



Time to accelerate

Sustainability Report 2018

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1. Elia Group

1.1. Introduction

Elia Group has the ambition to act in the interest of society for all of its activities. Therefore, the careful preparation of the annual Sustainability Report is important. For the first time, we present a report integrating the information of both Elia and 50Hertz.

This Sustainability Report is a tool for managing Elia Group's CSR performance and for integrating sustainability into our strategy.

50Hertz started in 2016 with the German sustainability codex (DNK) based on GRI standards.

Elia followed in 2017 using the following international sustainability standards to identify a number of relevant topics on which to build a robust sustainability programme:

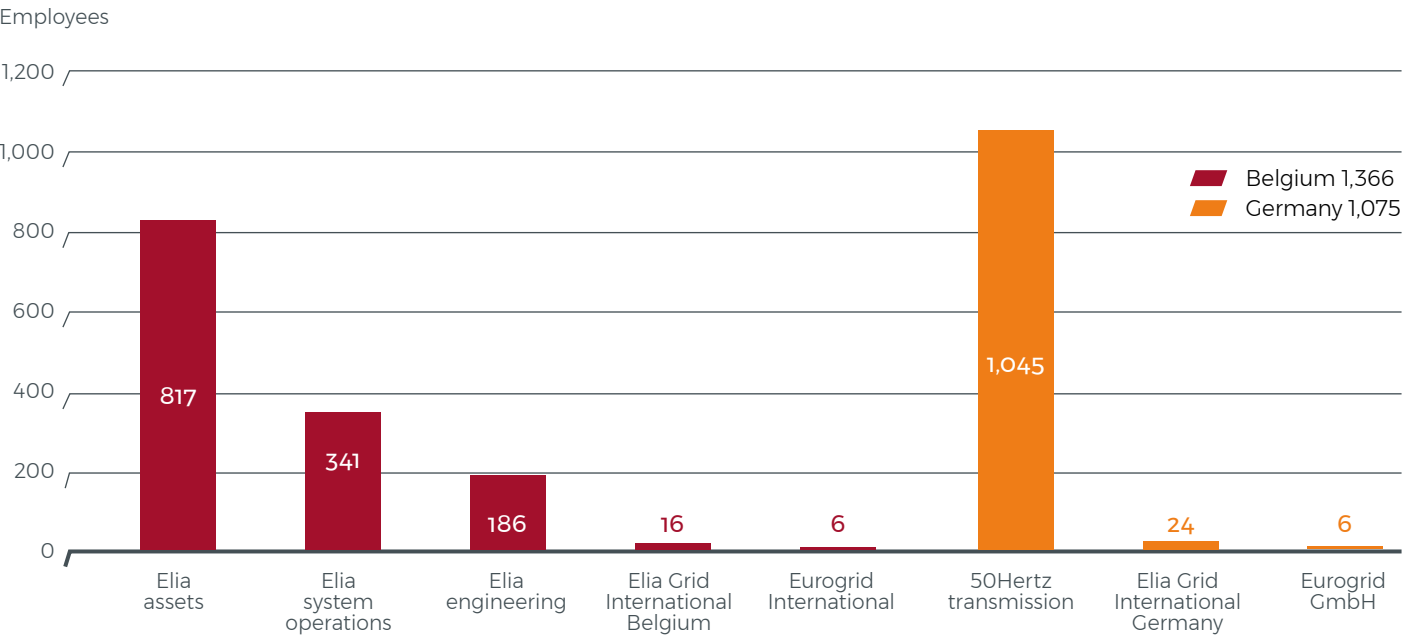
- Global Reporting Initiative (GRI) - sector supplement Electric Utilities
- Sustainability Accounting Standards Board (SASB) - Infrastructure Standards - Electric Utilities
- ISO 26000 standards

In 2018, we progressed in the alignment of reporting methods between Elia and 50Hertz, following the same structure and GRI disclosures.

Some differences persist and in the next reporting phase, we plan to further align our sustainability reporting and to work on joint initiatives. More information on Elia Group can be found in the Activity Report 2018 on pages 6 - 14.

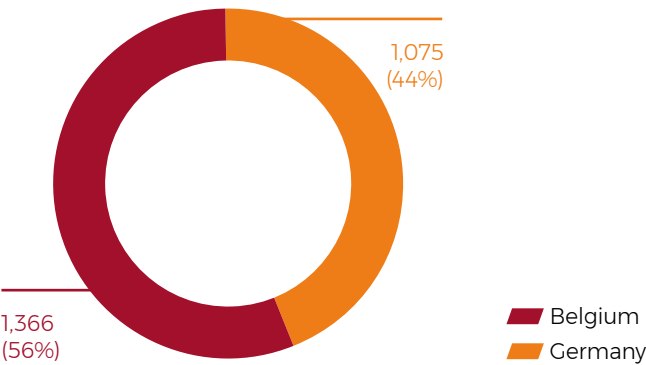
1.2. Elia Group companies GRI 102-1, GRI 102-7

1.2.1. Breakdown by company and number of employees



Any reference hereunder to Elia, includes the following companies: Elia Assets (EA), Elia System Operator (ESO) and Elia Engineering (EE).

1.2.2. Breakdown by country



When analysing the split of employees between Germany and Belgium within Elia Group, we note that Belgium represents 56% of the Elia Group workforce, while Germany represents 44%.

1.2.3. Breakdown by responsibility level and gender GRI 405-1

		2016		2017		2018	
		Men	Women	Men	Women	Men	Women
Total number of employees in Belgium split per level	Director	4	3	5	3	5	3
	Senior Manager	25	5	28	5	25	4
	Direct leaders	352	89	405	105	423	117
	White collars	643	131	656	143	652	137
	Blue collars	0	0	0	0	0	0
	Total number of Belgian employees	1,024	228	1,094	256	1,105	261
Total number of employees in Germany split per level	Director	7	0	6	0	6	0
	Senior Manager	35	5	34	6	36	4
	Direct leaders	73	14	78	15	66	14
	White collars	663	196	699	197	725	224
	Blue collars	0	0	0	0	0	0
	Total number of German employees	778	215	817	218	833	242

GRI 102-41

Overall, we can see that 22% of German and 19% of Belgian employees are female. For direct leaders and above, 15% of German and 21% of Belgian leaders are female.

In 2018, 81.2% of German employees and all Belgian employees were covered by collective bargaining agreements.

Note that all technicians in Belgium and Germany are considered white-collar workers. Consequently, there are no blue-collar workers.

2. Elia in Belgium

2.1. Sustainability management

2.1.1. Business model

GRI 102-46, SDG 9, GRI 102-2, GRI 102-6

Elia is Belgium's high-voltage transmission system operator (30 kV to 400 kV), operating more than 8,600 km of lines and underground cables throughout Belgium. Elia covers 11,267,910 inhabitants and has several consumers directly connected to its network, which are mostly large industrial companies.

Elia is a regulated company. Its public mission and responsibilities are an integral part of the legislation governing the electricity market (see link hereunder). Furthermore, it's controlled by the CREG*, the federal regulator for the electricity market with regard to its very high voltage grid (110 kV -400 kV) and tariffs, and by the VREG*, CWAPE* and BRUGEL*, the regional regulators for the electricity market with regard to its high voltage grid (30 kV-70 kV).

Elia has a 'natural monopoly' of the grid in Belgium, including the offshore grid. Elia's main responsibilities concern the development and maintenance of the grid, the management of the balance between the consumption and generation of energy and the facilitation of access to the market. Elia also develops innovative solutions in order to integrate renewables into the system, to balance the network and to put the consumer really at the centre of the future energy system.

All the products and services are set out in detail in product sheets, which are available online or can be ordered as a hard copy on the 'Product sheets' page.



Please consult our website for a detailed overview of Elia's legal framework.



Scan the code to access the product sheets on our website.

2.1.2. Location of headquarters and operations in Belgium

GRI 102-3, GRI 102-4

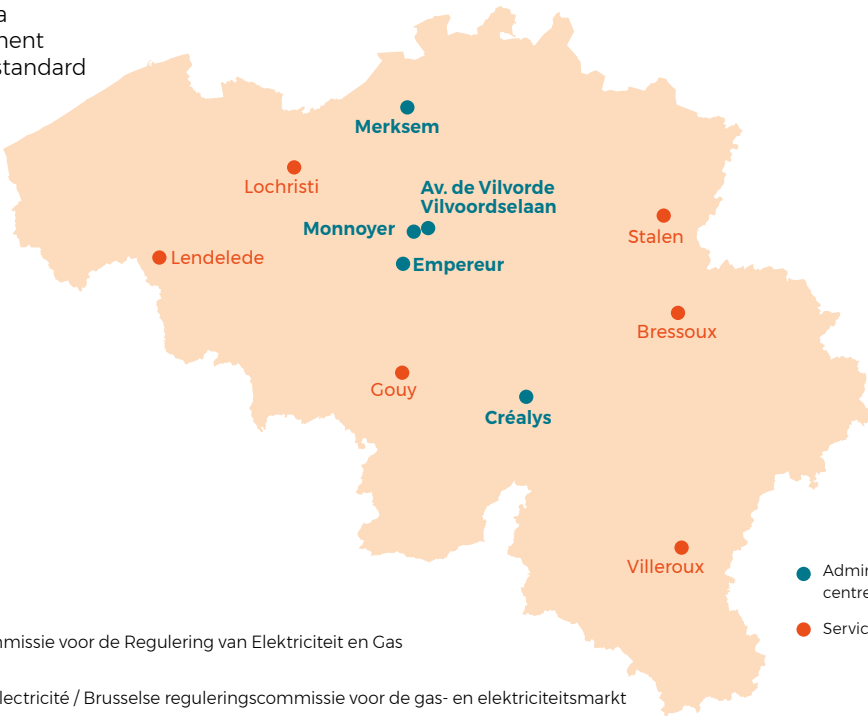
All the headquarters of Elia are located in Brussels.

To cover its activities in the entire country, Elia has several administrative centres and service centres in Belgium.

Our Monnoyer site in Brussels is Breeam certified and the BREAAAM certification of our Crealys site in Wallonia is ongoing. BREEAM (Building Research Establishment Environmental Assessment Method) is the British standard for sustainable buildings.



More information about our offices can be found on our website.



* CREG: Commission de Régulation de l'Électricité et du Gaz/ Commissie voor de Regulering van Elektriciteit en Gas
VREG: Vlaamse Regulator van de Elektriciteits- en Gasmarkt
CWAPE: Commission wallonne pour l'Energie
BRUGEL: Régulateur bruxellois pour les marchés du gaz et de l'électricité / Brusselse reguleringscommissie voor de gas- en elektriciteitsmarkt

2.1.3. Roles and responsibilities

GRI 102-19, GRI 102-20

Top down

Safety is the priority of the Elia approach to sustainability. The head of the Health and Safety department is Stéphane Otto, who reports directly to the CEO. More information on actions and results can be found in the Safety section.

The Chief Community Relations Officer, Ilse Tant, reporting to the CEO, sits within the Executive Committee and bears the responsibility for sustainable and climate-related issues and the overall sustainability vision of the company. Key responsibilities are the facilitation of the decarbonisation of the energy grid by aligning the interests of the company and its stakeholders. All climate related reporting and sustainable communication to external stakeholders is coordinated by the Community Relations department.

Within the Community Relations department, the sustainability responsibility lies within the Environment & CSR department. Its role is to define standards, policies and best practices and to develop supporting tools in different areas: environment, corporate social responsibility and public acceptance. Regular structural consultation between all levels of the organisation on environmental issues ensures that the departments work closely with each other to implement the environmental policy and to meet Elia’s environmental objectives.

The Sustainability Manager, Igor Lefebvre, heads the Environment & CSR department and reports to the Chief Community Relations Officer on a monthly basis about the progress of the projects, including the progress made on climate-related challenges. The Environment & CSR department has direct responsibility for the environmental performance, including carbon emissions.

Bottom up

A network of ambassadors was created at Elia during the summer of 2018. Developed at the initiative of passionate colleagues, the group shares ideas, tips and tricks, successes and events, and organises workshops within the company through a cooperative process. Ideas are also shared via the intranet, allowing other interested colleagues to participate. Two workshops were held in 2018 and lots of ideas and the first concrete project were the result. A real sustainability dynamic has been created within the company.

2.1.4. Membership of associations and external initiatives

GRI 102-13

International level

Elia belongs to associations regrouping transmission system operators (TSOs) such as CORESO and ENTSO-E at European level and GO15 and CIGRE at international level.

Elia Group is an active member of a number of other associations and gladly makes its expertise available to develop the energy system of the future.

These associations include the following:

RENEWABLES GRID INITIATIVE

Elia has been a member of the Renewables Grid Initiative (RGI), a coalition of environmental organisations (such as the WWF and Birdlife) and system operators, for several years. Their shared aim is to generate consensus around the grid expansion needed to integrate renewables, while respecting biodiversity and the environment. In 2018, the RGI activities focused on the integration of a high proportion of renewables into the grid and how this affects the TSOs. Belgian NGOs were present at some of these workshops and this clearly improved their understanding of grid development issues. In addition, RGI continued to serve as a knowledge exchange organisation for its members. RGI held several webinars (e.g. on community compensation) and started to draft a common vision on the undergrounding of 400kV connections.

ENERGY WEB FOUNDATION

The Energy Web Foundation (EWF) is a global non-profit organisation focused on accelerating blockchain technology across the energy sector.

The growth in renewable energy generation is making it increasingly difficult for TSOs to guarantee that generation and consumption are balanced at all times. Power generation from renewables fluctuates constantly, so flexible reserves that can be activated swiftly (like batteries, demand management via heat pumps, etc.) are needed to ensure a steady balance. Elia is exploring the opportunities offered by blockchain technology as a payment system to address the business side of such complex, rapid transactions.

Elia Belgium, SettleMint and Actility launched one of Europe’s first blockchain pilot projects in the energy sector in 2018.

Belgian level

Elia is a member of The Shift where some 350 companies, NGOs and other organisations meet to co-create sustainable business models.

Elia is also a member of several professional federations and local associations.

The following table gives an overview of our memberships at international and Belgian level:

	Energy	Climate	Environment	Human Rights
WORLD ENERGY COUNCIL	✓			
Conference Internationale des Grands Réseaux Electriques (CIGRE)	✓			
Go15	✓			
Centre on Regulation in Europe	✓			
European Network of Transmission System Operators for Electricity (ENTSO-E)	✓		✓	
Coordination of Electrical System Operators	✓			
Renewables Grid Initiative	✓	✓	✓	
Energy Web Foundation	✓	✓		
The Shift	✓	✓	✓	✓
Synergrid	✓			
Osiris	✓			
Conseil des Gestionnaires des Réseaux de Bruxelles	✓			
Vlaamse Raad van Netwerkbbeheerders	✓			
Powalco	✓			
Brussels Enterprises Commerce and Industry	✓		✓	
Fédération des Entreprises de Belgique	✓		✓	
Union Wallonne des Entreprises	✓		✓	
Vlaams Netwerk van Ondernemingen	✓		✓	
AGORIA	✓		✓	
Communauté Portuaire Bruxelloise	✓		✓	
COGEN Vlaanderen	✓	✓	✓	

2.1.5. Values, principles, standards and codes of conduct

GRI 102-16

Our vision, strategy and the 6 building blocks are described in the Activity Report 2018 on pages 14-15. Here we briefly describe our main values. They reflect fundamental principles that are deeply rooted within Elia.

Safety always comes first

Safety always comes first, everywhere and for everyone! As a company, we constantly invest in safety and expect our staff (both in the field and at administrative sites), our subcontractors, our colleagues - the distribution system operators - and all others to work safely and responsibly at all times.

Serving the community

Elia wants to play its central role in the sector to the full and create value for society. Elia's employees keep that aim in mind in everything they do, constantly asking themselves what the society wants, and how they can help make improvements.

Targeting performance

Elia's employees strive for maximum efficiency and quality so as to attain or, better yet, surpass their targets. They are results-oriented and deliver projects and services on time.

In a changing energy sector, four 'revamped' aspirational values are the additional key to achieving Elia's strategy. They are reflected in the behaviour and attitude of our staff.

We are entrepreneurial

Our staff work proactively and take initiatives with a view to improving how they work and exploring new ways of doing things.

We collaborate

Elia values collaboration, both within the company and with external partners. Our staff share their expertise and their information and question each other, thus enabling their ideas to mature. They seek fruitful collaborations and win-win partnerships.

We are accountable

All of our staff take full responsibility for their projects and tasks. They achieve their motivating, ambitious targets and work hard on their projects until they are completed.

We are agile

In a world of constant change, our staff embrace new developments, are proactive and persevere.

GRI 102-17, GRI 205-1

Those values are also the basis of our Ethical Code underlying all the activities of Elia System Operator, Elia Asset and Elia Engineering.

Elia's integrity and ethics are a crucial aspect of our internal control environment. The Management Committee and management regularly communicate about these principles in order to clarify the mutual rights and obligations of the company and its employees. These rules are disseminated to all new employees, and compliance with them is formally included in employment contracts. The Code of Conduct also helps to prevent employees from breaching any Belgian legislation on the use of privi-

leged information or market manipulation and suspicious activities. Management consistently ensures that employees comply with internal values and procedures and - where applicable - take any actions deemed necessary, as laid down in the company regulations and employment contracts.

The Ethical Code defines what Elia regards as correct ethical conduct and sets out the policy and a number of principles on the avoidance of conflicts of interests. Acting honestly and independently with respect to all stakeholders is a key guiding principle for all of our employees. Elia's Ethical Code expressly states that the Group prohibits bribery in any form, misuse of prior knowledge and market manipulation. This is confirmed by the Elia Code of Conduct. Elia and its employees do not use gifts or entertainment to gain competitive advantage. Facilitation payments are not permitted by Elia. Disguising gifts or entertainment as charitable donations is also a violation of the Ethical Code.

Moreover, the Ethical Code prohibits all forms of racism and discrimination, promotes equal opportunities for all employees, and ensures the protection and confidential use of IT systems. All parties involved in procurement must abide by Elia's code of Purchasing Ethics and all associated regulations. Elia's code of Purchasing Ethics is published internally and externally and is based on four pillars: confidentiality, non-discriminatory treatment of suppliers, transparency, and avoidance of conflicts of interest. The management of the employees involved in the procurement and payment processes regularly provides opportunities for training and awareness-raising on these topics.

By virtue of its legal status as a power transmission system operator, Elia is subject to a large number of statutory and regulatory rules setting out three fundamental principles: non-discriminatory conduct, confidential processing of information, and transparency towards all electricity market players as regards non-confidential market information. With a view to meeting these specific obligations, Elia has drawn up an Engagement Programme, which has been approved by the Corporate Governance Committee. The Compliance Officer reports annually to the relevant regulatory bodies in this regard.

Any violations of these codes can be reported to the Compliance Officer, who handles them objectively and confidentially. The Compliance Officer declares that no such violations were reported by internal employees or external stakeholders in 2018.

Internal Audit's annual programme includes a number of actions and verification audits designed to act as specific safeguards against fraud. Any findings are systematically reported to the Audit Committee. In 2018, no relevant findings relating to fraud were reported in the specific audit reviews of the fraud risks in the financial and purchasing processes.

GRI 419-1

Moreover, during the reporting year the company did not receive any significant fines or non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area.

2.1.6. Anti-corruption

GRI 205-2

The Ethical Code sets out Elia's understanding of correct ethical conduct and makes it clear that the Company complies with the law and does not tolerate corruption. These principles flow into organisational measures that are binding for the whole Company.

Since 2018, Elia has had a policy in place that regulates the external reporting point for business integrity breaches. In the case internal staff and external stakeholders anonymously report suspected integrity violations, an internal committee is convened immediately to deal with the case in hand and take further internal action if necessary. The committee reports to the management of Elia annually and on an ad hoc basis as required.

In 2018, the external reporting point did not receive any tip-offs about corruption. Elia also regularly provides all employees involved in the procurement process and financial process with training on the basics of procurement, anti-corruption and compliant behaviour.

2.1.7. Risk management

GRI 102-30, GRI 201-2

As part of its systematic risk management, Elia regularly surveys and assesses the following risk areas:

- Health and Safety
- Profit and loss (not recoverable loss)
- Cash Flow
- Reputation
- Continuity of supply

Elia aims to avoid risks to the Company's continued existence, to reduce risk positions as much as possible where feasible and to optimise the opportunity/risk profile. Risk guidelines set down how risks are systematically identified, recorded, assessed and monitored on a quarterly basis.

Risk workshops are held on a regular basis with the risk owners (mostly the department heads) and the corporate risk manager meets with the management to discuss the most significant risks and risk-related issues. In the area of CSR, for example, these are occupational safety, and new requirements from environmental legislation. Additionally, the risks assessed and monitored will be extended related to risk based on climate change.

2.1.8. Security

Critical infrastructure

A completely new security policy for high-voltage substations has been devised and validated by the Elia Executive Committee. We want to significantly boost the security of our high-voltage substations. First of all, we wish to pay extra attention to our critical infrastructure, in regard to which we will strive to limit all potential threat scenarios as far as possible. Secondly, in the next few years we will equip other crucial, security-sensitive high-voltage substations with a security concept. Lastly, Elia will also introduce an online access control system at all of its sites with a view to monitoring, in real time, access to high-voltage substations. This new policy shall apply from January 2019 to 2024.

Elia Security has also drafted the beginnings of a framework for a public-private partnership. This involves the confidential exchange of information with a range of public stakeholders (e.g. police forces, intelligence agencies, FPS Interior). The potential expansion of the legal framework on the screening of persons is vital here. Elia wholly intends to apply this framework in its most sensitive infrastructure, primarily the control centres.

Elia's special focus on innovation allows it to respond to new (future) security challenges and the new methods adopted by criminals. Following analysis, a specific derogation has been proposed concerning the use of drones that can patrol high-voltage lines outside the field of vision. The initial test flights are scheduled for 2019, provided that the derogation is approved.

IT

The further reinforcement of the robustness, security and protection of our IT and network systems is a key recurring component in preserving the confidentiality of critical data. A number of tangible measures implemented in 2018 in this field are listed below:

• Elia's external perimeter (Elia's public IP addresses) undergo an external scan every month with a view to assessing any vulnerabilities in the internet applications to potential cyber risks.

• At Internal Audit's request, in 2018 an external review was conducted into the operation of IT security and the application of security concepts within the server team, end user devices team and network team.

• A project has been rolled out to implement the GDPR and the necessary initiatives have been taken to provide even better protection for personal data as per this new legal framework.

Best practices and information are exchanged at a national level in the utility sector (Synergrid), as well as on a European level (ENTSO-E). We evaluate the threat landscape and evolutions to be able to put the right risk mitigation measures into action.

2.1.9. Materiality matrix

GRI102-15

The materiality matrix determines the relevant sustainability topics for the Elia management and stakeholders and was prepared with the department heads from Elia Belgium and with input from 50Hertz.

In addition, the topics brought up in the existing stakeholder channels were mapped with this materiality matrix to cross-check it and make sure it is complete.

In a subsequent phase, this materiality matrix will be used as a basis for engaging with external stakeholders.

Thirty-one topics around six sustainability enablers

We listed 31 topics, and we clustered them around the following sustainability enablers: Transmission Services, Organisational Structure, Employees, Environment, Fair Operating Practices and Community Involvement.

TRANSMISSION SERVICES

- 1 Availability, Reliability and Future power system
- 2 Demand-side Management
- 3 Research and Development
- 4 Systemic risk management (Disaster/ Emergency planning and response)

ENVIRONMENT

- 17 Environmental Management System
- 18 Waste and Hazardous Materials Management
- 19 Air pollution
- 20 Greenhouse Gas emissions
- 21 Energy Resource planning
- 22 Sustainable products & services
- 23 Biodiversity impacts
- 24 Protecting consumers' health and safety

ORGANISATIONAL GOVERNANCE

- 5 Organisational Structure & decision making
- 6 Board Independence
- 7 Business ethics

FAIR OPERATING PRACTICES

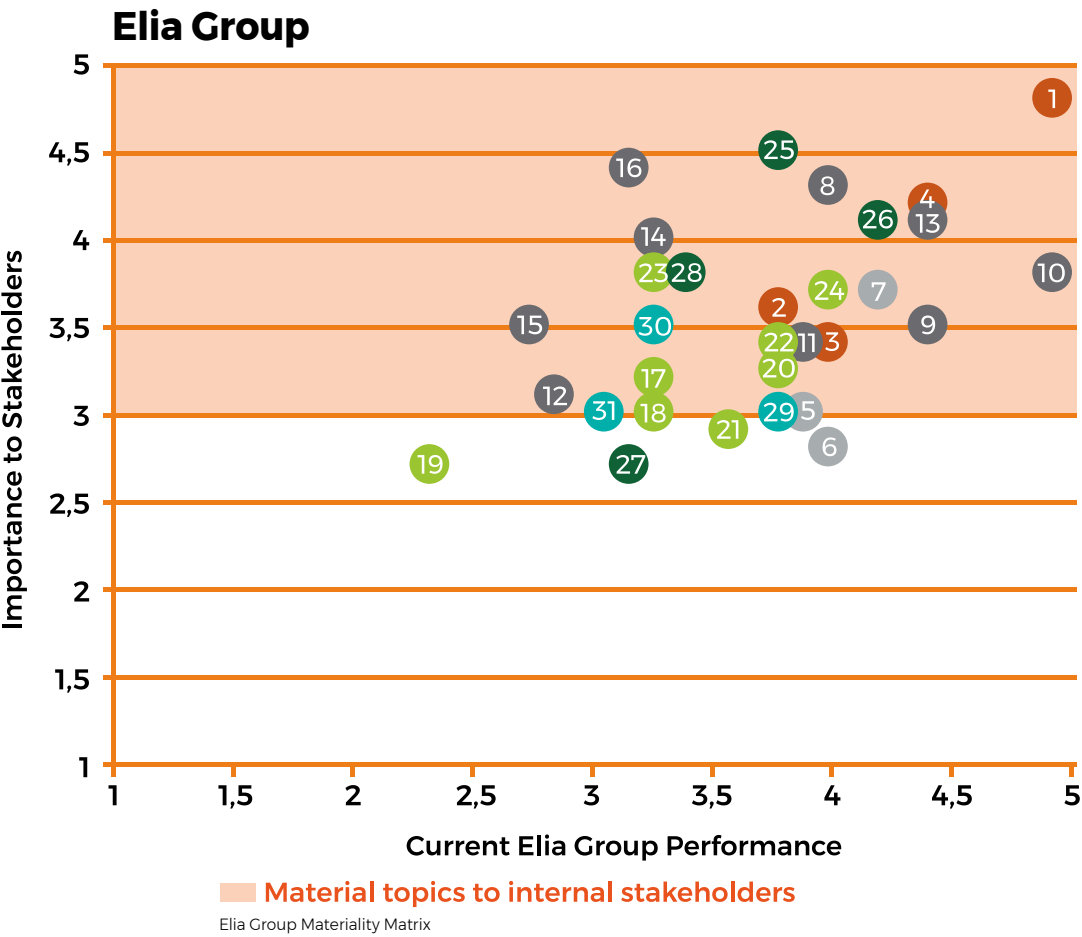
- 25 Corruption and Bribery
- 26 Legal & regulatory environment
- 27 Promoting social responsibility in the value chain/Supply chain
- 28 Respect for property rights

EMPLOYEES

- 8 Conditions of work and social protection
- 9 Social dialogue and stakeholder relations
- 10 Employee Health, safety and wellbeing at work
- 11 Human development and training in the workplace
- 12 Diversity
- 13 Accident & Incident Management
- 14 Discrimination and vulnerable groups
- 15 Economic, social and cultural rights
- 16 Fundamental principles and rights at work

COMMUNITY INVOLVEMENT

- 29 Community involvement (including education and culture)
- 30 Employment creation and skills development
- 31 Technology development impacting community



The results of the materiality matrix are summarised in Elia Group Materiality Matrix. The importance of the material topics is shown on the vertical axis, while the horizontal axis indicates Elia's performance in those areas.

GRI 103-1

Topics that are considered less material by internal stakeholders are the following:

- 6 Board independence is rated less material due to the fact that this is a mature process at Elia. A clear corporate governance charter and internal procedures exist and are embedded in the organisation.
- 19 Air pollution is considered as less material because this is not relevant for a transmission system operator. Elia's main activity is to transport electrical power using a fixed infrastructure.
- 21 The internal stakeholders also rated Energy Resource Planning less material. This is potentially because the main part of its own electricity use is already from green electricity. Moreover, Elia's own electricity use can be considered immaterial versus the energy transported on Elia's grid.
- 27 Promoting social responsibility in the value chain/supply chain is also considered less material as the main part of the spend is in Europe, which has a high level of maturity concerning social responsibility topics (e.g. low risk of child labour, minimum wage).

