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Ready to ccelerate

Activity Report 2019



Grid Map 50Hertz



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For a successful energy transition in a sustainable world

We create and deliver the infrastructure of the future and provide innovative services that enable a reliable and sustainable power system, with the interest of society at the heart of every decision. We keep the lights on and make the energy transition happen by serving our customers in a responsible, highly efficient and non-discriminatory way, while protecting the safety of our personnel, subcontractors, and anyone in contact with our infrastructure.



* These chapters from the annual report cf. article 3:32 of the Belgian companies and associations





About this report

three parts: the Activity Report, the Sustainability Report and the Financial Report where we inform our stakeholders about our company, corporate social responsibility, and financial results. You are currently reading the Activity Report.

Please visit www.eliagroup.eu/publications to consult parts two and three.



Activity Report 2019

This report explains who we are and what we do, the context in which we operate, and includes the risks and opportunities. It outlines our strategy and the progress we have made towards achieving our goals. It also covers our approach to corporate governance and provides an introductory analysis of our 2019 results. The Activity Report concerns regulated information, published on 14 April 2020 after trading hours.



GRI Standards: Core option

This report has been prepared in accordance with the GRI Standards, the first global standards for sustainability reporting. The applicable GRI-Standards performance indicators are highlighted in the report wherever Elia Group has reported on economic, environmental or social impacts. Consult the GRI Index on page 73 of the Sustainability Report for a full overview.

The online references in this report provide more in-depth information on a subject by way of video, brochure or webpage.

Ready to accelerate...

... to realise the next phase of the energy transition in a timely and secure way bringing maximum welfare to society

We connect generation and distribution



Watch the video http://bit.ly/GuardiansOfTheGrid and get to know the energy players of the energy landscape.



The transition of Europe's energy system is, without a doubt, one of the greatest challenges faced by society this century. The shift to a low-carbon society is sure to happen all the faster given the ambitious course set by the European Green Deal, which aims to make Europe the world's first climate-neutral continent by 2050. The energy transition is Elia Group's number-one priority. With our retooled strategy, updated development plans, new corporate structure and additional capital, we are ready to accelerate.

The Green Deal was not the only defining feature of 2019. The climate marches and yellow-vest protests shaped the year too. How is Elia Group dealing with these issues?

Bernard: "Until recently, calls for climate action were mainly the preserve of non-governmental organisations and lobby groups. But political players are gradually starting to take the lead too: there are more and more climate ministers, and ambitious plans are being drawn up. At the same time, though, there are concerns about the cost. We don't want to burden future generations with the consequences of climate change, but we don't want to saddle them with a mountain of debt either."

Chris: "That's why it's important to know which path to pursue when it comes to adopting climate measures. Some decisions will have a greater impact on the current situation than their cost would suggest, whereas it may take time for the effects of other decisions to be felt. As grid operators, we need to take extremely complex decisions at an early stage, facing all kinds of NIMBY (not in my back yard) backlash in the process. And yet in the context of the energy transition, we are the ones whose actions will cost consumers the least and will make the biggest difference in terms of CO₂ reduction. We strive for the best possible social and environmental solutions. That is why the interaction with our various stakeholders is so important. We want to be a transparent and reliable advisor to policy makers. In addition, when planning new infrastructure, all stakeholders are involved at a very early stage of the project. Their input is integrated in the various planning phases."



We are increasingly carrying out our activities in an international context, and it's important that we adapt to reflect this.

Chris Peeters

Bernard: "Today, the electricity grid is the focus of the energy transition. For the next two years, Elia and 50Hertz will be investing a staggering € 1.1 billion per annum in the integration of renewable energy, development of an offshore high-voltage grid and in the construction of interconnectors to facilitate the integration of the European energy market. On top of that, we want to harness digitalisation and innovation to open up our grid to new players, different industries and new technologies. While this approach creates certain expectations and puts us under a lot of pressure, we can see that it really appeals to young people. We're attracting new profiles. Young engineers who, until recently, wanted to work for the Googles of this world are now choosing to come to us instead. Here, they will find a mix of technical complexity and digitalisation, as well as the chance to contribute to fighting global warming."

Elia successfully carried out a capital increase worth €434.8 million in 2019. Looking back, what are your thoughts on the transaction?

Bernard: "A capital increase is like a health check for a company – it tells you whether the market understands and

believes in your strategy. The capital increase showed us that our current shareholders have a lot of faith in us, but it was a huge success on the market too. Our share price hit an all-time high, reflecting our ambitions and showing that the market believes our strategy is intelligent."

Chris: "We've noticed that we're attracting a new kind of investor. Our share is increasingly being viewed as an attractive tool for investment. Institutional investors want to be part of our growth journey. They don't just look at us as a bond share anymore. That is an important observation."

Won't you need to launch another capital increase quite quickly if you put your growth strategy into action?

Bernard: "It's important to strike a balance between adjusting our plans to the market and achieving our own goals. Both the Board of Directors and the management team are willing to look out for opportunities, and if they're positive for the group, we'll seize them. There's been a new dynamic within the group since we acquired the additional stake in 50Hertz. Our teams are ready for action."

Chris: "If the authorities need to speed up the energy transition, additional investments will be required, so capital increase for organic growth can be postponed. However, the major unknown is non-organic growth."

In 2019, the corporate structure was adjusted and Elia Group became a holding company. What was the rationale behind the change?

Chris: "We are increasingly carrying out our activities in an international context, and it's important that we adapt to reflect this. We have just as many activities abroad as we do in Belgium. Under the new corporate structure, our German subsidiary 50Hertz is a business unit with equal standing. The change has enabled us to strike the right balance between group dynamics and local identity."

Bernard: "We're on the lookout for synergies in strategy, finance, innovation, safety, and more within the group. And we're also prioritising a local approach. It was a conscious decision to give preference to a German minority shareholder in 2018. Our relationship with German development bank KfW is going really well because everyone involved feels that it's a good deal. That much is clear from KfW's extremely active involvement in our management bodies. KfW helps us to make better decisions because they have a better insight into the local context."

Will the future internationalisation of the group affect the make-up of the Board of Directors?

Bernard: "Until now, we've been bound by the Belgian Electricity Act. But the holding company is a non-regulated company, so we can adapt the make-up of our management bodies to reflect our actual situation. Since half of our activities are located in Germany, it seems only logical, in the long run, to have board members who have a firm grasp of the local situation and can advise us on it."

Another major highlight of 2019 was the launch of Elia's first offshore projects in Belgium. The sea sounds like a risky place for an electricity system operator to work.

Chris: "That's why we took so much care over the projects. Both the Nemo Link cable (interconnector with the United Kingdom) and the Modular Offshore Grid (switching platform 40 km off the coast. for connecting offshore wind farms to the mainland) were delivered on time and on budget, and both met the reguired guality standards. Nemo Link was the first interconnector to manage that. The MOG was a stupendous achievement too. Just two and a half years ago, the project hadn't even been set down in law. Today, the first offshore wind farms are already connected to it. I am exceptionally proud of what our teams have achieved."

Bernard: "50Hertz has more experience with offshore projects, so we were able to put their skills to good use. Our combined experience is a key driver for our future growth. Most reports place offshore wind potential at 400 GW, with about half coming from the North Sea. We're currently sitting at 25 GW, so a massive increase is needed. Moreover, the grid is to be connected at European level, and we're ahead of the pack there too. With its Combined Grid Solution project, 50Hertz is currently working on the first hybrid interconnector between Danish and German offshore wind farms."

Elia Group wants to be a leading European energy company. How did this aim manifest itself in 2019?

Chris: "Our international position means that we examine complex problems from multiple angles. We have strong teams in both countries, and they don't always agree. Working together vields constructive solutions: our first joint study on the future of the European electricity system (Future-proofing the European energy system towards 2030) is proof of that. We are thinking ahead, rather than simply responding to developments as they happen."

Bernard: "The fact that we have activities in two countries makes us somewhat atypical for our sector. But that is precisely what gives us a broad outlook. Our in-house change process was instigated by a German who speaks perfect French and understands Dutch. Our operational activities are managed, at group level, by a committee with equal numbers of Belgian and German members. By looking around ourselves, we can identify new needs faster and take action to address them – digitalisation being just one example. We're actively seeking partnerships, too. I'd also like to mention Elia Grid International. Their consultancy position enables them to provide interesting leads for the group. They are an important part of the puzzle."

Chris: "Then there's technical leadership too. The 50Hertz grid has one of the highest proportions of renewable energy (60% in 2019). You can't really tell at first glance, but there is a great deal happening behind the scenes to keep the grid stable without impacting consumption behaviour. The SuedOstLink will be the first time that underground cables with a voltage level of 525 kV have been used, while the Combined Grid Solution will be the first project in the world to connect two offshore wind farms."



We don't want to burden future generations with the



(MOG) at its inauguration on Tuesday 10 September 2019.

The energy transition means an increase in electrification. To what extent has there already been convergence with sectors like transport and heating?

Chris: "Since we're a regulated monopoly, we have a specific role. We're also not the only system operator. That said, I'd like to highlight the IO.Energy project in Belgium – it's a project that was devised within Elia and aims to get consumers actively involved in the electricity market. Following analysis, together with Belgian DSOs, we launched a call for cooperation in late 2018, and we're currently testing the first projects on smart buildings and local energy communities."

Bernard: "We're not trying to do anyone else's job - not the distribution sector's, and not the commercial market's. If we all work together, we can come up with the best solutions for the customer. Thanks to this approach, our work is truly consumer-centric."

setting ambitious goals. The last two years have been fantastic for us. Now we need to make sure that we can keep on growing." Chris: "We're standing on the threshold of something new and exciting. The good news is that the various focal points underpinning our strategy have shown us the best way to move forward. Digitalisation will become increasingly relevant at European level, and we have opportunities to achieve more organic growth. We've laid the foundations. Now it's time for us to build on them. For instance, we're about to see a new wave of offshore projects. We need to make the most of the opportunities we have now so that we can take further steps in the future."

consequences of climate change, but we don't want to saddle them with a mountain of debt either.

Bernard Gustin

4 Our German partner KfW helps us to make better decisions. It has a better insight into the local context.

Bernard Gustin

Last but not least, who would you like to thank?

Chris: "From a CEO's point of view, there are a number of critical relationships that are vital for success. One of those is the relationship between the CEO and the CFO. These are two complementary roles that balance and challenge each other. Just as critical is the relationship between the CEO and the Board of Directors, which largely comes down to the CEO's relationship with the Chairman of the Board. With that in mind, I'd like to thank Catherine Vandenborre and Bernard Gustin for our excellent partnership. I'd also like to sav a special word of thanks to all the employees who have worked so hard to get Elia Group where it is today. Our achievements are the result of major efforts by a great many people at Elia and 50Hertz. And then there are all the departments that constantly strive to ensure that the lights stay on and the grid, system and market are ready for the future. Finally, I'd like to thank the authorities and the regulators. Our discussions with them have been constructive, which has enabled us to implement the projects that are needed for the future."

Bernard: "It's great to see how well our teams in both countries are coming on. A lot of that is down to Chris. He takes a real interest in the field. The management team also sat on all the working groups with the Board of Directors, contributing in a very natural, open way. That kind of transparency is important, and fosters trust. Then there are the regulators and the authorities, who fully understood our aims and gave us all the support we needed. When we were expanding our German management team, we were able to draw on the assistance and advice of our German partner KfW, with whom we have a very positive relationship. Finally, I'd like to thank our shareholders, who made our capital increase such a success and thus demonstrated their faith in us."

His Majesty the King visited the Modular Offshore Grid

What do you need to focus on in 2020?

Bernard: "We've created a lot of expectations regarding integration and synergies with 50Hertz. Now it's time for us to deliver. We've set up some exciting initiatives centred on digitalisation, to name but one example. At the same time, we're also thinking about our next big project. I firmly believe that companies grow by undertaking projects and

The context of the energy transition

As transmission system operators, Elia and 50Hertz lead the way in the energy transition. Our grids have a crucial role to play in the decarbonisation of the energy sector and society in general.

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Besides the rise of renewable generation, the energy transition is also bringing other changes: increasing decentralised generation, more supranational coordination and the emergence of innovations such as the Internet of Things (IoT), artificial intelligence (AI) and blockchain that are contributing to the fast-paced digitalisation of our society.

As a result, new market players and technologies appear such as electric vehicles, battery storage, Power-To-X technologies, etc. In a future, decarbonised and progressively digital world, managing the power system becomes increasingly complex. Not only will electricity generation become ever more weather-dependent, it will also be produced by millions of assets connected everywhere in the European grid. Both transmission and distribution system operators will need more flexibility to keep the system in balance and to manage congestions and voltage issues.

Current trends and evolutions

Increasing shares of renewables

The decarbonisation of the energy sector based on increasing shares of renewables will remain the most important driver of change in Europe. This trend is propelled by the political objective to counter climate change and build a sustainable energy future, but is also supported by the rapid development and declining costs of renewable technologies themselves. In addition, the current design of electricity markets is driving the decarbonisation trend because of the zero marginal costs of renewables. We expect to see this trend pick up speed, which has important direct repercussions on grid development needs and on system operation, but also indirect consequences, such as increasing societal and political expectations that companies should be playing their role in combating climate change.

approach.

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Decentralisation

Following the trend of decarbonisation, we believe that the move towards more dispersed, smaller and local generation sources, which mainly connect to lower voltage grids, is also likely to continue. "Prosumer" numbers will rise and they will move to the forefront of the electricity system even more, empowered by technologies that allow them to play a much more active role. New technologies, increasing electrification and sector integration also stimulate the emergence of new players such as service providers targeting end-consumers. For example, balancing service providers are exploring the potential of delivering flexibility to different players along the value chain.



Supranational coordination

The increasing share of renewables and the trend towards more decentralised generation with a much larger number of players is making the behaviour of the power system more variable and complex. In addition, all over Europe we are seeing grid development lag behind rapidly evolving renewable generation. This is causing congestion problems and considerable redispatching costs in some European countries. Given the already high degree of interconnectedness and integration of the European power system and markets, responding to these challenges often requires a supranational

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Digitalisation

The fourth trend, which is being introduced at a rapid pace, will accelerate the speed of the decarbonisation and the decentralisation of production. Elia Group expects to see massive amounts of renewables coming online at all levels of the grid, electrification powering activities such as mobility and heat & cooling, more international cooperation, and millions of people producing and storing their own electricity. To respond to this, the Group believes that a new way of managing the future power system is required in order to maximise the benefits of the energy transition. This will be possible thanks to the digitalisation of the power system connecting all electrical devices and various players in the system. The emergence of new digital technologies will allow new capabilities for improving the gathering, transfer, processing, and visualisation of data, as well as the automation of decisions and actions in managing the power system. Some of these digital technologies include (but are not limited to) the Internet of Things, cloud computing, big data, artificial intelligence and blockchain.

Our story

A European top 5 TSO

GRI 102-

Elia Group is active in electricity transmission. We ensure that production and consumption are balanced around the clock, supplying 30 million end users with electricity. With subsidiaries in Belgium (Elia) and northeast Germany (50Hertz), we operate 19,271 km of high-voltage connections. As such, Elia Group is one of Europe's top 5 TSOs.

In addition to our activities as TSO, Elia Group provides various consulting services to international customers through our subsidiary Elia Grid International (EGI). Elia is also part of the Nemo Link consortium that is operating the first subsea interconnector between Belgium and the UK.



Our core tasks

GRI 102-2 GRID OWNERSHIP

We deliver the infrastructure of the future

We develop, build and maintain our transmission infrastructure according to long-term needs. We heavily invest in the integration of renewable energy, the development of an offshore high-voltage grid and the construction of interconnectors to make the energy transition happen and to facilitate the integration of the European energy market.



We are part of the European integrated market

Elia Group makes its infrastructure available to all market players in a transparent, non-discriminatory way. Digitalisation and the latest technologies offer market players new opportunities to optimise their electricity management by selling their surplus energy or temporarily reducing consumption. We develop services and mechanisms allowing the market to trade on different platforms, which promotes economic competitiveness and the wellbeing of society.



TRUSTEESHIP*

We transparently integrate renewable energies into the market

The German legislator has transferred the responsibility for coordinating and processing legal levy systems to promote environmentally friendly technologies to the transmission system operators. 50Hertz collects these levies as a trustee, administrates them and coordinates their distribution to the recipients. If the electricity from renewables is not marketed directly, we sell on the power exchange.

*Only for 50Hertz



We maintain the balance

Operating the electricity system is an increasingly complex task due to the sharp rise in renewable generation sources, the continuous arrival of new players and technologies and the development of supranational coordination. To ensure a reliable supply and the efficient operational management of our grids, Elia Group monitors the electricity system in real time. This requires specialist knowledge as well as sophisticated tools and processes.

In the interest of society

Based on mutual respect and empathy, we realise the grid of the future through proactive dialogue with a variety of stakeholders to enable us to achieve the best societal and environmental solutions. By building interconnectors and integrating renewable energy generation, Elia Group promotes both the integration of the European energy market and the decarbonisation of our society. In Germany, we are already integrating more than 60% of renewable energy safely into the grid. We also ensure that we deliver investments on time and within budget, while having a maximum focus on safety. We proactively involve stakeholders very early on in the development process. We also believe that our technical knowledge and analyses support policymaking and contribute to the public debate on the future of the European energy system.

Innovation & collaboration

We keep the lights on and make the energy transition happen in a responsible, highly efficient and non-discriminatory way, while protecting the safety of our personnel and subcontractors. We integrate new technologies and keep up with the latest developments in the energy sector. We encourage our employees to be frontrunners in the energy transition, both with ideas and practical applications. We count on our own expertise but are also keen to learn from outside the Group through collaboration and open innovation. Furthermore, we continue to contribute our knowledge and expertise publicly by providing independent, objective and factual analysis to key actors in the energy landscape.

> Watch http://bit.ly/AboutEliaGroup and get to know more about our Why, What and How.

A stable and secure grid around the clock

As transmission system operators, we are just as committed to the goals of the Paris Agreement as other players in politics and business. We see ourselves as a service provider to ensure a stable and secure electrical system around the clock while the share of renewable energies in the energy supply increases steadily. This is a responsible task. Public authorities and society in general count on our expertise. They see us as their trusted advisor.



50HERTZ HAS LAUNCHED AN INVESTMENT PROGRAMME OF €4.2 BILLION FOR THE NEXT FIVE YEARS

How can 50Hertz support the ambitions of the European Green Deal?

Stefan: "The strength of Elia Group lies in the variety of different market designs we have to deal with. different perspectives we can share and of course, the different cultures which we can learn from. The mere fact that our headquarters are located in Berlin and Brussels speaks for itself. No other TSO in Europe has this presence in two capitals. As far as 50Hertz operational contribution is concerned: no other TSO has such a large share of fluctuating electricity volumes from wind and solar power in its grid. In 2019, we had around 60% of our electricity consumption coming from renewables, which is one of the world's highest shares. In our grid area, we expect to achieve the German federal government's 2030 target of 65% renewables within two years."

Stefan Kapferer (54) has been 50Hertz CEO since December 2019. Prior to this, he was Chief Executive Officer of the Federal Association of the Energy and Water Industries (BDEW), Deputy Secretary-General of the Organisation for Economic Cooperation and Development (OECD) in Paris (2014 to 2016) and from 2011 to 2014 he was State Secretary in the Federal Ministry of Economics and Energy. Stefan Kapferer was born in Karlsruhe and studied administrative sciences in Constance.

Major challenges of the energy transition according to Stefan Kapferer

- To secure and technically implement grid optimisation, grid reinforcement and grid expansion with the required capital.
- To ensure system stability in an increasingly decentralised digital energy world.

 \cdot To invite the people that live close to infrastructure projects to engage in dialogue to generate understanding. Without civil society, the energy transition will not work the way politicians and the industry wants it to.

Stefan Kapferer

What are currently the biggest challenges?

Stefan: "The German government has now decided on a clear timetable to phase out coal-fired power generation by 2038 at the latest and then to secure the electricity supply mainly through renewable energies and flexible gas power plants. This is an enormous task. So far no one can reliably say where all the electricity needed for private households, for industry and increasingly also for heating and transport sectors will come from. For us as a transmission system operator, this poses several major challenges.

In our grid area, we expect to achieve the German federal government's 2030 target of 65% renewables within two years.

Stefan Kapferer

Stefan: "The energy transition will only be succesful if we all collaborate and use all the available potential. And we as TSOs and DSOs have a key role to play: it won't work without us. Incidentally, a scientific association recently recorded this with a clarity I wouldn't have expected. 'Without the grid expansion, the energy transition will fail,' says the German scientific elite in a recently published paper. And that's why we deliver. 50Hertz has launched an investment programme of \in 4.2 billion for the next five years. It includes onshore projects such as the SuedOstLink and the Berlin cable diagonal, as well as the important offshore grid connections Ostwind 2 & 3 and the HansaPower Bridge interconnector to Sweden. Offshore will become increasingly important because wind turbines at sea have higher fullload hours and are perceived by the public as less disruptive. This investment programme naturally also requires an adequate and responsible regulatory framework."

