transition to a low carbon economy	Create value to transition to a low carbon economy	Create value to transition to a low carbon economy
	Solve societal challenges with stakeholders and through partnerships	Solve societal challenges with stakeholders and through partnerships	Solve societal challenges with stakeholders and through partnerships	Solve societal challenges with stakeholders and through partnerships	Solve societal challenges with stakeholders and through partnerships
Relevant Environmental matters (e.g. climate-related impacts)	Create value to transition to a low carbon economy	Create value to transition to a low carbon economy	Create value to transition to a low carbon economy	Create value to transition to a low carbon economy Climate related risks	Create value to transition to a low carbon economy
Relevant matters with respect for human rights (e.g. labour protection)	Ensure critical infrastructure for society				
			Create value to transition to a low carbon economy	Create value to transition to a low carbon economy	
Relevant matters with respect to anti-corruption and bribery	Governance and risk management, Risk management and internal control, compliance and integrity	Governance and risk management, Risk management and internal control, compliance and integrity	Governance and risk management, Risk management and internal control, compliance and integrity	Governance and risk management, Risk management and internal control, compliance and integrity	Governance and risk management, Risk management and internal control, compliance and integrity

	A description of the policies pursued.	Diversity targets	Description of how the policy is implemented	Results of the diversity policy
Topic				
Insight into the diversity (executive board and the supervisory board)	Create a sustainable workplace Supervisory Board report, Diversity and culture	Create a sustainable workplace Supervisory Board report, Diversity and culture	Create a sustainable workplace Supervisory Board report, Diversity and culture	Create a sustainable workplace Supervisory Board report, Diversity and culture

Data collection process

The reported data is obtained from financial and non-financial data management systems in our own operations, such as IFS and SAP for financial and HR data, Mecoms for our electricity transport data, and iTask for our safety data. The key non-financial qualitative and quantitative data is included in the regular planning and control cycles and reported internally at least once a quarter by the Business Guidance department which performs a check on the quality and reliability of the data. TenneT's Executive Board and senior management contribute to the context of the report and the quantitative data.

The definitions and calculations used are disclosed in the abbreviations and definitions section of this integrated report and in the CSR section of our corporate website. The definitions and calculations used were re-assessed based on such things as process improvements, further alignment within the group and the materiality analysis. As a result, certain originally reported comparative figures were re-classified to conform to the current year's presentation.

The data for this report was measured, and where no data was available, it was estimated. An example of this is the energy use at some of our smaller offices. Due to the nature and maturity level of non-financial data, we acknowledge that it is a journey to fully align this with the level of financial systems and processes. Therefore, improvements can be made over time with the aim to provide our stakeholders better and more relevant information. That is why 100% completeness and accuracy of our data cannot be guaranteed as processes may be subject to a higher degree of manual data collection.



External assurance

The financial statements included in this report are subject to an independent external audit and TenneT's non-financial reporting is subject to a limited assurance review. These were both conducted by our external auditor, Deloitte Accountants B.V. Reliable data is essential in our dialogue with stakeholders, so we decided to have our non-financial data reviewed by an external assurance provider. We have requested Deloitte to review the Integrated Annual Report sections 'At a Glance', 'Letter from the Board', 'About TenneT' and 'Our Performance in 2020' (excluding 'Have a solid financial performance and reputation' and 'Statements of the Executive Board') in accordance with the GRI Standards and audit the financial statements in accordance with IFRS as adopted by the EU and Part 9 of Book 2 of the Dutch Civil Code.

Governance of CSR

For TenneT, CSR covers a broad range of subjects, all aimed at creating a sustainable future for our internal and external stakeholders. CSR is embedded in our current strategy. We have set clear priorities, targets and key performance indicators in this. For some areas we are currently developing new or updating key performance indicators. On an overall level, our Executive Board is responsible for our strategy and company target setting, which includes the areas with respect to CSR. Our Strategy and Partnerships department, is mandated by the Executive Board to make decisions based on the CSR areas in our overall strategy and to execute studies for future ambitions with respect to CSR. In case new decisions and directions, this will be approved by the relevant decision committee within our organisation depending on the topic (Future Design, Asset, Integrated Work Planning or Systems & Market committee).