A number of topics are borderline and will progressively be introduced in the following years:

- 5 Organisational Structure & decision making
- 18 Waste and Hazardous Materials Management
- 29 Community involvement (including education and culture)
- 31 Technology development impacting community.

GRI102-47

All the other topics are considered as material with a special focus on:

- 1 Availability, reliability and future of the power system
- 4 Systematic risk management
- 13 Accident & incident management
- 10 Employee health, safety and wellbeing at work

More information on Elia Group's 4 most material topics can be found on page 16 of the Elia Group Activity Report 2018.

Sustainability ambitions at Belgian level

At Elia Belgium, the following sustainability ambitions were defined by the Executive Committee in November 2017. They will be reviewed in 2019.

AMBITIONS FOR 2020		AMBITIONS FOR 2050	
Energy grid	Develop a grid which enables the integration of 13% renewable energy or alternatives within the product mix at Belgian level and support the target of 20% renewable energy at European level.	Integrate renewables into both centralised and decentralised systems.	Long-term ambitions to be defined at a later stage.
	Ensure that the yearly average interruption time does not exceed the maximum AIT of 2.55 min.	Develop strong grid interconnections together with neighbouring countries.	
Safety		Use digitalisation and ‘smarter grid’ market design to exploit resources in an efficient way.	
	Embed a safety culture at Elia by increasing the safety awareness of employees and contractors in order to:		
	· ensure that every employee and contractor knows the principles of the GO FOR ZERO programme		
Employees	· ensure Elia’s safety instructions are properly applied		Long-term ambitions to be defined at a later stage.
	· avoid electrical near misses or incidents		
	· increase reporting maturity and reduce the number of injuries.		
Environ-ment	Develop an extended talent and organisational development programme.		
	Move towards a new corporate culture with a new vision and ambition.		
Community	Create a high-performance organisation to empower people to take more initiatives and enable quicker decision-making.		
	Deliver a positive impact on society by realising further grid development enabling proper integration of renewable energy into the EU grid of the future.		Long-term ambitions to be defined at a later stage.
	20% reduction in CO ₂ emissions from our own operations (compared to 2010).		
	We deliver the infrastructure of the future and innovate in services that enable the pathway to a reliable and sustainable power system, with the interest of the community at the heart of every decision.		
	The Elia Group is constantly expanding its dialogue with stakeholders and keeps them informed throughout the entire duration of its projects.		
	We perform the necessary studies and analyses and act as an advisor to the different governments on implementing the energy transition in the interest of society.		

2.1.10.Stakeholders Overview

Elia’s engagement with stakeholders

GRI 102-40

Depending on the topics, Elia has contacts with public authorities and administrations, political parties, local citizens, civil society (associations representing environmental, economic, agricultural or other interests) and clients directly connected to its network.

GRI 102-42

The identification of stakeholders is related to the specific strategic topics that are chosen. Within the company a Corporate Reputation Committee has been created, presided over by the Chief External Relations Officer in order to follow up, for selected issues, on the different stakeholder contacts organised by the concerned departments within Elia.

Elia has many stakeholders’ initiatives. The method and frequency of engagement per stakeholder group and the link to the material topics have been summarised on page 17 of the Elia Group Activity Report 2018.

Elia’s Users’ Group

GRI 102-21, GRI 102-43

Elia regularly organises Users’ Group meetings and working groups. The Users’ Group provides a platform that allows Elia to maintain an ongoing dialogue with its main customers and partners.

Every year, about four Users’ Group plenary meetings are scheduled to inform the market participants and stakeholders about important and strategic topics related to our business. In support of these plenary meetings, there are three working groups which usually meet four times per year (more if necessary). They consist of the following:

- System Operation and European Market Design Working Group: This working group mainly addresses topics related to the operation of the high-voltage grid and capacity calculation, as well as initiatives and developments linked to the European integration of the electricity markets.
- Belgian Grid Working Group: This working group addresses issues associated with the Elia grid and related mechanisms, products and services that are of interest to Elia’s customers.

- Balancing Working Group: This working group mainly addresses operational, technical and market-related issues in order to prepare for the challenges Elia’s balancing market will face in the coming years.

Under the WG Balancing and WG Belgian Grid there are four task forces. The task forces are set up on an ad hoc basis to handle specific issues when necessary. Currently, two task forces are active:

- Implementation of Strategic Reserves Task Force: This task force is aimed at informing and consulting market players and stakeholders about all relevant issues linked to the implementation of strategic reserves.
- CIPU Redesign (iCAROS) Task Force: This task force aims to discuss topics related to future asset coordination procedures with the relevant stakeholders.



All information regarding the Elia Users’ Group and the meetings of the different working groups is available on the Elia website.

An overview of the most relevant topics can be found in the table below.

External initiatives

GRI 102-12

External activities such as the yearly Stakeholder Day, the collaboration with Be Planet and, in particular, the initiative developed together with the distribution system operators to create a coalition with stakeholders for building the internet of energy and, as such, putting the consumer in the centre are described in the Activity Report 2018.

Users’ Group	Session	Link to material topic
Plenary meetings	• 12.02.2018 – Federal Grid Code and General requirements	Transmission services
	• 25.04.2018 - Elia study ‘Electricity scenarios for Belgium towards 2050’: additional calculations	Transmission services Environment Community Involvement
	• 25.04.2018 – Federal Grid Code and General Requirements: Feedback public consultation	Transmission services
	• 25.04.2018 – Flow Based Improvements	Transmission services
	• 07.06.2018 – Federal Development Plan	Transmission services Environment Community Involvement
	• 07.06.2018 – 20% minimum RAM	Transmission services
	• 06.12.2018 – Internet of Energy (IoE)	Transmission services Demand-side Management
	• 06.12.2018 – Overview Public consultations 2019	Community Involvement

2.2 Grid

SDG 9

2.2.1. Distance covered by Elia’s high-voltage grid in Belgium

G4-EUS-EU4

Voltage (kV)	Underground cabling (km)	Difference with 2017 (km)	Overhead lines (km)	Difference with 2017 (km)
400kV (DC)	9	9		
380kV	40	20	919	0
220kV	47	42	301	0
150kV	573	59	1,973	-2
110kV	0	0	8	0
70kV	293	-9	2,290	-21
36kV	1,938	-30	8	0
30kV	84	-24	22	0
Total	2,984	67	5,521	-23

The grid length is stable, with an increase of underground cables and a shift toward higher tension lines. A special mention is due to our new 400 kV DC line: Nemo Link.

2.2.2. Number of substations and converter locations

	2016	2017	2018	difference with 2017
Number of substations >=150 kV	297	298	297	-1
Number of substations <150 kV	518	516	516	0
HVDC converter locations	0	0	1	1
Total	815	814	814	

A site is considered a substation when there is electrical equipment belonging to Elia installed on site.

The voltage level attributed to the substation is the maximum voltage level of the Elia equipment present on site.

Overall, the number of substations has remained stable, although some low-voltage (>=150 kV) local transmission substations are being replaced by substations for the interconnection network and a first HVDC converter location is now in service (for Nemo Link).

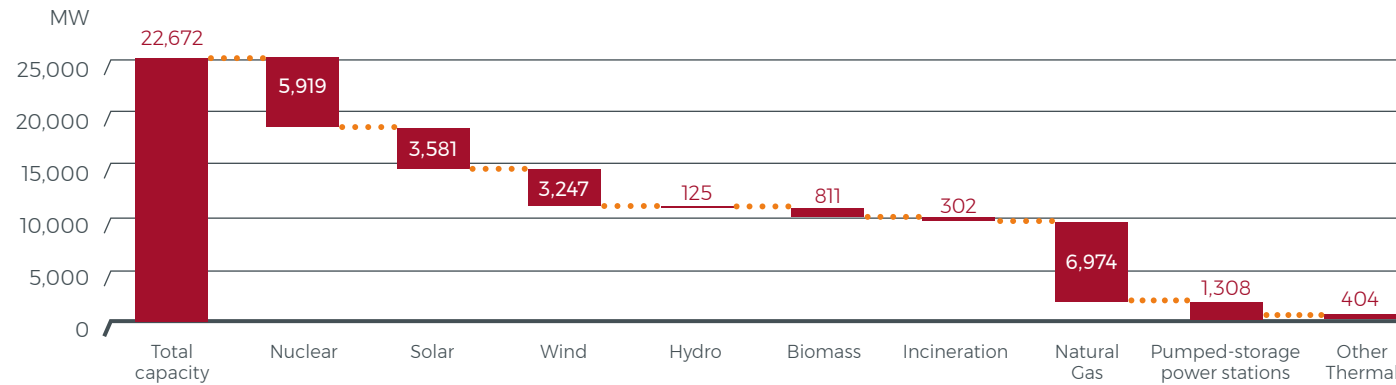


Visit our website to consult the map of Elia's high-voltage grid.

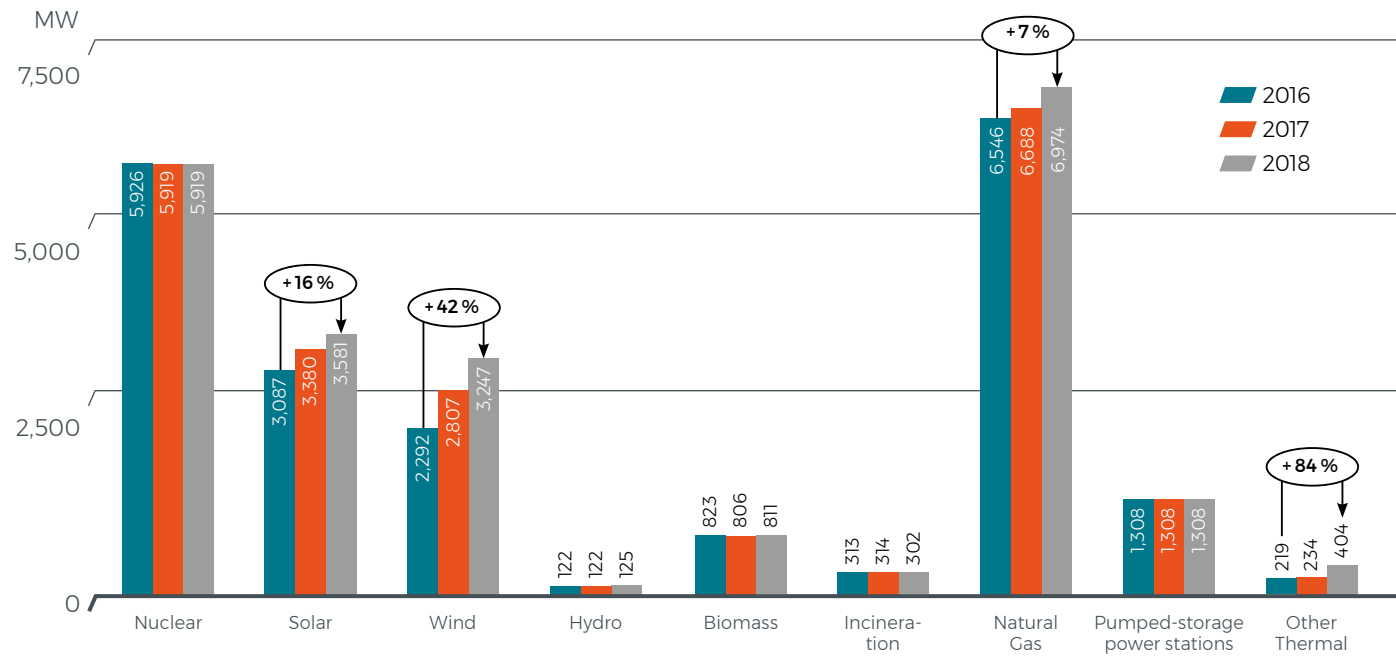
2.3 Energy

SDG 7, GRI 302-2, GRI 102-9

2.3.1. Evolution of installed capacity in Belgium



The total Belgium capacity is around 22,600 MW, which is mainly natural gas and nuclear energy.

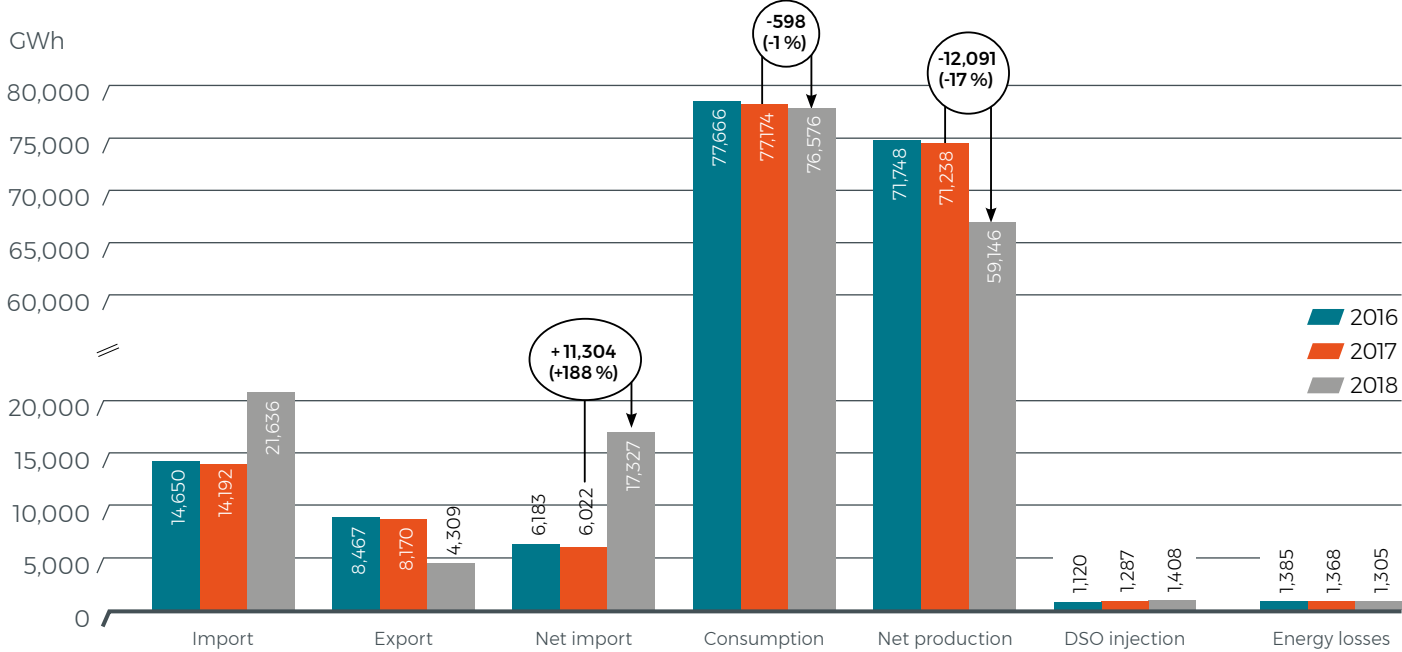


Nuclear installed capacity will remain stable until the first decommissioning, which is scheduled for 2022.

The installed capacity of renewable energy sources, such as solar and wind, has increased and is expected to increase further in the coming years.

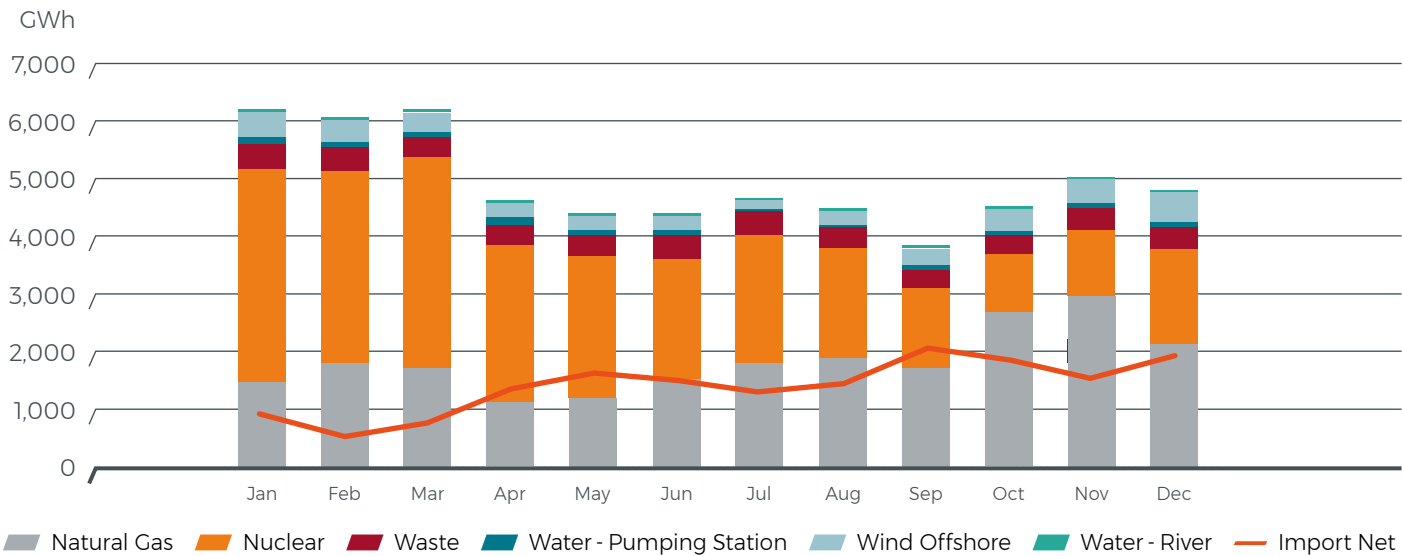
Elia acts as a market facilitator and in this role works hard to ensure that the grid is prepared to integrate new renewable energy.

2.3.2 Energy balance



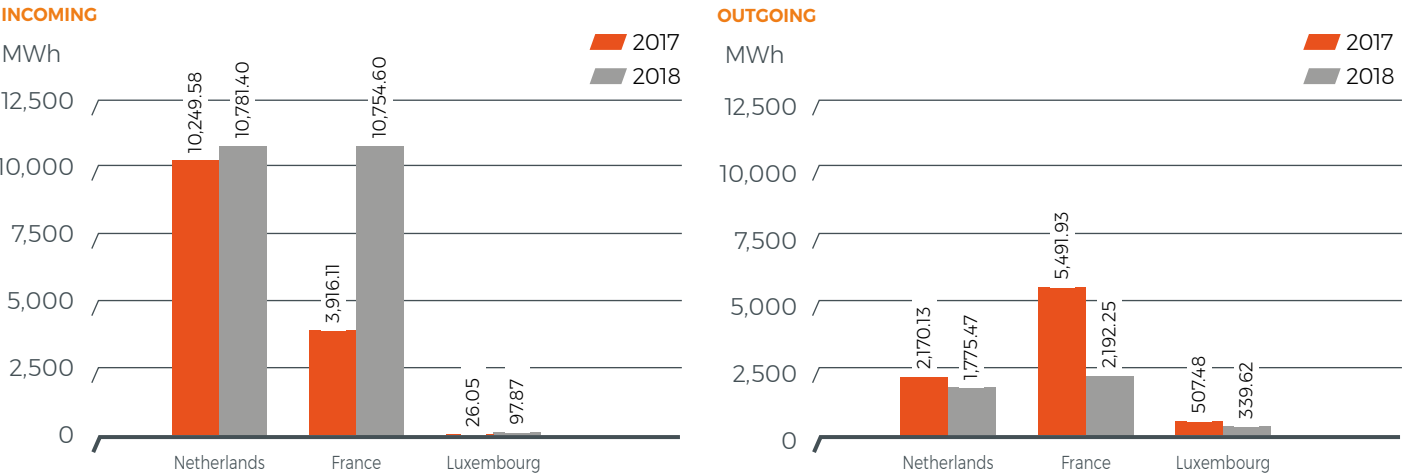
Consumption decreases slightly each year. Due to the unavailability of some nuclear reactors, Net production of energy decreased sharply by 17% and this was compensated by a sharp increase in Net import (+188%). Energy losses have remained stable over the years.

NET PRODUCTION VS NET IMPORT



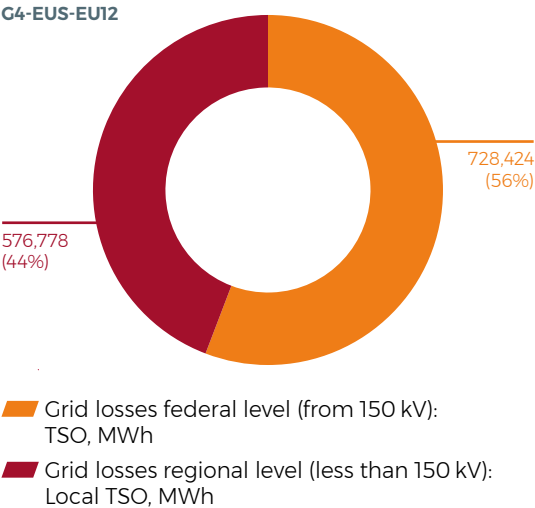
The above figure shows the effect of the shutdown of the nuclear reactors on a monthly basis during 2018.

2.3.3. Cross border exchange Belgium



The new Nemo Link connection (exchange with the UK) is operational since 31/01/2019.

2.3.4. Grid losses



Grid losses in Belgium can be divided in two parts: grid losses compensated following the federal legislation (>150 KV) and the other grid losses being compensated following a regional approach.

Transmission and distribution losses as a percentage of total energy (sum of consumption and export): 1.61%

2.3.5. Evolution of consumption



* Average monthly temperature, Zaventem, MeteoService.

Consumption in Belgium increases during the winter months, when the production of renewables is lower. This stresses the importance of international interconnections and reliable and sufficient domestic production.

2.4 Grid reliability in Belgium

2.4.1. Emergency and restoration

G4-EUS-DMA DISASTER/ EMERGENCY PLANNING AND RESPONSE

The transmission system operator (TSO) provides an infrastructure with adequate electricity interconnections for well-functioning markets and systems which forms the best guarantee of security of supply. However, even where markets and systems function well and are interconnected, the risk of an electricity crisis, as a result of natural disasters, such as extreme weather conditions, malicious attacks or a fuel shortage, can never be excluded.

Therefore, Elia Belgium has implemented a set of plans and procedures to prevent and manage an electricity crisis. The crisis management at Elia Belgium consists of three main parts;

- The emergency plan describing the internal crisis organisation and related procedures
- The system defence plan, including load shedding plan
- The restoration plan

The emergency plan describes the internal crisis organisation and related procedures following the Standardised Emergency Preparedness Plan (SEPP) methodology developed by CEMAC. It also describes the interfaces with the external stakeholders which are involved in an electricity crisis.

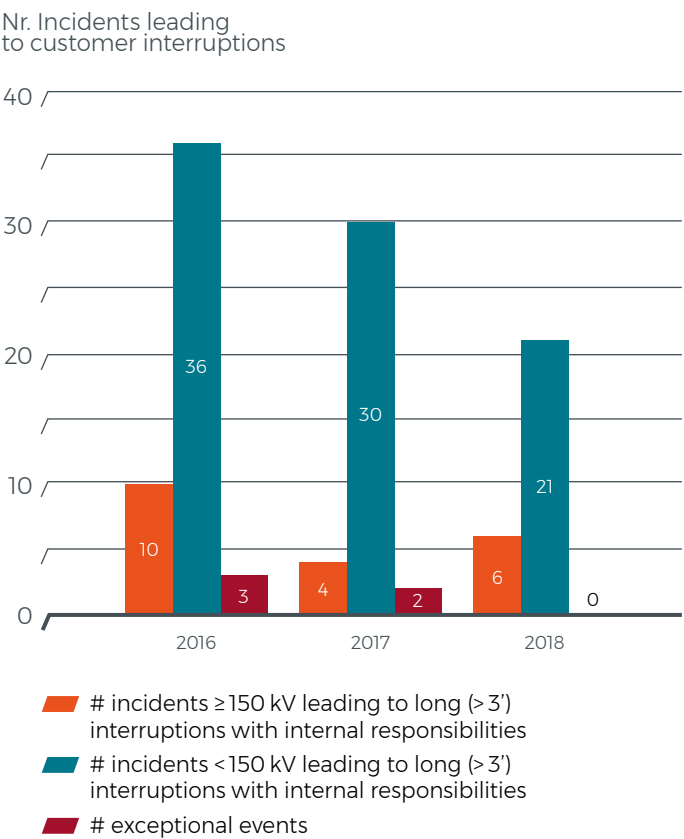
The system defence plan contains all automatic and manual measures aiming to prevent a blackout at any cost, to limit the extension of disturbances and to stabilise the electric power system when in Emergency State, in order to return to Normal or Alert State as soon as possible with minimal impact on grid users.

In accordance with the system defence plan, Elia Belgium has established a load shedding plan containing a certain amount of demand to be manually or automatically disconnected when necessary, to prevent the propagation or worsening of an electricity crisis.

The restoration plan contains a set of actions that can be used after a disturbance with large-scale consequences (e.g. blackout) to bring the electricity system back to the normal state.

Elia Belgium regularly trains its crisis teams by means of simulated exercises. System operators are prepared for crisis situations by means of theoretical and practical training on a real-time simulator.

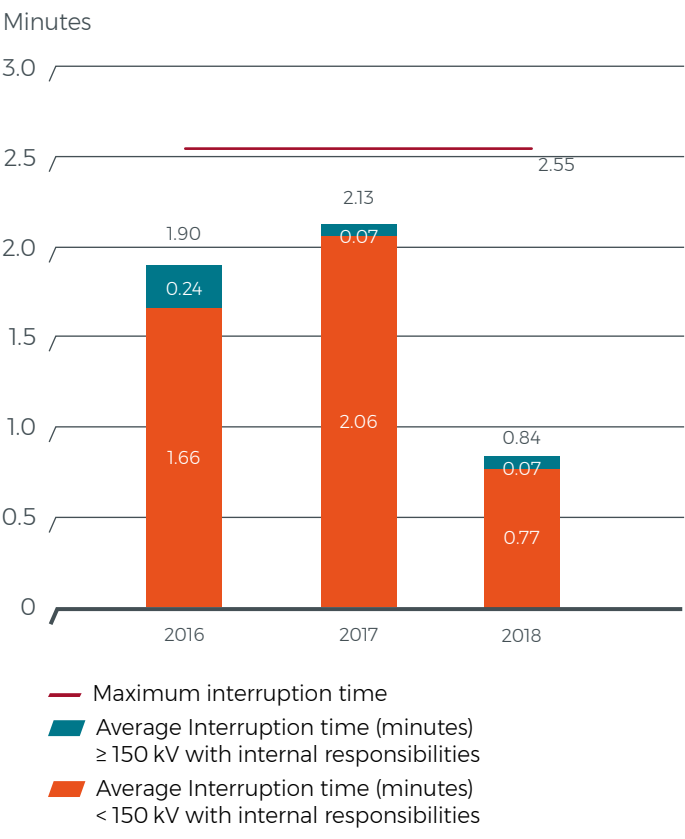
2.4.2. Grid interruptions



This graph shows the number of incidents which led to at least one customer interruption that lasted more than 3 minutes and for which Elia is responsible. Any interruptions caused by customer errors, thunderstorms, third parties, birds, etc. are not considered here.

Exceptional events represent the number of natural disasters, storms or other climatological circumstances, nuclear or chemical accidents, explosions, and so on resulting in an interruption that lasted more than three minutes. No exceptional event occurred in 2018.

2.4.3. Interruption time

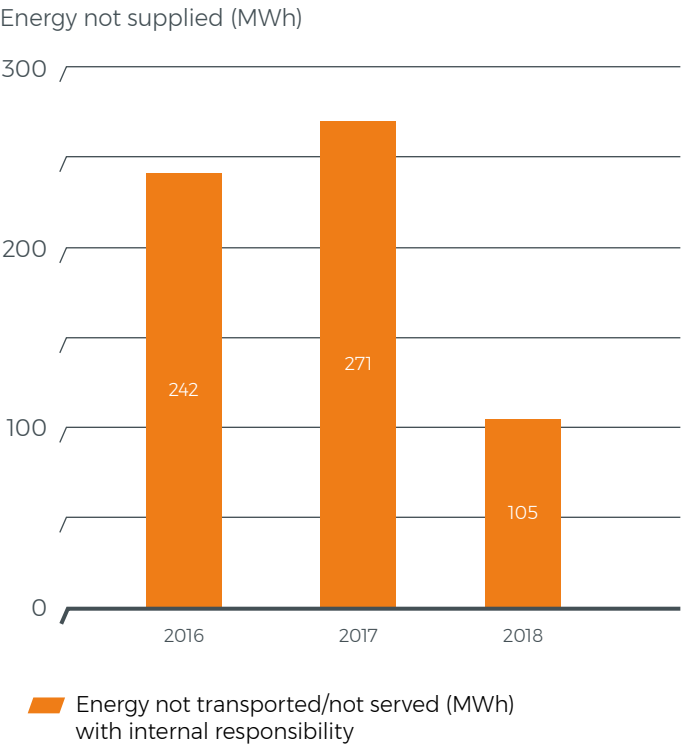


The majority of interruptions take place on the local transmission network as most customers are connected to the local transmission grid rather than the transmission grid.