• To work cost-efficiently and transparently so that the financial burden on end consumers is kept within reasonable limits.

The mere fact that our headquarters are located in Berlin and Brussels speaks for itself. No other TSO in Europe has this presence in two capitals.

Why is there a need for grid in times were generation becomes more decentralised?

What else is needed to make this huge task a success?

Stefan: "Grid expansion alone is not enough. We urgently need innovations in hardware - from cables to substations - and also in software, in other words in the markets. Before we build a new line, we need to better utilise and optimise the existing grid. We are doing this using the latest technology, but there is still a lot of research and field testing to be done. And in times of nuclear and coal phase-out, we need new equipment such as phase shifters, reactive power compensation systems and intelligent data management. The topic of 'energy storage' will also gain momentum, both in the smart home context and at the Power-to-X level - I am convinced of that. Intensive, trusting cooperation between grid operators at various levels and large industrial electricity consumers is essential."



Sustainable actions in the interest of society

Marco Nix,

Chief Financial Officer 50Hertz

Our planet and all mankind face the serious challenge of finding answers to the problems of climate change. Industry plays an important role in this and is called upon worldwide to follow the guiding principles of the United Nations. The Sustainable Development Goals, to which the Elia Group is also committed, represent a globally crosslinked strategy to meet these challenges on an economic, social and ecological level.

A carbon-neutral economy is an essential part of this global strategy. The Elia Group makes a significant contribution to this by enabling the integration of renewable energies and thus the energy transition. To this purpose, we develop the transmission grid to meet demand and enable transparent and non-discriminatory market integration for all parties. In addition, we have set ourselves specific targets and measures

to make our core business even more sustainable. The Elia Group is committed to reduce its direct CO₂ emissions, to increase biodiversity around its assets and its lines, and to continuously improve its occupational safety and diversity objectives. In the future, we will increasingly work on concepts for the circularity of our materials used and the eco-design of our assets.





Cur vision already states: we as a transmission system operator are committed to sustainable development in the interest of society. It is therefore natural for us to focus on our contribution to the global development goals of the United Nations. This results in opportunities for us and for society, which we want to actively manage. And of course we always keep an eye on the risks.

Please visit www.eliagroup.eu/en/publications to consult the full 2019 Elia Group Sustainaility Report



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In 2018, the Elia Group had decided to widen its view on sustainable business management and to integrate the Sustainable Development Goals (SDG) into a sustainability framework. In a first step, 11 of the 17 internationally valid sustainability goals were identified and clustered from top and high to medium priority.

In order to better understand the risks and opportunities that SDGs present for their own business activities, 50Hertz and Elia launched a quantitative assessment along the value chain in the 2019 reporting year. This allowed the 2018 perspective, which only took into account their own operations, to be fundamentally expanded. The science-based approach of the S&P Global consulting subsidiary Trucost was assigned for the analysis. The internal prioritisation was completely confirmed by the analysis (for the highest priority) and also largely confirmed for the high priority.



One of the greatest challenges for society is climate change. Since we are enabling and facilitating the energy transition through grid development, providing the appropriate market design, supporting electrification of mobility, etc. sustainability is already at the core of our strategy. At the same time, we are setting up objectives and concrete actions to make our own business sustainable: limitation of direct CO₂ emissions, introducing concepts of circularity and eco-design in our assets, enhancing biodiversity surrounding our installations, introducing concrete safety targets, a safety culture and working on diversity targets.

Chief Community Relations Officer Elia

Sustainable development goals

In 2015, the international community of states represented by the United Nations has agreed 17 goals for sustainable development. Within the context of Agenda 2030, these global goals, which apply equally to all states, are intended to reduce inequalities, promote equal opportunities and stimulate sustainable economic growth. All - governments and companies alike - are called upon to meet this challenge, but also to focus on opportunities and risks and tap the potential of sustainability.



The Elia Group has a strong, positive influence on SDG 7 "Affordable and Clean Energy" with its business model of increasingly integrating sustainable energies into the grids. At the same time, this also creates positive influences that lead to sustainable cities and communities (SDG 11). The Group contributes to a good employment situation and stable growth in the various regions of its grid areas, thus strengthening SDG 8 "Decent Work and Economic Growth". Overall, Elia Group's business activities and revenues contribute 100% positively to SDGs.

This positive influence is offset by both opportunities and risks, the alignment of which with the corporate strategy is carefully examined. These include, for example, more intensive investigation of the effects of climate change and other related risks on the Group's own business activities and those of the supply chain.

2019 in numbers

<u>GRI 102-44</u>

Operational







€ 1.69 GROSS DIVIDEND PER SHARE (ELIA GROUP)



Financial



Social







0 0





Elia Group in 2019



Nemo Link launched successfully

Capacity on the subsea interconnector between Great Britain and Belgium has been available for purchase by implicit day-ahead auction since 30 January 2019. We traded about 18,559 MWh of power on the first day of operations. Nemo Link is a joint venture between Elia and British system operator National Grid. The cable has a capacity of 1,000 MW and is Elia's first subsea interconnector in Belgium. It is also the country's first high-voltage direct-current (HVDC) project.



Elia named a Top Employer for the second consecutive year

For the second year in succession, Elia can count itself among the best Belgian employers. The Top Employer certification is awarded in more than 115 countries to companies that are providing an excellent working environment and consider this a top priority. Over the past year, Elia has invested heavily in internationalisation and training. The award is an important accolade and an additional advantage when it comes to attracting new talent in an increasingly competitive labour market.





King Philippe inaugurates Elia's first plug-at-sea

His Majesty the King visited the Modular Offshore Grid (MOG), Elia's first power hub in the North Sea, upon its inauguration on Tuesday 10 September. The inauguration of the MOG is a true milestone in the development of wind power of Belgium's North Sea coast. By the end of 2020, it will combine electricity generated by four offshore wind farms for onward transmission to the mainland.



Stefan Kapferer becomes the new CEO of 50Hertz

Stefan Kapferer has taken up his role as CEO of Elia Group's German subsidiary 50Hertz. Kapferer brings a wealth of experience and expertise to the job. Prior to this, he headed up the German Association of the Energy and Water Industries (BDEW), and also has international experience and a strong network thanks to previous positions as Deputy Secretary-General of the OECD in Paris and State Secretary at the German Federal Minis-try of Economics and Energy.

Chancellor Merkel inaugurates Arkona wind farm

The new Arkona offshore wind farm was officially inaugurated on Tuesday 16 April in a ceremony attended by the German Chancellor Angela Merkel. The 50Hertz grid connection project Ostwind 1 connects the Arkona and Wikinger wind farms to the onshore transmission grid. Renewable energy from two off-shore wind farms is now flowing via three 90 kilometres long submarine cables to the Lubmin substation and from there to the consumer. 50Hertz is using a 220-kV three-phase cable for the first time. The work in the German Baltic Sea took three years and was delivered ten percent below the €1.5 billion investment budget.



Successful capital increase of €434.8 million

The new shares created by Elia's recent capital increase were first listed on Euronext on 18 June 2019. To mark the occasion, the day's trading began with a bell ceremony. By the close of the subscription period for shareholders with preferential rights, no less than 92.17% of the new shares had been taken up. Any preferential rights that had not been exercised were offered to Belgian and international institutional investors. This second offering was fully completed in one hour. Demand outstripped supply by five to one.



'Good Practice of the Year' award for Combined Grid Solution

The joint project Combined Grid Solution between 50Hertz and the Danish Energinet won the 'Good Practice of the Year' award. The Combined Grid Solution is the first grid connection that links offshore wind farms of two European countries. Free capacity of the interconnector can be used for electricity trading between the two countries. This maximum use of offshore infrastructure was particularly highlighted by the Renewables Grid Initiative during the award ceremony.

Catherine Vandenborre wins Trends-Tendances 'CFO of the Year 2019' award

Trends-Tendances named Elia's Chief Financial Officer Catherine Vandenborre 'CFO of the Year 2019'. Catherine and her team received this recognition for the key role they played in the transaction that gave Elia full control over the German company 50Hertz. The deal was all the more remarkable as Elia partly financed the acquisition with hybrid debt instruments, thus leaving Elia's creditworthiness intact.

Elia and 50Hertz sign Marine Grid Declaration

On Tuesday 19 March, Ilse Tant and Olivier Feix attended the signing ceremony of the Renewables Grid Initiative's Marine Grid Declaration. The declaration contains specific recommendations for the establishment of offshore grids. Special attention is given to promoting communication with stakeholders from the start of the project. The protection of the marine environment is also a key focus. Additionally, the declaration commits the signatories to exchanging more best practices with each other.





Elia Group's new corporate structure implemented

the envisaged growth strategy.

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Catherine Vandenborre ELIA	Trends Trends Marten and Mart Pharemanness & Trends Marten and Mart Pharemanness & Marten and Mart Pharemanness &

Sustainalytics classifies Elia Transmission Belgium and 50Hertz as an "outperformer"

Elia Transmission Belgium, Eurogrid and its subsidiary 50Hertz have once again improved their sustainability rating. In the latest edition of the Sustainalytics Environment, Social and Governance report, they scored respectively 74 points (Elia) and 79 points (50Hertz) out of 100 earning them 'outperformer' status.



The internal reorganisation was completed on 31 December 2019, meaning that the Elia Group is now a holding company and Elia's regulated activities in Belgium have been separated and ring-fenced from its non-regulated and regulated activities outside Belgium. This change to the Elia Group's corporate structure will also mean that its existing and future Belgian and European activities can be developed in line with

Fifth anniversary for Elia Grid International

Elia Grid International (EGI) offers consultancy and engineering services on the international energy market and develops power system projects for third parties. As a wholly owned subsidiary (50/50) of Elia and 50Hertz, EGI combines the quality and expertise of two large European system operators, each with a solid track record and many decades of experience.

How do you look back at the first 5 years?

Didier: "We have managed to develop a new international activity from scratch and successfully delivered projects in four continents. We are focusing our activities in three key target markets: Europe, the Middle East and South East Asia. Over the years we also delivered projects in Africa, Central Asia and even Australia. Drawing on our first years of existence, we are now ready to move things up a gear and further develop

our activities. Our business plan has been reviewed in 2019 and is aiming towards ambitious growth targets with a doubling of the company size. Today, we have around 50 people on board from 22 nationalities. It reflects our international spirit. We have headquarters in Brussels and Berlin and local representatives in Dubai, Doha and Singapore. In 2020, we will also have an entity opening in Saudi Arabia.'

We are talking to the TSO's and to the ministries as peer companies. While sharing experiences, we also learn from them.

Didier Wiot

On 19 September 2019, EGI's Board of Directors appointed Didier Wiot as the company's new CEO with immediate effect. He was previously the COO of EGI and had been its acting CEO since June 2018. In this role, he demonstrated his ability to manage EGI's activities effectively.

EGI supports Ukrenergo with **RES** integration

Elia Grid International is helping the Ukrainian Transmission System Operator (TSO) Ukrenergo to identify the gaps in the Ukrainian power sector to enable it to carry out the necessary system transformation for the effective integration of variable renewable energy sources (vRES). Experts from Elia Group shared best practices and key lessons learnt from the Elia and 50Hertz experience regarding RES integration.

EGI launches new practice on "Market and Regulation"

For which types of customers does EGI usually work?

Didier: "Our clients are mainly Transmission System Operators, but we are also supporting regulators, single buyers, ministries, public authorities and private developers. We are looking more and more into the global ecosystem of the energy landscape. The key challenges we are working on are mainly renewable integration, market development and the implementation of new interconnectors. The regions where EGI is active are willing to play a strategic role in the energy landscape of the future. Major transformations are happening at an unprecedented pace and operators are seeking for excellence. This is where the support of EGI can make a difference."

Europe has its Green Deal. But there is clearly something moving on a global scale?

Didier: "Most of our clients are targeting big CO₂-reduction ambitions to fulfill their commitment to the Paris Agreement. Vietnam is a great example. In a few years' time, they managed to create the conditions to develop and connect large scale solar plants throughout the country. Starting from nothing, the installed capacity at the

EGI is backed by two TSOs. Does that help in setting up your business?

Elia Grid International assists clients in making a real difference by leveraging the experiences developed by Elia Group over the last 20 years. Practices include market products development, studies and implementation processes related to market set-up, data management, regional market coupling, interconnectors and advice in balancing market design and implementation.

> end of 2019 has reached 5 GW while the initial plan only targeted 800 MW. At first, they thought RES integration would be technically impossible. EGI helped to convince decision makers that the system would remain stable and Vietnam is now moving forward with larger ambitions. EGI is also supporting other system operators on many other challenges: connecting Ukraine to the European system, developing capabilities in Georgia, advising Malaysia in their unbundling journey."

> **Didier:** "Being backed by two TSOs is a major unique selling proposition! This is what makes us different from classical consulting companies. We are talking to system operators and their stakeholders as peer companies. While sharing experiences, we also learn from them. This creates a unique relationship that few competitors can achieve. Our ambition is to make a real difference. When we finish a project, our client should be in a better position than before it started. You can only do that if you enter the strategic level of the organization and this is what we do with the support of the mother companies. However being active on a competitive

market also means that we have to battle against a large number of players. The competition can be fierce but EGI has developed a strong brand recognition and winning tenders against big names is starting to become "normal". At the same time, it is important for us to stay connected with our mother companies Elia and 50hertz. EGI also delivers owners' engineering activities in Germany for the construction of 400kV substations as well as other services in various domains like Grid Planning or system operation."

At this very moment, do you have any idea in which country your employees are?

Didier: "Yes, we have a tool for that. Just over the last two weeks we had many colleagues delivering projects in Saudi Arabia, but we also had people in Georgia, Ukraine, Poland, Vietnam, Malaysia and Singapore... a classical week somehow."

> https://www.eliagrid-int.com/ to learn more about EGI's projects

Our strategy



From a traditional to a digital TSO and capturing new growth opportunities

by building the grid, systems and markets. This is energy landscape is bringing new and bigger

The energy transition is making our traditional tasks more complex due to the intermittency and increasing decentralisation of the production.

One of the solutions to support our traditional business and at the same time cope with the a traditional into a digital TSO. At the same time, further growth. Therefore, in 2019 we added two additional dimensions to our strategy. These

Our three strategic pillars

We increase group relevance while delivering societal value

In the context of further European consolidation, we actively shape growth opportunities that will leverage on our expertise built in the energy transition or develop new, key competences required for a successful energy transition.



We provide the needed infrastructure in an efficient way

We build the infrastructure of the future in Belgium and Germany and transform our core business to become a digital transmission system operator. This enables the energy transition in our home markets. This strategic pillar represents our core business and is structured along six building blocks.

1. We ensure a secure, reliable and efficient grid 2. We deliver the transmission infrastructure of the future 3. We develop the electricity system and the markets 4. We cooperate to create value for society 5. We align culture with strategy 6. We have our eyes wide open for innovation

We empower the customer through digitalisation of the electricity sector

We provide the digital tools to the European market to accelerate innovation in the energy sector, to create energy services and to initiate sector convergence by lowering the barriers of our sector.

NEW OPPORTUNITIES elia group

CORE BUSINESS

Meeting expectations by responding to new trends and evolutions



Alexandre: "In 2016, we developed the six building blocks of our strategy. They are still relevant today. The energy transition demands lots of new infrastructure. It will remain the case for the next 10 to 15 years. However, the fast-changing energy landscape makes our daily work more complex and consumers expect us to deliver reliable services at affordable costs and at accelerating speed. Our digital transformation will enable us to better respond to new trends and evolutions and better meet expectations. It is the biggest transformation our organisation has ever faced. We are currently putting the required cultural and organisational transformation processes in place."

Can you give some examples where digitalisation is beneficial?

Alexandre: "There are benefits in various areas. By using smart sensors and automation, the lifespan of our existing assets for instance will extend and it will make the power system more resilient. Additionally, digital tools will help us to manage a more complex system closer to real-time. As a digital TSO, we can also provide the interfaces needed to implement a true digital architecture where market parties and consumers can participate and contribute to the balancing of the system."









The second strategic pillar is about increasing the relevance of the Group. Is its relevance in danger?

Alexandre: "The Group's organic growth is promising. It remains our first priority. Yet, we cannot ignore the potential societal, technological and regulatory evolutions that could reverse our organic growth. In the last years, we have been looking at new growth opportunities that are relevant for our business. Taking our specific know-how and experiences as well as our identity as a system operator as a starting point, can the developments at the edge of our grid represent an opportunity? As a central player in Europe with a unique set of skills, Elia Group is in a good position to turn some ongoing developments into new growth opportunities. In particular, I am thinking about the offshore grid and interconnectors that will need to be built and operated to increase the renewable penetration in Europe."

What value do the inorganic ambitions bring to society?

Alexandre: " A regulated company that performs well will generate positive returns for the society it serves, for industry as well as for private individuals. I think of strong ratings, better tariffs thanks to a favourable financial framework characterised by lower interest rates, diverse talent management, opportunities for local suppliers, etc."



Nadia Ballauf.

Digitalisation will make it easier for new entrants to get on-board. It will help us to keep the system in balance and the customer can make money out of it. which contributes to affordability.

Alexandre Torreele

The third strategic pillar is about the digitalisation of the energy sector itself and empowering the customer. How do you see this in practical terms?

Alexandre: "The energy sector is extremely complex. Our biggest risk as a system operator is that we have to keep the balance without having access to flexible sources. Compare it to a firefighter who has to work without water in his tank. We want to make sure there is a level playing field where every actor is equal. By empowering all kinds of customers, no one can keep the flexibility for themselves. That's why Elia Group is setting up ,re. alto'. With this digital European energy market place of Application Programming Interfaces (API), we want to facilitate the exchange and valorisation of data and digital services. This will bring value to the European energy ecosystem."

In what sense?

Alexandre: " Digitalisation will make it easier for new entrants to get on-board. Our European market platform will lower the barriers by facilitating the exchange between all market parties in Europe and provide simplification; including actors from other sectors such as mobility. New business models will emerge more easily and freely. As observed in other sectors (banking, travelling, mobility, etc.), many of the new business ideas will become concrete through digital solutions: new platform, new mobile applications, etc. It will help us to keep the system in balance and the customer can make money out of it, which contributes to affordability."

L Digitalisation enables us at Elia Group not only to handle the ever increasing complexity and meet quick reaction demands of our daily business, it also opens up new opportunities and helps us to further accelerate.

Head of Corporate Development 50Hertz

We ensure a secure, reliable and efficient grid



GRI 203-1, GRI 203-2

RELIABILITY LEVEL OF THE GRID (ELIA)

AMBITION

As a system operator, we aim to maximise the availability of our electricity system and keep the lights on at all times to support the welfare of society.

CHALLENGE

As we integrate more and more renewable energy into the grid, we operate closer to its limits more often. Maintaining the balance and ensuring a highly reliable electricity grid becomes a particularly challenging task.



APPROACH

Our investment projects anticipate the further integration of renewable energy in an efficient and secure way as well as the emergence of innovative technologies. We constantly optimise our critical and strategic processes in order to minimise costs and operational risks.

System security

INTERVIEW WITH FILIP CARTON (HEAD OF ELIA'S NATIONAL CONTROL CENTER) **AND ANDREAS JOHN (HEAD OF SYSTEM OPERATIONS 50HERTZ)**

We maintain the balance

Elia Group ensures system stability and provides a safe and reliable power supply. Thanks to new technologies and methods monitoring large volumes of data, we are able to balance generation and consumption the whole year round.

What are the biggest challenges in maintaining the balance today?

Filip: " Compared to 10 years ago, the grid is being operated closer to its limits more often. Our challenge is mainly the predictability. If you know of a problem well in advance you can prepare for it and coordinate with neighbouring grid operators. Volatility is increasing due to more and more renewable energy sources and international flows. These make accurate prediction difficult."

Andreas: "We therefore have to operate our grid today in a completely different way than in the past. We have to intervene more often in system operations in an active and forwardlooking manner by implementing redispatching measures. In Germany

both nuclear and coal-fired power, the question of the future provision of system services is also a major issue. In particular, measures to maintain voltage stability are needed to ensure system security in the event of higher grid load caused by missing or outdated infrastructure."

- at a time when we are phasing out

Predictability being of the utmost importance, what are the consequences if you get it wrong?

Filip: " Looking at the way we calculate capacity today, we have to make a choice two days in advance assessing where the market is going. Then we optimise the grid accordingly. If our prediction is wrong, we may allocate too much capacity to market coupling, which

Only with a minimum grid infrastructure in place, we can tackle optimisation but not vice versa.

Andreas John



finally cannot be ensured in real time. Or, we may allocate too little capacity to the market, which may cause a problem with security of supply."

Andreas: " Redispatch measures cost money and are passed on to customers. That is why it is very important to us to keep the volume of redispatching as low as possible and to make the management of all available measures as efficient as possible."

And what about the problem of loop flows?