Progress with respect to our CSR policy and actions is reported and reviewed by our Executive Board and Supervisory Board on a quarterly basis.



SWOT Analysis

<p>Strengths</p> <p>High level of security of supply</p> <p>Attractive employer with, competent, well educated and experienced employees with high degree of engagement</p> <p>Broad experience as a leading (North Sea) offshore grid operator</p> <p>First cross border TSO in Europe and a favorable corporate reputation amongst stakeholders</p> <p>Proven track record in leading European market integration in North West Europe</p> <p>Strong financial health with strong credit ratings</p>	<p>S</p>	<p>Weaknesses</p> <p>Suboptimal performance culture (bureaucratic internal processes and decision making procedures)</p> <p>Transport capacity reaching it's limits in certain areas in NL due to high influx of renewable energy</p> <p>Aging assets</p> <p>Scarcity in availability of technical staff</p>	<p>W</p>
<p>Opportunities</p> <p>Green deal and increase in decarbonisation targets (40% to 55%)</p> <p>New (digital) technologies for better maintenance and a smarter grid</p> <p>Strong growth in electrification of industry</p> <p>System integration / sector coupling (a.o. hydrogen)</p> <p>Elections in NL and GE and new energy act</p>	<p>O</p>	<p>Threats</p> <p>Growing infeed of volatile renewable energy</p> <p>Insufficient public acceptance of new infrastructure and rising cost of the energy transition</p> <p>Prolonged lock down and a result of covid-19</p> <p>Supplier shortages and lack of technical staff possibly leading tot project delays</p> <p>Negative developments in the regulatory framework, growing regulatory interventions</p> <p>Growing and evolving cyber security threat landscape</p>	<p>T</p>



Company addresses

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TenneT Brussels

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Key figures: five-year summary

(based on underlying figures)

	2020	2019	2018	2017	2016
Net debt	14,003	10,815	8,712	7,687	7,347
Underlying EBIT group	910	768	853	897	834
Underlying profit for the year	516	401	450	531	523
Investments in tangible fixed assets	3,412	3,012	2,212	1,763	1,848
Onshore grid availability	99.9999%	99.9998%	99.9988%	99.9986%	99.9999%
Interruptions	3	14	17	11	6
Interconnectors	16	15	14	13	13
Internal headcount	4,321	3,768	3,409	3,187	3,040

Glossary

2 GW project

To realise such an innovative direct current system, TenneT launched the design phase with five HVDC suppliers on the basis of an innovation partnership: ABB Power Grids, GE Renewable Energy's Grid Solutions (Netherlands), Consortium Global Energy Interconnection Research Institute Co. Ltd. (GEIRI) & C-EPRI Electric Power Engineering Co. Ltd. (C-EPRI) (China), Siemens (Germany), and Xian Electric Engineering Co., Ltd (China). These suppliers will develop this innovative 2 GW 525 kV HVDC solution based on criteria set by TenneT. They will provide specific information on this to Iv-Offshore&Energy b.v., which is carrying out the Front-End Engineering Design (FEED) study on behalf of TenneT. On this basis, a standardised platform design will be developed for all HVDC solutions.

ABP – Algemeen Burgerlijk Pensioenfonds

ABP is the civil service pension fund for government, education and energy employees in the Netherlands.

AC – Alternating current

In alternating current (AC), the flow of electricity periodically reverses direction. By contrast direct current (DC), electricity only flows in one direction. AC is used to transport electricity over relatively shorter distances and DC longer ones.

ACER – Agency for the Cooperation of Energy Regulators

The European network organisation for energy regulators. It has a key role in the integration of European electricity and gas markets, providing a framework for cooperation at EU level and regulatory certainty.