The maximum interruption time is the reference value used for calculating the average interruption time (AIT) incentive. Based on a seven-year average, this value was introduced in 2015 and validated by CREG for four years. This reference value will be reviewed in 2019.

The interruption time in the Belgium grid has remained below this reference value over the last three years.

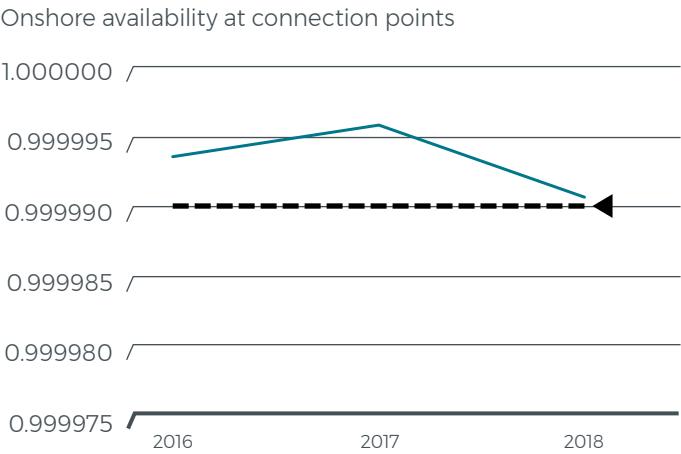
2.4.4. Non-supplied energy



Energy not supplied (ENS) refers to all energy not supplied to our customers during outages of more than three minutes caused by Elia's internal problems. However, it does not take into account the impact of major events. This is the lowest ENS score for which Elia is responsible since this indicator was measured thanks to:

- Good operational management of the incidents
- The initiatives launched over the last few years to improve our Asset Management processes, to decrease the number of human errors, to improve the REX processes, etc.
- A little bit of luck: we sometimes face situations that could go wrong, but in 2018, we have been fortunate that those situations always remained under control.

2.4.5. Grid availability



Onshore availability represents the availability of the interface points between the Elia grid and the customer's grid. It takes into account all the interruptions caused by intrinsic risks (weather, third parties, animal outside building, etc.) or by internal Elia problems (e.g. material failure, human error) which lasted more than three minutes, but excludes interruptions directly caused by Elia's customers. This onshore availability is calculated as $1 - (\text{AIT (intern Elia + intrinsic risk)} / \text{\#min in the year})$.

In 2018, the onshore availability in Belgium remained at a very high level (above 0.999990).

2.5 Human Resources

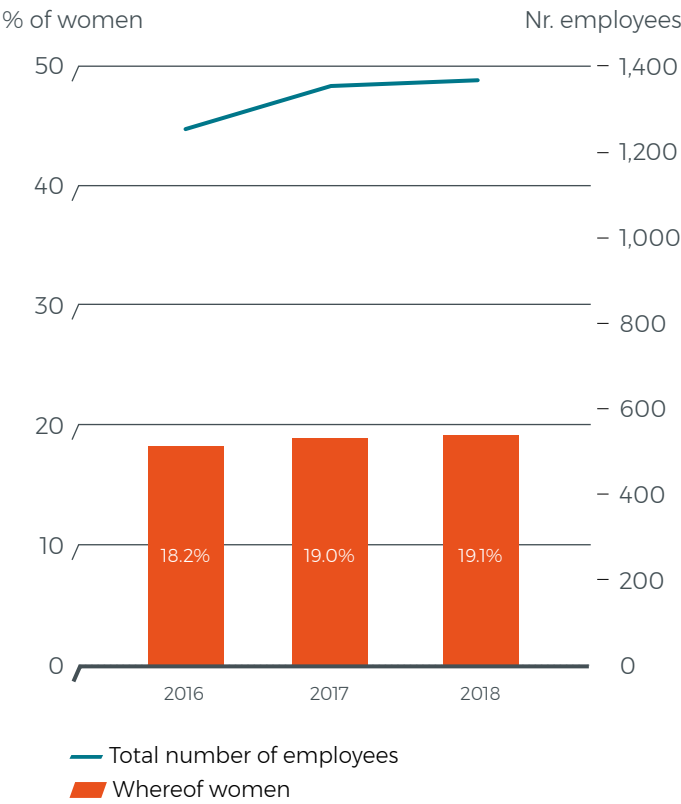
SDG 8, SDG 5

Elia companies comply with international guidelines beyond the reach of its collective agreements and company agreements, such as the core labour standards of the International Labour Organisation (ILO: C87, C98 and C135).

2.5.1. Headcount Belgium

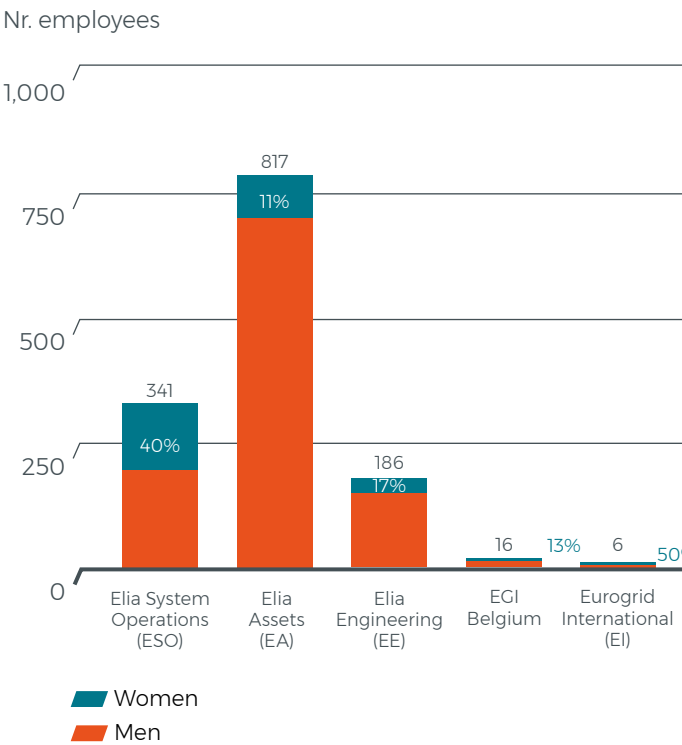
GRI 102-7, GRI 102-8, GRI 401-1

WORKFORCE EVOLUTION



Both workforce and women representation show an increasing trend.

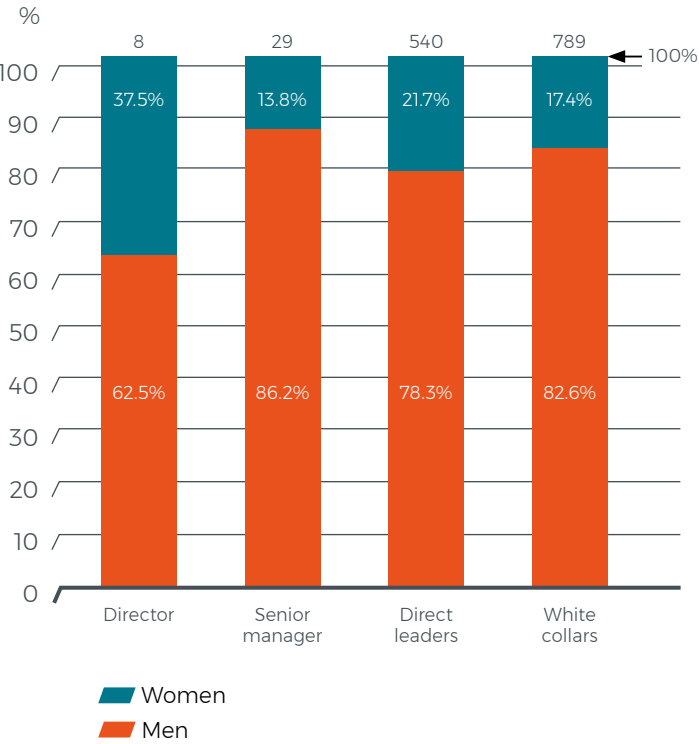
BREAKDOWN BY COMPANY AND GENDER



GRI 405-1

Women are less represented in EA and in EE, two companies requiring a more technical background. Since these two companies provide most of the senior managers this leads to a lower percentage of women in those roles.

BREAKDOWN BY RESPONSIBILITY LEVEL AND GENDER

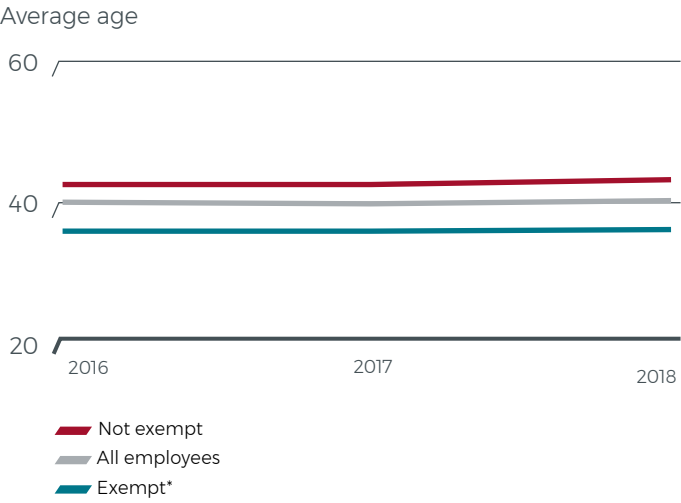


Women are well represented both at director and direct leader levels. To counter the underrepresentation of women in Senior Manager roles two main actions have been put in place:

- The inclusion of selection criteria on leadership and soft skills in addition to technical skills
- Internal transfers from less to more technical areas.

The existing cultural change programme will act as a catalyst.

AVERAGE AGE AND PERCENTAGE OF EMPLOYEES ELIGIBLE TO RETIRE



* The term 'exempt' means exempt from being paid overtime. In our case, these are all employees that are not white collars (director, senior managers and direct leaders).

Average age is 41.97 and stable over the last years, exempts are almost 4 years younger than non-exempts.

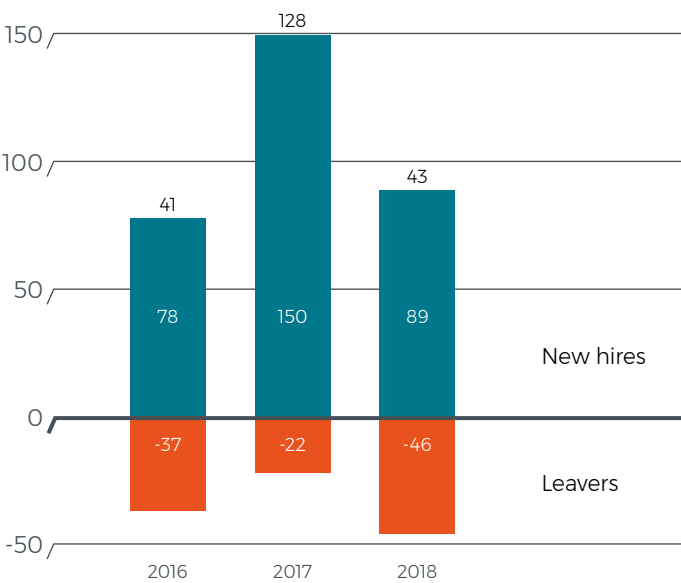
G4-EUS-EU15

Percentage of employees eligible to retire in the next 5 and 10 years (With an assumed retirement age of 65 for exempts and 63 for not exempts)	5 years	10 years
Exempts	2.86%	8.75%
Not exempts	10.12%	24.71%
Total	7.08%	18.05%

To address the future shortage of non-exempts, the HR department put into place a special hiring plan for this focus group.

2.5.2. New hires and leavers

NUMBER OF NEW HIRES AND LEAVERS



Calculation method

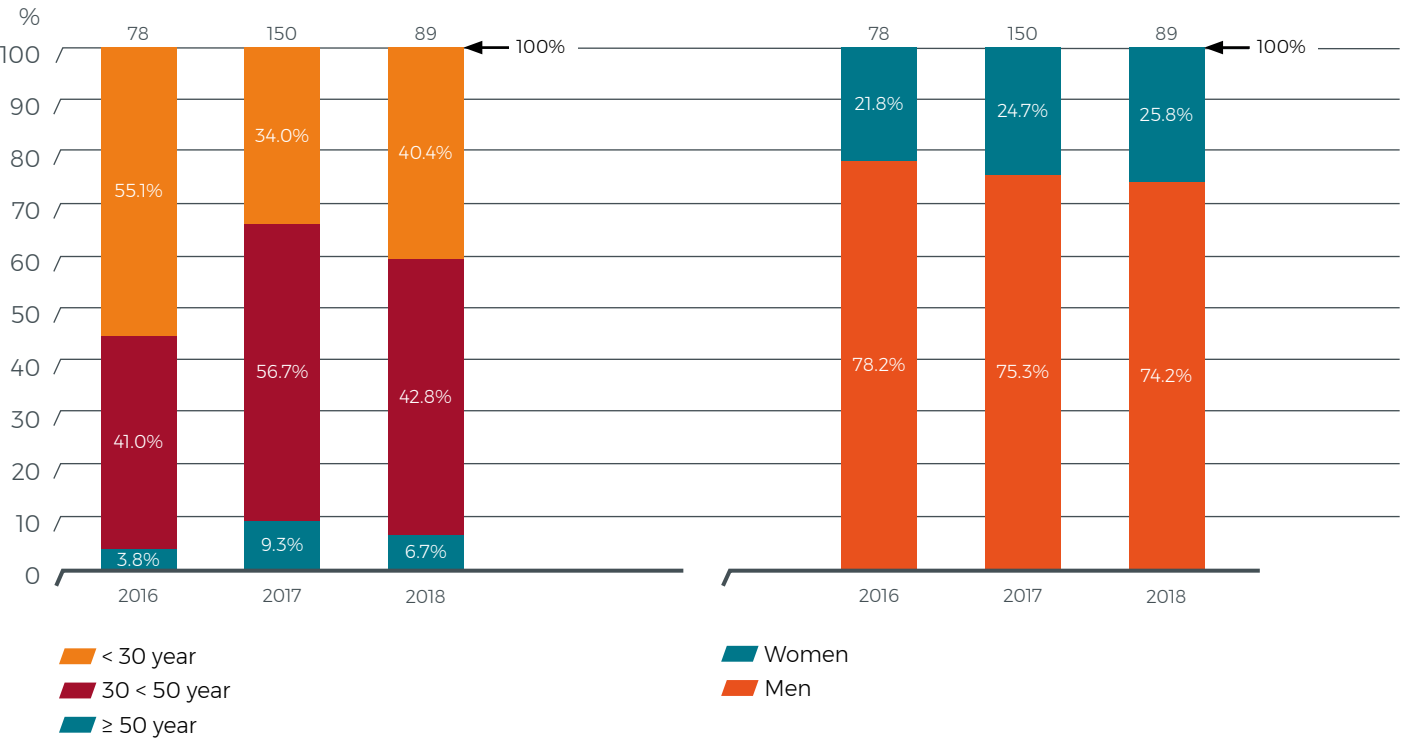
The new hires include all new employees within the planned budget and all the employees that were recruited as additions to the original budget. Changes in positions are not included.

The number of leavers is determined based on all employees leaving the company as a result of dismissal or resignation from 1 January to 31 December of the year concerned. Retiring employees are excluded from the scope.

After falling over the years, the number of employees leaving Elia increased in 2018 with 46 employees leaving the company, of which 15 were women and 31 were men. Two employees left for our sister company CORESO.

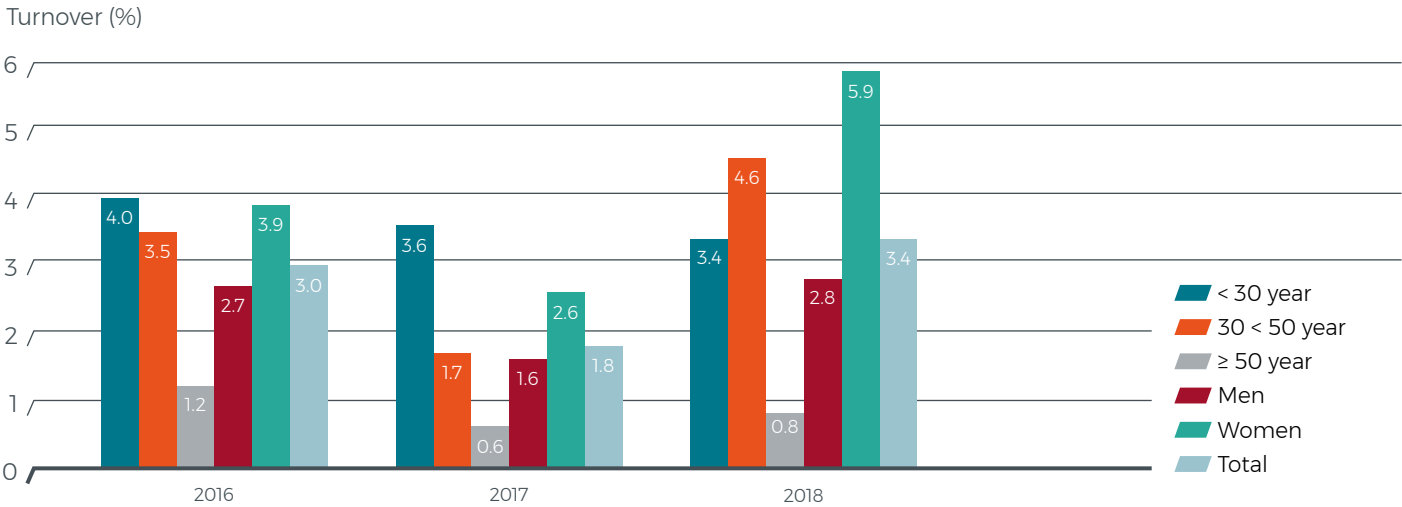
There is always an exit interview for leavers. After an historical low number of leavers, Elia moves towards the Belgian private sector average.

NEW HIRES PER AGE CATEGORY AND GENDER



Elia follows non-discriminatory hiring practices.

EMPLOYEE TURNOVER PER AGE AND GENDER CATEGORY



Employee turnover is determined based on all leavers divided by the total headcount on 31 December of the previous year. The employee turnover by age or gender category is based on all leavers in the respective category, divided by the total headcount in the same category on 31 December of the previous year.

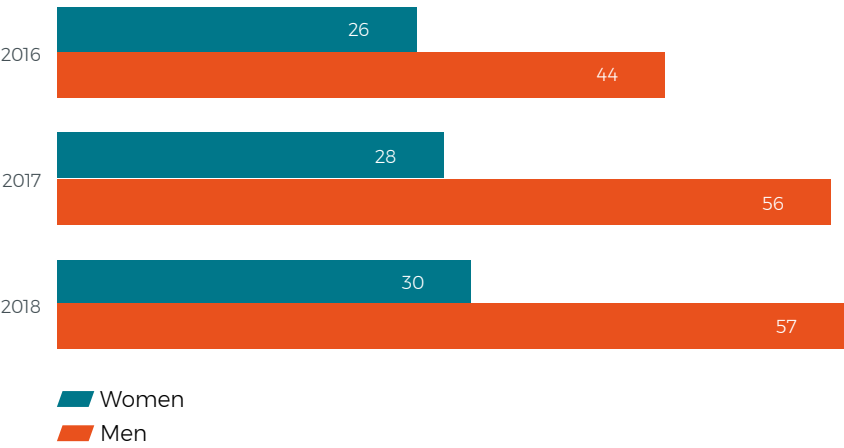
Women (5.9%) and employees aged between 30 and 50 (4.6%) are the biggest group of leavers.

The high number of leavers in 2018 reflects both the 'war on talent' (due to this regulated market, Elia cannot always offer competitive salary packages to some people whose technical skills are in high demand) and the limited career path evolution for some niche profiles with non-technical backgrounds. To face that challenge, Elia is proposing a more proactive career and talent management programme.

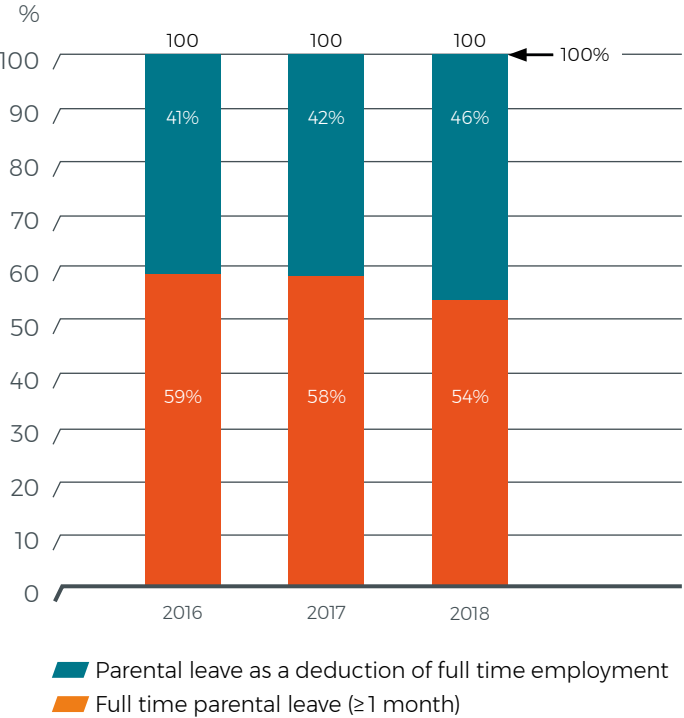
2.5.3. Parental leave

GRI 401-3

SPLIT PER GENDER



SPLIT BY TYPE OF PARENTAL LEAVE



In 2018, 87 employees (of which 57 were men) took parental leave, which is an increase compared to 2017. Most of them opted for a full-time parental leave but an increasing number are opting for leave as a reduction of their weekly working schedule.

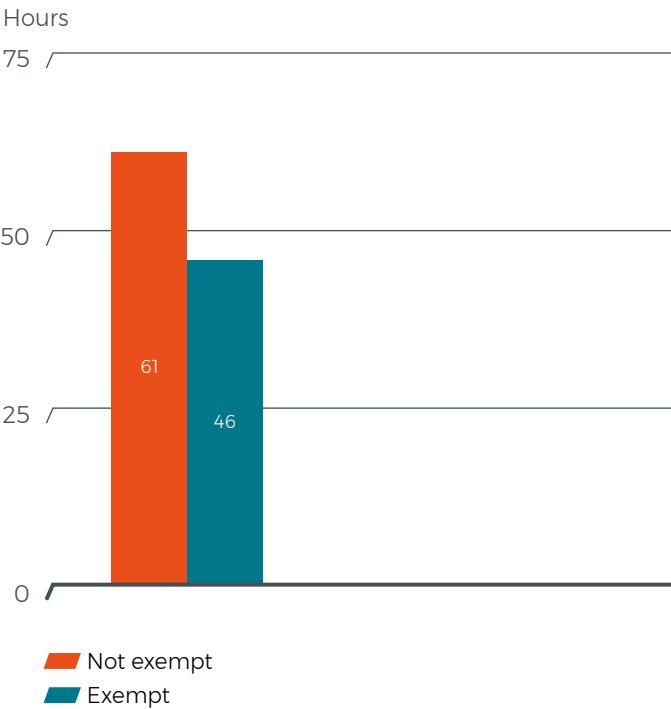
2.5.4. Employee Survey

An Employee Survey is realised every other year. No survey was made in 2018 but the results of 2017 were used to improve our HR policy by focusing on career management and by reviewing the internal performance and reward system.

2.5.5. Training

GRI 404-1

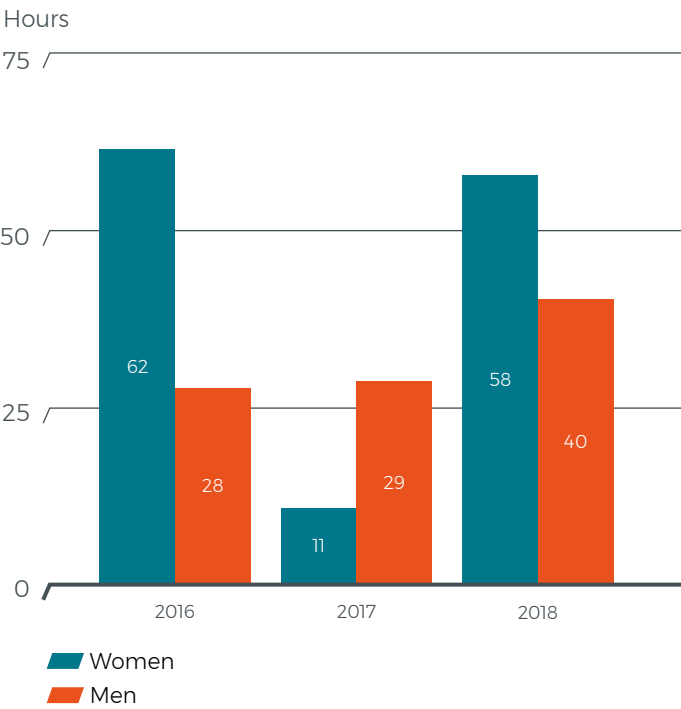
AVERAGE HOURS OF TRAINING PER LEVEL



The recorded hours underestimate the real training hours received. Part of the training received by exempts' is outside our records (on-line trainings, reading of technical papers, peer meetings, et al.).

*The term "exempt" means exempt from being paid overtime. In our case, that is all the employees that are not white collars (director, senior managers and direct leaders).

AVERAGE HOURS OF TRAINING PER GENDER



Most of the training offered is on technical and safety competences. This training is compulsory. The other training courses are not compulsory and are either arranged by the company or authorised following a request from the employee.

The percentage of women in technical functions is lower, leading to lower compulsory training and a lower training rate.

2.6 Safety

Read more about our Safety programmes on pages 88-91 of the Activity Report 2018

SDG 3, SDG 8, GRI 403-1, GRI 403-2, GRI 403-3, G4-EUS-LA6

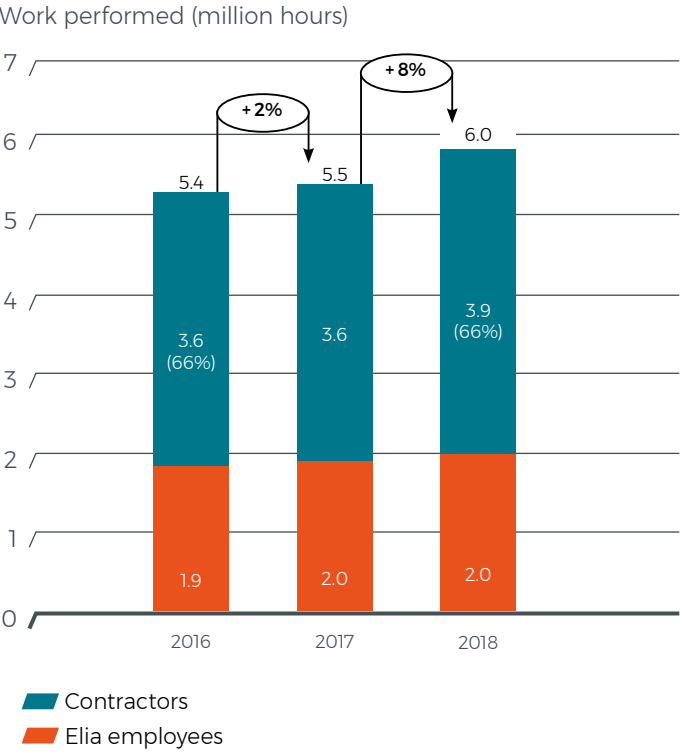
Electrical infrastructure is and always will be dangerous. That is why safety is our top priority in all that we undertake. As part of our commitment to safety, Elia Group is working towards a zero accident rate for all types of work-related accidents and not only electrical risks.

In Belgium, the GO FOR ZERO safety programme (begun in 2015 and planned until end 2019) aims to embed the safety culture within Elia and with contractors. It includes all projects.

After addressing training, tools and procedures, our main objectives in 2018 were the anchoring of the progress already made via the actions on operational dialogue and continuous improvement. Supported by our culture change programme, Make a difference, we continuously underline the importance of three key behaviours: "Give and receive feedback", "Have impact" and "One Voice".

With our "Keep your distance" campaign, we also aim to protect the general public and some target audiences such as the building sector and populations living near to our installations with signs, leaflets and other information campaigns.