Filip: " Loop flows are nothing new. According to the laws of physics, energy takes the shortest path. Unfortunately, energy flows from Northern Germany via Belgium to Southern Germany. The quantities can be considerable. Sometimes averaging 1,500 or 2,000 megawatt, which is quite significant compared with our grid."

Andreas: "We must use more active network components in order to avoid loop flows and to meet the demands of society, new generation patterns and energy markets."

Filip: " One of the solutions offered by our joint study (Future-Proofing the EU Energy System towards 2030) is to ensure that grid operators don't have to make a choice in advance about the direction we think the market may head in. We can give the market coupling the freedom to do that. We call them Flexibility Hubs. It may sound complicated but it means that the freedom we have as grid operator to optimise the grid in a particular way. can be passed on to the market players so they decide the direction to go in during the market coupling itself and the market can then go where it wants to go. "

versa.'



Is there a way to solve these issues for both Belgium and Germany other than expanding the grid?

Andreas: " It is important to ensure that a precondition is met: we must expand the grid according to demand. Only with a minimum grid infrastructure in place, we can tackle optimisation but not vice

Compared to 10 years ago, the grid is being operated closer to its limits more often. Our challenge is mainly the predictability.

Filip Carton

Effects observed in the interconnected European electricity system



To keep physical electricity flows within operational boundaries, system operators regularly have to perform redispatching measures to adjust the pattern of generation and demand in the grid to avoid or resolve grid congestions. In some cases they even have to curtail renewable production. These measures are expensive for consumers. The Bundesnetzagentur (German regulatory office for electricity) reported an amount of \notin 1.4 billion for Germany in 2018.

Grid congestions

are a result of the discrepancy between the development and construction times of renewable generation compared to the longer lead-times for building grid infrastructure. In Germany in particular, getting the large-scale wind energy production efficiently from the north to the consumption centres in the south, is a considerable challenge.

Loop flows

are cross-border power flows that originate from an exchange of energy between generation and consumption within a bidding zone. Loop flows are inherent to a zonal market design. Their size should however be kept under control, as they can limit the cross-zonal capacities available to the market for neighbouring bidding zones (potentially negatively affecting market welfare and security of supply).

Redispatch

refers to a costly measure by which the TSO alters the power generation and/or load pattern in order to change the physical power flows in the grid to relieve a physical congestion. Redispatch usually consists of two or more actions (upward or downward change of power generation or load) at the opposite sides of a congestion. In the simulations performed in this study, redispatch is applied after the market to secure the grid.

RES curtailment

is the reduction of renewable generation, when the grid is at risk of overload. It is usually a last resort option for the TSO, when other redispatch measures are not sufficient. The market itself can also curtail renewables, e.g. when market participants face negative prices and therefore choose not to produce. Watch our video http://bit.ly/Future-proofing and learn more about our analysis on how to bring the European energy system closer together.

Al forecast model reduces compensation cost for grid losses

When operating Alternative Current (AC) grids, grid losses are inevitable. The longer the distance the electricity is transported, the higher the grid losses. System operators balance those losses as they buy and feed-in additional electricity.

To predict those losses more precisely and to procure the electric energy for the compensation more cheaply on the electricity market, 50Hertz developed an artificial intelligence (AI) model. This has been operational since the end of 2019. The





Future-proofing the system

In November 2019, Elia Group published a study about Future-Proofing the EU Energy System towards 2030. We see increasing challenges on both the hardware (grid infrastructure) and the software (market design) of the European, interconnected electricity system. We want to raise awareness on the need for improvements to pave the way for the increasing integration of variable, renewable energy on the path to 2030 and beyond.

digital calculation is based on data about wind and photovoltaic supply as well as on wind rise, solar radiation and temperature at 70 locations. The model compares its forecasts with the actual grid losses and adjusts its algorithms automatically based on the differences.

50Hertz developed the grid loss model in cooperation with the Fraunhofer Institute for Optronics, System Technology and Image Evaluation (IOSB) in Karlsruhe, Germany.



2019 in numbers

38%

Renewable energy production (offshore/ onshore wind and solar only) increased by 38% in absolute terms compared to 2018 (5.46 TWh in 2019 compared to 3.95 TWh in 2018). Relatively high solar generation in the summer months and higher wind generation in the winter months constitute the main part of renewable generation.



17%

Renewable generation (offshore/onshore wind and solar power only) increased by 17% in absolute terms compared to 2018 (11.52 TWh in 2019 as against 9.82 TWh in 2018).

€ 723.5 mio

Elia continued to step up its investment programme, reaching a record € 723.5 million in Belgium mainly intended to incorporate renewable energy in the grid and facilitate the further integration of the European energy market through interconnections.

38,794

38,794 gigawatt-hours (GWh) of wind power were generated in Germany in 2019 versus 32,870 GWh in 2018. The generation of solar power amounted to 11,177 GWh in 2019, versus 10,796 GWh in 2018.



€488.6 mio

To meet grid users' requirements, 50Hertz Transmission invested €488.6 million in 2019, maintaining its high investment level from the previous year (€491.5 million).



Belgium exported more electricity in 2019 than it imported. This is a turnaround compared to 2018, when the country imported significant quantities of electricity. This reversal turned Belgium from an overall net importer in 2018 (17.5 TWh imported/20% of the energy mix) into an overall net exporter in 2019 (1.8 TWh exported/2.1% of the energy mix). Belgium had not been a net exporter of electricity for almost 10 years, the last time being in 2009 and 2010, when total net exports represented 2.8% and 0.2% respectively of Belgium's energy mix.



60%

50Hertz is a frontrunner in the integration of renewable energies into the entire electrical system: In 2019, around 60% of gross electricity consumption in the 50Hertz balancing zone was derived from wind or photovoltaic power as well as biomass, hydropower and other renewable energies.



Over 16,000 megawatts

Over 16,000 megawatts of wind power safely integrated into 50Hertz' grid area. Cyclone Florenz brought 50Hertz a new wind power feed-in record. On January 13, 2020, at 8.45 pm, the system control centre of the transmission system operator for north-eastern Germany registered over 16,000 megawatts for the first time ever. The annual peak load in the 50 Hertz grid area is also around 16,000 megawatts. During this time, the grid area of 50Hertz could have been completely supplied with wind power and would have even exported energy.



The BOOST project was launched in 2014 with the aim of optimising cost management. It was rolled out in three successive waves: underground engineering, IT activities, and overhead lines and substations. Thanks to this initiative, Elia saved more than €33 million over the first three years of the 2016-2019 tariff period.

Asset Management

AN INTERVIEW WITH FRÉDÉRIC DUNON, CHIEF ASSETS OFFICER ELIA

From time-based to condition-based maintenance

We continue to invest in the development and use of new technologies that help us optimise the maintenance and replacement of our assets. We highly value our maintenance activities seeing that they contribute significantly to our common goal of continuously delivering an outstanding service to all our customers. Elia Group uses a range of methods to digitalise work in the field, including connected equipment (PCs, smartphones and smart devices), new mobile applications and the overhaul of current processes.

What is the biggest shift that digitalisation will bring in asset management?

Frédéric: "When it comes to asset management and maintenance, digitalisation helps us to take better-informed decisions. We gather data from internet of Things (IoT) devices, from feedback after incidents and from the mobile devices that our technicians use in the field. This enables us to move from time-based maintenance to condition-based maintenance. In the future, we will even shift to predictive and risk-based management."

Condition-based maintenance facilitates a reduction in the maintenance costs of our assets over their entire lifetime.

Frédéric Dunon



What are the advantages of condition-based maintenance?

Frédéric: " It improves the efficiency of our maintenance programmes. It facilitates reduction in the maintenance costs of our assets over their entire lifetime and increases the availability of our network. With the information we get from our data sources, we can determine whether a particular asset needs maintenance or replacement. We base our maintenance programmes on the real wear and tear of our assets and no longer on the theoretical time intervals that we have used in the past. Predictive maintenance even goes a step further, as it estimates when service malfunctions or failures may occur in advance. Risk-based maintenance, on the other hand, closely links the maintenance of assets with the need of the network. The criticality of an asset differs depending on location and impact."

What are the challenges you face to makes these shifts happen?

Frédéric: "The changes we have in mind will affect our teams; there is no doubt about that. In my opinion, it is not only a question of feasibility regarding technologies and tools. It is mainly a question of human transformation. This is not only about hiring new people with the required skills, it is about transforming the way our current employees are working and thinking as well. It is about co-developing the future with all our employees, whether they are existing staff or new employees joining us in the years to come."

Asset management project

A special protection system for Stevin

Most of the existing safeguard systems traditionally protect a specific asset like a transformer or a cable. A Special Protection System (SPS) protects the grid against instability on a large scale like a blackout in the whole of Belgian or a brownout on a European scale. There are currently very few protections of this type in the world. Elia is therefore one of the pioneers in this field at European and even global level.

The specifics

The SPS installed on Stevin's 380 kV connection consists of 11 cabinets. These will collect data from the various posts along the connection and take the necessary decisions to ensure the stability of the grid depending on events such as the failure of a primary installation, a lightning strike on the lines, a fallen mast, etc. The SPS continuously processes approximately 15,000 data, of which 3,000 are exchanged with the other stations, dispatching, switch fields, distributed control system and the fault recorders of the substations. Some data are recorded on highly secure servers and can be consulted remotely. This also allows us to refine our understanding of the Stevin connection. These decisions are then sent to all the high-voltage substations concerned. Everything happens at lightning speed: in 20 ms, data is collected, decisions are made and orders sent. This is as fast as the fastest local safety devices currently installed on the Belgian grid.



Fitness tracker for our assets

Traditional maintenance at time-dependent intervals will soon be history. Elia Group has been breaking new ground in asset maintenance since 2016. In the Asset Management Excellence Program (AMEX), the aim is to optimise the maintenance of transformers, overhead lines, etc. according to their state of health (Health Index) and importance for the gird. Elia has finished the AMEX program in 2019. At 50Hertz the implementation started in 2018.



Dirk Kunze

Have you equipped all our transformers with fitness trackers within the AMEX 2019 program?

Dirk: "No, our 'sportsmen' made of steel and copper have been technically checked for their fitness on a regular basis for a long time, but the results of AMEX will enable us to better evaluate the information and thus make better diagnoses. The data comes for example from our mobile maintenance software. It is like your doctor knowing before autumn when you will get a cold. Our aim is to ensure that the individual asset is treated in a targeted manner and thus, preferably, does not get a 'cold' at all. "

How does this work?

Dirk: "We look at each individual asset group and define criteria for the Health Index and in the future also how important the respective assets are in the overall context of the grid (Criticality Index). In other words: a scratch on the knee is okay, but the asset won't work with a broken leg. In addition we weigh up whether a device in Hamburg, Berlin or at any other site must be exchanged first. We want to take future decisions based on condition and risk. Elia has finished the AMEX project in 2019 and started the transition to regular asset management operations. At 50Hertz we can use Elia's experience and now benefit from it. Our focus in 2019 was on overhead lines. transformers and chokes. Further asset groups will be added next year."

In the coming years, we expect our asset fleet to grow in terms of both the number of assets and a variety of new technologies.

Dirk Kunze

Up to now, we have maintained our assets on a time-based basis, i.e. with a yearly check-up. That's a thing of the past?

Dirk: "Not in general. For some asset groups this may still be the model of choice. In the coming years, we expect our asset fleet to grow in terms of both the number of assets and a variety of new technologies. If we wanted to maintain these on a time-dependent basis, this would not be possible with our existing organisation. Here, an improved database is needed to make the right condition and risk-based decisions for maintenance or asset replacement."





Safety always comes first – of our people and, of course, of our grid.

So, a permanent fitness-check for maintenance only when necessary? How does this work in practice?

Dirk: "The best planning doesn't help if there are no work shutdowns. Safety always comes first - of our people and, of course, of our grid. Furthermore, AMEX also means changes in our organisation. After all, the activities should be sustainable. As a result, our employees got to know their Belgian and German colleagues better and thus could broaden their horizons. This is particularly important to me."



We deliver the transmission system of #2 the future



ELIA GROUP WILL BE INVESTING A STAGGERING € 1.1 BILLION PER ANNUM FOR THE NEXT TWO YEARS

AMBITION

Elia Group is committed to realise the next phase of the energy transition in a timely, secure and efficient way with maximum welfare for society. We do to the utmost to accelerate the delivery of critical grid infrastructure and to migitate any risk of delays in close collaboration with the competent authorities.

CHALLENGE

We want to close the gap between the fast development of renewable generation compared to the longer leadtimes for building grid infrastructure. In addition, Elia Group is investing strongly in the optimisation of existing assets by integrating new technologies and more advanced system operation concepts.



APPROACH

For the next two years, Elia and 50Hertz will be investing a staggering € 1.1 billion per annum in the integration of renewable energy, development of an offshore high-voltage grid and in the construction of interconnectors to facilitate the integration of the European energy market.

Facilitating Offshore Energy

INTERVIEW WITH HENRICH QUICK (HEAD OF PROJECTS OFFSHORE 50HERTZ) AND TOM PIETERCIL (PROJECT MANAGER MOG AND HEAD OF INFRASTRUCTURE EXPERTISE)

A Sea of opportunities

2019 was a successful year in terms of offshore goals for both Belgium and Germany. In Belgium, the Modular Offshore Grid (MOG) was commissioned and Nemo Link became operational. In Germany, 50Hertz celebrated the inauguration of the Arkona wind farm in the Baltic Sea, which marked th the completion of the Ostwind 1 project.

Why is offshore wind becoming increasingly important in realising the energy transition?

Henrich: "Offshore development is becoming an important building block of reliable supply in a new energy world. It is competitive in terms of market prices, reliable in terms of the technology and in terms of grid development. We are getting used to integrating more and more renewables into our system operations. Wind Europe published a report stating that 450 GW is the offshore potential within Europe by 2050, of which 212 GW can be found in the North Sea and 83 GW in the Baltic Sea."

Tom: "Without offshore energy, Europe will not be able to reach its ambitious climate targets. According to the

International Energy Agency (IEA), offshore energy is the next hot item in the energy sector. Offshore wind will be the technology that grows like mushrooms over the next 10 to 15 years. It is cheap, reliable and it provides highly efficient energy. It will become an important part of Elia Group's business."

Offshore is at the forefront of international cooperation, do you have many exchanges with other European TSOs?

Henrich: "Because the offshore business is so complex, there is a lot of solidarity among the TSOs as we all face the same challenges. There is a group of large offshore project managers from Norway, the UK, Denmark, Germany, Belgium, France, Italy and Spain. We all work

Offshore development is becoming an important building block of reliable supply in a new energy world.

Henrich Quick

Chancellor Angela I new Arkona offsl

closely together and have organised internships between countries to share best practices. That spirit goes to both of our teams. They often call each other for advice. This is something we really encourage. "

In what sense are offshore grid projects more challenging than onshore projects?

Tom: "The foremost reason is that it is highly if not entirely dependent on the weather. The sea is a very dangerous environment to work in. When something goes wrong, it has a huge impact on safety and costs. That's why a good planning and a smooth organisation are so vital. In order to ensure this, we need our people to be in the field 24/7. This means working in shifts to make sure the right expertise is available at all times. "



Chancellor Angela Merkel attended the inauguration of the new Arkona offshore wind farm on Tuesday 16 April 2019.

66 Offshore wind is cheap, reliable and it provides highly efficient energy. It will become an important part of Elia Group's business.

Tom Pietercil



Purchasing jointly helps us to leverage our market power and to ensure we use the same quality materials within the Group.

Tom Pietercil

Henrich: "The sea is an expensive working environment. If you are chartering a vessel, it can go over a € 100,000 per day. If you happen to suffer from bad weather, you run the risk of having it stuck in the harbour for three weeks. The stakes are very high when making the wrong decision. So planning puts extremely high pressure on us and on our suppliers."

Do you already experience the advantages of collaboration between Elia and 50Hertz?

Henrich: "Sharing experiences helps to calculate the risks better and saves millions in costs. By organising workshops and standardising procedures, we align our way of working which makes it easier for Elia and 50Hertz to work with partners in Belgium and Germany. For the next offshore wave, for example, 50Hertz will collaborate with the Belgian company Parkwind, and easily apply the best practices from the MOG project."



Tom: "Besides sharing best practices, we are looking into collaborating on purchasing orders for materials and services we both will use for our projects. Purchasing jointly helps us to leverage our market power and to ensure we use the same quality materials within the Group. This also brings together the know-how on how to operate the installations, which is a huge advantage as well. "

Henrich: "Working together on purchasing orders would be especially interesting for cable manufacturing. In this market, price is not the only driver. It is also availability of the supplier. Joining forces mean we are able to win more offers. Of course, we have to take into consideration the different regulations per country and the small technical adjustments to match the requirements for the North Sea and the Baltic Sea."

How do you see offshore wind further evolve?

Henrich: "Further offshore development is needed to generate more megawatts if we want to achieve our European 2050 goals. This also means growth opportunities for Elia Group. What is to be seen is whether we continue to grow in our domestic markets or whether the Baltic Sea and North Sea will be exhausted by projects in the coming years. If that is the case, we might look to export our experience in the field to other countries that might jump on the offshore train at a later time."



Sharing experiences helps to calculate the risks better and saves millions in costs.

Henrich Quick

Tom: "In Belgium, we currently exploit 0.5% of the North Sea. There might be room for additional projects in the future. However, developing a higher percentage, means moving further away from the coastline, deeper into the sea. This makes matters more complicated and risky, as we will need longer cables to bring the energy ashore. In the long run, TSOs will have to look further than their current borders and work intensively together to enable the development of the offshore renewable energy of tomorrow. In the end, it comes down to finding the most efficient solutions that yield the most benefit for all parties. "



IS THE OFFSHORE POTENTIAL WITHIN EUROPE



INTERVIEW WITH DR FRANK GOLLETZ, 50HERTZ CHIEF TECHNICAL OFFICER

Combined **Grid Solution**



With the Combined Grid Solution (CGS) project, 50Hertz and the Danish grid operator Energinet are realising a worlds' first, connecting the electricity grids of two countries via offshore wind farms. In 2019, submarine cables were installed between the offshore substation of the German wind farm Baltic 2 and the Danish wind farm Kriegers Flak. The installations will soon be ready for operation.

The renewable energy generated by the wind turbines will always have priority and will flow to Germany and Denmark as required. Free capacity from the connecting line can be used for electricity trading between the two countries.



to learn more about the project.

On 23 May 2019, the interconnector received the 'Good Practice of the Year Award' from the Renewable Grid Initiative (RGI). RGI is a platform for dialogue between non-governmental organisations and transmission system operators in Europe. The approach of connecting the electricity grids of two countries via offshore wind farms and using this connection as efficiently as possible was particularly appreciated.



Back-To-Back converter

To build the CGS interconnector, the planners at 50Hertz and Energinet had to master a challenge: the German and Danish alternating current grids are not synchronous and therefore cannot be connected directly with each other. Although the grid frequency of both countries is identical, it has a slightly shifted cycle (phase). The engineers and technicians solved this problem with a so-called double converter on the German side in Bentwisch near Rostock. This facility converts alternating current into direct current following the Nordic phase and then directly into alternating current following the Continental European phase. The entire system will be controlled by a newly developed, innovative Master Controller for Interconnector Operation (MIO) using the latest digital technologies.

Optimal use of interconnection capacities

What is so special about the Combined Grid Solution?

Frank: "With the Combined Grid Solution, we are interconnecting two wind farms from different countries. One wind farm in Denmark and one wind farm in Germany. We utilise the capacities of the cable connections very efficiently. If the transmission capacity of the wind farm connection is not fully utilised, we can use the interconnector for electric-

ment?

vears."

ity trading. So we combine assets with the market. The project has been a joint project of 50Hertz and Energinet in Denmark from the beginning, where we both learn how such a combination can work. The Combined Grid Solution is advancing the energy transition in Europe by better integrating renewable energies and increasing the safety of the electrical system in Germany and Denmark."

Now that Ostwind 1 has been finalised and Combined Grid Solution is almost completed, what are the further plans for offshore develop-

Frank: "First of all, there is one project that is practically a mirror image: our grid connection project Ostwind 2. Here we are once again connecting two wind farms with each other. Baltic Eagle by Iberdrola and Arcadis Ost by Parkwind. There are also plans for a Modular Offshore Grid 2 (MOG 2) in Belgium and for a DC link between Germany and Sweden, the Hansa Power Bridge. Offshore will continue to be one of the biggest growth drivers for Elia Group in the coming



L The Combined Grid Solution is advancing the energy transition in Europe.

Dr Frank Golletz



Ostwind 1: Arkona comissioned

Since April 2019, the Arkona offshore wind farm, off the island of Rügen in Germany in the Baltic Sea, has been feeding into the grid. 50Hertz connected the wind farm to its transmission grid on time for commissioning on 16 April 2019 and even at a lower cost for consumers than originally calculated. After a construction period of three years and a total investment of around €1.3 billion, wind energy is flowing via three 90 kilometre submarine cables to the Lubmin substation and from there to the consumers.

