

# Empowering society

**Integrated Annual Report 2016**

Tennet Holding B.V.





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

# 2016 at a glance

## Society

Grid availability in both the Netherlands and Germany was maintained at high levels throughout 2016. TenneT made great efforts to the open and transparent public consultations on new projects, such as the Suedlink and SuedOstLink power lines in Germany. Following the German parliament's decision to go for underground cabling, TenneT has been drawing up new power line corridors for SuedLink, making it the longest underground power line ever constructed and operated. In the Netherlands, the updated routing document for the eastern part of South-West 380 kV was well received, allowing next steps to be taken in 2017.



Customer satisfaction

**86%**



## Markets

TenneT was appointed as developer and operator of offshore grid connections in the Dutch part of the North Sea. Looking ahead, in June TenneT presented its long-term vision for developing a large-scale energy system in the North Sea to further support the transition of the North West European (NWE) energy market towards achieving the 2050 global warming reduction targets. At the heart of TenneT's vision is the construction of an artificial island in the middle of the North Sea that will connect remote wind energy to a variety of European consumers.

## Environment

In April, TenneT signed the Green Deal Infranatuur, underlining our commitment to biodiversity in the Netherlands. As a signatory to this deal, we are committed to sharing our experience and knowledge, with the aim of reducing the impact of the Dutch grid infrastructure on biodiversity.





**Employees**

TenneT's ambition on safety performance was under pressure in 2016 with the occurrence of a fatal accident with one of our contractors and increase of our Lost Time Incidents Frequency (LTIF) rate. We deeply regret this and are committed to stepping up our efforts of becoming a safety leader. The introduction of Life Saving Rules for our employees and contractors is one of the measures we have taken towards strengthening safety awareness and improving our safety culture.

**Financial**

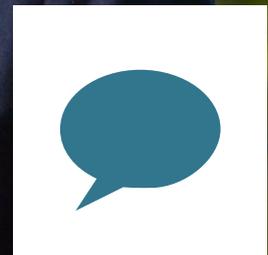
In order to finance TenneT's significant capital-investment programme, we successfully completed a EUR 500 million green Schuldschein issue in May and, additionally, issued a total of EUR 1.5 billion of green bonds in 2016. Furthermore, TenneT's shareholder, the Dutch State represented by the Ministry of Finance, committed to contributing up to EUR 1,190 million of additional equity capital over the 2017-2020 period.



# Letter from the CEO



**Mel Kroon**  
CEO and Chair of the Executive Board



Empowering society is at the heart of TenneT's mission, as we provide a secure electricity supply in the Netherlands and a large part of Germany. However, as electricity does not recognise geographical borders, we need to cooperate with neighbouring countries to maintain security of supply and facilitate the development of an integrated North West European (NWE) market.

Responding to demand from governments and society, Europe is shifting fast from fossil fuels to renewable energy sources such as wind and solar. This radical change demands a fundamentally redesigned energy system. Initially, fossil fuels and renewables will complement one another as sources of electricity, but at a later stage, society strives to rely on sustainable energy sources.

TenneT empowers society by working to ensure a reliable, uninterrupted energy supply now and in the future. Crucial to this is engaging with the public to build acceptance for the maintenance and expansion of the high-voltage electricity grid. This is essential to a successful energy transition, as we manage and maintain a challenging balance between traditional and renewable energy sources.

Our three core strategic priorities for the next five years are: to enhance the flexibility and resilience of our transmission system to ensure security of supply; to advance the use of data and analytics in order to facilitate flexibility in the market; and to drive the integration of the NWE electricity market with a focus on the Netherlands, Germany, and Belgium.

### Long-term vision

In order to enhance the flexibility and resilience of our transmission grid and to support the transition to renewable energy, we need to make large-scale investments in onshore and offshore grid infrastructure. We also need to help shift the public mindset away from the notion that energy must be consumed in the same country as it is produced. Cross-border connections are becoming increasingly important and TenneT's investments and expertise play a key role in the establishment of an integrated European energy market.

For example, in 2016, after years of planning, we have begun building the High-Voltage Direct Current (HVDC) submarine COBRACable from the Netherlands to Denmark and in 2015 the NordLink cable from Germany to Norway. Also, the construction of the Doetinchem-Wesel interconnector between the Netherlands and Germany is well underway.

A single, integrated NWE electricity market serves to the benefit of millions of end-users and is one of our strategic priorities. In the past few years, we moved from a country-by-country energy system to a cross-border balance of local/regional and international cooperation. Given the already well-functioning cooperation among transmission system operators, we do not see the need to transfer responsibility for the security of supply from the individual transmission system operators to a supra-national entity as suggested by the European Commission.

Our view that wind energy is becoming increasingly important is underlined by the long-term vision we unveiled last year for an 'energy island' in the North Sea. This island would create an energy hub connecting 70 gigawatts (GW) of wind energy for the Dutch, German, Belgian, British, Norwegian and Danish markets. We believe that using interconnectors to combine the transport of large-scale offshore wind – so-called 'wind connectors' – is the way forward, keeping offshore wind-generated energy prices level with those of onshore.

### Striking the balance

As cross-border TSO, we are developing our system operations departments to deal with the ever increasing international flows while at the same time facilitating national developments. We need to continue to invest in our operational systems as well as in our people to be future-proof and take our organisation to the next generation.

While we work to maintain security of supply and balance the flow of electricity from fossil fuels and renewable energy sources into the grid, we also need to account for the growing number of people generating and storing energy from solar panels, home batteries and charging stations for their electrical cars. These 'prosumers' create challenges in terms of organising transport and predicting the future balance of supply and demand, but also provide opportunities to enhance the balancing of supply and demand on the system.

Optimal market design will combine decentralised and centralised production, with a central data hub enabling the necessary flexibility of the grid and guaranteeing a level playing field for the rapidly growing number of market participants. This is why advancing the use of data and analytics is a core strategic priority for us. We have, for instance, successfully advocated for a new digitalisation law in Germany and are campaigning for new tasks in the Netherlands. At a consumer level, we are involved in pilots collecting data from electric car charging stations and cars that are en route.

The energy transition forces governments to decide what kind of electricity market they want: one driven by demand, or capacity. As a frontrunner in integrating large quantities of renewables into its energy supply, Germany faced this dilemma first. We have played a prominent role in discussing the future system there, and we are pleased the German government has stated that it will not introduce a classic capacity market and will move to one driven by market prices ('energy only'). We strongly believe in a price-driven system, as a capacity-driven system tends to be based largely on subsidies and, as such, stifles innovative generation, demand side response and storage solutions.

In the Netherlands, TenneT was appointed as developer and operator of offshore grid connections in the Dutch part of the North Sea. The Dutch government designated three zones for the development of new wind farms in the North Sea based on a price-based auction system which will substantially boost NWE renewable energy supply. TenneT recommended a standardised tender system for the auction of the first two wind energy areas, which was won by Denmark's DONG. We were pleased that this auction resulted in a, at the time, unprecedentedly low price level of 7.27 cents per kWh. This was a significant step forward and was soon to be followed by even lower prices (i.e. 5.45 cents per kWh for Borssele III and IV).

### Investment in innovation

Creating a complex energy infrastructure is by its nature a long-term project: it takes up to 10 years and sometimes even more to develop and build a transmission line that will be used for half a century. Yet the energy transition and technology are moving fast, and the coming decades are likely to produce many more technological developments.

We need to remain as flexible as we can, take up opportunities presented by the march of technological progress, and avoid investing heavily in concepts that further developments in technology could render obsolete. These objectives may result in difficult dilemmas.

Investment in innovation must serve a clear aim: ensuring long-term security of energy supply, at prices acceptable to consumers and in a controlled operational environment. Based on the Dutch energy law, the focus of the Dutch regulator is on low prices for end-users, but we should balance this with longer-term priorities, such as enabling the energy transition in a socially and economically acceptable manner. Achieving the 100% reliability for which we strive is not a given, and it requires continuous, long-term investment in infrastructure and innovation. Examples of our current innovation projects are [investigating higher-voltage cables \(i.e. 66 kilovolt \(kV\)\)](#), [pilots for providing primary reserve capacity by using alternative technologies](#) and [alternative cooling of our substations](#).

Similarly, redispatch measures and related costs have been rising steeply in Germany and the Netherlands due to the inflow of renewables and the growth of international flows. The necessity for these short-term measures we consider to be a risk for our long-standing priority of ensuring adequate supply as the related corrective actions – for example, expensively ramping down electricity production facilities – may be seen as inhibiting further integration of the markets.

### Empowering stakeholders

Society increasingly appreciates the need for the energy transition. The accompanying need for major changes to the grid has yet to gain widespread acceptance from the public and policymakers. This is why we work hard on dialogue with the people and communities that will be most affected by our projects. We take an open, collaborative approach and listen to people's concerns, help them understand how our projects benefit society, and devise solutions that are as acceptable as possible to them.

Safety – for customers, employees, and contractors – is a top priority. We were shocked and deeply saddened by the death of a contractor employed at a shared TenneT and Liander high-voltage substation in February 2016. Furthermore, the decline in our safety performance during 2016 has management's highest attention. To eliminate work-related incidents and accidents, we do our utmost to implement the learnings from past incidents.

Finally, I would like to thank our employees, who once again made sterling efforts in 2016 to ensure we keep on empowering society. None of what we achieved would be possible without their dedication and hard work.



**Mel Kroon**

CEO and Chair of the Executive Board

# About TenneT

## Profile



TenneT is a leading European electricity transmission system operator (TSO), with activities in the Netherlands and Germany. We are committed to achieve a reliable and uninterrupted supply of electricity through our high-voltage grid for some 41 million end-users. In doing so, we make every effort to meet our stakeholders' needs by being responsible, engaged and connected.

TenneT is a key player in the electricity supply chain. This chain consists of producers of electricity from both conventional and renewable fast-growing energy sources, grid companies that transmit electricity (including TenneT), electricity suppliers, customers (industrial and small-scale users) and prosumers (energy consumers acting as producers).

TenneT's high-voltage grid is connected to regional and local distribution grids managed by various other grid companies, so-called distribution system operators (DSOs). It is also directly connected to large industrial customers. For maps of our onshore and offshore high-voltage grid, [click here](#).

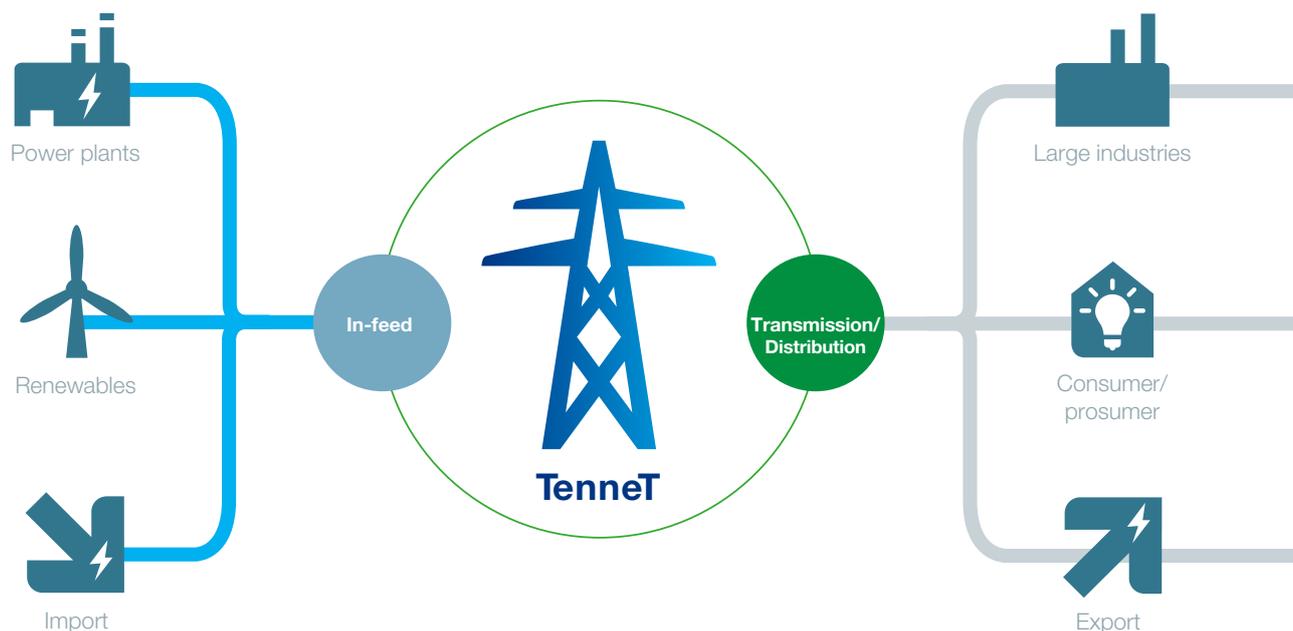
Nearly all of TenneT's activities are regulated and subject to relevant legislative and regulatory provisions in the Netherlands and Germany. Regulatory authorities Autoriteit Consument & Markt (ACM) and Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen (BNetzA) oversee TenneT's compliance with these provisions.

Our key tasks are based on our role as grid operator under the Dutch 'Elektriciteitswet' (E-wet) and the German 'Energiewirtschaftsgesetz' (EnWG). These key tasks are:

- To ensure a secure and continuous supply of electricity as the key objective of our operations.
- To provide transmission services by transporting electricity along the high-voltage grid from where it is produced to where it is consumed.
- To provide system services to guarantee the flow of electricity in the Netherlands and large parts of Germany
- To facilitate a smooth-running, liquid and stable electricity market and to support the large-scale transition to renewables.

In addition to these regulated activities, TenneT is involved in a limited number of non-regulated activities. These either help to ensure that the energy market operates smoothly and efficiently, or are ancillary to it. For a full overview of our group structure [click here](#).

## TenneT in the supply chain



### Our vision, mission and values

Our vision is that society has opted for the large-scale introduction of renewable energy, the generation of which has changed the dynamics of supply. At the same time, the dependence on electricity continues to increase, and this demands continuous reliability levels. To cope with these developments, the European electricity market needs to become more integrated. Sound market design, technical and operational innovation, storage solutions and adequate grid capacity are all required to continue to match supply and demand across borders.

Our mission as a leading TSO is to create stakeholder value by providing security of electricity supply in the markets we serve and by pursuing the development of an integrated and sustainable NWE electricity market.

Our core values of quality and integrity are unconditional principles that set out clear guidelines of our behaviour. These principles are embedded in our corporate culture to ensure that quality and integrity are the basis for everything we do. Our brand values of being responsible, engaged and connected are a promise to our stakeholders that underlines how we want to meet their needs and how we want to be perceived. For further information on our values, [click here](#).

## Our strategy

To succeed in our mission, to create stakeholder value, we formulated our strategic goals. Our overarching goal is to deliver value for our stakeholders. We aim to do this by:

## Strategic goals



Based on our mission and strategic goals, we have set seven strategic priorities which we believe will best help us realise these goals. The first three are 'core' priorities, while the other four are 'enabling' priorities.

### Enhance the flexibility and resilience of our transmission grid to ensure security of supply

To manage the rapid rise of renewable energy sources, improve our ability to balance power, ensure continuous voltage control and relieve grid congestion, we apply market-based solutions that improve supply and demand flexibility. We will also use software and possibly hardware solutions, such as developing storage technology.

### Advance the use of data and analytics

To gain insight into the renewables load feeding into the grid and improve our forecasting to ensure security of supply we are collecting and enriching electricity and electricity-related data, which will also help us drive market integration.

### Drive integration of the NWE electricity market, focusing on the Netherlands, Germany and Belgium

We work closely with other TSOs on various topics, including market design, market coupling and regional

security centres, to drive the further integration of the NWE electricity market.

### Anticipate and address what society wants and needs through dialogue and innovation

We actively engage with society and respond to society's needs and concerns with innovative developments such as transmitting electricity underground, dynamic line rating and high temperature super conductors.

### Maintain access to capital markets and equity capital

The size of our investment programme requires ongoing financing and, given the regulatory uncertainties, it also requires flexible access to equity.

### Pursue operational excellence

We maximise the efficiency of our capital expenditures (capex) and operational expenditures (opex) through smart investment solutions and keeping operating costs low.

### Pursue organisational excellence

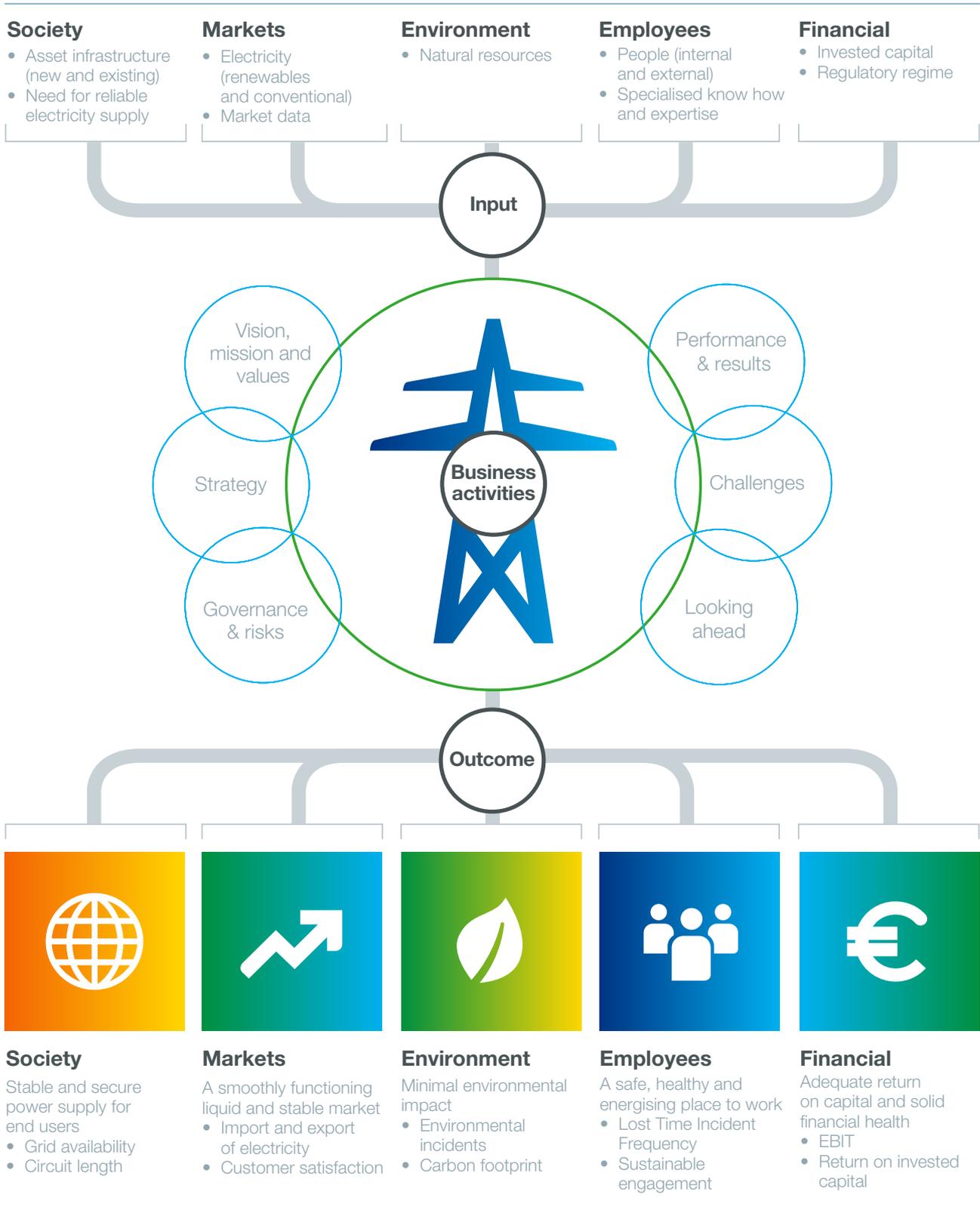
We do this through creating a performance culture, organisational flexibility and best-in-class safety performance.

**Business model and value creation**

The value creation model below summarises the input we use to achieve our strategic goals and the added value we

create through our main activities. This report is structured following the value creation flows shown in this model.

Value creation model



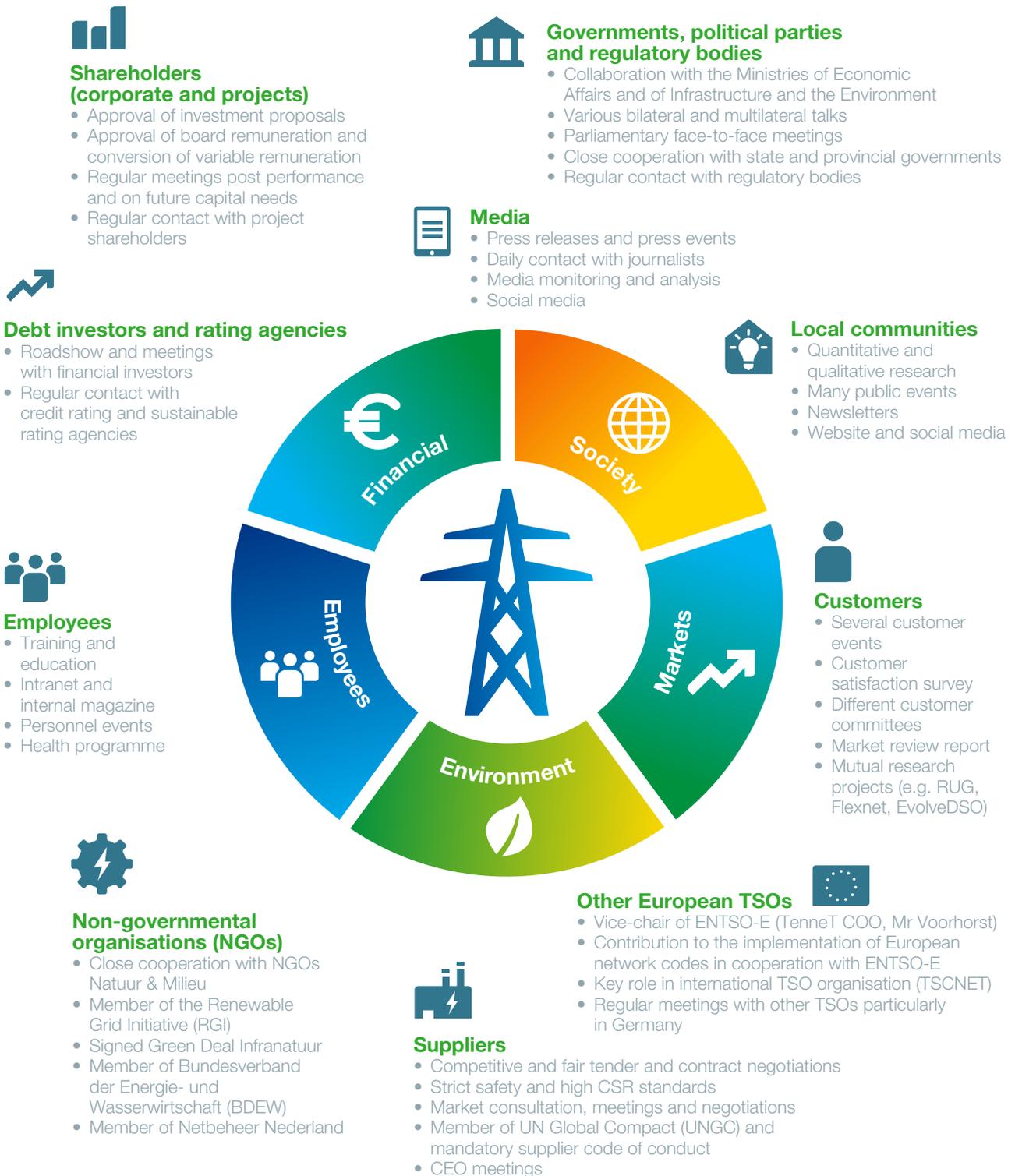
## Our stakeholders

TenneT's vital role in empowering society creates responsibility to a wide range of stakeholders such as our shareholder, the general public, non-governmental organisations (NGOs), politicians, regulators, investors, the media, our customers, other European TSOs, our suppliers and our employees. We take responsibility, engage with our stakeholders and connect with them to create value.

To create value for our stakeholders, we have to understand their expectations and needs. We do this by interacting with them regularly and transparently across various platforms. This year for example we launched a pilot among local communities where we started construction activities, to measure our reputation. We intend to do this at the start, in the middle and at the end of a project. This will give us an insight into what our stakeholder needs and expectations are and how we can improve what we say and do meeting stakeholder expectations.

We report our stakeholder activities in the [Executive Board](#) section of this integrated annual report in the same strategic areas (i.e. society, markets, environment, employees and financial) as the rest of the report because we view proactive engagement along our value chain as our responsibility. The [enclosure](#) of this integrated annual report also includes a summary of our stakeholder activities.

## Engagement with our stakeholders



### Materiality analysis for this report

Our dialogue with stakeholders helps us identify the topics they find most relevant. To define the content for this year's integrated annual report we assessed our interests and those of our stakeholders and analysed them based on the significant impact they had. A materiality analysis is fundamental to integrated reporting as it ensures we meet the level of transparency our stakeholders have the right to expect. The fact that we report on selected topics that are material to our business does not mean we do not manage other non-reported aspects. Our Corporate Social Responsibility (CSR) policy and activities are broader and are not limited to the outcome of the materiality analysis.

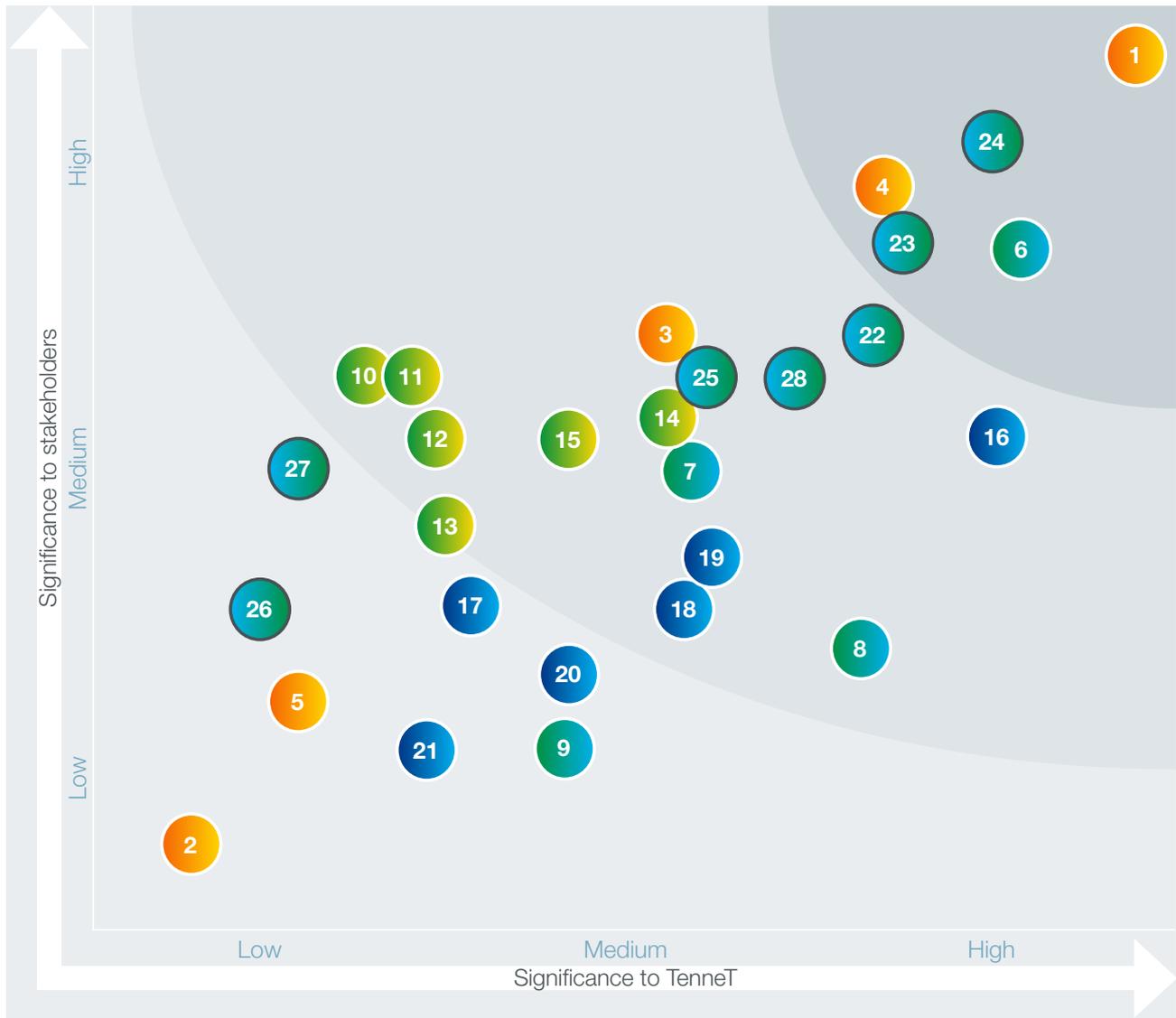
We conducted our materiality analysis according to the Global Reporting Initiative G4 (GRI) guidelines for sustainability reporting. We translated the generic aspects of GRI into topics relevant to TenneT, such as grid losses and community engagement.

We started the materiality assessment for this year's report with feedback from our stakeholders. We conducted in-depth interviews with TenneT's stakeholders and asked them to rank possible material topics on a five-point scale from not relevant to very relevant. TenneT's Executive Board members were asked to complete the same survey. The results of the stakeholder survey are plotted on the vertical axis, while the results of the board members' survey are plotted on the horizontal axis of the materiality chart.

Each material topic is connected to one of the areas we report on: society, markets, environment, employees and financial.

The outcome of this year's materiality assessment clearly shows that grid availability remains the most material topic for TenneT. Other topics that score high on materiality are safety, engaging with local communities, investments and financials impact. All material topics are described in more detail in the following sections. For more information on some of the less material topics, [click here](#).

## Materiality topics



### Society

- 1 Grid availability
- 2 Copper theft
- 3 Connecting citizens
- 4 Community engagement
- 5 Electromagnetic field



### Markets

- 6 NWE Electricity market
- 7 Innovation
- 8 Customer care and satisfaction
- 9 Procurement practices



### Environment

- 10 Carbon footprint
- 11 Grid losses
- 12 SF<sub>6</sub> gasses
- 13 Biodiversity
- 14 Environmental incidents
- 15 Oil leakage



### Employees

- 16 Safety
- 17 Health
- 18 Employment
- 19 Diversity and equal opportunity
- 20 Training and education
- 21 Human rights



### Financial

- 22 Financial impact (revenue, EBIT, ROIC)
- 23 Financial impact (societal costs)
- 24 Investments
- 25 Regulatory framework
- 26 Tax transparency
- 27 Board remuneration
- 28 Financing

 Most material topics covered in this report

 Other (material) topics covered in this report

 Other non-material topics covered on our website

# Executive Board report

## Society



Society relies on us to provide a reliable and uninterrupted supply of electricity. Our high-voltage grid plays an integral part in the daily lives of 41 million end-users throughout the Netherlands and large parts of Germany. Major investment projects are needed to ensure the best possible performance and reliability of our grid and its ability to handle the large amount of renewable energy being fed into it. To make sure these projects happen, we are working with society at both a national and a local level. We try to be as open and transparent as possible, helping people understand what we are doing so as to gain their acceptance for our strategy and projects.

Highlights			
Input	Strategic priorities	Challenges	Output
<ul style="list-style-type: none"> <li>• Need for reliable electricity supply</li> <li>• Asset Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance the flexibility and resilience of our transmission grid to ensure security of supply</li> <li>• Anticipate and address what society wants and needs through dialogue and innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Increasingly complex environment</li> <li>• Redispatch measures and related costs are rising</li> <li>• Expectations on underground cabling</li> <li>• Our work is crucial yet often invisible</li> </ul>	<ul style="list-style-type: none"> <li>• Grid availability of 99.9999%</li> <li>• Circuit length of 22,573 km</li> <li>• 171 information meetings</li> </ul>

## Results

### Grid availability

We maintained a high reliability level throughout 2016, despite the ongoing demand for more electricity. We dealt with the challenges created by the high load of renewable energy being fed into our grid and demonstrated our ability to handle these high flows, adapting to the changing supply side of today's energy market, while meeting the same high level of consumer demand.

In early January, a rare phenomenon called 'line galloping' occurred in the north of the Netherlands. This happens when specific temperature, humidity and wind conditions combine, causing ice to form on power lines. This ice makes the power lines more wind resistant, which in turns makes them move more. Although this phenomenon caused some voltage dips in our network, there were no outages and our grid availability remained at a constant high level. Our onshore grid availability in 2015 was 99.9975% due to a power outage on the 380 kV substation in Diemen on 27 March 2015.

	2016	2015	2014
<i>Onshore</i>			
Grid availability	99.9999%	99.9975%	99.9999%
Interruptions	6	18	4
Energy not transported (MWh)	59	3,824	77
<i>Offshore</i>			
Grid availability	92.00%	92.82%	N/A

For more information about our grid availability performance per voltage level and country, [click here](#).

Our offshore grid availability was 92%. This availability figure cannot be compared one on one with our onshore grid availability because our offshore grid is designed with no redundancy. This means that maintenance always leads to unavailability and 100% grid availability is not possible. Unavailability last year was due to maintenance. Our offshore connection DoWin2 encountered technical difficulties with the sea and land cables. We analysed the issue together with the supplier and the connection was put back into operational again by the beginning of 2017, starting with extensive test procedures. The Riffgat connection was put back into operation in May, after successful repair of the cable in no more than six months downtime. For more information about our forecasts on security of supply in the Netherlands, [click here](#). For more information about our forecasts on security of supply in Germany, [click here](#).

The majority of increased network charges are due to 'network stabilising emergency' actions, which are caused by the transmission grid being placed under more supply pressure. As such, any delays in the construction of new power grids may cost substantially more than the actual construction of new towers and lines. The expenses associated with these actions are reimbursed via regulatory tariffs (see the [financial section](#) of this report). For more specific information about our revenue, costs and profit, [click here](#).

### Connecting citizens

As we continue to invest to ensure our grid can handle the incoming electricity flows now and in the future, our asset base also continues to grow. Our circuit length increased from 22,245 km in 2015 to 22,573 km last year.

### Societal costs

The increased challenges in operating our grid have an effect on the costs society pays.

	2016	2015	2014
Total circuit length (km)	22,573	22,245	20,858
Overhead lines (km)	18,829	18,893	18,716
Underground cabling (km)	3,744	3,352	2,142
Number of substations	454	454	443
HVDC Converter locations	15	13	3

For detailed information on our infrastructure per voltage level and country, [click here](#).



Several new projects came into operation in 2016, including a 43 km underground cable in the Netherlands and the 16 km-long Brunsbüttel – Süderdonn connection of the Westküstenleitung in Germany. The overhead lines circuit length decreased in 2016, mainly due to decommissioning of lines at the Hoogeveen-Veenoord connection related to a route change.

Our German offshore capacity is now 5,221 MW, operated by eight convertor systems, which is more than enough to transport the entire currently installed windfarm capacity of 3,783 MW.

To encourage dialogue about acceptance, costs, technological innovations and the future of energy sources, we asked external parties to perform a stress test on the planning for the current German grid expansion. This test analysed whether alternative development paths of energy supply and demand and developments in planning and operations could significantly alter the structure of the expansion of the high-voltage grid after 2030. The test found that the current grid projects defined by law are necessary to achieve the renewables energy goals in Germany for the time being, but that the further growing supply of renewable energy and the resulting increase in transportation requirements can be solved after 2030 with a significantly lower grid expansion.

### Community engagement

We made significant strides last year in how we interact with the public, keeping stakeholders and local communities informed about our plans and strategies. This dialogue is particularly crucial in Germany, where grid expansion has a substantial impact and local communities are very vocal on energy matters.

“In our capacity as state government, we have initiated the dialogue process in consultation with TenneT – not only to explain to the population why we need lines but also in order to engage with critical questions, recognise conflicts at an early stage, and find solutions. Our cooperation with TenneT has been highly successful in this respect, albeit not always without conflict.”

Dr Robert Habeck,  
Minister of Energy, Agriculture,  
the Environment and Rural Areas  
Schleswig-Holstein

We continue to hold an open and transparent public dialogue on the SuedLink and SuedOstLink in Germany, as well as on our alternating current (AC) grid projects. We also continue to encourage engagement on connecting offshore wind to the onshore grid in the Netherlands. Last year, we held 83 public meetings in the Netherlands and 88 in Germany. In Germany, high-capacity power lines such as the 800 km north-south SuedLink line play a decisive role in achieving energy transition. The German parliament has decreed that underground cabling is the way forward for direct current (DC) projects. As such, we have re-evaluated our plans for the SuedLink, which will now be entirely underground, thereby creating the longest high-voltage underground line ever.

“We have integrally planned the SuedLink project as underground cable. Citizens have prompted and politicians paved the way for underground cabling”

Lex Hartman,  
Director Corporate Development TenneT

We are working on new power line corridors and presenting them to the public. We hosted 35 community workshops across Germany to help plan the best routes, and our efforts have been widely recognised. Our experience in Germany with many cutting-edge technologies such as underground cabling is also beneficial in the Netherlands. For example, we led the discussion on how best to incorporate offshore wind energy into the onshore Dutch grid. To step up our approach towards stakeholders in the Netherlands, we worked together with knowledge partners to help understand the facts of the matter as well as the feelings surrounding it. We have used these insights to improve the way we communicate during public consultation meetings.

## Our challenges in society

Challenge	Action
The environment in which we operate is becoming increasingly complex. Not only are we adapting to a fast-changing market where renewables are flooding into a system originally built for fossil fuels, but we are also doing business in a world facing more IT-related risks, cyber security issues and even potential terror attacks.	We adapted our strategy <i>"Enabling the Change"</i> last year. Seven strategic priorities, see the section "About TenneT-Our Strategy", serve as building blocks in our response to the changing market environment.
The expectations on underground cabling represent another challenge, with the related cost and potential technical difficulties not immediately understood and in need of explaining.	Stepping up our stakeholder dialogue by explaining that underground cabling is at least 3-8 times more expensive than traditional overhead lines and that not all lines are suitable for underground construction. The length of the cable is also crucial: the longer it is, the more technological challenges there are.
As grid operator, our work is crucial yet often invisible. Combined with our responsibility for balancing the grid, this places us under increased scrutiny, with the possibility of misunderstanding.	In our view, stakeholder management is key to achieving societal acceptance. This means we explain the consequences of alternative solutions in a transparent way to all relevant stakeholders at an early stage to facilitate the public discussion and to acquire full validation of our projects from the authorities to create value for society and stakeholders.
Redispatch measures – rising steeply in Germany and the Netherlands due to the inflow of renewables and the growth of international flows – can at times conflict with our long-standing priority of ensuring adequate supply.	We have been discussing changes in the market mechanisms, including the addition of renewable energy facilities to redispatch and the introduction of a coordinated process for the determination of capacities in Central Eastern Europe. Furthermore, we aim to complete grid expansion projects as quickly as possible.

### From 33 kV to 66 kV for Dutch wind farms



The transmission capacity of the cables connecting wind farms to offshore platforms is directly linked to voltage levels. Traditionally, 33 kV is the voltage level used for this – a proven technology applied in almost all wind farms. As the capacity of wind turbines grows and offshore wind farms get bigger, developers are considering higher voltage levels, but have not actually taken this step yet. The next logical step is widely seen as 66 kV. This development would increase the number of wind turbines that can be connected to one single inter-array cable, reducing the number and overall length of cables necessary. Encouraged by our offshore experiences in Germany, TenneT took the lead in conducting a study into this. This study concluded that 66 kV voltage levels for Dutch wind farms would reduce the levelised cost of energy (LCoE) by 1.1% to 1.3% in the first instance, paving the way for further innovations and even lower LCoE in future tenders. This will become the norm for Dutch wind farms in the future.

### Looking ahead

Our absolute priority is to ensure that our 41 million end-users have a secure supply of energy. With 29 projects underway in Germany and work required in the Netherlands to upgrade the grid over the next 10-15 years, we continue to invest in our grid to cope with future demand. Our 10-year investment portfolio, with an expected volume of EUR 25 billion, must be executed effectively and efficiently, on time and on budget, implementing technological improvements along the way. We will involve our stakeholders at the earliest stage of our projects, by holding information meetings to gain acceptance of our construction activities.