2.6.1. A sharp increase in the work performed



Keeping the lights on while building the infrastructure of the future is a challenging task. We see year after year an increase in the work hours performed.

2.6.2. Concrete actions to train and to control

There was no new safety survey in 2018. We used the results of the survey in 2017 to work more on safety leadership, by defining our non-negotiable behaviours, by making our employees aware about road risks and through collaboration with our contractors.

Safety Weeks

Each year, Elia organises Safety Weeks for its staff in May and September in an effort to raise awareness about the importance of safety.

The programme included various communications, training sessions and team exercises, designed to ensure that everyone got involved and took the messages on board. In May 2018, the spotlight was on our "6 non-negotiables", i.e. behaviours that we no longer wish to see in the company. In September, we focused on "Safety on the road".

Safety training

Elia continuously trains its personnel. All field employees must follow a training path, which is periodically refreshed.

Elia also provides training material, training and tests to contractors (for instance, 1,290 people followed our new "Works Supervisor" training and 1,041 passed the test and were certified).

Safety inspections

After a big increase in the number of inspections in 2017, the focus from 2018 on is more on the quality than the number of inspections.

SAFETY INSPECTIONS



2.6.3. Data shows a low occurrence of work-related, employee accidents

Number of staff injured with at least one day of lost time by gender

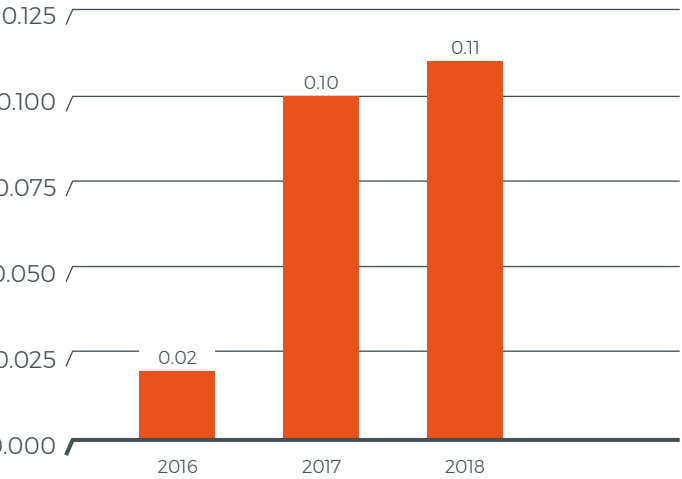
2016		2017		2018	
♀	♂	♀	♂	♀	♂
0	5	1	6	2	4

More than half of the accidents are related to office activities (slip and fall) and road traffic.

Expanding the safety culture beyond the technical departments is essential. In the last months of 2018 we started the Safety Leadership project to specifically address this.

MISSED DAYS (ACCIDENT SEVERITY)

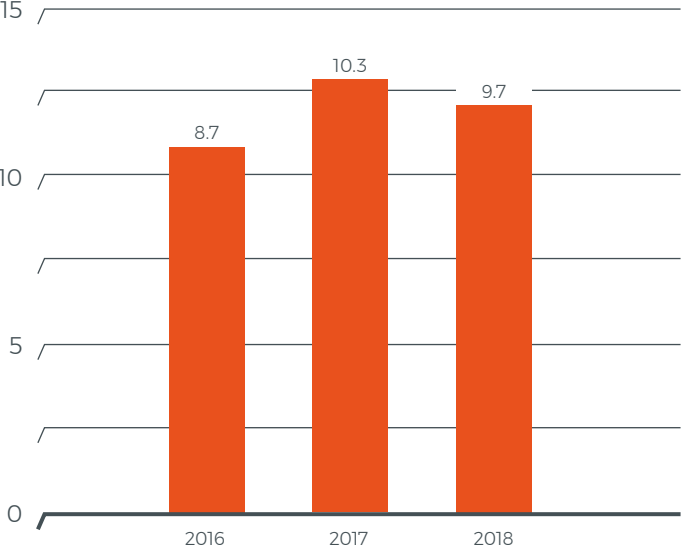
Accident severity



Number of missed days due to work-related accidents in calendar days x 1,000 / number of hours worked.

Almost all the missed days registered in 2018 are related to just 3 office accidents. There was no incapacity related to electricity.

AVERAGE NUMBER OF SICK DAYS PER EMPLOYEE



In general, employees had 10 sick days in 2018, which is in line with the previous years.

Calculation method

The average sick days per employee is calculated based on the total number of sick days divided by the total headcount on 31 December of the previous year.

2.6.4. Data also shows the importance and the pay-off of working on safety for both employees and contractors

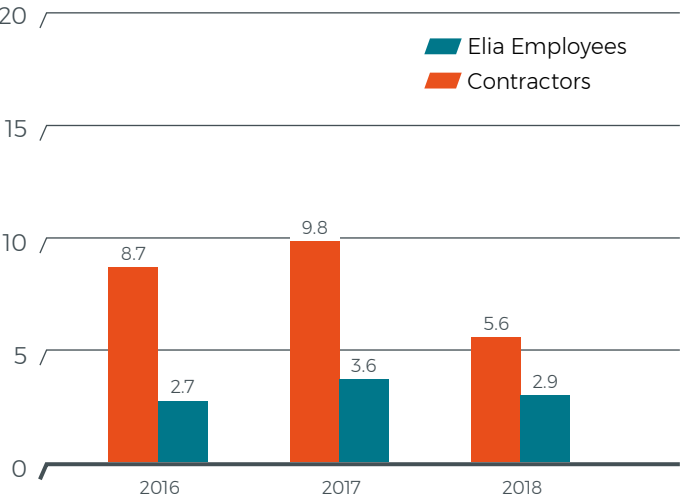
Contractors work more on technical sites and with fieldwork, so they are more exposed.

The Safety for Contractors project - part of the GO FOR ZERO programme - started three years ago and has meant that our contractors are much more aware about safety issues.

We made good progress on the rollout of the new High Safety Risk (HSR) process and the operational dialogue, which have a positive impact on the safety behaviour of our contractors.

ACCIDENT RATE

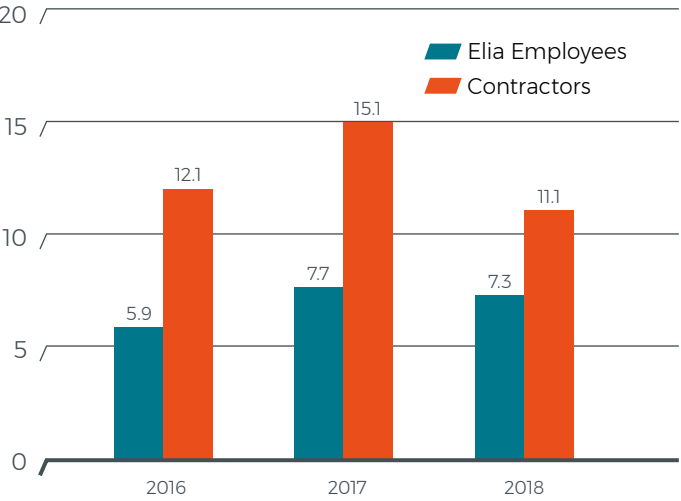
Accident rate



Number of work related accidents with missed time (>1day) x 1,000,000/number of hours worked

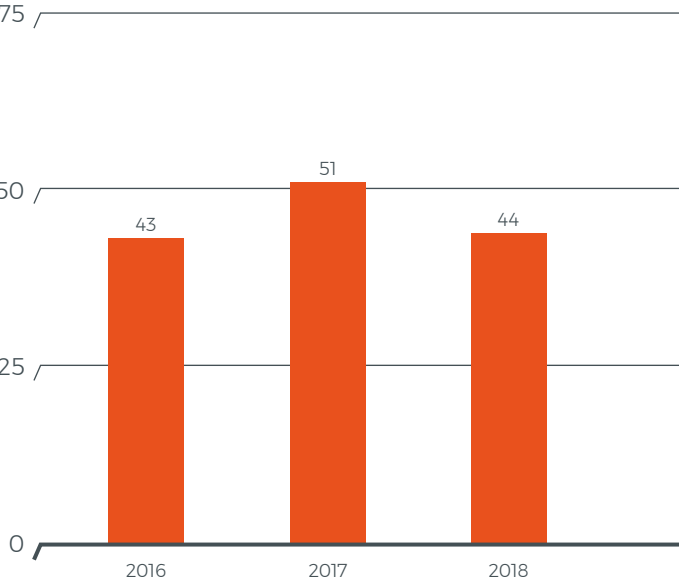
TOTAL RECORDABLE INJURY (TRI) RATE

TRI rate



Number of work related accidents x 1,000,000/number of hours worked

Number of contractor accidents with or without missed time



The decrease in the total number of accidents (while increasing the working hours) shows the importance of prevention. However, one of our contractors lost his life in performing his work in 2018.

2.6.5. Fatal accidents

Despite our efforts, we sadly recorded three fatal accidents in 2018.

Elia employees

2016		2017		2018	
♀	♂	♀	♂	♀	♂
0	1	0	0	0	0

Contractors

2016		2017		2018	
♀	♂	♀	♂	♀	♂
0	0	0	1	0	1

A fatal accident occurred on the 11th of December in Beringen during line works. The victim had started to work before all the safety measures were in place; he was electrocuted by the induction current from the parallel conductor.

This accident reminds us we still have work to do on the development of the safety culture of our contractors, despite the progress we already observe in the field. We must focus more on the leadership of our contractors and the competence of their staff at each level of the company, by intensifying our involvement.

Third parties

2016		2017		2018	
♀	♂	♀	♂	♀	♂
0	0	0	0	0	2

Third parties working in the vicinity of high-voltage facilities are not always aware of the dangers. Even just entering the danger zone around high-voltage conductors can trigger a fatal electric arc, even without direct contact being made.

Elia must be notified of all works in the vicinity of high-voltage facilities so that the Contact Centre can inform the relevant parties of the risks involved and the safety distances to be respected.

Despite extensive awareness-raising campaigns rolled out in recent years, works are still being performed without being reported to Elia in advance. Unfortunately, 2018 saw two fatal accidents involving electrocution caused by the victims getting too close to a high-voltage line and triggering an electric arc. These accidents occurred on 27 June during work involving a concrete pump in Sint-Katelijne-Waver and on 17 December during roofing work involving an aerial lift in Evergem.

Elia is expanding its campaigns and is also working on more preventive measures.

2.7. Suppliers and human rights

SDG 12, GRI 102-9

2.7.1. Supply chain management

GRI 308-1, GRI 308-2

Elia has to comply with the European tendering rules. The application of these rules and other internal guidelines ensure that every supplier is treated in a non-discriminatory and transparent way and that the information sent is treated confidentially. The selection of the suppliers and the award of the different contracts are based on the evaluation of multiple criteria. The exposure to social or environmental risks is mitigated by the fact that every purchase is performed by a multifunctional team, including specific representatives from environmental and/ or safety. Depending on the purchase, the selection and awarding criteria are adapted to ensure that the selected supplier is compliant with Elia’s objectives and values. CSR elements are integrated in the tendering contract, as well as within the general purchasing conditions, which are signed by the suppliers.

In 2018, Elia Belgium has developed a Supplier Code of Conduct, containing internationally accepted principles regarding ethical conduct, health and safety, environmental and social aspects.

In order to use this set of principles as a lever for a positive supply chain impact, we set up a risk-based approach. For all purchasing categories we assess risks based on traditional supply chain risks and supply chain sustainability risks. A matrix is drawn up to prioritise supplier engagement activities.

To rationalise resource and impact management we would like to focus on the suppliers, which are most relevant from that risk perspective. In 2019, besides having suppliers electronically confirm that they accept the terms of the Supplier Code of Conduct, we are planning to roll out an in-house, CSR Supplier Self-Assessment questionnaire to high-risk suppliers and some hand-picked, medium-risk suppliers to receive detailed information on where improvements are needed.

As from 2019, the Supplier Code of Conduct will systematically be part of the documents for European purchasing procedures.

2.7.2. Number of suppliers- EURO zone vs non-EURO zone

The data refer to the following Elia Group companies: ESO, EA, EE, EI and EGI Belgium.

	2016	2017	2018
EURO-zone suppliers	2,282	2,374	2,305
Non EURO-zone suppliers	74	92	116
Number of non-EURO countries with Elia suppliers	11	12	19

The number of suppliers for Elia Belgium outside the EURO-zone increases and is getting more diverse but it is still limited to 5%.

2.7.3. Split of yearly spend - EURO zone vs non-EURO zone

GRI 204-1



The last three years saw a strong increase of the total spend (+ 36%) due to the new offshore activities.

Spending outside the EURO-zone is still limited to 1.7% of the total amount. Moreover, it is concentrated in the same three countries of the previous year albeit in a different order : The UK (67%) is still ahead but the USA (16%) took the second position and Switzerland (7%) came in third.

Procurement outside the EURO-zone countries is very limited today and the environmental impact is also taken into account in the awarding criteria. Therefore, Elia complies with the high EU or Belgian standards in terms of environment, social responsibility and worker wellbeing.

A specific evaluation of the safety aspects is done separately since it is crucial for Elia to have suppliers on board that share the same view about the importance of safety.

2.7.4. Human rights

GRI 414-1

There is only limited impact on human rights violation for Elia as Elia’s activities are mainly based within Europe. The large majority of purchases outside Europe are IT and consultancy related.

2.8 Community and Client relations

SDG 17

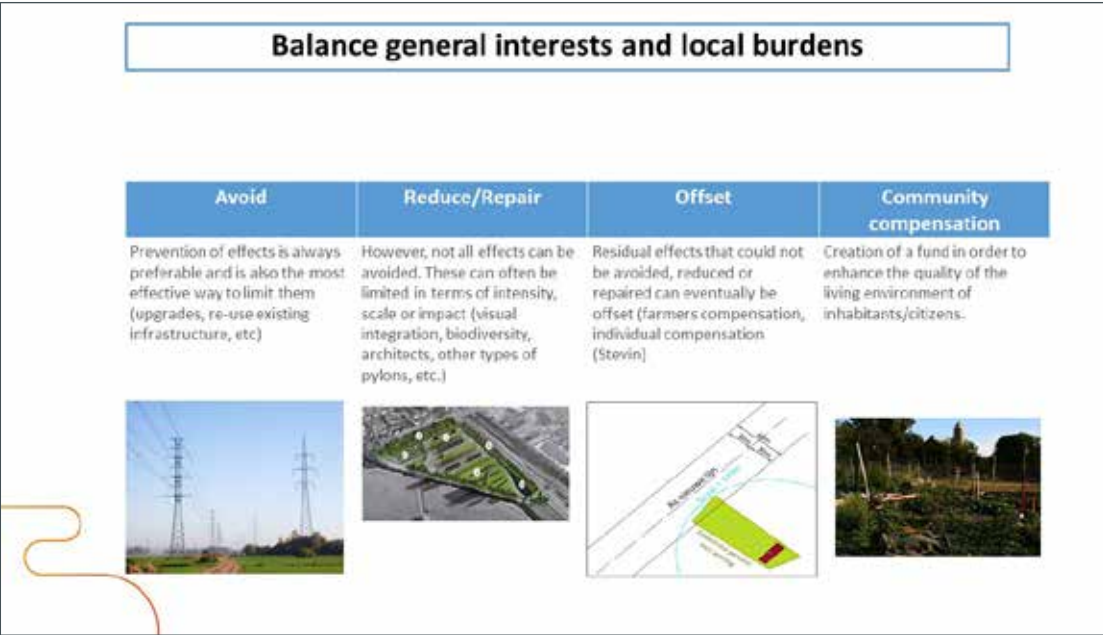
2.8.1. Public acceptance

GRI 102-29, GRI 413-1

We are convinced that early involvement with all stakeholders is vital for the success of the energy transition and for the huge projects needed to make it happen. Already in the early concept stage, we are working closely with all stakeholders such as local communities, associations, NGOs and various government organisations. We have set up several initiatives with governors and mayors who are indispensable when it comes to bringing all the interested parties together.

We developed an integrated communication and public acceptance methodology, integrating stakeholder and communication actions in a systematic way in the grid development and engineering process in order not only to control the risk of stranded costs but also to be able to realise the best project taking into account the interests of society.

We furthermore developed a public reference framework to mitigate the impact of the realisation of new infrastructure projects and to compensate for the remaining impact.



2.8.2. Customer Satisfaction Survey

GRI 417

Every two years, Elia measures the customer satisfaction level among its key stakeholders (distribution system operators, grid users, producers, access responsible parties, Users' Group, et al.). The main objectives of this survey are to provide an overview of the Key Performance Indicators (KPIs) related to service quality and their evolution over time.

The latest surveys were conducted in 2018 with 250 stakeholders. The KPIs measured by the Elia Satisfaction Index, reflect how stakeholders evaluate the products and services of Elia in general, the Customer Effort Score, reflecting the ease of doing business with Elia, the customer satisfaction regarding account management and image etc. The overall aim is to identify our

strengths and weaknesses among the different stakeholders in order to further optimise the customer relationship.

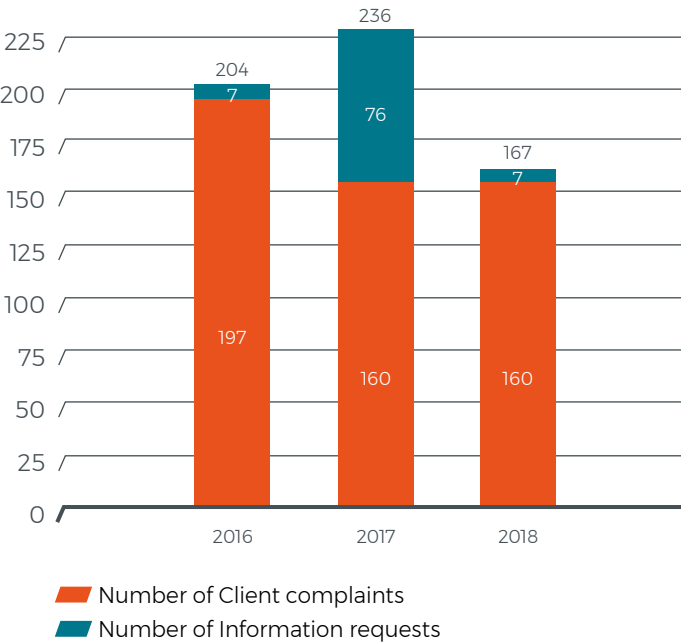
With regards to the Elia Satisfaction Index, Elia scored 66%, reflecting the high quality of products and services. The majority of the stakeholders still describe collaboration with Elia as "easy". Compared to 2016, there is a status quo on the evaluation of Elia's Key Account Managers. Regarding image, there were stable results for Elia's expertise and communication with a significant increase in the extent to which Elia innovates.

The survey highlighted the strengths that need to be maintained and priorities were set to further improve stakeholder satisfaction.

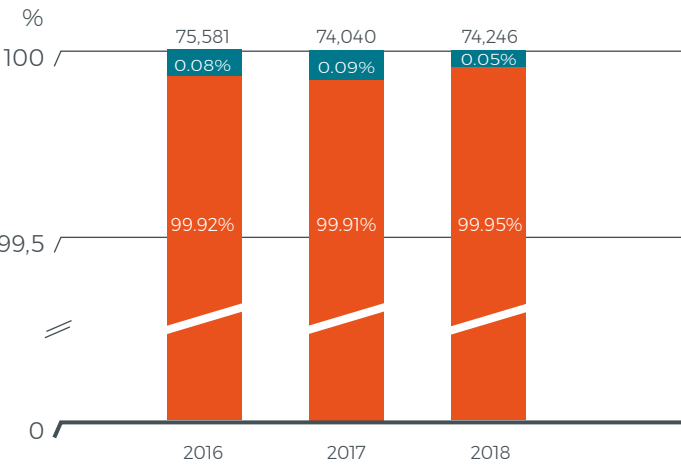
2.8.3. Requests received & handled at Contact Centre

Each year, Elia receives approximately 75,000 requests for information concerning works nearby its high-voltage network installations. These inquiries come from a range of sources including local residents, contractors, engineering firms, public authorities, utilities and project developers. The company provides information and instructions for working safely. Response times are based on statutory timeframes within which the Contact Centre must answer those requests. For example, the standard deadline for responding to routine requests is 7 working days from receipt. In 2018, 99.95% of all requests were answered within the set times.

Upon request via the Contact Centre, Elia offers free electromagnetic field measurements to the owners of land and buildings located near Elia facilities. In 2018, 134 questions about electromagnetic fields (EMFs) were received, and 85 measurements were performed. For the other 49 requests, only information was provided.



REQUESTS ANSWERED WITHIN 7 WORKING DAYS



2.8.4. Client information and complaints requests

These figures represent all information requests and complaints regarding power quality. The number of complaints and information requests is stable (the big increase of complaints in 2017 was due to just one incident).

However, the number of incidents have increased from 379 to 432 in 2018, resulting in an increase of requests coming from grid users directly connected to the Elia grid. The total number of information requests has not increased compared to 2017 thanks to a better collaboration between Elia and DSOs, resulting in a decrease of 23.3% of information requests coming from clients of the DSOs.

2.8.5. Corporate citizenship

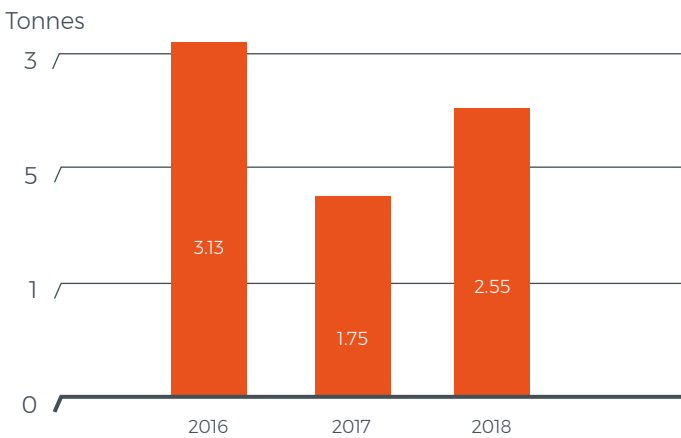
SDG 11

Several actions are reported in the Activity Report 2018 such as helping to find employment for refugees through training, collaboration with Be Planet to support local initiatives, educational projects, etc. More information on the subject can be found on pages 78-79 of the Elia Group Activity Report 2018.

Furthermore, any Elia employee involved in a community or charity-run project can request a contribution from Elia. The contribution is worth EUR 250 and can be applied for once a year. Elia donated a total of EUR 4,750 to 19 of these projects in 2018. Moreover, Elia Belgium donated almost EUR 12,000 to various initiatives such as financial support for chronically ill children in Africa, third world charities and sports events, amongst others.

As we did in 2017, we also report the data on the amount of hardware (laptops, docking stations, printers, screens and carrying cases) that received a second life, which were mostly donated to schools.

AMOUNT OF HARDWARE WHICH RECEIVED A SECOND LIFE



2.9. Environmental aspects

GRI 102-11

Environmental and social sustainability, as well as a clear commitment to environmental protection and the conservation of resources, are all integral components of the corporate strategy.

Our goal is to keep the impact of our corporate and construction sites and other activities on people and natural habitats to an absolute minimum.

We adopt the precautionary principle to reduce and avoid possible negative impact by doing studies (like studies in EMF), by calculating our carbon assessment for Belgium and by bringing climate risks into the regular risk management.

2.9.1. Low-frequency magnetic fields

GRI 416-1, SDG 3

Although no causal link can be established between electricity transmission infrastructures and human health, Elia takes this issue very seriously, both for each project that is carried out on the electricity grid and for scientific studies that improve the knowledge surrounding this matter.

For several years, Elia has been actively contributing to the progress of scientific knowledge by supporting various Belgian research centres and universities, grouped together in the Belgian BioElectroMagnetics Group (BBEMG). At an international level, Elia also supports the Electric Power Research Institute (EPRI), a non-profit organisation that conducts research in energy and the environment.

Each year, EUR 370,000 is spent on scientific research analysing the impact of low-frequency magnetic fields. The amount is fixed as Elia has contracts with the BBEMG and the EPRI.

See also chapter 2.8.3 concerning the free measurements on EMF.

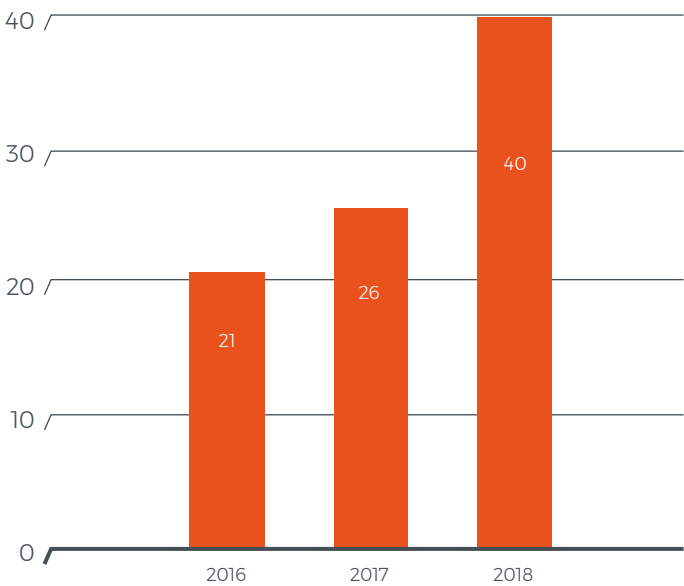
2.9.2. Noise

SDG 3

Elia's facilities cannot generate noise pollution. They are governed by acoustic standards, varying from region to region, which must be respected. Noise pollution can be caused, for example, by transformers in high-voltage substations, high-voltage lines and pylons. Underground lines do not make any noise.

Elia conducts noise studies if there are sufficiently founded complaints. In addition, soundscape studies are always carried out upstream of Elia's infrastructure projects to ensure that the standards are not exceeded.

NUMBER OF SOUNDSCAPE STUDIES PER YEAR



2.9.3. Biodiversity and landscape integration

SDG 14, GRI 304-1, GRI 304-2, GRI 304-3, G4-EUS-EN12

Elia's land-use can be divided into the following categories:

- surfaces under overhead lines (mostly on private land);
- surfaces over underground lines (mostly on public domain, such as roads);
- surfaces under the towers (sometimes Elia owns the small plot of land where the tower is);
- surfaces needed to build and maintain substations (the gravel must be kept free of weeds for safety reasons).

Most of the land used by corridors is not owned by Elia. Belgium law allows Elia to have lines and towers over private/public properties that can be on protected areas. The total length of the corridors in Natura 2000 areas is more than 320 km. Elia has some parts of land it owns that are managed for nature protection nearby protected areas, such as a marsh with ponds in (Merelbeke Flora, Ville-sur-Haine) where Elia encouraged amphibians to settle there by creating and maintaining ponds.

Overhead lines only change the surface where towers are, rarely where overhead conductors hang. There is a risk of collision and sometimes the electrocution of birds in areas with overhead lines and in substations (where the lines go down). Therefore, Elia is installing markers and nests to reduce the impact and to protect some endangered species.

For safety reasons (to prevent falls and short circuits), no trees are allowed to grow close to high-voltage overhead lines.

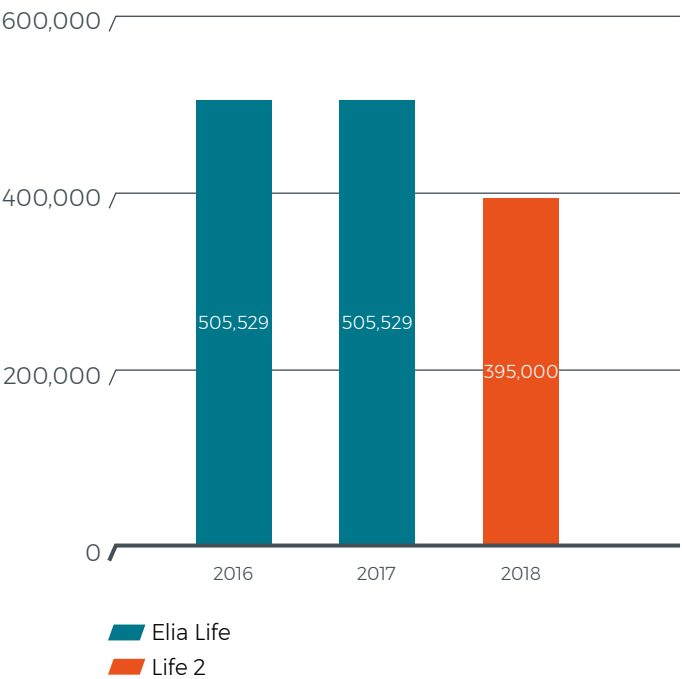
Sometimes this can have a beneficial effect: there are moors (les fagnes) that are better protected in the corridors under the overhead lines crossing them, because the rest of the moors were planted with trees for wood production and by draining these areas. In the vicinity of Bronrome, the most valuable moorland is in the corridor under the line for example.