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Planned offshore wind farm

For the first time in the Baltic Sea, a grid connection was constructed using 220 kV AC technology which enables a higher power transmission. Previous connections of offshore wind farms in the German Baltic Sea were using 150 kV AC cable systems. In the Lubmin substation 50Hertz switches the electricity to 380 kV and feeds it into its transmission grid.

Biæverskov 🕻 CGS Kriegers Flak WESTLICH System 265 Adlergrund WE Baltic 2 OWF Wikinger Exclusive economic zone (EEZ) OWF Arkona-12-seamile-zone/costal waters Becken Südosi Cable routes (schematic): System 281 — 150-kV grid connection in operation OWF Baltic 1 System 261 --- Planned 150-kV grid connection Planned 220-kV grid connection 150-kV substation in operation 220-kV substation in operation 380-kV substation in operation 400-kV substation in operation Lüdersha 150-kV offshore substation in operation Planned 220-kV offshore substation AC/DC-converter Offshore wind farm under construction Bentwisch Offshore wind farm in operation

Siedenbrü

Usedom

Ostwind 2: On schedule

The Ostwind 2 offshore grid connection project is progressing according to schedule. The corridor for the submarine cables has been explored and the clean-up of contaminated sites has been completed.

50Hertz and Parkwind, the Belgian offshore wind farm operator of the Arcadis Ost, reached the next stage of their cooperation in October 2019 with the signing of a Memorandum of Understanding (MoU). Key aspects of the MoU include specific arrangements for the development, procurement, construction and operation of the joint offshore platform, including basic technical details and the principles for sharing construction costs. This platform will be used by the wind farm operator and the transmission system operator.

> €1.3 billion

OSTWIND 1 TOTAL INVESTMENT AFTER A CONSTRUCTION PERIOD OF THREE YEARS





THE CAPACITY OF THE TWO WIND FARMS

In addition to the Arcadis Ost 1 wind farm, the Ostwind 2 grid connection project will connect the Baltic Eagle offshore wind farm to the 50Hertz grid. Baltic Eagle, a project of the Spanish energy group Iberdrola, is located in the Arkona Sea cluster in the Baltic Sea. Both areas are located between 20 and 30 kilometres northeast of the island of Rügen. Together, the two wind farms will have a capacity of about 725 MW. 50Hertz is building three 220-kV submarine cable systems from the wind parks to the grid connection point at the substation in Lubmin.



Watch the video

http://bit.ly/Inauguration_MOG for an overview of the ceremony

Modular Offshore Grid

The commissioning of the Modular Offshore Grid (MOG) is a true milestone in the development of North Sea wind power off the Belgian coast. The switching platform is 40 km off the coast and combines the electricity generated by four offshore wind farms (Rentel, Seastar, Mermaid and Northwester 2) for onward transmission to the mainland, making it possible to efficiently integrate renewable power into the Belgian electricity grid. It is connected by 130 km of 220-kV cables to Elia's high-voltage substation in Zeebrugge (Stevin substation), from where the power is transmitted to consumers via the transmission and distribution system. The MOG is a switching platform only, not a transformer platform, making it unique in Europe.



The first wind farm was connected to the Modular Offshore Grid in September 2019 and the MOG has been operational since then. The MOG has been successfully completed thanks to the many Belgian and international stakeholders involved. The platform was built in the Netherlands while the cable was produced in Greece. The cable-laying work was done by Belgian marine engineering group DEME. His Majesty the King visited Elia's first power hub in the North Sea, upon its inauguration on Tuesday 10 September.

INTERVIEW WITH MARKUS BERGER, CHIEF INFRASTRUCTURE OFFICER ELIA

Expanding from land to sea, a new adventure

How did you start working on a project of this scale and complexity?

Markus: "We built the MOG in stages, as you have to prepare it from a technical, legal and regulatory point of view. All that takes time and the schedule in which it needs to be done is very demanding. You don't just snap your fingers and you are suddenly offshore. It has been a long road, building up the know-how, starting from nothing to then achieve a fantastic result in a very short time. In March 2016, we reached

nected."

It has been a long road, building up the know-how, starting from nothing to then achieve a fantastic result in a very short time. Markus Berger



The MOG's core team on the platform at sea upon its inauguration on Tuesday 10 September.

130 Km

OF 220-KV CABLES CONNECT THE MOG TO ELIA'S HIGH-VOLTAGE SUBSTATION IN ZEEBRUGGE



an agreement in principle with the various authorities and wind farms. The investment decision was made in April 2017. We installed the offshore jacket in August 2018, and the topside was laid on it in April 2019. Shortly after that, the subsea cables were installed and con-

What was the key to success?

Markus: " This ambitious project was completed on time and within budget, primarily due to the efforts of the project team: a group of driven, highly skilled employees. Elia looked bevond Belgium's borders to find the right people for the project, adding a number of enthusiastic Elia employees to complete the team. The combination of internal employees and external experience was a real success story for the project. Gradually a team spirit develops, which enables you to move mountains, as they say, because everyone believed in this project. "



THE MOG **IN NUMBERS**

- The topside rises 41 m above sea level and weighs 2,000 tonnes.
- The foundation is anchored to the seabed by four piles at a depth of 60 m.
- · 220-kV subsea cables connect the platform to the Stevin high-voltage substation in Zeebrugge.
- At 28 cm in diameter, the MOG cables are the thickest cables ever installed in the North Sea.
- For safety reasons, all of the subsea cables are buried at a depth of 1 to 3 m.
- At the peak of the project, Elia's core team had 50 staff.
- More than 40 different vessels were deployed during the MOG installation process.
- · Developing the MOG required over 1 million man-hours.

Towards a more inter**connected European grid**

Besides preparing their grid for the energy transition, Elia and 50Hertz are also committed to developing an integrated, European-wide electricity market. To ensure that this is as efficient as possible, the company believes that interconnectivity should be further increased between the different markets. That is why 50Hertz is investing in major projects such as Combined Grid Solution and Hansa PowerBridge. Elia is using the benefits of its geographical location at the centre of the European energy system to bolster security of supply and to strengthen the development of interconnections with neighbouring countries such as Nemo Link (UK) and ALEGrO (Germany).

Nemo Link: operational



Stretching 140 km from Bruges coast to Richborough, Nemo Link is a joint venture between National Grid and the Belgian transmission system operators, Elia. The link started operations on January 31, 2019, offering a range of products that enable energy traders to move electricity back and forth between the two countries.

In its first operational year, the subsea cable has been available to import or export power more than 96% of the time, making it one of the highest performing assets of its kind in the world. Electricity flows have been primarily in the direction of the UK: 5889.4 GWh were imported by the UK. while 175.9GWh was imported by Belgium.

Nemo Link's commercial exploitation started on 30 January 2019. With a capacity of 1,000 megawatts, Nemo Link was the first subsea HVDC project in the world to use cross linked polyethylene (XLPE) technology to increase the strength and conductivity of the cable.

The interconnector facilitates the transition to a sustainable and affordable electrical system and improves the guarantees for security of supply. It offers additional possibilities for Belgium and positions it even more like a real European electrical hub

Visit

ALEGrO: progressing according to schedule

Good progress is being made on the first electricity interconnector between Belgium and Germany. The ALEGrO HVDC interconnector is a joint venture between Elia and Amprion, on of the four German system operators.

The underground connection runs over a distance of 90 km (49 km in Belgium) between the converter stations in Lixhe (Belgium) and Oberzier (Germany) and comprises two cables. Both cables. which measure 12 cm in diameter. will be buried along the entire route. The connection's transmission capacity will be 1,000 MW, equivalent to a tenth of Belgium's average power consumption.

> 18,559 MWh

EXCHANGED ON THE FIRST DAY OF NEMO LINK'S COMMERCIAL EXPLOITATION

Hansa PowerBridge: in progress



NEMO LINK IS THE FIRST CHANNEL INTERCONNECTOR **TO OFFER HOURLY NOMINATION GATES**

Bert Maes, Business Director Nemo Link

Since 14 November 2019 it is also possible to trade electricity between Belgium and the UK within the day. Intraday market trading is a very important option for electricity market participants. With rapidly growing intermittent renewable production, it is becoming an increasing challenge for market participants to remain in balance after the closing of the day-ahead market. The capability to balance the grid closer to real time operations is beneficial for market participants as it allows them to take unexpected changes in consumption and production into account. The new explicit intraday capacity product on Nemo Link, with its hourly nomination gates, brings additional options and provides a level of flexibility welcomed by market players that trade both renewable and conventional energy

https://www.nemolink.co.uk/ to consult the auction calendar



In 2019, the main work on the Belgian side was completed. The DC cable link was fully installed and successfully tested over its length (49 km), including the tunnel underneath the Albert Canal and the River Meuse. Also the AC cables between the existing Lixhe substation and the newly built Alegro converter station were pulled, successfully tested and energised. Finally, the converter station was built and all technical equipment was installed and tested.

On the German side, further progress was made on the cable, with work expected to be completed by the third quarter of 2020. Elia expects ALEGrO to go into operation by end 2020.



The planning and investigations for the 300-kilometre-long HVDC connection between Germany and Sweden could be further advanced. The application for planning permits for both the land and sea routes of the Hansa PowerBridge are to be submitted to the responsible authorities in Mecklenburg-Western Pomerania in 2020.



INVESTMENT COSTS HANSA POWERBRIDGE

In September, planners visited five stations along the 70-kilometre-long corridor of the Hansa PowerBridge with the 50Hertz DialogMobil, 50Hertz's mobile information office. The 50Hertz colleagues informed residents and owners about the route. Many technical topics were discussed.

The Hansa PowerBridge will have an output of around 700 MW and is due to start operations in 2025 and 2026 respectively. The investment costs amount to € 600 million. Half of this sum will be borne by each of the two partners. Svenska kraftnät is also working on the approval documents for the project.

Shaping the onshore grid

In addition to the substantial work on the offshore grid and interconnectors, Elia and 50Hertz are also further expanding and optimising the onshore grid. Many projects are currently underway to respond to demand and accommodate local renewable energy generation.





Brabo II

With the Brabo project, Elia aims to strengthen the high-voltage grid and consolidate security of supply in and around the Port of Antwerp. The project is being rolled out in three phases between 2016 and 2023.



Petrol-Zurenborg

Elia is laying a double underground cable connection between Antwerp's Petrol and Zurenborg high-voltage substations. By replacing and doubling the capacity of the current cable, Elia reduces the risk of grid disruptions, improving the reliability of the power grid in and around Antwerp. Work on this project is scheduled to end in February 2020.

Boucle de l'Est II

Elia started Stage 2 of the East Loop project that involves replacing and upgrading the overhead line connecting the Bévercé (Malmedy), Bronrome, Trois-Ponts and Brume sites. The work is scheduled to run until 2022.



The works on the SuedOstLink are progressing

The planned - mainly underground - HVDC connection will transport renewable energy electricity from Saxony Anhalt to Bavaria. The SuedOstLink will connect Wolmirstedt near Magdeburg with the Isar power plant site near Landshut. 50Hertz is responsible for the northern part of the project, while TenneT is responsible for the southern, Bavarian part.

Underground cables for the SuedOstLink will be laid on the vast majority of the route using the opencut method. For this purpose, trenches will be dug. District, highways or federal roads and railway lines, certain waters and particularly sensitive areas will be crossed using the closed method.



Pulgar - Vieselbach

The planning for the first construction project that follows the Grid Expansion Acceleration Act (NABEG) is progressing. In July, the Bundesnetzagentur (Federal Grid Agency 'BNetZA') defined the route corridor for the middle section of the 105-kilometre line from Pulgar to Vieselbach. At the same time, the federal technical planning for this section has been completed. The planning permission procedure is now being carried out. During a roadshow across neighbouring towns and municipalities in November, 50Hertz provided information on the design of the route in the middle section between Geußnitz and Bad Sulza. Interested citizens informed themselves about the project and the current planning status. As a result, 50Hertz collected the feedback and comments about the plans. The objective of grid reinforcement is to increase the transmission capacity of the 380 kV overhead line by 40%. Once the new overhead line has been commissioned, the existing line will be dismantled.



Mercator – Avelin

Elia is upgrading the 380 kV Mercator-Avelin overhead line, which is 110 km long and passes through 25 municipalities in Flanders and Wallonia before continuing into France. The massive project is divided into three parts: Mercator-Horta, Horta-Avelgem and Avelgem-Avelin. The new 380-kV Mercato-Horta high-voltage line was commissioned on 14 August 2019.



Massenhoven-Van Eyck

Elia is set to upgrade the existing overhead line between the Massenhoven and Van Eyck high-voltage substations. The connection is approximately 92 kilometres long and spans 15 municipalities in the provinces of Antwerp and Limburg. The project is playing a vital role in enabling more renewable energy to be transmitted via the Belgian grid and to facilitate the exchange of electricity between Belgium and the Netherlands. Works are planned to start in 2021.

http://bit.ly/EliaProjects for an overview of our infrastructure projects in Belgium.

Visit

In October 2019, 50 Hertz received the first partial permit for section B. a 100 km long and one km wide corridor, which mainly covers Thuringia and Saxony. This route is the core of the planning approval procedure that has now begun. The plan is to commission the line in the year 2025. 50Hertz is now determining the possible course of the underground cable route. To provide further detail for the plans, 50Hertz is exploring the underground in the corridors. Exploration boreholes are planned at those points where roads, railway lines or watercourses are to be undercrossed in closed condition and where challenging soil conditions are expected. Initially, around 20 crossing points will be drilled in Thuringia and Saxony.

Perleberg - Wolmirstedt

The first section of the 380 kV from Perleberg to Wolmirstedt overhead line is under construction. At the beginning of May 2019, overhead line fitters began the replacement construction of the 380 kV overhead line between the Stendal West and the Wolmirstedt substations. The 86 pylons will initially be erected starting from the Stendal West substation. Several construction companies are working along the route at the same time to ensure rapid construction progress and to minimise the impact on local residents and nature.

Visit

http://bit.ly/50HertzProjects for an overview of our infrastructure projects in Germany.

Grid development plan Germany

One of the biggest challenges 50Hertz faces in Germany is the implementation of the grid development plan and the acceptance of the grid infrastructure. Together with the Ministry of Economy, the other three German TSOs and the federal and regional approval authorities, 50Hertz has developed a milestone plan that includes dates for permit approvals, start of construction and commissioning of the individual projects. Authorities and TSOs have committed themselves to execute this plan accordingly. The first permit for the SuedOstLink was planned for October 2019 and has been received on time.





For 50Hertz, the next years will be dedicated to the approval and above all the implementation of projects to increase the capacity of the grid. Our focus in this context will be, among other things, on eliminating grid bottlenecks caused by the increasing integration of renewables in the north and electricity transport in direction south. In addition to the replacement of 220kV lines with 380kV lines in the same track as on the Wolmirstedt - Güstrow line, we are looking for the optimal technical and economic solution for each line, which also minimises the impact on nature and the environment. Sometimes these are even smaller solutions, such as the installation of measurement technology to enable temporarily higher current load capacity of the lines.

Elke Kwapis, Head of Projects Overhead Lines & Cables



The DialogMobil, 50Hertz's mobile information office to inform stakeholders.

Grid development plan Belgium

To keep the authorities and the electricity market players abreast of developments, every four years, Elia submits development plans identifying the investments needed to meet the requirements of the Belgian electricity system for the next 10 years.

In 2019, Federal Energy Minister Marie Christine Marghem approved Elia's Federal Development Plan, giving the green light to proceed with concrete investments for enabling the energy transition to a sustainable electricity system in the short and medium term. Among other things, the plan provides for the construction of two new electricity corridors (Ventilus and Boucle du Hainaut) and improves the integration of offshore wind power, the capacity of which will expand to 4 GW (MOG II) by 2030.

When it comes to developing the power grid of the future, Elia group is committed to three principles:



01 Minimising the construction of new infrastructure by giving priority to optimising and improving existing infrastructure.





02 Open dialogue with all the stakeholders during the entire development process from a very early stage.



03 Respect for people and the environment when building and operating our infrastructure.

#3 We develop the electricity system and the markets





END USERS (ELIA GROUP)

AMBITION

We facilitate and redesign the energy market to encompass all kind of technologies and to empower all kind of customers. We lower the barriers by providing the digital tools to accelerate innovation in the European energy sector.

CHALLENGE

The growing intermittency of renewables drives the need for more short term trading and balancing to maintain a constant balance between supply and demand. In the years to come, new market players will appear to develop business opportunities linked to decentralisation and electrification of the energy system. ANAGEMENT PROGRAMMES

APPROACH

By opening up our system to new players and technologies, Elia Group wants to create a more competitive energy market while maintaining security of supply at all times. To achieve this, Elia Group ensures that every market player has transparent, non-discriminatory access to the grid.

Towards a single European energy market

INTERVIEW WITH DIRK BIERMANN (CHIEF MARKETS & SYSTEM OPERATIONS OFFICER 50HERTZ) AND PATRICK DE LEENER (CHIEF CUSTOMERS, MARKET & SYSTEM OPERATIONS OFFICER ELIA)

Digital metering as a game-changer

We facilitate the markets by going ever further in market coupling and develop new products fit for emerging technologies. We innovate to realise the needed shift towards flexible loads following the ever more intermittent production, with the explicit aim to achieve a reliable, efficient and smooth transition of the power system. We provide non-discriminatory access for all market parties, strive for a level playing field and want to be a valuable contributor to the energy debate.

Elia and 50Hertz are evolving towards becoming digital TSOs. How will this affect our daily business?

Dirk: " Digitalisation will definitely help us a lot in all the domains of our system operations. Renewable generation is

geographically very dispersed and highly dependent on the availability of wind and sun. At the same time, we expand the operational limits of our grids as our complex infrastructure projects are lagging behind the fast development of renewables. Therefore, we have an urgent need for new and better tools.

The growing intermittency of renewables has been driving the need for more short term trading and balancing. We have reached great achievements with shortened lead times and 15 minutes product granularity.

Dirk Biermann

By setting up a real-time market design, we are currently preparing to meet the needs of e-mobility. Together with digitalisation, the growth of e-mobility will increase even more the need to report flows closer to real-time.

Patrick De Leener

based on big data. It starts with getting a full picture of the system in real time, supported with diagnostics, analytics, forecasting, etc. We also need tools for recommendations in decision-making. Once actions are taken, automation kicks in."

One of Elia Group's strategic pillars is to empower the customer. What does it mean?

Patrick: " Digital metering up to household level will bring us in a new customer-centric world. One will have a close-to real-time view on consumption and production of all relevant appliances. Customers will get access to multiple services, meeting



their needs and also enabling them to align their consumption to the needs of the system. Prices will reflect the situation of the moment and households can adapt the consumption of freezers, heath pumps or electrical vehicles. Imagine that this becomes a reality on a huge scale. Clearly, this would be a big game-changer. However, we cannot set this up by ourselves. Therefore, we initiated IO.Energy (Internet of Energy), an ecosystem that is currently testing several case studies brought up by interested participants. The more we can make the market to take on this evolution. the better."

Dirk: "There is a strong link between market design and system operation, which is the core business of a TSO. This was illustrated during summer time in Germany, when we had big imbalances in the system. This was not caused by technical issues, but by a market design issue. The balancing energy prices did not provide the right incentives for market players to avoid imbalances with very serious impact on system security. It shows how important it is to consider the link between market and system. Our guiding principle is to leave as much to the market as possible, to get it right on the market side. The TSO should only intervene on the system side when this is not possible."

L The continuous trading of electricity expanded to 21 countries, marking another important step towards expanding the single integrated European intraday market.

Patrick De Leener

In November 2019, Elia and 50Hertz published a joint study on futureproofing the EU energy system towards 2030. One of the key messages was indeed the need for an improved market mechanism.

Patrick: "Just letting things run their course is not an option. If we want to realise the next phase of the energy transition in a successful way, we need to finetune both the hardware (infrastructure) and the software (market design) of the European interconnected energy system. We notice for instance an inconsistency between the physical flows in the grid and the markets. We need to improve the software in such a way that there is more convergence between real-time flows and market transactions. On another level, we need to optimise our software to prevent or solve certain existing issues such as loop flows. Software optimisation requires effort, but it is easier and less costly than updating our hardware infrastructure. Constant optimisation of our software is the key to keeping up with evolutions."

Dirk: "But that does not mean that we stop investing in grid infrastructure. On the contrary. Our study showed that the first and most important lever for a successful energy transition towards 2030 is the timely completion of the planned new grid infrastructure. Our simulations show serious welfare losses if we don't. In addition, this missing infrastructure also causes higher volumes of RES curtailment. We are therefore committed to doing the utmost to accelerate delivery of the planned new infrastructure in close collaboration with the competent authorities. At the same time, we upgrade existing assets and we optimise the operation of our assets."

Elia Group is trying to operate closer to real-time in all aspects of its business. What are the main achievements in 2019 in that regard?

Dirk: "On a European level, we are currently implementing cross-border intraday market integration. The western European countries are already integrating renewables on a large scale to make the energy transition happen. The growing intermittency of renewables has been driving the need for more short term trading and balancing. We have reached great achievements with shortened lead times and 15 minutes product granularity. However, I believe that there is potential for further coordination to efficiently deal with the intermittencies and cross-border exchanges. It is the right way forward to create an integrated European market."