ACM – Autoriteit Consument & Markt

Dutch national regulatory authority

Adjusted FFO – Adjusted funds from operations

Profit for the year plus depreciation, amortisation and impairments minus gain/loss on the disposal of assets minus capitalised interest on assets under construction, plus interest on provisions, minus 50% of Hybrid interest.

Adjusted FFO/net debt

Adjusted funds from operations divided by net debt.

Balance Responsible Parties

A market party that is recognised as, and is permitted to exercise, Programme Responsibility by TenneT.

Blockchain

The digital process of verifying and documenting the performance of distributed flexible devices. Blockchain is suited to connecting multiple parties and large numbers of distributed computed nodes and enabling them to undertake joint action in a scalable, transparent and trusted network.

BNetzA – Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen

German national regulatory authority

BritNed

The 260 km-long high-voltage direct current BritNed cable has a capacity of 1,000 MW and connects the Dutch and British electricity grids.

Capex – Capital expenditure

Capital expenditure (capex) is the amount spent on acquiring or improving long-term assets. Its benefits are enjoyed over a long period time, not only in the current year. Capex is of a non-recurring nature and results in the acquisition of permanent assets.

Carbon footprint

The total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide (CO₂).

CEP – Clean Energy Package

On 30 November 2016, the European Commission published its long-anticipated 'Clean Energy for All Europeans' package, more commonly referred to as the 'Winter Package', consisting of numerous legislative proposals together with accompanying documents, aimed at further completing the internal market for electricity and implementing the Energy Union.

CGU – Cash-generating unit

A cash-generating unit is the smallest group of assets that independently generates cash flow and whose cash flow is largely independent of the cash flows generated by other assets.

CIGRE – International Council on Large Electric Systems

Founded in 1921, CIGRE, the Council on Large Electric Systems, is an international NGO for promoting collaboration with experts from all around the world by sharing knowledge and joining forces to improve electric power systems of today and tomorrow.

CIP – Copenhagen Infrastructure Partners

Copenhagen Infrastructure Partners is a fund management company that is joined between four senior partners and PensionDenmark.

CO₂ – Carbon dioxide

Carbon dioxide is a greenhouse gas formed by the burning of carbon-based fuels. Its concentration in the atmosphere is rapidly increasing, leading to global warming.

COBRAcable

A 275 km-long high-voltage direct current cable that is under construction to connect the Dutch and Danish electricity grids. It will have a capacity of 700 MW.

COSO – Committee of Sponsoring Organisations of the Treadway Commission

COSO has established the common internal control model against which companies and organisations assess their control systems.

CP programme – Commercial paper programme

A commercial paper is a flexible short-term debt instrument that is issued directly to the market with different maturities and is offered continuously.

CPI index

A consumer price index measures changes in the price level of a weighted average market basket of consumer goods and services purchased by households.

CSR – Corporate social responsibility

Corporate social responsibility relates to the socially responsible business practices of a company, balancing people, planet and profit.

CSR Board

Former board which was established to monitor progress on the CSR Ambition plan and advised the Executive Board on the integration of CSR into the business. The CSR board, was chaired by the CSR manager and included the CEO, CFO and senior managers from Asset Management, Large Projects, Communication, Public Affairs and Finance. For more information on the new governance structure of CSR, refer to the 'Governance of CSR' section on page 171.

Cross-border TSO

A cross-border TSO is a TSO that operates in more than one country

CTA - Contractual Trust Arrangements

A contractual trust arrangement is essentially a form of company pension fund where the fund's assets have been transferred to a legal entity separate from the company.

DBO - Defined Benefit Obligation

A defined benefit obligation pension plan is a type of pension plan in which an employer/sponsor promises a specified pension payment, lump-sum or combination thereof on retirement that is predetermined by a formula based on the employee's earnings history, tenure of service and age, rather than depending directly on individual investment returns.

DC – Direct current

In direct current (DC), the flow of electricity is only in one direction. In alternating current (AC), the electricity flows periodically reverses direction. DC is used to transport electricity over relatively longer distances and AC over shorter ones.