However, until recently, the standard maintenance policy for overhead lines involved ensuring that a corridor of approximately 50 metres wide below the lines was kept clear of all vegetation with a rotary slasher every five, six, seven or eight years. Completing in 2017, the 'Elia LIFE+' project was a seven-year, Europe-wide project that aimed to transform 130 km of forest corridors into fully-fledged 'ecological corridors'. Instead of using rotary slashers, Elia restored more stable natural environments below the lines (using peat bogs, bushes and grasslands managed by grazing), better suited to biodiversity. Given the success of the project, in 2018 Elia decided to pursue this action for another five years without subsidies under the name "Life2". Special attention is given to the control and removal of invasive plants.

Landscape integration of Elia infrastructure and restoral after removal are also important. Elia also took action to integrate the project in the landscape: the use of indigenous plants protected the local biodiversity.

ANNUAL IMPLEMENTATION BUDGET FOR THE LIFE PROJECTS

Budget (euros)



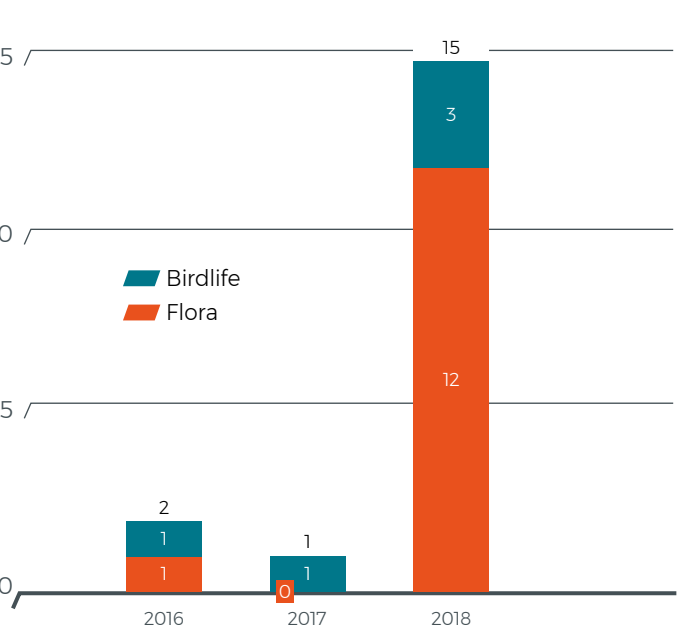
Since 2015, Elia has had a fixed annual budget of EUR 505,529 for the Elia-RTE LIFE project to restore natural habitats for fauna and flora at Natura 2000 and other sites. The Elia-RTE LIFE project ended in December 2017 but Elia has decided to continue the work by launching Life 2, despite no longer receiving funding from the European Commission and the Walloon Region. This second project will run until the end of 2022.

Life 2 : practical actions

The first Elia Life project has led to the creation of a new company (totally independent of Elia): Ecofirst.

In 2018, orchards (400 plants/ha) and forest edges (2,000 plants/ha) were created covering the surface of 7 hectares under the lines. This project started in both Wallonia and Flanders.

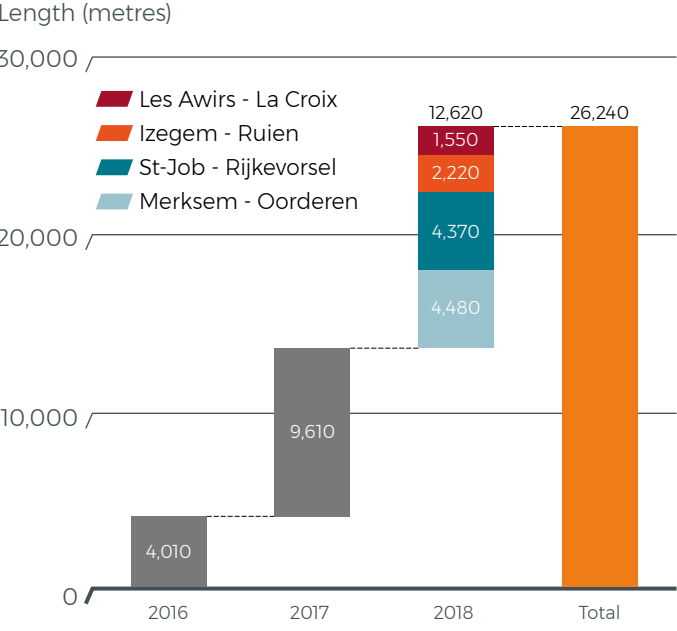
NUMBER OF STUDIES TO MONITOR A PROJECT’S IMPACT ON THE BIODIVERSITY



With the help of Belgium’s leading environmental associations, Elia has identified 130 sections of its network of overhead lines that pose the greatest hazard to birdlife. Measuring 200 km in total, they are gradually being fitted with bird anti-collision devices over a 10 year period (starting from 2016). If a project is due to take place on these sections, markers will be installed immediately. For sections without projects, we will take advantage of scheduled interventions to fit markers on conductors or earth connections.

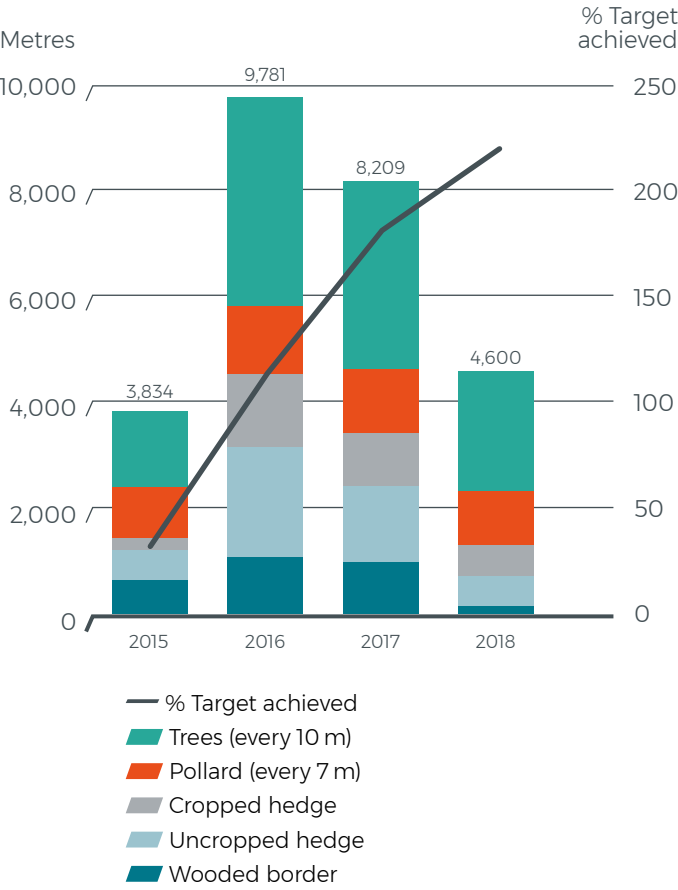
In 2018, Elia almost doubled the lines with bird markers attaining 26.2 km.

PROTECTING BIRDS BY INSTALLING MARKERS



Sustainable integration of installations in the Stevin project (Elia Belgium)

During the Stevin project, Elia worked hard to minimise the impact of its installations on the landscape by planting large numbers of trees and shrubs. Elia largely exceeded the initial target.



The ‘green screens’ plantations linked to the Stevin project ended in 2018. People living nearby overhead lines gave Elia permission to plant trees and shrubs on the boundaries of their property, in order to hide the line from view. People were informed of this possibility and were contacted by a local landscape protection organisation to make a plan about how best to hide the line, and this was at the expense of Elia. This effort was not a requirement of the permit.

2.9.4. Soil

Soil surveys have been carried out on more than 200 sites in Flanders in accordance with contractual agreements and Flemish legislation. Over the years, significant soil contamination was found on some sites (mainly attributable to historical pollution arising from earlier or nearby industrial activities) and several remediation actions have been launched.

The soil legislation was enforced later in the Brussels-Capital Region and Wallonia. Since 2014, Elia has developed a plan to map the soil condition of its own land in those regions in order to schedule the intervention priorities in accordance with existing and new soil legislation, which came into force on January 1, 2019 for the Walloon Region.

In 2018, EUR 670,000 has been paid out for surveys, follow up and the realisation of remediation works in Flanders and EUR 515,000 in the Brussels-Capital Region and Wallonia.

Continuous monitoring is needed. In 2018, for instance, a site with substantial soil pollution has been detected and flagged up to the Brussels regional authorities. Elia will propose an action plan in 2019.

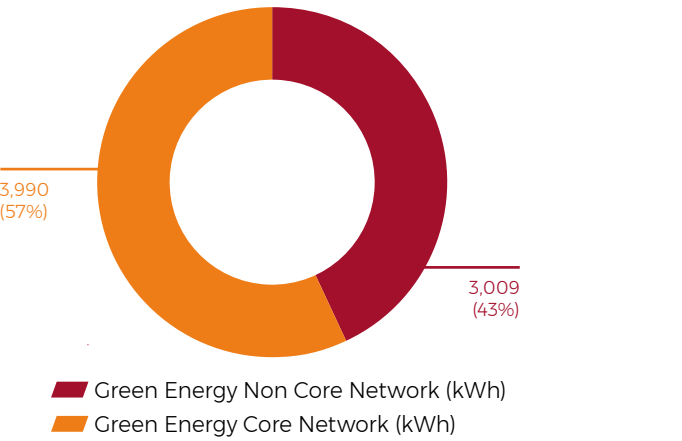
BUDGET (MILLION EUROS)

	2016	2017	2018
Flanders	0.5	0.5	0.7
Brussels-Capital Region and Walloon Region	0.7	0.6	0.5

2.9.5. Energy and greenhouse gases

GR1 302-1

Electricity consumption within the organisation



The electricity consumption of Elia is divided in two parts: core (substations, et al.) and non core (administrative centres). Other forms of energy (use of natural gas) are included in our carbon assessment.

SF6

GRI 305-1

SF6 gas has been used for over 30 years as an electrical insulator in high-voltage devices, including gas-insulated switchgear (GIS). GIS is often used in densely populated areas because it is much more compact when compared to traditional switchgear which uses air as an insulator. Elia has developed an investment and maintenance policy to reduce the risk of SF6 leakage. Manufacturers must guarantee a very stringent maximum percentage of SF6 loss throughout the lifetime of the facilities. The maintenance policy aims to keep operations involving compartments filled with SF6 to a minimum. The volume of SF6 gas installed on the Elia grid (36 kV to 380 kV inclusive, excluding the NEMO substation) is 111.9 tonnes. Consumption of SF6 gas (as a replacement and as a top-up in the event of a leak) is closely monitored using a system that tracks each cylinder of SF6. The SF6 leak rate for all Elia facilities was 0.34% in 2018.

Carbon assessment

SDG 13, GRI 201-2

Delivering the necessary grid infrastructure is key for the energy transition to happen. As we integrate more and more variable renewable electricity and as electricity exchanges at European level increase, our investment programme is vitally important to guarantee a reliable, affordable and sustainable energy system in the future. In 2018 we inaugurated a first subsea interconnector with the UK. Soon we will install the first element of the Modular Offshore Grid in Belgium. The decisions on such investments are taken by the Executive Committee and approved by the Board of Directors. The various investment plans are also approved by the responsible (regional) regulator or government, depending on the applicable legislation.

Additionally, the integration of volatile renewable energy in the system is challenging and demands the development of new tools and processes and the reinforcement of our collaboration with all market players.

GRI 305-1, GRI 305-2, GRI 305-3

Elia has been conducting a carbon assessment since 2010 to identify direct and indirect emissions from its activities in Belgium and is taking steps to control and reduce greenhouse gas emissions from its activities.

Since 2017, Elia has participated in the CDP, an international, not-for-profit organisation providing a global system for companies, investors and cities to measure, disclose, manage and share environmental information. For climate change, a company's score is made up of two factors:

- the level of detail and the comprehensiveness of its responses, and
- its awareness of climate issues, management methods and its progress on acting on climate change.

For Belgium, Elia's Supplier Engagement Rating for 2018 is B.

In 2019, the scope of the Carbon assessment will be broadened (it will also include the emissions in Germany) and the methodology and goals will be reviewed. The data for 2018 will be calculated in accordance with the new methodology and reported in the annual report for 2019.

A first approximation of the 2018 emissions is given by the data calculated in 2017. The total emissions for the following companies ESO, EA and EE were estimated at 368,439 Teq CO₂.

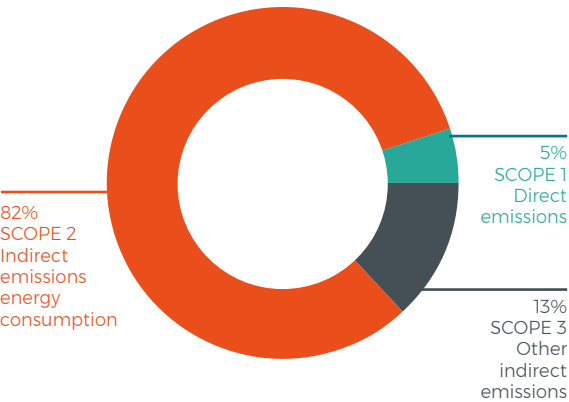
These emissions can be divided in the following three groups ("scope"):

Scope 1: direct emissions of greenhouse gases from owned or controlled sources. For Elia, they are mainly due to SF6 leakage and natural gas consumption for heating.

Scope 2: indirect emissions from the generation of purchased energy. For Elia, the main part is due to grid losses.

Scope 3: all the other indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions (by buying goods and services, employee commuting, et al.). For Elia, they are mainly generated by the construction and dismantling of our assets and network.

CARBON ASSESSMENT



3. 50Hertz in Germany



3.1. Sustainability management

3.1.1. Business model

GRI 102-1, GRI 102-2, GRI 102-3, GRI 102-4, GRI 102-6, GRI 102-7, GRI 102-9, SDC9

50Hertz* operates one of Europe’s most modern electricity transmission grids in northern and eastern Germany, thereby ensuring 18 million people are supplied with electricity – 24 hours a day, 365 days a year. In eight locations, 50Hertz acts as an interface between energy producers on the one hand, and both distribution grid operators and major consumers on the other, with 1,045 employees to supply electricity around the clock. 50Hertz operates 10,390 kilometres of lines and coordinates the electricity market players in the grid area, manages and coordinates balancing groups and puts electricity from renewable energies that is not directly sold onto the electricity exchange. In order to help successfully shape the energy transition, 50Hertz is developing innovative solutions to aid the system and market integration of intermittent renewable energies.

50Hertz has a “natural monopoly” with its transmission grid in its grid area, i.e., in northern and eastern Germany the Company is the only operator of the extra-high-voltage grid and is therefore subject to regulatory oversight by the national regulatory authority, the Federal Network Agency. The regulatory system has a substantial impact on the business model. The Federal Network Agency also sets the annual revenue cap, upon which the network user charges for 50Hertz are based.

For further information please see Elia Group Activity Report Page 16.



* Refers to 50Hertz Transmission GmbH and its fully-owned subsidiary 50Hertz Offshore GmbH.

3.1.2. Memberships

GRI 102-12, GRI 102-13, SDC17

50Hertz is involved in various societies, associations, and initiatives in the field of renewable energies, climate and environmental protection, human rights and harmonisation of the European electricity market.

	Energy	Climate	Environment	Human Rights
AVEU Arbeitgeberverband Energie- und Versorgungswirtschaftlicher Unternehmen e.V. [employers' association of energy and utility companies]	✓			✓
BDEW – Federal Association of the Energy and Water Industry	✓			
German committee of CIGRE Conseil International des Grands Réseaux Électriques	✓			
ENTSO-E – European Network of Transmission System Operators for Electricity	✓		✓	
Go15 – Reliable and Sustainable Power Grids (indirect through Elia)	✓		✓	
RGI – Renewables Grid Initiative	✓	✓	✓	
UN Global Compact		✓	✓	✓
VDE-Elektrotechnischer Verein e.V. [electrotechnical association]	✓			
World Energy Council	✓			
Diversity Charter				✓

3.1.3. Values, principles, standards and codes of conduct

GRI 102-16, GRI 102-17; GRI 102-19, GRI 102-20, GRI 102-26, GRI 102-32, GRI 102-33

For 50Hertz, business activity that is successful in the long term is achieved by acting in the best interests of the Company, as well as in the interest of society. This is reflected in the Company's vision: “A successful energy transition – for a sustainable world”. 50Hertz has made it its mission to make the energy transition possible. The Company has set itself five strategic goals to fulfil this task in the best way possible. Thus 50Hertz wants to maintain the highest possible level of supply reliability, expand the transmission grid to meet demand, achieve a competitive and sustainable result, further improve efficiency, and foster its value-based corporate culture with a strong focus on occupational safety. The sometimes opposing objectives and interests of 50Hertz and its stakeholders are to be reconciled as much as possible. Maximum transparency, for example, which is also embodied in this report, provides the basis for this.

50Hertz expresses its commitment to responsible corporate management in its Company Charter, which lays out its intention to comply with the 10 principles of the UN Global Compact with regard to human rights, work standards, environmental protection and the fight against corruption. 50Hertz joined this global values alliance in April 2017 and since then has been active in the Global Compact Network Germany. Company doc-

umentation is also available to our employees containing all applicable guidelines, directives and manuals, work instructions, process handbooks and company agreements. The Company Charter and guidelines set out what is meant by correct corporate conduct and make clear the fact that all employees must comply with the law. These principles flow into organisational measures that are binding for the whole Company.

Under the overall responsibility of the Chief Financial Officer, the Corporate Development Department has defined a sustainability concept and a measures roadmap for the steady expansion of sustainability reporting, while the Communications and Public Affairs Department continues to define the reporting processes.

The importance of constantly expanding sustainability management is clear from its inclusion in the annual business plan, which is valid for five years. As part of the sustainability strategy, objectives, indicators and measures are systematically developed, reviewed and integrated into the corporate strategy. A company-wide committee at senior management level (CSR* Board) oversees this, from the development of measures to reporting presided over by the Chief Financial Officer and the Chief Human Resources Officer. The CSR Board meets twice a year to agree on targets and processes.

The various departments, units and teams are responsible for implementing the individual measures of the Company, as well as for defining and recording the performance indicators. The

* CSR = Corporate Social Responsibility

core CSR team meets every quarter for this purpose. In these meetings, the progress of implementation is discussed, as well as possible critical concerns raised by stakeholders. Data controllers make performance indicators understandable and available to the whole Company on the central transparency management platform. In the regular risk analysis and at an annual risk conference, sustainability aspects are also discussed with the management and assessed. In addition, certified management systems, such as OHSAS 18001 in occupational health and safety and ISO 27001 in information security management, as well as internal management systems based on recognised standards, including environmental management (according to ISO 14001) and early public participation (according to VDI 7000), are used in the core areas of CSR.

3.1.4. Relevant legal framework

GRI 419-1

50Hertz always acts in accordance with the law. Its business activities are subject to numerous national and European regulations. The following main laws and European regulations provide the framework for our business activities:

- the EnWG [“Energiewirtschaftsgesetz”: German Energy Industry Act]
- the EEG [“Gesetz für den Ausbau erneuerbarer Energien”: German Renewable Energy Sources Act]
- the NEMoG [“Netzentgeltmodernisierungsgesetz”: German Grid User Charge Modernisation Act]
- the KWKG [“Kraft-Wärme-Kopplungsgesetz”: German Combined Heat and Power Act]
- the BImSchG [“Bundes-Immissionsschutzgesetz”: Federal Immission Control Act]
- the BNatSchG [“Bundesnaturschutzgesetz”: Federal Act for the Protection of Nature]
- the German Digitisation of the Energy Transition Act
- the EU Energy Efficiency Directive
- the Fauna-Flora-Habitat (FFH) Directive
- the EU Birds Directive

In the fiscal year 2018, the federal cabinet approved the amendments of the NABEG, which will have an important influence on our business activities. The proposed legislative amendments mainly comprise the simplification and acceleration of approval procedures for laying, strengthening and optimising power lines. The gradual national standardisation of the transmission grid user charges, first set out by the NEMoG in 2017, was refined in 2018 with changes in the StromNEV and ARegV, and has resulted in the first 20% national share of network user charges. In addition, effective 1 January 2019, the NEMoG has incorporated the refinancing of grid connection costs for offshore wind farms from network user charges to a new offshore grid levy according to Sec. 17f EnWG. At a European level, the “Clean Energy for All Europeans” package was negotiated and finalised at the end of 2018.

3.1.5. Political influence

GRI 102-16, GRI 415-1

Because legislative activities have a major impact on the business activities of 50Hertz, the company represents its positions transparently and publicly as part of the political process. This is the responsibility of the Communications and Public Affairs department. This political communication is conducted responsibly and without donations to political parties. Ethical principles for political lobbying were set out. The guidelines on conduct in the political arena, which apply for the whole company and are agreed with the management, define these principles. They stipulate that 50Hertz makes no donations to politicians, parties, or political institutions, and when providing sponsorship ensures appropriate consideration and proper balance. Responsibility for contributions to party-affiliated foundations and associations is embedded centrally in the Communications and Public Affairs department. In this way, together with specific training programmes, 50Hertz ensures that employees who are active in terms of social and energy policy are guided in their communications and their actions by clearly defined principles. Furthermore, 50Hertz is entered in the EU Transparency Register and is committed to its Code of Conduct. In 2018, 50Hertz did not make any contributions to politicians or political parties.

3.1.6. Anti-corruption

GRI 205-1, GRI 205-2

The Company Charter and guidelines on preventing corruption set out 50Hertz’s understanding of correct ethical conduct and make it clear that the Company complies with the law and does not tolerate corruption. These principles flow into organisational measures that are binding for the whole Company.

Since 2010, 50Hertz has had a policy in place that regulates the whistleblower system and prescribes the establishment of an internal Compliance Committee and an external ombudsman. The Compliance Committee comprises one member from Legal Affairs, one member from Human Resources and a compliance coordinator. The ombudsman reports to the Compliance Committee once a year in writing about how it has been used and the number of tip-offs received. If the ombudsman passes on a justified tip-off to 50Hertz, the Compliance Committee is convened immediately to deal with the case in hand and take further internal action if necessary. The Committee reports to the management of 50Hertz annually and on an ad hoc basis as required. In 2018, the ombudsman did not receive any tip-offs about corruption. No significant fines were imposed on 50Hertz in the fiscal year 2018 in connection with general business activities, power line construction projects or operations. The reporting threshold for administrative offences was set at EUR 25,000.

50Hertz also regularly provides all employees involved in the procurement process with training on the basics of procurement, anti-corruption and compliant behaviour. Since 2016, 19 training sessions have been held across different sites for 200 employees from throughout the Company. For 2019, 4 training sessions are planned for an expected 50 participants.

3.1.7. Risk management

GRI 102-30, GRI 102-11, GRI 202-2

As part of its systematic risk management, 50Hertz regularly surveys and assesses the following risk areas:

- Protection of life and limb
- Profit and loss
- Liquidity
- Reputation
- Supply reliability

50Hertz aims to avoid risks to the Company’s continued existence, to reduce risk positions as much as possible where feasible and to optimise the opportunity/risk profile. Risk guidelines set down how risks are systematically identified, recorded, assessed and monitored on a quarterly basis. A risk conference is held once a year in which all department heads (second management level), as risk owners, and the risk manager meet with the management to discuss the most significant risks and risk-related issues. In the area of CSR, for example, these are occupational safety and new requirements from environmental legislation. In the upcoming months the risks assessed and monitored will be extended related to risk based on climate change.

In the sense of a holistic approach to risk management and the principle of precaution, 50Hertz involves suppliers and the associated processes. The company has anchored requirements regarding occupational safety and environmental protection in its purchasing and procurement policy, which are binding for all suppliers. In the future 50Hertz will analyse its influence on the structure of the sustainable supply chain in detail, expand upon documents relevant to its suppliers on sustainability related aspects and make its business partners even more aware of occupational safety, health protection and environmental protection topics.

3.1.8. Security

G4-EUS-DMA DISASTER/ EMERGENCY PLANNING AND RESPONSE

As an operator of critical infrastructure, 50Hertz is required to ensure information security under the IT-SiG [“IT-Sicherheitsgesetz”: IT Security Act]. Information must be processed, stored and communicated such that the availability, confidentiality and integrity of the information and the systems are adequately ensured.

To this end, an information security management system was introduced in 2017 and certified in 2018 in accordance with ISO 27001. This established security process ensures that IT risks are systematically identified and addressed. In particular, security alerts and warnings that are issued by the German Federal Office for Security Technology (BSI) are recorded and evaluated as part of this process. If required, necessary protective measures are derived and implemented. In the reporting year, no targeted cyberattacks on 50Hertz were registered and no damage from information security incidents was recorded. 50Hertz employees, as well as temporary and external employees, participated in an online training session on information security in 2018.

In January 2018, 50Hertz received the ISO 27001 information security management system certification, as a result of which 50Hertz has to fulfil its obligation as an operator of critical infrastructure on the basis of the IT security catalogue of the Federal Network Agency. In November 2018, the repeat audit was performed.

For 50Hertz, security goes beyond its corporate boundaries. Therefore, both internal and external stakeholders receive training in crisis management and communication in the form of regular crisis team exercises, among other things. As a result of this, not only existing structures, processes and reporting channels are evaluated and continuously improved, but the crisis team participants and employees also receive intensive training on how to deal with unexpected events under special stresses and quickly make appropriate decisions to manage crises. These and further measures aim to continuously and holistically increase the resilience of 50Hertz.

3.1.9. Materiality and objectives

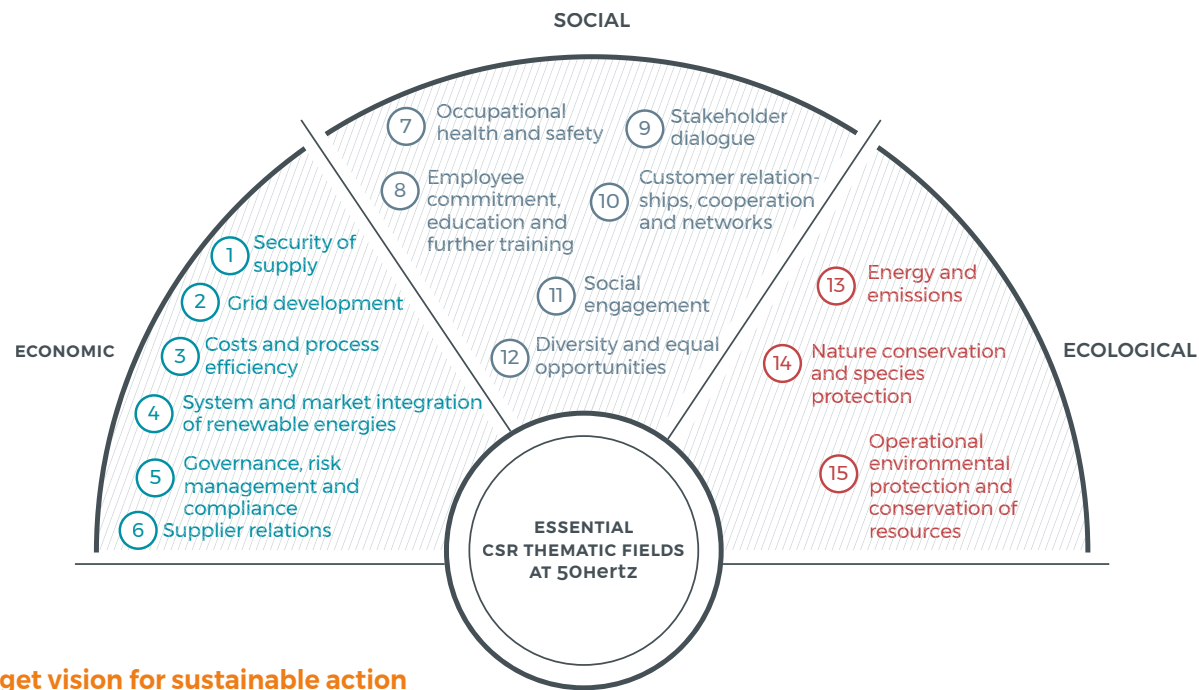
GRI 102-15, GRI 102-46, GRI 102-47, GRI 103-1, GRI 103-2, GRI 103-3

50Hertz examined the economic, environmental and social impacts of its business activities pursuant to the Global Reporting Initiative (GRI) standards for sustainability reporting. The general aspects listed there were translated into topics that are relevant for 50Hertz and aligned with the interests of our stakeholders by means of benchmarks, peer group reports and employee surveys. A detailed survey of stakeholders was conducted in the fourth quarter of 2017 with the aim of systematically developing the materiality analysis and sustainability management.