Patrick: " Before, the day-ahead market was the trend. Today, the importance of having a near to real-time intraday market increases. This is indeed mainly due to the increase of renewables that are unpredictable and intermittent. In November 2019, we launched the second wave of the European single Intraday coupling; formerly known as the XBID project. The continuous trading of electricity expanded to 21 countries, marking another important step towards expanding the single integrated European intraday market. We expect a third wave by the end of 2020."

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Meeting of the members of the Board of Directors of the Elia Group - Berlin (2019).

What is the focus point in 2020?

Patrick: " Another big trend that influences the market is e-mobility. I think that in a few years only electric vehicles will benefit from the fiscal support for company cars. This will have huge system implications mainly due to charging. When everyone charges their electric vehicle at the same time, at the office or at home, we will see huge peaks in consumption that we have to predict and adjust. By setting up a real-time market design, we are currently preparing to meet the needs of e-mobility. Together with digitalisation, the growth of e-mobility will increase the need to report flows closer to real-time even more."

Dirk: "E-mobility is indeed a focal point in 2020. In the short term, I expect that we will manage to find concrete use cases where we work on what software and what mechanisms should be developed to integrate e-mobility. Today, market processes are not designed for electric vehicles, which leaves room for significant improvements. Take for instance electric charging at home that is linked with rooftop solar production and a smart domestic energy management system. And by nature, Elia Group running business crossborder should thoroughly look into development of cross-border process for charging and settlement. Let us make e-mobility a problem solver instead of being an additional uncertainty."



Our expertise at society's service

INTERVIEW WITH JAN VOET. HEAD OF SYSTEM OF THE FUTURE

Future-proofing the EU energy system towards 2030

In our role as transmission system operators, Elia Group publishes forward-looking studies to keep our finger on the pulse in the market. In 2019, Elia and 50Hertz published a joint study on future-proofing the EU energy system towards 2030. On the way to 2030, renewables will further increase, some conventional generation will disappear and there will be more cross-border exchanges as Europe has set ambitious targets regarding the further development of the internal energy market. From the perspective of two system operators, Elia Group wants to raise awareness about the increasing challenges on both the grid infrastructure (hardware) and the market design (software) of the European interconnected electricity system.

What challenges are we talking about?

Jan: "The discrepancy between the development and construction times of renewable generation compared to the longer lead-times for realising grid infrastructure creates congestions on the grid. System operators regularly

have to perform redispatch to keep the flows within operational boundaries. These congestions also create secondary effects, such as loop flows. On the software side, we see an increasing divergence between the electricity flows optimised by the market mechanism and the physical flows in real-time."

We are also committed to upgrading and optimising existing assets.

Levers to realise the next phase of the energy transition with maximum welfare for society

Timely completion of critical infrastructure

Our simulations show that not having the German north to south HVDC lines in place entails a yearly welfare loss of around €1 billion to €1.5 billion by 2030. In addition, this missing infrastructure also causes higher volumes of RES curtailment (ca. +40%). These numbers will further increase beyond 2030, as more renewables are due to be integrated into the grid on the road to full decarbonisation.



What needs to be done?

Jan: "In our joint study, we propose two levers. The first and most important lever is the timely completion of the planned new grid infrastructure. Elia Group is therefore committed to doing its utmost to accelerate delivery of the planned new infrastructure and to mitigate any risk of delays, working in close collaboration with the competent authorities. We are also committed to upgrading and optimising existing assets."

Flex-In-Market design

Our simulations show welfare gains of € 300 to € 400 million per year in 2030 for the Flex-In-Market design compared to the current market design and a decrease of curtailed volumes of RES by 10% to 15%. The proposed market design improvements could also significantly reduce the redispatch costs in parallel to the grid expansion coming up to speed over the next couple of years. Simulations show a potential reduction of German redispatch costs of more than 50% in anticipation of the HVDC lines, along with a 20% to 30% reduction of curtailed volumes of RES.

And on the software side?

Jan: " As a second lever, we propose the Flex-In-Market design. This improved market design gives the market access to a toolbox of controllable devices to better manage the flows in line with physical constraints. This enables a more efficient use of the grid and reduces the gap between markets and physics."

What are the next steps?

Jan: " Elia Group suggests that a broader coalition should be set up to start discussions with representatives of system operators, market parties, regulators and European authorities. We believe that our proposals could be stepping- stones that bring currently opposing views closer together."

> Consult Elia Group's study online via http://bit.ly/EliaGroup_publications
Adequacy and flexibility study for Belgium 2020-2030

In line with the Belgian Electricity Act, Elia conducted an additional analysis of the adequacy and flexibility requirements for 2020-2030. These are both crucial pillars for a smoothly operating electricity system. The new report confirms and reinforces the conclusions of previous Elia studies from 2016 and 2017.

Elia notes that the need for replacement capacity to cope with the nuclear exit laid down by law is now becoming even greater than before. Because neighbouring countries bring forward their coal exit, it is set to make it harder for Belgium to import electricity when it experiences shortages.

In specific terms, the replacement capacity Belgium requires to cope with the nuclear exit in 2025 is now up from 3.6 GW (figure given in the Elia study in late 2017) to around 3.9 GW.

This accelerated coal exit also means that additional capacity perhaps even exceeding 1 GW will be needed for 2022-2025, requiring further measures to be taken.

Elia is calling on the federal government to continue working on its development of the planned capacity remuneration mechanism (CRM) so that Belgium has a robust safety net in place to maintain its security of supply.

Collaboration & co-creation to manage increasing flexibility

With the increasing decarbonisation, power generation is shifting from conventional power plants towards renewables. Germany, for example, has defined its 65% renewables goal for 2030. Battery storage, Power-to-X technology as well as different renewable energy technologies will play an important role in the coming years and decades. Additionally, "demand response" like detachable loads and new flexibilities from small-scale devices will be needed for a secure and efficient system operation.

IO.Energy: putting consumers at the centre of the energy system

Digitalisation and the rise of more flexible assets in the system like electrical vehicles and heath pumps bring opportunities to get society more involved. We see opportunities for consumers to benefit from better services and to optimise their energy bill by sharing their flexibility and data. In Belgium, the system operators join forces to co-create the energy services of tomorrow within the context of the IO.Energy initiative.



Visit https://www.ioenergy.eu/ to learn more about the ecosystem

the system

This would enable consumers to optimise their bills, increase their comfort and benefit from their technological investments. Market parties, in turn, will be able to innovate and develop new energy products and services tailored to consumers' needs.

The coal phase out in neighbouring countries is making the Belgian capacity need even more pressing. As a result, between 2022 and 2025 additional capacity of more than 1 GW will be needed, requiring further measures to be taken.

Chris Peeters

Consult Elia's Adequacy and Felxibility Study via http://bit.ly/Elia_Studies



Second major meeting of the IO.Energy project where nearly 150 people came to close the ideation phase, in Flagey, on June 24, 2019.

In February 2019, the Belgian System operators (Elia, Fluvius, ORES, Sibelga and Resa) launched IO.Energy (Internet of Energy), a unique and innovative ecosystem to give consumers access to new services as a result of data exchange. IO.Energy is being undertaken in collaboration with business, research institutes and public services. By collaborating and introducing new digital tools, new rules and automation, combined with real time communication capabilities, we can provide Energy-as-a-Service (EaaS).

A win-win for both consumers and

Meanwhile, system operators will have new possibilities enabling them to better operate the Belgian grid at its various voltage levels, making our energy system more efficient and sustainable.

The IO.Energy Ecosystem

The journey towards a consumercentric energy system has delivered its first results: eight consumer-centric use cases from eight consortia are currently in the sandboxing phase. This will continue until April 2020. The outcome of this first sandboxing phase will lay a strong foundation for consumer centricity. Firstly, by paving the way for the demonstration of the current use cases under more realistic conditions, in preparation for industrialisation. Secondly, by accelerating the set-up and delivery of a second round of ideation and sandboxing with a view to addressing other consumer needs via innovative power and digital technologies.

Reallabore Power To Gas

50Hertz participates in hydrogen projects

50Hertz contributes its know-how to research projects in Saxony-Anhalt. Saxony and Brandenburg for the development of promising energy technologies. These are so-called 'real laboratories' on an industrial scale, funded by the Federal Ministry of Economics and Energy, which are intended to advance sector coupling and hydrogen technology.

The material use of hydrogen plays a decisive role in the project 'GreenHydroChem Central German Chemical Triangle'. For that, a 50 MW electrolyser at the Leuna site will divide water into hydrogen and oxygen using regenerative electricity. The hydrogen will then be converted into basic materials such as methanol in local chemical plants.

The real-world laboratory concept 'Reference Power Plant Lausitz' goes one step further: hydrogen will firstly be produced with green electricity in an electrolyser, secondly be made available for transport and industry and thirdly, if required, will be reconverted into electricity using the generated heat. A hydrogen storage tank as well as a battery and a supercapacitor for storing electricity will supplement the plant.

Both projects are designed to contribute to system and supply security in the power grid. 50Hertz expects the projects to make progress in the development of Power-to-X technologies, which will play an important role in the energy transition.



Project REEAL

50Hertz prepares for redispatch with renewable energy plants

50Hertz is preparing intensively for the so-called redispatch with renewable energy plants. Redispatch means that in the event of congestion in the electricity grid, generation will be reduced on one side of the congestion while being increased on the other. The objective is to bring the traded electricity to the consumers even if the transmission capacity of the grid is not (yet) sufficient. So far, such interventions have been limited to conventional power plants with a capacity of more than 10 MW. From October 2021, a new regulation (NABEG 2.0) will apply, which will also allow grid operators in Germany to implement redispatch measures with renewable plants and smaller conventional power plants.



With the new regulation, the number of relevant assets for redispatch measures in Germany will increase tremendously. In the 50Hertz grid area alone, the number of power plants will rise from several hundred to several tens of thousands. Because a large number of these plants are connected to the distribution grids, transmission and distribution system operators have to align and collaborate even more closely.

50Hertz already launched this extensive project in 2018 to implement the new legal obligations. REEAL - standing for Redispatch with Renewable Energy Plants - involves employees from numerous areas of the company. The project coordinates the internal adaptation of processes and systems, as well as 50Hertz's participation in energy sector-wide initiatives. 50Hertz closely coordinates with other German transmission system operators, distribution system operators, direct marketers and the Federal Network Agency.

We cooperate
to create value
to create value
to society #44



ELIA GROUP TAKES CARE OF NEARLY 549 HECTARES IN ECOLOGICAL AISLE MANAGEMENT.

AMBITION

We stimulate participation from our various stakeholders. We are a transparent and trusted advisor to create value for society.

CHALLENGE

Elia Group's activities have an economic, social and environmental impact in both Belgium and Germany. It is challenging to balance the different viewpoints when building the grid infrastructure of the future.



APPROACH

Building the infrastructure of the future involves all stakeholders at a very early stage of our projects to incorporate their input in the various planning stages. This results in the best societal and environmental solutions. **INTERVIEW WITH ILSE TANT (CHIEF COMMUNITY RELATIONS OFFICER ELIA) AND OLIVIER FEIX (HEAD OF PERMITS 50HERTZ)**

Collaborating for a successful grid development

G4 - EUS - DMA - STAKEHOLDER PARTICIPATION

The energy transition is a real societal challenge for all of us. Decarbonisation is a European story which only works with a well-developed high-voltage grid. It is about connecting the wind and solar potentials in the North of Europe with those in the South to create the best possible mix. Elia Group is convinced that early involvement and dialogue with all stakeholders is vital for the success of the energy transition.

Why is timing so important when building the grid?

Ilse: "When grid development is lagging behind, it can generate substantial costs for society because of bottlenecks in the grid and related redispatching costs. In Germany, very concrete figures are given for the consequences of a delay. Also in Belgium we observe an increasing saturation of our network. Moreover, the timely construction of the grid not only avoids bottlenecks and related costs but also enables the integration of renewable energies with the related CO₂ reduction and a positive impact on the market price."

Olivier: "Since the commissioning of the Southwest Coupling Line in Germany, we have already saved more than €650 million in congestion management costs in four years. And we have calculated that we will save 50% of redisptach cost annually through the projected German DC links by 2030. This economic benefit boosts welfare for society. Secondly, there is also an ecological price. Renewable energies that cannot be integrated into the electricity system are replaced by production that emits CO₂ into the atmosphere. And thirdly, we should consider the social cost as lots of decentralised potential and initiatives cannot be unlocked in a system that

It is important that authorities at different levels also take responsibility for the realisation of the projects through positive communication on the importance and need and making available resources to move the process forward while guaranteeing to citizens that their input is taken seriously.

llse Tant

cannot cope with such an amount of new renewables. Even if many local citizens, associations and prosumers wish to contribute to investments linked to this great societal project called, energy transition, this still makes it difficult to implement their ideas."

How can we contribute to the timely construction?

Olivier: "The great advantage of being a group of TSOs is that we share knowledge, experience and good practices to learn from each other. We identify measures to de-risk permission procedures or construction works that are performed in Belgium that are helpful in Germany and vice versa. This helps us to speed up the delivery of critical infrastructure projects such as SuedOstLink in Germany or Ventilus

> 650 mio €

SAVED IN CONGESTION MANAGEMENT COSTS IN FOUR YEARS WITH THE SOUTHWEST-COUPLING-LINE

We see a lot of debate on democracy in Europe and have to find our way regarding the new emerging approaches of engaging people.

Olivier Feix

in Belgium. And we apply the same standards in managing these complex projects to ensure the timely delivery on budget and quality."

Ilse: "Having the competence in-house is key. Alongside our engineering competence, we need projectmanagement capabilities in national and international environments. Furthermore, stakeholder management and communication competencies are essential for the success of our projects. Working hand in hand with our stakeholders - authorities as well as civil society and citizens - is crucial to obtain permits on time. We are inspiring allies who want to speed up the transition together with us. If you look at a project team today, it is a mixture of technical, legal, communication, environmental and many more experts."



Information market on the SuedOstLink project in Greiz on November 26, 2019

Olivier: "Stakeholders have become more demanding and want to actively participate in the decision making

process. This is of course challenging and can add complexity to our permission processes. On the other hand, this can be a source of knowledge that can be incorporated in our planning processes to deliver a better outcome. We see a lot of debate on democracy in Europe and have to find our way regarding the new emerging approaches of engaging people."



50Hertz organised an information market for the SuedOstLink project in Bernburg (Saxony-Anhalt) on 13 May 2019.

So, are we thinking of new ways of stakeholder involvement?

Olivier: "We have also learnt that critical stakeholders are often ready to make useful suggestions or to add new facts to identify and evaluate routing alternatives, technical options or ecological compensation measures. To get there, we have to interact early, in a focused and respectful manner. People are eager to be part of the story. That's the positive thing. However, that also means that we have to consider many ideas coming from mature and active citizens in our core processes. It's not only early information for the sake of transparency. It's a two-way interaction over the entire project development cycle and that interaction is driven by purpose. It has to lead to a positive result in the interest of society. This is why we have completely reviewed our planning and permission process towards an integrated approach systematically including external stakeholder input. We are in the process of learning to use these new dynamics positively. "

We have completely reviewed our planning and permission process towards an integrated approach systematically including external

stakeholder input.

Olivier Feix

Ilse: " As Elia Group we invest much more in stakeholder engagement and communication than three to four years ago. We do not only build relations with governments and local authorities but also test innovative concepts involving representatives of civil society and citizens. This leads to concrete and long term collaboration with farmers, environmental and economic associations in order to balance interests and impact and to find common solutions. For citizens stakeholder groups are set up to come to a common understanding of problems and solutions for several topics. The development of long term relations with different stakeholders leading to a better reciprocal understanding and collaboration is essential for all our activities."

Elia's key political stakeholders visit the MOG upon its inauguration on September 10, 2019.



Stakeholders visit the Brabo site in Antwerp on 19 May 2019 during Open Site Day.

What do you expect from governments and authorities?

Olivier: "We firstly expect a cooperative approach and active involvement with a common project mentality. What does that mean? The permission phase is still too long, complex and uncertain. We can benefit a lot from working together. Very concretely, who has which role at which stage of the permission process and what do the parties expect from each other? If this is clear and applied, interactions and processes become efficient. Secondly, political decision makers have to link the social debate on climate change with the energy transition. Elia Group as a European Group of TSOs plays an important role in making the energy transition a success. In Germany we are getting on the right track. "

Ilse: "In Belgium the situation is complex taking into account the dispersed responsibilities on need for grid and permitting. We are often in the role of a facilitator to enable all the parties to pull in one direction. It is important that authorities at those different levels also take responsibility for the realisation of the projets through positive communication on the importance and the need and making available resources to move the process forward while guaranteeing to citizens that their input is taken seriously."



On November 22, Elia held its annual Stakeholders' Day. More than 150 guests from the Belgian energy sector attended.



The early dialogue with the public has been made part of our daily routine at 50Hertz. Particularly with our direct current project, which is planned as an earth cable, the dialogue with the property owners plays an important role. Because topics such as soil investigations and soil protection concepts are important from the very beginning. This is where 50Hertz relies on the owners' knowledge in order to be able to further improve the planning and subsequently also the construction of the cable.

Danuta Kneipp, Head of Public Participation Combined Grid Solution 50Hertz AN INTERVIEW WITH PASCALE FONCK (CHIEF EXTERNAL RELATIONS OFFICER ELIA), KERSTIN MARIA **RIPPEL (HEAD OF PUBLIC AFFAIRS AND COMMUNICATIONS 50HERTZ) AND EMELINE SPIRE (HEAD OF** ELIA GROUP EU AFFAIRS)

Stakeholder Engagement

Elia Group is an advisor to public authorities at national and European level and aims to involve its stakeholders and regulators at an early stage of all developments. How do political decisions impact our activities? And why do new ways of proactive stakeholder management gain more and more importance?

Can you explain the intense relationship between our activities and the public authorities?

Pascale: "The different governments at federal and regional level give us our licence to operate. With this regulated monopoly, we have a duty to accomplish our tasks in the interest of society complying with all regulations pertaining to the operation of the transmission system. Secondly, thanks to our wide portfolio of activities, we are the only player at national level with a global view on the electricity system. This puts us in a unique position to provide analysis, advice and recommendations to public authorities, so that informed decisions can be taken."

L The Green Deal confirms the need to make the energy transition a reality, and we are willing to take our role in making this possible.

Pascale Fonck





Infrastructure is key to decarbonise the energy sector and our political stakeholders and the public authorities know that.

Kerstin Maria Rippe

How are our activities steered by political frameworks and how do we see our stakeholder engagement?

Kerstin: "In Germany we have a new legislation on renewable energies literally every year. The grid development plan has – due to legal provisions - to be updated every two years. These cases show how political decisions have a direct impact on our activities. Consequently, it is of great importance to be in regular contact and trustful dialogue with public authorities and decisionmakers to provide holistic advice on future developments of the system facilitating the energy transition. Our first principle within that process: stakeholder management is always based on trust. We establish solid and

reliable relationships, and regularly invite stakeholders for dialogue and open, transparent discussions. We always put ourselves in the shoes of our partners and stakeholders, combining their needs with our ideas and positions."

How does European legislation impact your activities? How do you manage both levels?

Pascale: "Belgium is a highly interconnected country and therefore it is extremely important to us. We know that more and more decisions tend to be shifted to the European level and will consequently impact the national legislation. We strongly believe in the interconnected character of the European energy system and are willing to optimise the use of interconnectors and to build new ones. We can see huge

evolutions in the past five years looking at the network codes and the clean energy package. Now, we are talking about a new Green Deal. It confirms the need to make the energy transition a reality, and we are willing to take our role in making this possible."

Kerstin: "It is the same in Germany. Finally, the European level is one of the most decisive ones. Therefore, we established a dedicated Elia Group EU Affairs function in February 2019, which acts as an interface between Elia and 50Hertz. We now collaborate, exchange and thus consolidate constantly our national views with a European one. This is a major achievement of Elia Group's efforts in 2019."



On 13 and 14 February, Elia took part in the Salon des Mandataires in Marche-en-Famenne. This event, which attracts nearly 15,000 visitors every year, brings together all the stakeholders in Wallonia: public administrations, local and regional political authorities.



50Hertz expert panel during the 10th edition of the Renewable

Emeline: "Looking at the impact of EU legislation in the longer-term, electricity systems play a major role in delivering the `Green Deal' climate neutrality objective by 2050. Renewable electricity becomes the new primary energy, and the most efficient way of using renewable electricity is to transport it and use it as electricity. The Commission scenarios foresee up to 53% electrification - twice as much as today. This gives us a special responsibility. Whenever we manage to integrate more renewables in the power system, whenever we make the power system smarter to accommodate electric mobility, etc., society can decarbonise faster and more efficiently. Hence our ambition is to accelerate both the delivery of the future infrastructure as well as the digitalisation of our activities and the power system."