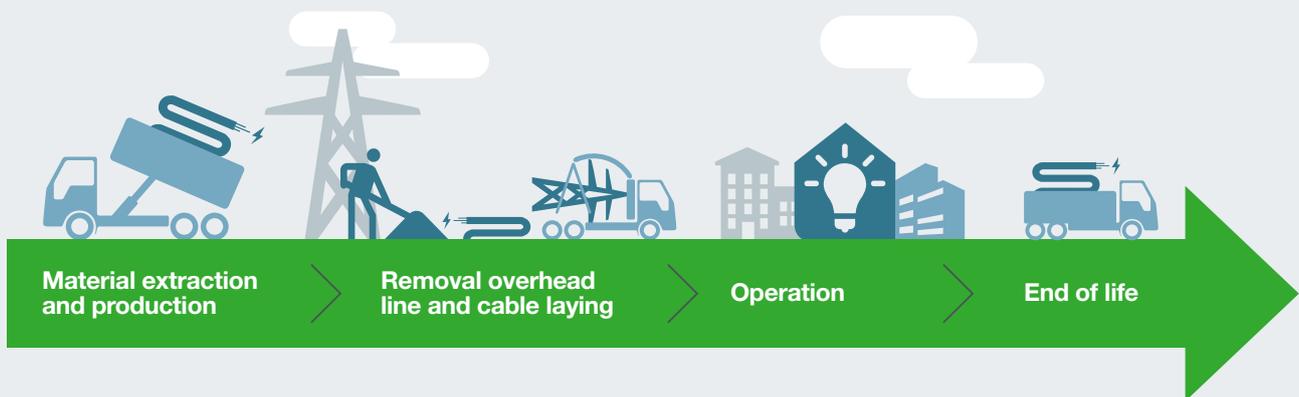
We are leading the way in terms of underground cabling in Europe and have already laid 1,500 km of DC cable underground. This trend is likely to continue and we plan to build on our expertise. Other technologies we are working on include lightweight plastic insulated cables and the use of 525 kV instead of 380 kV cables. These can transport similar quantities of power over fewer cables, making them cheaper and allowing for less intrusive installation procedures.

# True value – a case study of cabling in Apeldoorn

Being transparent about our impact on society is crucial in our dialogue with stakeholders. Although difficult, we see the value in being able to compare the different impact we have. As such, we have made a first step in monetising our non-financial impact to provide insight into a project's true societal impact. This approach is new in the industry and the outcome of this specific case should not be taken as an absolute truth, but as an indication of the most material impacts.

In the selected pilot project in Apeldoorn, we installed underground cabling in the municipality to replace an overhead line that crossed two neighbourhoods and a park. Our research focused on finding out what the measurable social and ecological impact of this project would be compared to the existing situation. All the steps in the cabling value chain were taken into account, i.e. raw material extraction and production, the removal of existing lines and cabling, the operation of the high-voltage connection and end of life.

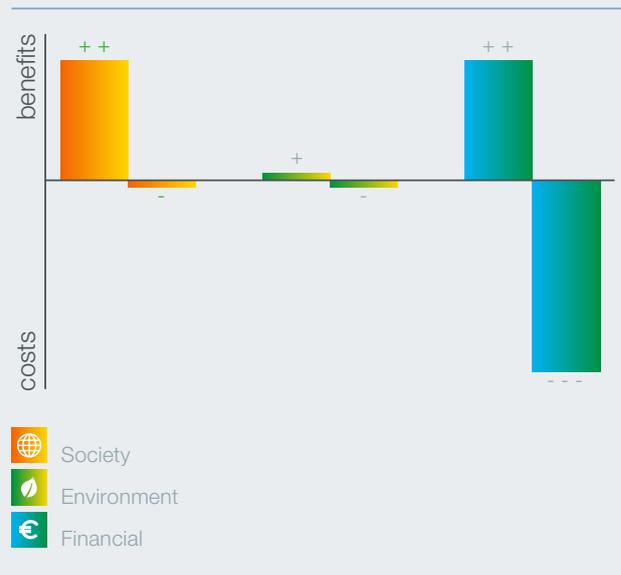
## True value



In each step of the value chain, the financial, social and ecological impact was determined based on the most material aspects, like investment costs, carbon footprint and living environment. The activities for each of these aspects were then translated into euros, which resulted in positive and negative social, ecological and financial volumes.

The results of our research showed that the improvement of the living environment had by far the most impact on social value, as illustrated in the chart below. For the ecological impact, carbon footprint, material depletion and biodiversity were taken into account. Since the surroundings did not change significantly, effects on biodiversity were minor. Financial costs consist of investment and maintenance costs, while the financial benefits relate to lower operational costs and increased value for the area around the high-voltage connection. For more information on the assumptions and conversion factors, [click here](#).

## Monetised impact (indicative)





The energy sector is developing rapidly as increasing amounts of renewable energy flow into the system. The further integration of the NWE markets and increasing digitalisation are crucial to maintaining security of supply. In this context, we empower society by connecting European markets and ensuring a secure supply of energy at the best possible price. TenneT is a firm believer in a single European energy market and has therefore many interconnectors in place across national borders to support this market.

Highlights			
Input	Strategic priorities	Challenges	Output
<ul style="list-style-type: none"> <li>• Renewable and conventional electricity</li> <li>• Market data</li> </ul>	<ul style="list-style-type: none"> <li>• Drive integration of the NWE electricity market, focusing on the Netherlands, Germany and Belgium</li> <li>• Advance the use of data and analytics</li> </ul>	<ul style="list-style-type: none"> <li>• Increasingly national focus of European politics</li> <li>• Respond to the EC's 'winter package' proposals versus our vision on European cooperation</li> <li>• Loop flows in neighbouring countries</li> </ul>	<ul style="list-style-type: none"> <li>• Import and export of electricity</li> <li>• Customer satisfaction of 86%</li> </ul>

**Results**

**Integration of the NWE electricity market**

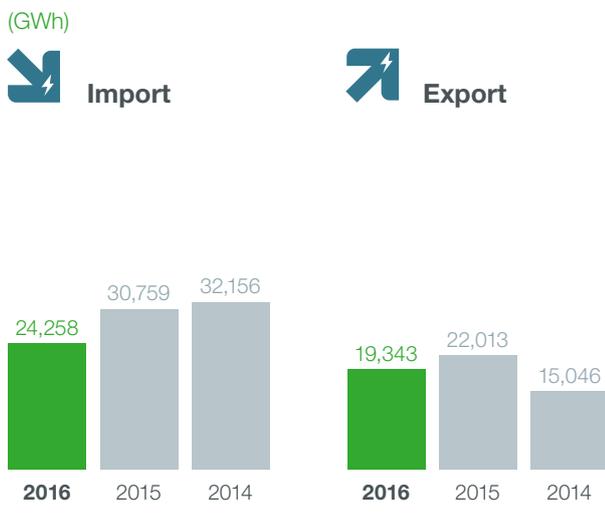
The integration of the NWE electricity market is a priority for us and is driving us to increase our interconnection capacity.

In 2016, TenneT and our Danish counterpart Energinet.dk started construction of the COBRACable, a high-voltage direct current (HVDC) sub-sea cable directly connecting the grids in the Netherlands and Denmark. The COBRACable will have a capacity of approximately 700 MW and will be around 325 km long, running from Eemshaven in the Netherlands to Endrup in Denmark, via the German sector of the North Sea. We have also made progress on the NordLink, a 623 km cable connecting Germany and Norway. This project contributes to stabilising electricity prices in both countries, while also further facilitating European market integration.

Belgian TSO Elia and TenneT have agreed to upgrade the existing high-voltage grid by 2022, increasing capacity between Belgium and the Netherlands. This bilateral agreement aims to significantly strengthen the interconnectors, facilitating the flow of renewables, improving security of supply and integrating the European electricity market further. Innovations such as phase shifting transformers will help achieve this.

With more renewable energy flows into the system, operating our grid is becoming more challenging. This increase in energy flows means that supply is sometimes higher than the demand, resulting in reduced cross-border capacity and loop flows via our neighbouring countries, including Poland and Belgium.

**Import and export Netherlands**



**Flexibility pilot**

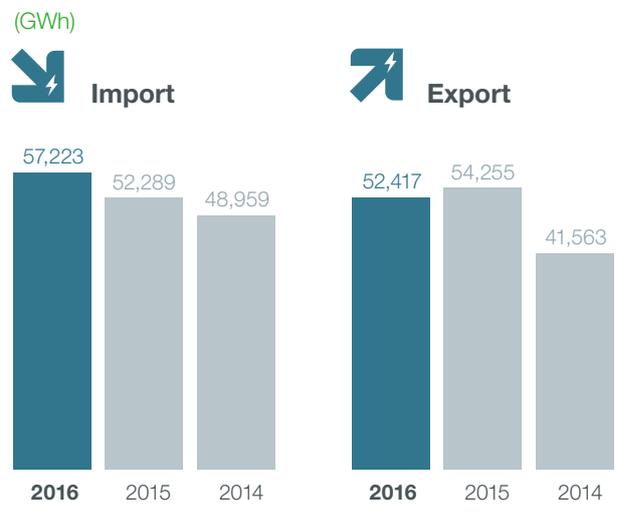


The increase in electricity from renewable sources will mean a greater need for flexibility in the electricity system and, in time, lead to a decline in the capacity offered by fossil-fuelled generation. These larger power stations will sometimes be switched off and we will need new solutions to cope with the resulting fluctuations. As such, TenneT launched a pilot on providing primary reserve capacity using alternative technologies. We are already working on another pilot with The New Motion, involving the use of charging stations for electric cars as primary reserve capacity. We will use these pilots to assess whether parties other than conventional power plants can help provide primary reserve capacity. Besides The New Motion, the other participants in the pilots are ENGIE, KPN, Peeeks and Senfa.

We are giving this issue our full attention and are in close contact with the TSOs and regulators involved.

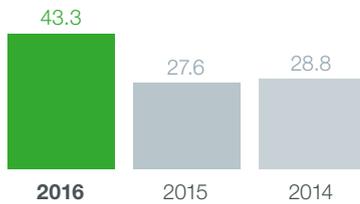
Ongoing improvements in electricity trading led to the launch of the M7 intraday trading platform for the Belgian-French and Belgian-Dutch bidding zones. M7 is now used across all continental EPEX SPOT intraday markets, replacing the EuroLight trading platform and connecting the Dutch and Belgian markets to the French, German, Swiss and Austrian intraday markets, thereby boosting liquidity. For real-time import/export figures, [click here](#).

**Import and export Germany**



## Yearly price convergence Netherlands - Germany

(%)



The ongoing market integration in northwest Europe has led to an increased amount of hours where wholesale electricity prices are equal in different countries, also known as 'price convergence'. Price convergence between the Netherlands and Germany has significantly increased in the period 2015-2016.

TenneT has published its yearly 'Market Review' since 2014, outlining developments in the northwest European electricity market, particularly in the Netherlands and Germany. This publication presents the highlights of the past year and puts the most important developments into perspective. To read more, [click here](#).

*"It is our job to facilitate the market as much as we possibly can, constantly seeking innovative solutions."*

Ben Voorhorst,  
Chief Operating Officer TenneT

In July 2016, a new law on electricity market design in Germany came into force. A so-called energy-only market 2.0 is seen as the best possible structure for integrating renewables into the system. This further developed electricity market aims to guarantee a secure, low-cost and environmentally compatible supply of electricity, enabling innovation and sustainability. In our view, this is a good development, as TenneT advocated for over 2.5 years for an energy-only market that would include more responsibility for balancing parties and be secured by a safety net. A new cross-border monitoring process will continuously keep an eye on security of supply.

In addition, several reserves ("outside of the market") will be implemented to safeguard the system. In particular, the capacity reserve will ensure security of supply in the unlikely event that the market is unable to balance supply and demand.

In 2016, the pricing of renewable energy took a major step forward, paving the way for meeting Dutch renewables targets. Danish company DONG Energy won the first auction for the Dutch Borssele wind energy areas I and II with a breakthrough price of 7.27 euro cents per kWh. Later in the year, a consortium of Shell, Van Oord, Eneco and Mitsubishi/DGE won the second auction for Borssele III and IV, with their unprecedented offer of 5.45 euro cents per kWh. The tender model, which was recommended by TenneT, awards the concession to the party offering the lowest energy price. Borssele is the first of three large Dutch energy zones in the Dutch sector of the North Sea.

*"Appointing TenneT as grid operator at sea resulted in a cost reduction of 40% on the costs of grid connection of the wind farms."*

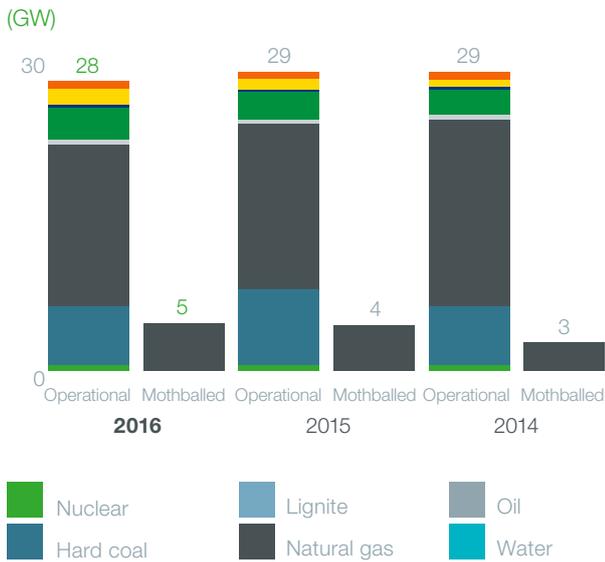
H.G.J. Kamp,  
Dutch Minister of Economic Affairs

Source: [Letter to Dutch Parliament "costs grid at sea"](#)

A new market landscape, characterised by increased volatility and decentralisation, is developing in the energy sector. At the same time, rapid technological developments in computing and communication are transforming and/or disrupting many industries.

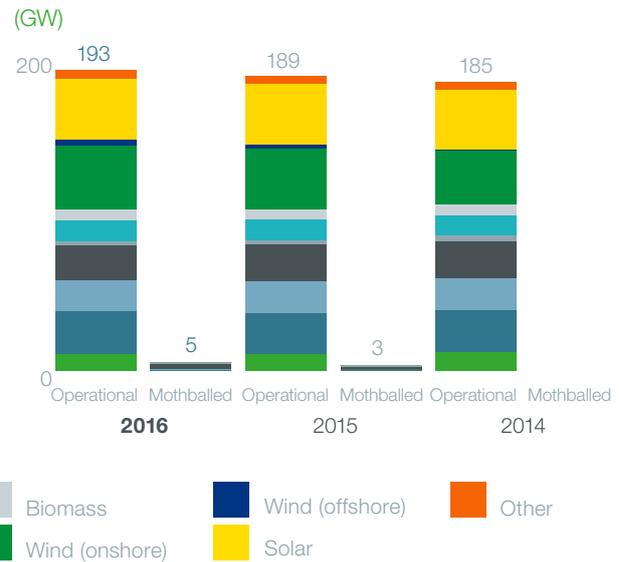
In the electricity market, we are seeing retail and wholesale markets integrating. This has led to a huge increase in data that needs to be managed. As a neutral facilitator – and also as a leader in data – TenneT is uniquely positioned to maintain the flexibility and resilience of our energy system, and because of this TenneT can create maximum value for society. TenneT is actively managing a digital transformation programme to position itself in this new electricity market landscape. As part of this, we are also delivering business improvements by advancing the use of data and analytics. In Germany, the new "Gesetz zur Digitalisierung der Energiewende", will give TenneT direct access to meter data.

## Operating generation capacity Netherlands



## Operating generation capacity Germany

Source: BNETZA, kraftwerkslisten



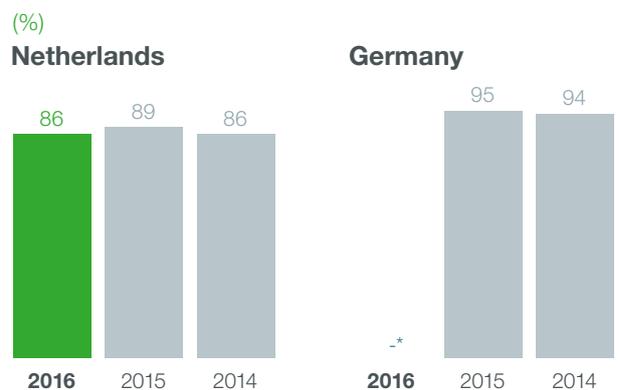
One of the first steps we have taken to unlock data for our external stakeholders in the Netherlands is our energy system dashboard. This dashboard provides real-time information on load, production and import/export.

### Customers

TenneT regards its relationship with customers as a collaborative business partnership, with regular dialogue and meetings held with parties including stakeholders responsible for energy balance, grid operators and other connected parties. Our customer base is growing and we are seeing more and more renewable electricity being produced. At the same time, we have seen that the increase in renewables and decrease in electricity prices are leading to other facilities being mothballed, as they are no longer proving economically viable.

Our customer satisfaction in the Netherlands this year was comparable to 2015, staying at a rather high level of 86%. We will continue to work on a high customer satisfaction rating in 2017. Our main priority is to improve our performance in terms of responding to customers' requests. We did not measure our customer satisfaction scores in Germany in 2016, but will conduct a customer survey in 2017.

## Customer satisfaction



\* We did not conduct a customer satisfaction survey in Germany in 2016

## Our challenges in markets

Challenge	Action
<p>The increasingly national focus of European politics means that the integration of European energy markets is not progressing as quickly as we hoped. This poses a challenge as further integration is crucial to security of supply as renewables continue to flow into the system.</p>	<p>We are still engaged in many international market integration projects. With active participation, we are making sure that markets are becoming integrated and improvements are materialising. We have opened our Brussels office to be closely connected to the developments in Europe.</p>
<p>The European Commission has launched its 'winter package' with their proposals for concrete measures about the electricity infrastructure in Europe, like regional control centres that manage the electricity networks.</p>	<p>We are showing that there is already close cooperation between the national grids in Europe. In fact the European markets are physically and technically interconnected to guarantee security of supply.</p>
<p>Germany and Austria currently form a common bidding zone in the European power market and the physical transportation capacity of the high voltage grid is limited, the market equilibrium leads to congestion in the power grid during many hours each year. As a consequence, loopflows occur in neighbouring countries, and costly remedial actions are needed more frequently.</p>	<p>We prepare, together with the other German TSOs, the introduction of a capacity management on the German-Austrian border. The reconfiguration of the existing and well established German-Austrian bidding zone is a highly complex project. Capacity calculation must be coordinated between transmission system operators on both sides of the border and in neighbouring countries. The introduction is expected in July 2018.</p>

### Looking ahead

In the summer, we introduced our vision for an 'energy island' in the middle of the North Sea. The artificial island would create an energy hub for wind farms between the Netherlands, Belgium, the United Kingdom, Norway, Germany, and Denmark. The large-scale generation of solar and wind energy will be necessary to meet Europe's targets for reducing CO<sub>2</sub> emissions. Individual member states will be unable to attain these high targets alone, so there is a need for unqualified cooperation.

Although still in its infancy, the visionary project was enthusiastically received by the European Union (EU). The location of the island must meet several requirements however, e.g. there must be strong winds. It must have a central location and the water should be relatively shallow. Based on these criteria, the Dogger Bank would qualify as a location for a central hub. To see our animation, [click here](#).



# Environment



Transporting electricity is our core business. To do our job, we need to construct and maintain a physical network of transmission lines and cables, substations and other infrastructure on land and sea. This work has an unavoidably impact on nature. We are fully aware that we have a responsibility to care for the well-being of the natural environment and to protect green spaces and wildlife for future generations. Open and transparent communication with society is crucial to finding solutions to minimise our impact and address any environmental concerns.

Highlights			
Input	Strategic priorities	Challenges	Output
<ul style="list-style-type: none"> <li>Natural resources</li> </ul>	<ul style="list-style-type: none"> <li>Anticipate and address what society wants and needs through dialogue and innovation</li> </ul>	<ul style="list-style-type: none"> <li>Weighing up environmental aspects in business decisions</li> <li>There is no effective and cost-efficient insulator alternative for SF<sub>6</sub> yet</li> </ul>	<ul style="list-style-type: none"> <li>58 environmental incidents</li> <li>Carbon footprint of 2,278,396 (tonnes CO<sub>2</sub>e)</li> </ul>

## Commitment to nature



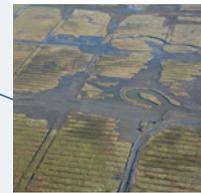
**Almere**  
Cabling to protect a beaver lodge



**Audorf**  
Renaturing and landscape improvement



**Muiderberg**  
Bird ringing



**Norderney**  
Completion of a unique salt meadow



**Voorburg**  
Renaturing after office demolition



Bird flaps to prevent collisions



### Results

#### Commitment to nature

Our assets are located throughout the Netherlands and Germany, in national and international waters and often in areas of natural beauty. This can impact biodiversity, ecosystems and the landscape. Where possible, we use the natural environment to minimise our impact by making use of natural screening and noise reduction and by creating secure areas around our substations, lines and cables. Our *Commitment to Nature* vision underlines our approach and illustrates the responsibility we feel we have to avoid and minimise our environmental impact and protect and

improve local nature. We always strive to balance our business activities with the impact they have on nature. Since stakeholder cooperation is crucial in making sure we come up with the best solution for nature, we signed the Green Deal Infranatuur in April 2016. This public-private initiative aims to reduce the impact of Dutch infrastructure on biodiversity and underlines our commitment to biodiversity in the Netherlands. We undertook several activities in 2016 that had a clear positive contribution to local nature.

“Together with TenneT, we share the ambition to realise more offshore wind energy in the Dutch North Sea. TenneT sets an example on how to include stakeholders, such as us NGOs, in their projects. We work together on creating societal awareness for offshore wind, including other environmental NGOs in the process. TenneT always listens very carefully and takes our ecological advice for the offshore grid very seriously. TenneT’s position is crucial for the current offshore wind plans but also for future plans.”

Tjerk Wagenaar, CEO of Natuur & Milieu

Our operational activities can have a negative impact on nature, because leakages and spills can never be entirely prevented. Most of our environmental incidents are due to oil leakage from our transformers and cables.

For new projects however, we use polyethylene cables, which do not contain any oil. Oil leakage in 2016 was significantly lower than in 2015, when we had a major spill. In total, there were 58 environmental incidents in 2016.

<b>Commitment to nature</b>	<b>2016</b>	2015	2014
Oil leaked (litres)	2,087	14,091	8,283
Environmental incidents	58	84	49

## Carbon footprint

The nature of our business results in some unavoidable losses of energy as it is transported through our grid. Compensating for these grid losses increases demand for energy, and we are reporting the corresponding CO<sub>2</sub> emissions. Over 95% of our carbon footprint is caused by our grid losses. Sulphur hexafluoride (SF<sub>6</sub>) leakage and the electricity we use in our own operations account for the rest. Since we 'green' our electricity use to the maximum extent permissible by law, we report a gross carbon footprint (without greening) and a net carbon footprint (with greening).

Grid losses are the difference between the amount of produced electricity that enters our transmission system and the amount that is available for consumption.

The distance the electricity must travel, the amount of

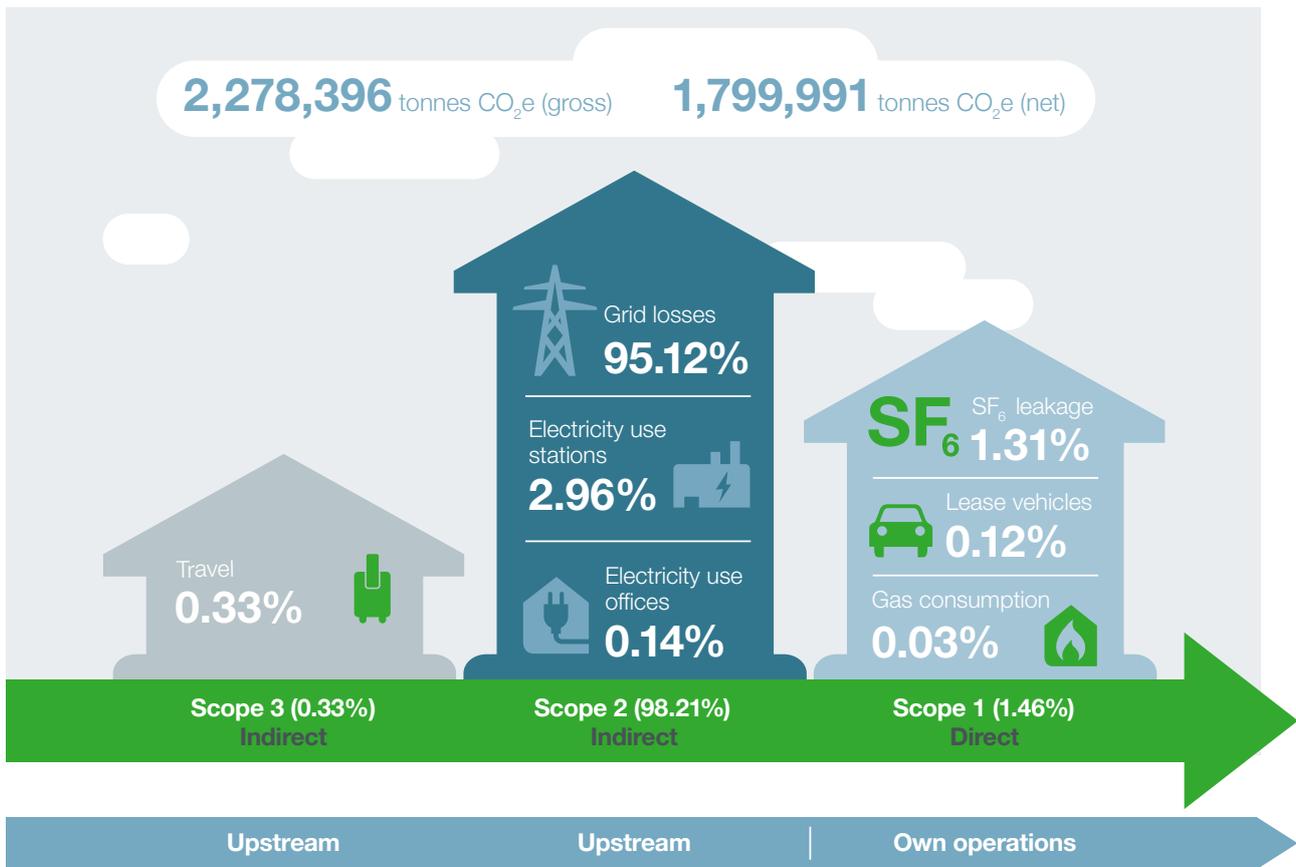
electricity transported and grid utilisation (including redispatch measures) determine the grid losses. All are strongly influenced by the geographical spread of renewable energy sources, such as offshore wind, and the integration of the European electricity market. Since grid losses account for most of our carbon footprint, an increase in grid losses increases our carbon footprint. Divided by the electricity that we transport, the relative carbon footprint is increasing due to the large transport distances, but the increase of this ratio is less compared to 2015, because we see a small positive effect of the increase of renewables in the energy mix.

To raise awareness of how our investment decisions impact our grid losses, we now use an internal carbon price.

We applied this to one investment decision in 2016 and will continue to use this methodology in the coming year.

<b>Carbon footprint</b>	<b>2016</b>	2015	2014
Grid losses (GWh)	4,212	3,879	2,824
Carbon footprint/transported electricity (ton CO <sub>2</sub> /GWh)	9.3	8.4	6.9
SF <sub>6</sub> leaked (%)	0.38%	0.35%	0.56%
SF <sub>6</sub> leaked (kg)	1,248	1,106	1,410

## Carbon footprint



For more detailed information about our carbon footprint calculation, conversion factors and impact per year and country, [click here](#).

SF<sub>6</sub> is used in high-voltage equipment on substations because it is an excellent electrical insulator and is necessary for interrupting currents in circuit breakers. However, SF<sub>6</sub> is a strong contributor to greenhouse gas emissions. We aim to reduce our relative SF<sub>6</sub> emissions by 20% in 2020 compared to 2015. On top of this, we have set an absolute target to keep SF<sub>6</sub> leakage until 2020 below the 2015 level. Knowing that our asset base will increase substantially, this target is ambitious. Our 2016 results show that both our relative and absolute emissions increased. In the coming years SF<sub>6</sub> reduction will be more prominently considered in our replacement and maintenance program, notably in the Dutch 110/150 kV substations where highest leakage levels are observed. This will create a modern and standardised landscape where it is easier to keep SF<sub>6</sub> leakage to a minimum.

“Besides reducing leakage rate, replacing SF<sub>6</sub> gas with an alternative gas or the use of alternative dry-type insulation where available is a logical and important next step to realise our ambitious SF<sub>6</sub> targets.”  
Wilfried Breuer,  
Director Offshore TenneT

The energy use of our power stations is another main contributor to our energy footprint. To reduce this, we launched a pilot at one of our substations in the Netherlands, using solar panels to generate electricity for our own use. The findings from this pilot will be used to decide whether we should apply this in new-built stations.

Carbon emissions are not only a result of TenneT's own activities. As such, we are challenging our contractors to minimise their carbon emissions during construction work. For one Dutch project in Bergen op Zoom, this resulted in significant energy savings with respect to drilling. Another example of a positive contribution is the PowerToGas plant in the northern part of our German grid, operated by Audi. This is a balancing power plant that provides negative balancing power to the TenneT grid. This is often required to stabilise the grid in situations where there is a high amount of offshore wind power being fed into the grid while demand is low. During these periods of power surplus, the PowerToGas plant converts water into oxygen and hydrogen. Hydrogen and carbon dioxide are used to produce methane gas, which is almost identical to fossil natural gas and is distributed to service stations. Driving with this gas releases only as much CO<sub>2</sub> as was previously consumed by production in the plant.

### Cooling for free



At our stations we use lots of small air-cooling units containing cooling fluids to keep our automated systems at the right temperature. Although these small units do not consume enormous amounts of energy individually, we could potentially save the equivalent amount of energy of around 200 households per year if we used outside air instead of air-conditioned air. This would also mean moving away from using cooling fluids. We are already investigating this alternative way of cooling at one substation. If this pilot is successful, we will certainly use it more widely. This is a great example of a positive impact on the environment leading to cost savings as well.

## Our challenges in environment

Challenge	Action
SF <sub>6</sub> leakage is an important issue within our overall environmental management. Despite its harmful properties, there is no effective alternative to SF <sub>6</sub> . It is a highly effective insulator and the only technical solution to interrupt currents at the highest voltage levels in our grid.	We are working closely with suppliers to look for an alternative gas with the same isolation properties but a lower environmental impact. We also challenge the industry to develop a SF <sub>6</sub> free switchgear, probably based on vacuum, to be used in a pilot in the lowest voltage level of 110 kV.
Weighing up environmental aspects in business decisions is a challenge since monetary impact is difficult to measure.	We have started to use a carbon price in our investment decisions, as an initial step towards more weighted decisions.

### Looking ahead

On the one hand we see society putting more and more pressure on the energy industry to move towards a sustainable future. On the other hand, there is less acceptance of the impact of new infrastructure on the environment. The energy transition requires TenneT to expand the landscape. Given our commitment to our environmental and social responsibilities, we will continue to go the extra mile to address environmental concerns.



# Employees

Our people are key to our continued success and growth. We aim to create a safe, healthy, stimulating and energising workplace, where our employees can perform to the best of their abilities. In an environment where talented technical specialists are scarce, it is crucial that we attract the right people and empower them to perform.

Highlights			
Input	Strategic priority	Challenges	Output
<ul style="list-style-type: none"> <li>• 3,040 internal employees</li> <li>• Specialised know-how and expertise</li> </ul>	<ul style="list-style-type: none"> <li>• Pursue organisational excellence</li> </ul>	<ul style="list-style-type: none"> <li>• Attracting new talented employees in Germany</li> <li>• Decline of work safety performance, especially with respect to our contractors</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable employee engagement</li> <li>• LTIF of 3.6</li> </ul>

## Results

### Our employees

Our *Empowered by You!* vision sets out the direction of our HR policies and strategies for our employees and organisation. It identifies four key areas that will drive performance and personal growth. These areas are talented employees; inspiring leaders; stimulating climate and teamwork for excellence.

We connect our employees' personal ambitions to our strategic goals to fulfil our mission and commitment to society. Our core values and brand values guide us in all we do: quality and integrity are an integral part of our vision for our employees and for TenneT as a whole.

Employees	2016	2015	2014
Number of internal employees	3,040	2,887	2,700
Number of external employees	631	568	396
Male employees (%)	78%	78%	78%
Female employees (%)	22%	22%	22%

More than 80% of employees are covered by collective bargaining agreements. For more information about our employees per country, [click here](#).

In 2016, our total number of employees increased, reflecting the growth of our investments in offshore and onshore projects in Germany and the Netherlands. We expect staff levels to increase again in 2017, but at a slightly slower rate.

“We have so many projects on the go – we need to build EUR 25 billion of assets in the coming years. The well-being and mind-set of our people is crucial in our job to empower society, which is why we continuously invest in mutual trust and mutual empowerment.”

Urban Keussen,  
Vice-chair Executive Board TenneT

As technology continues to transform the workplace, we are considering what this means for TenneT. We hosted internal workshops based on the Oxford study ‘The future of work’, during which we explored what certain technologies mean for our company, our people and the way we work. Some jobs may cease to exist; while others will be created. We will share the outcome of these workshops with TenneT’s senior management and plan accordingly. To manage our ever-changing workload, we need to remain agile, which includes through how we deploy flexible external and internal staff. We strive to enhance the sustainable employability of our employees and encourage exchanges between our Dutch and German colleagues. Our health and vitality programme ‘Always Energy’ also encourages our staff to adopt a healthy lifestyle. We believe that resilient employees create a resilient organisation and a better work-life balance they can cope with the challenges they face in their jobs and private lives.

“Since we deal with similar challenges on our stations on both sides of the border, sharing of knowledge, experiences and personal views has proven to be very valuable and motivating.”

Johanna Bars,  
employee TenneT Germany

We reward our employees for their work by offering an appropriate package of salary, pension and secondary benefits. To illustrate the difference in remuneration between the highest full-time salary and median fulltime salary at TenneT, we have calculated the ratio of fixed salary, variable remuneration and pension benefits. For 2016, this ratio is 7.0. The variable remuneration of our directors and employees is based on purely financial as well as non-financial performance, which includes our grid availability and safety performance.

Monitoring and improving the performance of our teams and individual employees is an important element of our *Empowered by You!* vision. We support this through such things as the annual performance management cycle, development and training programmes and the *Power to Perform* programme which seeks to enhance performance culture in the company. The Executive Board performs an annual review of TenneT’s senior management, including succession planning, and discusses the results of this review with Supervisory Board’s Remuneration and Appointments Committee. During 2016, the Executive Board evaluated its own performance with the support of an external advisor. The advisor attended several board meetings and conducted interviews with members of the Executive Board, Supervisory Board and senior management. This evaluation was discussed among board members in late 2016 and with the Supervisory Board early in 2017. The Executive Board will address the areas for improvement revealed by the evaluation in the future.

### Crowdsourcing to identify opportunities for business and society

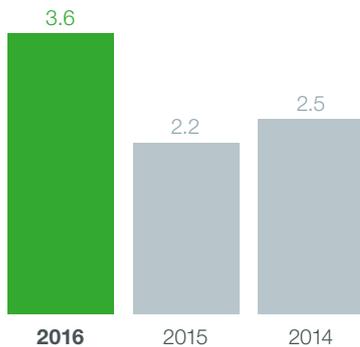


As an innovative company that is always eager to learn, we are constantly on the lookout for new and better ways of doing things. Our 'TenneT's Zukunft' project aims to foster creativity and innovation at TenneT and highlight the link between our social responsibility and our business. Following a successful launch in the Netherlands in 2015, the programme was introduced in Germany in 2016. We invited employees to help us solve the business challenges TenneT is facing e.g. the development of the transformer station of the future, facilitating a positive influence on public opinion, and how to use data in our daily work. Three teams have been working on the best ideas to solve these challenges and they will present their results using the true value approach, balancing the financial, social and environmental impact.

### Safety

One of our top priorities is to ensure the safety of everyone involved in our activities, both employees and contractors alike. We continually strive for zero work-related incidents. Our quantitative goal for 2018 is to have a combined lost-time injury frequency (LTIF) for employees and contractors of below 1.0.

#### LTIF



The disappointing trend in 2016 confirms that improving our safety performance year on year is getting more difficult and that more effort needs to be made to achieve our goal of becoming a safety leader. We deeply regret that an employee of our contractor Liandon was fatally injured in a work accident in February 2016 at a 150 kV substation jointly operated by TenneT and Liander.

Management is giving the increase in LTIF its full attention. To eliminate work-related incidents and accidents, we are doing our utmost to implement what has been learned from past incidents. As such, we have a process to make sure incidents are thoroughly investigated. Also, we raised safety awareness even further and enhanced our safety culture with the introduction of life-saving rules for employees and contractors. While the rules themselves are not new to the organisation, they are accorded a special status with any violations being investigated and the possibility of consequences for the people involved. During the year, 89% of our employees completed an online training session to familiarise themselves with the six life-saving rules.

One of our greatest safety risks concerns the safety of people working on our construction sites, specifically the many contractors working there. Our contractors are an integral part of our operations and their safety performance is of high importance to us. Safety is integrated in our procurement process and is a key consideration when we select contractors and assess their performance. We regard our contractors as our “partners in safety”. To increase their safety awareness and enhance a culture of safety we use the *Safety Culture Ladder*, which is a requirement in the selection phase of a tender as described in the '*Safety by Contractor Management*' programme. For more information about safety by contractor management, [click here](#).

## Our challenges relating to employees

Challenge	Action
<p>In Germany in particular, we need to attract talented new employees to help us realise our ambitious investment programme and overall strategy.</p>	<p>We are redefining our employee value proposition. We proactively approach potential candidates and encourage colleagues to be ambassadors for our brand and motivate potential employees by telling them about the value of their work and their contribution to the energy transition.</p>
<p>The decline of work safety performance in 2016, evidenced by the rise in LTIF in 2016, especially with respect to our contractors, raises concerns and calls for additional actions to reach our target of 1.0 in 2018.</p>	<p>We strive to contract top safety performers for our projects. We are looking for contractors who take safety just as seriously as we do, and we monitor their safety performance when performing their work.</p>

### Looking ahead

Keeping our workforce fit for the future will remain high on our agenda. Identifying and retaining scarce talent with the right expertise and making sure our existing workforce has the right skills to deal with the challenges are crucial to our business and succession development. At the same time, the organisation needs to balance growth and efficiency.



# Financial

In setting our financial policy, we strive for an adequate return on capital and an affordable cost of electricity supply for society. In managing our business, we pursue operational excellence. To keep pace with rising demand and the need for more capacity as we switch to renewable energy sources, we are investing substantially in upgrading and expanding our high-voltage grid. This requires ongoing access to funding. Thanks to our solid financial position, we enjoy good access to the financial markets. To maintain this, we need to keep our credit rating at least in the 'A' category. This requires that we generate acceptable returns in line with our risk profile and that financial leverage is at a level commensurate with our credit rating.