DGUV – Deutsche Gesetzliche Unfallversicherung

The DGUV (German Social Accident Insurance) is the umbrella association of the accident insurance institutions for the industrial and public sectors (the BGs and the public-sector accident insurers respectively).

DMAIC – Define, Measure, AnalySe, Improve and Control

DMAIC is the problem-solving methodology behind Lean Six Sigma. It consists of five Phases: Define, Measure, Analyse, Improve and Control.

DSO – Distribution system operator

A regional electricity distribution company, that is connected with end users and is responsible for providing (1) power distribution services, by constructing and maintaining a robust high-voltage grid, and (2) facilitating a smooth functioning, liquid and stable electricity market.

E-wet – Elektriciteitswet 1998

The Dutch electricity law.

EBIT – Earnings before interest and tax

Earnings for the period before income tax expense and interest payments are deducted.

EBITDA – Earnings before interest, tax, depreciation and amortisation

Earnings for the period before income tax expense, interest payments depreciation and amortisation are deducted.

EC – European Commission

The European Commission is the executive of the European Union and promotes its general interest.

ECL - Expected Credit Loss

Expected Credit Loss is the probability-weighted estimate of credit losses (i.e., the present value of all cash shortfalls) over the expected life of a Financial Instrument.

EEG – Erneuerbare-Energien-Gesetz

German Renewable Energy Act, designed to govern the preferred supply of electricity from renewable sources into the grid with guaranteed, fixed minimum producer prices. It is intended to serve and protect the climate and is one of several statutory provisions aimed at reducing Germany's dependence on fossil fuels such as oil, natural gas or coal, and nuclear power.

EIB – European Investment Bank

The European Investment Bank is one of the key financial institutions of the EU. It is the only bank owned by and representing the interests of the EU member states, providing financing for sustainable investment projects that contribute to furthering EU policy objectives.

EIR - Effective Interest Rate

The effective interest rate is the interest rate on a loan or financial product restated from the nominal interest rate and expressed as the equivalent interest rate if compound interest was payable annually in arrears.

EMTN – Euro medium-term note

A flexible medium-term debt instrument that is issued directly to the market with different maturities and is offered continuously rather than all at once like a bond issue.

Energinet

Energinet is the Danish TSO that TenneT is partnering with to build the COBRACable between the Netherlands and Denmark. Energinet.dk is also participating in the development of the North Sea Wind Power Hub.

ENTSO-E – European Network of Transmission System Operators for Electricity

ENTSO-E is the organisation of transmission system operators at a European level, representing 41 TSOs from 34 countries. Its mission is to promote important aspects of energy policy, especially integrating renewable energy and the completion of an internal energy market.

Equigy B.V.

Together with TenneT (Germany and the Netherlands), Swissgrid (Switzerland) and Terna (Italy), four of the largest European transmission system operators are now jointly developing a cross-border blockchain platform - Equigy. This will enable millions of European households and owners of e.g. electric vehicles to actively offer the flexible capacity of their cars and house batteries on the energy markets to stabilise the electricity system and thus earn money from the energy transition.

EU – European Union

The European Union (EU) is a political-economic union of 28 member states located in Europe.

FCR – Frequency containment reserve

Frequency containment reserves are the active power reserves available to contain a system frequency of 50 Hz after the occurrence of an imbalance.

Flexumers

Energy consumers simultaneously acting as producers

FTE – Full-time equivalent

Full-time equivalent is a unit that measures work by converting work load hours into the number of people required to complete that task.

Gasunie – N.V. Nederlandse Gasunie

Gasunie is a European gas infrastructure company that transports natural gas and green gas in the Netherlands and the northern part of Germany. Gasunie is participating in the development of the North Sea Wind Power Hub.

GDPR – General Data Protection Regulation

The General Data Protection Regulation (EU) 2016/679 ("GDPR") is a regulation in EU law on data protection and privacy for all individuals within the European Union (EU) and the European Economic Area (EEA). It also addresses the export of personal data outside the EU and EEA areas.