Steering European topics at Group level allows us to showcase a new degree of compromise building and to speak with a stronger voice.

Emeline Spire

Energy Conference in Berlin on 30 October 2019.

How do you see the stakeholder management with authorities at **European level?**

Emeline: " Our role is to support European policy makers in delivering the European Union's climate and energy ambitions. We are in the business of making it happen. We also support European authorities by anticipating implications of political objectives. We raise issues that need to be addressed if we want to succeed. We propose solutions based on our complementary expertise in Germany and Belgium. We have a concrete and recent example: our study "Future-Proofing the European Energy Transition towards 2030". Steering these topics at Group level allows us to showcase a new degree of compromise building and to speak with a stronger voice. This is very helpful and once again the unique selling point of being a Group of two national TSOs."



Watch Kadri Simson's (EU Commissioner for Energy) message as shown during http://bit.ly/VideoSpeech

Stakeholders' **Day 2019**

Elia held its annual Stakeholders' Day on 22 November. Over 250 guests from the Belgian energy sector were treated to a varied programme centred around the theme 'Accelerating the Energy Transition'. Particular highlights were the inspiring speeches on climate change and CO₂ reduction delivered by Belgian climate expert Jean-Pascal van Ypersele (from the Université Catholique de Louvain (UCLouvain)) and US environmental activist Paul Hawken respectively. Many topics relating to both the Belgian and European electricity systems were also discussed.



Elia Group organises **European evening** in Brussels

More than 120 guests from the European energy sector met on 12 December at the first joint stakeholder event between Elia and 50Hertz. Amidst current themes such as the Green Deal and the COP25 in Madrid, Elia Group presented its new study 'Future-proofing the EU Energy System towards 2030'. There were several guest speakers and video statements. German Energy Minister Peter Altmaier praised the Belgo-German cooperation within Elia Group. Kadri Simson, the new European Commissioner for Energy, pointed out the measures needed to realise the ambitions of the Green Deal: accelerating decarbonisation, improving energy efficiency and integrating more renewable energy.





50Hertz engagement with public authorities

50Hertz organised numerous networking events with various interest groups in 2019. In the political arena, these are regular, diverse dialogue formats in which stakeholders from public authorities, parliaments, NGOs, associations and industry meet to discuss current energy policy issues. In February e.g., representatives of all democratic parties attended a Parliamentary Breakfast at the 50Hertz headquarters in Berlin to discuss the effects of the Network Expansion Acceleration Act (NABEG). In January and September, energy policy network evenings took place, during which the participants exchanged views with 50Hertz experts on the necessity of higher utilisation of the grid and the challenges of offshore grid expansion. In May 50Hertz hosted the annual public and regulatory affairs day. Distribution system operators, large consumers, renewables producers, conventional power plant operators - all situated in our grid area - discussed with 50Hertz-representatives the decisions of the so-called "Coal Commission", upcoming developments in incentive regulation and the development of electricity prices. This exchange is characterised by tough discussions and mutual respect for the different points of view.

In August 50Hertz hosted the now 11th System Security Conference on the topic of higher grid utilisation, followed by the annual EEG conference on redispatch with renewable energy plants.

In addition, around 100 meetings are held annually with international, national and local political players, business representatives* and NGOs to provide transparent information on selected energy industry or energy policy issues. One highlight in 2019 was the commissioning of the Arkona wind farm and the 50Hertz grid connection Ostwind 1, which was attended by German Chancellor Angela Merkel. In her speech she emphasised the importance of the Baltic Sea in terms of offshore wind





50HERTZ HOLDS ABOUT 100 MEETINGS PER YEAR WITH STAKEHOLDERS

Environmental Actions

Elia Group is committed to creating a sustainable future for all of its internal and external stakeholders. This means that the company takes its corporate social responsibility very seriously, which includes an active commitment to environmental and climate protection. Elia Group respects flora, fauna and biodiversity, uses natural resources conservatively and keeps the energy consumption and emissions of its activities as low as possible.

Biodiversity and rehabilitation of natural habitats

To ensure our security of supply, safety distances around the electrical conductors of our high-voltage lines must be respected. Instead of cutting down trees and shredding vegetation, Elia set up the LIFE project in 2011 in collaboration with RTE, and funded by the European Commission and the Walloon Region. With LIFE we aimed to find solutions that ensure safety distances, whilst preserving biodiversity. Since this seven-year project was concluded, Ecofirst carried out biological inventories during the summers of 2018 and 2019. These inventories aim to



IMPACT LIFE PROJECT

- Only 2% (1 out of 52) of the evaluated sites didn't have any results
- 71% (37 out of 52) of the evaluated sites reached the intended goal
- \cdot 19% (10 out of 52) of the evaluated sites surpassed the intended goal
- \cdot 8% (4 out of 52) of the evaluated sites showed positive progress in terms of biodiversity without interference from the LIFE project

Together with these expected, and meanwhile proven, positive results, Elia decided to launch a five-year follow-up project, LIFE 2, but this time without any external funding.

characterise the evolution of habitats and populations of animal and plant species in order to highlight the effects of developments and changes in management practices resulting from LIFE.

The success of the seven different actions carried out during the LIFE project (i.e. borders - orchards restoration of natural habitats excavation of ponds - control of invasive species - installation of mowing or grazing - installation of flowering meadows) was evaluated. As it was not possible to carry out complete inventories on 429 ha with the existing means. Ecofirst focused on a selection of 52 sites considered representative of the diversity of the actions carried out during the LIFE project. In total, approximately 130 ha were evaluated.

Setting an example for Europe

One of the aims of the LIFE project is to set an example for all other European transmission system operators (TSOs) and establish the first ecological network of its kind along the EU's 300,000 km of power lines. Contact was made with the TSOs in 14 EU Member States that have shown the greatest interest in the project and its implementation in their own country. A 'quide to best practices' describes various ways of managing the aforementioned green corridors and highlights their financial benefits drawn up as part of the project. This is used within Elia and distributed to the other European TSOs, among other ways via international associations like the European Network of Transmission System Operators for Electricity (ENTSO-E) and the International Council on Large Electronic Systems (CIGRE).



http://www.life-elia.eu/en/ to learn more about this tainable initiative

Ecopooling

According to the law, there is an obligation to avoid or minimise any preventable negative impact on nature and landscape. Where interventions are unavoidable, 50Hertz takes compensatory measures. These are, for example, planting, forestry, hydraulic engineering measures, species protection, restoration and other actions. However, it is becoming increasingly difficult to find suitable areas for such compensation measures at the time of the intervention. Eco-accounting aims to counter this problem. Ecoaccounting means that compensation measures are carried out ahead of time and without specific impact and that they are recognised and booked into an eco-account.

In 2019, the Stiftung Kulturlandschaft Sachsen-Anhalt and 50Hertz established the basis for a sustainable biotope ecosystem in the Sülze valley southwest of Magdeburg. Its aim is to create a comprehensive ecosystem by upgrading and preserving biologically valuable areas. The Stiftung Kulturlandschaft Sachsen-Anhalt has set up an ecoaccount for this purpose.



Of course, we also actively protect and strengthen biodiversity. We pay attention to birds, amphibians and natural habitats and develop substantial ecological projects with external partners to enrich biodiversity. The way we operate our system and our grids is also sustainable. We also run our public participation dialogues in a socially sustainable manner. Our professional handling of negative and positive opinions and the resulting better understanding and social consensus that grids need to be reinforced to integrate rapidly growing amounts of variable renewables also contributes to a better and more sustainable societal interaction.

Olivier Feix. Head of permits 50Hertz revenue.

This cooperation shows that economy and environment are not contradictory. With smart planning, it is possible to

The aim of the biotope system is to create species-rich and flowering habitats for animals and plants in areas that have become rare today. The Foundation contracts local farmers for the management of the biotope network, thus offering smaller farms in particular an additional source of

implement nature-conserving activities in connection with infrastructure projects that would otherwise be difficult or even impossible to realise.

50Hertz has already been paying into the project-related eco-account since 2017 and receives eco-points in return. These can be used for future necessary compensation measures, for example for the nature conservation related compensation of SuedOstLink.





For an overview of all compensation measures taken by Elia and 50Hertz please consult the Elia Group stainability Report 2019 via

http://bit.ly/EliaGroup_publications Or visit our

https://www.elia.be/ and https://www.50hertz.com/ for more information on mitigating environmental impact & promoting ecological diversity.

We align culture #5



TOTAL NUMBER OF EMPLOYEES (ELIA GROUP)

AMBITION

We want to implement an Elia Group culture that puts safety and the interest of society at the centre of our activities while respecting local identities.

CHALLENGE

We operate in a fast changing and international sector. This means that our employees need to cope with intercultural differences, working in distributed teams, using new digital tools and adapting to new processes.

APPROACH

Three guiding principles and six behaviors build the foundation of evolving our Group culture. Based on that, we improve collaboration between our employees in Germany and Belgium and empower people to take initiative and Make A Difference (MAD) in every action they take. INTERVIEW WITH PETER MICHIELS (CHIEF ALIGNMENT OFFICER ELIA GROUP) AND SYLVIA BORCHERDING (CHIEF HUMAN RESOURCES OFFICER 50HERTZ)

Creating a strong Group culture

Elia Group is operating in a fast changing environment and constantly seeking to improve its services to society. With its two strong national TSOs 50Hertz and Elia and their exceptional knowledge and experience, Elia Group managed to implement its vision of installing two headquarters, with central offices perfectly located in Brussels and Berlin. To realise the ambition of taking a leading role in the energy transition in Europe, we established group functions in those areas where we can create an added value for society.

> What were the major achievements that helped Elia become a stronger Group in 2019?

Peter: "Since we established 15 Elia Group functions beginning of 2019, we progressed a lot. Elia and 50Hertz published a joint study on the horizontal vision showing two main levers for successfully implementing the next phase of the European energy transition. We organised our first Elia Group European Stakeholder's Day and published a joint annual report.

We further aligned and developed the Elia Group strategy and derived the national business plans from it. We created common standards for CAPEX Management of critical infrastructure projects and jointly commissioned and inaugurated the grid connection of the Arkona wind park in the Baltic Sea and the Modular Offshore Grid in Belgium. We also leveraged synergies in purchasing through common technical specifications for capacitor banks and steel in certain projects, giving us stronger negotiation power."

L The long-term success of the Elia Group clearly depends on our way of collaboration. We are working on a common Group culture by implementing these six behaviours in both countries.

Svlvia Borcherding

Sylvia: "For the first time we organised a joint Elia Group Innovation Week, which showcased the progress in digital activities and implementing new technologies into our core business. Our new common Elia Group safety guidelines leaflet reinforces safety being our top priority across the Group. We also joined forces in talent management and developed an approach to implement skill-based workforce management. As a Group, we are also creating a stronger image in the recruiting market. We managed to find two important profiles under difficult circumstances -a strong German CEO for 50Hertz and a Chief Digital Officer for Elia Group, who will lead the digital transformation of our companies. Looking at collaboration, I

more and more feel the Group coming alive with the presence of Elia colleagues in Berlin, 50Hertz colleagues in Brussels, as well as the increasing participation at each other's yearly employee parties. We also have our first Belgian Group Head working as an expat out of Berlin. And finally, I am very happy to see a change in mindset – people start proactively thinking about the best possible outcome for the Group."

Having shared values, beliefs and behaviours will be an important factor in forming and driving the Elia Group.

Peter Michiels



The Supervisory Board of 50Hertz appointed Sylvia Borcherding as Chief Human Resources Officer in January 2019. The female quota of the 50Hertz Executive Board now counts 20%. Sylvia Borcherding previously held leading positions in the Metro Group, at healthcare provider IAS and at outsourcing specialist Capita. She was also active as a organisational consultant.



It is not only a matter of becoming more agile and innovative, we also encounter challenges when dealing with intercultural differences.

Sylvia Borcherding

Which key challenges do you face?

Peter: "The digital transformation constantly increases in speed and requires the overhaul of proven business models with digital strategies. To secure our long-term future, we need to be innovative, flexible and efficient. The major challenge now is to effectively seize the opportunities of the digital transformation for the Group and enable our people and organisation to actively contribute to it. To achieve this, we need highly motivated and agile employees. Teams will increasingly work together horizontally across functions and independent from hierarchies. This requires a massive change in mindset and culture."

Sylvia: "It is not only a matter of becoming more agile and innovative, we also encounter challenges when dealing with intercultural differences, working across different locations or adopting new structures, responsibilities and processes. It is undeniable that people associate themselves very strongly with the national company whether it is Elia or 50Hertz, but being a strong Group also requires one common culture. This does not mean ignoring the differences between Elia and 50Hertz or Belgians and Germans, but to speak one language with respect to the culture we want to have and to adopt common behaviors. A common culture will help us to strengthen the foundation and realise our ambitious strategy."





What kind of culture is required to achieve Elia Group`s ambitions?

Peter: "Having shared values, beliefs and behaviours will be an important factor in forming and driving the Elia Group. To succeed in the future, we launched the cultural programme 'Make A Difference'. It promotes six behaviours, which further build on our strengths, but also foster an agile mindset and an efficient way of working needed to adapt to the rapidly changing world around us. These six behaviours enable us to speak with one voice, to simplify and reduce complexity, to give and ask for feedback, to have an impact with every action we take, to make choices in the interest of the entire Group and to actively co-create the future. "

daily work."



Senior managers of Elia and 50Hertz during the Elia Group Management Days in Ghent on September 30, 2019.

Sylvia: "The long-term success of the Elia Group clearly depends on our way of collaboration. We are working on a common group culture by implementing these six behaviours in both countries. To me the two behaviours 'feedback' and 'simplification' are particularly important. A good feedback culture is crucial. It is important to manage expectations for continuous improvement, but also to show personal appreciation more regularly. After all, a good mood and high motivation help achieve success. With regards to simplification, we have a lot of seemingly small things to change. For example, by reducing the high number of signatures in many approval processes we could decrease complexity and thus, significantly increase efficiency in our



How do you plan to implement these behaviours withing Elia Group?

Peter: " In Belgium, we started working on the two behaviours 'feedback' and 'one voice' across all levels and teams. Next on the agenda are 'simplification' and 'impact'. In Germany, we are defining our priorities now. Although important. it is clear that it will be more than just communication campaigns, training courses and workshops to explain to our employees what the six behaviours mean. Our leaders and managers have to be role models and show the way. People should feel able to test and try new things, without being afraid of making mistakes. Additionally, we will have to audit our business processes, detect where we see barriers for these six behaviours and eliminate them."



FEMALE QUOTA 50HERTZ EXECUTIVE COMMITTEE

Cultural guiding principles and behaviours

Elia Group has started a joint project to intensify the collaboration between Elia and 50Hertz. The company is developing a common, integrated way of working that will transform us into one, multinational Group with more than 2,500 employees. To successfully realise our strategy and accomplish our mission in this dynamic context, a strong Group culture is needed. Therefore, we defined cultural guiding principles and six cultural behaviours. These are the basis for the Elia Group culture and the starting point for all our (business) activities. These guiding principles and behaviours should be reflected in the priorities and the decisions made by all Elia Group emplovees.

Six Behaviours



ONE VOICE:

we have an open and constructive debate before making a decision. Once the decision is taken, everyone supports this and carries the same message.



IMPACT:

we perform our tasks in the best possible way by focusing on the actions that make a difference and that have an impact (on safety, the system, society, the environment, our performance...).

ONE COMPANY:

our responsibility goes beyond our own job or department. We look at results transversely and support the choices we make as a company.

2,544

employees

WORK FOR ELIA GROUP



We will continuously work on integrating and reinforcing these behaviors in our daily way of working. Together with the management teams, we will set direction, define priorities and actions to ensure a sustainable implementation in the organisation.

Julia Persitzky, Head of Learning & Development 50Hertz



Our aspirational values

WE ARE ENTREPRENEURIAL: Our staff work proactively and take initiatives with a view to improving how they work and they are encouraged to explore new ways of doing things.

WE COLLABORATE: Elia Group 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.



SIMPLIFICATION:

we look at what could be simplified in our challenging environment and avoid unnecessary complexity.



Barbara Verhaegen, Head of Internal Communication & Culture Elia







CO-CREATING THE FUTURE:

we are not only aware of the radical changes in our sector, such as digitalisation and decentralisation, but we shape them.

FEEDBACK:

we give and ask for feedback and this is in multiple directions. Thus, we show appreciation and we strive for continuous improvement.

The six behaviours are our common standard. Of course, there may be local differences, as well as other priorities or concerns. The German colleagues are currently working out an approach for implementation. I'm sharing our best practices and making sure there's coherence. Just as we did for Elia, we start with the management and then roll it out further throughout the organisation.

Growing our talents

The partnership between Elia in Belgium and 50Hertz in Germany is stronger than ever. Together, we are reaping the benefits that neither company could realise on its own, such as the creation of future development options or investments in activities delivering future synergies. The combination of forces will help ensure a secure, reliable and efficient system, deliver the grid infrastructure of the future, evolve the market, align culture with strategy and adopt promising innovation and growth opportunities.

Group functions

We are convinced that a stronger cooperation between our two TSOs creates additional value and secures our longterm future. To realise our common ambition we established Group functions where we can create added value by intensified collaboration.

The Elia Group organisation is steered by the Elia Group Committee (EGC) the official gremium of the newly created Elia Group Holding structure.

Group functions have been created in several domains:



ASSET MANAGEMENT

66 Teaming up and managing our assets at Group level will lead to better decisions about our assets with significant benefits for both TSOs.

Dirk Kunze (Elia Group Officer Asset Management)



66 Together we can ensure that the TSOs stay highly relevant in a fast changing environment. Making the digital transformation happen is key for our company.

Alexandre Torreele (Elia Group Head Strategy)





66 Group-wide steering of the high priority projects and programmes

CAPEX MANAGEMENT

will improve the transparency and reduce the risk exposure with regards to time, cost, scope and quality. The experiences and practices in both TSOs provide a good basis for a strong evolution.

Olivier Feix (Elia Group Officer Capex Management)

SYSTEM OF THE FUTURE

66 The ambition of the System of the Future Department is to answer the major auestions on the future electricity system beyond 2030 via in-depth qualitative and quantitative studies, in close cooperation with internal and external stakeholders.

Jan Voet (Elia Group Head System of the Future)



FINANCE : GROUP CONTROLLING, AUDIT AND RISK MANAGEMENT

66 Fostering a common understanding of the value drivers of each TSO in its Group Controlling. Based on this, the function can develop a framework mitigating key risks and seizing value-creating opportunities.

Daniel Baumgartner (Elia Group Head Controlling)

66 As part of our ambition to reinforce the finance function, we want to achieve strong and consistent risk management for the entire Group with harmonised processes to provide a relevant discussion about risk on the EGC.

Gwendolyne Verstraelen (Elia Group Officer Risk Management)



EU AFFAIRS

66 As a trusted advisor, Elia Group will be acting in the interest of European society. We will ensure that the Group speaks with one strong voice and follows a coordinated approach with all the important stakeholders.

Emeline Spire (Elia Group Head EU Affairs)



individual context on the one hand and identifying the value drivers of the joint business on the other hand are the most important tasks for the new for reporting and for support of decision-making that is action-oriented on





CORPORATE COMMUNICATION AND REPUTATION

66 Elia Group Communication and Reputation defines and steers the Group's communication strategy to speak with one strong and coherent voice to increase awareness, impact and our overall reputation as a leading group of TSOs in the European energy transition.

Marleen Vanhecke (Elia Group Head Communication & Reputation)



IT

6 Group-wide applications will enable the delivery of common solutions for both TSOs, increasing our global efficiency and achieving the strategic goals of the business.

Marc Gilliard (Head of Elia Group IT Application Development and Maintenance (ADM))

66 The Group IT Infrastructure, Datacom and Security synergies will lead to an increased resource mass permitting the move from generalist to specialist guaranteeing a better service delivery.

Pierre Loverius (Head of Elia Group IT Infrastructure, Datacom and Security (IDS))





66 The CDO Office is supporting and steering a tremendous transformation that is currently affecting the whole Elia Group: The Group IT integration between Elia and 50Hertz will harmonize and slim down our processes and create synergies for both business and IT. At the same time we are making sure that priorities and capacities are well set for our Group vision of becoming a Digital TSO.

Antje Schlegel (Head of Elia Group CDO Office)



INTERNAL AUDIT

66 Elia Group Internal Audit maximizes the added value in providing assurance at local and at Group level. It's our ambition to increase positive impact on the effectiveness and the efficiency of the different business activities and to boost the transition process.

Erik De Schrijver, Head of Elia Group Internal Audit

Elia Group's Change **Agent Programme**

The intensified collaboration between Elia and 50Hertz has a lot of benefits but also brings challenges for our employees. To support the teams in their daily operations, 50 change agents have been nominated across Elia and 50Hertz. Change agents are leaders and employees from Group functions as well as from local functions, where the Eia Group activites have a change impact. They will take on different roles to support their colleagues in dealing with intercultural differences, working in distributed teams, transparency and communication, interfaces or clarification of roles and responsibilities.



we can generate the biggest

Harald Van Outryve D'Ydewalle (Elia Group Head Procurement)

INNOVATION

44 In our fast-paced changing energy system, Group Innovation is aiming to test and validate potential of new technologies to maximise efficiency, quality and safety in our business while embedding innovative mindset in the group. We then leverage on both companies challenges and test-bed to maximise the learnings and create valuable support to the long-term strategy of Elia Group.