Our stakeholders include our partners, the public, non-governmental organisations (NGOs), politicians, regulatory agencies, investors, the media, customers, suppliers and representatives of 50Hertz employees. The qualitative survey confirmed the key areas of the report. In 2018, the process for obtaining a common materiality analysis was launched at the level of Elia Group. This process will be continued in 2019. For this reason, the further differentiation of the main topics from 50Hertz with regard to boundaries and description is postponed until the result of the joint materiality analysis.

3.1.10. Stakeholders

For a detailed report concerning 50Hertz stakeholders, please see chapter Stakeholder Engagement in this part of the report.



Our target vision for sustainable action

- 1

- High security of supply through sustainable system, market and grid operation
 - Top performance in comparison to other grid operators
 - Certified information security management system
- 2

- Need-based grid expansion
 - Reduction of connection costs for off-shore wind farms
- 3

- Continuous improvement of process efficiency
 - Sustainable increase of cost efficiency
- 4

- Comprehensive system integration of renewable energies, among other things, through physical grid connection of particularly system related components particularly
- 5

- Improved cooperation in the three GRC fields
 - Strengthening the internal control systems and the compliance function
 - Set-up of a supervisory committee at holding level
 - Introduction of a tax compliance management system
- 6

- Consideration of environmental awareness and occupational safety standards for selection of suppliers
 - Increase ratio of companies with the appropriate certification
- 7

- Prevention of work-related accidents
 - Promoting awareness for safe behaviour
 - Recertification of the occupational safety management system
- 8

- High employee commitment
 - Promotion of needs and target-oriented development and further training
 - Offering internal development and career opportunities
- 9

- Early public participation
 - Applying the 50Hertz standards regarding information, dialogue and participation to all relevant projects
 - Establishing a lessons learned process, including evaluation for public participation
- 10

- Intensifying cooperation and networks with customers and with politically and socially relevant stakeholders
 - Reliable and timely communication with customers
 - Use of customer surveys as a basis for further improvements
- 11

- Appropriate, systematic support for social, cultural and community projects
- 12

- Equal and fair participation of all employees
 - Supporting people with disabilities in working life
 - Maintaining the gender quota for all management levels
- 13

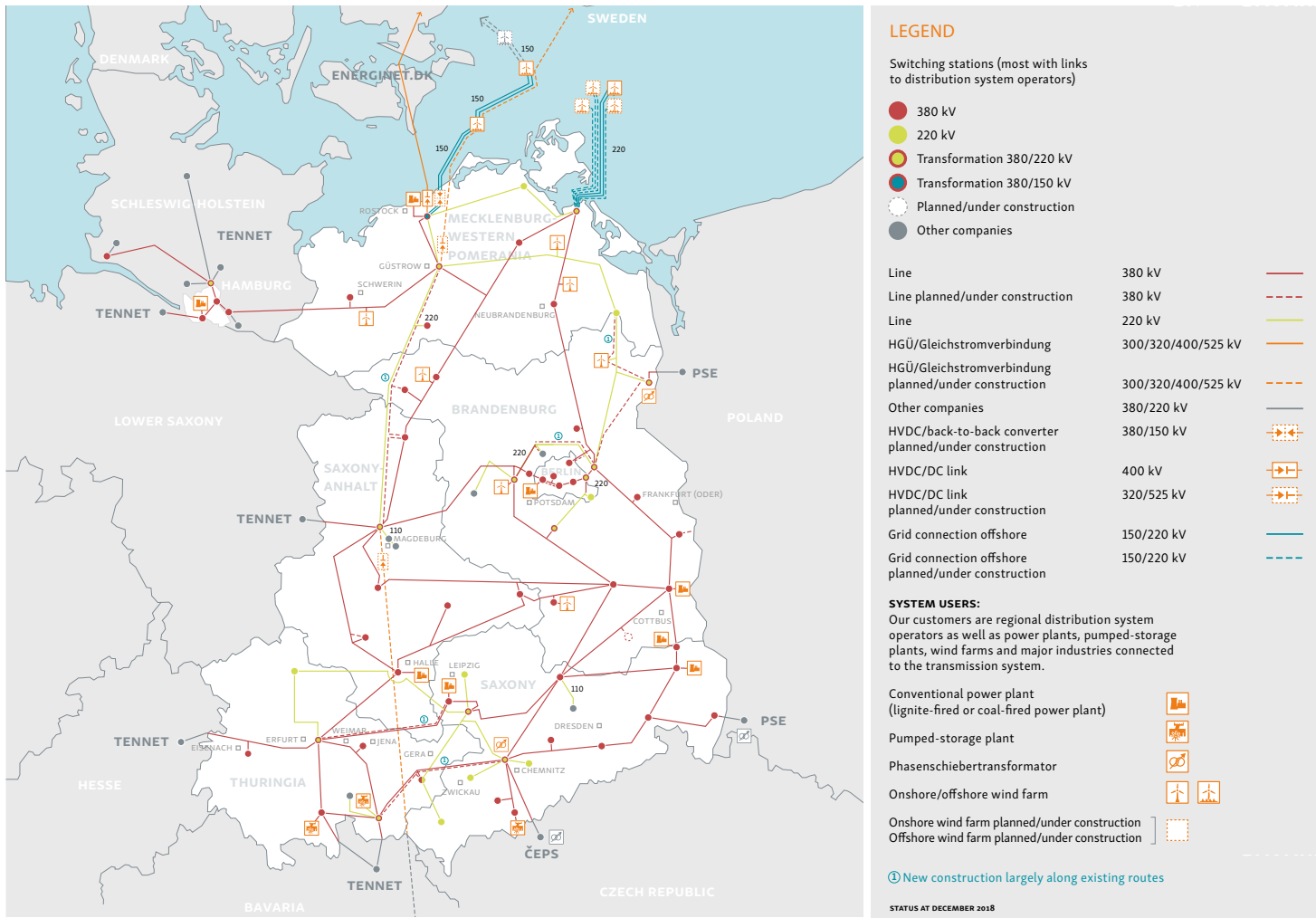
- Minimising controllable energy consumption and emissions
 - Replacement of the SF6 greenhouse gas
- 14

- Minimising intervention in nature and the landscape when building lines and substations
 - Implementing compensation measures with the greatest benefits to the whole of society
 - Forward-looking, intervention-minimising and ecologically sustainable line and route planning
 - Better protection of birds and amphibians
- 15

- Prevention and recycling of waste generated when building, operating and demolishing plants

3.2. Grid

SDG9



3.2.1. Total length of lines

G4-EUS-EU4

Total length of lines	2016	2017	2018
Thereof overhead lines 380 kV	7,225 km	7,245 km	7,250 km
Thereof overhead lines 220 kV	2,647 km	2,612 km	2,607 km
Thereof sea cable 220 kV	-	-	190 km
Thereof sea cable 150 kV	270 km	270 km	270 km
Thereof underground cables - various	73 km	73 km	73 km
Circuit length in total	10,215 km	10,200 km	10,390 km

3.2.2. Substation and switching stations

Total length of lines	2016	2017	2018
Substations	63	65	65
Switching stations	6	7	8

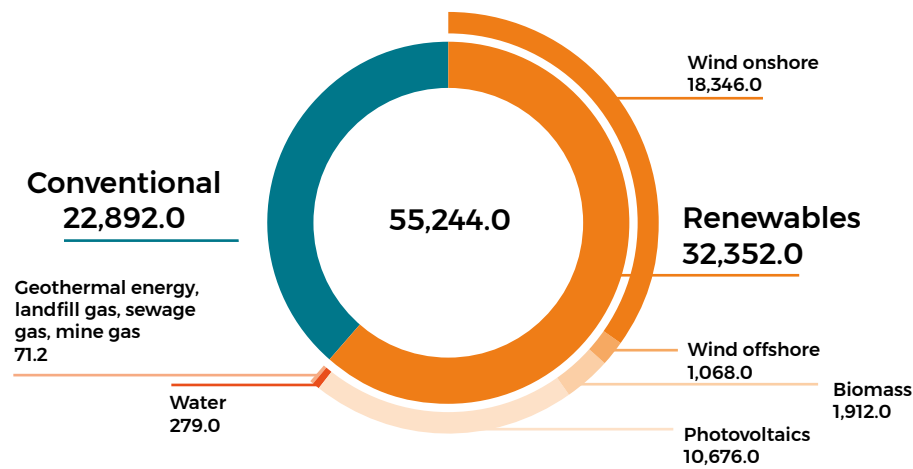
In 2018, the testing operation of a new switching station on the offshore platform Arkona started.

3.3. Energy

SDG7, GRI 302-2, GRI 102-9

3.3.1. Installed capacity

Installed capacity in MW

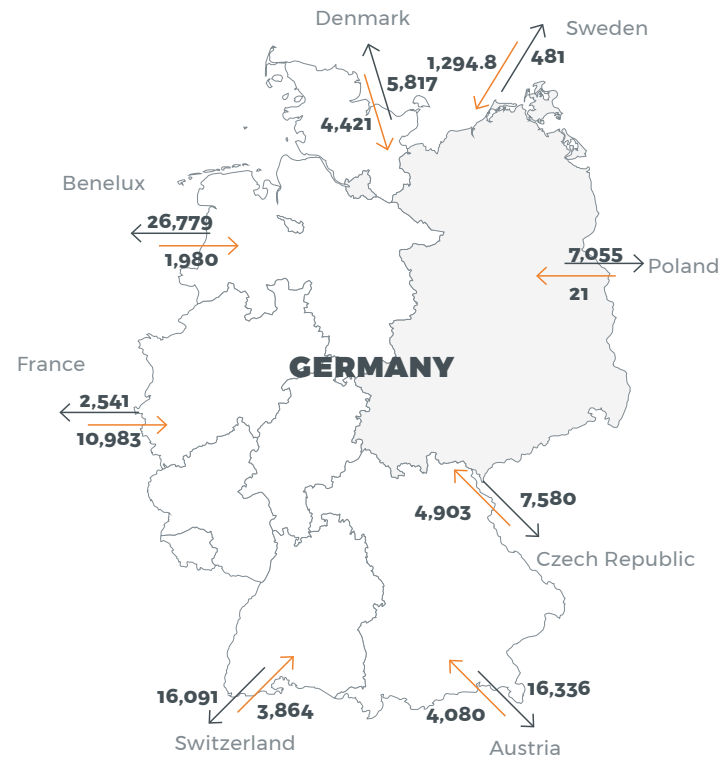


3.3.2. Energy balance yearly

Only Elia reports on this indicator.

3.3.3. Energy import & export

GRI 302-2



50Hertz's grid area represents 49 TWh, making it a major energy exporter in Germany and Europe.

3.3.4. Grid losses

G4-EUS-EU12

Some energy is always lost when electricity is transmitted, whether as current heat loss in transmission lines, in transformers and other system elements, or as leakage and corona loss. In 2018, 50Hertz recorded grid losses of 2.5 TWh. The average grid losses at the extra-high-voltage level were 240 MW; those of transformation were 45 MW. With the SuedOstLink between Saxony-Anhalt and Bavaria, 50Hertz is planning the first 400 kV extra-high-voltage direct current transmission line in its grid area. This technology is more suitable than conventional three-phase AC current technology to expediently transport large amounts of energy over long distances with lower grid loss and optimal control.

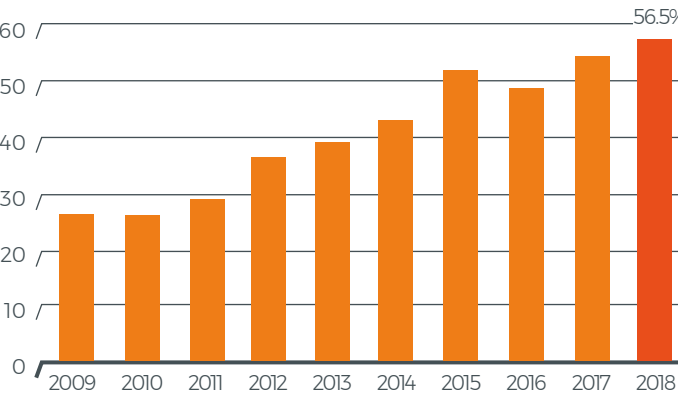
The share of grid losses in the total amount of electricity transported is 2.13%.

3.3.5. Energy consumption

In the grid area of 50Hertz, electricity consumption is stable over the year at 96.8 TWh in 2018 (96 TWh in 2017 and 2016).

3.3.6. Development of renewable energies

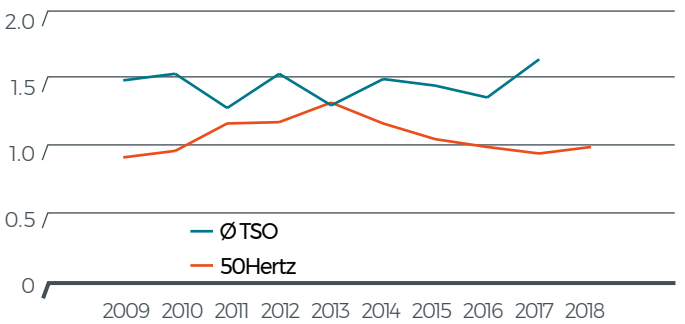
Development of the renewable energies share in electric consumption in 50Hertz grid area in %



3.3.7. Reliability

The 50Hertz region is a pioneer in the integration of renewables and at the same time offers a high level of security of supply.

Disruptions / 100 km length of line



3.4. Human Resources

3.4.1. Management approach

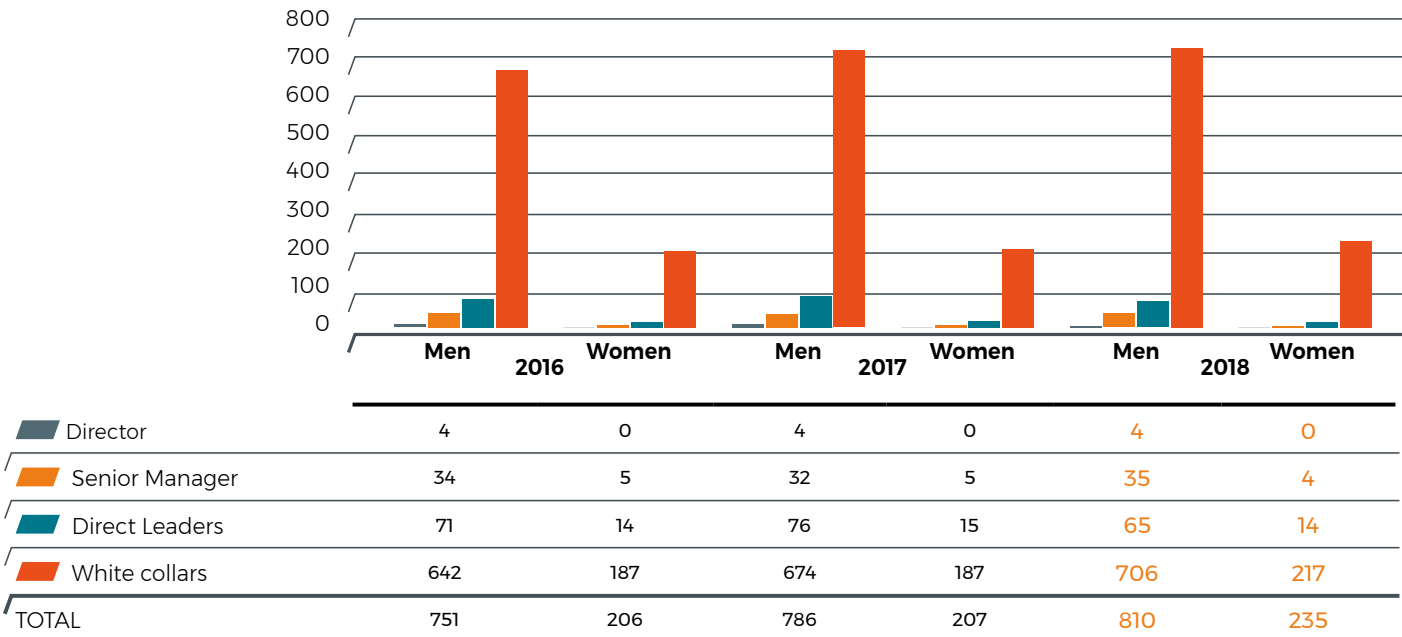
GRI 102-7, GRI 102-8, GRI 102-26, GRI 102-38, GRI 102-41

50Hertz owes its success entirely to the success of its employees. It is the responsibility of the Company to help them develop their skills, foster their health and commitment, involve them in decisions and guarantee equal opportunities for all. The maintenance and development of the value-based corporate culture is one of the Company's main goals and the strategic foundation for all personnel decisions. As part of the extended management team, the Chief Human Resources Officer is responsible for all personnel strategy issues.

An annually updated five-year business plan serves as a framework for qualitative and quantitative personnel planning. 50Hertz complies with international guidelines beyond the reach of its collective agreements and company agreements, such as the core labour standards of the International Labour Organisation (ILO: C87, C98 and C135) and workers' rights in the UN Global Compact.

At 43.6, the average age of employees at 50Hertz is more or less unchanged when compared to the previous year.

Total Headcount Germany*



* Head count 50Hertz Transmission and 50Hertz Offshore

3.4.2. Remuneration policies

Fair pay for employees and attractive benefits are a matter of course at 50Hertz. The remuneration systems are refined according to need to ensure the Company remains an attractive employer for our staff in future. IG BCE (the Union for the Mining, Chemical and Energy Industries), together with the Employers' Association of Energy and Supply Companies (Arbeitgeberverband Energie- und versorgungswirtschaftlicher Unternehmen e.V. – AVEU), negotiates our collective agreements. Fair remuneration based on requirements and performance regardless of gender is supplemented by comprehensive company benefits and the offer of a company pension scheme.

In addition, employees have the option to share in the previous business year's success by means of Elia Group's stock programme. The year 2018 was the sixth year every employee was offered up to 24 shares at a reduced price. Nearly 58% of eligible employees took advantage of the offer.

50Hertz transparently and voluntarily releases the total earnings of the management team in the consolidated financial statements in detail, listing the fixed and variable overall remuneration, as well as corporate pensions and any other benefits to 50Hertz's management. The features of the remuneration systems are explained with disclosures in the corporate governance declaration.

The factor of compensation of the highest-paid employee to the median annual total compensation for all employees is 8.2.

3.4.3. Incentive systems

The remuneration system includes success- and performance-based elements, which offer an incentive for achieving common corporate goals and corresponding individual goals. A number of goals relate to sustainable corporate management, such as compliance with occupational health and safety guidelines or successful social dialogue.

3.4.4. Codetermination

GRI 402 MA

50Hertz is not only committed to the freedom of association, collective industrial agreements and the protection of employees' representatives, but also values the trusting and constant cooperation with all codetermination bodies.

The Supervisory Board of 50Hertz comprises six members and is above the equal representation of employee and employer interests as contractually guaranteed by legal requirements. In three supervisory board meetings in 2018, through written reports, and in verbal presentations by the management, the Supervisory Board was updated about and discussed the current status of our business, our economic situation and the status and development of risks. A Spokesmen's Committee with information and consultation rights represents the interests of our executives.

Our Works Council is responsible for representing all employees who are covered by collective agreements and all non-pay scale employees at 50Hertz. A group-wide exchange takes place in the European Works Council of Elia Group. During joint activities like the Industrial Group Committee of the Electricity Industry and the Work Group of Network Operators, we actively foster employee interests in the infrastructure networks' sector.

Furthermore, we regularly send guest speakers and lecturers to educational events hosted by IG BCE. In order to support our employees' union commitment, we offer orientation and information events such as our "Schnupperkurse Mitbestimmung" (trial courses on codetermination). The youth and trainee representation (Jugend- und Auszubildendenvertretung – JAV), which was first established and elected for a two-year term in December 2016, represents the interests of our young employees across the company. JAV works closely with the other codetermination bodies.

A regular exchange of opinions with employees is facilitated through various platforms (see Stakeholder Engagement section) and, in particular, the regularly conducted Employee Survey "Sag es!" (Say it!). The last Employee Survey took place in 2017. The results were discussed with staff in workshops in the first quarter of 2018 and specific measures were derived from them.

3.4.5. Gender, diversity and equal opportunities

GRI 405-1, GRI 405-2, SDG 5, SDG 8

As a reflection of its convictions and in compliance with the ILO convention 111, 50Hertz is committed to fostering diversity and strictly condemns any discriminatory conduct in all aspects of professional life. All of our employees enjoy equal rights regardless of their ethnic origin, age and gender, their sexual orientation, religious affiliation, political views, national or social origin, or any other factors. In the reporting year, 50Hertz became a member of the German Diversity Charta, a working initiative for fostering diversity in companies and institutions, thus reinforcing an open and appreciative corporate culture.

Equal opportunities for men and women: This goal is part of the "Equality Charta" of the IG BCE, which 50Hertz has signed. The Company feels it is its duty to support the idea of "Fair Share" and strive for a proportion of female employees in our job profiles equal to that outside of the Company. As of 31 December 2018, there was a 9% share of female managers, an almost 17% share at the second management level, a 17% share of Supervisory Board members and a 0% share in management (20% as of 30 September 2018)*. The in-house initiative "50:50 – das Frauennetzwerk" (The Women's Network) works towards promoting the development of personal and professional competence and the presence and influence of women at 50Hertz. The EntgTranspG ["Entgelttransparenzgesetz": German Remuneration Transparency Act] entered into force on 6 July 2017. 50Hertz Transmission GmbH has submitted its first report on equal opportunities and equal pay in the Management Report of 31 December 2017.

At 50Hertz, fostering diversity and equal opportunity also means giving people with health-related disabilities the same opportunities as people without disabilities. We concluded an inclusion agreement in 2013 with the Works Council, the Spokesmen's Committee, and the representative body for disabled employees at 50Hertz, which contains measures aimed at supporting people with disabilities in their working life. An internal inclusion team is charged with implementing and monitoring the agreement. During the fiscal year, the proportion of severely disabled and equivalent employees was 2.3%. In total, 10 employees with restrictions were employed by 50Hertz in the reporting year. This proportion will continue to be gradually increased in accordance with workplace-specific requirements in commercial and technical departments. In 2017, the Company entered into a partnership with the Annedore-Leber Vocational Training Centre and integrated a trainee with disabilities. In the fiscal year, 50Hertz entered into a partnership with AfB gGmbH for the disposal of IT clients' hardware. The renowned inclusion company offers employment to disabled people and contributes to the prevention of further CO₂ emissions by processing and selling used IT equipment.

There were no cases of discrimination in 2018.

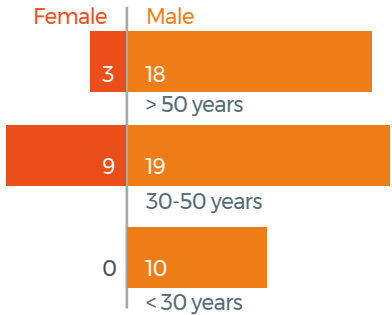
* As of 1 January 2019, 50Hertz will once again reach a 20% share of females in management thanks to Sylvia Borcherdig starting work.

3.4.6. Workability

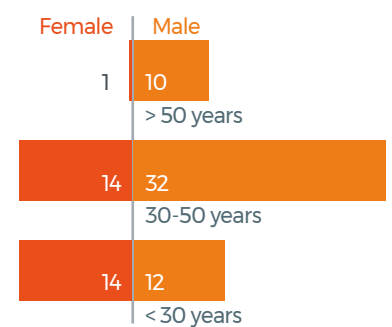
GRI 401-1, G4-EUS-EU15

Employees of 50Hertz benefit from a family-friendly work environment and the opportunity to find a work-life balance. In order to give mothers and fathers the necessary flexibility for managing childcare, there is a company agreement promoting compatibility of work and family. The agreement regulates questions of parental leave, support services, flexible work hours, special leave and sabbaticals, as well as professional support. In the 50Hertz Netzquartier building, there is also a day care centre for the children of our employees, which also offers spaces for children from the neighbourhood. Beyond that, we have established a parent-child office for short-term childcare needs.

Number of leavers by age and gender



Number of new employees by age and gender



Together with the General Works Council and the IG BCE, an agreement was established on fostering and maintaining the employability of our staff. This agreement provides a basis for personnel policies that will help us face the effects of demographic change. Our objective is for employees to be able to carry out their work activities without any limitations until they reach their regular retirement age.

Percentage of employees going into retirement in the next 5 years	M	F
Total 50Hertz Transmission	5.7%	1.2%
Director	0%	0%
Senior Manager	12.82%	0%
Direct leaders	6.33%	0%
White collars	5.31%	1.3%

3.4.7. Parental leave

GRI 401-3

Parental Leave	
Number of employees on parental and caregiver leave	13
of which male	3
of which female	10
Number of employees on parental leave 01.01.2018-31.12.2018	78
of which male	53
of which female	25

3.4.8. Training and education

GRI 404-1, GRI 404-2

The Company can only reach its corporate goals if the staff is highly qualified and thoroughly informed about current developments. Employees are therefore offered individually tailored education and training opportunities and relevant additional qualifications. Systematic succession planning guarantees that a sufficient number of potentially suitable employees are available for all management positions, and that we can fill vacancies from within the Company whenever possible. To that end, we identify and develop talent – for instance through programmes for “Young Professionals” designed and offered in cooperation with Elia Group. 50Hertz obtains qualified new talent through our own internal apprenticeship programme, a 24-month trainee programme and by hosting internships and supervising doctoral, bachelor’s, and master’s theses in cooperation with universities and colleges. In 2018, a total of 35 student employees and 5 trainees worked for 50Hertz. Currently, 20 young men and women are completing their industrial or business apprenticeships, which corresponds to a trainee rate of

1.9%. On average, each employee received 11.76 hours of training in the reporting year, excluding regular safety training. In addition, management staff are offered 50Hertz-specific training modules for developing individual leadership skills. Since 2014, 123 management employees (division, department and team heads) have participated, working cross-departmentally and cross-hierarchically on specific cases from their day-to-day management practice.

3.4.9. Occupational health and safety

GRI 403-1, GRI 403-2, GRI 403-3, SDG8, G4-EUS-LA6

At 50Hertz, protecting the health and safety of employees is the highest priority, as is underscored by the guideline on occupational health and safety, which is binding for all employees. The occupational health and safety area oversees a company-wide occupational safety management system pursuant to OHSAS 18001. The occupational safety management system was again successfully certified according to OHSAS 18001:2007 in November 2017.

Occupational health and safety and injury and illness prevention are integrated into our corporate strategy and practiced by all employees as they go about their daily business. Every employee is instructed on how to be conscious of hazards, report them immediately and submit suggestions for promoting safe and healthy working conditions. In the fiscal year, occupational health and safety was once again one of the key projects in 50Hertz’s business plan. In 2018, the large-scale campaign “gib8” (pay attention) was initiated in order to raise employees’ and suppliers’ awareness of issues relating to occupational health and safety. By taking specific measures and providing information material, the campaign has a direct impact on potentially endangered areas and addresses a variety of specific target groups. The personal protective equipment (PPE) worn by workers is always kept up to date, new PPE is wear-tested and the catalogue is adapted in line with the respective requirements.

Occupational health and safety is not limited to our own employees. The stringent 50Hertz standards also apply to contracted companies working on 50Hertz construction sites. During the contracting process and later via IT-supported construction monitoring by specially trained 50Hertz employees, it is ensured that suppliers comply with 50Hertz’s strict safety requirements. Special instructions for guaranteeing occupational safety when contracting external companies for work in the scope of the 50Hertz transmission grid (OAFN) have been transparently and bindingly regulating this since May 2018.

During the 2018 reporting year, three reportable accidents occurred at 50Hertz. We therefore met our target for accident rate and accident severity in 2018. With the aim of avoiding future accidents at work, each accident was thoroughly evaluated and mitigating measures concerning occupational safety taken from this and implemented.

At 11 in total, the number of work-related accidents in contracted companies declined compared with the prior year. In 2018, 2017 and 2016 there were also no fatalities.

Accident statistics

	2016	2017	2018
Work-related accidents (with at least 1 day of downtime)	3	6	3
Accident rate ¹	2.0	4.5	2.0
Accident seriousness ²	0.16	0.23	0.02
Number of accidents external companies	21	16	11

¹ Number of work-related accidents resulting in downtime (≥1 day) x 1,000,000/ Number of hours actually worked.
² Number of days lost due to work-related accidents in calendar days x 1,000/ Number of hours actually worked.