GIS – Gas insulated switchgear

A switchgear insulated via SF₆ gas.

Green (hybrid) bonds

The proceeds of the green bonds are used to finance, refinance and/or invest in projects relating to the transmission of renewable electricity from offshore wind power plants into the onshore electricity grid using direct current technology or alternating current technology. Green hybrid bonds are perpetual bonds without an end-date.

GRI – Global Reporting Initiative

The Global Reporting Initiative is a non-profit organisation that promotes sustainability and produces global standards for sustainability reporting.

GW – Gigawatt

A unit of power equal to one billion watts.

GWh – Gigawatt hour

A unit of energy equivalent to delivering one billion watts of power for a period of one hour.

Helaba – Helaba Pension Trust e.V.

Helaba Pension Trust e.V. is a subsidiary of German bank Landesbank Hessen-Thüringen and holds a part of the assets of the German pension plan.

HGRT – Holding des Gestionnaires de Réseaux de Transport d'Électricité S.A.S.

Holding des Gestionnaires de Réseaux de Transport d'Électricité S.A.S. is a holding company of EPEX SPOT power exchange.

HR – Human resources

Our HR department aims to make a distinctive contribution to TenneT's position as a leading TSO by attracting, recruiting and retaining qualified staff, as well as by creating a healthy and stimulating working environment.

HVDC – High-voltage direct current

A high-voltage, direct current system can transmit bulk electricity over longer distances than an alternating current system and with lower grid losses. As such, HVDC is used for linking offshore wind farms to the onshore grid and for our Interconnectors NorNed to Norway, BritNed to the UK and COBRACable to Denmark and NordLink to Norway.

IAS - International Accounting Standards

International Accounting Standards (IAS) are older accounting standards issued by the International Accounting Standards Board (IASB), an independent international standard-setting body based in London. The IAS were replaced in 2001 by International Financial Reporting Standards (IFRS).

ICF – Internal control framework

Framework for the set of internal controls, to provide reasonable assurance on the reliability of our internal and external reporting.

IFRIC - International Financial Reporting Interpretations Committee

IFRIC Interpretations are developed by the IFRS Interpretations Committee (previously the International Financial Reporting Interpretations Committee, IFRIC) and are issued after approval by the International Accounting Standards Board (IASB).

IFRS – International Financial Reporting Standards

The internationally prescribed and recognised reporting guidelines.

IIRC – International Integrated Reporting Council

The International Integrated Reporting Council (IIRC) is a global coalition of regulators, investors, companies, standard setters, the accounting profession, academia and NGOs. The coalition promotes communication about value creation as the next step in the evolution of corporate reporting.

Inbound / outbound flows of TenneT

Inbound flows are the amount of electricity in GWh transported from connected grids into our grid via the interconnections. Outbound flows are the amount of electricity in GWh transported from our grid via the interconnections to connected grids.

JAO – Joint Allocation Office

The merger of regional auction offices CASC.EU and CAO in June 2015 created the Joint Allocation Office for cross-border electricity transmission capacity; JAO is a collaboration of 20 TSOs from 17 European countries. It significantly increases the efficiency and transparency of the European electricity market, creating a single point of contact for market participants with harmonised auction rules that simplify trading and promises substantial savings to TSOs in the coming years.

KfW – Kreditanstalt für Wiederaufbau

KfW is the Reconstruction Credit Institute development bank owned by the German government.

kV – kilovolt

A unit of electric voltage equal to 1,000 volts.

KWK-G – Kraft-Wärme-Kopplungs-Gesetz

The German Combined Heat and Power Act.

LEAN

The core idea of LEAN is to maximise customer value while minimising waste. Simply, LEAN means creating more value for customers with fewer resources. The principles of LEAN were developed by the Japanese car manufactory Toyota.

LoR – Letter of Representation

A Letter of Representation is signed by the management of the Group and/or performance unit to attest to the accuracy of the financial statements.

MIGRATE – Massive InteGRation of power electronic devices

The MIGRATE research programme seeks to develop solutions to technical issues

Moody's

Moody's Investors Service provides credit ratings, research, and risk analysis.