Loïc Tilman (Elia Group Head Innovation)



The official launch of the new Elia Group organisation on 14 February in Brussels.

I have always enjoyed working in an international environment, because it gives me the opportunity to express my way of thinking and to develop myself personally. Collaborating within an international group sometimes seems guite a challenge, but in the long run I only see the many advantages such as an international network, high-quality knowledge exchange or faster results that such collaboration brings. As a change agent, I think I can play an important role in making our people and colleagues aware of our differences and similarities, both culturally and in the way we work.

Evelyne Driane, Head of Talent Management Elia

PROCUREMENT

66 We have established Group functions servicing both TSOs for those goods and services where benefits thanks to the group volume effect and where we can leverage our best practices.









TALENT MANAGEMENT

66 Elia Group Talent Management will provide guidance by translating the Group strategy into a common long-term Talent & Competency roadmap. The identification of critical skills and roles is crucial for our business continuity.

Sylvia Borcherding (Elia Group **Officer Talent Management)**

Safety always comes first

WE BUILD OUR

SAFETY CULTURE

Reaching our goals requires

guidelines. We actively work

Everyone is personally involved

in ensuring their own safety and

more than procedures and

towards a safety culture.

that of their colleagues.

Safety is a critical part of our corporate culture. Elia Group applies the highest safety standards for its own employees, our contractors and everyone coming into contact with its infrastructure. We are committed to continously invest in the intrinsic safety of our installations, working methods and safety culture. Likewise, we expect all our employees to always work safely and securely, promote a safety-oriented attitude and responsible behaviour, and never compromise on safety.

We are all safety leaders

Elia Group believes that the safety culture is not about more procedures, but about aligning peoples' behaviour. Everyone needs to be a 'safety leader'. Right from day one, our employees are given thorough safety training to ensure that they respect their own safety and that of their fellow workers and the environment at all times. That is why in 2019, we introduced a third pillar to our safety programmes 'We are all safety leaders', next to 'We go for Zero accidents' and 'We build a safety culture'.

A safety leader is someone who truly understands the risks and respects the rules, is open and collaborative in his or her interaction - regardless of their position in the organisation – and inspires others to act safely. At Elia Group, we believe everyone can be and should be a safety leader. That is why we developed a toolkit for our employees to help them to further develop their safety leadership skills and attitude. It creates a common understanding and framework for safe behaviour to ensure that we achieve our safety ambitions.





Elia Group is committed to making sure that everyone returns home safely every day. This includes our employees, contractors and also those working on or in the vicinity of our installations.

WE ARE ALL SAFETY LEADERS

The safety culture transformation requires visible safety leadership at all levels of the Group. Safety leaders show exemplary safety behaviour and inspire others to do the same. Elia Group wants to actively develop safety leadership in all employees.



Claudia Lüer, Occupational Safety Specialist 50Hertz

Safety has always been a top priority at 50Hertz and Elia. It is important for me to know that we also share the same safety values and objectives across the entire Group. With the Elia Group Safety Toolkit, all employees in Germany and Belgium now hold this strong message in their hands. The leaflet provides standardised tools and rules for everyone to contribute to safe working in the same manner across the Group.

Employee initiatives

2019 was a very important and busy year for Elia Group. Together, we realised huge milestones in order to make the energy transition in Belgium, Germany and Europe happen. These team efforts need to be celebrated and rewarded, which is why we organised several events in 2019 to thank our employees for their contribution, trust and teamspirit.



ELIA TROPHY 2019

The Elia Trophy is an intense three-day teambuilding event for all Elia Group employees. Forty teams of four colleagues, took part in this adventurous, sporty and relaxing weekend near La Roche-en-Ardenne. The teams took on different challenges ranging from rock climbing, to running over mud pools to kayaking. In large organisations such as ours, the event offers a relaxed way to get to know colleagues from other departments in both Belgium and Germany and to strengthen our team spirit.



ELIA'S GOT TALENT

Elia's annual New Year event was all about talent this year. We literally gave our employees the stage to share their talents with us outside of their expertise at work. Our colleagues treated us to an amazing show with dance, singing and instrumental performances. Thank you to the whole Elia Group team of 2019!





MARATHON OF VALENCIA

On December 1, twenty Elia colleagues successfully took part in the Valencia marathon. It was a spontaneous initiative, and for many employees the first marathon in which they participated. The colleagues helped and stimulated each other to train. After the successful participation, the team of runners are now looking forward to go to the Athens marathon in 2020 and the Berlin marathon in 2021.



Meeting new and familiar colleagues in a relaxed atmosphere - this is what the annual 50Hertz employee party in Berlin is about! In June 2019. many Elia Group colleagues from Belgium came to Berlin for the first time to celebrate together with their German colleagues - a great enrichment for both sides. In the middle of Berlin, at the former Tempelhof Airport, people discussed, laughed, danced, brought faces and projects together and made friends in four different languages. The motto "Together. Safe. Strong" - fostered the common culture that Elia Group continues to develop. For 2020, it is planned to further expand the exchange between colleagues from Elia and 50Hertz.





FAMILYDAY AT THE BRABO PROJECT

Once again Elia took part in the Open Site Day, with the Brabo project in the port of Antwerp. During a full weekend, we invited the public to come and discover the project. Nearly 1,500 people enjoyed this enriching and pleasant event. Saturday 18 May was dedicated to the Elia staff and their families: they could visit the Brabo site and take part in leisure activities for young and old.





50HERTZ EMPLOYEE EVENT



AMBITION

system.

We want to create a culture of innovation

and entrepreneurship to accelerate

ecosystem to develop the tools and

methods that will enable a more digital,

decentralised and sustainable energy

the energy transition and build an



83 START-UPS FROM ALL OVER THE WORLD APPLIED FOR ELIA GROUP'S 3RD EDITION OF THE OPEN INNOVATION CHALLENGE

CHALLENGE

The rapidly evolving energy landscape brings about an accelerated need for innovation and new technologies to better understand, anticipate and promptly adopt the changes required to make the energy transtion happen.

We keep our eyes wide open for innovation and growth opportunities

APPROACH

Besides continuing to integrate innovative technologies, we stay abreast of the latest developments in the energy sector. Elia Group has a range of initiatives that foster and reward innovative thinking, to ensure that our employees remain at the forefront of new developments.

We innovate to co-create the future

INTERVIEW WITH LOÏC TILMAN (ELIA GROUP HEAD OF INNOVATION) AND MICHAEL VON ROEDER (ELIA GROUP CHIEF DIGITAL OFFICER)

The energy sector is transitioning towards a more complex paradigm. More renewable energy leads to more intermittency and uncertainty. At the same time, the role of centralised power plants is decreasing, and a much wider range of decentralised actors such as households and electric vehicles have to be integrated in the system. We are moving away from a system we have known for a long time. This brings new challenges in operating the system. Michael von Roeder is the Chief Digital Officer (CDO) of the Elia Group. The former Vattenfall and Vodafone manager has been directing the Group's digital transformation since the beginning of November 2019 and is a member of the Elia Group Committee (EGC). He reports to Elia Group CEO Chris Peeters and manages the three Elia Group IT functions as well as the digital projects. Von Roeder holds a Master of Business and Engineering degree from the University of Stuttgart and an MBA from the IMD Business School Lausanne. He founded several companies in recent years and was also employed as an interim manager.

Many innovations are digital and Elia Group will transform into a digital TSO. What does this mean?

Michael: "Most people would say it's all about technology. I agree there is definitely a technical side to it, but for me the main transformation is taking place in human aspects. So, it's not only technology, it's psychology. It is about how to take all employees along on this ride to deal with fundamental and exponential changes. However, our transformation is enabled by digital technologies. Firstly, this can be internal enablers like tools. Secondly, there are digital tools to transform the business itself, such as Internet of Things, sensors, etc. Thirdly, it is about transforming our business models, and that's the most difficult one to get our head around. It means we must open up our organisation."

How does innovation help Elia Group to reach its strategic targets?

Loic: "The paradigm shift imposes many new challenges on us. Luckily, the energy transition is backed by another evolution: the digitalisation of our sector. We need to leverage new innovative technologies such as artificial intelligence and blockchain to better integrate the decentralised players and to get closer to real time. As an example, fast and regular updated forecasts are needed to achieve a higher responsiveness in operating the system. On the asset side, we also need to rethink the way we develop the grid – not only on the wired side, but also on the non-wired side –looking notably at the flexibility coming from decentralised assets (electric vehicles, households and batteries) as an integral part of the system development. Finally, artificial intelligence, sensors and drones will also bring more efficiency to our asset management business. "

Digitalisation is not only decreasing the entry barriers but also making them much blurrier between the sectors.

Loïc Tilman



Michael von Roeder



How do vou create such an ecosystem?

Michael: "Right now, our organisation is a nice castle with a castle gate. But the organisation will have to become the company and its surroundings, be it the society, suppliers or partners networking and co-creating in an ecosystem together with us instead of developing everything on one's own. It is exponential, this is what we must understand and work on. In one project, a specific company could be our supplier, in the next project it might be our competitor. Let's look at the German automotive companies. They have always been the fiercest competitors. now they suddenly joined engineering forces to co-create autonomous driving. One alone would have had no chance to succeed. They also recognised they will be guicker using third-party solutions."

What does digitalisation bring beyond our core business?

Loic: "Further electrification and digitalisation lead to new ways of doing business – also in the energy sector. Digitalisation is not only decreasing the entry barriers but also making them much blurrier between the sectors. Coupled with the electrification of transport or heating for example, many new players will start new business in the energy space from car manufacturers to tech companies. Collaboration between all members of this new ecosystem from the energy value chain and beyond is indispensable to succeed. In this regard, it is important for Elia Group to be in touch with these new stakeholders and develop a network in both the corporates and start-up sectors that will enable the digital energy transition of the system."



Elia employees at Hack Belgium, the Belgian festival of open innovation, in Brussels on 30 April 2019.

How do you facilitate innovation and digitalisation within the Elia Group?

Loic: "With a dedicated Innovation Team, we provide the framework for ideation and lower the hurdles to try out new things. We create examples to demonstrate the benefits of innovation as eve openers for the organisation. We support the business in long-term strategic innovation and in the ideation process for short-term innovations. We organise networking with start-ups and the outside ecosystem and thus demonstrate the way to collaborate with external parties and this in turn encourages outside-the-box-thinking. And of course, we also provide the tools. But innovation is not a team; it is a mindset and a culture, that needs to be established as innovation is happening in the whole organisation."

What kind of mindset and culture is that?

Michael: " Everybody in the organisation needs to accept the fundamental and exponential changes in the world around us. This is a challenge and an opportunity at the same time. Often new developments or technologies are not obvious or broadly known for a long time and then suddenly they are everywhere. Examples are WhatsApp or digital photography. We must work more horizontally across functions and provide the right tools for open communication and have a free information flow in all directions. I also believe we can free-up some space and leave it to our people to take part in projects or initiatives of their choice. And we need to be more flexible in starting and stopping activities and significantly reduce the time we spend on planning."

From a traditional to a digital **TSO**

Elia Group's biggest transformation ever

To tackle the innovative challenges of the next decade, Elia Group aims to become a truly digital TSO, where digitalisation will be embedded in all our core activities. Our responsibility as a leading energy provider is to deliver an energy future for everyone, using the very latest developments like AI, drones, and blockchain to prepare for the energy transition. As a Digital TSO, we will provide the interfaces needed to implement a true digital architecture where market parties and consumers can participate and contribute to the balancing of the system. We will also increase the value of existing assets by helping to extend their lifespan. The use of smart sensors and automation will help us to manage the system close to real-time.





Elia and 50Hertz colleagues attend the Innovation Fair at the Elia Monnoyer site in Brussels on 2 December 2019.

The digital transformation is in full swing. Start-ups often play a pioneering role with their agile culture. I have learned that corporate culture and start-ups do not exclude one another, but often can be mutually beneficial. It is crucial to take all employees along with the necessary and meaningful changes and implement them in a human way. It is very important to me to make this successful!

Michael von Roeder, Elia Group Chief Digital Officer

IO.Energy

INTERVIEW WITH DAVID ZENNER AND FLORIAN REINKE, LEADING THE IO.E INITIATIVES IN BELGIUM AND GERMANY

Energy services for consumers

Elia Group believes we are on the verge of a new era where energy as a service will breakthrough dramaticly. With more and more flexible assets in the system (heat pumps, electric vehicles, etc.) and meters that measure consumption every quarter of an hour, the hardware will be in place soon. The challenge is to manage a more fragemented system while incentivising consumers to help us keep the lights on by getting access to market-based price signals. That is why we joined forces to invite companies and insitutions to co-create step by step, the energy services of tomorrow within the context of the IO.Energy initiative.

Why do we want to put the consumer more upfront?

David: "The starting point was our vision paper in 2018 on the so-called vertical system: "Towards a Consumer Centric System". In the future, consumers will have a central role in the energy system. This development is already being driven by the increase in decentralised photovoltaic generation, private storage, the envisioned rise of electric vehicles and the ongoing digitalisation. But more importantly, consumers seek to contribute to the energy transition, improve their standards of living and have access to diverse and customized services '

Florian: "The European Commission has also strengthened consumers' rights and opportunities for participation in the energy market. The Clean Energy Package was launched end of 2019 with new regulations supporting this point. Throughout Europe, more and more consumers are becoming "prosumers" with the ability to purchase, generate and store electricity."

What is the concept?

Florian: "To fully enable their participation, every consumer and prosumer needs a smart meter gateway on top of the smart meter. The gateway is a kind of radio box that allows secure communication between the consumer's meter and the system operator or electricity supplier. Electricity suppliers can thereby offer new types of contracts to their customers - such as variable tariffs or the possibility to react to signals from the system by adapting their feed-in or consumption."

David Zenner

IO.Energy in Belgium

On the initiative of Elia, the Belgian system operators joined forces in February 2019 and invited market parties to sign up and to participate in joint developments. More than 60 companies from different sectors (including energy, banking, IT and buildings) responded positively.

The journey has delivered its first results. Eight consumer-centric use cases from eight consortia are currently in the sandboxing phase. The sandboxing phase will continue until mid 2020. The outcome of this first sandboxing phase will lay a strong foundation for consumer centricity. Firstly, by paving the way for the demonstration of the current use cases under more realistic conditions, in preparation for industrialisation. Secondly, by accelerating the set-up and delivery of a second round of ideation and sandboxing with a view to addressing other consumer needs via innovative power and digital technologies.

David: "Beyond the necessary communication infrastructure, consumer value will come from the services developed by market players. If the consumer behaviour is in line with the needs of the power system, the notion of energy service can take another dimension. There will be valueadd for all parties - and ultimately for the society. Such novel services do not

IO.Energy in Germany

The 50Hertz project team is currently working on three smart meter data use cases. The extensive tests of the planned infrastructure aim to demonstrate:

- **1.** Automated billing of remuneration and payments under the Combined Heat and Power Generation Act (KWKG) and the Renewable Energy Sources Act (EEG)
- 2. Control of delivery or acceptance of positive or negative balancing power
- 3. The use of decentralised, interruptible consumption equipment such as electric cars or heat pumps for congestion management, coordinated with the distribution system operators

50Hertz is collaborating with a variety of players operating or using such infrastructure in future. These include distribution system operators, municipal utilities, gateway administrators and start-ups. Also electric car manufacturers and heat pump suppliers are highly interested to find out how they can contribute to a better use of the electricity grid.



exist yet. That is why we are extensively testing interaction possibilities between customers, suppliers and system operators in concrete use cases. By performing use cases, we gain insights that contribute to the further development of the communication infrastructure as well as TSO and DSO services to be used by market players.'

Florian Reink

Further key innovation projects and initiatives

To successfully transition to a Digital TSO, we are working together with many partners across the energy sector and beyond seeking innovative solutions to drive the energy transition forward. Our Elia Group Innovation team highlights some of the key projects and initiatives of the past year.



OKTO Acoustics

Kai Schmid: "OKTO Acoustics develops sensors, which use artificial intelligence to identify and assess a whole range of sounds an noises. The sensors are being tested at the Nemo Link converter station in Bruges. With the help of the sensors, the monitoring of our assets can be improved. In this special case, Elia Group is trying to understand the condition of the bearings in the cooling pumps. The acoustic sensors can provide additional health indicators to complement the existing monitoring and alert system."



IO.Energy Ecosystem

Johan Maricq: "The idea of the Sensa project is to develop a version 2.0 of day and night energy prices. These were introduced at a time it was needed to incentivise consumption at night and during the weekends. Although well integrated in the consumption habits, it does not match with the integration of intermittent renewable energy sources anymore. With Sensa, we want to switch to real-time consumption, incentivising consumers to support the system needs. Prices are designed to target the desired reaction level, depending on the needs, using AI/machine learning algorithms."



Tangant Work Machine Learning

Thijs Vral: "Digitalisation is always about the intelligent connection and analysis of data. Elia Groups Innovation team is working together with the and dispatching teams and external partners on an intelligent layer that will support the system operators in decision making. One first step is to set up a proper prediction of the system imbalance for the next 15 to 45 minutes to better react to increasing variability of the system. The dispatching task is becoming ever more complex. The objective is to develop a 'machine' that is able to provide valuable information, advantages and disadvantages of different options supporting the dispatcher."

IO. Energy Flexity Use Case

Pieter Vanbaelen (Market Development): "This year we launched the 'Flexity' use case which aims to investigate the flexibility potential of households and test how consumers can actively contribute to the energy transition. For example, we are dealing with heat pumps, electric boilers and the smart charging of electric vehicles (EVs). We facilitate the operation of household appliances and EVs remotely and shift consumption to cheaper and greener moments of the day or night with no loss in comfort. End consumers that are interested to share the control of their appliances with energy service providers can contribute to a more sustainable world and save money on their electricity bill. Currently a field test with real households is being prepared. The successful laboratory test performed last autumn with respect to the remote control of household appliances and two Tesla cars has set the ground for a real-life test. We are already well on the way there."



Bastian Bohm: "Today, for the maintenance of our overhead lines, we carry out cost-intensive inspection flights with helicopters, which also cause extensive emissions. In addition, our employees climb masts to obtain detailed information on the exact condition and necessary maintenance measures. We are currently actively testing the use of drones to monitor the overhead lines at 50Hertz. On the one hand, we are thus pursuing the clear goal of increasing our occupational safety by avoiding climbing the masts. On the other hand, we hope to reduce maintenance costs and planning time for maintenance."



Elia Group Open Innovation Challenge

Jasmin Löffler (Elia Group Communication): "In June 2019, Elia Group organised the third edition of the Open Innovation Challenge - a competition for international start-ups to take part and win a proof-of-concept with Elia Group worth €20,000. This time, we invited start-ups to develop solutions for improving day-to-day activities in asset management and maintenance. Of the 83 ideas submitted, 20 were selected and supported by internal mentors for several weeks. The Danish start-up Okto Accoustics was finally selected among five finalists. Their software uses artificial intelligence to distinguish normal operating sounds from anomalies and also detects unauthorised access to assets. This helps us at Elia Group to further increase safety and reliability of our assets."

Drones in Asset Management

Elia Group Innovation Week

Aurélie Meurs (Internal Communication): "Elia and 50Hertz also look to internal partners for innovative ideas that will enable us to transform ourselves and encourage us to co-create the future together. In the first week of December, Elia Group organised its first joint Innovation Week. The idea is to inspire our colleagues and spark their innovative spirit by introducing them to the innovative projects underway within the Group and the opportunities offered by the digital transformation in the energy sector. The programme consisted of an interactive Innovation Fair that took place in both Brussels and Berlin."



50Hertz uses AI to estimate grid losses

To predict grid losses more accurately, 50Hertz has developed a new model based on artificial intelligence. This more accurate calculation means that 50Hertz can purchase the right amount of additional energy in advance to offset its grid losses. The further the electricity has to travel, the greater the grid losses. For 50Hertz, which transmits large quantities of renewable energy, this is a very important consideration as generation sites are located far from the consumption centres.

Visit

https://innovation.eliagroup.eu/

for more information on our use cases and projects.