SDG3

The early recognition and prevention of work-related illnesses, as well as maintaining the employability of staff are also integral components of occupational health and safety at 50Hertz. To achieve these goals, 50Hertz provides appropriate occupational medical care, which primarily focuses on personal protection and prevention of health risks. In addition, 50Hertz regularly provides all of its employees with occupational medical consultations, vaccinations and advice on ergonomics in the workplace. A qualified and confidential external consultation is made available at all times in the event of personal stress, conflicts or addiction issues. Employees can also participate in various public events like the “Berlin Team Relay race”, the “HSH Nordbank Run” benefiting the children’s charity “Kinder helfen Kindern” (Children helping Children), the bicycle race “Jedermann-Radrennen Cyclastics” in Hamburg or the “Rennsteig-Herbstlauf” run in Thuringia.

3.4.10. Safety inspections

From 1 July 2017, all new contracts at 50Hertz include an agreement for quality assurance on construction sites, including an unrestricted right for 50Hertz to carry out checks. If the required standards are not met, there is a penalty point system, as well as an escalation model system. In this connection, further measures for future compliance with safety regulations are set out by binding rules. 1,159 construction site inspections were planned for 2018. With 1,190 inspections performed (as of December 2018) this target was exceeded.

3.4.11. Safety trainings

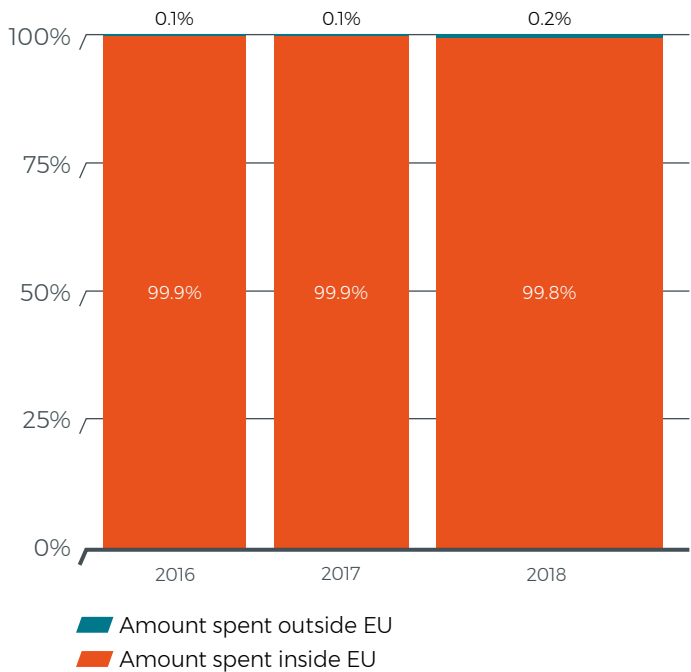
Employees in the professional departments are instructed six times per year, those in the engineering and commercial departments once per year. We also conduct an annual occupational safety competition to further raise awareness and motivate our staff. On the one hand, the number of prior-year accidents for each location is taken into consideration and on the other, knowledge on occupational safety is tested and deepened in a practical section that differs every year.

3.5. Suppliers, local added value and human rights

SDG 12

3.5.1. Number of suppliers

GRI 102-9, GRI 204-1



3.5.2. Local added value

GRI 203-1, GRI 203-2, GRI 204-1

50Hertz and its subsidiaries are subject to tax. Taxes are used to finance measures and current expenses of regional administration bodies. The different regional administration bodies are then entitled to the revenue generated from the different types of taxes.

As an employer, 50Hertz pays the wage tax for its employees to the tax authorities. This wage tax is recognised under personnel expenses. The federal government primarily levies income and corporate income tax as well as VAT. Through a complicated fiscal equalisation scheme between the regional administration bodies, which is laid down in the financial constitution of German basic law, these taxes partly go indirectly to the regional administration bodies of federal states and communities in 50Hertz's grid area. In 2018, 50Hertz paid EUR 40.9m (prior year: EUR 84.5m) in corporate income tax. Additionally, EUR 1,158.3m (prior year: EUR 1,095.4m) VAT and EUR 1,053.3m (prior year: EUR 941.9m) input VAT were incurred.

In addition to these federal taxes, the municipalities also levy real estate tax and trade tax. These taxes go directly to the municipalities. This means that this part of 50Hertz's added value can be directly used in the municipalities of 50Hertz's grid area via their households to finance their expenses. In the fiscal year, the 50Hertz Group paid EUR 0.4m (prior year: EUR 0.4m) in real estate tax and EUR 47.9 (prior year: 65.7m) in trade tax.

In its regulations adopted by management, 50Hertz has undertaken not to adopt an "aggressive tax policy" and to pay its taxes on time and in accordance with the law. By making this

voluntary commitment in the areas it can influence, 50Hertz has created a framework for sustainably distributing the added value generated. The main beneficiaries of this are structurally weak regions located in 50Hertz's grid area.

In 2018, 50Hertz purchased goods and services totalling EUR 921m from companies headquartered in Germany. Of this amount, EUR 141m, or 15.3%, went to companies based in 50Hertz's grid area.

The lower percentage compared to 63% in 2017 is primarily due to awarding the contract for a submarine cable to connect the Ostwind 2 wind farm (Westlich Adlergrund cluster CWA 2) of EUR 542m to a syndicate based in Cologne. This and other orders will be called by the companies in subsequent years as goods delivered and services provided.

3.5.3. Corporate citizenship

50Hertz supports numerous projects in its grid area, primarily relating to cultural, energy and environmental education, as well as youth and social affairs. Clear management and organisational structures have been established for the implementation of our many social activities. Our Communications and Public Affairs department is responsible for our engagement. The Department coordinates with management to set the goals, coordinate the activities and examine inquiries for worthy projects. Our guideline for donations and sponsoring defines our general support principles, assessment criteria and the organisational process transparently and consistently, and is binding for all employees. When granting donations and sponsoring support, it is always ascertained that the cause is commensurate with our corporate values, is geared towards sustainability, offers true added value for our society and the public and follows the defined process.

In the surroundings of the headquarters, the 50Hertz Netzquartier, sees itself as a good corporate citizen, which actively contributes to making the new residential and working district "Europacity" attractive to its residents. The day care centre "Energiebündel" welcomes not only children of 50Hertz employees but youngsters from the neighbourhood as well. Since the summer 2017, the "Rundgang 50Hertz" exhibition is held annually in the Netzquartier building. Together with the Hamburger Bahnhof Museum for Contemporary Art in Berlin, outstanding works by graduates of various art academies in the grid area were exhibited. This offered talented young artists a platform for entering the world of the professional art market, making valuable connections and pursuing their career. The project will be continued in 2019.

Specifically educating children and adolescents about the energy transition is of great importance. An interactive exhibit called "Energie gemeinsam wenden" (Changing energy together), developed by 50Hertz and the Independent Institute for Environmental Issues (Unabhängiges Institut für Umweltfragen e.V.) in late 2012, playfully teaches students about different aspects of the energy transition. The interactive exhibit was awarded the title of Project of the UN Decade "Bildung für nachhaltige Entwicklung" (Education for Sustainable Development) by the German UNESCO Commission. In the 2018 reporting year, 1,108 students visited the exhibit.

3.6. Stakeholder Engagement

3.6.1 Stakeholder dialogues

GRI 102-21, GRI 102-40, GRI 102-42

As part of the materiality analysis process, the 50Hertz stakeholder environment was analysed and defined. The company regularly contacts and exchanges information with these stakeholder groups.

50Hertz also supports selected projects in its grid area that foster a multi-faceted cultural landscape. As part of the renowned Artist in Residence programme at the Konzerthaus Berlin, the pianist Sir András Schiff was supported. We also supported the Musikfestspiele Mecklenburg-Vorpommern again.

As in prior years, 50Hertz was again actively involved in numerous initiatives, associations and organisations in 2018. Some examples are the Rennsteig-Herbstlauf run in the Thuringian Forest, the Kreisfeuerwehrverband fire services association in Oberlausitz-Spree, the Schulförderverein parent teacher association in Röhrsdorf and the youth chapter for new volleyball talent of VfB 91 Suhl e.V.

In 2019, 50Hertz plans to compensate for the CO₂ emissions produced by air travel by promoting electrification projects in the Global South.

3.5.4. Human rights

GRI 308-1, GRI 414-1

50Hertz expresses its commitment to respecting human rights, the right to privacy, personal safety and freedom of expression, as well as ownership rights of its employees, residents and customers. 50Hertz also assumes responsibility for compliance with social standards in the supply chain. For this reason, 50Hertz is not only a member of the UN Global Compact, it is also committed to the core labour standards of the International Labour Organisation (ILO).

In order to ensure that business partners also observe international rules on human rights – such as the prohibition on forced and child labour – sustainability and ethics are essential components in the assessment of suppliers and service providers.

50Hertz raises awareness for sustainable conduct in regular supplier meetings to ensure that respect for compliance with ethical principles and guidelines continues to grow in the long term. All orders are placed centrally. As a result, all of 50Hertz's business locations are examined to ensure their compliance with human rights obligations. The plan is to gradually expand supply chain management to include sustainability topics over the next few years. A common code of conduct for suppliers of Elia Group is currently under review and is to become a binding component of all supplier contracts in future. In the reporting year, the first risk assessment on sustainability issues and human rights was carried out in the form of desk research for the 20 largest suppliers, which have a total order value of more than EUR 378m and a share in the Company's entire order volume of around 68%. Nineteen of the companies assessed have their registered offices in Germany and one in Milan; the majority of the companies are affected by the CSR reporting requirements and must therefore publish reports containing information on non-financial indicators and human rights issues according to international reporting standards. No risks were identified. 50Hertz is looking at further expanding supply chain management and extending reporting to include human rights issues in future.

Stakeholder environment

	Finance				Environment/ Society						Market					
	Mining, chemical, energy industrial union	Shareholder	Investor	Rating agencies	Media	Federal Network Agency	Policymakers	Public	Science	NGOs	Citizens' initiatives	Suppliers	Generators	Distribution network operators	Major consumers	Transmission system operators
Dialogue formats																
Networks work group	✓															
Electricity industry group committee	✓															
Guest talks	✓															
Bankers Day			✓													
Analysts and investors telephone conferences			✓	✓												
Financial statement press conference			✓		✓											
Annual reports		✓	✓	✓		✓	✓	✓	✓	✓						
Networks state meeting northeast							✓									
Energy lunch in the network quarter							✓									
System security conference													✓	✓	✓	✓
EEG conference																
Supplier day												✓				
Customer day													✓	✓	✓	
50Hertz art tour								✓								
Hands-on exhibition								✓								
Social media					✓			✓								
Science advisory board									✓							
University cooperations									✓							
Dissertations, master's and bachelor's theses									✓							
RGI meeting										✓						✓
Bird protection conference									✓	✓	✓					✓
Early public participation							✓	✓			✓					
International visitor groups							✓		✓							✓
Conference "Controlling load flows, strengthening European electricity trading"																✓

3.6.2. Cooperations and innovations

50Hertz is lead coordinator of the WindNODE joint project, in which over 70 project partners in the northeast German model region are working for four years in total on common solutions for integrating even larger amounts of renewables into the power system as efficiently as possible. The list of participants includes energy supply companies, grid operators and high-tech specialists, but also companies from the automotive industry, the supply and disposal sector, housing and retail enterprises, as well as universities and research institutions in the region. WindNODE encompasses all six north-east German states including Berlin and is under the auspices of the six state premiers and the mayor of Berlin. The companies Siemens and Stromnetz Berlin, as well as economic development agencies Berlin Partner, Energy Saxony and ZukunftsAgentur Brandenburg join 50Hertz in the strategic control of WindNODE. The flexibility platform, an integral part of the project, was trialled in November 2018. This digital purchasing platform enables electricity consumers, electricity producers and storage operators to offer services that are appropriate for the region and flexible in terms of when they are rendered, which ensures that less renewable energy has to be restricted during grid bottlenecks.

A scientific council was established for the purpose of regular exchanges between science and practice. The volunteer committee currently consists of 16 professors from the fields of energy technology, energy industry, energy law and energy policy. The council meets once or twice a year to discuss and assess current topics and future issues relevant to 50Hertz. In 2018, both half-yearly meetings focused on the issues “optimisation of existing grids” and “innovative technologies for the energy transition”. An important aspect of its work is the initiation and execution of joint research and development projects and studies, as well as the supervision of dissertations, bachelor’s and master’s theses. There are also plans to integrate sustainability topics in this dialogue in future.

Beyond this, 50Hertz has worked with a number of universities in the balancing zone for many years. The topics of our joint research deal with, for instance, the voltage quality of extra-high-voltage grids, the operation of three-phase current and direct current on one pylon, the determination of critical conditions in the 50Hertz grid, or the implications of the energy transition for the economy, politics and society. In addition, we are active at the universities and research institutions by regularly giving practice-oriented lectures, talks and workshops.

For 50Hertz, active lead management and participation in research and development projects are an integral part of innovation management. In diverse cooperations with academic and industry partners, focus is largely placed on activities in the areas of new technology, energy markets and system security, the integration of renewable energies and the required development of the electrical system. Overall, around EUR 2m (prior year: around EUR 3m) was spent on research and development projects in 2018. This was counterbalanced by EUR 0.15m (prior year: around EUR 0.25m) that 50Hertz received in public non-repayable subsidies.

Together with various European environmental associations and other transmission system operators, 50Hertz has founded the Renewables Grid Initiative (RGI), which supports grid expansion for the effective integration of renewable energies across Europe, driving forward the dissemination of innovative consultation practices in the process (further selected memberships page 38).

3.6.3. Public acceptance

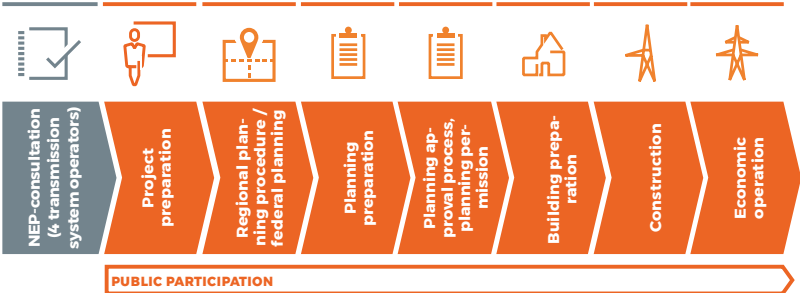
GRI 102-29, GRI 102-43, GRI 102-44, GRI 413-1, C4-EUS-DMA-STAKEHOLDER PARTICIPATION

When planning and implementing the grid expansion, 50Hertz takes a comprehensive dialogue and participation approach. The involvement of relevant stakeholder groups plays a vital role when it comes to sustainable grid expansion. Firstly, regional and local stakeholder groups are carefully analysed and issues, questions and concerns of those living locally are addressed. For this, 50Hertz follows the VDI 7000 standards. This allows 50Hertz to develop and implement a participation plan together with the region, based on both the standards of early public participation that were a success and the project specifications of each project. In the regions in which existing capacities are being increased or new transmission substations and lines are being built, the need to inform and involve citizens is varied. 50Hertz wants to align itself to the specific needs and engage in dialogue locally. This is the only way to further improve plans, integrate knowledge that is available locally and to involve those affected.

Dialogue with relevant stakeholder groups begins very early in the planning phase of projects. This includes consultations on grid development plans as well as grid enhancement and expansion projects. Dialogue with the affected parties is conducted according to clearly defined requirements, in set formats and by means of a standardised “tool kit”.

Internal project-related guidelines define the timelines and interplay between project planning, approval, public participation and stakeholder management. This includes comprehensive lessons learned processes, which enable the company to continuously develop the standardised “tool kit” for public participation at 50Hertz. Moreover, 50Hertz participates in the debate on the quality of public participation, for example, in the Alliance for a Diverse Democracy of the Bertelsmann Foundation and as a member of the Dialog-Gesellschaft e.V.

Cooperation with universities and partners



Target groups								
Policy and administration	✓	✓	✓	✓		✓	✓	✓
Citizens' initiatives	✓			✓	✓			
Residents		✓	✓	✓	✓	✓	✓	✓
Public interest bodies	✓		✓		✓		✓	
NGOs	✓		✓	✓				✓
Participation								
World Café								
Group conferences			✓		✓			
Planning panels		✓		✓				
Dialogue mobile		✓	✓	✓	✓	✓		
1:1 discussions	✓	✓		✓				
Advisory board		✓	✓	✓	✓	✓	✓	
Dialogue								
Work groups (across all Federal states)		✓	✓	✓	✓	✓	✓	
Information market	✓*	✓	✓		✓			
Press talks			✓		✓			
Hotline		✓	✓	✓	✓	✓	✓	✓
Launches								✓
Regional events		✓	✓	✓	✓			
Project presentation	✓	✓	✓	✓	✓			
Information								
Public relations	✓		✓	✓	✓	✓	✓	✓
Newsletter			✓	✓	✓	✓	✓	✓
Printed material		✓	✓	✓	✓	✓	✓	✓
Website	✓	✓	✓	✓	✓	✓	✓	✓

* As part of the consultation on NEP, the 4 transmission system operators are holding information and dialogue events, where selected procedures, methods and used data will be presented for the 1st draft of the NEP. Subsequent to this, opinions about it can be given.

3.7. Environmental aspects

3.7.1. Management approach

GRI 102-11, GRI 102-26, GRI 308-1, GRI 308-2, G4-EUS-DMA-BIODIVERSITY

Environmental and social sustainability, as well as a clear commitment to environmental protection and the conservation of resources are all integral components of the corporate strategy. 50Hertz is a forerunner in the integration of renewable energies into the entire electrical system: In 2018, around 57% of gross electricity consumption in the 50Hertz balancing zone came from wind or photovoltaic power as well as biomass, hydropower and other renewable energies. The development of the extra-high-voltage grid is necessary for transporting steadily increasing amounts of renewable energies over long distances and to ensure the security of the electricity supply and an effective electricity market. Our goal is to keep the impact of 50Hertz’s plants and activities on people and natural habitats to an absolute minimum. Therefore, compliance with the NOVA principle is a matter of course for 50Hertz. NOVA states: grid optimisation (Netz-Optimierung) before reinforcement (Verstärkung) before expansion (Ausbau). What this means in concrete terms is that 50Hertz only builds new lines when all other options for increasing grid capacity have been exhausted.

The planning, operation, maintenance and environmentally friendly conversion and expansion of our transmission grid in the northern and eastern part of Germany follow national and European frameworks and regulations. This operational implementation of environmental requirements is controlled by means of company guidelines and process instructions, which are constantly updated and adapted. In our environmental protection organisation guideline, 50Hertz has defined concrete obligations and tasks. Principally, management is responsible for environmental protection. It defines the goals and organisation of the Company’s environmental protection efforts. Within management, the Chief Technical Officer assumes the function of environmental officer. The management also appoints the hazardous materials, waste and water protection officers, who advise the entire organisation on environmental issues.

50Hertz ensures the availability of any relevant information and all required resources for fulfilling the strategic and operative objectives relating to energy efficiency and environmental protection. Environmental protection activities are documented internally in annual environmental reports. The Environmental Report for the 2018 reporting year will be published in March 2019. For this reason, some of the figures mentioned are based on estimates and have been marked.

50Hertz consistently and actively works on continuously improving its environmental performance, energy-related performance and improving its management system. To gradually further develop operational environmental protection and energy management, you also need to raise the awareness of and actively involve employees, which are motivated to act in an environmentally friendly and energy-efficient way. The legal requirements for training are met. While the law requires water protection and waste officers to attend two-day training every two years, at 50Hertz they receive one day of training every year. The training for employees and hazardous materials officers involved in the hazardous materials process is provided every five years. Individual company departments, such as the Procurement/ Facility Management Department and the project units, are given training as required.

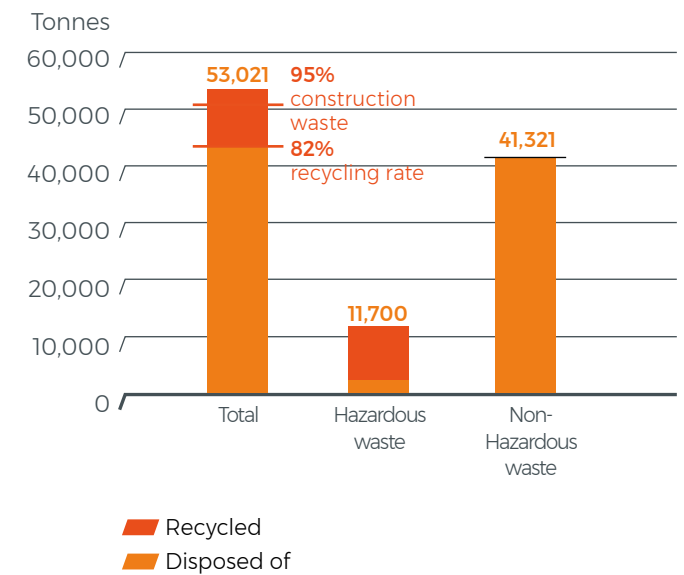
As of 1 July 2017, all new supplier contracts at 50Hertz include an “agreement for quality assurance on construction sites”, which contains matters from the precautionary principle in environmental protection, among other things. Compliance with these is regularly assessed via IT-supported construction site inspections. In the reporting year, 1,190 construction site inspections were carried out. The common code of conduct for suppliers of Elia Group, which is currently under review and binding for all suppliers, contains additional principles on environmental protection and resource conservation.

3.7.2. Waste disposal

GRI 306-2, SDG12

When it comes to handling waste, 50Hertz’s top priority is prevention. However, the annual waste production and composition is heavily dependent on restructuring and dismantling projects, as well as compensatory and replacement measures. A year-by-year comparison is therefore not appropriate. When dealing with waste that cannot be prevented, we act on the principle “Avoid – reuse – reduce – recycle – dispose”. When we build, convert or dismantle a system, we dispose of any parts we no longer need in resource-friendly ways.

Waste disposal 2018



*Estimate/projection as of 31 December 2018

50Hertz was able to comply with the legally prescribed recycling requirement (recycling before disposal) at a recycling rate of about 82%. In the 2018 reporting year, two larger environmental remediation projects took place in Ragow and Berlin Charlottenburg. These projects largely related to floors that were cleaned or disposed of properly if they could not be cleaned.

3.7.3. Biodiversity

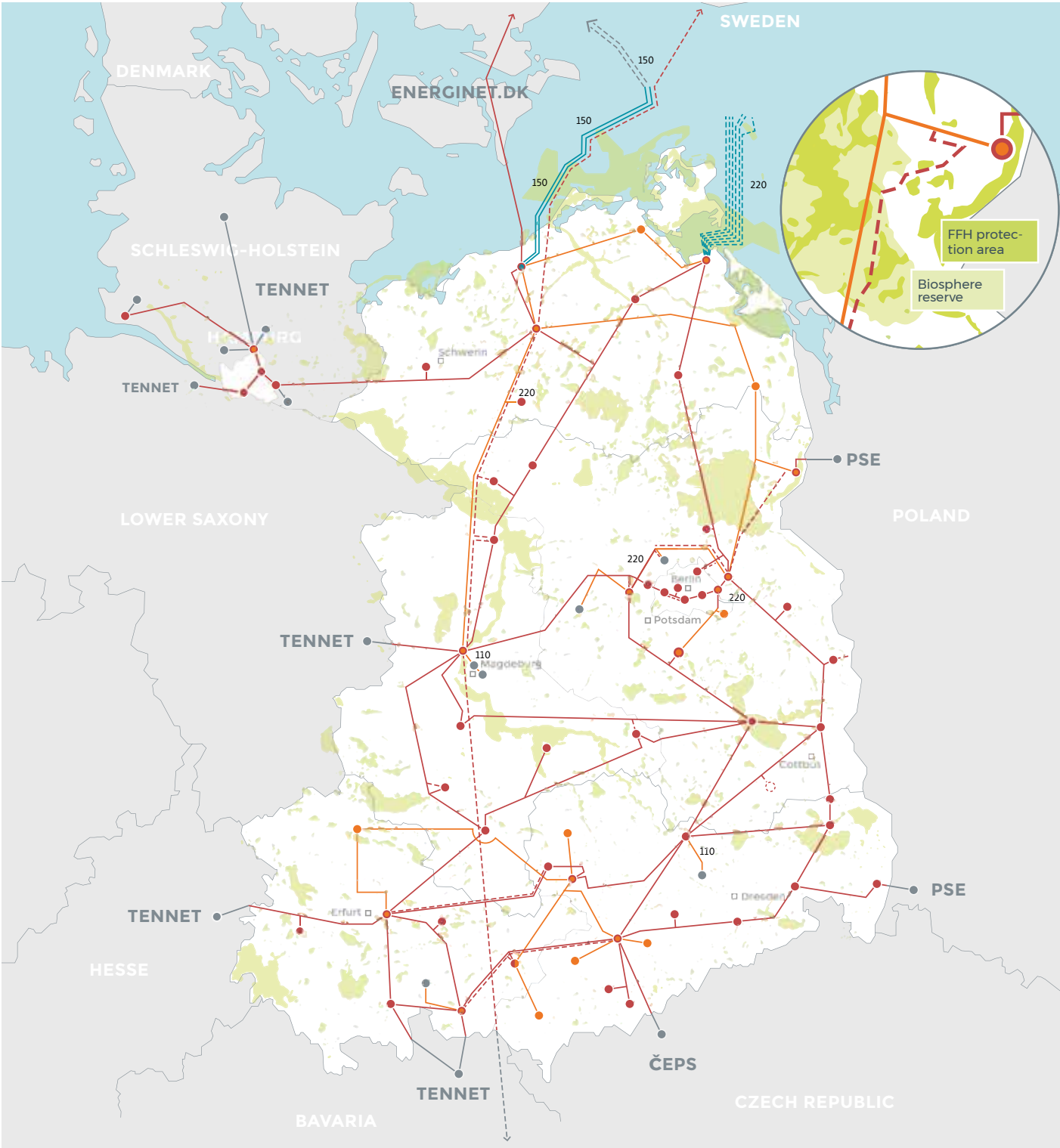
GRI 304-1, GRI 304-2, GRI 304-3, G4-EUS-DMA-BIODIVERSITY, G4-EUS-EN12, SDG12

It is the policy of 50Hertz to keep its impact on nature and the restriction of biodiversity as low as possible. During permit approval procedures for project planning, we not only consider the economy, needs of residents and technological concerns, but always keep in mind the protection of plant and animal life. In the preliminary stages of such procedures, environmental impact assessments are carried out to minimise any nature conservation conflicts at an early stage. Then an appropriate corridor is identified in which, in a subsequent step, the exact route of the line through that corridor is mapped and a list of necessary protective, compensatory and replacement measures is compiled. All of these examinations are conducted together with external environmental planners, routing experts and, if necessary, other

scientific and nature conservation specialists. Only once the entire process is completed can the construction project commence – under external ecological construction supervision. Site preparation and construction schedules are implemented in ways that minimise even the temporary impact on natural features, take conservation periods and requirements into consideration early in the process, and obligate companies subcontracting for 50Hertz to consider the ecological aspects of their operations. Following this, a final assessment is performed.

According to the BNatSchG [“Bundesnaturschutzgesetz”: Federal Act for the Protection of Nature], there is an obligation to avoid causing preventable damage to nature and the landscape or to otherwise keep it as low as possible. Whenever possible and reasonable, lines are bundled with existing overhead lines and infrastructures such as railway beds and highways. Line routes are adapted to the local natural features so as to impact the integrity of the landscape no more than necessary. Where interference is unavoidable, 50Hertz takes compensatory and replacement measures. These can be divided into six categories: planting measures, forestry measures, water measures, species protection, dismantling measures and other measures. When planning and implementing compensatory and replacement measures, 50Hertz involves the affected communities, conservation agencies, interested citizens and NGOs early in the process. 50Hertz works with them as partners to develop suitable plans early on and suggests these to the authorities as part of our approval planning. For this purpose, regional eco pools are being used more and more. Eco pools are contributions to projects of other organisations, as well as compensation payments, which enable more comprehensive measures than planting individual replacement plants and are therefore more effective, efficient and sustainable. In 2017, 50Hertz adopted guidelines for targeted compensation management. They define the action areas necessary for successful approval and implementation of the measures. An internal assessment commission meets every two months to decide on the measures. The chosen measures are recorded in a real estate cadastre. There are currently 292 compensatory and replacement measures being planned in the 50Hertz grid area and 418 being implemented and maintained. Therefore, the total number of compensatory and replacement measures has increased from 630 in 2017 to 710 in the reporting year.