Highlights			
Input	Strategic priorities	Challenges	Output
<ul style="list-style-type: none"> <li>• EUR 12.1 billion invested capital</li> <li>• Regulatory regime</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain access to capital markets and equity capital</li> <li>• Pursue operational excellence</li> </ul>	<ul style="list-style-type: none"> <li>• Financing our investments effectively and maintaining our creditworthiness</li> <li>• Balancing between applying latest technology and achieving capex efficiency</li> <li>• Maximising opex efficiency during the rapid growth of our organisation</li> </ul>	<ul style="list-style-type: none"> <li>• Underlying EBIT of EUR 834 million</li> <li>• ROIC of 7.7%</li> </ul>

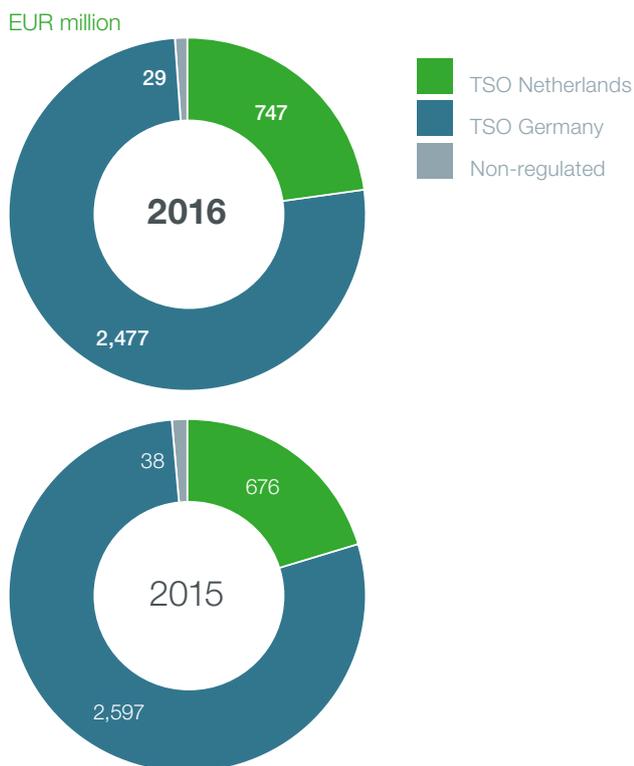
Monitoring and managing the performance of our business is based on underlying financial information and not on IFRS-reported financials. Underlying financial information involves the recognition of regulatory receivables and payables, which – based on the current regulatory framework – can be recouped or are required to be returned through future grid tariffs (see section 2 of our consolidated financial statements).

The main requirement for the recognition of regulatory receivables and payables is the applicable regulations in the Netherlands and Germany, which includes the future reimbursement/settlement through grid tariffs ([click here](#)). Under IFRS, reimbursement/settlements through future grid tariffs are not taken into account. Consequently the balance of any expense or income is not recognised as a regulatory asset or a liability under IFRS.

## Underlying results

(EUR million)	2016	2015	2014
Revenue	3,227	3,290	2,316
Operating expenses	2,471	2,300	1,623
EBIT	834	1,075	725
Profit for the year	523	681	418

## Revenue



## Revenues

Underlying revenues decreased by EUR 63 million to EUR 3,227 million for 2016, mainly because of the decrease in system service revenue. A substantial part of the system service revenue is related to the reimbursement of energy feed-in expenses and congestion management measures

in Germany (2016: revenue of EUR 773 million). Overall these pass-through expenses significantly decreased in 2016, resulting in less regulatory reimbursement and, therefore, lower revenues for Germany (see paragraph on [grid expenses](#) of this chapter). Since TSOs cannot directly influence these kinds of expenses, we are allowed to pass these expenses to society via future tariffs and as such these expenses do not affect our underlying EBIT.

The decrease in our revenues is partly offset by the additional revenue generated by our growing asset base and by our investments in Germany and the Netherlands. Furthermore, a change in the Dutch regulatory framework (effective as of 1 April 2016) resulted in immediate compensation of financing expenses from the start of large projects falling under the Dutch national coordination regulation for energy infrastructure 'Rijkscoördinatieregeling', which positively affected our revenue in the Netherlands. Also revenue was positively affected by a favourable outcome of legal proceedings for the reimbursement of certain transmission costs over the period 2009-2011, resulting in a one-off positive impact of EUR 21 million. Moreover, the final court ruling in TenneT's appeal against the efficiency benchmark score for the regulatory period 2014-2016 positively affected our revenue by EUR 14 million. These effects were partly offset by the decline in allowed regulatory return on capital from 6.0% in the previous regulatory period (2011 - 2013) to 3.6% in this regulatory period (2014 - 2016).

## Operating expenses

Besides depreciation and amortisation expenses, our operating expenses mainly consist of grid expenses, of which the majority are reimbursed in future tariffs and therefore do not affect our underlying EBIT. Grid expenses consist of expenses for measures taken to ensure the security of supply and costs for servicing and maintaining the systems used for the primary operating processes.

Generally, ensuring the security of supply at all times is becoming more complex due to the integration of the European electricity market and the energy transition. Over the years, electricity has been increasingly traded across national borders following primarily the different price levels in Europe, but resulting in congestions due to the capacity restrictions. Also energy feed-in from renewables especially in Germany has increased significantly and led to congestions in our grid that we have to solve.

Furthermore, costs for servicing and maintaining the systems used for the primary operating processes have increased because we have more assets, especially offshore connections, in operation since 2014.

Grid expenses in Germany in 2016 decreased compared to 2015 due to lower energy feed-in. This resulted in fewer redispatch measures, and therefore expenses, in Germany to resolve the congestions and ensure security of supply. Furthermore the expansion of our grid (for example with the 'Frankenleitung' power line in Franconia) led to a noticeable relief of the German grid and therefore fewer redispatch measures.

Grid expenses in the Netherlands increased mainly due to transmission restrictions in the northern part of the Dutch grid. Basically, we were unable to transmit all energy flows through this part of the grid and more grid measures had to be taken to resolve the restrictions in 2016. For 2017, a package of measures has been taken to relieve the pressure on this grid and reduce these expenses.

Furthermore, energy has to travel longer distances due to the geographical spread of renewable energy sources and there is increased energy transmission between European countries, all of which is increasing grid losses. In 2016, expenses for grid losses amounted to EUR 161 million (2015: EUR 148 million).

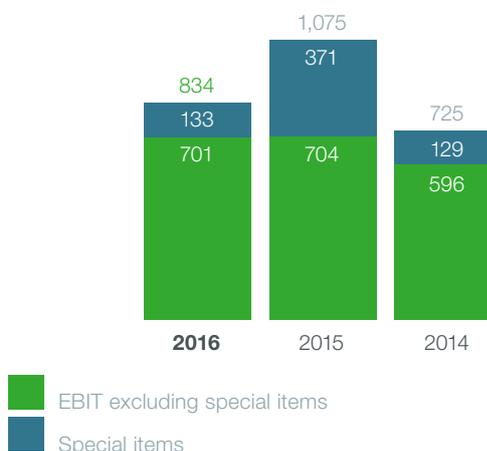
## Grid expenses

EUR million



## EBIT

EUR million



## EBIT

Underlying EBIT decreased from EUR 1,075 million in 2015 to EUR 834 million in 2016. As the chart shows, special items did not affect 2016 EBIT as much as they did in 2015 (see separate paragraph). EBIT excluding special items is in line with the previous year, i.e. EUR 701 million in 2016 compared to EUR 704 million in 2015.

## Special items

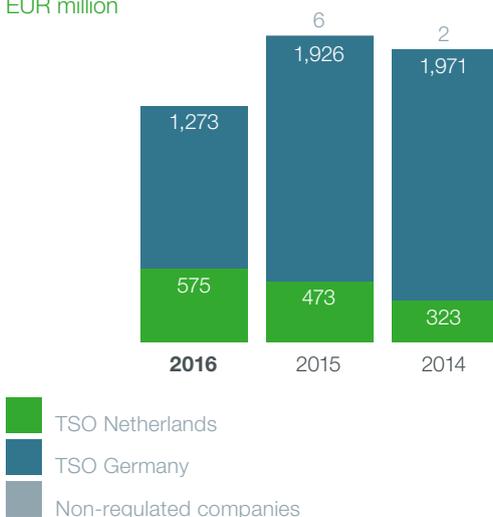
As indicated, our results are affected by special items. In our view, special items are items that do not arise directly from the ordinary course of our business or items that, due to their size and nature, must be considered separately for a meaningful analysis of our results. In aggregate, these items amounted to a positive EBIT effect of EUR 133 million in 2016. The most significant special items affecting 2016 EBIT are:

- Offshore reimbursement in Germany received in excess of costs; we receive a fixed percentage reimbursement over the capital invested in offshore projects for operating and maintenance costs during the investment measure phase of projects. With a significant number of offshore projects going into operation at the end of 2015, the actual spending on operating and maintenance during the year 2016 exceeded the fixed percentage reimbursement for some connections.
- Reimbursement transmission costs for 2009-2011; as noted above, the court in the Netherlands decided in favour of reimbursing certain past transmission costs resulting in additional revenue.

The special items in 2015 related mainly to the offshore revenues received in excess of costs and the release of offshore provisions, as well as the impairment reversal of regulatory assets in the Netherlands. For information regarding the 2015 special items, see our 2015 annual integrated report.

## Investments

EUR million



## Investments

We continue to invest in our grid in order to maintain a high security of supply and to facilitate the energy transition in the Netherlands and Germany. Capex totalled EUR 1,848 million in 2016 and decreased compared to 2015. The decrease is due to large, mainly German offshore, projects completed in the past years and new large projects being at an early stage with a focus on planning and licensing for which the majority of the capex will come in the upcoming years.

In 2016, DoWin2 became operational, allowing us to transmit almost 5.0 GWH of offshore wind energy to the German grid. As mentioned, the failures we encountered with DoWin2 were resolved at the beginning of 2017. Capex in 2016 relates mainly to the following projects under construction:

- **Netherlands:** Randstad 380 kV, South-West 380 kV, North-West 380 kV and Doetinchem-Wesel.
- **Germany:** the connection between Brunsbüttel and Denmark (Westküstenleitung), the connection between Dollern and Denmark (sections Hamburg/Nord-Dollern and Audorf-Hamburg/Nord), DoWin3, Borwin3 and Nordergründe.
- **Interconnections:** COBRACable between Denmark and the Netherlands, NordLink between Germany and Norway.

For further information on our projects, [click here](#).

## Capital structure and financing

Our financing strategy aims for a solid financial position, with sufficient flexibility and resilience to manage any necessary or enforced changes to our operations or in the regulatory domain, as well as providing adequate funding to carry out our extensive investment programme. Full access to the financial markets against favourable conditions is a prerequisite for this. Senior unsecured credit ratings for TenneT Holding B.V. remained unchanged in 2016 and were reaffirmed by Standard & Poor's (A- / stable outlook) and Moody's Investor Service (A3 / stable outlook) in May 2016.

“Green financing instruments are the perfect way to complement the transition to renewable electricity.”

Otto Jager,  
Chief Financial Officer TenneT

“TenneT's green bonds fit perfectly with our corporate philosophy of integrating sustainable developments in our investment management. Therefore, Mirova highly appreciates the initiative of TenneT – as one of the few European corporates – to globally promote sustainable investment with these instruments.”

Chris Wigley,  
Senior Portfolio Manager at Mirova

In addition, Moody's Investors Service awarded our newly-issued green medium-term notes a Green Bond Assessment of GB1 (Excellent). Also, Oekom assessed our social and environmental performance and reaffirmed our overall CSR rating of B- (status Prime). Sustainable rating agency Sustainalytics placed us within the top 5 percentile of the utilities sector and classified us as “outperformer” on the environment in 2016. These ratings and recognition boost our investor appeal from a CSR-perspective.

## Equity

Underlying equity grew again and amounted to EUR 4,792 million at year-end 2016 (at year-end 2015, EUR 3,803 million). This increase is due to the committed part of the equity contribution from our shareholder (EUR 780 million) and this year's comprehensive income less the dividend paid to our shareholder (EUR 196 million) and to holders of our hybrid securities (EUR 25 million net of tax).

On 12 July 2016, TenneT's shareholder, the Dutch State represented by the Ministry of Finance, announced that it would contribute up to EUR 1,190 million in additional equity over the 2017-2020 period to finance TenneT's Dutch onshore- and offshore investment portfolio. The final tranche of EUR 410 million in 2020 is conditional and will only be granted if the shareholder considers it necessary, taking into account TenneT's financial situation at that time. The process for the Dutch State to make an additional capital injection in TenneT was formally completed in December 2016. TenneT received the first tranche of EUR 150 million on 2 March 2017.

## Net debt position

Our net debt position increased from EUR 5,736 million at the end of 2015 to EUR 7,347 million in 2016. This increase reflects the higher funding provided for our capital-investment programme.

In May, we successfully completed our inaugural green Schuldschein issue. The EUR 500 million Schuldschein is a type of privately-placed German debt, with terms similar to an unsecured bond issue. We also successfully issued a total of EUR 1.5 billion in green bonds in 2016, making us the largest corporate issuer of this type of financing in the Netherlands. In addition, we borrowed EUR 125 million from the European Investment Bank (EIB) in the form of a loan, maturing in October 2038, with linear repayments starting in October 2019. This was the last tranche of committed EIB facilities. A total of EUR 1.2 billion is outstanding under EIB facilities at year-end 2016.

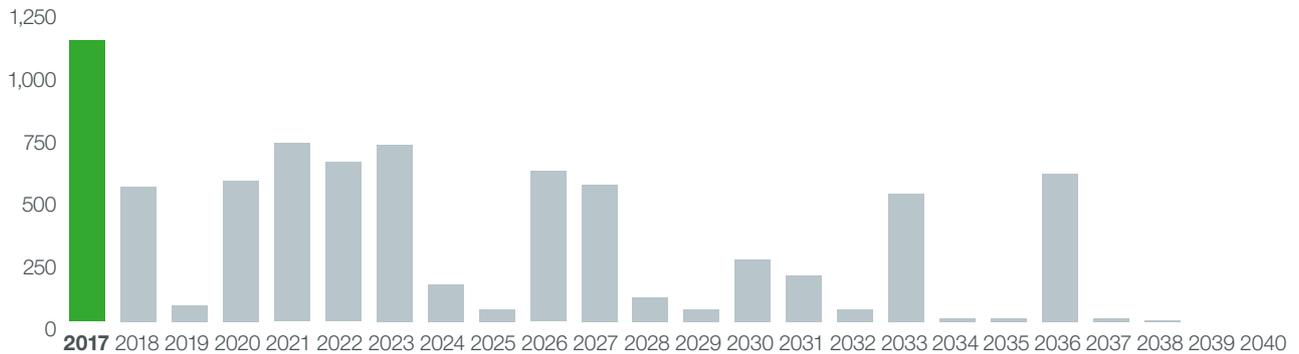
## Issuance of green loans



We issued our first green Schuldschein of EUR 500 million in 2016. Adding this privately placed German debt as a financing instrument, alongside our green bonds, and investing the money raised in offshore grid connections underlines our commitment to sustainable financing and investing. The success of the green Schuldschein issue also gives us access to a new financing market for our investment programme, both now and in the future. For more information about our green financing [click here](#).

## Annual redemption of debt

EUR million



Our diversified maturity profile of senior debt helps us minimise our refinancing risk. The chart shows our annual mandatory redemption profile at year-end 2016. The redemptions in 2017 relate entirely to short-term commercial papers. To ensure we have sufficient cash and commercial credit facilities available to meet our actual and expected obligations on a rolling 12-month basis at all times, we have a EUR 2.2 billion revolving credit facility (RCF) in place. At year-end, no amount was outstanding under the RCF. We also increased our uncommitted credit lines up to EUR 450 million in 2016 (2015: EUR 375 million).

The effective interest rate of our entire debt portfolio (excluding hybrid securities) decreased by 0.68% to 2.47% for 2016 (2015: 3.15%) due to new borrowings at favourable market rates.

For more information on our capital management policy and procedures and financial risks, see section '[Capital structure and financing](#)' of our consolidated financial statements.

### FFO/Net debt

A key measure we use to monitor our financial risk and ability to repay our debt is funds from operations (FFO) divided by net debt. This is a measure of our earnings from net operating income plus depreciation, amortisation and impairments minus gains/losses on the disposal of assets we generate compared with the level of debt we hold.

In line with the requirements of the credit agencies Standard & Poor's and Moody's Investor Service, our internal policy is to maintain a FFO to net debt ratio of at least 8%. As our net debt increased and EBIT decreased (see paragraph on [financial section](#)), our FFO/net debt ratio decreased from 19.7% in 2015 to 15.5% in 2016.

## Our financial challenges

Challenge	Action
<p>We have projected 25 billion investment programme for the next 10 years. Our main challenge, from a financial perspective, is to finance our investments as efficiently as possible and to maintain our creditworthiness for (potential) investors.</p>	<p>We will continue to finance substantial sums, through issuing green bonds and green Schuldschein. By using different types of financing we achieve a diversified maturity profile for our senior debt, reducing our refinancing risk and supporting our solid financial position. Furthermore, by seeking dialogue with our shareholder, the Dutch State represented by the Ministry of Finance, we obtained an additional equity commitment of EUR 1.2 billion (of which EUR 0.4 billion is conditional) over the 2017-2020 period to finance our Dutch onshore and offshore grid investment portfolio. Thanks to a stable credit rating, we have good access to financial markets to fund the necessary investments in our infrastructure.</p>
<p>Maintaining a balance between applying the latest technology to our grid investments and achieving sufficient capex efficiency.</p>	<p>Through dialogue with the regulator and other stakeholders, we seek to create a regulatory framework that integrates new technology in our transmission grid in a cost-effective way which benefits our customers. We are also further harmonising our project control processes and standards to ensure our projects are executed as efficiently as possible, control project risks and meet the required quality standards.</p>
<p>The rapid growth of our organisation in terms of our objective to maximise operational expenditure efficiency.</p>	<p>We focus continuously on improving internal processes and performance culture (including our feedback culture) through our Power to Perform programme. We are undertaking a company-wide LEAN scan in 2017 to help us to deal with the increasing amount of work in the future without massively increasing our resources and complexity. The efficiency targets set by our regulators are explicitly taken into account in our target-setting in the budget process.</p>

### Looking ahead

Our financial result is healthy and our outlook positive. Our growing asset base and investments in recent and upcoming years will lead to a further increase in revenues and EBIT, but also to higher operating expenses. Given that our regulators are placing increased pressure on opex efficiency, these higher operating expenses could pose a challenge.

We expect to invest EUR 25 billion in onshore and offshore grid infrastructure over the next ten years. One development regarding our (future) investments is that we were officially appointed to build the Wolmirstedt-Isar connection, now called SuedOstLink in Germany. This will be TenneT's second-largest DC project in Germany after SuedLink. In the Netherlands, we launched the first tenders for our Dutch offshore projects.

Depending on the speed and magnitude of our investment portfolio, additional equity financing may be required to supplement the Dutch State's commitment to contribute additional equity for financing of our Dutch investments.

In the autumn of 2016, the regulatory framework for the Netherlands was set for the period 2017-2021. During this regulatory period the nominal weighted average cost of capital (WACC) will decrease to 3.2% after tax in 2021. The German regulator has also announced the regulatory return on equity for the period 2019-2023. In Germany, the return on equity was set at 5.6% after tax. Both the post-tax WACC in the Netherlands as well as the post-tax return on equity in Germany are at lower levels than in the current regulatory periods (i.e. Netherlands: 4.2%; Germany: 7.4%). This will also increase our financing needs.

## Statements of the Executive Board

### 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 coordinated instruments:

- The enterprise risk management system, which identifies, analyses and monitors the relevant risks to TenneT;
- The internal control framework to manage critical processes, including control self-assessments by control owners to give account with respect to control effectiveness within the processes;
- Business plans and quarterly reports with information on corporate objectives and their achievement;
- Internal audits of critical processes and discussions on the follow-up of the audit findings with responsible managers;
- Follow-up of the recommendations from the external auditor's management letter;
- An internal Letter of representation (LOR) process, of which the LOR is ultimately signed by the Executive Board.

The Executive Board 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 are shared with the Audit, Risk and Compliance Committee, the Supervisory Board and the external auditor.

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

### Statement of responsibility

The Executive Board is of the opinion that TenneT's risk management and internal control system ascertain that the financial reporting does not contain any errors of material significance and that the risk management and internal control system has operated adequately in the year under review.

We confirm that the financial statements for the period 1 January to 31 December 2016 have, to the best of our knowledge, been prepared in accordance with IFRS as adopted by the EU and with Part 9, Book 2 of the Netherlands Civil Code, that the disclosures in the financial statements give 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 the performance, results and position of TenneT, together with a description of the most significant risks and uncertainties faced by TenneT.

### Arnhem, 6 March 2017

J.M. Kroon\*  
U.T.V. Keussen\*  
B.G.M. Voorhorst\*  
O. Jager\*  
A.A. Hartman  
W. Breuer

\* Statutory Director



**J.M. (Mel) Kroon**  
Chair Executive Board



**U.T.V. (Urban) Keussen**  
Vice-chair Executive Board



**B.G.M. (Ben) Voorhorst**  
Member Executive Board

# Our Executive Board

## **J.M. (Mel) Kroon**

Chair Executive Board / Chief Executive Officer

### **1957, Dutch**

Initial appointment: 2002

#### **Other positions qualitate qua:**

- Chair Supervisory Board TenneT TSO GmbH
- Member Supervisory Board EPEX SPOT S.E.
- Chair Supervisory Board NOVEC B.V.

#### **Other positions:**

Restrictive arrangements according to Wet Bestuur en Toezicht apply

- Member Supervisory Board Havenbedrijf Rotterdam N.V.
- Member Supervisory Board Ivy Infrastructure TopCo B.V. (as of 1 December 2016)

#### **Other positions:**

- Member Board Dutch-German Chamber of Commerce
- Member Supervisory Board Coöperatie VGZ (as of 1 January 2017)

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## **U.T.V. (Urban) Keussen**

Vice-chair Executive Board /  
Chair Board TenneT TSO GmbH

### **1964, German**

Initial appointment: 2014

#### **Other positions qualitate qua:**

- Member Assembly ENTSO-E
- Chair Board TenneT TSO GmbH

## **B.G.M. (Ben) Voorhorst**

Member Executive Board / Chief Operating Officer

### **1959, Dutch**

Initial appointment: 2006

#### **Other positions qualitate qua:**

- Member Board TenneT TSO B.V.
- Member Supervisory Board NOVEC B.V.
- Member Board Netbeheer Nederland
- Member Board Nederlandse EnergieData Uitwisseling
- Member Cyber Security Council
- Vice-chair Board ENTSO-E
- Member Cooperation Board TSCNET Services GmbH
- Member Supervisory Board EDSN B.V.
- Member Supervisory Board ETPA B.V.



**O. (Otto) Jager**  
Member Executive Board



**A.A. (Lex) Hartman**  
Member Executive Board



**W. (Wilfried) Breuer**  
Member Executive Board

### **O. (Otto) Jager**

Member Executive Board / Chief Financial Officer

#### **1970, Dutch**

Initial appointment: 2013

#### **Related functions:**

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

### **W. (Wilfried) Breuer**

Member Executive Board / Director Offshore

#### **1965, German**

Initial appointment: 2014

#### **Other positions qualitate qua:**

- Managing Director TenneT Offshore GmbH
- Member Cigre German Committee
- Member of FGH e.V.

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### **A.A. (Lex) Hartman**

Member Executive Board / Director Corporate Development

#### **1956, Dutch**

Initial appointment: 2008

#### **Other positions qualitate qua:**

- Member Board TenneT TSO GmbH
- Chair Board BritNed Development Ltd.
- Director NLink International B.V.
- Member Management board FLOW – Far and Large Offshore Wind

# Supervisory Board report

Society's demand for renewable energy is growing fast. To integrate renewable sources of energy into the electricity grid, and to keep it balanced and stable, requires considerable investment and carefully considered decisions.

The Supervisory Board is closely involved in this critical process by overseeing and advising the Executive Board.

Specifically, the Supervisory Board is responsible for assessing whether the decisions taken by the Executive Board comply with the company's strategic, societal, financial, and technical objectives. The Supervisory Board also assesses TenneT's safety performance and the security of the electricity supply.

A common theme running through the Supervisory Board's work in 2016 was balancing the challenges of the fast-changing environment and seizing new business opportunities, while safeguarding security of supply.

The most important topics discussed by the Supervisory Board in 2016 and the challenges faced are outlined below.

## Supervisory Board Committees

The Supervisory Board has three committees;

- (1) Audit, Risk and Compliance,
- (2) Remuneration and Appointments, and
- (3) Strategic Investments.

Each Supervisory Board member serves on at least one of these. The Chairman of the Supervisory Board does not chair any of the committees.

Each committee advises the Supervisory Board on delegated subjects, and at Supervisory Board meetings, each committee chairman reports on subjects it has discussed, with documents and minutes submitted to the Supervisory Board ahead of its meetings.

In 2016, each Supervisory Board and committee meeting was attended by the company secretary who took minutes on each occasion.

## Strategy

TenneT's five-year strategy: '*Enabling the Change*', was reviewed by the Supervisory Board in 2015. The Supervisory Board monitors the implementation of the strategy on an ongoing basis and welcomes the fruitful discussions that ensue. Digital transformation was one of the strategic priorities which was discussed in depth.

For Supervisory Board meetings, discussions on relevant topics are prepared by the three committees as described below.

## Society

Society relies on TenneT for a reliable and uninterrupted supply of electricity. Every day, TenneT's high-voltage grid affects the daily lives of 41 million people throughout the Netherlands and in large parts of Germany. The Supervisory Board aims to support TenneT in and by interacting with society in an open and transparent way.

## Contact with the shareholder

During 2016, there was frequent contact with the shareholder outside of the General Meeting of Shareholders. This was important, considering the many developments both within the company and externally, taking into account the role that the Dutch State as shareholder wishes to perform.

During these meetings, the shareholder and the Supervisory Board discussed the topic of variable remuneration for the statutory directors, which is an element of overall remuneration. In 2015, the shareholder expressed its wish to lower the variable element to 20% of base salary for statutory directors of all state-owned enterprises. During 2016, the Supervisory Board agreed this with the statutory directors to reduce the variable part of remuneration was accordingly reduced to a maximum of 20%.

During the year, the shareholder also started the process of revising the remuneration policy. Discussions between the Supervisory Board and the shareholder are still ongoing on this matter.

The Supervisory Board and the shareholder also discussed the future dividend policy, assessing the appropriate level in light of the future equity needs of the company and the shareholder's budgetary expectations balanced against the long-term capital needs of the company.

### Supervisory Board Effectiveness Review

The Supervisory Board evaluated its own performance (Board Effectiveness Review) in the second part of 2014, with the support of an external advisor. This consultant also held individual meetings with the members of the Supervisory Board to discuss personal feedback. The results of the Board Effectiveness Review were shared with the Executive Board. In 2016, as in 2015, the Supervisory Board discussed the follow-up to the review. It was noted that topics flagged during the review were adequately addressed, with the regular senior management review not only discussed by the Remuneration and Appointments Committee, but also by the full Supervisory Board. Feedback from the discussions within the committees to the full Supervisory Board was given more efficiently and there were occasions, which facilitated further contact with senior management. A fixed topic on the agenda of each Supervisory Board meeting was added: the evaluation of the current meeting. One topic identified during the Review (the Supervisory Board having a fixed meeting opportunity without the presence of the Executive Board) was not taken up, as the Supervisory Board did not consider this to add any benefit at this stage.

### Markets

Ever-increasing amounts of renewable energy are flowing into the system. Further integration of the North Western European markets, as well as upgrading the Dutch grid, is necessary to ensure security of supply. TenneT is one of the leaders in establishing a single European energy market and has more interconnectors in place across national borders than any other TSO in Europe. The Supervisory Board discussed TenneT's role in this and welcomed the fact that TenneT was officially appointed to build and operate the Dutch offshore grid in 2016.

### Security of supply

TenneT needs to do substantial and complex investments to strengthen the onshore grids in Germany and the Netherlands.

"International cooperation and a high degree of onshore and offshore connectivity are crucial for realizing the transition to renewable energy and secure the uninterrupted and cost-efficient supply of electricity. As Supervisory Board, we consider it in society's interest that TenneT and other North West European TSO's can engage in such cooperation and further shape their role to facilitate the energy transition."

Mr. Veenman,  
Chair Supervisory Board TenneT

As a result, the offshore grid connections and interconnector capacity with other countries were high on the Supervisory Board's agenda during the year. In line with its duties, the Supervisory Board assessed the strategic, societal, financial, and technical aspects of these. As some of these factors may lead to different outcomes, the Supervisory Board carefully considers all aspects and alternatives.

Last year, these discussions included an analysis into the causes of the 2015 outage in Diemen. Mr. Fischer, CEO of Tata Europe – which was affected by the outage – did not take part in these discussions.

### Strategic Investments Committee

Throughout the year, the Strategic Investments Committee reviews investment proposals with a value above EUR 50 million, as submitted by the Executive Board. It assesses whether such proposals are compatible with the company's economic, financial, and technical objectives, as well as with the risk profile and stakeholder impact. Dilemmas discussed included issues such as the cost of grid expansion versus those of redispatch, as well as the costs involved in underground cabling, often necessary to gain public acceptance. The Strategic Investments Committee also monitors timeliness, quality, cost efficiency and associated risks of large projects, and advises the Supervisory Board on investments.

In 2016, the Strategic Investments Committee consisted of Mr. Zwitserloot and Mr. Fischer (Chair). Mr. Fischer took over the chair of Mr Zwitserloot to ensure rotation of duties within the Supervisory Board. The committee held six meetings, each with several members of the Executive Board. Most of the meetings were attended by Mr. Veenman and/or Mrs. Griffith as a guest.

## Environment

TenneT is a facilitator of the transition to green energy, but its activities have an unavoidable impact on nature. As TenneT's Supervisory Board, we are fully aware that we have a responsibility to care for the wellbeing of the natural environment for future generations. TenneT's 'Commitment to Nature' vision underlines the company's approach to biodiversity, ecosystems, and the landscape.

## Offshore

In 2016, the Dutch government formally appointed TenneT as the responsible party for developing and operating the Dutch offshore grid connections, which will make 3,500 MW of renewable wind energy available by 2023.

The first two offshore wind park connections, Borssele and Hollandse Kust Zuid, were discussed by the Supervisory Board.

Offshore development in Germany is progressing rapidly and is vital to the success of the Energiewende.

The challenging transitional work involved in putting grid connections into operation was discussed in detail by the Supervisory Board. Furthermore, the challenges of commissioning offshore grid connections, underlined by the failure of the DolWin2 cable joints during trial operations phase, was a point of focus.

## Innovation

Innovation is high on the Supervisory Board's mind, most particularly the innovation roadmap, innovation programs and the way TenneT structures and governs innovation. Innovations such as long stretches of underground cabling can help preserve the landscape and are the preferred political option for DC in Germany.

## Employees

TenneT's people are at the heart of the company's continued success and growth and the Supervisory Board aims to help create a safe, healthy, stimulating and energising work place where they can perform to the best of their abilities. Attracting the right people in an environment where talented technical specialists are scarce and empowering them to perform is crucial to TenneT's ongoing success.

## Safety

Safety at TenneT is a matter of primary focus for the Supervisory Board, particularly as regards the company's safety record, which is benchmarked against TenneT's peers and overall best-performing companies.

The Supervisory Board continued to closely monitor the implementation of TenneT's Safety Vision 2018 – introduced in 2014 – and discussed the LTIF, which has regrettably not continued its progress made during previous years.

During its meetings, the Supervisory Board discussed individual safety incidents, as well as the lessons learned and best practices from other industries.

## Remuneration and Appointments Committee

The Remuneration and Appointments Committee is tasked with the company's remuneration policy and the remuneration of individual board members.

The Remuneration and Appointments Committee also establishes criteria for appointing new board members and supervises the recruitment process.

Furthermore, it is tasked with the management review and possible nominations for the re-appointment of board members.

In 2016, the Remuneration and Appointments Committee consisted of Ms. Hottenhuis (Chair), Mrs. Griffith and Mr. Veenman. The committee held eleven meetings. Most were conducted in the presence of the Chairman of the Executive Board. Discussions concerning the remuneration report were conducted in the presence of the CFO. Of the eleven conferences, five were telephone conferences, regarding the shareholder's wish to reduce variable remuneration, as well as the revision of the remuneration policy.

## Selection, appointments, remuneration and performance

Selection and succession processes within TenneT's Executive Board are an important task of the Supervisory Board. As part of this, the Supervisory Board conducts performance appraisals for the members of the Executive Board, which consists of six members, four statutory directors and two non-statutory directors. The input for these appraisals is gathered by the Remuneration and Appointments committee in a part of a Supervisory Board meeting not attended by the Executive Board.

As well as assessing the performance of the Executive Board, the Supervisory Board discussed the yearly review of TenneT's wider senior management, including succession planning. Also, the Supervisory Board frequently discussed issues relating to remuneration.

In 2016, specific topics included targets set for the variable remuneration of the statutory Executive Board members and the 2015 remuneration report.

### Diversity and Culture

TenneT aims for its Executive Board and Supervisory Board to be comprised of people with diverse background experiences, skills, and knowledge. TenneT values this diversity and believes it contributes positively to the way situations are assessed and decisions made. The Supervisory Board is fully aware that the Executive Board lacks gender diversity and will take this into account for future appointments. TenneT will make serious efforts to comply with the gender equality targets set by the European Commission to ensure greater board-level gender diversity by 2020. During 2016, the Supervisory Board deliberated on the organisational culture of the company and the need to balance the organisational focus on stability and reliability vs. employees' ability to address new opportunities provided by the external environment.

### Contact with the Works Council

Fostering good relations with the Works Council, which represents employee interests, is an important task of the Supervisory Board, and one it considers vital given the rapid developments in the energy market in general and at TenneT in particular. As such, the Chairman of the Supervisory Board regularly met with members of the Works Council during the year to keep abreast of employee issues. A joint meeting in November with the Supervisory Board, the Works Council and the Executive Board was welcomed by the Supervisory Board since it gave an opportunity for an active dialogue with the Works Council.

### Permanent education

After they are appointed, new Supervisory Board members participate in a programme introducing them to TenneT's key business areas.

The Supervisory Board considers ongoing education of this kind to be of great importance. In 2016, two in-depth workshops were held, focusing on project management and IT. In addition, Supervisory Board members visited the TenneT sites in Voorburg, Eemshaven and Dörpen. These site visits and workshops (presented by the senior managers) are a good opportunity for the Supervisory Board members to meet with TenneT employees across the company.

### Composition of the Supervisory Board

Members of the Supervisory Board are appointed for a term of four years with a maximum of three terms. Details on this can be found on TenneT's website. Many factors are considered in the composition of TenneT's Supervisory Board, including the nature of the company, diversity and the required expertise and background of its members.

In accordance with the Corporate Governance Code, all Supervisory Board members are independent. Furthermore, the Supervisory Board complies with the Electricity Act, which stipulates that the majority of Supervisory Board members has no direct or indirect links with legal entities (or shareholders thereof) engaged in the production, purchase or supply of electricity or gas. Certain Supervisory Board members hold positions at companies, which have a customer or supplier relationship with TenneT. It should be noted that these Supervisory Board members have not been involved in any business dealings between their respective companies and TenneT. Contract reviews, negotiations or awards between the companies were conducted at the appropriate business levels and in the ordinary course of business.

In 2016, Mr. Verboom was re-appointed by the shareholder for his second term. This reappointment was discussed internally within the Supervisory Board. Furthermore, an interview with the shareholder was part of the reappointment process.

Mr. Zwitserloot is a member of the Aufsichtsrat of TenneT TSO GmbH, the German equivalent of the Supervisory Board.

In March 2017, the third term of the Supervisory Board's chair, Mr Veenman, will end. In accordance with the applicable statutory provisions, Mr Veenman shall retire no later than at the close of the first general meeting after expiry of his third term, i.e. at the annual general meeting in March 2018.

More information on the members of the Supervisory Board can be found in the next section of this annual report.

### Financial

TenneT must balance the financial interests of its shareholder with its duty to ensure electricity remains affordable and freely available to all. TenneT's license to operate is rooted in ensuring the security of electricity supply in its markets, while delivering maximum benefit to society in the most financially viable way.

### Audit, Risk and Compliance Committee

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

In 2016, the Audit Committee consisted of Mr. Verboom (Chair) and Mr. Veenman. It held four meetings attended by the Chair of the Executive Board, the CFO, the senior manager for Internal Audit and the senior manager for Corporate Control. The company's external auditor also attended these meetings.

At the end of the year, the Audit Committee was renamed as the Audit, Risk and Compliance Committee, as this better describes its focus. In 2016, as is done each year, the Audit, Risk and Compliance Committee spoke with the external auditor without the Board being present. No additional material topics arose from these meetings.

### Risk management

Individual interviews were conducted with the members of the Supervisory Board as part of the 2016 annual strategic risk assessment. The dilemma of accommodating the rapid growth of the company while simultaneously controlling risks was taken into account as the basis for the strategic risk assessment. The Executive Board was responsible for finalising the set of strategic risks as disclosed in the section Risk management and internal control.

Quarterly project reports, which focus on the progress of large projects, were reviewed by the Strategic Investments Committee and subsequently by the Supervisory Board. Particular focus was placed on project management, with specific attention paid to timely delivery, risks of delays and interruptions and the societal demands, which can lead to delays and/or projects becoming more expensive.

### Financing

TenneT's financing position, its financing structure and the overall financing plan were also assessed by the Supervisory Board. During 2016, it assessed a range of factors, including shareholder objectives, the long-term continuity of the company and short-term liquidity needs. Topics discussed included the financing structure of TenneT Group, cash flow and liquidity forecasts, equity solutions and several debt financing instruments.

The Supervisory Board welcomed the commitment of the Dutch State underlined by their equity contribution for the coming years and is also keeping a close eye on the balance between the shareholder's focus on the Dutch investment portfolio and the equity needs for the whole of TenneT.

### Regulation

The Supervisory Board repeatedly discussed the implications of TenneT operating in a regulated environment, in the Netherlands as well as in Germany. One of the topics was striking the balance between regulatory optimisation and creating value for society. In addition, the topic of growing company profits vs. rapidly increasing grid tariffs was considered.

### Integrated reporting and audit

TenneT's financial statements for the 2015 financial year, the 2016 internal quarterly reports and the 2016 interim results were all discussed by the Supervisory Board during the year.

The meetings also covered the management letter from the external auditor; the independent auditor's report; internal audit reports; and results from internal risk and control assessments; the 2017 budget and the medium-term plan for 2017-2019.

### Compliance and integrity

Compliance and integrity is a matter of continuous attention. A specific case which led to the dismissal of an employee of the company was discussed on several occasions, as well as compliance and integrity in general.

### Financial statements

The Supervisory Board has examined the 2016 integrated annual report, the 2016 financial statements and the independent auditor's report and assurance report related to non-financial information, management letter and audit results report issued by TenneT's external auditor, EY. This is based on the preparatory work and advice of the Audit, Risk and Compliance Committee. As a result, the Supervisory Board endorses the documents and recommends that the General Meeting of Shareholders adopts the financial statements.

The Supervisory Board recommends that the General Meeting of Shareholders discharges the Executive Board from liability in respect of its management of the company and releases the Supervisory Board from liability in respect of its supervision.

## Supervisory Board meetings and other topics

The Supervisory Board held six regular meetings in 2016. All meetings were attended in full, except for one, which had one absentee. One of these regular meetings took place at the TenneT offices in Bayreuth, Germany.

In addition to these regular meetings, a telephone conference was held to discuss the recruitment of the new chairman of the Supervisory Board and another extra meeting took place to confer on future equity needs and possible alternatives. Besides these topics and topics mentioned in the report above, other topics covered by the Supervisory Board in 2016 included: the results of TenneT's latest Reputation Survey, the outcomes of the latest Customer Satisfaction Survey, CSR reports and the Dutch legislative processes 'STROOM' and 'Voortgang Energietransitie'.

In addition, the Supervisory Board discussed the development of power exchanges, the location and the building concept of TenneT's new German headquarters and the internal 'Power to Perform' performance management programme.

## Word of appreciation

The Supervisory Board would like to extend its appreciation to the members of the Executive Board and all TenneT employees. Over the course of 2016, TenneT successfully dealt with significant challenges while simultaneously working on multiple crucial investment projects.

The high level of investments in maintenance and expansion projects were major achievements in the year, demonstrating TenneT's commitment to investing in a reliable and secure electricity grid. Besides transmission and system services, it is TenneT's task to facilitate a smoothly functioning electricity market and to support the large-scale transition to renewables. TenneT plays a leading role in shaping an integrated European electricity market.

Throughout all of this, TenneT remained focused and dedicated to its central purpose of safeguarding the safety and security of supply. These are significant achievements and it is TenneT's employees' hard work and dedication, contribution and continuous commitment that made them possible.

The Supervisory Board also very much values the contribution by the Company Secretary, who consistently supports the Supervisory Board and its members in their work.