MW – Megawatt

A unit of power equal to one million watts.

MWh – Megawatt hour

A unit of energy equivalent to delivering one million watts of power for a period of one hour.

Net debt

Gross debt minus cash and cash equivalents at free disposal plus lease liabilities plus net employee defined benefit obligation plus 50% of hybrid securities.

Netbeheer Nederland

Netbeheer Nederland is the association in the energy sector representing the interests of national and regional electricity and gas network operators in the Netherlands.

NEN

NEN is a Dutch non-profit organisation that supports the standardisation process in the Netherlands.

NGO – Non-governmental organisation

A non-governmental organisation is a voluntary citizens' group that is neither a government initiative nor a conventional for-profit business.

NOKA – DC Nordseekabel GmbH & Co. KG

NOKA is jointly owned by TenneT and German development bank KfW. It is responsible for financing and building the German part of the NordLink cable.

NorNed

NorNed is a 580-kilometre long high-voltage direct current submarine power cable between Fedra in Norway and the seaport of Eemshaven in the Netherlands, which interconnects both countries' electrical grids.

NordLink

TenneT is jointly developing the NordLink interconnector with its project partners, the Norwegian TSO Statnett and German development bank KfW. With an overall transmission capacity of 1,400 MW, the subsea cable will run between Tonstad in the South of Norway and Wilster in Northern German.

NOVI – Nationale Omgevingsvisie

The Netherlands' new Environment and Planning Act comes into effect in 2021, part of which is a single national roadmap for the living environment called the 'National Omgevingsvisie'.

NWb – WENB Sector Energie NWb

NWb is a Dutch NGO for employers in the energy sector.

NSWPH – North Sea Wind Power Hub

The consortium of the North Sea Wind Power Hub programme has joined forces to realize climate goals. The consortiums work is based on research, stakeholder interaction and experience from earlier projects. Partners in the consortium are Energinet, Gasunie and TenneT.

OCI - Other comprehensive Income

Other comprehensive income comprises items of income and expense (including reclassification adjustments) that are not recognised in profit or loss as required or permitted by other IFRSs.

OECD – Organisation for Economic Co-operation and Development

The Organisation for Economic Co-operation and Development is an intergovernmental economic organisation with 36 member countries, founded in 1961 to stimulate economic progress and world trade.

Oekom

Oekom research AG is a sustainability rating agency and external assessor for benchmarking CSR reports.

Opex – Operational expenditure

Operating expenditure (opex) is the expense that a company incurs as a result of its normal business operations.

OWF – Offshore wind farm operators

Offshore wind farms are constructed in bodies of water to generate electricity from wind.

PCI – Projects of Common Interest**PROMOTiON – Progress on Meshed HVDC Offshore Transmission Networks**

A leading European research programme that will result in an offshore grid development plan for 2020 and beyond

RCF – Revolving credit facility

A line of credit where TenneT pays a commitment fee and can then use the funds as and when needed.

RES – Renewable Energy Sources

All sources of renewable energy including sunlight, wind, tides, waves, biomass and geothermal heat.

RGI – Renewables Grid Initiative

The Renewables Grid Initiative is a unique collaboration of NGOs and TSOs from across Europe. It promotes transparent, environmentally sensitive grid development to enable the further steady growth of renewable energy and the energy transition.

ROIC – Return on invested capital

Underlying EBIT Group expressed as a percentage of the average underlying equity plus loans and bank overdrafts minus cash at free disposal.

S&P – Standard & Poors

Standard & Poors provides credit ratings, research, and risk analysis.

SASB – Sustainability Accounting Standards Board

The Sustainability Accounting Standards Board is a nonprofit organisation that sets financial reporting standards. SASB was founded in 2011 to develop and disseminate sustainability accounting standards.

SCL – Safety Culture Ladder

TenneT uses the Safety Culture Ladder (SCL) as a tool to increase safety awareness and enhance safety culture, not only within our own organisation but also for our contractors. The Safety Culture Ladder is a requirement in the selection phase of a tender as described in the 'Safety by Contractor Management' programme.