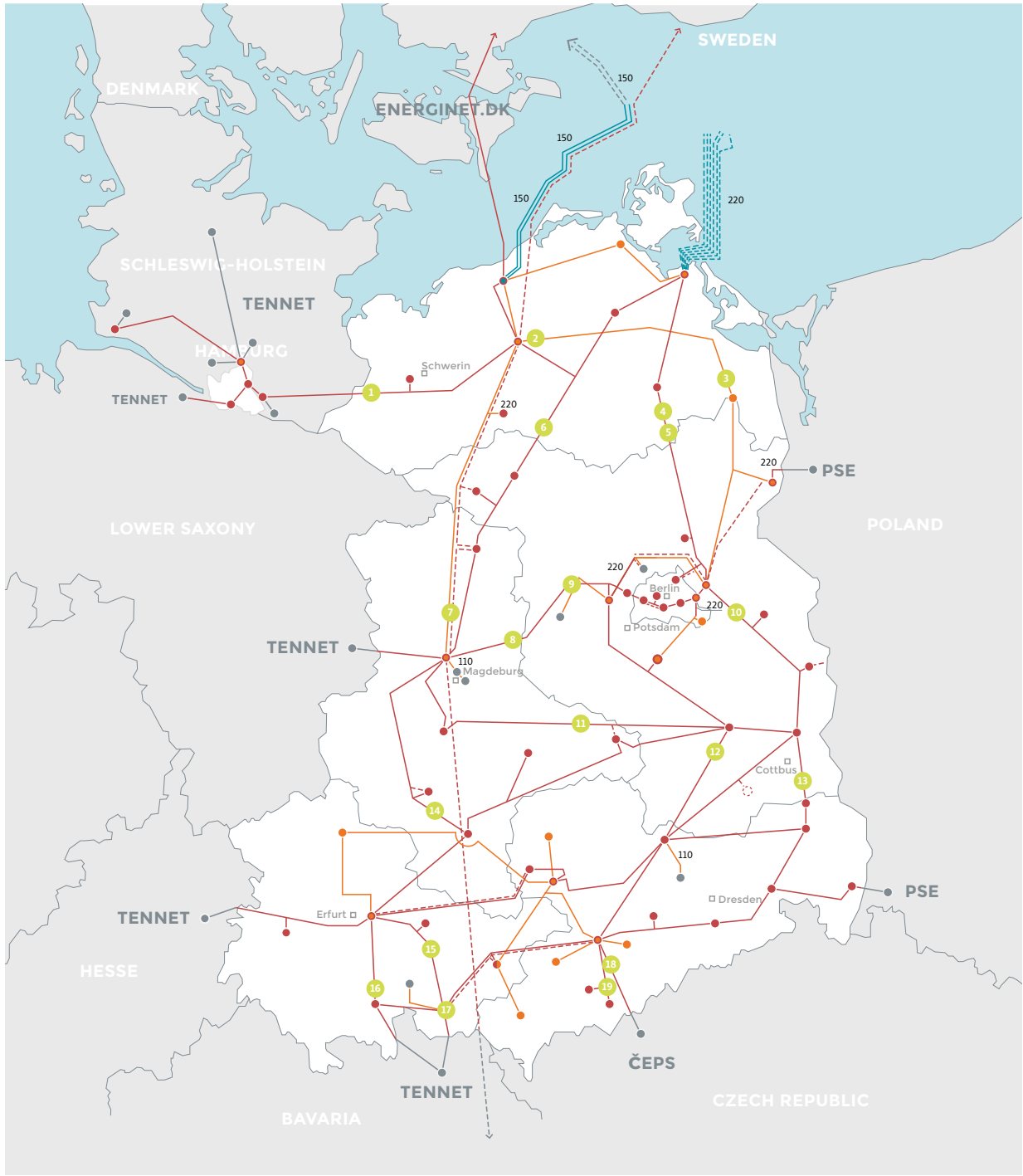
There are many different protection zones in the 50Hertz grid area, which are recorded in a cadastre. The FFH protection zones, national parks and biosphere reserves are displayed in the picture. Among other things, the grid area contains many bird sanctuaries, which 50Hertz makes sure it protects when building new lines.



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To build overhead lines in forested areas, we generally have to establish aisles because the lines need enough space to the sides and must be high enough off the ground to maintain the necessary safety distances. Sections of these aisles therefore have to be regularly kept clear of trees. Trees and shrubs, however, are habitats for countless species of animals and plants. The goal of 50Hertz is to impact these natural spaces as little as possible in the long term, thereby increasing biodiversity under the lines. Using a system of ecological aisle management (Ökologisches Schneisenmanagement or ÖSM) developed

in 2010 in cooperation with Erfurt University, the company plans and manages line routes with foresight, minimal impact and ecological sustainability: The aisle under an overhead line is redeveloped in ways that restore natural habitats while still facilitating safe operation. In the course of our project, the aisle therefore develops into a biologically diverse and valuable natural space. 50Hertz applies the ÖSM system as mandated to new line route construction, and also to existing line routes on a voluntary basis.



Ecological Aisle Management (EAM)

	Measures	Area in hectares
1	Edge of forest, Kölziner Tannen	1.8 ha
2	Eco-account, Suckower Tannen	14 ha
3	Gameland, Bienenweide Schönwalde	5.6 ha
4	Biotope management NABU area	1.9 ha
5	Edge of forest eco-account, Hohenzieritz	2.5 ha
6	Edge of forest structuring, Satow meadow orchard	9.8 ha
7	Grazing, Mahlpfuhler Fenn	6 ha
8	Hohenbellin hedges	6 ha
9	NABU project, Marzahner Fenn	1.8 ha
10	Biotope management, Altlandsberg municipal forest	25 ha
11	Wild flower meadow, Külsoer Mühle	0.4 ha
12	Edge of forest pond, Rochhauer Heide	13 ha
13	Edges of forest, Döbbener Heide	12.6 ha
14	Biotope management, Harz conservation area	3.2 ha
15	Pilot line, Hummelshain	9.1 ha
16	Pilot line, Oberweißbach	1.8 ha
17	Biotope structuring, Ruppersdorf	1 ha
18	Slope planting, Burkhardtsdorf	0.3 ha
19	Grassland seed test area	0.5 ha
		~ 116.3 ha

Extra-high-voltage lines harm bird life. Hence, 50Hertz also makes a huge effort to protect birds and minimise negative impact. In 2017, a new species-specific method was developed in the course of line construction projects for systematically determining the effects on species populations to enable the identification of targeted protective and compensatory measures. There were plans to install 30 km of bird protection markers in the existing grid in 2018. Due to an accident in the reporting year, the installation was suspended until the accident has been dealt with and an accident avoidance strategy has been developed. The installation of bird protection markers will be continued in 2019 as planned. 50Hertz also continues to actively support the set-up of the “Vogelfund und Stromleitung” (dead birds and power lines) hotline by NABU (Naturschutzbund Deutschland), a German nature conservation association, as part

of the “Renewables Grid Initiative”. 50Hertz conducted a comparative study on the effectiveness of spiral and clack markers, and also installed cameras on two stretches of the grid in a bird sanctuary. All these measures and projects will help to prevent collisions in such places more effectively in future.

Another step towards consistent reduction of interference with the environment is the development of the “compactLine” pylon design. This innovative research and development project features lower masts, narrower line routes and a solid-panel tower with a smaller circumference. It will allow us to reduce our interference with landscapes and nature through overhead lines. The compact design provides a good opportunity to integrate a new 380 kV line into existing 220 kV line routes. In August 2018, an approximately two kilometre-long pilot line was trialled.

3.7.4. Water protection

GRI 306-5, SDG14

50Hertz is committed to effective water protection. As the business activities of 50Hertz do not result in significant water usage, its responsibility in this regard is not so much to reduce water consumption, but to consider water resources in the ground during grid and substation projects and to avoid water and soil pollution with hazardous materials. For instance, 50Hertz has installed special safety features in oil-containing systems. To protect the natural environment, elaborate constructions are installed beneath transformers in substations to prevent drips from entering the soil. The safety systems are inspected regularly by maintenance technicians and refurbished or replaced when needed. Waste water is only discharged with appropriate permission from water authorities and if it was regularly tested for hazardous substances. With regard to water protection, the WHG [“Wasserhaushaltsgesetz”: Water Resources Act] and state-specific systems regulations (VAwS) are of particular importance to 50Hertz. Employees are trained in the environmentally friendly operation of our systems and water protection officers are kept continuously updated on all new developments. In the grid area, the requirements of the WHG and VAwS are especially relevant for the coastal regions of Mecklenburg-Western Pomerania. Three submarine cable routes of the Ostwind 1 line construction project, which is currently underway, run south from the Westlich Adlergrund cluster, past the island of Rügen, through Greifswalder Bodden to their landing site near Lubmin. In the landing zone, we have to bore under sensitive natural conservation areas and valuable biospheres. By using the low-impact, ditchless horizontal flush drilling method, 50Hertz significantly reduces interference with flora and fauna in the dune landscape. In addition, 50Hertz is an important contributor to making the Baltic Sea safe for people and the environment. Therefore, every preparation includes the clearing of historical waste at the bottom of the Baltic Sea, such as weapons from previous world wars.

3.7.5. Energy consumption

GRI 302-1, GRI 302-4, SDG7, SDG13

50Hertz supports the objectives of the EU and the federal government for reducing CO₂ emissions, particularly by expanding the grid, which increases the share of CO₂-neutral energy sources, but also by optimising the company-wide carbon footprint. In 2015, an external energy audit according to the DIN EN 16247-1 standard was commissioned for the first time to systematically record the energy consumption of our systems and administrative buildings. This audit is set to be repeated in 2019. As yet, there are no current, robust figures available on energy consumption in 2018. 50Hertz is looking into introducing a process for determining consumption figures during the year.

The energy audit revealed optimisation potential across the Company, the feasibility of which was carefully examined in terms of economy and sustainability. In 2016, 50Hertz moved to its new headquarters, the 50Hertz “Netzquartier”, in Berlin Mitte. Sustainability was a key aspect of the planning and construction of the headquarters building in terms of energy efficiency, ecology, utilisation options and accessibility. The 50Hertz Netzquartier has received the internationally recognised Gold Award of the German Association for Sustainable Building (Deutsche Gesellschaft für Nachhaltiges Bauen – DGNB) and the American LEED Standard (Leadership in Energy and Environmental Design). For new buildings, such as the regional centres in Röhrsdorf, Hamburg Ost and Berlin Charlottenburg, aspects of sustainable construction in terms of energy use have already been taken into account in the planning and implemented where possible.

	Energy consumption	
	MWh	%
Electricity	50,744.187	84.8
District heating	2,467.109	4.1
Fuel (petrol)	32.910	0.1
Fuel (diesel)	5,799.063	9.7
Natural gas	788.442	1.3
Total energy consumption	59,831.710	100.0

The vehicles in the fleet have a large impact on the carbon footprint, but are indispensable for comprehensive coverage of our extensive grid area and quick access to our systems. In 2018, these vehicles produced 1,758.18 tonnes of CO₂ .

A new location concept emerged from the efficiency project as a long-term factor, which will come into effect in 2019. 50Hertz is currently increasing its locations in northern and eastern Germany from seven to 10. Among other things, this will decrease the driving distance and will therefore also lead to a reduction in greenhouse gas (GHG) emissions. Moreover, electric and hybrid vehicles are being tested and selectively used as part of fleet management. For reasons of efficiency, there are no plans to use them extensively at present. The fleet is constantly updated with the latest technology in the course of procuring replacements. Vehicles that comply with the EURO 5 emission standard were replaced with vehicles that adhere to the EURO 6 emission standard.

3.7.6. Emissions

GRI 305-1, GRI 305-2, SDC7, SDC13

We use sulphur hexafluoride (SF6) in our contactors, transformers and gas-insulated switchgear. This gas is a central operating material at 50Hertz because of its excellent insulating and arc properties. At the same time, however, SF6 has high greenhouse potential, so great caution is taken in transporting, storing and using the gas. 50Hertz complies with the requirements of the European F-Gas Regulation (EU) no. 517/2014, which was updated in 2014. Since 2005, the Company has worked in accordance with the Voluntary Commitment of SF6 Producers and Users (Freiwillige Selbstverpflichtung der SF6-Hersteller und -Nutzer). Its goal is to reduce the loss rate of 0.8% of the total in 2004 to 0.6% in 2020. In the Berlin-Charlottenburg substation, a new kind of gas-insulated 110 kV switchgear is being installed, which instead of the conventional insulation gas SF6, uses a gas mix with much lower greenhouse potential. The gas mix called g³ has the same technical properties as SF6 but is up to 99% less harmful in terms of the greenhouse effect. As a result of conscientious handling and internal monitoring for operation and maintenance of our gas-insulated systems, in 2018 we came in significantly below the “Voluntary Commitment of SF6 Producers and Users” with a loss rate of 0.11%¹.

Various modes of transport are used for business trips. In the reporting year, air travel accounted for 335 tonnes of CO₂ equivalents . In addition, employees produced around 6.66 tonnes of CO₂² by using public transport. 546,000 kilometres were travelled by long-distance train. Long-distance train journeys are not reported, as Deutsche Bahn claims to use 100% green electricity.

50Hertz is currently evaluating the gradual expansion of its climate management and thus the possibility of reducing its GHG emissions. In the 2018 reporting year, direct and indirect GHG emissions were calculated for the first time.

Greenhouse gas emissions

Greenhouse gas emissions in 2018 in tCO ₂ equivalent		
DIRECT (SCOPE 1)		
SF6 leakage	4,277.00	0.34%
Company fleet*	1.29	0.00%
Emergency generator headquarter*	1,758.18	0.14%
Total direct emissions	6,036.47	0.48%
INDIRECT (SCOPE 2)		
District heating*	184.86	0.01%
Electricity consumption headquarter*	1,897.62	0.15%
Grid losses	1,222,500.00	97.39%
Energy consumption own assets	24,310.65	1.94%
Total indirect emissions	1,248,893.13	99.50%
INDIRECT (SCOPE 3)		
Air travel	293.90	0.02%
Rail travel (long-distance)	0.00	0.00%
Rail travel (local)	6.66	0.00%
Total indirect emissions	300.56	0.02%
Total amount	1,255,230.16	100.00%

The calculated figure in the carbon footprint corresponds to 1,222 tonnes of CO₂ equivalents per person including grid losses and 32 tonnes of CO₂ equivalents per person excluding grid losses (basis: 1,027 employees).

4. GRI reference table

GRI 102-55

This annual Sustainability Report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option. It is Elia Group's second annual integrated report and covers the period from 1 January 2018 to 31 December 2018.

Common (C)	Belgium (B)	Germany (G)	GRI number	GRI description	Page
GRI 102: General information 2018					
1. Organisational Profile					
X		X	102-1	Name of the organisation	(C) Activity report p. 6 Sustainability report p. 2 (G) Sustainability report p. 40
X	X	X	102-2	Activities, brands, products, and services	(C) Activity report p. 7 (B) Sustainability report p. 5 (G) Sustainability report p. 40
	X	X	102-3	Location of headquarters	(B) Sustainability report p. 5 (G) Sustainability report p. 40
	X	X	102-4	Location of operations	(B) Sustainability report p. 5 (G) Sustainability report p. 40
X			102-5	Ownership and legal form	(C) Activity report p. 8
X	X	X	102-6	Markets served	(B) Sustainability report p. 5 (G) Sustainability report p. 40
X	X	X	102-7	Scale of the organisation	(C) Sustainability report p. 2 (B) Sustainability report p. 21 (G) Sustainability report p. 40, p. 48
	X	X	102-8	Information on employees and other workers	(B) Sustainability report p. 21 (G) Sustainability report p. 48
X	X	X	102-9	Supply chain	(C) Activity report cover (B) Sustainability report p. 15, p. 31 (G) Sustainability report p. 52
X			102-10	Significant changes to the organisation and its supply chain	(C) Activity report p. 8-9
	X	X	102-11	Precautionary Principle or approach	(B) Sustainability report p. 34 (G) Sustainability report p. 43, p. 58
X	X	X	102-12	External initiatives	(C) Activity report p. 65 (B) Sustainability report p. 13 (G) Sustainability report p. 41
X	X	X	102-13	Membership of associations	(C) Activity report p. 66 (B) Sustainability report p. 6 (G) Sustainability report p. 41
2. Strategy					
X			102-14	Statement from senior decision-maker	(C) Activity report p. 2-5, p.1 6
X	X	X	102-15	Key impacts, risks, and opportunities	(C) Activity report p. 2-5, p. 12-13 Corporate governance and financial report p. 16 (B) Sustainability report p. 10 (G) Sustainability report p. 43

1 the figures stated are estimates as of 31 December 2018

2 Estimated value as of 31 December 2018

* the figures stated are estimates as of 31 December 2018. The following calculation bases and emission factors were used to calculate CO₂ equivalents: SF6/IPCC Fifth Assessment Report (ARS), vehicle fleet/direct fuel consumption, energy (electricity, district heating)/Federal Environmental Agency 2017 Scope 2 Guidance, business trips/information provided by service providers, Scope 3 Guidance

3. Ethics and integrity					
X	X	X	102-16	Values, principles, standards, and norms of behaviour	(C) Activity report p. 87 (B) Sustainability report p. 8 (G) Sustainability report p. 41, p. 42
	X	X	102-17	Mechanisms for advice and concerns about ethics	(B) Sustainability report p. 8 (G) Sustainability report p. 41
4. Governance					
X			102-18	Governance structure	(C) Activity report p. 10-11
X	X	X	102-19	Delegating authority	(C) Corporate governance and financial report p. 5 (B) Sustainability report p. 6(G) Sustainability report p. 41
	X	X	102-20	Executive-level responsibility for economic, environmental, and social topics	(B) Sustainability report p. 6, Corporate governance and financial report p. 9 (G) Sustainability report p. 41
X	X	X	102-21	Consulting stakeholders on economic, environmental and social topics	(C) Activity report p. 74 (B) Sustainability report p. 13 (G) Sustainability report p. 53
X			102-22	Composition of the highest governance body and its committees	(C) Activity report p. 11
X			102-23	Chair of the highest governance body	(C) Activity report p. 11
	X	X	102-26	Role of the highest governance body in setting purpose, values, and strategy	(B) Corporate governance and financial report p. 5 (G) Sustainability report p. 41, p. 48, p. 58
X	X	X	102-29	Identifying and managing economic, environmental and social impacts	(C) Activity report p. 71 (B) Sustainability report p. 32 (G) Sustainability report p. 55
X	X	X	102-30	Effectiveness of risk management processes	(C) Corporate governance and financial report p. 16 (B) Sustainability report p. 9 (G) Sustainability report p. 43
		X	102-32	Highest governance body's role in sustainability reporting	(G) Sustainability report p. 41
		X	102-33	Communicating critical concerns	(G) Sustainability report p. 41
		X	102-38	Annual total compensation ratio	(G) Sustainability report p. 48
5. Stakeholder engagement					
X	X	X	102-40	List of stakeholder groups	(C) Activity report inner cover (B) Sustainability report p. 13 (G) Sustainability report p. 53
	X	X	102-41	Collective bargaining agreements	(B) Sustainability report p. 3 (G) Sustainability report p. 3, p. 48
X	X	X	102-42	Identifying and selecting stakeholders	((C) Activity report p. 17 (B) Sustainability report p. 13 (G) Sustainability report p. 53
X	X	X	102-43	Approach to stakeholder engagement	(C) Activity report p. 17, p. 74 (B) Sustainability report p. 13 (G) Sustainability report p. 55
X		X	102-44	Key topics and concerns raised	(C) Activity report p. 16, p. 18, p. 74 (G) Sustainability report p. 55

6. Reporting principles					
X			102-45	Entities included in the consolidated financial statements	(C) Activity report p. 8 Corporate governance and financial report p. 80
	X	X	102-46	Defining report content and topic Boundaries	(B) Sustainability report p. 5 (G) Sustainability report p. 43
X	X	X	102-47	List of material topics	(C) Activity report p. 16 (B) Sustainability report p. 11 (G) Sustainability report p. 43
			102-48	Restatements of information	There are no restatements of information provided in previous reports.
			102-49	Changes in reporting	The Annual Report 2018 is the second integrated annual reporting in line with the GRI - Core principles
			102-50	Reporting period	Fiscal year 2018
			102-51	Date of most recent report	Annual report 2018
			102-52	Reporting cycle	Annual reporting cycle
	X	X	102-53	Contact point for questions regarding the Annual Report	(B) Marleen Vanhecke External Communications & External Relations marleen.vanhecke@elia.be (C) Kerstin Rippel Communication and Public Affairs Kerstin.Rippel@50hertz.com
			102-54	Claims of reporting in accordance with the GRI Standards	This Annual Report has been prepared in accordance with the GRI Standards: Core option
X			102-55	GRI content index	(C) Sustainability report p. 65
GRI 103: Identified Material Aspects and Boundaries					
X	X	X	103-1	Explanation of the material topic and its Boundary	(C) Activity report p. 17 (B) Sustainability report p. 11 (G) Sustainability report p. 43
X		X	103-2	The management approach and its components	(C) Activity report p. 17 (G) Sustainability report p. 43
X		X	103-3	Evaluation of the management approach	(C) Activity report p. 17 (G) Sustainability report p. 43
GRI 201: Economic performance					
X			201-1	Direct economic value generated and distributed	(C) Activity report p. 19 Corporate governance and financial report p. 26, 29, 49, 50, 52, 55, 56, 65
X	X	X	201-2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	C) Activity report p. 13, p. 24, p. 41-43, 52 (B) Sustainability report p. 9, p. 38 (G) Activity report p. 34-35
GRI 203: Indirect economic impacts					
X		X	203-1	Development and impact of infrastructure investments and services supported	(C) Activity report p. 27, p.30 (G) Sustainability report p. 52
X		X	203-2	Significant indirect economic impacts, including the extent of impacts	(C) Activity report p. 27 (G) Sustainability report p. 52
GRI 204: Procurement practices					
	X	X	204-1	Proportion of spending on local suppliers	(B) Sustainability report p. 31 (G) Sustainability report p. 52

GRI 205: Anti-Corruption					
	X	X	205-1	Operations assessed for risks related to corruption	(B) Sustainability report p. 8 (C) Sustainability report p. 42
	X	X	205-2	Communication and training on anticorruption policies and procedures	(B) Sustainability report p. 9 (C) Sustainability report p. 42
X	X	X	205-3	Confirmed incidents of corruption and actions taken	No incidents of corruption occurred during the reporting period.
GRI 206: Anti-competitive behaviour					
X	X	X	206-1	Legal actions for anti-competitive behaviour, anti-trust, and mono-poly practices	No legal actions pending or completed during the reporting year.
GRI 302: Energy					
	X	X	302-1	Energy consumption within the organisation	(B) Sustainability report p. 37 (C) Sustainability report p. 63
	X	X	302-2	Energy consumption outside of the organisation	(B) Sustainability report p. 15 (C) Sustainability report p. 46
GRI 304: Biodiversity					
X	X	X	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	(C) Activity report p. 80-83 (B) Sustainability report p. 35-37 (C) Sustainability report p. 59-62
X	X	X	304-2	Significant impacts of activities, products, and services on biodiversity	(C) Activity report p. 80-83 (B) Sustainability report p. 35-37 (C) Sustainability report p. 59-62
X	X	X	304-3	Habitats protected or restored	(C) Activity report p. 80-83 (B) Sustainability report p. 35-37 (C) Sustainability report p. 59-62
GRI 305: Emissions					
	X	X	305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	(B) Sustainability report p. 38 (C) Sustainability report p. 64
	X	X	305-2	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	(B) Sustainability report p. 38 (C) Sustainability report p. 64
	X		305-3	Other indirect greenhouse gas (GHG) emissions (Scope 3)	(B) Sustainability report p. 38
GRI 306: Effluents and waste					
	X		306-2	Waste by type and disposal method	(C) Sustainability report p. 59
GRI 307: Environmental compliance					
X	X	X	307-1	Non-compliance with environmental laws and regulations	The organisation has not identified any significant non-compliance with environmental laws and/or regulations.
GRI 308: Supplier Environmental Assessment					
	X	X	308-1	New suppliers that were screened using environmental criteria	(B) Sustainability report p. 31 (C) Sustainability report p. 53, p. 58
	X	X	308-2	Significant actual and potential negative environmental impacts in the supply chain and actions taken	(B) Sustainability report p. 31 (C) Sustainability report p. 58
GRI 401: Employment					
	X	X	401-1	Total number and rates of new employee hires and employee turnover	(B) Sustainability report p. 21 (C) Sustainability report p. 50
X	X	X	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	There are no differences between the benefits provided to full-time and part-time employees.
	X	X	401-3	Parental leave	(B) Sustainability report p. 25 (C) Sustainability report p. 50

GRI 402: Labour/Management Relations (MA)					
	X				(C) Sustainability report p. 49
GRI 403: Occupational Health and Safety					
X	X	X	403-1	Occupational health and safety management system	(C) Activity report p. 88-91 (B) Sustainability report p. 27 (C) Sustainability report p. 51
	X	X	403-2	Hazard identification, risk assessment, and incident investigation	(B) Sustainability report p. 27 (C) Sustainability report p. 51
	X	X	403-3	Occupational health services	(B) Sustainability report p. 27 (C) Sustainability report p. 51
GRI 404: Training and Education					
X	X	X	404-1	Average hours of training per year per employee by gender, and by employee category	(C) Activity report p. 92-95 (B) Sustainability report p. 26 (C) Sustainability report p. 50
GRI 405: Diversity and Equal Opportunity					
X	X	X	405-1	Diversity of governance bodies and employees	(C) Sustainability report p. 3 (B) Sustainability report p. 21 (C) Sustainability report p. 49
		X	405-2	Ratio of basic salary and remuneration of women to men	(C) Sustainability report p. 49
GRI 406: Non-Discrimination					
X	X	X	406-1	Total number of incidents of discrimination and corrective actions taken	The organisation has not identified any incidents of discrimination during the reporting period.
GRI 413: Local Communities					
X	X	X	413-1	Operations with local community engagement, impact assessments, and development programmes	(C) Activity report p. 70-83 (B) Sustainability report p. 32 (C) Sustainability report p. 55
GRI 414: Supplier Social Assessment					
	X	X	414-1	New suppliers that were screened using social criteria	(B) Sustainability report p. 31 (C) Sustainability report p. 53
GRI 416: Customer Health and Safety					
X		X	416-1	Assessment of the health and safety impacts of product and service categories	(C) Sustainability report p. 34
X	X	X	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	(B) Sustainability report p. 8 (C) Sustainability report p. 42
GRI 417: Marketing and Labelling					
	X				(B) Sustainability report p. 32
GRI 419: Socio-economic Compliance					
X	X	X	419-1	Monetary value of significant fines for non-compliance with laws and regulations in the social and economic area	(B) Sustainability report p. 8 (C) Sustainability report p. 42

G4 - Electric Utilities Specific (EUS)				
Lines & losses & quality of service				
	X	X	EU4	Length of above and underground transmission and distribution lines by regulatory regime (B) Sustainability report p. 14 (C) Sustainability report p. 45
	X	X	EU12	Transmission and distribution losses as a percentage of total energy (B) Sustainability report p. 17 (C) Sustainability report p. 47.
Demand management approach				
X			DMA	Management approach to ensure short and long-term electricity availability and reliability (C) Activity report p. 52
X			DMA	Demand-side management programmes including residential, commercial, institutional and industrial programmes (C) Activity report p. 54, 68, 105
	X	X	DMA	Disaster / Emergency Planning and Response (B) Activity report p 32 Sustainability report p 18 (C) Sustainability report p. 43
	X	X	DMA	Disaster / Emergency Planning and Response Stakeholder participation (B) Activity report p 73 (G) Activity report p 77, p. 105
Biodiversity				
	X	X	EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected area (B) Sustainability report p. 35 (C) Sustainability report p. 59
Health and safety & Human resources				
	X		LA6	Type of injury and rates of injury, occupational diseases, lost days and absenteeism, and total number of work related fatalities, by region and gender (B) Sustainability report p. 27
	X	X	EU15	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region (B) Sustainability report p. 22 (C) Sustainability report p. 50

Reporting parameters

Registered office

This report is limited to Elia System Operator and Elia Asset, which operate as a single economic entity under the names Elia and 50Hertz Transmission.

The registered office of Elia System Operator and Elia Asset is located at Boulevard de l'Empereur 20 1000 Brussels, Belgium

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The registered office of Eurogrid International is located at Rue Joseph Stevens, 7 1000 Brussels, Belgium

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Reporting period

This annual report covers the period from 1 January 2018 to 31 December 2018.

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Ce document est également disponible en français.
Dit document is ook beschikbaar in het Nederlands.

We would like to thank everyone who contributed to this annual report.



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Employees of 50Hertz at the foot of the offshore transformer station “Viking” (Wikinger)

After three years of construction, the submarine cables between the Viking offshore wind farm (Iberdrola) north of the island of Rügen and the connection point to the 50Hertz grid in Lubmin have been laid. For the first time in Germany, 220 kV AC technology (alternating current) is used for offshore grid connection. This makes higher power transmission possible.