Arnhem, 6 March 2017

### Supervisory Board TenneT Holding B.V.

A.W. Veenman  
P.M. Verboom  
R.G.M. Zwitserloot  
S. Hottenhuis  
J.L.M. Fischer  
L.J. Griffith

# Board remuneration

The section on the Board remuneration specifies the current remuneration for the statutory directors in 2016, their success at meeting set targets and the resulting awards of variable remuneration. The report also specifies the remuneration received by the members of the Supervisory Board. For further details on the remuneration policy [click here](#).

## Remuneration of the statutory directors Fixed and variable remuneration

From 2016 onward the annual variable remuneration of the company's statutory directors will be limited to 20% of fixed annual salary. To make this principle applicable for the current board members, whose variable remuneration

is 25% resp. 35% of fixed annual salary, the supervisory board decided to convert – for the remainder of the relevant employment contract – the part of the variable remuneration above 20% at a rate of 60% as agreed with the shareholder. This converted part has been included in the fixed remuneration and therefore included in the pension base.

(in EUR thousand)	Fixed Remuneration		Variable Remuneration (annual)		Variable Remuneration (long term)	
	2016 *	2015	2016	2015	2016 **	2015
J.M. Kroon Chief Executive Officer	355	337	57	73	n/a	n/a
U.T.V. Keussen Vice-chair Executive Board	351	304	49	61	n/a	30
B.G.M. Voorhorst Chief Operating Officer	272	257	38	51	n/a	n/a
O. Jager Chief Financial Officer	265	234	40	47	n/a	23

\* Including the converted part of the variable remuneration

\*\* Not applicable anymore as per 1 January 2016

## Fixed remuneration

With effect from 1 January 2016 and in accordance with the indexation for employees as determined by the 'NWb' Collective Labour Agreement for grid companies, the salaries of all statutory directors have been indexed by 1.5%.

### Variable remuneration

Based on achievement of present targets, the Supervisory Board decided on the statutory directors' variable payment realisation percentages over 2016. Realisation of the Safety target was 0%, due to the fatal accident which occurred in

the beginning of 2016. The realised percentages are included in the table below. The Supervisory Board has concluded that there are no current insights that might lead to the revision of the variable remuneration paid out in former years.

	J.M. Kroon		U.T.V. Keussen		B.G.M. Voorhorst		O. Jager	
	Realised	Maximum	Realised	Maximum	Realised	Maximum	Realised	Maximum
<b>Security of Supply and Safety</b>	<b>20.0%</b>	<b>45.0%</b>	<b>20.0%</b>	<b>45.0%</b>	<b>20.0%</b>	<b>45.0%</b>	<b>20.0%</b>	<b>45.0%</b>
Security of Supply	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Safety	0.0%	25.0%	0.0%	25.0%	0.0%	25.0%	0.0%	25.0%
<b>Financial</b>	<b>14.6%</b>	<b>15.0%</b>	<b>14.6%</b>	<b>15.0%</b>	<b>14.6%</b>	<b>15.0%</b>	<b>14.6%</b>	<b>15.0%</b>
EBIT	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
ROIC	7.1%	7.5%	7.1%	7.5%	7.1%	7.5%	7.1%	7.5%
<b>Strategy</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>
<b>Operations</b>	<b>20.0%</b>	<b>20.0%</b>	<b>15.0%</b>	<b>20.0%</b>	<b>15.0%</b>	<b>20.0%</b>	<b>20.0%</b>	<b>20.0%</b>
Individual targets depending on individual Board member's portfolio	20.0%	20.0%	15.0%	20.0%	15.0%	20.0%	20.0%	20.0%
<b>Total variable remuneration realised in 2016</b>	<b>74.6%</b>		<b>69.6%</b>		<b>69.6%</b>		<b>74.6%</b>	

### Pension cost

(in EUR thousand)	2016			2015		
	Pension contribution	Pension compensation	Total pension costs	Pension contribution	Pension compensation	Total pension costs
J.M. Kroon Chief Executive Officer	64	94	158	69	84	153
U.T.V. Keussen Vice-chair Executive Board	110	n/a	110	131	n/a	131
B.G.M. Voorhorst Chief Operating Officer	19	30	49	20	27	47
O. Jager Chief Financial Officer	18	22	40	19	16	35

The pensions of all Dutch statutory directors are administered by the ABP Pension Fund. The pension accrual is based on a midpoint salary system. Besides the ABP pension, additional pension is accrued for the Chief Executive Officer to facilitate retirement at 61 years of age, under a non-contributory pension plan based on total income, agreed when he joined the company. Pension accruals considering the German income of the Dutch statutory directors based on the German activities are organised in a standard defined contribution contract with Swiss Life.

The pension entitlements of the German Vice-chair are based on the so-called Beitragsplan, a company agreement applicable for all employees of TenneT in Germany.

Based on an agreement with the Supervisory Board from 2010, the Chief Executive Officer acquired leave days in 2016 with a value of EUR 25,545 (2015: EUR 25,200).

## Other allowances and secondary benefits

(in EUR thousand)	Secondary benefits		Estimated value private use company car <sup>1</sup>	
	2016	2015	2016	2015
J.M. Kroon Chief Executive Officer	8	8	3	4
U.T.V. Keussen Vice-chair Executive Board	-	-	5	5
B.G.M. Voorhorst Chief Operating Officer	6	7	7	7
O. Jager Chief Financial Officer	6	6	7	6

<sup>1</sup> Based on estimated private mileage

All statutory directors make use of a company car, the estimated value of the private use of this car is shown in the above table. In addition, with respect to the private use of leased vehicles, the customary addition to taxable income is applicable for personal income tax purposes. The company does not reimburse its directors for any personal income tax consequence resulting from the private use of leased cars.

In light of Mr Jager being temporarily stationed in Germany, a number of associated costs are reimbursed, including travel costs, housing costs, school fees, and an allowance has been allocated in accordance with the company's expat policy. These reimbursements do not contain a remuneration component.

Each statutory director receives a monthly allowance for necessary business expenses, with a value of EUR 3,300 per year. This monthly allowance is not included in the table as it is a compensation of costs and not a remuneration component.

The responsibilities within the committees are as follows:

	Supervisory Board	Audit, Risk and Compliance Committee	Remuneration and Appointments Committee	Strategic Investments Committee	Aufsichtsrat TenneT TSO GmbH
A.W. Veenman	Chair	Member	Member		
P.M. Verboom	Vice-chair	Chair			
R.G.M. Zwitterloot	Member			Member	Member
S. Hottenhuis	Member		Chair		
J.L.M. Fischer	Member			Chair	
L.J. Griffith	Member		Member		

For the Dutch statutory directors the secondary benefits as reflected in the above table contain the 'NWB' Collective Labour Agreement for grid companies based contribution to the life-course savings scheme, a contribution to health insurance and a budget for flexible terms of employment. There are no comparable Tarifvertrag based secondary benefits or allowances for the German statutory director.

The total remuneration paid to the statutory directors reconciles to and is further disclosed in the notes to the consolidated financial statements.

## 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. Each Supervisory Board member is either a member or chair of one or two committees. To establish a link between the Supervisory Board and the Aufsichtsrat of TenneT TSO GmbH, one of the members of the Supervisory Board is also a member of the Aufsichtsrat.

The shareholder decided to introduce an annual indexation of the Supervisory Board remuneration following the 'NWb' Collective Labour Agreement for grid companies, as of 1 January 2015.

The Supervisory Board remuneration has been retrospectively increased by 1.2% in 2015 and 1.5% in 2016. The remuneration was as follows in 2016:

(EUR)		
Chair	27,840	per annum
Vice-chair	22,390	per annum
Member	19,982	per annum
Audit, Risk and Compliance Committee	6,656	per annum
Remuneration and Appointments Committee	5,264	per annum
Strategic Investments Committee	5,264	per annum
Aufsichtsrat TenneT TSO GmbH	5,500	per annum

The total remuneration received by members of the Supervisory Board in 2016 was as follows:

(in EUR thousand)	Fixed remuneration		Committee fee		Total remuneration	
	2016	2015	2016	2015	2016	2015
A.W. Veenman	28	27	12	12	40	39
P.M. Verboom	22	22	7	7	29	29
R.G.M. Zwitterloot	20	20	11	11	31	31
S. Hottenhuis	20	20	5	5	25	25
J.L.M. Fischer	20	20	5	5	25	25
L.J. Griffith as of 1 July 2015	20	10	5	3	25	13



**A.W. (Aad) Veenman**  
Chair Supervisory Board



**P.M. (Pieter) Verboom**  
Vice-chair Supervisory Board



**J.L.M. (Hans) Fischer**  
Member Supervisory Board

# Our Supervisory Board

## **A.W. (Aad) Veenman**

Chair Supervisory Board / Member Remuneration and Appointment Committee / Member Audit, Risk and Compliance Committee

### **1947, Dutch**

Initial appointment: 9 March 2005  
Expiry third term: 9 March 2017\*

#### **Principal position:**

Former President N.V. Nederlandse Spoorwegen

#### **Other positions:**

- Chair Supervisory Board and Chair of the Audit and Risk Committee Achmea B.V.
- Chair Economic Cluster Logistics

## **P.M. (Pieter) Verboom**

Vice-Chair Supervisory Board / Chair Audit, Risk and Compliance Committee

### **1950, Dutch**

Initial appointment: 18 September 2012  
Expiry second term: 18 September 2020

#### **Principal position:**

- Former CFO RFS Holland Holding
- Former Executive vice president and CFO Schiphol Group

#### **Other positions:**

- Chair Supervisory Board and Member of the Audit Committee and Remuneration Committee Ampelmann Operations B.V.
- Member of the Advisory Board of NIBC
- Chair Curatorium Master Register Controllers and Advisor Programme 'The new CFO' (Erasmus University Rotterdam)
- Expert lay member of the Dutch Enterprise Court
- Member Supervisory Board DGI

## **J.L.M. (Hans) Fischer**

Member Supervisory Board / Chair Strategic Investments Committee

### **1956, German**

Initial appointment: 1 January 2014  
Expiry first term: 1 January 2018

#### **Principal position:**

Chief Executive Officer Tata Steel Europe

#### **Other positions:**

- Member Management Board Deutsch-Niederländische Handelskammer
- Member Management Board Steel Institute VDEh
- Chair Management Board Forschungsvereinigung Stahlanwendung e. V.
- Member Amsterdam Economic Board

\* Actual statutory retirement shall be no later than at close of first general meeting after this date, i.e. at the annual general meeting in March 2018





**S. (Stephanie) Hottenhuis**  
Member Supervisory Board

**R.G.M. (Rien) Zwitserloot**  
Member Supervisory Board

**L.J. (Laetitia) Griffith**  
Member Supervisory Board

**S. (Stephanie) Hottenhuis**  
Member Supervisory Board /  
Chair Remuneration and Appointment Committee

**1965, Dutch**

Initial appointment: 1 September 2013

Expiry first term: 1 September 2017

**Principal position:**

Member Executive Board Arcadis N.V.

**Other positions:**

- None

**R.G.M. (Rien) Zwitserloot**  
Member Supervisory Board /  
Member Strategic Investments Committee

**1949, Dutch**

Initial appointment: 24 November 2010

Expiry second term: 24 November 2018

**Principal position:**

Former CEO Wintershall AG

**Other positions:**

- Member Supervisory Board Royal VOPAK N.V.
- Member Supervisory Board Amsterdam Capital Trading Group B.V.
- Member Supervisory Board Vroon B.V.

**L.J. (Laetitia) Griffith**  
Member Supervisory Board

**1965, Dutch**

Initial appointment: 1 July 2015

Expiry first term: 1 July 2019

**Principal position:**

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

**Other positions:**

- Vice-chair Supervisory Board KPMG
- Chair Supervisory Board Holding Nationale Goede Doelen Loterijen
- Chair Nederlandse Veiligheidsbranche
- Member board VNO-NCW
- Member board Nederlands Filmfonds

# Governance and risk management

## Corporate governance

TenneT complies with the Dutch Corporate Governance Code in accordance with our shareholder's requirements. This provides TenneT and our subsidiaries with clear operating guidelines.

## Corporate governance structure

TenneT's corporate governance bodies comprise the Executive Board, Supervisory Board and General Meeting of Shareholders. Our internal audit department and external auditor also play an important role in the corporate governance structure.

## Executive Board

The Executive Board of TenneT Holding B.V. has four statutory and two non-statutory directors. The Executive Board members have joint authority to represent the company. Each board member also holds limited individual power of attorney. Two members of the Executive Board of TenneT Holding B.V. are managing directors of TenneT TSO B.V.; two other members of the Executive Board are managing directors of TenneT TSO GmbH and one other member of the Executive Board is managing director of TenneT Offshore GmbH.

The Executive Board is responsible for the general policies and strategy of TenneT, which includes regulated and unregulated activities.

## Supervisory Board

The Supervisory Board of TenneT Holding B.V. oversees TenneT's general policies and strategy. It carries out its duties in the interests of the company and its stakeholders and also takes into account relevant aspects of CSR. 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 rota) is available on the corporate website.

## General Meeting of Shareholders

All shares in the capital of TenneT 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 of the end of each financial year. The agenda includes a discussion on the integrated annual report, adoption of the financial statements and a dividend proposal. The meeting also discharges the Executive Board and Supervisory Board members from liability from their respective activities in the past year. Other shareholder meetings are held as and when deemed necessary by the Executive Board, Supervisory Board or shareholder.

## External auditors

The General Meeting of Shareholders has the power to appoint external auditors to audit the financial statements prepared by the Executive Board. The external auditors report to the Supervisory Board and the Executive Board. They present their findings in an independent auditor's report and assurance report, management letter and audit results report.

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

The external auditors attend relevant meetings of the Audit, Risk and Compliance Committee. They also attend Supervisory Board meetings when the management letter or the external auditor's report on the financial statements are discussed and the financial statements are approved.

## Related parties

Related parties transactions are disclosed in note 7.3 to the consolidated financial statements and TenneT complies with the best practice principles II.3.2 till II.3.4.

### Deviations from the Corporate Governance Code

Certain principles and best-practice provisions in the Corporate Governance Code do not apply to TenneT.

The reasons why and to what extent TenneT decided not to adopt certain principles and best-practice provisions are explained below:

II. 1.10 to II. 1.11. Provisions regarding a takeover bid do not apply to TenneT because all shares are held by the Dutch state.

II.2.4 to II.2.7. TenneT does not operate a system of remuneration in the form of share options, because TenneT is state-owned.

III.2.2. Two of the three dependence criteria concern Supervisory Board members with shareholdings in the company, which does not apply to TenneT. The third criterion relates to a Supervisory Board member who has temporarily been charged with managing the company in the event of the Executive Board being unavailable or incapacitated (see III.6.7).

III.5. If the Supervisory Board has more than four members, the Corporate Governance Code stipulates it shall appoint from among its members an Audit, Risk and Compliance Committee, a Remuneration Committee, and a Selection and Appointments Committee. The TenneT Supervisory Board has combined the tasks of the latter two key committees in a Remuneration and Appointments Committee. The Supervisory Board has also established an Audit, Risk and Compliance Committee and a Strategic Investments Committee, both made up of Supervisory Board members.

III.5.11. Ms. Hottenhuis is the chair of our Remuneration and Appointments committee and she is a board member at another listed company. In accordance with the Corporate Governance code the remuneration committee may not be chaired by, amongst others, a supervisory board member who is a member of the executive board at a listed company. The Supervisory Board carefully considers appointments of chairs of its committees and preferred Ms Hottenhuis as chair of the Remuneration and Appointments Committee in light of her capabilities and experience in this field. The fact that Ms Hottenhuis is an executive director of a listed company has in 2016 not hampered in any way her functioning as chair of the Remuneration and Appointments Committee.

III.6.6. No delegated Supervisory Board member is in office at TenneT.

III.6.7. A Supervisory Board member who temporarily takes charge of the company in the event of the unavailability or incapacity of the Executive Board will in principle step down temporarily from the Supervisory Board. On completion of these managerial duties, the Supervisory Board and the General Meeting of Shareholders will decide whether this director can re-join the Supervisory Board. The duration of the director's managerial duties may be one of their considerations.

III.7.1 and III.7.2. These provisions deal with shareholdings of Supervisory Board members and do not apply to TenneT.

III.8.1 to III.8.4. These provisions concern single-tier management; as TenneT has a two-tier system, these provisions do not apply.

The following best-practice provisions pertaining to the General Meeting of Shareholders do not apply to TenneT:

- IV.1.1. Non-structure-regime company
- IV.1.2. Voting rights in respect of financing preference shares
- IV.1.3. Public disclosure of a bid
- IV.1.7. Registration date of voting rights
- IV.2.1 to IV.2.8. Depositary receipts for shares
- IV.3.1 Dealings with analysts, financial press and institutional investors
- IV.3.7. Shareholder circular
- IV.3.11. Protective mechanisms
- IV.3.12. Voting proxies and voting instructions
- IV.4.1 to IV.4.3. Responsibility of institutional investors
- IV.3.13. Policy governing bilateral contacts with shareholders.

### Future changes in the Corporate Governance Code

In 2017, we will further assess the impact of the revised Dutch Corporate Governance Code as published by the Dutch Corporate Governance Code Monitoring Committee in December 2016.

## Remuneration policy

The remuneration policy has been determined by the shareholder and is effective as of 2011. Currently the remuneration policy is under review; finalisation is expected early 2017. The most important elements of the current remuneration policy are described below.

### Employment market reference group

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

- international Transmission System Operators (TSOs);
- infrastructure operators;
- installation specialists/engineering firms;
- construction companies;
- financial institutions.

The companies in the benchmark group are divided into three sub-groups, (semi) public (50%), private (25%) and international TSOs (25%). The remuneration norm for TenneT directors has been determined on the basis of the level of the (weighted) median of the subgroups and the specific responsibilities of the position concerned.

As part of its analysis, the shareholder tests the remuneration norm for TenneT directors against a group of reference companies relevant to TenneT, comprising 75% (semi) public and 25% private companies.

### Remuneration norm

The benchmarking method as applied by TenneT results in a 'norm' level of remuneration for TenneT directors that exceeds the maximum desired by the shareholder of EUR 367,000 (as at 1 January 2016).

On the appointment of a new statutory director, the Supervisory Board shall, at the request of the shareholder, limit the sum of fixed and variable remuneration to a maximum of EUR 367,000 (as at 1 January 2016). To achieve a balanced remuneration within both the Executive Board and the next level of senior management, the maximum fixed and variable remuneration of the Vice-chair shall be between the remuneration of the CEO and the remuneration of the CFO and COO.

If, in the opinion of the Supervisory Board, the maximum remuneration as required by shareholder leads to unacceptable risks to the organisation because the available candidates do not have the right profile or necessary experience, the Supervisory Board shall consult the shareholder.

The Supervisory Board decides on the annual increase in the base salary. If the total remuneration of a statutory director has reached its maximum, further increases will be limited to the structural increments as agreed upon in the 'NWB' Collective Labour Agreement for grid companies which is applicable to all Dutch TenneT employees.

### Variable remuneration

To encourage the achievement of the company's objectives, part of the directors' remuneration is linked to certain challenging targets. These are set in advance by the Supervisory Board and include those of a public or societal nature.

Performance targets fall into four categories: Security of Supply and Safety, Strategy, Operations and Finance. The comparative weighting of these performance categories varies from one year to the next, and differs according to the individual director's portfolio. Each category includes certain public or societal objectives, the attainment of which will account for no less than 20% of the total performance-related salary. If, within a reasonable period after determining the variable remuneration, it is established that the award needs to be adjusted as a result of factors unknown when the award was made, the Supervisory Board shall decide whether and the extent to which the award of the variable remuneration needs to be revised.

From 2016 onward the annual variable remuneration of the company's statutory directors will be limited to 20% of fixed annual salary. To make this principle applicable for the current board members, whose variable remuneration is 25% resp. 35% of fixed annual salary, the supervisory board decided to convert – for the remainder of the relevant employment contract – the part of the variable remuneration above 20% at a rate of 60% as agreed with the shareholder. This converted part has been included in the fixed remuneration.

### **Service agreement and compensation for early termination**

Directors are appointed as statutory directors for a period of four years. The total set of agreed employment terms and conditions is recorded in a service agreement for an undefined period. If the contract is terminated within that period, compensation ('severance pay') will generally be limited to the equivalent of one year's fixed salary. If such compensation is considered unreasonable in the first term of appointment, up to two years' fixed salary may be paid at the discretion of the Supervisory Board, following consultation with the shareholder.

### **Other allowances and secondary benefits**

The total remuneration package for directors includes an appropriate and fiscally acceptable allowance for necessary expenses, the use of a lease car (of a type comparable to those provided to 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 in the form of an employer's contribution to a life-course savings scheme. The percentage is established by the 'NWB' Collective Labour Agreement. The above benefits are applicable to all TenneT employees in the Netherlands. The company does not extend loans, loan guarantees or advances against future earnings to any director.

### **Pensions**

The directors participate in a pension regulation according to pension as defined in the 'NWB' Collective Labour Agreement and as applicable for all employees in the Netherlands. The employers and employee contribution for the directors is the same as for all other employees. The applicable pension regulations define the pensionable salary up to EUR 101,519.

TenneT directors receive the same compensation as TenneT employees with an income above EUR 101,519. The compensation is based on the fiscally allowed pension premium percentage for income above EUR 101,519 and specified per age category.

### **Employment contracts of directors appointed before 2011**

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

The appointment of the Chief Executive Officer dating from 2002 is for an undefined period of time, while compensation for termination of the contract by the company (severance pay) is based on the then standard neutral formula used by the Dutch court with a maximum of two yearly base salaries.

### **Others**

The remuneration norm for the Vice Chair of the Executive Board has been exceeded with the permission of the shareholder. The resulting remuneration is lower than the German remuneration market or that of directors at comparable TSOs.

### Risk Management and Internal Control

Risk Management and Internal Control is at the heart of any effective management control system. It aims to identify and manage risks threatening TenneT's strategic and operational objectives, as well as enhance the control we have over our day-to-day processes.

Key objectives of the Risk Management and Internal Control system are to ascertain on:

- Adequate management of risks that could affect TenneT's objectives from a strategic, operational, process and project related perspective;
- Compliance with any applicable laws and regulations (e.g. the Dutch Corporate Governance Code; the German Control and Transparency in Business Act; and the German Accounting Law Reform Act);
- The reliability of external and internal financial and non-financial reporting.

### Developments

In 2016, we initiated several improvements to our Risk Management and Internal Control system. To facilitate the further standardisation and harmonisation of our risk processes, reporting and way of working, all Risk Management and Internal Control activities across TenneT Group were centralised in one department during 2016.

Risk analysis and reporting was improved by introducing an integral bi-annual 'state of risk' report. This report details TenneT's risk position in a more harmonised way for the company overall and in one integrated report giving insight in the key strategic and operational risks and the development of our internal control framework including the results from control self-assessments.

In the strategic risk assessment 2016, in line with the developments in governance and reporting requirements around risk management, the Executive Board determined the risk appetite for each strategic goal. Combining views on risk appetite and the development of our strategic risk position, the discussion further focused on setting out actions to mitigate risks if the risk score exceeds risk appetite and how this will translate into the operational steering of the company and the specific – internal and external – actions taken by the board.

In Internal Control, we made progress on further building a sustainable Internal Control Framework (ICF) by implementing harmonised working methods and quality standards. Besides improving ICF around financial reporting risks, including the full implementation of the bi-annual control self-assessment process in both the Netherlands and Germany, we made further progress in developing non-financial reporting and business risks within our ICF.

The introduction of the Corporate Project Risk Management Handbook in 2016 was an important step towards improved project risk-related processes and controls company-wide across all operating segments. Given our large investment programme, project risk management continues to be an important focus area and we are extending our team of project risk managers to support this. In addition to the steps taken in managing the risks of our large infrastructure projects, another milestone was the implementation of a company-wide and harmonised IT risk-management tool.

**Risk management and internal control framework**

Our risk management and internal control framework is based on the international COSO II model (Committee of Sponsoring Organisations of the Treadway Commission).

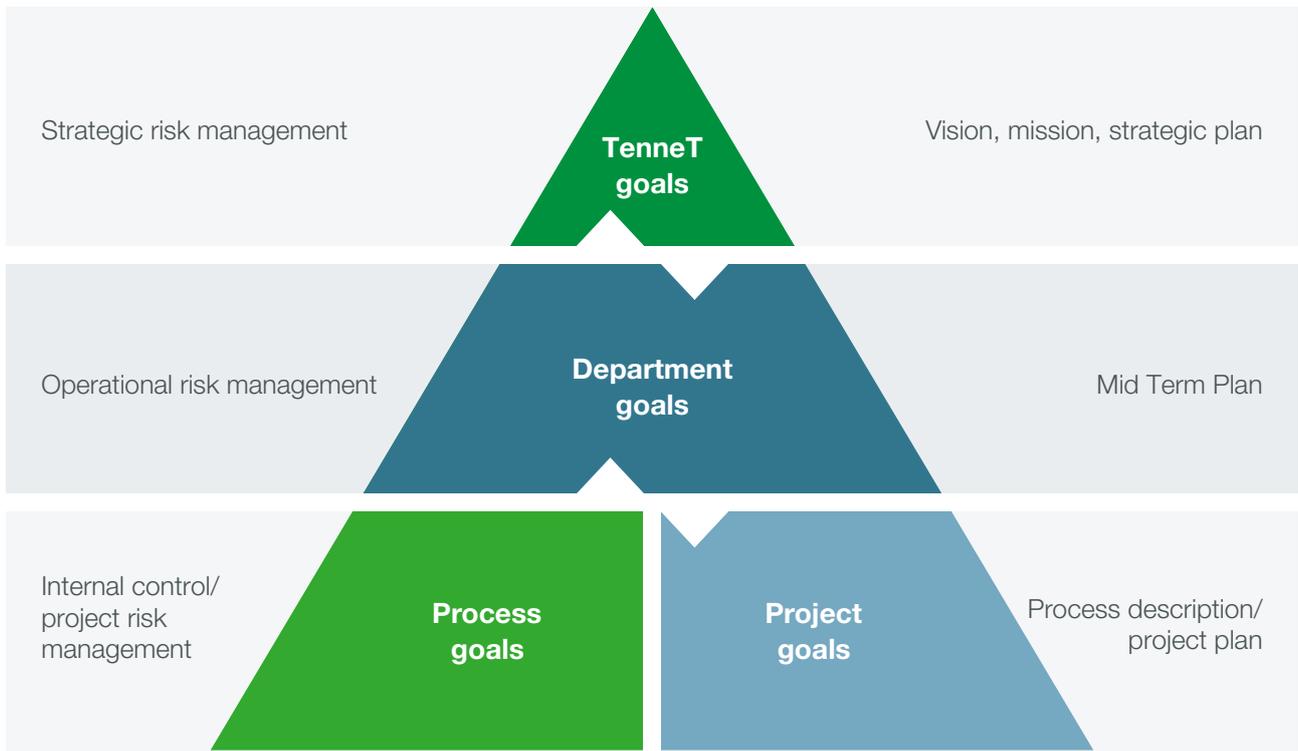
We distinguish between the following types of risk management and internal control activities:

- Strategic risk management
- Operational risk management
- Project risk management
- Internal control
- Risk and portfolio management (within Asset Management process)

The COSO II model defines four types of risk: Strategic, operational, reporting and compliance, of which the last two are covered by our internal control framework.

Risk management and internal control

Different levels of goals and ownership face different types of risks which are interrelated



**Strategic risk management**

Strategic risks endanger the realisation of TenneT’s strategic objectives and goals. Strategic risks are managed by the Executive Board who evaluate risks as they develop as well as the level of control in place. A strategic risk assessment is performed annually. The strategic risk position is shared and discussed with the Supervisory Board and the Audit, Risk and Compliance Committee.

**Operational risk management**

The operational risks affecting the various departments are identified and analysed at least twice yearly by the Risk & Internal Control Department in conjunction with the responsible senior managers. All departments produce a mid-term plan detailing the status of operational risks and how they are addressed. Each quarter, a summary of the most important operational risks for TenneT in the Netherlands and Germany is provided to the Executive Board and to the senior management team.

In addition, to comply with local laws and regulations, specific operational risk reports are drawn up periodically in accordance with the German Business Control and Transparency Act and the German Accounting Law Reform Act.

### **Project risk management**

TenneT's project risk management system is designed to foster the realisation of large-scale infrastructure projects on time and within budget while adhering to quality requirements and while remaining compliant with corporate objectives. Projects are classified and assigned according to three categories of project risk management: simple, medium and complete. For each category, the scope of project risk management is prescribed transparently and comprehensibly. The purpose of day-to-day project risk management is to review and manage risks and chances systematically, taking into account specific characteristics of projects, TenneT's project risk management process consists of risk management planning, risk identification, risk analysis and evaluation, developing risk mitigation measures, monitoring and review as well as risk communication.

### **Internal control**

Our Internal Control Framework (ICF) is designed to support and safeguard the realisation of our process objectives, as well as fulfil our legal obligations and ascertain the reliability of our internal and external reporting. Our ICF is integrated in our risk management framework and focusses on process goals and managing risks related to the execution of our business processes. To assess the effectiveness of our ICF and to identify opportunities for improvement, the Control Self-Assessment (CSA) is performed twice a year.

The CSA is performed by control owners and validated by management. Risk Management & Internal Control double checks results to safeguard quality and integrity. Internal Audit checks randomly selected CSA's during the year to secure an independent opinion. CSA outcomes are direct input for the letter of representation (LOR) procedure by which Senior Managers take account for designing, implementing, monitoring and maintaining a framework of measures and controls to mitigate key risks. Identified issues are reported to Risk Management & Internal Control, who monitor and secure follow-up on mitigating steps with assigned business owners.

### **Risk & portfolio management**

Risk & portfolio management is part of TenneT's Asset Management process and is key to the risk-based process for making investment decisions. Grid constraints are identified by analysing grid components and failures. In the Netherlands, the results of these analyses are summarised in the bi-annual investment plan, which is reviewed by the Dutch regulator. In Germany, TenneT and the other German TSOs together draw up annual onshore and offshore grid development plans which require approval from the German regulator.

The constraints are assessed according to the risk they pose to TenneT's business-value framework. Should the risk exceed a predefined level, a measure to mitigate this risk is proposed and included in the investment portfolio. Mitigating measures are prioritised each year.

### Risk appetite

Risk appetite is a qualitative decision providing insight into the extent to which deviations are acceptable in achieving goals. TenneT's risk appetite has been set by the Executive Board for each of our strategic goals. In terms of the level of

risk that we are willing to accept in relation to our strategic goals, we distinguish the following categories: risk averse (low appetite), risk neutral (medium appetite) and risk taking (high-risk appetite) risk appetite.

### Risk appetite score

Strategic goal	Goal description	Low	Moderate	High
<b>Secure supply</b>	Secure reliable supply of electricity and facilitate the integration of sustainable energy	○		
<b>Lead NWE integration</b>	Lead the development of an integrated and sustainable North West European electricity market		○	
<b>Engage stakeholders</b>	Engage with company stakeholders: employees, shareholders, regulators, policy makers, customers, suppliers and local communities		○	
<b>Innovate business</b>	Innovate and adapt the business to anticipate the energy transition		○	
<b>Deliver stakeholder value</b>	Maximise contribution to the societal energy goals through effective execution of strategic goals while addressing stakeholder needs and promoting innovation		○	

### Roles and responsibilities

Our Risk Management and Internal Control system is at the heart of our 'three lines of defence model', which details the relationship between, and the responsibilities of, the business, risk management & internal control and internal audit.

### Three lines of defence

1st line	2nd line	3rd line
<b>Line Management</b>	<b>Risk Management &amp; Internal Control</b>	<b>Internal Audit</b>
Manage risks on a daily basis and provide assurance regarding the effectiveness of controls	Steer, monitor and support Line Management at managing risks and providing assurance	Provide additional assurance regarding the effectiveness of controls

### First line of defence: Business

TenneT's management bears primary responsibility for identifying, controlling and monitoring risks associated with processes and for maintaining an appropriate ICF. These internal controls ensure the reliability of our processes and provide assurance for the second and third line and, ultimately, our financial and management reporting.

### Second line of defence: Risk management & internal control

Risk Management & Internal Control is responsible for coordinating, developing and monitoring TenneT's Risk Management and Internal Control system and supports and challenges the business on Risk Management and Internal Control matters. Risk Management & Internal Control is also responsible for independent risk reports to the Executive Board, the Supervisory Board and the Audit, Risk and Compliance Committee.

### Third line of defence: Internal audit

Internal audits are fundamental to TenneT's Risk Management and Internal Control system. These audits provide insight into how and to what extent we control the risks that may affect realisation of our strategic and other objectives. These audits provide management with additional assurance on the effectiveness of internal controls.

The Internal Audit Department schedules its audits according to a three-year cycle, revised annually to reflect the latest operational and strategic risk assessments performed by Corporate Risk Management and Internal Control. Specific audits are planned during the year to target areas of heightened sensitivity or interest. The annual audit plan is submitted to the Executive Board and the Audit, Risk and Compliance Committee for approval.

The Internal Audit Department reports its findings and the status of follow-up actions to the Audit, Risk and Compliance Committee and the Executive Board every quarter.

### Fraud and integrity

TenneT aims to operate in a consistent and reliable way, independent of suppliers and electricity producers, providing all parties with guaranteed, non-discriminatory access to our transmission grid. We operate in a straight-forward and predictable manner so our stakeholders can rely on us at all times. Our Company Code and Rules of Conduct define our way of working at TenneT and are published on our company [website](#).

Potential fraud is one of the risks identified by the Executive Board. Detecting potential fraud is part of all our internal audits. Effective communication and awareness training on this subject help to protect TenneT and our employees against economic and reputational harm.

We also have a Compliance Committee, with members from relevant functions (Risk Management and Internal Control, Internal Audit, Corporate Safety & Security) and compliance officers. The objective of the Compliance Committee is to raise awareness of potential fraud and prevent it, thereby reducing this risk.

In 2016, two integrity breaches were identified at TenneT, both related to inappropriate relationships with a supplier. Internal investigations were carried out and we took additional measures that can help prevent similar cases in the future.

TenneT has a sexual harassment committee and a whistle-blowing procedure for internal and external integrity issues. In the Netherlands, employees can report any concerns confidentially to a trusted counsellor ('vertrouwenspersoon'). In Germany, this role is covered by the compliance officer. Our whistle-blowing procedure and the cases arising in 2016 are published on the company's [website](#).

Due to growing size, complexity and associated integrity risks, a compliance risk analysis was performed to make a comprehensive assessment of the compliance risks inseparably linked with the business model and role of TenneT. The analysis was performed by an external advisor and included interviews with members of the Executive Board and senior management, document reviews and additional analysis, as well as a review of existing measures to mitigate compliance risks, including bribery and corruption. The analysis did not reveal any compliance violations or suspicion in relation thereto, but confirmed that significant risks exist in terms of possible passive corruption or conflicts of interest, particularly given TenneT's substantial volume of investments and associated procurement activities. The risk analysis outcome and the advisor's recommendations to enhance the existing risk mitigation measures were discussed in the Executive Board.

To strengthen compliance within TenneT, several actions were taken and will be further addressed in the coming year. Among others this entails the issue of a Corporate Gift Policy, an updated compliance policy and the implementation of a systematic and group-wide compliance management system, managed by two newly appointed compliance officers reporting directly to the CEO.

### Key risks

An overview of the main risks in 2016 is provided below, including the actions taken to mitigate these risks. The risks are categorised according to four types of risk as defined by the COSO II model: strategic, operational, reporting and compliance (TenneT's financial risks are presented separately in the notes to the financial statements '6.7 Financial risk management').

### Strategic risks

Based on the strategic risk assessment conducted in November 2016, the most important strategic risks are presented in the following table.

## Risk scores

Strategic goal	Risk score		
	Low	Moderate	High
<b>Secure supply</b>			
Blackout caused by TenneT			○ →
Blackout caused by other grid operator		○	
Significant delay of certain large infrastructure projects			← ○
Major disruptions in the business due to terroristic attack (physical or cyber)		○ →	
Inability to attract and develop qualified people for specific functions	← ○		
<b>Lead NWE integration</b>			
Loss of planning and/or system operations tasks to a pan European entity		○ →	
Loss of strategic position due to merger or strategic partnership of other European TSO's		○	
Changing future role of TSO's within the value chain (including threat of new entrants)		○ →	
<b>Engage stakeholders</b>			
Divergence of company objectives and political sentiments in NL		○	
Diminishing political or public acceptance due to cost to society or size		○ →	
<b>Innovate business</b>			
Failure or malfunctioning of new (high-voltage) technology		○ →	
Inability to adapt to fast changes (especially within IT domain)		○	
<b>Deliver stakeholder value</b>			
Lack of sustainable access to equity		○ →	
Adverse changes in NL/GE regulation or changes in regulatory parameters			○ →
Inability to achieve reasonable opex efficiency (meet regulatory requirements)		○	
Inability to achieve reasonable capex efficiency (meet regulatory requirements)		○	
Fraud within the company	○ →		

□ Risk appetite    ○ Risk score    → Risk trend

## Mitigation to secure supply

Strategic risk	Mitigating actions	Risk score		
		Low	Moderate	High
<b>Secure supply</b>				
Blackout caused by TenneT	<ul style="list-style-type: none"> <li>Operate the system compliant with ENTSO-E rules</li> <li>Ensure sufficient amount of control and grid reserve power</li> <li>Ensure and monitor grid investments and maintenance</li> <li>Perform and report on root cause analyses of incidents</li> <li>Safeguard adequate insurance coverage</li> </ul>			○ →
Blackout caused by other grid operator	<ul style="list-style-type: none"> <li>Enforce the correct implementation of ENTSO-E rules</li> <li>Common simulator trainings with other TSO's</li> <li>Maintain and improve Regional Security Coordination – TSC</li> </ul>		○	
Significant delay of certain large infrastructure projects	<ul style="list-style-type: none"> <li>Organisational changes to improve internal processes</li> <li>Implement TenneT planning tools (resources/VNB)</li> <li>Improved supplier management to communicate future needs</li> <li>Active stakeholder management to speed up permits and licensing</li> </ul>			← ○
Major disruptions in the business due to terroristic attack (physical or cyber)	<ul style="list-style-type: none"> <li>Implement anti-terrorism measures: Tensec/Tenter</li> <li>Business Continuity plans</li> <li>Maintain and update Asset Protection Guideline</li> <li>Security contingency plans with national authorities</li> <li>Preparation for certification ISO 27001</li> </ul>		○ →	
Inability to attract and develop qualified people for specific functions	<ul style="list-style-type: none"> <li>Development of strategic workforce planning</li> <li>Development of flexible (external) workforce for non key positions</li> <li>Campaign to promote TenneT as an attractive employer</li> </ul>	← ○		

■ Risk appetite   
 ○ Risk score   
 → Risk trend

## Mitigation to lead NWE integration

Strategic risk	Mitigating actions	Risk score		
		Low	Moderate	High
<b>Lead NWE integration</b>				
Loss of planning and/or system operations tasks to a pan European entity	<ul style="list-style-type: none"> <li>Active involvement at European interest groups (TSC, ENTSO-E, Acer)</li> <li>Invest in relationship with relevant policy stakeholders</li> </ul>		○ →	
Loss of strategic position due to merger or strategic partnership of other European TSO's	<ul style="list-style-type: none"> <li>Keeping a close eye on M&amp;A activity through discussions with banks, investors, fellow TSOs, etc.</li> <li>Searching for opportunities for future cross participations</li> </ul>		○	
Changing future role of TSO's within the value chain (including threat of new entrants)	<ul style="list-style-type: none"> <li>Pro-actively follow developments with Asset Owner &amp; CM</li> <li>Start-up of the new DTC department to anticipate on new role</li> <li>Lobby activities for new future role of TenneT</li> <li>Presentation of innovative solutions to show our leading role (e.g. Energy island idea on the North Sea)</li> </ul>		○ →	

■ Risk appetite   
 ○ Risk score   
 → Risk trend

## Mitigation to engage stakeholders

Strategic risk	Mitigating actions	Risk score		
		Low	Moderate	High
<b>Engage stakeholders</b>				
Divergence of company objectives and political sentiments in NL	<ul style="list-style-type: none"> <li>Alignment/involvement of future strategy and investments with shareholder in an early stage</li> <li>Invest in relationship with relevant policy stakeholders (shareholder, regulators, ministries of economic affairs)</li> </ul>		○	
Diminishing political or public acceptance due to cost to society or size	<ul style="list-style-type: none"> <li>Active stakeholder management</li> <li>Close monitoring of online exposure</li> <li>Corporate Social Responsibility activities to improve public acceptance</li> </ul>		○ →	

Risk appetite
  Risk score
  Risk trend

## Mitigation to innovate business

Strategic risk	Mitigating actions	Risk score		
		Low	Moderate	High
<b>Innovate business</b>				
Failure or malfunctioning of new (high-voltage) technology	<ul style="list-style-type: none"> <li>Pre qualifying of suppliers: Standard technical designs, contracts and as built documentation</li> <li>Participating in system studies &amp; international working groups</li> <li>Availability of spare parts and cable repair SLA's</li> <li>Simulations and root cause analysis of root causes in case of failures</li> </ul>		○ →	
Inability to adapt to fast changes (especially within IT domain)	<ul style="list-style-type: none"> <li>Implementation of Connect IT structure within business and IT</li> <li>Implement sourcing strategy within IT</li> <li>Power to Perform initiative</li> <li>Always energy project</li> </ul>		○	

Risk appetite
  Risk score
  Risk trend

## Mitigation to deliver stakeholder value

Strategic risk	Mitigating actions	Risk score		
		Low	Moderate	High
<b>Deliver stakeholder value</b>				
Lack of sustainable access to equity	<ul style="list-style-type: none"> <li>Negotiate/discuss with shareholder about sustainable financing solutions</li> <li>Development of alternative sustainable financing solutions</li> </ul>		○ →	
Adverse changes in NL/GE regulation or changes in regulatory parameters	<ul style="list-style-type: none"> <li>Lobby at regulatory and political bodies to prevent negative changes in regulatory framework</li> <li>Invest in relation with ACER</li> </ul>			○ →
Inability to achieve reasonable opex efficiency (meet regulatory requirements)	<ul style="list-style-type: none"> <li>Optimising MTP process &amp; closely monitor opex reduction targets</li> <li>Provide high quality management information to safeguard budget versus realisation</li> </ul>		○	
Inability to achieve reasonable capex efficiency (meet regulatory requirements)	<ul style="list-style-type: none"> <li>Standardised design and construction</li> <li>Asset Chain initiative to ensure appropriate governance</li> <li>Appropriate filing of capex expenses for future benchmarking</li> </ul>		○	
Fraud within the company	<ul style="list-style-type: none"> <li>Periodic fraud &amp; integrity committee meetings</li> <li>External compliance scan</li> <li>Fraud &amp; Integrity is a standard component in internal audits</li> </ul>	○ →		

■ Risk appetite   
 ○ Risk score   
 ➔ Risk trend

Risks with a potential high (financial) impact on achieving our goals if they apply:

### Blackout caused by TenneT

Although we did not have major interruptions such as the power outage of 2015 in the Netherlands, the further integration of renewables continues to affect dynamics of the load and generation mix. This, combined with international market developments and the integration of the European energy landscape, increases the challenges we face in balancing our grid. Continuous focus on this changing landscape and investing in a future-proof grid is crucial with respect to our security of supply.