SDG – United Nations Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. The 17 aspirational 'global goals' with 169 targets between them were adopted by all UN Member States in 2015, as part of the 2030 Agenda for Sustainable Development which set out a 15-year plan to achieve the Goals.

SF₆ – Sulphur hexafluoride

An inorganic, colourless, odourless and non-flammable greenhouse gas that is used in the electricity industry to insulate high-voltage circuit breakers, switchgear and other electrical equipment.

SHE – Safety, Health & Environment

SHE is the set of activities relating to safety, health & environment.

SIC - Standard Interpretation Committee

SIC Interpretations were previously issued by the Standard Interpretations Committee (SIC), and were subsequently endorsed by the International Accounting Standards Board (IASB). The IFRS Interpretations Committee has reissued Interpretations in this series if it considers it necessary.

SINTEG – Schaufenster Intelligente Energie

With the SINTEG funding programme, the Federal Ministry for Economic Affairs and Energy (BMWi) aims to carry out a large-scale practical test for the energy supply of the future and the digitisation of the energy sector.

SLA – Service level agreement

A service-level agreement is an agreement between two or more parties, where one is the customer and the others are service providers.

SuedLink

A DC connection to transport electricity generated in the north of Germany to the South.

SuedOstLink

A DC connection to transport electricity generated in north of Germany to the South-East.

Sustainalytics

Sustainalytics is a sustainability ratings agency and external assessor for benchmarking CSR reports.



TransnetBW

One of the four German TSOs

TRIR – Total recordable incident rate

The total recordable incident rate is the number of total recordable incidents per million hours worked. Recordable incidents are fatalities, lost work day cases, restricted work day cases and medical treatment cases.

TSCNET

TSCNET Services is one of Europe's Regional Security Coordinators (RSCs). The company based in Munich, renders integrated services for power transmission system operators (TSOs) and their control centres to maintain the operational security of our electricity system – 24 hours a day, seven days a week.

TSO – Transmission system operator

A transmission system operator transports electricity at national or regional level from producers to distributors. A TSO is responsible for providing (1) power transmission services, by constructing and maintaining a robust high-voltage grid, (2) system services, by maintaining the balance between supply and demand of electricity 24/7 and (3) facilitating a smooth functioning, liquid and stable electricity market.

UN – United Nations

An international organisation formed to promote international peace, security, and cooperation under the terms of the charter signed by 51 founding countries in San Francisco in 1945.

UNGC – United Nations Global Compact

A call from the UN to companies to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance societal goals.

VKE – Versorgungskasse Energie VVaG

Versorgungskasse Energie VVaG is pension fund for energy mutuals and a subsidiary of E.ON SE. It holds a part of the assets of the German pension plan.

WACC – Weighted average cost of capital

The WACC is the rate that a company is expected to pay on average to all its capital providers to finance its assets.

XLPE – High-voltage cross-linked polyethylene

XLPE is a very good insulation in terms of electrical properties. XLPE has very high insulation resistance, a stable dielectric constant over all frequencies, and a low dielectric constant.

TenneT is a leading European grid operator. We are committed to providing a secure and reliable supply of electricity 24 hours a day, 365 days a year, while helping to drive the energy transition in our pursuit of a brighter energy future – more sustainable, reliable and affordable than ever before. In our role as the first cross-border Transmission System Operator (TSO) we design, build, maintain and operate 23,900 km of high-voltage electricity grid in the Netherlands and large parts of Germany, and facilitate the European energy market through our 16 interconnectors to neighbouring countries. We are one of the largest investors in national and international onshore and offshore electricity grids, with a turnover of EUR 4.5 billion and a total asset value of EUR 27 billion. Every day our 5,700 employees take ownership, show courage and make and maintain connections to ensure that the supply and demand of electricity is balanced for over 42 million people.

Together, we are lighting the way ahead

TenneT Holding B.V.

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