### Significant delay of certain large infrastructural projects

Potential delays in realising our large projects is still one of our key risks. Although we spent much time and effort mitigating the risk of delays and made good progress in completing planning and licensing procedures, this generally took more time than expected. The additional underground cabling imposed on several of these projects also took more time. Given the large investment programme, managing potential project delays continues to be a priority in both the Netherlands and Germany in order to safeguard continued security of supply.

### Adverse changes to Dutch and/or German regulations or changes in regulatory parameters

A substantial part of TenneT's revenues comes from regulated activities. Changes to regulatory frameworks in the Netherlands and Germany directly affect our activities and performance. It is therefore crucial that our activities are supported by realistic, sustainable tariffs and by a solid regulatory framework. Our Corporate Regulatory department monitors regulatory risks and manages steps taken to mitigate these.

The regulatory risks are summarised in the table below.

Regulatory risk	Risk mitigating actions
<b>Europe</b>	
<ul style="list-style-type: none"> <li>The current European Discussion in the market area focusses strongly on the continuous decrease of cross-border capacities that TSOs make available for cross-border trades. In the first place German TSOs, among them TenneT Germany, are accused of projecting internal congestions to the borders, in particular the DE/DK border. This would be against provisions from EU-legislation. Largest risks for TenneT: EC legal actions, leading to penalties for TenneT or to other measures relevant for the German market design.</li> </ul>	<ul style="list-style-type: none"> <li>Transparently communicate the facts and causes.</li> <li>To mitigate the effects for the market, TenneT cooperates with national authorities (regulators and ministries) to introduce temporary remedial actions that create reliable capacities for the market, such as 're-dispatch'.</li> <li>Politically, TenneT cooperates with European authorities (EC DG ENER, EC DG COMP, ACER) to create awareness for the causes of the trouble, and to avoid any impression of withholding information. The only sustainable and long term solution is grid extension such as SuedLink.</li> </ul>
<b>The Netherlands</b>	
<ul style="list-style-type: none"> <li>Insufficient investment incentives within national regulatory framework</li> <li>TenneT is not able to achieve a reasonable rate of return on its invested capital as the regulatory WACC is set at a too low level as a consequence of the artificially low risk free interest rate.</li> <li>Inability to achieve the efficiency targets set by the regulator on operational and capital expenditures by organisation measures</li> </ul>	<ul style="list-style-type: none"> <li>Implement international best practices regarding financeability of investments in the national regulatory framework that relate to an adequate balance between risk, reward and timely remuneration. As of 1 April 2016 a remuneration mechanism for large projects has been introduced that already compensates the financing costs during the construction phase and thus improves the financeability of investments.</li> <li>TenneT seeks dialogue with its regulator to discuss a solution that reflects the current financial market conditions. For the next regulatory period (2017 - 2021) ACM has chosen to hold on to the existing WACC approach for reasons of stability and predictability.</li> <li>ACM is required by court to substantiate its approach to cost of debt in such a way that the efficient costs will be remunerated within a regulatory period. Based on this ruling for the next regulatory period (2017 - 2021) ACM has introduced a two-way WACC approach differentiating between existing and new capital, the latter as the basis for the onshore and offshore expansion investments.</li> <li>TenneT has successfully appealed at court against the efficiency parameter that was set by ACM based on the national run of the international benchmark study. ACM is required to repair its decision. The efficiency level from the repair decision will also be the basis for the next regulatory period. The repair decision from ACM still needs to be confirmed by court.</li> <li>In the new legislation as per 1 April 2016 additional conditions have been introduced for TenneT's offshore investments such as the treatment of non-influenceable costs in determining and setting the efficiency target.</li> </ul>

Regulatory risk	Risk mitigating actions
<b>Germany</b>	
<ul style="list-style-type: none"> <li>Investments in energy infrastructure could become less attractive in case the regulatory regime will be changed</li> <li>TenneT is not able to achieve a reasonable rate of return on equity within the third regulatory period (2019-2023).</li> <li>TenneT receives a fixed percentage reimbursement of 3.4% over the capital invested in offshore projects for operating and maintenance costs during the investment measure phase of projects. With a significant number of offshore projects going into operation at the end of 2015, the actual spending on operating and maintenance during the year 2016 exceeded the fixed percentage reimbursement for some connections. In average the lump-sum was sufficient to cover the opex for the year 2016. However, it is uncertain how actual operating and maintenance costs of these connections will develop in the near future.</li> </ul>	<ul style="list-style-type: none"> <li>TenneT actively participated in the evaluation process for the regulatory regime in Germany and reached that a stable regulatory framework for investments in the energy infrastructure is ensured.</li> <li>Although TenneT had intensive dialogues with BNetzA and BMWi to reach a sufficient rate of return on equity, BNetzA determined a value which is below the expectations of a reasonable rate of return that reflects the challenges of the energy turnaround in Germany and the higher risk profile for TSOs due to the high investment obligations. TenneT started a court proceeding against the BNetzA determination to reach a higher value.</li> <li>Following an initial investigation the regulator may determine a lump sum that is insufficient to cover actual costs. We will lobby for a sustainable solution of the issue.</li> </ul>

### Operational risks

The following table details TenneT Holding's most important operational risks.

Operational risk	Risk mitigating actions	Related strategic goal
<b>Not realising planned portfolio</b>		<b>Secure supply</b>
<ul style="list-style-type: none"> <li>Gap between planned and realised maintenance and preservation. Risk of deterioration of the condition of the grid in the long term.</li> <li>Risk of liability claims due to delayed or interrupted/non-functioning grid extensions</li> </ul>	<ul style="list-style-type: none"> <li>Risk-based maintenance and preservation planning in alignment with the commissioning dates for large projects</li> <li>Substation driven replacement strategy</li> <li>Strengthen project scheduling and project risk management functions</li> <li>Align project risk, claim and contract management over the complete project life-time</li> </ul>	
<b>SHE incidents and accidents</b>		<b>Engage stakeholders</b>
<ul style="list-style-type: none"> <li>Work-related incidents and accidents that may harm the health and well-being of our own employees and the employees of contractors</li> </ul>	<ul style="list-style-type: none"> <li>Implementation Life Saving Rules</li> <li>Development Safety, Health, Environment (SHE) management system</li> <li>Integrate SHE requirements in contract management</li> </ul>	
<b>Electricity market risks</b>		<b>Deliver stakeholder value</b>
<ul style="list-style-type: none"> <li>Risk of not realizing efficiency targets set by regulator.</li> <li>Unavailability of ancillary services due to mothballing of conventional power</li> </ul>	<ul style="list-style-type: none"> <li>Develop a procurement strategy reflecting the regulatory framework</li> <li>Develop standards for the market integration of renewable energies and (pools of) small generation plants</li> </ul>	

## Reporting risks

The following table presents TenneT Holding's most important reporting risks.

Reporting risk	Risk mitigating actions
<ul style="list-style-type: none"> <li>Financial statements do not give a true and fair view of the company's financial position, financial performance and cash flows</li> <li>Incorrect (regulatory) reports or information to BNetzA, ACM and/or tax authorities</li> </ul>	<ul style="list-style-type: none"> <li>ICF, including control self assessments and LOR procedure</li> <li>External and internal audit reviews and follow-up on findings</li> <li>Use of internal accounting manuals</li> </ul>

## Compliance risks

TenneT aims to comply fully with all relevant national and international legislation, technical standards and regulatory decisions. Any breach of these may have negative consequences. Non-compliance with laws, technical standards and regulations is a key risk demanding ongoing management attention.

The business managers are responsible for remaining up-to-date on relevant legal, technical and regulatory developments and for implementing any relevant changes to their processes.

The following table presents compliance risks and mitigating actions, grouped according to three areas.

Compliance risk	Risk mitigating actions
<b>General/legal compliance</b>	
<ul style="list-style-type: none"> <li>Non-compliance with European or national laws and regulations, e.g. in the area of tendering and energy markets</li> <li>Non-compliance with bilateral agreements between TenneT and other TSOs, suppliers, customers, etc.</li> <li>Non-compliance with labour laws and agreements</li> <li>Non-compliance with permits and licenses</li> <li>Non-compliance with health, safety and environment laws and regulations</li> </ul>	<ul style="list-style-type: none"> <li>Active involvement of experts from Legal Affairs, Procurement, Human Resources, Safety &amp; Security, Regulation, etc.</li> <li>Adequate registration of decisions and contracts by Legal Affairs and other departments involved</li> <li>Involvement of external specialists (e.g. legal experts) when deemed necessary</li> <li>Training and awareness programmes</li> </ul>
<b>Financial compliance</b>	
<ul style="list-style-type: none"> <li>Non-compliance with IFRS, local GAAP, the Dutch Corporate Governance Code, the German Control and Transparency in Business Act, the German Accounting Law Reform Act, etc.</li> <li>Non-compliance with financing agreements</li> <li>Non-compliance with financial legislation</li> <li>Non-compliance with tax laws and regulations</li> </ul>	<ul style="list-style-type: none"> <li>Active involvement of experts from Finance &amp; Control, Treasury, Tax and Legal departments</li> <li>Frequent knowledge update by means of training, external audit/expert reviews, etc.</li> <li>Availability of accounting manuals, treasury statute, etc.</li> <li>Use of outside expertise, if and when necessary</li> </ul>
<b>Technical compliance</b>	
<ul style="list-style-type: none"> <li>Non-compliance with electricity laws and technical codes, ENTSO-E operational handbook, electrical safety regulations and standards, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Regular assessments by the technical compliance officer</li> <li>Cooperation with regulatory authorities by the Corporate Asset Owner department</li> <li>Involvement of authorised electrical safety experts and technical strategists</li> </ul>

# Financial statements

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# Consolidated financial statements

## Consolidated statement of income

For the year ended 31 December (EUR million)

	Notes	2016	2015
<b>Revenue</b>	3.1	<b>2,843</b>	<b>2,844</b>
Grid expenses	3.2.1	-1,511	-1,671
Personnel expenses	3.2.2	-183	-154
Depreciation and amortisation of assets	4.1, 5.1	-596	-749
Other operating expenses	3.2.3	-182	-83
Other (gains)/losses	3.3	-10	-
<b>Total operating expenses</b>		<b>-2,482</b>	<b>-2,657</b>
Share in profit of joint ventures and associates	5.3	78	86
<b>Operating profit</b>		<b>439</b>	<b>273</b>
Finance income		7	11
Finance expenses	3.4	-166	-141
<b>Finance result</b>		<b>-159</b>	<b>-130</b>
<b>Profit before income tax</b>		<b>280</b>	<b>143</b>
Income tax expense	3.5	-38	-27
<b>Profit for the year</b>		<b>242</b>	<b>116</b>
<b>Profit attributable to:</b>			
Equity holders of ordinary shares	6.2.1	134	-5
Hybrid securities	6.2.1	33	33
<b>Owners of the company</b>		<b>167</b>	<b>28</b>
Non-controlling interests	6.2.2	75	88
<b>Profit for the year</b>		<b>242</b>	<b>116</b>

## Earnings per share attributable to the equity holders of ordinary shares

For the year ended 31 December (EUR per share)

	Notes	2016	2015
Basic and diluted earnings per share	3.6	710	15

## 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	Reserve for exchange rate difference	Retained earnings	Unappropriated result	Equity attributable to ordinary shares	Hybrid securities	Equity attributable to owners of the company		
		6.2.1		6.2.1	6.2.1		6.2.1		6.2.2	
<b>2015</b>										
<i>Other comprehensive income to be reclassified to profit or loss in subsequent years:</i>										
Amortisation of hedges	6.2.1	1	-	-	-	1	-	1	-	1
Reclassification of exchange rate differences	5.2	-	2	-	-	2	-	2	-	2
Taxation	3.5	-	-	-	-	-	-	-	-	-
		<b>1</b>	<b>2</b>	-	-	<b>3</b>	-	<b>3</b>	-	<b>3</b>
<i>Items not to be reclassified to profit or loss in subsequent years:</i>										
Re-measurement of defined benefit pensions	7.1.1	-	-	9	-	9	-	9	-	9
Taxation	3.5	-	-	-2	-	-2	-	-2	-	-2
		-	-	<b>7</b>	-	<b>7</b>	-	<b>7</b>	-	<b>7</b>
<b>Total other comprehensive income 2015</b>		<b>1</b>	<b>2</b>	<b>7</b>	-	<b>10</b>	-	<b>10</b>	-	<b>10</b>
Profit for the year		-	-	-	-5	-5	33	28	88	116
<b>Total comprehensive income 2015</b>		<b>1</b>	<b>2</b>	<b>7</b>	<b>-5</b>	<b>5</b>	<b>33</b>	<b>38</b>	<b>88</b>	<b>126</b>
<b>2016</b>										
<i>Other comprehensive income to be reclassified to profit or loss in subsequent years:</i>										
Amortisation of hedges	6.2.1	-	-	-	-	-	-	-	-	-
Taxation	3.5	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-
<i>Items not to be reclassified to profit or loss in subsequent years:</i>										
Re-measurement of defined benefit pensions	7.1.1	-	-	-40	-	-40	-	-40	-	-40
Taxation	3.5	-	-	12	-	12	-	12	-	12
		-	-	<b>-28</b>	-	<b>-28</b>	-	<b>-28</b>	-	<b>-28</b>
<b>Total other comprehensive income 2016</b>		-	-	<b>-28</b>	-	<b>-28</b>	-	<b>-28</b>	-	<b>-28</b>
Profit for the year		-	-	-	134	134	33	167	75	242
<b>Total comprehensive income 2016</b>		<b>-</b>	<b>-</b>	<b>-28</b>	<b>134</b>	<b>106</b>	<b>33</b>	<b>139</b>	<b>75</b>	<b>214</b>

**Consolidated statement of financial position**

For the year ended 31 December (EUR million)

<b>Assets</b>	Notes	<b>2016</b>	2015
<b>Non-current assets</b>			
Tangible fixed assets	4.1	13,321	12,105
Intangible assets	5.1	109	120
Investments in joint ventures	5.3.1	328	299
Investments in associates	5.3.2	34	35
Deferred tax assets	3.5	3	2
Other financial assets	5.4	655	86
<b>Total non-current assets</b>		<b>14,450</b>	<b>12,647</b>
<b>Current assets</b>			
Inventories	5.8	74	33
Account- and other receivables	5.5	1,875	1,652
Income tax receivable	3.5	42	41
Cash and cash equivalents	6.4	1,208	52
<b>Total current assets</b>		<b>3,199</b>	<b>1,778</b>
<b>Total assets</b>		<b>17,649</b>	<b>14,425</b>

**Consolidated statement of financial position**

For the year ended 31 December (EUR million)

<b>Equity and liabilities</b>	Notes	<b>2016</b>	2015
<b>Equity</b>			
Equity attributable to ordinary shares	6.2.1	3,410	2,712
Hybrid securities	6.2.1	520	520
<b>Equity attributable to owners of the company</b>		<b>3,930</b>	<b>3,232</b>
Non-controlling interests	6.2.2	971	956
<b>Total equity</b>		<b>4,901</b>	<b>4,188</b>
<b>Non-current liabilities</b>			
Borrowings	6.3	6,335	4,249
Deferred income	4.2	279	269
Deferred tax liability	3.5	252	354
Provisions	5.7	642	581
Net employee defined benefit liabilities	7.1.1	179	130
Other liabilities		-	2
<b>Total non-current liabilities</b>		<b>7,687</b>	<b>5,585</b>
<b>Current liabilities</b>			
Borrowings	6.3	1,127	395
Deferred income	4.2	5	5
Income tax payable	3.5	14	81
Provisions	5.7	141	180
Other financial liabilities		66	42
Account- and other payables	5.6	3,666	3,932
Bank overdrafts	6.4	42	17
<b>Total current liabilities</b>		<b>5,061</b>	<b>4,652</b>
<b>Total equity and liabilities</b>		<b>17,649</b>	<b>14,425</b>

## Consolidated statement of changes in equity

For the year ended 31 December (EUR million)

	Notes	Attributable to equity holders of the company									Non-controlling interest	Total equity
		Paid-up and called-up capital	Share premium reserve	Hedging reserve	Reserve for exchange rate difference	Retained earnings	Unappropriated result	Equity attributable to ordinary shares	Hybrid securities	Equity attributable to owners of the company		
		6.2.1		6.2.1		6.2.1	6.2.1	6.2.1	6.2.1		6.2.2	
<b>At 1 January 2015</b>		<b>100</b>	<b>600</b>	<b>4</b>	<b>-2</b>	<b>1,621</b>	<b>493</b>	<b>2,816</b>	<b>520</b>	<b>3,336</b>	<b>852</b>	<b>4,188</b>
Total comprehensive income		-	-	1	2	7	-5	5	33	38	88	126
Dividends paid	6.2.1	-	-	-	-	-	-117	-117	-	-117	-12	-129
Distribution on hybrid securities	6.2.1	-	-	-	-	-	-	-	-33	-33	-	-33
Tax on distribution on hybrid securities	6.2.1	-	-	-	-	-	8	8	-	8	-	8
Sale of subsidiary	6.2.2	-	-	-	-	-	-	-	-	-	-4	-4
Capital contribution	6.2.2	-	-	-	-	-	-	-	-	-	32	32
Appropriation remaining prior year result		-	-	-	-	384	-384	-	-	-	-	-
<b>At 31 December 2015</b>		<b>100</b>	<b>600</b>	<b>5</b>	<b>-</b>	<b>2,012</b>	<b>-5</b>	<b>2,712</b>	<b>520</b>	<b>3,232</b>	<b>956</b>	<b>4,188</b>
Total comprehensive income		-	-	-	-	-28	134	106	33	139	75	214
Dividends paid	6.2.1	-	-	-	-	-196	-	-196	-	-196	-37	-233
Distribution on hybrid securities	6.2.1	-	-	-	-	-	-	-	-33	-33	-	-33
Tax on distribution on hybrid securities	6.2.1	-	-	-	-	-	8	8	-	8	-	8
Capital contribution	6.2.1 6.2.2	-	780	-	-	-	-	780	-	780	6	786
Capital repayment	6.2.2	-	-	-	-	-	-	-	-	-	-29	-29
Appropriation remaining prior year result		-	-	-	-	3	-3	-	-	-	-	-
<b>At 31 December 2016</b>		<b>100</b>	<b>1,380</b>	<b>5</b>	<b>-</b>	<b>1,791</b>	<b>134</b>	<b>3,410</b>	<b>520</b>	<b>3,930</b>	<b>971</b>	<b>4,901</b>

## Consolidated statement of cash flows

For the year ended 31 December (EUR million)

	Notes	2016	2015
<i>Operational activities</i>			
<b>Operating profit</b>		<b>439</b>	<b>273</b>
<b>Non-cash adjustments to reconcile profit to net cash flows:</b>			
Depreciation, amortisation and impairment of assets	4.1, 5.1	596	749
Result on disposal of assets	4.1	-	16
Gain on disposal of subsidiary	5.2	-	-16
Share in profit of joint ventures and associates	5.3	-78	-86
Dividends received from joint ventures and associates	5.3	88	90
Increase/(decrease) in deferred income	4.2	10	53
Movements in provisions and other (financial) liabilities and assets		28	-166
		<b>644</b>	<b>640</b>
<b>Working capital adjustments excluding EEG working capital:</b>			
(Increase)/decrease in account- and other receivables	5.5	5	200
(Increase)/decrease in inventories		-41	-9
Increase/(decrease) in account- and other payables	5.6	-214	421
Increase/(decrease) in current financial liabilities		24	4
		<b>-226</b>	<b>616</b>
Income tax paid (net)		-211	-275
<b>Net cash flows from operating activities excluding EEG working capital</b>		<b>646</b>	<b>1,254</b>
<b>EEG working capital adjustments:</b>			
(Increase)/decrease in EEG receivables	5.5	-86	1
Increase/(decrease) in EEG payables	5.6	-9	128
		<b>-95</b>	<b>129</b>
<b>Net cash flows from operating activities</b>		<b>551</b>	<b>1,383</b>
<i>Investing activities</i>			
Purchase of tangible and intangible fixed assets	4.1, 5.1	-1,796	-2,508
Proceeds from sale of tangible and intangible fixed assets	4.1, 5.1	3	6
Sale of subsidiary	5.2	-	-289
Acquisition of a subsidiary, net of cash acquired	5.2	-	-28
Capital contribution to joint ventures and associates	5.3	-37	-32
Proceeds from repayment of financial assets		-	12
Interest received		-	1
<b>Net cash flows used in investing activities</b>		<b>-1,830</b>	<b>-2,838</b>

Continuation >

&lt; Continued

	Notes	2016		2015	
<b>Financing activities</b>					
Proceeds from borrowings	6.3	3,213		2,020	
Repayment of borrowings	6.3	-395		-698	
Interest paid		-119		-119	
Dividends paid to equity holders of the company	6.2.1	-196		-117	
Distribution on hybrid securities	6.2.1	-33		-33	
Dividends paid and capital repayments to non-controlling interests	6.2.2	-66		-12	
Proceeds from capital contributions by non-controlling interests	6.2.2	6		32	
<b>Net cash flows from financing activities</b>			<b>2,410</b>		<b>1,073</b>
<b>Net change in cash and cash equivalents</b>			<b>1,131</b>		<b>-382</b>
Cash and cash equivalents at 31 December	6.4	1,166		35	
Cash and cash equivalents at 1 January	6.4	35		417	
			<b>1,131</b>		<b>-382</b>

# Notes to the consolidated financial statements

We are continuously developing our financial reporting to make it more relevant and understandable to our stakeholders. These financial statements focus therefore on what drives our performance and highlight the key (financial) topics for 2016. Like prior year the notes to the consolidated financial statements have been grouped into seven sections relating to key topics and figures from a business perspective. 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

Accounting policies describe our approach to recognising and measuring transactions and balance sheet items in the year. Accounting policies including new 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 judgement used in the preparation of the consolidated 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 the users of these financial statements.

### 1.1 General

We (TenneT Holding B.V. and its subsidiaries) are a leading electricity TSO with activities in the Netherlands and in Germany. Our activities in the Netherlands are carried out by TenneT TSO B.V. and its subsidiaries. Our activities in Germany are performed by TenneT GmbH & Co. KG and its subsidiaries.

The Dutch State holds the entire issued share capital of TenneT Holding B.V. Also hybrid securities are issued, which are deeply subordinated securities and are considered part of equity attributable to equity holders of TenneT. Our head office and legal seat is located in Arnhem, the Netherlands.

These consolidated financial statements for the year ended 31 December 2016 were prepared and authorised by our Executive Board for issue in accordance with a resolution of the Supervisory Board on 6 March 2017.

### 1.2 Basis for preparation

These consolidated financial statements have been prepared in accordance with IFRS as adopted by the European Union, and Part 9, Book 2 of the Netherlands 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 Netherlands 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 intend it to do so, for at least one year from the date the financial statements are signed.

These consolidated financial statements are prepared on a historical cost basis, except for derivative financial instruments which have been measured at fair value. They are presented in euros and all values are rounded to the nearest million (EUR 000,000), except when otherwise indicated.

### Significant new and amended standards adopted by the Group

None of the new standards, amendments and interpretations as adopted by the EU that are effective as of 1 January 2016 impact significantly our financial statements. Consequently these are not further described.

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

A number of new standards, amendments to standards and interpretations, and annual improvement cycles were issued but not effective for the financial year beginning 1 January 2016. None of the changes in these standards has had a material impact on our financial statements and are therefore not described.

Other upcoming changes to standards relevant for us, but not yet adopted, are:

- IFRS 15 'Revenue from contracts with customers' introduces a new five-step model to be applied to revenue from contracts with customers and provides a more structured approach to measuring and recognising revenue. In accordance with this new standard revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The effective date of this new standard is 1 January 2018. Based on an assessment encompassing interviews within several departments and review of contracts the impact of this new standard is limited. We plan to adopt the new standard on the required effective date.
- IFRS 16 'Leases' sets out the principles for recognition, measurements and disclosures regarding leases. The new standard requires lessees to recognise most leases on their balance sheets. Lessees will have a single accounting model for all leases, eliminating the distinction between operating and finance leases (see note 4.3.5). Lessor accounting remains largely unchanged. The new standard will be effective from 1 January 2019 (subject to EU endorsement) with earlier adoption permitted if IFRS 15 has also been applied. We are currently finalising our assessment of the potential impact of IFRS 16 on our financial statements. We plan to adopt the new standard on the required effective date.
- IFRS 9 'Financial instruments' addresses the classification, measurement and recognition of financial assets and financial liabilities. It replaces the parts of IAS 39 that relate to the classification and measurement of financial instruments and requires financial assets to be classified into two measurement categories: those measured at fair value and those measured at amortised cost. IAS 39's treatment of financial liabilities is carried forward to IFRS 9 essentially unchanged. The only change for financial liabilities valued against fair value is that IFRS 9 requires changes in the fair value of an entity's own credit risk to be recognised in other comprehensive income rather than the statement of income, unless this creates an accounting mismatch. The adoption of this new standard will have a limited impact on our disclosures to the financial statements and will not significantly affect our financial position or performance. The effective date of this new standard is 1 January 2018. We plan to adopt the new standard on the given effective date.

### Reclassifications

The classification of financial items has been reassessed and as a result certain items have been reclassified in the statement of income and statement of financial position. Originally reported comparative figures have been reclassified in order to conform to the current year's presentation. The reclassifications do not affect prior years profit or equity.

### 1.3 Basis for consolidation

The consolidated financial statements incorporate the financial statements of TenneT Holding B.V. and its subsidiaries as at 31 December 2016. A list of the legal entities included in the consolidation is included in note 7.4.

Subsidiaries are consolidated from the date of acquisition, that being the date on which control is obtained, and continue to be consolidated until the date when such control ceases. The financial statements of the 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 on 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 of a subsidiary, it derecognises the subsidiary's assets (including goodwill) and liabilities, with any non-controlling interest and the cumulative translation differences recorded in equity. Furthermore, the fair value of the consideration received, the fair value of any investment retained and any surplus or deficit in profit or loss 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 recognised as goodwill.

#### 1.4 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. Actual results could differ from these estimates.

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. Significant items containing estimates and assumptions are as follows:

Item	Note	Estimate/assumptions
Tangible fixed assets	4.1	Estimate of remaining useful life
Intangible fixed assets	5.1	Estimate of recoverable amount and remaining useful life
Impairment review of goodwill	5.1	Estimate of cash flow projections and pre-tax discount rate
Grid expense payable	5.6.3	Estimate of electricity usage and energy prices
Provision for environmental management and decommissioning	5.7.5	Estimate of removal costs, removal dates, discount rate and price increases in the period leading up to removal
Tariffs related provision	5.7.5	Estimate of electricity usage and number of parties
Other provisions	5.7.5	Mainly relate to estimate of probability, realisation date and curtailed feed-in volumes and prices
Net employee benefit obligation	7.1	Financial, actuarial and demographic assumptions

#### 1.5 Foreign currency

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

Transactions in foreign currency are recognised at the exchange rates prevailing at the date of the transaction. Monetary items in currencies are translated into euros at the exchange rate in effect on the balance sheet date. Non-monetary items measured at acquisition cost are translated into euros at the exchange rate in effect on the transaction date. Changes in exchange rates are recorded on a current basis in the income statement during the reporting period and presented as financial items.

## 2. Segment information

This section sets out the financial performance for the year split by the way the business (operating segments) is managed. Our performance is measured and 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 regulators to obtain agreements that balance the risks we face with the opportunity to deliver reasonable returns for our investors is key to us. Our involvement in certain limited non-regulated activities helps us to ensure that the energy market operates smoothly and efficiently, or are ancillary to it.

### 2.1 Segment analysis

Our Executive Board is the chief operating decision-making body (as defined by IFRS 8 'Operating segments'). It monitors periodically the performance of the operating segments separately for the purpose of performance management and making decisions 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.

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 or required to be settled in future tariffs are recorded as an asset or liability, respectively (see note 2.2 for further reference). We believe that the presentation of underlying financial information leads to a sound, consistent and transparent financial insight into past and future business developments.

Overall, our operating segments are (i) TSO Netherlands, (ii) TSO Germany and (iii) non-regulated companies.

For management information purposes the performance of our regulated activities in the Netherlands and those in Germany are considered separately into two segments (which is also the geographical distribution). This segmentation, based on applicable regulatory frameworks, is the key determinant for financial management of the business and for decision-making on budgets, allocation of resources and financing. In addition and in conformity with previous years, non-regulated activities are considered separately.

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 on an arm's length basis in a manner similar to transactions with third parties. These intercompany transactions are eliminated at a consolidated level. There is no material concentration of customers in either of the operating segments.

(EUR million)	2016					2015				
	Revenue	EBIT	Investments	Assets	Liabilities	Revenue	EBIT	Investments	Assets	Liabilities
TSO Netherlands	747	146	575	5,529	3,193	676	205	473	4,329	2,873
TSO Germany	2,477	617	1,273	13,993	9,381	2,597	769	1,926	13,204	8,807
Non-regulated companies	29	70	-	1,309	147	38	101	6	352	191
	<b>3,253</b>	<b>833</b>	<b>1,848</b>	<b>20,831</b>	<b>12,721</b>	<b>3,311</b>	<b>1,075</b>	<b>2,405</b>	<b>17,885</b>	<b>11,871</b>
Eliminations and adjustments	-26	1	-	-1,857	1,461	-21	-	-	-2,461	-250
<b>Consolidated underlying information</b>	<b>3,227</b>	<b>834</b>	<b>1,848</b>	<b>18,974</b>	<b>14,182</b>	<b>3,290</b>	<b>1,075</b>	<b>2,405</b>	<b>15,424</b>	<b>11,621</b>

For an analysis of the underlying results see the 'Financial' section of our Executive Board report.

In managing day-to-day operations within the two regulated segments (i.e. the Netherlands and Germany), one additional steering dimension is used: functional. The functional steering focuses on the specific roles and responsibilities in our asset chain and the support functions around it, safeguarding adequate challenge, segregation of duties and multidisciplinary approach of issues within the Executive Board and between the departments.

## 2.2 ⓘ Accounting policies applied for underlying financial information

Underlying financial information matches the regulatory revenues and expenses in a corresponding reporting period, and fully defers auction income until used for investments or tariff reductions.



Matching is achieved by recognizing 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 the regulated asset or liability respectively. Consequently, a regulated asset is recognised in underlying financial information in respect of permitted reimbursements of current year expenses in future years. And 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 were financed via auction receipts resulting from auctioning available capacity on cross-border interconnections (see 2.3). In underlying financial information these auction receipts are classified as investment contributions (presented under 'liabilities'). An annual amount equal to the depreciation charges, plus a portion of the operating expenses, is recognised in the statement of income. Under IFRS these auction receipts are recognised as revenue.

The different accounting treatment of the regulatory deferral accounts results in a different fair value of the assets.

## Change in accounting policies applied for underlying financial information

In 2016 we changed the underlying accounting for the regulatory revenue related to the net expense for pension-related defined benefit liabilities. In accordance with the changed underlying accounting policies, underlying revenue is matched to the IFRS net benefit expense. Differences between the matched underlying revenue and the regulatory revenue received in the respective year are related to differences in discount rates and effects of re-measurements. Therefore differences between the matched underlying revenue and the regulatory revenue received are recognised in underlying Other Comprehensive Income.

All in all, these differences are timing differences between the regulatory revenue in one individual year and the IFRS cost in one individual year. Over the lifetime of an employee the accumulated regulatory revenue equals accumulated IFRS cost. Up till 2016, the matching of accumulated regulatory revenue to accumulated IFRS cost was not fully embedded in our accounting policies applied for underlying financial information. Consequently, we changed the underlying accounting for the regulatory revenue related to the net expense for defined benefit liabilities in order to better reflect the matching of regulatory revenues and expenses.

This effect of this change of underlying accounting policy on both underlying equity as well as regulatory deferral accounts is nil. The effect on 2015 underlying net income (EUR 11 million) is considered as not material and consequently the originally reported underlying figures have not been adjusted.

### 2.3 Regulatory deferral accounts: reconciliation to IFRS figures

The difference between the 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, and auctions receipts, and the measurement of tangible fixed assets. Consequently, the aforementioned results in different deferred tax balances in underlying financial information compared to IFRS reported figures. No other differences between underlying financial information and IFRS are applicable.

Underlying financial information is reconciled to reported IFRS figures as follows:

2016 (EUR million)	EBIT	Assets	Liabilities	Recovery/ reversal period (years)
<b>Consolidated underlying information</b>	<b>834</b>	<b>18,974</b>	<b>14,182</b>	
To be settled in tariffs	-507	-979	-88	0 - 5
Auction receipts	77	-	-1,046	0 - 30
Investment contributions	-7	-	-273	0 - 32
Maintenance of the energy balance	19	-	-33	0 - 1
Difference in tangible fixed assets	23	-345	-	0 - 32
Effect on deferred tax balances	-	-1	6	0 - 32
<b>Consolidated IFRS financial statements</b>	<b>439</b>	<b>17,649</b>	<b>12,748</b>	

2015 (EUR million)	EBIT	Assets	Liabilities	Recovery/ reversal period (years)
<b>Consolidated underlying information</b>	<b>1,075</b>	<b>15,424</b>	<b>11,621</b>	
To be settled in tariffs	-665	-633	-79	0 - 5
Auction receipts	156	-	-1,101	0 - 30
Investment contributions	-8	-	-280	0 - 33
Maintenance of the energy balance	32	-	-39	0 - 1
Difference in tangible fixed assets	-317	-366	-	0 - 33
Effect on deferred tax balances	-	-	115	0 - 33
<b>Consolidated IFRS financial statements</b>	<b>273</b>	<b>14,425</b>	<b>10,237</b>	

The reasons for the given adjustments for reconciling consolidated underlying EBIT to consolidated IFRS EBIT are the same on revenue, the reconciliation for consolidated underlying revenue to consolidated IFRS revenue is therefore not shown in the above tables.

### **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 in the statement of financial position as 'to be settled in tariffs'. Compared to 2015, the decrease is mainly related to the decrease in system services expenses (EUR 0.3 billion) resulting from lower wind feed-in and redispatch expenses in 2016. These expenses have to be settled in future tariffs in coming years (see the [Financial results](#) in the Executive Board Report).

### **Auction receipts & investment contributions**

Auction receipts result from auctioning the available transmission capacity on cross-border interconnections. The resulting receipts are not at our free disposal. In accordance with European law, auction receipts are to be used to investment in cross-border interconnections or refunded through tariff reductions. In the Netherlands, we have agreed with the ACM to fully utilise auction receipts to reduce future tariffs. The current outstanding balance of auction receipts will be refunded via the tariffs over the coming years. In Germany, the use of auction receipts for investments is effectively achieved by reducing tariffs over a 30-year period.

Investments made using auction receipts are classified as investment contributions included under 'liabilities'. A periodic amount equal to the depreciation charges, plus a portion of the operating expenses, is released to the statement of income.

Under IFRS, auction receipts are recognised as revenue when realised.

### **Maintenance of the energy balance**

As the system manager of the high-voltage grid in the Netherlands, we receive funds from 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 once approved by the ACM. Imbalance settlements collected in one year are used in a subsequent year offset permitted revenue for the given subsequent year, effectively reducing transmission tariffs. Consequently, these amounts in the underlying financial information are recorded as a liability in the statement of financial position.

### **Differences in tangible fixed assets**

Differences in tangible fixed 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. The difference is mainly related to (i) the decrease in value of the NorNed assets in 2015 (EUR 232 million) due to regulatory changes as recognised under IFRS (see note [7.1](#)) and (ii) an impairment reversal in 2015 (EUR 90 million) in the underlying figures in 2015.

### 3. Results for the year

This section comprises notes related to the revenue, operating expenses and results for the year as calculated under IFRS. A detailed description of the results for the year is given in the 'Financial' section of our Executive Board report.

Also our taxation policies, including our tax strategy, accounting policy, and an analysis of the income tax for the year and its related deferred tax assets and liabilities at year-end are included in this section.

#### 3.1 Revenue

(EUR million)	2016	2015
Connection and transmission services	1,870	1,815
Maintenance of energy balance	71	119
Operation of energy exchanges	104	207
Offshore balancing	693	613
Other	105	90
<b>Total</b>	<b>2,843</b>	<b>2,844</b>

##### 3.1.1 Connection and transmission services

In material terms, all 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 regional grid operators and industrial clients (resolution of transmission restrictions, congestion management and reactive power management).

##### 3.1.2 Maintenance of the energy balance

We are responsible for ensuring that the balance between the electricity supply and demand is stable at all times (i.e. AC frequency in the power grid must be 50 Hz). 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 deploy (among others) reserve and emergency capacity to compensate 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.

##### 3.1.3 Operation of energy exchanges and cross-border capacity

This amount includes auction revenues consisting of auctioning cross-border interconnection capacity. Due to the more sophisticated capacity calculation used in Flow Based Market Coupling, import and export capacities increased overall, but this had a dampening effect on differences in wholesale prices. Consequently, the revenues from auctioning cross-border interconnection capacity decreased in 2016 compared to 2015.

##### 3.1.4 Offshore balancing

In accordance with German law, approximately 70% of offshore-related costs are charged to the other three German TSOs (so-called 'horizontal balancing'). The revenue arising from this pass-through is classified as 'revenue from offshore services'. TenneT acts as a principal in this arrangement.

### 3.1.5 ⓘ Accounting policy with respect to revenue

Revenue primarily represents the sales value derived from the connection of general capacity and transmission of energy, maintenance of the energy balance, offshore services and energy exchanges during the year. Revenue is recognised to the extent that it is probable that the economic benefits will flow to the Group and the revenue can be reliably measured, regardless of when the payment is being made.

Revenue is measured at the fair value of the consideration received or receivable, taking into account contractually defined terms of payment and excluding taxes or duty. Revenue includes an assessment of unbilled connection and transmission services supplied to customers between the date of the last meter reading and the year-end. This assessment is based on expected consumption and weather patterns. If the revenue received or receivable exceeds the maximum amount permitted by the regulator, ACM or BNetzA, an adjustment will be made to future tariffs to reflect this over-recovery. No liability is recognised since this adjustment relates to the provision of future services. Similarly, no asset is recognised in situations where the regulator permits adjustments to be made to future tariffs in respect of an under-recovery.

## 3.2 Operating expenses

### 3.2.1 Grid expenses

(EUR million)	2016	2015
System services	835	1,132
Connection and transmission services	256	214
Maintenance of energy balance	52	88
Maintaining and operating transmission grids	371	245
Other	-3	-8
<b>Total</b>	<b>1,511</b>	<b>1,671</b>

System services expenses comprise mainly of the expenses for measures taken to restore the imbalance of the electricity grid and grid losses. Compared to 2015 less redispatch measures were taken in Germany in 2016 mainly due to better weather conditions and due to the start of the operations of the power line 'Frankenleitung' at the end of 2015 which led to noticeable relief of the grid in Franconia. A number of estimation uncertainties like feed-in volumes, weather conditions and prices affect the calculation of the grid expenses and related accrual (see paragraph 5.6.3)

### 3.2.2 Personnel expenses

(EUR million)	2016	2015
Salaries	227	205
Social security contributions	30	27
Pension charges defined benefit plans	10	10
Pension charges other plans	12	12
Other personnel expenses	16	16
Capitalised costs for tangible fixed assets	-112	-116
<b>Total</b>	<b>183</b>	<b>154</b>

Average workforce in FTEs (internal employees only)	2,954	2,825
Average workforce in FTES employed in the Netherlands	1,295	1,302

**Key management remuneration**

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

<b>Supervisory Board (EUR thousand)</b>	Fixed	Committee fee	Total
<b>2016</b>	<b>130</b>	<b>45</b>	<b>175</b>
2015	119	43	162

<b>Executive Board (EUR thousand)</b>	Fixed	Variable	Pension cost	Total
<b>2016</b>	<b>1,796</b>	<b>254</b>	<b>445</b>	<b>2,495</b>
2015	1,646	392	464	2,502

The aggregate Executive Board remuneration consists of remuneration paid to statutory directors of EUR 1,848 thousand (2015: EUR 1,851 thousand) and remuneration paid to non-statutory directors of EUR 641 thousand (2015: EUR 653 thousand). 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. For further details on the pension plans, see note [7.1](#).

**3.2.3 Other operating expenses**

<b>(EUR million)</b>	<b>2016</b>	2015
Accommodation and office expenses	68	68
Consultancy expenses	16	13
Hiring of temporary personnel	19	18
Travel and living expenses	13	12
Other expenses	66	-28
<b>Total</b>	<b>182</b>	<b>83</b>

Other expenses in 2015 included a partial release of the provision for compensation payable to OWF operators in respect of possible interruptions of or delays in offshore high-voltage connections was recorded. For further details see note [5.7.3](#).

Consultancy expenses include the independent auditor's fees of Ernst & Young Accountants LLP allocated to the financial year to which they relate and amounts to EUR 524 thousand for the audit of financial statements and EUR 207 thousand for other assurance services. The total fees for Ernst & Young network firms (including Ernst & Young Accountants LLP) were as follows:

(EUR thousand)	2016	2015
Audit of the financial statements	1,286	1,226
Other assurance services	360	380
<b>Total assurance services</b>	<b>1,646</b>	<b>1,606</b>
Tax consultancy	105	50
Other services	46	109
<b>Total other services</b>	<b>151</b>	<b>159</b>
<b>Total auditor's fees</b>	<b>1,797</b>	<b>1,765</b>

### 3.3 Other (gains)/losses

The other (gains)/losses comprise mainly from a settlement with a third party outside the ordinary course of business.

### 3.4 Finance expenses

(EUR million)	2016	2015
Interest on borrowings and credit facilities	135	115
Capitalised interest on assets under construction	-10	-19
Interest on provisions	20	15
Interest on defined benefit pensions	3	2
Other finance expenses	18	28
<b>Total</b>	<b>166</b>	<b>141</b>

### 3.5 Income tax

We comply with all applicable tax legislation in a socially responsible manner, helping the business achieve its goals by providing viable and practical tax advice and maintaining the highest levels of transparency, quality and integrity. Management responsibility and oversight of our tax strategy lies with our CFO, our Senior Manager Financial Control and our Corporate Tax Manager who monitor our tax activities and report to the Executive Board and Audit, Risk and Compliance Committee.

Our tax strategy is in line with its corporate strategy. We believe that 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 on a tax control framework to be 'in control' of tax risks and to allow the company to show all its stakeholders, including the tax authorities, that it fully complies with all laws and regulations.

Income tax is payable in the Netherlands, Germany and Belgium. In the Netherlands, we signed a so called 'horizontal monitoring agreement' with the Dutch tax authorities. Based on transparency and mutual trust, this agreement ensures that tax positions are fully disclosed and agreed on in advance, as a result of which generally no tax audits are performed by the tax authorities. All corporate income tax returns have been filed up to and including 2014. Tax paid in the Netherlands in 2016 amounted to EUR 73 million.

In Germany, the corporate and trade tax returns for all German entities have been filed up to and including fiscal year 2014. During 2014, the German tax authorities initiated a tax audit covering the fiscal years 2008 to 2012 and relating to all German entities; as of 31 December 2016 this audit was ongoing. In 2016, we paid EUR 138 million for corporate income tax in Germany.

The key components of income tax expense are:

Consolidated income statement (EUR million)	2016	2015
<i>Current income tax:</i>		
Current income tax charge	129	175
<i>Deferred tax:</i>		
Relating to origination and reversal of temporary differences	-91	-148
<b>Income tax expense reported in the income statement</b>	<b>38</b>	<b>27</b>

Consolidated statement of comprehensive income (EUR million)	2016	2015
Effect of re-measurement of defined benefit pensions	12	-2
<b>Income tax charged directly to other comprehensive income</b>	<b>12</b>	<b>-2</b>

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 25.0% applies, while in Germany, on average, a statutory corporate income tax rate of 29.3% applies (including trade tax by municipality or 'Gewerbsteuer'). Reconciliation between tax expense and the accounting profit multiplied by the statutory income tax rate of 25% is as follows:

(EUR million)	2016	2015
<b>Profit before income tax</b>	<b>280</b>	<b>143</b>
Statutory income tax rate of 25% (The Netherlands, 2015: 25%)	70	36
Effect of higher tax rate in Germany	7	4
Deferred and current tax differences	-27	1
(Non)-deductible interest	2	5
Non-deductible/taxable mainly participation exemption effect	-11	-17
Tax paid by third parties	-3	-2
<b>At the effective income tax rate of 14% (2015: 19%)</b>	<b>38</b>	<b>27</b>

The main reasons for the lower effective tax rate (11% lower) are the effect of our share in profit of joint ventures and associates, which is subject to the Dutch participation exemption and a future German tax credit. The line deferred and current tax differences relates to adjustments of the tax position.

Deferred tax relates to the following:

(EUR million)	Statement of financial position		Statement of income	
	2016	2015	2016	2015
Auction receipts	-248	-263	-14	28
Investment contributions	-73	-75	-1	-
Tariffs to be settled	6	-31	-37	-54
Accelerated depreciation for tax purposes	-176	-191	-16	-55
Provisions	190	157	-20	-32
Profit allocation to hybrid	-5	-5	-	-
Hedging reserve	-	-	-	4
Other	57	56	-3	-39
<b>Net deferred tax assets/(liabilities)</b>	<b>-249</b>	<b>-352</b>		
<b>Deferred tax expense/(income)</b>			<b>-91</b>	<b>-148</b>

The deferred tax is presented in the statement of financial position as follows:

(EUR million)	2016	2015
Deferred tax assets	3	2
Deferred tax liabilities	-252	-354
<b>Deferred tax, net</b>	<b>-249</b>	<b>-352</b>

The movement of the deferred tax position is set out below.

(EUR million)	2016	2015
<b>At 1 January</b>	<b>-352</b>	<b>-489</b>
Tax expense during the period recognised in statement of income	91	148
Initial recognition of acquired companies	-	-9
Tax income during the period recognised in other comprehensive income	12	-2
Reclassification to current liabilities	-	-
<b>At 31 December</b>	<b>-249</b>	<b>-352</b>

The Group does not have any tax loss carry forwards.

#### ① Accounting policy

The tax charge for the period is recognised in the income statement, the statement of comprehensive income or directly in equity, in accordance with the relevant the accounting treatment of the related transaction.

The tax charge comprises both current and deferred tax.

Current income tax assets and liabilities for the current period 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 on 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. 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.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. 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.

(Deferred) tax assets and liabilities are offset only if we have a legally enforceable right to set off assets and current tax liabilities, and the deferred taxes relate to the same taxable entity/fiscal unity and the same taxation authority.

### 3.6 Earnings per share

Earnings per share have been calculated by dividing the profit for the year attributable to ordinary shareholder of the Company, 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)	2016	2015
Profit for the year attributable to ordinary shareholder of the company	167	28
Allocation to hybrid securities	-33	-33
Tax effect on allocation to hybrid securities	8	8
<b>Profit for the year attributable to equity holders of the company adjusted for the allocation to hybrid securities</b>	<b>142</b>	<b>3</b>
Weighted average number of ordinary shares in issue (in thousands)	200	200

## 4. Grid investments, other tangible fixed assets and related commitments

We own a significant physical asset base to operate our transmission grid. To solve transmission bottlenecks and ensure grid stability we invest further in our network. Also to accommodate the expanding solar and wind energy capacity further onshore and offshore grid investments in Germany and the Netherlands are necessary in the upcoming years. This section focuses on our tangible fixed assets and related commitments which are the basis of our activities.

### 4.1 Tangible fixed assets

(EUR million)	High-voltage substations	High-voltage connections	Other assets	Assets under construction	Total
<b>Cost</b>					
<b>At 1 January 2015</b>	<b>3,981</b>	<b>3,662</b>	<b>507</b>	<b>3,882</b>	<b>12,032</b>
Additions	560	335	50	1,556	2,501
Initial recognition of acquired companies (note 5.2)	32	5	1	1	39
Transfers	1,056	668	106	-1,830	-
Transfer to intangible assets	-	-	-	-23	-23
Disposals	-47	-11	-29	-16	-103
<b>At 31 December 2015</b>	<b>5,582</b>	<b>4,659</b>	<b>635</b>	<b>3,570</b>	<b>14,446</b>
Additions	169	215	18	1,446	1,848
Transfers	777	442	41	-1,260	-
Transfer to intangible assets	-	-	-	-13	-13
Changes in estimations (note 5.7.5)	-16	-25	-	-	-41
Disposals	-26	-1	-18	-7	-52
<b>At 31 December 2016</b>	<b>6,486</b>	<b>5,290</b>	<b>676</b>	<b>3,736</b>	<b>16,188</b>
<b>Depreciation and impairment</b>					
<b>At 1 January 2015</b>	<b>779</b>	<b>792</b>	<b>128</b>	<b>-</b>	<b>1,699</b>
Depreciation for the year	251	196	37	-	484
Decrease in value due to regulatory changes	78	154	-	-	232
Disposals	-42	-8	-24	-	-74
<b>At 31 December 2015</b>	<b>1,066</b>	<b>1,134</b>	<b>141</b>	<b>-</b>	<b>2,341</b>
Depreciation for the year	304	215	47	-	566
Disposals	-24	-1	-15	-	-40
<b>At 31 December 2016</b>	<b>1,346</b>	<b>1,348</b>	<b>173</b>	<b>-</b>	<b>2,867</b>
<b>Net book value:</b>					
At 1 January 2015	3,202	2,870	379	3,882	10,333
At 31 December 2015	4,516	3,525	494	3,570	12,105
At 31 December 2016	5,140	3,942	503	3,736	13,321

High-voltage substations include transformers and offshore converter stations. High-voltage connections consist of overhead and underground connections. 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.

Last year we agreed with the ACM that auction receipts will be returned to consumers in future tariffs, instead of using them for financing of assets. This change resulted in a reduction of the future economic benefits embodied in the NorNed assets to nil as from 1 January 2016 and as such a decrease of the remaining carrying value of the NorNed assets for TenneT from EUR 232 million to zero as per 31 December 2015.

In 2015 the disposal in assets under construction mainly related to the disposal of developed software (EUR 16 million).

In 2016 the discount rate for the decommissioning provision changed from 4% to 3.6% for OWF connections and from 4% to 2.6% for onshore connections (see note 5.7.5).

The amount of borrowing costs capitalised during the year ended 31 December 2016 was EUR 10 million (2015: EUR 19 million).

A change in the Dutch regulatory framework resulted in a financing compensation at the start of building certain assets under the regulatory regime (effective as at 1 April 2016). This resulted in a lower amount of capitalised borrowing costs for 2016 compared to 2015.

The effective interest rate used to determine the amount of borrowing costs eligible for capitalisation was 2.5% (2015: 3.3%).

### Assets under construction

(EUR million)	2016		2015	
	Investments	Assets under construction	Investments	Assets under construction
TSO Netherlands	575	1,014	473	678
TSO Germany	1,273	2,722	1,926	2,892
Non-regulated activities	-	-	6	-
<b>Total</b>	<b>1,848</b>	<b>3,736</b>	<b>2,405</b>	<b>3,570</b>

Our focus is on our (large) construction projects and maintenance activities, which are managed by separate departments. The distinction between project execution is predominantly to execute our large investment portfolio in separate groups of similar projects, all governed by company-wide policies and guidelines regarding project management, governance and risk management.

#### ① Accounting policy tangible fixed assets

Tangible fixed assets are valued at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such cost includes 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 a major maintenance is performed, its cost is recognised in the carrying amount of the asset as a replacement, if the recognition criteria are satisfied. All other repair and maintenance costs are recognised in profit or loss 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 as 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 tangible fixed assets**

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

Estimated useful lives tangible fixed assets	Years
<b>Substations</b>	
Switches and offshore converter stations	20-35
Security and control equipment	10-20
Power transformers	20-35
Capacitor banks	20-35
Telecommunications equipment	10-20
<b>Connections</b>	
Pylons/lines	35-40
Cables (subsea and underground)	20-40
<b>Other</b>	
Office buildings	40-50
Office IT equipment	3-5
Process automation facilities	5
Other company assets	5-10
Land (and its preparation for building) is not subject to depreciation	

Residual values, useful lives and methods of depreciation of assets are reviewed at each financial year-end and adjusted prospectively, if appropriate.

## 4.2 Deferred income

(EUR million)	2016	2015
Investment contributions	269	251
Service contracts	3	4
Other	7	14
<b>Total</b>	<b>279</b>	<b>269</b>

Investment contributions relate to amounts received from certain third parties for the construction of a new substation, a grid connection or increased capacity for its connection. The current part of the investment contributions amounts to EUR 5 million (2015: EUR 5 million) and is presented separately in the statement of financial position.

**① Accounting policy**

At initial recognition fees received from third parties are measured at fair value, presented as deferred income ('investment contributions') and recognised as revenue over the related asset's useful life.

**4.3 Commitments and contingencies related to investments**

Off-balance sheet rights and obligations related to investments consist of the following categories:

(EUR million)	2016	2015
<b>Off-balance sheet rights</b>		
Bank guarantees received	1,577	1,516
Comfort letters received	552	421
<b>Total</b>	<b>2,129</b>	<b>1,937</b>
<b>Off-balance commitments</b>		
Capital commitments	2,353	2,463
Comfort letters issued	7	27
Operating lease commitments	122	138
<b>Total</b>	<b>2,482</b>	<b>2,628</b>

**4.3.1 Bank guarantees received**

Bank guarantees received include guarantees with respect to prepayments in relation to investment projects.

**4.3.2 Comfort letters received**

The majority of comfort letters received is from construction companies primarily involved in the construction of German offshore projects.

**4.3.3 Comfort letters issued**

We have issued comfort letters for the (long-term) financial obligations of TenneT Offshore companies to several external parties. Also several comfort letters are issued to our subcontractors as part of the construction of tangible fixed assets, of which the majority relate to offshore projects in Germany. Comfort letters issued for which capital commitments have also been entered into (EUR 861 million) are included as part of the 'capital commitments' or either fulfilled by actual purchases. In addition, comfort letters issued for matters for which provisions have been recognised in the statement of financial position (EUR 483 million) are also excluded from the table above to the extent of such provisions.

**4.3.4 Capital commitments**

Capital commitments relate to commitments entered into with regard to the purchase of tangible fixed assets. Resulting from the progress made in mainly German offshore projects the outstanding capital commitments decreased. Approximately EUR 1,535 million of capital commitments are payable within the next 12 months (2015: EUR 1,337 million).

**4.3.5 Operating lease commitments**

We have entered into operating lease commitments for certain office buildings and vehicles. In 2016 the operating lease expenses amount to EUR 15 million (2015: EUR 11 million). Future minimum lease payables under non-cancellable operating leases are as follows:

(EUR million)	2016	2015
Within the next 12 months	20	20
Whitin 2-5 years	52	54
More than 5 years	50	64
<b>Total</b>	<b>122</b>	<b>138</b>

For 2016 and 2015 we did not have any financial leases.

#### ① Accounting policy

Leases in which substantially all risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the statement of income on a straight-line basis over the period of the lease.

Leases in which a significant portion of the risks and rewards of ownership are transferred to the lessee are classified as financial leases.

## 5. Other invested capital including working capital and provisions

Other invested capital include intangible assets to support operations, goodwill related to acquired business and working capital. Working capital comprises current assets and current liabilities which results from our daily operations (such as trade receivables and payables). Our working capital requirements are significantly impacted by the execution of the EEG legislation, our grid related accruals and purchases for investments.

Furthermore, due to the transmission of energy to power homes and business, energy has to travel long distances across many different types of terrain. This inevitably has an impact on the environment. Therefore we carry a provision that reflects the expected cost to remediate and decommission our assets. Also in the ordinary course of our business, we are party to several claims from and disputes with third parties. We record a provision for these claims and disputes when we expect a payment to settle it, where the amount is estimated.

### 5.1 Intangible assets

(EUR million)	Goodwill	Software	Customer contracts	Other intangible assets	Intangible assets under construction	Total
<b>Cost</b>						
<b>At 1 January 2015</b>	<b>27</b>	<b>144</b>	<b>64</b>	<b>22</b>	<b>3</b>	<b>260</b>
Additions	-	5	-	1	2	8
Initial recognition of acquired companies	4	-	-	-	-	4
Transfers	-	26	-	-	-26	-
Transfer from tangible fixed assets	-	-	-	-	23	23
<b>At 31 December 2015</b>	<b>31</b>	<b>175</b>	<b>64</b>	<b>23</b>	<b>2</b>	<b>295</b>
Additions	-	4	-	-	2	6
Transfers	-	13	-	-	-13	-
Transfer from tangible fixed assets	-	1	-	-	12	13
<b>At 31 December 2016</b>	<b>31</b>	<b>193</b>	<b>64</b>	<b>23</b>	<b>3</b>	<b>314</b>
<b>Amortisation and impairment</b>						
<b>At 1 January 2015</b>	<b>-</b>	<b>108</b>	<b>28</b>	<b>6</b>	<b>-</b>	<b>142</b>
Amortisation for the year	-	27	5	1	-	33
<b>At 31 December 2015</b>	<b>-</b>	<b>135</b>	<b>33</b>	<b>7</b>	<b>-</b>	<b>175</b>
Amortisation for the year	-	24	5	1	-	30
<b>At 31 December 2016</b>	<b>-</b>	<b>159</b>	<b>38</b>	<b>8</b>	<b>-</b>	<b>205</b>
<b>Net book value:</b>						
At 1 January 2015	27	36	36	16	3	118
At 31 December 2015	31	40	31	16	2	120
At 31 December 2016	31	34	26	15	3	109

At 31 December 2016, goodwill was allocated to cash generating units (CGUs): TSO Netherlands (EUR 3 million), TSO Germany (EUR 24 million) and non-regulated companies (EUR 4 million). At 31 December 2015 the allocated goodwill amounts to CGUs were EUR 3 million, EUR 24 million and EUR 4 million respectively.

In prior year Netz Veltheim GmbH was acquired and EUR 4 million of goodwill was recorded as a result of this transaction (see note 5.2).

#### 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. Internally generated intangible assets, excluding capitalised development costs, are not capitalised and expenses are reflected in the statement of income in the period in which they are incurred.

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 any accumulated impairment losses.

At each reporting date, we assesses 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 end 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

As shown in the table, the intangible assets, with exception of goodwill, have a fixed useful life and are amortised over the asset's useful life. The useful life is re-assessed at least at the end of each reporting period. Intangible assets are amortised in a straight line, as this best reflects the use of the asset.

Goodwill has 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. The assessment of indefinite useful life is reviewed annually.

#### 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) 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 post-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, since no recent market transactions can be identified.

The impairment calculation is based on detailed budgets and projections, which are prepared separately for each of the CGUs to which the individual assets are allocated. The budgets and projections reflect current regulatory parameters taking into account expected future regulatory developments. Management believes that these 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 TSO Germany CGU was determined based on a value in use calculation using cash flow projections from our three year business plan. The post-tax discount rate applied to cash flow projections was 2.9%. The cash flows beyond the three-year period until 2037 were estimated on the basis of regulatory allowed returns and invested capital. The terminal value is determined by discounting the estimated regulatory asset base as of December 2037. We concluded that the recoverable amount was significantly in excess of the carrying value. As a result of this analysis, management concluded that no impairment loss needed to be recognised.

### 5.2 Business combinations

#### May 2015: disposal of assets held for sale

Effective 4 May 2015 TenneT exchanged all its shares (70.8%) in APX Holding B.V. to EPEX for new shares in EPEX. Subsequently, TenneT contributed these EPEX shares to Holding des Gestionnaires de Réseaux de Transport d'Électricité S.A.S. (hereafter referred to as 'HGRT') in exchange for newly issued ordinary shares in HGRT (see note [5.3.2](#)).

The sale of APX resulted in a EUR 12 million gain, a decrease in the non-controlling interests of EUR 4 million, an increase in investments in associates (EUR 24 million) and a decrease in the cash and cash equivalents of EUR 295 million. Also the reserve for exchange rate differences relating to APX's foreign operation (EUR -2 million) was reclassified from equity to profit-or-loss.

#### July 2015: acquisition Netz Veltheim GmbH

In July 2015 TenneT acquired, through its subsidiary TenneT TSO GmbH, 100% of the shares of Netz Veltheim GmbH in Germany for a cash consideration of EUR 33 million. This company owns and operates 220 kV substations and connections.

The fair value of the identifiable assets and liabilities at the date of the acquisition was as follows:

(EUR million)	2015
<b>Assets</b>	
Tangible fixed assets	39
Account- and other receivables	182
Cash and cash equivalents	5
<b>Liabilities</b>	
Provisions	-9
Deferred tax liability	-8
Account- and other payables	-180
<b>Net Assets</b>	<b>29</b>
Goodwill arising from acquisition	4
<b>Purchase consideration transferred</b>	<b>33</b>

### ① Accounting policy

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred measured at acquisition date fair value and 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.

## 5.3 Investments in joint ventures and associates

### 5.3.1 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, DC Nordseekabel Management GmbH, Relined B.V., Reddyn B.V., Tenz 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 considered material.

#### BritNed

BritNed is a joint venture between us and National Grid International Ltd, the British TSO. It owns and operates a 1,000 MW 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 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 through a wholly-owned Norwegian company. Operating costs and trading revenue are shared equally between NOKA and Statnett.

Other joint ventures are considered immaterial and are therefore disclosed on an aggregated level.

Summarised financial information of these joint ventures and reconciliation with the carrying amount of the investments in the consolidated financial statements are as follows:

Statement of financial position (EUR million)	2016				2015			
	BritNed	NOKA	Other	Total	BritNed	NOKA	Other	Total
Non-current assets	463	249	11	723	479	103	11	593
Cash and cash equivalents	46	15	3	64	47	24	2	73
All other current assets	13	13	2	28	18	1	2	21
Non-current liabilities	-11	-19	-4	-34	-12	-11	-8	-31
Current liabilities	-45	-72	-9	-126	-33	-21	-6	-60
<b>Equity</b>	<b>466</b>	<b>186</b>	<b>3</b>	<b>655</b>	<b>499</b>	<b>96</b>	<b>1</b>	<b>596</b>
<i>Ownership TenneT</i>	50%	50%	50%		50%	50%	50%	
<b>Carrying amount of the investment</b>	<b>233</b>	<b>93</b>	<b>2</b>	<b>328</b>	<b>250</b>	<b>48</b>	<b>1</b>	<b>299</b>

Statement of income (EUR million)	2016				2015			
	BritNed	NOKA	Other	Total	BritNed	NOKA	Other	Total
Revenue	209	19	8	236	204	7	6	217
Depreciation and amortisation	-16	-	-1	-17	-16	-	-1	-17
Other costs	-21	-2	-5	-28	-15	-1	-3	-19
<b>Operating profit</b>	<b>172</b>	<b>17</b>	<b>2</b>	<b>191</b>	<b>173</b>	<b>6</b>	<b>2</b>	<b>181</b>
Finance income and expenses	-3	-	-	-3	1	-	-	1
Income tax expense	-38	-	-	-38	-32	-	-	-32
<b>Profit for the year*</b>	<b>131</b>	<b>17</b>	<b>2</b>	<b>150</b>	<b>142</b>	<b>6</b>	<b>2</b>	<b>150</b>
<i>Ownership TenneT</i>	50%	50%	50%		50%	50%	50%	
<b>Group's share in profit</b>	<b>66</b>	<b>8</b>	<b>1</b>	<b>75</b>	<b>71</b>	<b>3</b>	<b>1</b>	<b>75</b>

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

BritNed has contingent liabilities of EUR 5 million (2015: EUR 7 million) mainly related to operating leases and NOKA has contingent liabilities of EUR 0.6 billion (2015: EUR 0.7 billion) mainly related to investments. The other joint ventures have contingent liabilities outstanding of EUR 1 million, solely relating to Relined B.V. (2015: EUR 2 million solely relating to Relined B.V.).

Our joint ventures cannot distribute their profits until they obtain consent from all shareholders or partners. In 2016 EUR 83 million dividend was received from BritNed (2015: EUR 80 million) and EUR 2 million from Reddyn B.V. (2015: EUR 2 million). We contributed EUR 37 million to NOKA's capital (2015: EUR 32 million).

### 5.3.2 Associates

At 31 December 2016 our substantial investments in associates consist 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), TSCNET Services GmbH (TSC) and ETPA Holding B.V. (ETPA).

The summarised financial information of these associates and reconciliation with the carrying amount of the investment in the consolidated financial statements are as follows:

Statement of financial position (EUR million)	2016			2015		
	HGRT	OTC	Total	HGRT	OTC	Total
Non-current assets	98	111	209	99	117	216
Current assets	2	28	30	4	18	22
Other non-current liabilities	-	-158	-158	-	-156	-156
Current liabilities	-	-4	-4	-1	-5	-6
<b>Equity</b>	<b>100</b>	<b>-23</b>	<b>77</b>	<b>102</b>	<b>-26</b>	<b>76</b>
<i>Ownership TenneT</i>	34%	25%		34%	25%	
<b>Carrying amount of the investment</b>	<b>34</b>	<b>-</b>	<b>34</b>	<b>35</b>	<b>-</b>	<b>35</b>

Statement of income (EUR million)	2016			2015		
	HGRT	OTC	Total	HGRT	OTC	Total
Revenue	-	26	26	-	23	23
Depreciation and amortisation	-	-6	-6	-	-6	-6
Other costs, gains and losses	-	17	17	10	-5	5
<b>Operating profit</b>	<b>-</b>	<b>15</b>	<b>15</b>	<b>10</b>	<b>12</b>	<b>22</b>
Finance income and expenses	8	-6	2	-5	-6	-11
Income tax expense	-	-2	-2	1	-2	-1
<b>Profit for the year*</b>	<b>8</b>	<b>7</b>	<b>15</b>	<b>6</b>	<b>4</b>	<b>10</b>
<i>Ownership TenneT</i>	34%	25%		34%	25%	
<b>Group's share in profit</b>	<b>3</b>	<b>-</b>	<b>3</b>	<b>2</b>	<b>9</b>	<b>11</b>

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

### HGRT

The legal seat of holding company HGRT is in Paris, France. HGRT holds a 49% stake in EPEX. EPEX is the exchange for the power spot markets for the NWE region and the United Kingdom. At 31 December 2016, HGRT had no contingent liabilities outstanding (2015: nil). In 2016, EUR 3 million in dividends was received (2015: EUR 1 million).

As a result of the sale of APX (see note 5.2) our interest initially increased in HGRT to 40% in 2015 and in the course of 2015 we sold 6% of our shareholding in HGRT for a cash consideration of EUR 6 million.

### OTC

OTC (legal seat: Vianen, the Netherlands) is a holding company and holds majority interests in three asset companies, namely Colonne B.V., Mobile Radio Networks Vehicle B.V. (MRNV) and OTC II B.V. These companies mainly own infrastructure assets specifically designed for terrestrial communications. OTC had EUR 2 million in contingent liabilities as at 31 December 2016 (2015: EUR 2 million). No dividend from OTC were received in 2016 (2015: EUR 7 million).

### 5.3.3 ⓘ Accounting policy joint ventures and associates

A joint venture is an arrangement whereby the parties in the arrangement have joint control over the net assets of the joint 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.

The statement of income reflects our share of 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 makes dividend distributions to us in excess of our carrying amount, a liability is recognised if we :

- (i) are obliged to refund the dividend;
- (ii) have incurred a legal or constructive obligation; or
- (iii) 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 its 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.

## 5.4 Other financial assets

(EUR million)	2016	2015
Receivables from other TSOs	-	63
Receivables from related parties	18	15
Receivable from shareholder	630	-
Fees for credit facilities available	4	6
Other	3	2
<b>Total</b>	<b>655</b>	<b>86</b>

The majority of receivables from other TSOs relate to costs charged ('horizontal balancing') in relation to German offshore connections. The receivable from related parties mainly consists of loans granted to NOKA (see note 5.3.1). The receivable from the shareholder reflects our contractual right to receive the cash consideration following the 2016 capital contribution. The total receivable amounts to EUR 780 million of which EUR 150 is classified as current (refer to note 5.5). The remainder of the cash considerations will be received in 2018 and 2019.

## 5.5 Account- and other receivables

(EUR million)	2016	2015
Amounts to be invoiced to EEG trade debtors	999	917
EEG trade receivables	34	30
Trade receivables	163	134
Amounts to be invoiced	376	424
Receivable from shareholder (note 5.4)	150	-
VAT receivables	33	64
Interest receivable	4	4
Other	116	79
<b>Total</b>	<b>1,875</b>	<b>1,652</b>

### 5.5.1 EEG trade receivables and amounts invoiced to EEG trade debtors

In accordance with the EEG in Germany, 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.

The difference is covered by an EEG levy, determined annually, which is part of German consumer tariffs. EEG revenues and expenses are legally separate and legally bound 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. We act as an agent with respect to these EEG services.

EEG trade debtors and receivables consist of the accrual of unbilled EEG levy mainly for the month December, the outstanding invoices for the EEG levy, and the accrual for horizontal balancing (i.e. unsettled charges to the other German TSOs) and energy trading revenues. EEG receivables are not at our free disposal. The comparable 2015 figure has been changed due to a reclassification of the provision for EEG trade receivables (EUR 33 million) which was included in the bad debt provision for trade receivables.

### 5.5.2 Trade receivables

As at 31 December, the ageing analysis of the trade receivables was as follows:

(EUR million)	Total	Neither past due nor impaired	Past due but not impaired		
			0-30 days	31-60 days	More than 60 days
2016	163	132	12	1	18
2015	134	93	12	2	27

In respect of the regular trade receivables credit risk is limited as substantially all potential losses are expected to qualify for compensation in future tariffs. Changes in the bad debt provision were as follows:

(EUR million)	2016	2015
<b>At 1 January</b>	<b>8</b>	<b>4</b>
Charge for the year	-	7
Utilised	-1	-2
Unused amounts reversed	-2	-1
<b>At 31 December</b>	<b>5</b>	<b>8</b>

As at 31 December 2016, receivables with an initial value of EUR 1 million (2015: EUR 2 million) were fully provided for. In 2015 the bad debt provision included the provision for EEG receivables and the amount (EUR 33 million) is reclassified to the EEG receivables.

### 5.5.3 Amounts to be invoiced

The majority of the amounts to be invoiced relate to unbilled grid fees and recharged offshore costs in Germany.

## 5.6 Account- and other payables

(EUR million)	2016	2015
EEG accounts payable	2,017	2,026
Accounts payable	266	163
Payables in connection with tangible fixed assets purchases	393	443
Grid expenses payable	662	993
Interest payable	91	78
Social securities and other taxes payable	17	13
Payables to related parties	11	6
Other payables	209	210
<b>Total</b>	<b>3,666</b>	<b>3,932</b>

#### 5.6.1 EEG accounts payable

See note 5.5.1.

#### 5.6.2 Payables in connection with tangible fixed assets purchases

Payables in connection with tangible fixed assets purchases relates to unbilled services and deliveries for onshore and offshore investment projects.

### 5.6.3 Grid expenses payable

The grid expenses payable consists of the (i) accrued expenses for measures taken to restore the imbalance of the electricity grid, and (ii) compensation payments to OWFs.

#### Key estimates and assumptions

In terms of the 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 regarding such matters as weather conditions, requested volumes and capacity per plant are made in these models. Prices are based on the underlying contracts and/or historical data. The complexity of the electricity market and uncertainties in assessing energy production from the likes of wind and solar power makes estimating the grid expenses payable a complex task. The compensation payments to OWFs are based on the energy amount 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 liability surcharge.

### 5.6.4 Other payables

The other payables mainly comprise of compensation payments to offshore windparks, personnel related liabilities and accruals for which invoices need to be received.

## 5.7 Provisions

(EUR million)	2016			2015		
	Current	Non-current	Total	Current	Non-current	Total
Environmental and decommissioning	7	506	513	7	453	460
Tariffs related	112	15	127	167	11	178
Other	22	121	143	6	117	123
<b>Total</b>	<b>141</b>	<b>642</b>	<b>783</b>	<b>180</b>	<b>581</b>	<b>761</b>

(EUR million)	Environmental management and decommissioning	Tariffs related	Other	Total
<b>At 1 January 2015</b>	<b>363</b>	<b>201</b>	<b>237</b>	<b>801</b>
Addition	110	39	-8	141
Utilisation	-3	-48	-21	-72
Unused amounts reversed	-25	-14	-85	-124
Imputed interest	15	-	-	15
<b>At 31 December 2015</b>	<b>460</b>	<b>178</b>	<b>123</b>	<b>761</b>
Addition	87	10	24	121
Utilisation	-4	-52	-3	-59
Changes in estimations	-45	2	-1	-44
Unused amounts reversed	-4	-12	-	-16
Imputed interest	19	1	-	20
<b>At 31 December 2016</b>	<b>513</b>	<b>127</b>	<b>143</b>	<b>783</b>

### 5.7.1 Provision for environmental management and decommissioning

The provision for environmental management and decommissioning serves to cover future obligations to dispose of hazardous substances in relation to high-voltage connections and underground cables, and also to decommission assets. In 2016 this included an additional EUR 74 million (2015: EUR 111 million) for future decommissioning costs for projects constructed during 2016. These additional funds were not recognised through the statement of income. There was no significant decommissioning of substations in 2016. The first decommissioning of an OWF connection is expected to start in 2029.

The changes in estimations (see 5.7.5) are related to the changes of the discount rate (impact EUR 38 million) and the inflation rate (impact EUR -83 million). Since the main part of the decommissioning provision was recognised via the carrying value of the related asset, the change in discount and inflation rate was also recognised in the carrying value of the related asset. For the environmental provisions the change in these rates were fully recognised in the income statement.

### 5.7.2 Tariffs related

Tariff-related provisions mainly relate to provisions for system service fees in the Netherlands. We charge electricity consumers a fee for system services performed. Following a change in the 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 certain amounts to parties without a direct grid connection. These refunds can be recouped through future tariffs.

### 5.7.3 Other provisions

The majority of the other provisions relate to legal claims and 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 the supplier resources required for the construction of offshore grid connection system, as well as weather conditions and the application of new technologies, delayed the timely realisation and/or interrupted the operational phase of offshore grid connection systems. In 2015 the provision had been partly released resulting from technology improvements and changed completion dates of the OWFs themselves.

Furthermore, one OWF developer that was granted an unconditional grid connection commitment by us in the past is pursuing legal proceedings against us.

### 5.7.4 ⓘ Accounting policy provisions

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. The estimated future costs are reviewed annually and adjusted as appropriate. Changes in the estimated future costs or in the discount rate applied are recognised in the statement of income.

Provisions are made for environmental management and decommissioning costs, based on future estimated expenditures, discounted to present values. The estimated future costs are reviewed annually and adjusted as appropriate. Changes in the future costs or in the discount rate applied for the environmental management provision are recognised in the statement of income.

Decommissioning costs are recognised as part of the cost of the particular asset. Changes arising from revised estimates or discount rates or changes in the expected timing of expenditures are added to or deducted from the cost of the asset. Estimated future costs for decommissioning obligations arising after the related asset is brought into use are recognised in the statement of income.

The unwinding of the discount is included in the income statement as a financing charge.

### 5.7.5 Key estimates and assumptions provisions

The estimated decommissioning provision involves assessing the expected remaining useful life of the respective asset. The useful life of the OWF connections is estimated at 20 years. The related decommissioning provision is discounted at a rate of 3.6% (2015: 4.0%). A change in discount rate of 1% has an impact of EUR 60 million on the asset value. The onshore connections have a different profile for which a discount rate of 2.6% (2015: 4.0%) is used to calculate the net present value of expenditures. A change in discount rate of 1% has an impact of EUR 3 million on the related assets value.

In addition to the change of discount rate also the used inflation rate was updated in 2016 to 3.0% (2015: 4.0%).

Depending on their profile, a discount rate of 2.6% or 3.6% is applied for the environmental management provisions (2015: 4.0%).

The exact amount to be repaid for system services fees is uncertain and depends on such factors as the electricity usage of the relevant party in the past and the nature and legal structure of each individual party.

The estimated amount of the risks associated with delays and interruptions concerning the Group's offshore activities in Germany is based on the number of OWF connections, the likelihood of a delay or interruption occurring and the estimated compensation to be paid to the OWFs.

We are of the opinion that the recorded provisions reflect its 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.

### 5.8 Inventory

Inventory increased mainly due to the increase in oil which is used for measures taken at the power plants for TenneT.

## 6. Capital structure and financing

To keep pace with the rising consumption, the need for more capacity and shift in production areas we must invest substantially in upgrading and expanding the high-voltage grid. Therefore a solid financial reputation is needed to maintain good access to the financial markets to fund the necessary investments in our infrastructure. This section focuses on capital management, financing and the related risks.

### 6.1 Capital management

The primary objective of our capital structure is to ensure that we have a solid financial position to anticipate changes in the regulatory environment and to enable us to execute its 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 comes from the debt capital markets i.e. from institutional investors, commercial banks and international financial institutions (e.g. the EIB). Also we seek additional equity capital (e.g. through capital contribution by the shareholder and/or third party participations), adjust dividends paid to the shareholder or revise the investment plans.

To maintain full access to financial markets at the most favourable conditions, our Executive Board has defined capital management objectives, policies and processes and aims to:

1. maintain a senior unsecured credit rating of at least A3/A-;
2. maintain a FFO/Net debt ratio based on 'underlying' financial information of at least 8%;
3. diversify the maturities of long-term funding instruments to limit refinancing risk;
4. maintain liquidity through cash and undrawn committed credit lines covering at least our cash requirement on a rolling 12-month forward-looking basis.

Our capital management objectives, policies or processes were unchanged during 2016 and 2015.

#### 1. Maintain a senior unsecured credit rating of at least A3/A-

As of 31 December 2016 TenneT Holding B.V. had the following senior unsecured credit ratings from Standard & Poor's and Moody's Investor Service which meet the target formulated above:

Credit rating at 31 December 2016 and 2015	Long-term rating	Short-term rating
Standard & Poor's	A- (stable outlook)	A-2
Moody's Investor Service	A3 (stable outlook)	P-2

The credit ratings remained unchanged compared to 2015 and were confirmed by Standard & Poor's and Moody's Investor Service on 25 May 2016 and 20 May 2016, respectively.

#### 2. Maintain a FFO/Net debt ratio based on underlying financial information of at least 8%

To maintain a solid financial position, we set the FFO/Net debt ratio of at least 8% based on underlying financial information (see note 2), which is consistent with the perspective of credit rating agencies Standard & Poor's and Moody's Investor Service.

A reconciliation of the FFO and net debt is provided in the following table. Up till and including 2015 the net debt amount was adjusted for EEG working capital. As of 2016 the BNetzA decided that the funds related to EEG can no longer be at our free disposal and should be separated. The separation of these funds was realised in October 2016. Consequently, EEG working capital balances no longer need to be adjusted in the net debt position.

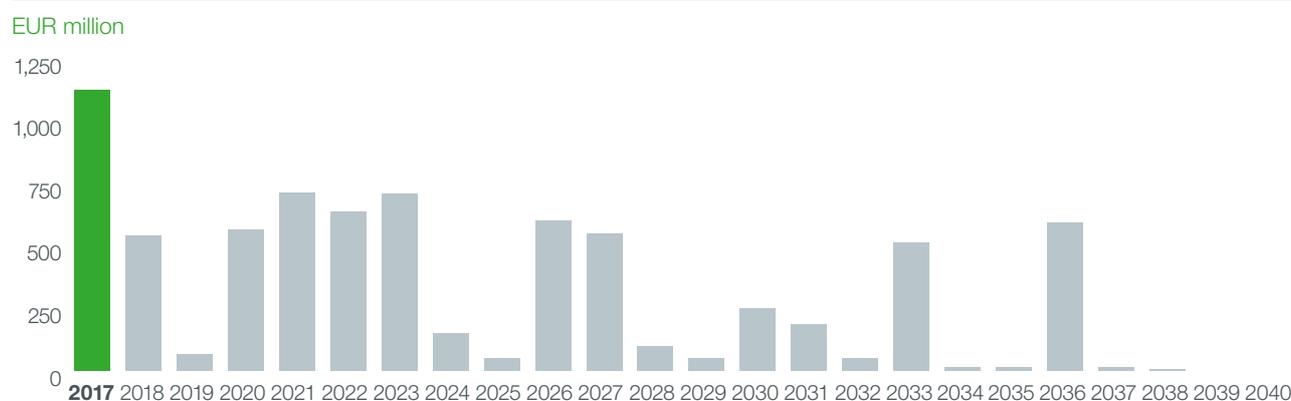
Based on underlying information (EUR million)	2016	2015
Profit for the year	523	681
+ amortisation, depreciation and impairments	619	433
+ result on disposal of assets (non-cash)	-	16
<b>Total FFO</b>	<b>1,142</b>	<b>1,130</b>
Net debt		
+ Long term borrowings	6,335	4,249
+ Short term borrowings	1,127	395
+ Bank overdrafts	42	17
- Cash and cash equivalents at free disposal	-157	-3
<b>Total net debt (before EEG adjustments)</b>	<b>7,347</b>	<b>4,658</b>
+ EEG related payables	2,017	2,026
- Amounts to be invoiced to EEG trade debtors	-999	-918
- EEG receivables	-34	-30
- EEG related VAT receivables	-3	-
- EEG funds	-981	-
<b>Total net debt</b>	<b>7,347</b>	<b>5,736</b>
FFO/net debt	15.5%	19.7%

### 3. Diversify the maturities of long-term funding instruments to limit refinancing risk

To minimise any refinancing risks, we aim to have a diversified maturity profile of our senior debt.

On 31 December 2016, our interest bearing debt (excluding bank overdrafts) had the following annual redemption profile:

#### Annual redemption of debt



#### 4. Maintain liquidity through cash and undrawn committed credit lines covering at least Company's 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 enough to meet the expected aggregate of scheduled debt repayments, investments in fixed assets and dividend payments over the subsequent 12 months. To support the 12-month liquidity requirement, we have a EUR 2.2 billion revolving credit facility (RCF). In addition, in October 2016 the last tranche (EUR 125 million) of our committed EIB facilities was drawn. The 12-month liquidity requirement was met on 31 December 2016 and 31 December 2015.

## 6.2 Equity

### 6.2.1 Equity attributable to owners of the company

#### Paid-up and called-up capital

The Company's authorised share capital amounts to EUR 500 million (2015: 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. In December 2016 the Dutch State formally completed the process to contribute up to EUR 1.2 billion of additional equity over the period 2017-2020 to finance TenneT's Dutch onshore- and offshore investment portfolio. The first tranche of EUR 150 million was received at 2 March 2017. The final tranche of EUR 410 million in 2020 is conditional and will only be granted if the shareholder considers it necessary taking into account the financial situation of TenneT at that time.

#### Hedging reserve

The hedging reserve relates 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 2016, the 2020 FSIRS amounts to EUR -3 million and for the 2021 FSIRS amounts to EUR 8 million.

#### Hybrid securities

Hybrid securities are deeply subordinated securities and are, apart from being common equity, the most junior instruments in the capital structure of the company. The hybrid securities are undated and cannot default on non-payment of coupons (unless such payment was mandatory following a resolution or payment of a dividend to common shareholders i.e. 'dividend pusher'). This means we can avoid payment to hybrid securities owners.

The holders of the hybrid securities have a 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 interest or redeem the loan in part or in full. Payment of interest and redemption of the loan is at the sole discretion of us. As a result, the hybrid securities are considered as part of the equity attributable to the company's equity holders.

The hybrid securities comprise of EUR 500 million securities issued in 2010 and bear an optional, cumulative interest rate of 6.655%, payable annually on 1 June of each year. As at 31 December 2016 the unpaid cumulative dividend amounts to EUR 19 million (2015: EUR 19 million), relating to the period 1 June until 31 December and payable on 1 of June 2017.

**Dividend distribution**

In 2016 a common dividend of EUR 196 million (EUR 980 per share) to our ordinary shareholder was distributed. In consultation with the State of the Netherlands a dividend policy is established and targeting a dividend payout of 35% of the underlying profit for 2016.

We also paid a distribution to the holders of the hybrid securities of EUR 33 million. The income tax benefit relating to the latter distribution was EUR 8 million.

The appropriation of the 2016 profit is at the free disposal of the General Meeting of Shareholders.

**6.2.2 Non-controlling interests**

The proportion of economic interests held by non-controlling interests in the group's subsidiaries is as follows:

(EUR million)	Country	2016	2015
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	62%	62%
TenneT Offshore DolWin3 Verwaltungs GmbH ("TODV")	Germany	67%	62%

We have the power to control TO2, TO8, TOD3 and TODV, and holds 51% of the voting rights in these entities.

(EUR million)	TO2	TO8	TOD3	TODV	APX	Total
<b>At 1 January 2015</b>	<b>229</b>	<b>230</b>	<b>385</b>	<b>-</b>	<b>8</b>	<b>852</b>
Profit attributable to non-controlling interests	13	44	30	-	1	88
Dividends paid	-	-7	-	-	-5	-12
Sale to non-controlling interest	-	-	-	-	-4	-4
Capital contribution	10	22	-	-	-	32
<b>At 31 December 2015</b>	<b>252</b>	<b>289</b>	<b>415</b>	<b>-</b>	<b>-</b>	<b>956</b>
Profit attributable to non-controlling interests	8	32	35	-	-	75
Dividends paid	-2	-35	-	-	-	-37
Capital contribution	6	-	-	-	-	6
Capital repayment	-	-	-29	-	-	-29
<b>At 31 December 2016</b>	<b>264</b>	<b>286</b>	<b>421</b>	<b>-</b>	<b>-</b>	<b>971</b>

The non-controlling interest in TODV and TOD3 are held by Copenhagen Infrastructure Partners (CIP), which holds a 67% economic interest in the adjusted (for certain regulatory effects) profits of these companies. The profit from certain regulatory effects are solely allocated to TenneT's equity attributable to the equity holders of the company, consequently the proportion held by CIP in TODV and TOD3 decreased in 2016.

As a result of the sale of APX in 2015 the non-controlling interest in APX is no longer recognised. Further information on this sale is included in note 5.2.

Financial information of these subsidiaries is summarised below on a consolidated basis before intercompany eliminations and in conformity with our accounting principles.

Statement of financial position (EUR million)	2016			
	TO2	TO8	TOD3	TODV
Non-current assets	1,117	1,648	1,352	-
Current assets	128	164	96	-
Non-current liabilities	-763	-1,235	-668	-
Current liabilities	-99	-123	-92	-
<b>Equity</b>	<b>383</b>	<b>454</b>	<b>688</b>	<b>-</b>
Attributable to owners of the parent	119	168	267	-
Attributable to non-controlling interests	264	286	421	-

Statement of financial position (EUR million)	2015			
	TO2	TO8	TOD3	TODV
Non-current assets	1,167	1,549	978	-
Current assets	75	173	25	-
Non-current liabilities	-760	-1,150	-224	-
Current liabilities	-116	-111	-118	-
<b>Equity</b>	<b>366</b>	<b>461</b>	<b>661</b>	<b>-</b>
Attributable to owners of the parent	114	172	246	-
Attributable to non-controlling interests	252	289	415	-

Statement of income (EUR million)	2016			
	TO2	TO8	TOD3	TODV
Revenue	177	248	118	-
Depreciation and amortisation	-76	-86	-	-
Other expenses	-57	-50	-3	-
<b>Operating profit</b>	<b>44</b>	<b>112</b>	<b>115</b>	<b>-</b>
Finance income and expenses	-26	-39	-13	-
Income tax expense	-7	-23	-12	-
<b>Profit for the year</b>	<b>11</b>	<b>50</b>	<b>90</b>	<b>-</b>
Other comprehensive income	-	-	-	-
<b>Total comprehensive income</b>	<b>11</b>	<b>50</b>	<b>90</b>	<b>-</b>
Attributable to non-controlling interests	8	32	35	-
Dividends paid to non-controlling interests	2	35	-	-

Statement of income (EUR million)	2015				
	T02	T08	TOD3	TODV	APX
Revenue	166	184	89	-	9
Depreciation and amortisation	-74	-36	-	-	-1
Other costs	-36	-10	-1	-	-5
<b>Operating profit</b>	<b>56</b>	<b>138</b>	<b>88</b>	<b>-</b>	<b>3</b>
Finance income and expenses	-29	-39	-5	-	-
Income tax expense	-10	-29	-9	-	-1
<b>Profit for the year</b>	<b>17</b>	<b>70</b>	<b>74</b>	<b>-</b>	<b>2</b>
Other comprehensive income	-	-	-	-	-
<b>Total comprehensive income</b>	<b>17</b>	<b>70</b>	<b>74</b>	<b>-</b>	<b>2</b>
Attributable to non-controlling interests	13	44	30	-	1
Dividends paid to non-controlling interests	-	7	-	-	5

(EUR million)	2016			
	T02	T08	TOD3	TODV
Net cash flows from operating activities	96	227	-39	-
Net cash flows used in investing activities	-79	-186	-363	-
Net cash flows from financing activities	-17	-41	402	-
<b>Change in cash and cash equivalents</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

(EUR million)	2015			
	T02	T08	TOD3	TODV
Net cash flows from operating activities	201	39	100	-
Net cash flows used in investing activities	-190	-215	-311	-
Net cash flows from financing activities	-11	176	211	-
<b>Change in cash and cash equivalents</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

### 6.3 Borrowings

(EUR million)	Effective interest rate	Maturity	Redemption schedule	2016	2015
1.000% green bond 2016-2026 EUR 500 million	1.1%	Jun-26	At maturity	498	-
1.875% green bond 2016-2036 EUR 500 million	2.0%	Jun-36	At maturity	491	-
1.250% green bond 2016-2033 EUR 500 million	1.4%	Oct-33	At maturity	492	-
1.75% green bond 2015-2027 EUR 500 million	1.8%	Jun-27	At maturity	496	495
0.875% green bond 2015-2021 EUR 500 million	1.0%	Jun-21	At maturity	498	497
3.88% bond 2011-2018 EUR 500 million	3.0%	Feb-18	At maturity	505	510
2.13% bond 2013-2020 EUR 500 million	2.2%	Nov-20	At maturity	498	498
4.50% bond 2010-2022 EUR 500 million	4.6%	Feb-22	At maturity	497	497
4.63% bond 2011-2023 EUR 500 million	4.7%	Feb-23	At maturity	498	497
4.75% bond 2010-2030 EUR 200 million	4.9%	Jun-30	At maturity	195	195
<b>Non-current interest-bearing bonds</b>				<b>4,668</b>	<b>3,189</b>
0.813% loan 2016-2038 EUR 125 million	0.8%	2019-2038	Linear	125	-
2.74% loan 2012-2023 EUR 150 million	2.7%	Sep-23	At maturity	150	150
4.12% loan 2010-2021 EUR 150 million	4.1%	Jan-21	At maturity	150	150
0.72% loan 2015-2032 EUR 500 million	0.7%	2018-2032	Linear	500	500
0.77% loan 2015-2037 EUR 150 million	0.8%	2018-2037	Linear	150	150
4.44% loan 2010-2023 EUR 140 million	4.4%	2016-2023	Linear	65	75
4.71% loan 2010-2022 EUR 40 million	4.7%	2016-2022	Linear	15	18
4.40% loan 2010-2021 EUR 40 million	4.4%	2016-2021	Linear	13	17
<b>Non-current interest-bearing loans</b>				<b>1,168</b>	<b>1,060</b>
0.646% green Schuldschein 2016-2022 EUR 77 million	0.7%	May-22	At maturity	77	-
0.989% green Schuldschein 2016-2024 EUR 100 million	1.0%	May-24	At maturity	100	-
1.310% green Schuldschein 2016-2026 EUR 55 million	1.3%	May-26	At maturity	55	-
1.500% green Schuldschein 2016-2028 EUR 50 million	1.5%	May-28	At maturity	50	-
1.750% green Schuldschein 2016-2031 EUR 43 million	1.8%	May-31	At maturity	42	-
1.750% green Schuldschein 2016-2031 EUR 95 million	1.8%	May-31	At maturity	95	-
2.000% green Schuldschein 2016-2036 EUR 80 million	2.0%	May-36	At maturity	80	-
<b>Total non-current interest-bearing Schuldschein</b>				<b>499</b>	<b>-</b>
<b>Total non-current interest-bearing borrowings</b>				<b>6,335</b>	<b>4,249</b>
Cash loans	0.0%		At maturity	25	25
EUR commercial papers	-0.3%		At maturity	1,085	353
4.44% loan 2010-2023 EUR 140 million	4.4%	Nov-17	Linear	11	11
4.71% loan 2010-2022 EUR 40 million	4.7%	Nov-17	Linear	3	3
4.40% loan 2010-2021 EUR 40 million	4.4%	May-17	Linear	3	3
<b>Current interest-bearing loans</b>				<b>1,127</b>	<b>395</b>
<b>Total current interest-bearing borrowings</b>				<b>1,127</b>	<b>395</b>
<b>Total borrowings</b>				<b>7,462</b>	<b>4,644</b>

In May 2016 we completed our first green Schuldschein issue. The EUR 500m Schuldschein, a type of privately-placed German debt similar to a bond, was issued in six tranches, as depicted in the table above. Also under our EMTN programme EUR 1.5 billion additional green bonds were issued in 2016.

For more information about the fair value and applicable accounting policy, see note 6.5 and 6.6, respectively.

## 6.4 Cash, cash equivalents and bank overdrafts

Cash and cash equivalents consist of collateral securities, short-term bank deposits and cash at bank (excluding bank overdrafts). Cash, cash equivalents and bank overdrafts can be broken down as follows:

(EUR million)	2016			2015		
	At free disposal	Not at free disposal	Total	At free disposal	Not at free disposal	Total
Collateral securities	-	66	66	-	42	42
EEG funds	-	981	981	-	-	-
Cash at bank	157	4	161	3	7	10
<b>Cash and cash equivalents</b>	<b>157</b>	<b>1,051</b>	<b>1,208</b>	<b>3</b>	<b>49</b>	<b>52</b>
Bank overdrafts	-42	-	-42	-17	-	-17
<b>Total cash and cash equivalents used in cash flow statement</b>	<b>115</b>	<b>1,051</b>	<b>1,166</b>	<b>-14</b>	<b>49</b>	<b>35</b>

BNZetA decided that the funds related to EEG can no longer be at our free disposal and should be separated from our cash at bank. The separation of these funds over several bank accounts at different banks was realised in October 2016. For further reference regarding EEG we refer to note [5.5.1](#).

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 debt is recognised to the party that deposited the funds on the collateral. Securities are initially stated at fair value and consequently at amortised cost.

## 6.5 Fair values

The table below provides an overview of the carrying value and fair value of financial instruments, including IFRS treatment. The table also shows the level in the valuation hierarchy the Group's financial instruments are measured at fair value.

(EUR million)	Notes	Carrying amount		Fair value		Hierarchy
		2016	2015	2016	2015	
<b>Financial liabilities</b>						
<i>Borrowings:</i>						
- Borrowings – bonds	6.3	4,668	3,189	5,124	3,562	Level 1
- Borrowings – other	6.3	2,794	1,455	2,846	1,457	Level 2
<b>Total</b>		<b>7,462</b>	<b>4,644</b>	<b>7,970</b>	<b>5,019</b>	

As at 31 December 2016 no instruments carried at fair value are held. 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 due to the short-term maturities of these instruments.

The following hierarchy by valuation technique are used in calculating 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 have been no transfers between the fair value hierarchy levels.

### 6.6 ⓘ Accounting policies for financial instruments

The initial measurement of financial instruments is at fair value on the settlement date, generally at the transaction price that has taken into account the directly attributable transaction costs.

- Financial assets and liabilities held for the purpose of profiting from short-term price fluctuations (held for trading purposes) or accounted for according to the fair value option are classified at fair value through profit or loss.
- All other financial assets with the exception of loans and receivables issued by the Company are classified as available for sale.
- Borrowings and other financial liabilities are classified as borrowings and other liabilities and accounted for at amortised cost.

#### Measurement and classification

The subsequent measurement of the most relevant financial instruments and their classification is outlined below.

For all financial instruments measured at amortised cost and interest bearing financial assets classified as available for sale, interest income is recorded using the effective interest rate method. The effective interest rate at which estimated discounted future cash payments or receipts over the expected life of the financial instrument or a shorter period, where appropriate, is equal to the net carrying amount of the financial asset or liability.

Gains or losses attributed to changes in the fair value of financial instruments classified as available for sale are recognised as other comprehensive income until the disposal of the investment. The cumulative gain or loss on the financial instrument previously recognised in other comprehensive income will be reversed, and the gain or loss will be recognised in the income statement.

Changes in the fair value of financial instruments classified at fair value through profit or loss (held for trading purposes or fair value option) are recognised in the income statement and presented as financial income/expenses.

Financial instruments are included in the balance sheet when we become a party to the instrument's contractual terms. Financial instruments are derecognised from the balance sheet when the contractual rights or obligations have been fulfilled, cancelled or transferred, or they have expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of income. Financial instruments are classified as long-term when they are expected to be realised more than 12 months after the balance sheet date. Other financial instruments are classified as short-term.

### Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments not quoted on an active market. After initial measurement, such financial assets are subsequently measured at amortised cost using the effective interest rate, less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and the fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included as finance income in the statement of income.

The losses arising from impairment are recognised in the income statement in finance costs for loans and in cost of sales or other operating expenses for receivables.

### Borrowings

After initial recognition, interest-bearing borrowings are subsequently measured at amortised cost using the effective interest rate method. Gains and losses are recognised in profit or loss when the liabilities are derecognised as well as through the effective interest rate amortisation process. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are part of the effective interest rate. The effective interest rate amortisation is included as finance costs in the income statement.

### Derivative financial instruments and hedge accounting

We may use derivative financial instruments, such as forward currency contracts and interest rate swaps to hedge our foreign currency risks and interest rate risks. Such derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative. Any gains or losses arising from changes in the fair value of derivatives are taken directly to the statement of income.

We have applied cash flow hedge accounting on FSIRS derivatives used as pre-hedges for the EMTN programme. Changes in the fair value of the swaps forming part of an effective hedge have been recognised in the statement of comprehensive income (hedge reserve). The hedge reserve in equity will be amortised over the periods in which the original hedged item is expected to affect profit or loss.

## 6.7 Financial risk management

Our business activities are exposed to various 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 the liquidity, equity capital and net result 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 our regulatory risk 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 approved by our Executive Board. Our financial risk management objectives, policies and processes were unchanged in 2016 compared to 2015. The Treasury department's objective is to facilitate the realisation of our financial and strategic objectives from a funding and financial risk perspective. Our Executive Board and Audit, Risk and Compliance Committee have approved the Treasury Statute, which 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 positions. Any speculative use of financial instruments is expressly not authorised. Our Executive Board has also approved specific risk management solutions such as the issuance of new debt capital market instruments.

### Interest rate risk

We are exposed to interest rate risk on our debt portfolio. To manage the interest rate risk, our policy is to ensure that the majority of our loan portfolio is based on a fixed interest rate. At present, the long-term loan portfolio is wholly based on fixed interest rates, consequently the interest rate risk is limited. An increase or decrease in interest rates of 2 percentage points would create an increase or decrease of EUR 20 million in our net interest cost (2015: EUR 8 million) results from short-term loans.

Furthermore, there is a risk that the interest payable on liabilities exceeds the interest receivable by TenneT under the prevailing regulatory system. The ACM has set the relevant interest rates which will gradually decrease from 3.58% in 2016 to 2.29% in 2021. In Germany, the actual interest rate is compensated up to a predefined maximum on a rolling average basis.

### 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 in 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 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 the tariffs for system services. For certain situations, securities in the form of bank guarantees and collaterals are held as protection against the parties with balance responsibility defaulting.

Also with respect to the investment projects, we ask certain 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 handling of large cash flows. Our policies are aimed at minimising the risks associated with the clearing transactions of these cash flows.

The risk on trade receivables is very limited, as the losses are expected to qualify for compensation in future tariffs. Furthermore, TenneT bears no credit risk on our EEG receivables, since all costs are covered (including related credit losses) via the EEG reimbursement mechanism (see also section [5.5.1](#)).

### Financial credit risk

In 2016 financial credit risk arose mainly from our transactions and positions with financial institutions. As at 31 December 2016, the maximum credit risk amounted to EUR 157 million (2015: EUR 3 million). The funds related to EEG (31 December 2016: EUR 981 million) are no longer at our free disposal and are separated from our cash at bank. In accordance with the EEG mechanism, shortfalls are reimbursed in the subsequent EEG levy. As a result there is no credit risk on the side of TenneT TSO GmbH regarding the EEG funds and 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 arranged. Our policy is that a financial counterparty must have an 'A-' credit rating or higher. At 31 December 2016 we did not have any deposits with third parties (2015: nil).

Management does not expect any significant losses from non-performance by treasury counterparties.

### Liquidity risk

Liquidity risk is defined as the risk that we cannot meet our short-term financial obligations. Our objective when managing liquidity is to be able to meet its short-term obligations at all times. Liquidity is monitored every month on a rolling 12-month forward-looking basis. The liquidity requirement was met at 31 December 2016 and 31 December 2015, as explained in note 6.1.

The following maturity schedule presented 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
<b>At 31 December 2016</b>							
Borrowings	6.3	468	594	212	2,394	5,029	8,697
Account- and other payables	5.6	1,763	454	1,358	-	-	3,575
Other financial liabilities		66	-	-	-	-	66
<b>Total</b>		<b>2,297</b>	<b>1,048</b>	<b>1,570</b>	<b>2,394</b>	<b>5,029</b>	<b>12,338</b>
<b>At 31 December 2015</b>							
Borrowings	6.3	183	266	66	1,606	3,404	5,525
Account- and other payables	5.6	1,698	322	1,834	-	-	3,854
Other financial liabilities		42	-	-	2	-	44
<b>Total</b>		<b>1,923</b>	<b>588</b>	<b>1,900</b>	<b>1,608</b>	<b>3,404</b>	<b>9,423</b>

As shown in the table we have a diversified maturity profile of our borrowings, which reduces any refinancing risks (see also paragraph 6.1).

In order to minimise our exposure to liquidity risk, we have a EUR 2.2 billion committed RCF at our disposal for general corporate purposes. At 31 December 2016, this facility was undrawn. In June 2016 the maturity date of the RCF was extended by one year to July 2021. Furthermore in October 2016 we drew EUR 125 million (last available tranche) from our long-term loan commitments from the EIB. Our short-term uncommitted credit facilities increased from EUR 375 million at 31 December 2015 to EUR 450 million at 31 December 2016. At the balance sheet date EUR 42 million (2015: EUR 17 million) were drawn from these facilities.

The size of the 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 the 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 EUR 8 billion EMTN programme and our EUR 2.2 billion CP programme. Both programmes significantly reduce our dependency on the banking sector.

We expect to meet our financial obligations for 2017 with (i) cash and cash equivalents, (ii) funds from operations (iii) unused credit facilities, (iv) capital contribution from the Dutch State and (v) capital market transactions. We expect to meet our financial obligations for the subsequent years through various capital market transactions 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 sustainable equity. This risk reflects the inability to raise additional equity in a timely fashion in case of changes in investment portfolio or negative regulatory developments. Actions taken in order to mitigate this risk are: (i) active financing strategy to create and maintain an optimal capital structure as well as to diversify funding sources and manage financial risks, (ii) proactive approach of potential investors / active discussion with shareholder to contribute additional equity and (iii) lobbying activities to ensure that regulatory frameworks remain adequate to safeguard returns to investors.

In respect of this, TenneT's shareholder the Dutch State made available EUR 1.2 billion of additional equity over the period 2017-2020 to enable the financing of future investments in the Dutch grid (see [note 6.2.1](#)).

## 7. Other disclosures

Other mandatory disclosures, such as details of pension liabilities and related party transactions, which are not directly related to our business are described in this note.

### 7.1 Net employee defined benefit liabilities

#### 7.1.1 Pension plans Germany

We have defined benefit plans for the majority of our German personnel. Said personnel are mainly employed based on the collective framework agreement of 'Tarifgruppe Energie' and thus enjoys 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 modules based on respective employee's pensionable income of the particular year. Furthermore, each employee is allowed to perform deferred compensation to raise the annual pension module within defined bounds.

We contribute to two post-employment defined benefit plans in Germany, namely 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 a small number of individual pension commitments.

The pension obligations related to these plans are partly covered by assets primarily a Contractual Trust Agreement (CTA) administrated by 'Helaba Pension Trust e.V.' (Helaba) and reinsurance assets held by 'Versorgungskasse Energie VVaG' (VKE). According to German law, TenneT remains ultimately liable for fulfilling the pension obligations.

#### Pension scheme 2001

This scheme covers employees who started working 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 absorbs older plans. As part of the transition in 2001 to the new plan, employees were guaranteed a vested pension module 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. Building on the annual basis for the different levels, yearly fixed pension modules are calculated with a fixed internal interest rate that sum up to the total earned pension benefits of the respective employee's.

#### Pension scheme 2008

This scheme covers employees who started working 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.

Building on the annual basis for the different levels, yearly fixed pension modules are calculated with an interest rate that is yearly recalculated based on the weighted average current yield of German Federal Government Bonds (Bundesanleihen) with different maturities (10, 20 and 30 years) what reflects the average duration of the plan. The pension modules sum up to the total earned pension benefits of the respective employee's.

The differences between the plans are limited and refer mainly to the way the internal interest rate and the pensionable income is determined, so disclosure is grouped in the notes below based on weighted averages.

The components of the net benefit expense recognised in the statement of income are as follows:

(EUR million)	2016	2015
Current service costs (note 3.2.2)	10	10
Net interest costs (note 3.4)	3	2
<b>Net benefit expense</b>	<b>13</b>	<b>12</b>

The funded status of the plans and the amounts recognised in the statement of financial position are as follows:

(EUR million)	2016	2015
Defined benefit obligation	267	214
Fair value of plan assets	-88	-84
<b>Funded status/benefit liability</b>	<b>179</b>	<b>130</b>

The changes in the present value of the defined benefit obligation ('DBO') over the year are as follows:

(EUR million)	2016	2015
<b>Defined benefit obligation at 1 January</b>	<b>214</b>	<b>206</b>
Current service costs	10	10
Interest costs	5	4
Benefits paid	-2	-1
Intitial recognition from acquisition	-	4
Re-measurements on obligation	40	-9
<b>Defined benefit obligation at 31 December</b>	<b>267</b>	<b>214</b>

The changes in the fair value of plan assets of the year are as follows:

(EUR million)	2016	2015
<b>Fair value of plan assets at 1 January</b>	<b>84</b>	<b>80</b>
Actual return on plan assets	2	2
Contributions by employer	2	2
Benefits paid	-	-
<b>Fair value of plan assets at 31 December</b>	<b>88</b>	<b>84</b>

The major categories of plan assets as a percentage of the fair value of the total plan assets are as follows:

	2016	2015
<b>Quoted in active markets:</b>		
Equity instruments	26%	27%
Debt securities	57%	57%
Investment funds	3%	2%
Other	3%	2%
<b>Unquoted investments:</b>		
Equities	2%	3%
Debt securities	1%	2%
Real estate	4%	5%
Cash	4%	2%

The re-measurements, including the actuarial gains and losses arising from experience adjustments and changes in the actuarial assumptions, recognised in the statement of comprehensive income are as follows:

(EUR million)	2016	2015
<b>Accumulated balance at 1 January</b>	<b>89</b>	<b>98</b>
Re-measurements during the year	40	-9
<b>Accumulated balance at 31 December</b>	<b>129</b>	<b>89</b>

The re-measurements are fully related to the actuarial changes arising from financial assumptions.

### 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 profit or loss 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

The valuation encompasses both pension obligations and pension entitlements that are known on the reporting date and economic trend assumptions such as assumptions on salary growth rates and pension increase rates, among others, that are made in order to reflect realistic expectations, as well as variables specific to reporting dates such as discount rates, for example.

The principal assumptions used in determining the pension obligation were as follows:

	2016	2015
Discount rate	1.80%	2.50%
Inflation rate	2.00%	2.00%
Future salary increases	2.50%	2.50%
Future pension increases	1.75%	2.00%

Assumptions regarding future mortality experience are set based on actuarial advice in accordance with published statistics and experience. A change in the main assumptions would have had the followings effects:

(EUR million)	Effect DBO
0.25% change of discount rate	16
0.5% change of salary increase rate	-4
0.5% change of pension increase rate	-
10% change in mortality rate	-6

The sensitivities indicated are computed based on the same methods and assumptions used to determine the present value of the defined benefit obligations. If one of the actuarial assumptions is changed for the purpose of computing the sensitivity of results to changes in that assumption, all other actuarial assumptions are included in the computation unchanged. Please 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 of one another.

We expect to contribute EUR 3 million to our defined benefit pension plans in 2017 and expect the following, undiscounted, benefit payments from the plan:

(EUR million)	2016	2015
Within the next 12 months	3	2
Within 2-5 years	17	15
Within 5-10 years	31	29
More than 10 years	627	612
<b>Total</b>	<b>678</b>	<b>658</b>

### 7.1.2 Pension plan the Netherlands

For the majority of our Dutch personnel we have a multi-employer scheme, which is administered by the ABP Pension Fund (ABP) in the Netherlands. The pension contribution rate for 2016 was 18.8% of the pensionable salary. In 2017 we expect to contribute EUR 13 million to the multi-employer scheme administered by the ABP. Compared to the total participants in the ABP pension fund, our share in ABP is very limited. We are not liable for deficits in the multi-employer plan other than paying higher contributions (i.e. surcharge to the contribution rate) to the scheme like other participants.

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 was a defined contribution scheme.

Since the financial situation of the ABP pension plan at 31 December 2015 was not adequate, 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 2016 was 91.7% (2015: 98.7%) and that is above the critical 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.

## 7.2 Other commitments and contingencies

(EUR million)	2016	2015
Grid-related commitments	1,206	1,047
Guarantees issued	2,743	2,534
Other off-balance sheet commitments	15	23
<b>Total off-balance sheet obligations</b>	<b>3,964</b>	<b>3,604</b>
<b>Off-balance sheet rights</b>		
Government guarantees received	300	300
Other off-balance sheet rights	85	81
<b>Total off-balance sheet rights</b>	<b>385</b>	<b>381</b>

### 7.2.1 Grid related commitments

Grid-related commitments include the unused auction receipts in the Netherlands amounting to EUR 775 million (2015: EUR 831 million). We sell cross-border transport capacity through auctions. In the Netherlands, the received cash is restricted.

### 7.2.2 Guarantees issued

The majority of the guarantees issued are issued by TenneT Offshore 2. Beteiligungsgesellschaft mbH and TenneT Offshore 8. Beteiligungsgesellschaft mbH to the fiscal agent of the bond holders under the EMTN programme. The guarantee equals the consolidated asset base of the respective companies, based on the German GAAP figures from the previous year. The guarantees are capped at EUR 1,035 million and EUR 1,674 million, respectively and both expire at 31 December 2032.

### 7.2.3 Government guarantees received

A written put option -with an exercise price of EUR 375 million and an original term of 10 years until February 2020- obliges TenneT Orange B.V. to buy the participation in TenneT TSO Duitsland B.V. held by the foundation 'Beheer Doelgeden Landelijk Hoogspanningsnet' when it is offered. TenneT Orange B.V.'s obligation is substantially covered by a guarantee issued by the Dutch State for an amount of EUR 300 million expiring in 2020.

### 7.2.4 Other

We receive certain claims from our customers, a portion of which relate to refunds of transmission services which we believe are unlikely to prevail in court. Also there are various other off-balance sheet commitments and contingencies as well as other off-balance sheet rights which are not large enough to warrant separate disclosure.

## 7.3 Related parties

Note 7.4 provides an overview of legal entities included in the consolidated financial statements.

Other main related parties are:

- Dutch State: TenneT Holding B.V. is controlled by the Dutch State, which owns 100% of the Company's shares;
- Open Tower Company B.V.: OTC is deemed related since it is an indirect participation of TenneT Holding B.V.;
- Mobile Radio Networks Vehicle B.V.: MRNV is deemed a related party because it is an indirect participation of TenneT Holding B.V. Two loans were issued to MRNV.

#### Legal entities that share key management personnel

Mr Kroon is a member of the Supervisory Board of the Port of Rotterdam. We have a ground lease agreement with the Port of Rotterdam. Mr Kroon was not involved in the negotiations or in the decision-making process regarding this lease agreement.

Ms Hottenhuis is a member of the Executive Board of ARCADIS N.V. ARCADIS is one of our suppliers. Ms Hottenhuis has not been involved in any commercial dealings between ARCADIS and TenneT. Contract reviews, negotiations or awards between the two companies were conducted at the appropriate business levels and in the ordinary course of business.

Mr Fischer is Chief Executive Officer and a member of the Board of Tata Steel Europe. Tata Steel is one of our customers. Mr Fischer has not been involved in any commercial dealings between Tata Steel and TenneT. Contract reviews, negotiations or awards between the two companies were conducted at the appropriate business levels and in the ordinary course of business. Furthermore, during 2016 Tata started a proceeding at the ACM against TenneT. Mr Fischer is not involved in this proceeding.

Mr Veenman was a member of the Supervisory Board Prysmian Holding Netherlands N.V. Prysmian is one of TenneT's suppliers. Mr Veenman has not been involved in any business dealings between Prysmian and TenneT. Contract reviews, negotiations or awards between the two companies were conducted at the appropriate business levels and in the ordinary course of business. In the course of 2016 Mr Veenman's membership of the Supervisory Board Prysmian Holding Netherlands N.V. ended.

The Port of Rotterdam, ARCADIS, Prysmian Holding Netherlands N.V and Tata Steel are not considered related parties.

#### 7.4 Consolidated subsidiaries

The following legal entities are included in the consolidation of TenneT Holding B.V.:

Subsidiary	Legal seat	Country	Voting interest		Economic interest		
			2016	2015	2016	2015	
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%	
HS Netten Zeeland B.V.	Middelburg	Netherlands	100%	100%	100%	100%	*
Nadine Netwerk B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
NLink International B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
NOVEC B.V.	The Hague	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	
TenneT Blue B.V.	Arnhem	Netherlands	-	100%	-	100%	*
TenneT Duitsland Coöperatief U.A.	Arnhem	Netherlands	100%	100%	100%	100%	*
TenneT Green B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*

Subsidiary	Legal seat	Country	Voting interest		Economic interest		
			2016	2015	2016	2015	
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%	*
TenneT TSO E B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
TransTenneT B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
WL Winet B.V.	Maasdijk	Netherlands	100%	100%	100%	100%	
DC Netz BorWin3 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz BorWin4 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz DolWin4 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz HelWin1 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz SylWin2 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
NOVEC GmbH	Emsbüren	Germany	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 4. Beteiligungsgesellschaft mbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT Offshore 7. Beteiligungsgesellschaft mbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT Offshore 8. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	37%	37%	
TenneT Offshore 9. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	37%	37%	
TenneT Offshore Dolwin 3 Beteiligungs GmbH & Co. KG	Bayreuth	Germany	51%	51%	38%	38%	**
TenneT Offshore Dolwin 3 GmbH & Co. KG	Bayreuth	Germany	51%	51%	38%	38%	**
TenneT Offshore Dolwin 3 Verwaltungs GmbH	Bayreuth	Germany	51%	51%	33%	38%	
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	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.

The consolidation includes the foundation Stichting Beheer Doelgelden Landelijk Hoogspanningsnet.

The foundation temporarily manages funds arising from the maintenance of the energy balance and auctioning of capacity by TenneT TSO B.V. We can exercise direct control over its management and financial and operational policies, consequently the foundation is included in the consolidation of the Group.

## 7.5 Events after the reporting period

No significant events after the reporting period have occurred.

# Company financial statements

## Company statement of income

For the year ended 31 December (EUR million)

(EUR million)	Notes	2016	2015
<b>Revenue</b>		-	1
Other operating expenses		-3	-3
Other gains/(losses)	8.4	-	16
<b>Total operating expenses</b>		<b>-3</b>	<b>13</b>
Share in profit of joint ventures and associates		3	1
<b>Operating profit</b>		<b>-</b>	<b>15</b>
Finance income	8.2	167	184
Finance expenses	8.3	-149	-128
<b>Finance result</b>		<b>18</b>	<b>56</b>
<b>Profit before income tax</b>		<b>18</b>	<b>71</b>
Income tax expense		-34	-33
Profit from subsidiaries	8.4	183	-10
<b>Profit for the year</b>		<b>167</b>	<b>28</b>

## Company statement of financial position

For the year ended 31 December (EUR million)

<b>Assets</b>	Notes	<b>2016</b>	2015
<b>Non-current assets</b>			
Investments in subsidiaries	8.4	5,841	4,977
Investments in joint ventures and associates	8.5	36	36
Other financial assets	8.6	6,200	4,636
<b>Total non-current assets</b>		<b>12,077</b>	<b>9,649</b>
<b>Current assets</b>			
Other financial assets	8.6	801	464
Account- and other receivables		-	3
Cash and cash equivalents		154	-
<b>Total current assets</b>		<b>955</b>	<b>467</b>
<b>Total assets</b>		<b>13,032</b>	<b>10,116</b>

<b>Equity and liabilities</b>	Notes	<b>2016</b>	2015
<b>Equity</b>			
	8.7		
Paid up and called-up capital		100	100
Share premium		1,380	600
Revaluation reserve		65	75
Reserve for participating interests		5	7
Hedging reserve		5	5
Retained earnings		1,721	1,930
Unappropriated result		134	-5
<b>Equity attributable to ordinary shares</b>		<b>3,410</b>	<b>2,712</b>
Hybrid securities		520	520
<b>Equity attributable to owners of the company</b>		<b>3,930</b>	<b>3,232</b>
<b>Non-current liabilities</b>			
Borrowings	8.8	6,335	4,249
Payables to group companies		630	-
Deferred tax liabilities		5	5
<b>Total non-current liabilities</b>		<b>6,970</b>	<b>4,254</b>
<b>Current liabilities</b>			
Borrowings	8.8	1,127	395
Account- and other payables	8.9	963	2,218
Bank overdrafts		42	17
<b>Total current liabilities</b>		<b>2,132</b>	<b>2,630</b>
<b>Total equity and liabilities</b>		<b>13,032</b>	<b>10,116</b>

# Notes to the company financial statements

These notes contain information about the company financial statements of TenneT Holding B.V. Underlying details related to TenneT Holdings 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 are described.

## 8.1 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.

Due to a change in Dutch law we are no longer allowed to present the profit and loss account in abridged form.

## 8.2 Finance income

Result on finance income is mainly related to the interest received on intercompany loans and in house banking activities (see note 8.6). The intercompany agreements are made on terms equivalent to those that prevail in arm's length transactions.

## 8.3 Finance expenses

The finance expenses mainly relate to the interest on borrowings and credit facilities (2016: EUR 135 million).

## 8.4 Investments in subsidiaries

Changes in investments in subsidiaries can be broken down as follows:

(EUR million)	2016	2015
<b>At 1 January</b>	<b>4,977</b>	<b>5,175</b>
Share in result	183	-10
Capital contribution	780	-
Dividends received	-71	-185
Re-measurement of defined benefit pension	-28	7
Net effect on (partial) sale/acquisition of subsidiaries	-	-10
<b>At 31 December</b>	<b>5,841</b>	<b>4,977</b>

Investments in subsidiaries relate to the legal entities included in the consolidation as disclosed in note 7.4 of the consolidated financial statements. In 2015 a gain resulting from the sale of APX was recorded in the other gains and losses (see note 5.2 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 this case, we will recognise a provision.

### 8.5 Investments in joint ventures and associates

Investments in joint ventures and associates are mainly related to our investment in HGRT. In 2015, we increased our interest in HGRT to 34% in 2015 (refer to note [5.3.2](#) of the consolidated financial statements).

### 8.6 Other financial assets

(EUR million)	2016		2015	
	Current	Non-current	Current	Non-current
Receivable from shareholder	150	630	-	-
Receivables from subsidiaries	650	5,566	462	4,630
Credit facility fees	1	4	2	6
<b>Total</b>	<b>801</b>	<b>6,200</b>	<b>464</b>	<b>4,636</b>

The receivables from subsidiaries are mainly related to intercompany loans and the in house bank activities of TenneT Holding B.V. The terms on these receivables are not fixed. The agreed interest rate is Euribor +0.125%. These receivables are unsecured. The movement schedule is as follows:

(EUR million)	2016	2015
<b>At 1 January</b>	<b>5,100</b>	<b>4,162</b>
Capital contribution	780	-
Additions	1,189	1,499
Repayments	-65	-559
Other movements	-3	-2
<b>At 31 December</b>	<b>7,001</b>	<b>5,100</b>

### 8.7 Equity

The statement of changes in equity and disclosure to that statement are included in the consolidated financial statements. For details on the hybrid securities see note [6.2.1](#) of the consolidated financial statements.

The revaluation reserve serves to cover the revaluation of tangible fixed assets. Following the implementation of IFRS on 1 January 2004 for which the fair value exception provided for in IFRS 1 has been applied. The reserve for participating interests relates to HGRT, for which we cannot secure payment of dividends. The hedging reserve, the revaluation reserve and the reserve for participating interests are not freely distributable. In the consolidated financial statements both the revaluation reserve and the reserve for participating interests are included in retained earnings.

The appropriation of the 2016 profit is at the free disposal of the General Meeting of Shareholders and has not been recorded in the financial statements. Management has proposed to pay a dividend of EUR 146 million to the shareholder.

### 8.8 Borrowings

Details on the borrowings are included in the consolidated financial statements, see note [6.3](#).

### 8.9 Account- and other payables

(EUR million)	2016	2015
Payables to subsidiaries	854	2,114
Interest payable	91	78
Current income tax payable	15	21
Other payables	3	5
<b>Total</b>	<b>963</b>	<b>2,218</b>

### 8.10 Events after reporting period

See note [7.5](#) of the consolidated financial statements.

Arnhem, 6 March 2017

#### Executive Board TenneT Holding B.V.

J.M. Kroon\*

U.T.V. Keussen\*

B.G.M. Voorhorst\*

O. Jager\*

A.A. Hartman

W. Breuer

#### Supervisory Board TenneT Holding B.V.

A.W. Veenman

P.M. Verboom

R.G.M. Zwitserloot

S. Hottenhuis

J.L.M. Fischer

L.J. Griffith

TenneT Holding B.V.

Utrechtseweg 310

6812 AR Arnhem

Chamber of Commerce register 09083317

\* Statutory Director

# Other information

## **Articles of Association related to profit appropriation**

The appropriation of profits 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**

See the following pages of this integrated annual report.

## **Assurance report of the independent auditor**

See the following pages of this integrated annual report.

# Independent auditor's report

To: the Shareholder and Supervisory Board of TenneT Holding B.V.

## Report on the audit of the financial statements 2016 included in the integrated annual report

### Our opinion

We have audited the financial statements 2016 of TenneT Holding B.V., based in Arnhem. The financial statements include the consolidated financial statements and the company financial statements.

In our opinion:

- The accompanying consolidated financial statements give a true and fair view of the financial position of TenneT Holding B.V. as at 31 December 2016, and of its result and its cash flows for 2016 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code;
- The accompanying company financial statements give a true and fair view of the financial position of TenneT Holding B.V. as at 31 December 2016, and of its result for 2016 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

- The consolidated statement of financial position as at 31 December 2016;
- The following statements for 2016: 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;
- The notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

- The company statement of financial position as at 31 December 2016;
- The company statement of income for 2016;
- 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 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

Materiality	EUR 58 million
Benchmark applied	1.4% of total equity (excluding capital contribution by the sole shareholder of EUR 780 million in December 2016)
Explanation	In 2016 we have determined total equity (excluding capital contribution by the sole shareholder of EUR 780 million in December 2016) to be the most relevant measure for TenneT's primary stakeholders, being the Dutch State (as the sole shareholder) and external investors in both equity and liability instruments of the group. A sufficient equity balance and solvency ratio is in our view the most relevant measure for the capital providers to make their investment decisions, also considering the long-term nature of TenneT's core business.

We have also taken misstatements into account and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the supervisory board that misstatements in excess of EUR 2.9 million (being 5% of the materiality), 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 at 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.

Our group audit mainly focused on the regulated significant group entities TSO Netherlands TSO Germany and BritNed (non-regulated). In establishing the overall approach to the group audit, we determined the type of work that needed to be performed at the reporting units within these business segments, either by us, as the group engagement team, or component auditors within EY Netherlands and EY Germany operating under our instruction. Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work at those reporting units to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the group financial statements as a whole. Accordingly, we identified that the consolidated group entities TSO Netherlands and TSO Germany, which both consist of multiple entities, required an audit of their complete financial information due to their size.

Specific audit procedures on certain balances and transactions were performed at BritNed. These specific audit procedures were performed by a non-EY auditor. Based on the extent of reliance on the non-EY auditor, we determined the level of involvement needed to conclude whether sufficient audit evidence had been obtained as a basis for our opinion on the group financial statements as a whole.

The procedures described above provide coverage of 100% of reported profit before tax and 93% of the total assets of the group.

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.

## Our key audit matters

Key audit matters are those matters that, in our professional judgment, 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.

Topic	Our audit response
<b>TenneT's 'underlying' financial performance reflected in Segment Reporting (IFRS 8), as disclosed in note 2 of the financial statements</b>	
<p>The Executive Board manages and monitors its business based upon 'underlying' financial information, as explained in note 2 'Segment Information'. The underlying financial information is also used in the 'Financial' section of the Executive Board report. The consolidated IFRS financial statements and the underlying financial information differ with respect to the recognition of regulatory assets, regulatory liabilities and auction proceeds related to cross border interconnection capacity. The implications are primarily that auction proceeds and over- and underachievement on the regulatory allowed revenue for a given period, which are presented as revenues in the IFRS financial statements, are presented as assets or liabilities in the underlying financial information if, based on the prevailing regulatory framework, these can be recouped or are required to be returned through future grid tariffs. TenneT's Executive Board is convinced that underlying financial information better represents its actual business and financial performance, and therefore uses it for the Executive Board reporting and analysis, as well as for internal decision-making and financial planning purposes. As such we conclude that the underlying financial information is a key audit matter. The underlying financial information is reconciled to the consolidated financial statements in note 2.</p>	<p>We have assessed whether the underlying financial information reflects how TenneT's Executive Board assesses performance and manages the business, by reference to the internal quarterly reporting and other internal financial reports and analyses, including minutes of board meetings. We obtained the internal quarterly reporting that the Executive Board receives and reconciled that information to the segments identified in the segment reporting. We have obtained an understanding of the regulatory frameworks in the Netherlands and Germany, and of relevant regulatory developments. We audited the movements in respect of the underlying regulatory assets and liabilities referenced above and the reconciliation of underlying financial information to the consolidated financial statements.</p>
<b>Growth in renewable energy sources and the implications for Grid Expenses, as disclosed in note 3.2.1 and 5.6.3 of the financial statements</b>	
<p>The increase in intermittent renewable energy generation, such as onshore and offshore wind and onshore photovoltaic capacity impacts the German onshore grid significantly. TenneT needs to ensure a stable grid operation and to achieve this, balancing measures are needed. The number of measures has grown compared to prior years, and, consequently, the related expenses increased significantly. When balancing measures executed by TenneT reduce the in-feed of renewable energy into the onshore grid, operators are entitled to a reimbursement. These reimbursements are current year expenses for TenneT, but, under the regulatory framework, they are reimbursed through tariffs 2 years later. In the past years, the balancing measures have significantly increased, resulting in a significant increase in the System Services line of the Grid Expenses. As such we conclude that this topic is a key audit matter.</p>	<p>We have obtained a detailed understanding of TenneT's estimation process in relation to the accrual for balancing measures and other grid related expenses. TenneT is depending on local Distribution System Operators ('DSOs') to provide detailed information on the manner in which they effect the measures that TenneT takes, as they are responsible for the execution of the measures. We obtained and audited evidence to support the Executive Board's estimates and key assumptions used in establishing the related accruals, in particular price assumptions, the type of renewable energy producer (onshore/offshore wind; photovoltaic) and the reduction in volume for the renewable energy producers and agreed these key metrics back to underlying sources. We also tested the integrity of the measurement model, including the formulas applied in the model.</p>
<b>Offshore related provisions, as disclosed in note 5.7 of the financial statements</b>	
<p>Offshore grid connections and related undersea cabling and landside stations, which are required to be built by TSO Germany to connect offshore wind farms to the onshore high voltage grid, are in various stages of construction. The engineering, procurement and construction of these projects is complex, large in size and executed in parallel for a number of projects. As such we conclude that this topic is a key audit matter.</p> <p>In prior years, the liability risks resulting from delays or interruptions, asset retirement obligations and specific project related risks led to the recognition of significant provisions in the financial statements. With 1 project completed during 2016 and as TenneT gained more experience with the operation of offshore platforms, including the successful solution of technical issues in the start-up phase, the Executive Board's ongoing assessment of offshore risks and offset by an increase in number of projects, resulted in a limited net increase of provisions during the year.</p>	<p>We obtained evidence to support the Executive Board's estimates and key assumptions used in establishing the various provisions, in particular probability assumptions.</p> <p>We also tested the integrity of the measurement model, including the formulas applied therein.</p> <p>We evaluated the reasonableness of the Executive Board's judgements and assumptions applied in measuring the provisions recognised on the group's statement of financial position as well as the disclosures included in Note 5.7.</p>
<b>Third-party claims, as disclosed in note 5.7.3 and 7.2.4 of the financial statements</b>	
<p>Claims may relate to TenneT's operations or specific elements of the regulatory framework. These claims are either provided for or disclosed as a contingent liability in the financial statements. The claims are a key element of our audit as they are material and the board makes assumptions about the legal position, the likelihood, and the impact of the expected future cash outflow related to these claims. For this, the board relies on internal and external advisors.</p>	<p>We validated the estimates of the management board with occurring correspondence with legal counterparties, minutes of meetings, external lawyer letters, and opinions from internal legal and regulatory advisors. Based on our work, we conclude that the claims are either sufficiently provided for in the financial statements or disclosed therein.</p>

### Report on 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:

- 2016 at a glance;
- Letter from the CEO;
- The Executive Board report;
- Supervisory Board report;
- Governance and risk management;
- Other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

Based on the following procedures performed, we conclude that the other information:

- Is consistent with the financial statements and does not contain material misstatements;
- Contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements. By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Auditing Standard 720. The scope of the procedures performed is 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 Executive Board report in accordance with Part 9 of Book 2 of the Dutch Civil Code and other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

### Report on other legal and regulatory requirements

#### Engagement

We were engaged by the Supervisory Board as auditor of TenneT Holding B.V. on 14 March 2013, as of the audit for the year 2013 and have operated as statutory auditor ever since that date.

#### Description of responsibilities for the financial statements

##### Responsibilities of the Executive Board and the Supervisory Board for the financial statements

The Executive Board is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, the Executive Board is responsible for such internal control as the Executive Board 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, the Executive Board is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Executive Board should prepare the financial statements using the going concern basis of accounting unless the Executive Board either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so. The Executive Board 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.

One of the Supervisory Board responsibilities is 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 have detected all material errors and fraud.

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 judgment 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.:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control;
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Executive Board;
- Concluding on the appropriateness of the Executive Board's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern;
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures;
- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

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

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 those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. 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.

Zwolle, 6 March 2017

Ernst & Young Accountants LLP

signed by A.E. Wijnsma

# Assurance report of the independent auditor

To: the general meeting of shareholders and the Supervisory Board of TenneT Holding B.V.

## Our conclusion

We have reviewed the sustainability information in the Integrated Annual Report (hereafter the Report) for the year 2016 of TenneT Holding B.V. at Arnhem (hereafter: TenneT). The scope of our review engagement is described in section 'Our Scope'.

A review engagement is aimed at obtaining limited assurance.

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

- the policy and business operations with regard to corporate sustainability; and
- the thereto related events and achievements for the year ended 31 December 2016

In accordance with the Sustainability Reporting Guidelines version G4 of Global Reporting Initiative (GRI) and the supplemental internally applied reporting criteria as disclosed in the reporting principles in the Integrated Annual Report.

## Basis for our conclusion

We have performed our review on the Report in accordance with Dutch law, including Dutch Standard 3810N 'Assurance engagements relating to sustainability reports'. Our responsibilities under this standard are further described in the section "Our responsibilities for the review of the Sustainability Information".

We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

## Our independence

We are independent of TenneT in accordance with the "Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (VIORegulation 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)".

## Our scope

The Sustainability Information comprises the chapters "2016 at a glance", "Letter from the CEO", "About TenneT", "Executive Board Report (sections: Society, Markets, Environment, Employees)" in the Integrated Annual Report 2016 of TenneT.

The Sustainability Information includes prospective information such as ambitions, strategy, plans, expectations and projections. Inherent to this information is that the actual results may differ in the future and are therefore uncertain. We do not provide any assurance on the achievability and feasibility of prospective information in the Sustainability Information.

## Responsibilities of management

Management is responsible for the preparation of the Sustainability Information in accordance with the Sustainability Reporting Guidelines version G4 and the supplemental internally applied reporting criteria as disclosed in the reporting principles in the Report, including the identification of stakeholders and the definition of material matters.



The choices made by management regarding the scope of the Report and the reporting policy are summarized in the reporting principles.

Management is also responsible for such internal control as it determines is necessary to enable the preparation of the Report that are free from material misstatement, whether due to fraud or errors.

### **Our responsibilities for the review of the Sustainability Information**

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

We apply the 'Nadere voorschriften accountantskantoren ter zake van assurance opdrachten (RA)' and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and other applicable legal and regulatory requirements.

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 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.

A review is aimed to obtain a limited level of assurance. Procedures performed to obtain a limited level of assurance are aimed to determining the plausibility of information and are less extensive than a reasonable assurance engagement. The procedures performed consisted primarily of making inquiries of staff within the entity and applying analytical procedures on the Sustainability Information. The level of assurance obtained in review engagements are therefore substantially less than the assurance obtained in an audit engagement.

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.

### **Procedures performed**

Our main procedures included the following:

- Performing an external environment analysis and obtaining an understanding of the sector, relevant social issues, relevant laws and regulations and the characteristics of the organization.
- Evaluating the appropriateness of the reporting policy and its consistent application, including the evaluation of the results of the stakeholders' dialogue and the reasonableness of management's estimates.
- Evaluating the design and implementation of the reporting systems and processes related to the Sustainability Information in the Report.
- Inquiry management (or relevant staff) at corporate and business division level responsible for the sustainability strategy, policies and performance.
- Inquiry of relevant staff responsible for providing the information in the Report, carrying out internal control procedures on the data and consolidating the data in the Report.
- Visits to TenneT Netherlands & Germany to evaluate the source data and to evaluate the design and implementation of control and validation procedures at local level.
- Analytical review of the data and trend explanations submitted for consolidation at group level.

Rotterdam, 6 March 2017

Ernst & Young Accountants LLP

signed by R.T.H. Wortelboer



# Enclosures

## Reporting principles

### Scope

This integrated annual report describes TenneT's operational, financial and social performance in 2016. Stakeholder interests are crucial in defining the reporting scope, reflecting the importance of our role for the security of electricity supply in the Netherlands and Germany. TenneT's integrated annual report 2015 was published 3 March 2016 and is available [online](#).

### Reporting principles

We use the Integrated Reporting (IR) framework, as defined by the International Integrating Reporting Council (IIRC), as a basis for preparing this integrated report. This serves as an 'umbrella' for the report and allows us to be transparent about our impact as an organisation. The financial information in this report has been prepared in accordance with IFRS, as adopted by EU and complies with Title 9 of Book 2 of the Dutch Civil Code. The non-financial qualitative and quantitative information has been prepared in accordance with sustainability guidelines defined by the Global Reporting Initiative version 4 Core (GRI G4 core) and the sector supplement for our industry (G4 sector disclosures – electric utilities). The GRI table, as included on our corporate website, shows which GRI aspects are material to TenneT and refers to the section in the report that describes this aspect. Furthermore, and in accordance with the policy on state-owned companies ('Nota Deelnemingenbeleid Rijksoverheid 2013'), TenneT complies with the Dutch Corporate Governance Code, which is laid down in the Corporate Governance section of this report. Furthermore, our Integrated Annual Report complies with the European Directive on disclosure of non-financial and diversity information, which will become mandatory for our company starting with our annual report 2017.

This report is also an update on how we implement the 10 principles of the UNGC. We have endorsed these principles since 2015, not only to show her 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. Suppliers that do not meet our standards, observed during a factory audit, are disqualified from our tender procedures.

Recently, the UN launched new Sustainable Development Goals (SDGs), which are world-wide accepted goals to drive sustainability. We have decided to combine our progress on the UNGC principles and our contribution to the SDG's in one overview. You can find this overview, as well the GRI table online on the [CSR section our website](#).

### Stakeholders and materiality

In accordance with the applied reporting principles, this integrated report only covers topics considered material to our organisation. TenneT uses the materiality principle to determine which subjects are included in the report and what activities of TenneT and its supply chain are taken into account. Reference is made to our corporate website ([www.tennet.eu](http://www.tennet.eu)), where information that was not considered material for annual integrated reporting purposes can be found. We defined the material topics based on stakeholder interviews, combined with our own assessment of the economic, environmental and social impact. The outcome of this assessment can be found in the 'Stakeholder dialogue' chapter.

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](#).

### Data collection process

This integrated report covers the full year 2016 (i.e. 1 January 2016 to 31 December 2016). This includes all activities of TenneT and subsidiaries in which it holds a controlling interest (in general >50% voting interest). For example, our 50% share in BritNed and thus BritNed's activities are not included in our results. In 2016, we had no significant acquisitions or divestments that had impact on our non-financial data reporting. A complete overview of all the entities consolidated in this Integrated Annual Report can be found in disclosure note 7.4 of the consolidated financial statements.

For the majority of our figures our reporting focus is within our own operations, although we do take some aspects of the value chain into account in our carbon footprint and the LTIF. We recognise that reporting outside our gate (so called "value chain reporting"), provides a better overview of our impact. We therefore will investigate how we can take a next step of including additional value chain data in our carbon footprint next year. The reported data is obtained from financial and non-financial data management systems in our own operations. TenneT's Executive Board and senior management contributed to the report content and quantitative data. The key non-financial qualitative and quantitative data is included in the regular planning and control cycle and is reported internally at least once each quarter. 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 have been re-assessed based on, for instance, process improvements, further alignment within the Group and the materiality analysis. As a result, certain originally reported comparative figures have been re-classified to conform to the current year's presentation. In this report, we made a change to the scope of the numbers of employees, which is without the employees of Novec, also for the previous years.

The data for this report was measured. When no data was available, it was estimated. No uncertainties or inherent limitations to the data were identified as a result of measurement, estimation or calculation of data.

### External assurance

The financial statements included in this report are subject to independent external audit and TenneT's non-financial reporting is subject to an assurance review. These have both been conducted by our external auditor, EY Accountants LLP.

### Management approach CSR

For TenneT, CSR covers a broad range of subjects, all aimed at creating a sustainable future for our internal and external stakeholders. Our CSR strategy covers three years, from 2015 to 2017 and therefore has not changed compared to last year. In 2017, we will work on our CSR mid-term plan for the period 2018-2021.

Based on input from stakeholders' and TenneT's own perspective, we identified four CSR pillars: markets, society, environment and employees. The material topics are categorised within these four pillars. The progress on each material topic is reported in the corresponding chapters of this annual report.

The CSR mid-term plan 2015-2017, discussed and agreed by the Executive Board and Supervisory Board, describes the ambition level for each material topic based on the CSR maturity ladder (defensive, responsible, strategic and transformative). To ensure progress each project defined in the CSR action plan 2016 is owned by a responsible senior manager and the CSR policy advisor, who reports to the senior manager Corporate Control. We have established a CSR board, which monitors progress on the CSR mid-term plan and advises the Executive Board on the integration of CSR into the business. The CSR board, which meets quarterly, is chaired by the CFO and includes senior managers from Asset Management, Large Projects, Communication, Public Affairs and Finance.

In 2016, the CSR board decided to take more responsibility with respect to commitment to nature, to have a pilot with solar panels on one of our substations and to include a true value pilot in our annual report. Additionally, since 2016 the CSR board plays a more significant role in the selection of projects included in our green financing portfolio.

It is TenneT's ambition to be among the best performing TSOs in CSR in Western Europe and we continuously look for innovations and opportunities to improve our CSR performance. We benchmark ourselves against our peers using external assessment processes, such as the Transparency Benchmark (NL), Oekom, Sustainalytics and Vigeo. Our ambition is to be within the top 25 of the Transparency Benchmark, which supports our ambition in CSR reporting and within the top 25% for the other ratings, which supports our ambition with respect to CSR substantive issues. In 2016 we almost reached our goals, we ended on position 26 in the Transparency Benchmark and took a strong position in the top 25% of the sustainability ratings.

## Summary stakeholder activities

Stakeholder	Strategic goal	Type of dialogue	What we discussed and achieved in 2016	Priorities for 2017
 <b>Society</b>				
<b>Governments, political parties and regulatory bodies</b>  	Engage stakeholders	Informative and close involvement	<ul style="list-style-type: none"> <li>Worked closely with the Ministries of Economic Affairs to further develop the energy report and policy document (including an evaluation of the energy agreement).</li> <li>Influenced the decisions of the regulator for the new regulatory periods.</li> <li>Involved in the new law on "electricity market design" and "digitalisation", in the regulations on network charges and interest on equity capital and in the discussion on Regional Operation Centres (ROCs) Germany.</li> <li>Cooperated with provincial authorities and DSOs on the implementation of wind onshore and other issues concerning TenneT.</li> </ul>	<ul style="list-style-type: none"> <li>Involvement in discussion on role TSOs Germany in taking power plants up in our grid for means of balancing power.</li> <li>Put forward the technical pros and cons of cabling, so that politicians can make the right decisions.</li> </ul>
<b>Local communities</b>  	Engage stakeholders	<ul style="list-style-type: none"> <li>Informative and close involvement on various projects.</li> <li>Local participation and interaction.</li> </ul>	<ul style="list-style-type: none"> <li>Active interaction with local communities for SuedLink and SuedOstLink and many AC- projects in Germany. Also in the Netherlands there was intensive online and offline contact with local communities and authorities for several cabling projects (110/150 kV) and new 380 kV overhead line projects like Zuid-West 380 kV and Noord-West 380 kV. In 2016, there was also active interaction on the new offshore wind projects Net op Zee Borssele and Hollandse kust.</li> <li>In the Netherlands TenneT is in the building phase of two major projects Randstad 380 kV Noordring and Doetinchem-Wesel 380 kV. We interacted online and offline on several initiatives with or initiated by local communities which strengthened our relationship in the region and monitored, as a pilot project, the sentiments and issues in these projects that are topical for local communities.</li> </ul>	<ul style="list-style-type: none"> <li>Active online and offline monitoring of the themes, sentiments and issues that are topical for local communities.</li> <li>In the Netherlands we will further standardise measuring the quality of our communication efforts, to improve or adjust in time when necessary.</li> </ul>
<b>Media</b>  	Engage stakeholders	Close involvement	<ul style="list-style-type: none"> <li>Virtually all TenneT-related subjects, illustrating our relevance to society.</li> <li>Secured media understanding of our role as a European TSO and emphasised the importance of an integrated European energy market.</li> <li>Presented our vision on an European electricity system in the North Sea in on June 10, Nieuwspoor, The Hague.</li> </ul>	<ul style="list-style-type: none"> <li>Share relevance and necessity of TenneT's role and position in the digital transformation of the electricity grid.</li> <li>Show impact of the energy transition on the electricity system and present socially acceptable solutions.</li> </ul>

Stakeholder	Strategic goal	Type of dialogue	What we discussed and achieved in 2016	Priorities for 2017
 <b>Markets</b>				
<b>Customers</b> 	Security of supply and innovate business	Informative, close involvement in various areas and contractual agreements	<ul style="list-style-type: none"> <li>Discussed the exchange of data in the electricity market e.g. in relation to smart meters.</li> <li>Improved the set up for delivery of ancillary services by aggregators.</li> <li>Implemented the German revised energy-only market design with a special focus on reserves and the balancing pricing mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>Set up and carry out pilot projects on provision of Balancing Energy by new market participants.</li> <li>Analyse potential improvement of tariff structure to facilitate (demand side) flexibility.</li> <li>Extension functionalities of Customer Portal (MyTenneT) for more innovative customer services.</li> </ul>
<b>Other European TSOs</b> 	Leading the development of an integrated and sustainable NWE electricity market	Close involvement	<ul style="list-style-type: none"> <li>Involved in new EU law on market design.</li> <li>Implemented European network codes.</li> </ul>	<ul style="list-style-type: none"> <li>Focus on cooperation, while EU sentiment moves in a different direction, with more national focus.</li> </ul>
<b>Suppliers</b> 	Security of supply and innovate business	Market consultation, meetings and negotiations	<ul style="list-style-type: none"> <li>Managed the contracts for COBRA within budget.</li> <li>Discussed issues with ABB on cable joints DoWin2 and came to agreement on further procedure.</li> <li>Performed the tender procedures for Wind op Zee, Borssele 1 and 2.</li> <li>Introduced Safety Culture Ladder to the supplier market. Pilot has started for further implementation.</li> </ul>	<ul style="list-style-type: none"> <li>Further procedures for "Wind op Zee" and German offshore projects.</li> <li>Tender procedures for onshore grid expansion in NL and GE.</li> <li>Further implement the Framework for Safety by Contractor Management.</li> </ul>
 <b>Environment</b>				
<b>Non-governmental organisation (NGOs)</b> 	Engage stakeholders to safeguard the position of TenneT and guarantee our license to operate	Informative, cooperative, consulting and involvement on project level	<ul style="list-style-type: none"> <li>Signed the Green Deal Infranatuur, which was initiated by the "Vliinderstichting".</li> </ul>	<ul style="list-style-type: none"> <li>Take action, together with the relevant NGOs active in the Dutch North Sea, to work on measures that will have positive impact on local nature.</li> </ul>

Stakeholder	Strategic goal	Type of dialogue	What we discussed and achieved in 2016	Priorities for 2017
 <b>Employees</b>				
<b>Employees</b> 	Engage stakeholders and innovate business	Close involvement	<ul style="list-style-type: none"> <li>Professionalised our project management approach by defining skill sets, strategic personnel planning for managers for large projects (&gt;40 million) and continuous learning.</li> <li>Introduced our Always Energy Program with the first Always Energy Experience.</li> <li>Rolled-out the Life Saving Rules for employees and contractors.</li> </ul>	<ul style="list-style-type: none"> <li>Development of an employee diversity policy aiming to contribute to a high performing organisation.</li> <li>Design of a corporate performance management system and culture, which motivates and challenges our people to perform and develop.</li> </ul>
 <b>Financial</b>				
<b>Shareholders (Corporate and projects)</b> 	Deliver shareholder value to safeguard position and adequate return on invested capital	Close involvement	<ul style="list-style-type: none"> <li>Obtained shareholder approval for investments in several large onshore and offshore projects.</li> <li>Obtained additional equity capital for financing of Dutch investment portfolio.</li> <li>Informed adequately on a regular basis and obtained shareholder approval when necessary.</li> </ul>	<ul style="list-style-type: none"> <li>Obtain shareholder approval for investments in several large onshore and offshore projects.</li> <li>Inform adequately on a regular basis and obtain shareholder approval when necessary.</li> </ul>
<b>Debt investors and rating agencies</b> 	Deliver shareholder value	Close involvement and contractual agreements	<ul style="list-style-type: none"> <li>Maintained our A-/ A3 credit rating and our top 25% industry-recognised CSR rating.</li> <li>Negotiated and arranged additional financing in the banking and debt capital markets.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain our A-/ A3 credit rating and our top 25% industry-recognised CSR rating.</li> <li>Negotiate and arrange additional financing in the banking and debt capital markets.</li> </ul>

# Key-figures: five year summary

(based on underlying figures)

	2016	2015	2014	2013	2012
Revenue	3,227	3,290	2,316	2,242	1,770
EBIT	834	1,075	725	620	361
Profit for the year	523	681	418	357	181
Investments in tangible fixed assets	1,848	2,405	2,296	1,868	1,930
Total assets	18,974	15,424	13,645	11,534	10,283
Net debt *	7,347	5,736	4,159	3,153	2,693
Grid availability	99.9999%	99.9975%	99.9999%	99.9999%	99.9999%
Interruptions	6	18	4	9	8
Energy not supplied (MWh)	59	3,824	77	383	127
Connected offshore windparks	16	11	7	2	-
Internal headcount	3,040	2,887	2,700	2,593	2,373
Carbon footprint ton CO <sub>2</sub> e	2,278,396	2,192,187	1,614,251	1,484,714	1,222,235

\* A reclassification of the provision for EEG debtors was recorded which affected the 2015 figures.

# Abbreviations and definitions

## **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 for relatively longer distances.

## **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. 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**

The Netherlands Authority for Consumers and Markets protects the interests of consumers and businesses and specifically oversees the energy, telecommunication, transport and postal industries. This authority regulates the network operators in the electricity market and sets maximum transmission tariffs for the national grid operator's system services and for the connections to the grid. The ACM creates conditions for a well-functioning national and international wholesale market.

## **BDEW – Bundesverband der Energie- und Wasserwirtschaft**

BDEW is a German NGO to combine the competencies of five different associations. BDEW is the main point of contact on all issues relating to natural gas, electricity, district heat as well as water and wastewater.

## **BNetzA – Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen**

The German regulatory authority promotes effective competition in the regulated areas and ensures non-discriminatory access to networks. It protects important consumer rights and is also the root certification authority under the Electronic Signatures Act.

In addition, Bundesnetzagentur is responsible for implementing the Grid Expansion Acceleration Act.

## **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 time period, 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 (CO<sub>2</sub>).

## **CBb – College van Beroep voor het bedrijfsleven**

CBb is the highest court for social economic administrative law.

## **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.

## **CO<sub>2</sub> – 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.

**CSR – Corporate social responsibility**

The Corporate social responsibility relates to the socially responsible business practices of a company balancing people, planet and profit.

**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 for relatively shorter distances.

**EU DG COMP– Directorate-General for Competition (DG COMP)**

The Directorate-General for Competition (DG COMP) is a Directorate-General of the European Commission. The DG Competition is responsible for establishing and implementing a coherent competition policy for the European Union.

**EU DG ENER – Directorate-General for Energy**

The Directorate-General for Energy is one of 33 policy-specific departments in the European Commission. It focuses on developing and implementing the EU's energy policy – secure, sustainable, and competitive energy for Europe.

**DSO – Distribution system operators**

A regional electricity distribution company, that is connected with end users, and 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 hours a day, and seven days a week and (3) facilitating a smoothly functioning, liquid and stable electricity market.

**E-wet – Elektriciteitswet**

The Dutch electricity law.

**EBIT – Earnings before interest and tax**

Earning for the period before income tax expense and interest payments are deducted.

**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 European Union. It is the only bank owned by and representing the interests of the European Union Member States, providing financing for sustainable investment projects that contribute to furthering EU policy objectives.

**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.

**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.

**EnWG – Energiewirtschaftsgesetz**

German Energy Industry Act. In accordance with the EU Directive, the EnWG lays down objective and non-discriminating principles for the taking up of energy supply and the construction of power plants and power lines.

**EPEX SPOT – European Power Exchange SE**

The European Power Exchange SE is an exchange for power spot trading in Germany, France, Austria, Switzerland and Luxembourg. EPEX SPOT owns 100% of APX Group, which operates the power spot markets in Belgium, the Netherlands and the United Kingdom.

**EU – European Union**

The European Union (EU) is a political-economic union of 28 member states countries that are located in Europe.

**FFO – Funds from operations**

Profit for the year plus depreciation, amortisation and impairments minus gain/loss on the disposal of assets.

**FFO/net debt**

Funds from operations divided by net debt.

**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.

**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, and 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 connecting offshore wind farms to the onshore grid.

**ICF – Internal Control Framework**

Framework for the set of internal controls, to provide reasonable assurance on the reliability of our internal and external reporting.

**IFRS – International Financial Reporting Standards**

The internationally prescribed and recognised reporting guidelines.

**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 German government-owned development bank.

**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.

**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.

**LTIF – Lost time injury frequency**

The lost-time injury frequency is the number of lost-time injuries per million hours worked. A lost time injury is an injury that results in at least one day's absence from work.

**Moody's**

Moody's Investors Service is a provider of 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.

**Natuur & Milieu – Nature & Environment**

Natuur & Milieu is the Dutch Society for Nature & Environment, an independent Dutch environmental organisation committed to creating a healthy natural environment.

**Net debt, adjusted**

Gross debt minus cash and cash equivalents at free disposal.

**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.

**New Motion**

New Motion is Europe's largest partner for charging electric cars.

**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 and is responsible for financing and building the German part of the NordLink cable.

**NordLink**

TenneT is jointly developing the NordLink interconnector with its project partners, the Norwegian TSO Statnett and German development bank KfW. This subsea cable with an overall transmission capacity of 1,400 MW will run between Tonstad the south of Norway and Wilster in northern German.

**NWE – north-west Europe(an)**

A region in Europe that includes Netherlands, Germany, Belgium, Denmark, United Kingdom, France, Norway, Sweden, Finland and Luxembourg.

**NWb – WENB Sector Energie NWb**

NWb is a Dutch NGO for employers in the energy sector.

**Oekom**

Oekom research AG is a sustainability ratings agency and external assessor for benchmarking CSR reports.

**Opex – Operational expenditure**

Operating expenditure (opex) is the expenses that a company incurs as a result of its normal business operations.

**OTC – Open Tower Company B.V.**

The Open Tower Company is a holding company for the assets and activities of the joint venture between Rabo Bouwfonds Communication Infrastructure Fund C.V. (CIF) and TenneT subsidiary NOVEC B.V. The activities of OTC are held in three asset companies, being Colonne B.V., MRNV B.V. and DutchFort B.V.

**OWF – Offshore wind farm operators**

Offshore wind farms are constructed in bodies of water to generate electricity from wind.

**PCI – Project of Common Interest**

To help integrate the European energy market, the European Commission has drawn up a list of 248 projects of common interest (PCIs). These projects may benefit from accelerated licensing procedures, improved regulatory conditions, and access to financial support totalling EUR 5.35 billion from the Connecting Europe Facility (CEF) between 2014 and 2020.

**RCF – Revolving credit facility**

A line of credit where TenneT pays a commitment fee and can then use the funds as and when they are needed.

**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**

Earnings before interest and tax expressed as a percentage of the average invested capital during the year based on 'underlying' information.

**S&P – Standard & Poors**

Standard & Poors is a provider of credit ratings, research, and risk analysis.

**SF<sub>6</sub> – 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.

### **SDG – Sustainable development goals**

The Sustainable Development Goals (SDGs), officially known as Transforming our world: the 2030 Agenda for Sustainable Development is a set of seventeen aspirational "Global Goals" with 169 targets between them.

### **SHE – Safety, Health & Environment**

SHE is the set of activities relating to Safety, Health & Environment.

### **Statnett**

Statnett is the Norwegian TSO transmission system operator that TenneT and German development bank KfW are partnering with to build the NordLink cable between Germany and Norway.

### **SuedLink**

A direct current connection to transport electricity from the north of Germany where it is generated to the south.

### **SuedOstLink**

A direct current connection to transport electricity from the north of Germany where it is generated to the south-east.

### **Tensec**

Tensec is our security system that monitors 24 hours our network.

### **Tenter**

Tenter is our package of anti terror measures.

### **TSCNET**

TSCNET Services is the service company of the TSC TSOs. The Munich-based company coordinates TSC's activities and renders integrated services for TSOs and their control centres

### **Transparantie Benchmark**

Dutch CSR benchmark by the Dutch Ministry of Economic Affairs that annually assesses Dutch companies on the content and quality of their corporate social responsibility reports.

### **TSO – Transmission system operator**

A transmission system operator transports electricity on a 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 hours a day, and seven days a week and (3) facilitating a smoothly 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 security holders to finance its assets.

### **Wintrack**

An innovative type high-voltage pylon developed by TenneT to replace the existing lattice towers in the Netherlands. Wintrack pylons significantly reduces the so-called 'electromagnetic field zone'.

## **TenneT Holding B.V.**

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## **Disclaimer**

'We', 'TenneT', 'TenneT Holding', 'the Group', 'the company' or similar expressions are used in this report as a synonym for TenneT Holding B.V. and its subsidiaries.

Parts of this report contain forward-looking information. These parts may include unqualified statements on future operating results, government measures, the impact of other regulatory measures on the activities of TenneT as a whole, TenneT's shares and those of its subsidiaries and joint-ventures in existing and new markets, industrial and macro-economic trends and TenneT's performance in these. Such statements are preceded or followed by or contain words such as 'believes', 'expects', 'anticipates' or similar expressions. These forward-looking statements are based on current assumptions concerning future activities and are subject to known and unknown factors, and other uncertainties, many of which are beyond TenneT's control, so that future actual results may differ significantly from these statements.

All financial information in this integrated annual report is reported in millions of euro, unless stated otherwise. As a result, small rounding differences may occur.





TenneT is a leading European electricity transmission system operator (TSO) with its main activities in the Netherlands and Germany. With over 22,500 kilometres of high-voltage lines we ensure a secure supply of electricity to 41 million end-users. We employ over 3,000 people, have a turnover of EUR 3.2 billion and our assets total EUR 19 billion. TenneT is one of Europe's major investors in national and cross-border grid connections on land and at sea, bringing together the Northwest European energy markets and enabling the energy transition. We take every effort to meet the needs of society by being responsible, engaged and connected. **Taking power further.**

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