Corporate Governance



Corporate bodies

Elia Group Committee (EGC)

The activities of Elia Group are coordinated by the Elia Group Committee (EGC) composed of:



Chris Peeters

Peter Michiels

Catherine Vandenborre





Michael von Roeder

Executive Committee

Chris Peeters Elia Group CEO

Stefan Kapferer CEO 50Hertz

Michael von Roeder Chief Digital Officer

Peter Michiels Chief Alignment Officer

Catherine Vandenborre Chief Financial Officer





Chris Peeters







Frédéric Dunon



Stefan Kapferer



Dr. Dirk Biermann



Marco Nix



Stefan Kapferer CEO 50Hertz

50Hertz in Germany

Dr. Frank Golletz Chief Technical Officer

Dr. Dirk Biermann Chief Markets & System **Operation Officer**

Marco Nix Chief Financial Officer

Sylvia Borcherding Chief Human Resources Officer





Peter Michiels







Elia in Belgium **Executive Committee**

Catherine Vandenborre



Patrick De Leener



Pascale Fonck



lise Tant

Chris Peeters Chief Executive Officer and Chairman

Catherine Vandenborre Chief Financial Officer

Marcus Berger Chief Infrastructure Officer

Patrick De Leener Chief Customers, Market and System Officer

Frédéric Dunon Chief Asset Officer

Pascale Fonck Chief External Relations Officer

Peter Michiels Chief Human Resources and Internal Communication Officer

llse Tant Chief Community Relations Officer

Corporate governance statement

Elia satisfies specific obligations in terms of transparency, neutrality and non-discrimination towards all stakeholders involved in its activities.

At Elia, corporate governance in 2019 was based on two pillars:

• the 2009 Corporate Governance Code¹, which Elia has adopted as its benchmark code:

• the Act of 29 April 1999 on the organisation of the electricity market and the Royal Decree of 3 May 1999 on the management of the electricity transmission system.

Board of Directors





Bernard Gustin



Claude Grégoire

Frank Donck











Dominique Offergeld



Rudy Provoost

Philip Heylen

Geert Versnick





Luc Hujoel

Michel Allé







Saskia Van Uffelen

Luc De Temmerman











as at 31 December 2019 **Board of Directors** CHAIRPERSON

· Bernard Gustin, independent director

VICE-CHAIRPERSONS

- · Claude Grégoire, director appointed upon proposal of Publi-T
- · Geert Versnick,
- director appointed upon proposal of Publi-T

DIRECTORS

- Michel Allé.
- independent director
- · Luc De Temmerman,
- independent director
- Frank Donck,
- independent director
- · Cécile Flandre, director appointed upon proposal of Publi-T
- · Claude Grégoire,
- director appointed upon proposal of Publi-T
- Bernard Gustin.
- independent director
- · Philip Heylen,
- director appointed upon proposal of Publi-T
- director appointed upon proposal
- independent director
- · Jane Murphy,
- independent director
- Dominique Offergeld,
- director appointed upon proposal of Publi-T
- Rudy Provoost,
- director appointed upon proposal of Publi-T
- · Saskia Van Uffelen,
- independent director
- · Geert Versnick, director appointed upon proposal of Publi-T

REPRESENTATIVE OF THE FEDERAL GOVERNMENT WITH AN ADVISORY ROLE Nele Roobrouck

· Luc Hujoel, Chairman · Luc De Temmerman Frank Donck Philip Heylen · Jane Murphy

AUDIT COMMITTEE

- Michel Allé. Chairman Frank Donck Roberte Kesteman Dominique Offergeld Rudy Provoost

- · Luc Hujoel,
- of Publi-T
- · Roberte Kesteman.

Composition of the management bodies

Advisory Committees to the Board of Directors

CORPORATE GOVERNANCE COMMITTEE

REMUNERATION COMMITTEE

· Luc De Temmerman, Chairman • Philip Heylen • Roberte Kesteman • Dominique Offergeld • Saskia Van Uffelen

STRATEGY COMMITTEE

- Rudy Provoost, Chairman
- Claude Grégoire
- Bernard Gustin
- Luc Hujoel
- Geert Versnick
- · Michel Allé, standing invitee

Auditors

- · KPMG Réviseurs d'Entreprises SCRL, represented by Alexis Palm.
- Ernst & Young Réviseurs d'Entreprises SCRL, represented by Patrick Rottiers.

Management Committee

- Chris Peeters.
- Chairman and Chief Executive Officer • Markus Berger,
- Chief Infrastructure Officer
- Patrick De Leener, Chief Customers, Market & System Officer
- Frédéric Dunon. Chief Assets Officer
- Pascale Fonck.
- Chief External Relations Officer Peter Michiels.
- Chief Human Resources & Internal Communication Officer
- Ilse Tant,
- Chief Community Relations Officer · Catherine Vandenborre.
- Chief Financial Officer

Secretary-General

• Aude Gaudy

Board of Directors

The Boards of Directors of Elia System Operator and Elia Asset consist of 14 members, none of whom perform an executive role within either of those two companies.

The same directors sit on the Boards of both companies.

Half of the directors are independent directors, satisfying the conditions set out in Article 526ter of the Belgian Companies Code (at present Article 7:87 of the Belgian Code of Companies and Associations), Article 2(30) of the Act of 29 April 1999 on the organisation of the electricity market and in the articles of association, and having received a positive opinion ("avis conforme"/"eensluidend advies") by the CREG on their independence. The other half are non-independent directors appointed by the General Meeting on proposal of Publi-T, as per the current shareholder structure (see also the 'Shareholder structure' section on page 148 of this statement).

In accordance with provisions stipulated by legislation and the articles of association, these Boards of Directors are supported by four committees – the Corporate Governance Committee, the Audit Committee, the Remuneration Committee and the Strategic Committee - which are the same for Elia System Operator and Elia Asset. The Boards of Directors ensure that these committees operate in an efficient manner.

DIVERSITY WITHIN THE BOARD OF DIRECTORS

Number of people on the Board of Directors of Elia System Operator and Elia Asset as at 31 December 2019	Unit	2019
Mar	Aged 35 < 55	3
Men	Aged ≥ 55	6
Waman	Aged 35 < 55	2
women	Aged ≥ 55	3

In accordance with the Act of 29 April 1999 on the organisation of the electricity market, the Belgian Companies Code, the Belgian Code of Companies and Associations and the articles of association of Elia System Operator and Elia Asset, at least one third (1/3)of the Board members must be of the opposite gender to the remaining two thirds. This one-third rule is applied proportionately to the independent and non-independent directors.

In addition, in accordance with the Belgian Companies Code, the Belgian Code of Companies and Associations, the Belgian Corporate Governance Code 2009 and the Internal Regulations of the Board of Directors, the composition of the Board of Directors is based on the complementarity of skills, experience and knowledge as well as on gender diversity and diversity in general.

When searching for and appointing new directors, special attention is paid to diversity parameters in terms of age, gender and complementarity.

CHANGES IN THE COMPOSITION OF THE BOARD OF DIRECTORS

The composition of the Board of Directors did not change in 2019.

TERM AND EXPIRY OF DIRECTORSHIPS AND APPOINTMENT PROCEDURE

The directors of Elia System Operator and Elia Asset are appointed or reappointed for a six-year term.

The directorships of all of the directors are due to expire after the 2023 Ordinary General Meeting of Elia System Operator and of Elia Asset for the financial year ending 31 December 2022, with the exception of the directors mentioned below, whose directorships expire on different dates.

Luc De Temmerman, Frank Donck, Luc Hujoel, Saskia Van Uffelen and Geert Versnick's directorships of Elia System Operator and Elia Asset will expire after the companies' 2020 Ordinary General Meeting for the financial year ending 31 December 2019.

Michel Allé's directorship of Elia System Operator and Elia Asset will expire after the companies' 2022 Ordinary General Meeting for the financial year ending 31 December 2021.

The six-year term of these directorships diverges from the term of four years recommended by the Belgian Corporate Governance Code 2009 and the Belgian Corporate Governance Code 2020. The six-year term was justified in light of the technical, financial and legal specificities and complexities that apply within Elia System Operator and Elia Asset.

It should be remembered that the appointment of independent and non-independent directors of the Elia System Operator and Elia Asset Boards of Directors, as well as the composition and operation of their committees, are subject to specific corporate governance rules. These provisions are laid down in the Act of 29 April 1999 on the organisation of the electricity market and in the companies' articles of association.

The Act of 29 April 1999 on the organisation of the electricity market gave the Corporate Governance Committee an important task of proposing candidates for the role of

independent director to the General Meeting. The directors are appointed on the basis of a list of candidates drawn up by the Corporate Governance Committee. For each candidate, the Committee takes into account their up-to-date *curriculum* vitae and their sworn declaration concerning the independence criteria as stipulated by legislation applying to Elia and the company's articles of association. The General Meeting then appoints the independent directors. These appointments are submitted to the CREG for its opinion ("avis conforme"/"eensluidend advies") on the independence of each independent director. A similar procedure applies where an independent directorship becomes vacant during the relevant term of office and where the Board co-opts a candidate proposed by the Corporate Governance Committee.

The Corporate Governance Committee therefore acts as a nomination committee for independent directors. For the appointment of non-independent directors, there is no nomination committee to make recommendations to the Board. This situation therefore deviates from that prescribed by the Belgian Corporate Governance Code 2009 and the Belgian Corporate Governance Code 2020. This divergence can be explained by the application of the Act of 29 April 1999 on the organisation of the electricity market. However, although the Corporate Governance Committee does not make recommendations to the Board regarding the appointment of nonindependent directors, it does review the compliance of a non-independent director's membership of the supervisory board, the board of directors, the supervisory board, administrative authorities or bodies legally representing an undertaking which exercises, directly or indirectly, control over a producer and/ or electricity supplier.

BOARD OF DIRECTORS' ACTIVITY REPORT

list).

out

The Board of Directors exercises at least the following powers (non-exhaustive

• It defines the general, financial and dividends policy of the company, as well as its values and strategy. In transposing the values and strategy into primary guidelines, the Board of Directors takes into account corporate social responsibility, gender diversity and diversity in general.

• It exercises the powers given to it by or pursuant to the Belgian Companies Code, by the Act of 29 April 1999 on the organisation of the electricity market and by the articles of association.

• It takes all action appropriate or necessary to carry out the corporate purpose, excluding powers reserved for the General Meeting by law or the articles of association.

• It ensures oversight. Within this context it provides, inter alia, general oversight of the (Daily) Management Committee in accordance with legal restrictions concerning access to commercial data and other confidential information relating to grid users and the processing of such data; as part of this oversight it also monitors the way in which the business of the company is carried out and developed in order to, among other things, assess whether the company is being properly managed. In addition, it monitors and evaluates the effectiveness of the advisory committees to the Board and the manner in which business is carried

In 2019, the Board of Directors of Elia System Operator met eleven times and the Board of Directors of Elia Asset met six times. The Board primarily focused on strategic issues (specifically the capital increase of Elia System Operator and the internal reorganisation of the Elia group), the financial and regulatory situation of the company and its subsidiaries, and progress on major investment projects.

Members who are unable to attend usually grant a proxy to another member. In accordance with Article 19.4 of the Elia System Operator articles of association (at present: Elia Group) and Article 18.4 of the Elia Asset articles of association, members who are absent or unable to attend may grant a written proxy to another member of the Board to represent them at a given meeting of the Board of Directors and vote on their behalf at that meeting. However, no board member can hold more than two proxies.

EVALUATION

The Board's evaluation procedure is conducted in accordance with principle 4 of the Belgian Corporate Governance Code 2009 and principle 9 of the Belgian Corporate Governance Code 2020, which the company has adopted as its benchmark code.

The evaluation at Elia System Operator is conducted by means of a transparent and regular procedure that sees directors complete an evaluation questionnaire, then undergo an individual interview with the Chairman of the Board of Directors and the Chairman of the Corporate Governance Committee. The results are discussed by the Board of Directors and, as the case may be, appropriate actions are taken. Elia organised an evaluation of the functioning of the Board of Directors at the end of 2018. The results of this evaluation have been discussed in depth in 2019.

Auditors

The Ordinary General Meeting of Elia System Operator and Elia Asset held on 16 May 2017 reappointed Ernst & Young Réviseurs d'Entreprises SCRL and KPMG Réviseurs d'Entreprises SCRL as auditors of these companies for a period of three years. Their term of office will come to an end after the 2020 Ordinary General Meeting of Elia System Operator and Elia Asset relating to the financial year ending 31 December 2019.

Ernst & Young Réviseurs d'Entreprises SCRL was represented by Patrick Rottiers for the exercise of this office.

KPMG Réviseurs d'Entreprises SCRL was represented by Alexis Palm for the exercise of this office.

Significant events in 2019

ESTABLISHMENT OF A WORKGROUP

The Board of Directors approved the establishment of a temporary Workgroup. The Workgroup was created to reflect on the reorganisation of the Group during the transitional period that the Group operates in accordance with good governance.

The members of the Workgroup are Bernard Gustin (Chairman). Michel Allé. Claude Grégoire, Luc Hujoel, Dominique Offergeld and Geert Versnick. The members of the Workgroup are not remunerated.

The Workgroup met thirteen times in 2019.

AMENDMENTS TO THE ARTICLES OF ASSOCIATION FOLLOWING IMPLEMENTATION OF THE CAPITAL INCREASE RESERVED FOR STAFF MEMBERS

The Extraordinary General Meeting of Elia System Operator of 15 May 2018 approved the proposed capital increase reserved for members of staff of the company and its Belgian subsidiaries.

This capital increase took place in two stages, in December 2018 and March 2019, for a maximum total of €6 million (maximum of €5,300,000 in 2018 and maximum of €700.000 in 2019) subject to the issuing of new Class B shares, with cancellation of the preferential subscription right of existing shareholders in favour of staff members of the company and its Belgian subsidiaries, if necessary below the accounting par value of the existing shares in the same class.

The Extraordinary General Meeting decided to set the issue price for the 2019 capital increase at a price equal to the average of the closing prices on the 30 calendar days prior to 31 January 2019, less 16.66%.

The total value of the 2019 capital increase (including share premium) was €494,274.56. 9,776 Class B shares in Elia System Operator were issued.

Accordingly, Articles 4.1 and 4.2 of the articles of association of Elia System Operator relating to the share capital and the number of shares were amended on 22 March 2019.

The latest version of Elia System Operator's articles of association is available in full on the company's website (www.elia.be, under 'Company', 'Corporate governance', 'Document library').

AMENDMENTS TO THE ARTICLES OF ASSOCIATION FOLLOWING IMPLEMENTATION OF THE CAPITAL INCREASE OF €434,8 MILLION

On 3 June 2019, the Board of Directors approved the launch of a public offering to existing shareholders and any holders of an extra-legal preferential right of €434,801,928 maximum, through the issuance of up to 7,628,104 new shares at a subscription price of €57 per share, on the basis of 1 new share for 8 preferential rights.

After the public offering of new shares to existing shareholders and any holders of an extra-legal right (rights subscription period was from 6 June 2019 at 9 a.m. CET up to and including 13 June 2019 at 3 p.m. CET), 7.030.981 new shares or 92.17% of the 7,628,104 new shares offered as part of the rights offering of maximum €434,801,928, were subscribed.

The 4,776,986 preferential rights which were not exercised at the end of the rights subscription period were converted into an equal number of scripts. Further to the completion of the private placement of scripts to institutional investors, an additional 7.83% of the new shares offered by Elia System Operator as part of its €434,801,928 rights issue were subscribed at €57 per share.

As a result, 100% of the rights offering has been subscribed.

Accordingly, Articles 4.1 and 4.2 of the articles of association of Elia System Operator relating to the share capital and the number of shares were amended on 18 June 2019.

COMPLETION OF A €500 MILLION BOND OFFERING

In January 2019, Elia System Operator successfully launched a €500 million Eurobond under its €5 billion EMTN (Euro Medium Term Note) programme.

The €500 million senior bond will mature in 2026 and has an annual coupon of 1.375%. The proceeds from the new bond issue were used to refinance an existing €500 million Eurobond that has matured in May 2019.

Through this transaction, Elia has taken advantage of supportive market conditions to proactively manage its liquidity position and reduce its average cost of debt to the benefit of consumers.

COMPLETION OF THE INTERNAL **REORGANISATION OF THE ELIA GROUP**

On 31 December 2019 just before midnight, Elia effectively implemented its internal reorganisation, the aim of which is to ring-fence its regulated activities in Belgium from its unregulated activities and its regulated activities carried out outside Belgium.

The internal reorganisation of the Elia group emanates from the new tariff methodology for 2020-2023 which provides, amongst other things, that the financing of unregulated activities of Elia System Operator is valued at conditions equivalent to financing that would be fully covered by equity capital. The reorganisation avoids the risk of cross-subsidy between Belgian regulated activities from the unregulated activities and regulated activities carried out abroad and, as a result, prevents any adverse financial impact of the new tariff methodology on investments in unregulated activities and regulated activities carried out abroad as of 2020.

The Board of Directors approved the new corporate structure of Elia Group on 2 October 2019.

The completion of the reorganisation as per 31 December 2019 just before midnight, followed the fulfilment of all conditions precedents, which included several regulatory approvals, confirmation of compliance with the unbundling and independence requirements set out in the Act of 29 April 1999 on the organisation of the 2019.

On 31 December 2019 just before midnight, Elia Transmission Belgium, which was created on 31 July 2019, took over the Belgian regulated activities of Elia System Operator, including the indebtedness related to these activities. At that time, not all designations of Elia Transmission Belgium as national and regional/local Transmission System Operator were already obtained. During an interim period (during which Elia Transmission Belgium had not yet obtained the designations), Elia System Operator subcontracted the operation of the transmission system to Elia Transmission Belgium in the framework of a silent partnership between Elia System Operator, Elia Transmission Belgium and Elia Asset, for as long as Elia Transmission Belgium was awaiting the necessary designations.

With effect as of 31 December 2019 iust before midnight. Elia Transmission Belgium has been designated as the national and regional/local Transmission System Operator by decision of respectively the CREG on 13 January 2020, the VREG on 24 December 2019 and the Brussels Government for the Brussels Capital Region on 19 December 2019. In the Walloon Region, the designation as (local) TSO is automatically obtained following the designations as TSO at federal level, i.e. 13 January 2020. Consequently, the subcontracting by Elia System Operator to Elia Transmission Belgium of the operation of the transmission system has ended and "Elia System Operator" has been renamed "Elia Group" as of 31 December 2019 just before midnight. Elia Group remains the listed parent company, being a company that is no longer subject to the Act of 29 April 1999 on the organisation of the electricity market.

electricity market and the approval by the extraordinary shareholders' meeting of Elia System Operator on 8 November

OTHER SIGNIFICANT EVENTS

For the other significant events in 2019. see the section 'Elia Group in 2019' and pages 20 to 23.

Remuneration Committee

In addition to its usual support role to the Board of Directors, the Remuneration Committee is responsible, pursuant to Article 526quater of the Belgian Companies Code (at present: Article 7:100 of the Code of Companies and Associations), the Act of 29 April 1999 on the organisation of the electricity market and the articles of association, for making recommendations to the Board of Directors regarding remuneration policy and the individual remuneration of members of the (Daily) Management Committee and directors. The Remuneration Committee also draws up a remuneration report for presentation at the Ordinary General Meeting.

The Remuneration Committee of Elia System Operator met three times in 2019. The Remuneration Committee of Elia Asset met three times in 2019.

The company evaluates its management staff on a yearly basis in accordance with its performance management policy. This policy also applies to members of the (Daily) Management Committee. Accordingly, the Remuneration Committee evaluates the members of the (Daily) Management Committee on the basis of a series of collective and individual targets, of a quantitative and qualitative nature, also taking into account the feedback from internal and external stakeholders.

It should be noted that remuneration policy concerning the variable portion of the Management Committee's remuneration takes into account the implementation of multi-year tariffs. Consequently, the salary scheme for members of the (Daily) Management Committee has included, among other things, an annual variable remuneration

and long-term profit-sharing spread out over the multi-year regulation period. The annual variable remuneration, which is connected with Elia group's strategy, has two components: the attainment of collective quantitative targets and the individual performances, including progress on collective infrastructure projects, safety and AIT ('Average Interruption Time' - average time of interruption of electricity supply)². In addition, the remuneration policy foresees also in the allocation of exceptional cash bonuses for specific projects in specific, non-recurring cases.

The Remuneration Committee also approved the proposed collective and individual targets for the Management Committee for 2019. In addition, the Remuneration Committee approved the remuneration report, which is part of the annual report for 2018

Audit Committee

In addition to its usual support role to the Board of Directors, the Audit Committee is, pursuant to Article 526bis of the Belgian Companies Code (at present: Article 7:99 of the Code of Companies and Associations), the Act of 29 April 1999 on the organisation of the electricity market and the articles of association, responsible in particular for:

- examining accounts and controlling budgets;
- monitoring financial reporting procedures;
- monitoring risks;
- ensuring the effectiveness of the company's internal control and risk management systems;
- · following up on internal audits and their effectiveness;
- · following up on the statutory audit of annual accounts;
- evaluating and verifying the independence of auditors;
- making proposals to the Board of Directors on the appointment and reelection of auditors and on the terms of their appointment;
- investigating, where appropriate, any issues that resulted in the resignation of auditors and making proposals as to what actions, if any, should be taken in this respect:
- · verifying the nature and extent of nonaudit services provided by auditors;
- verifying the effectiveness of external audit procedures.

Pursuant to Article 96, §1, 9° of the Belgian Companies Code (at present: Article 3:6, §1, 9° of the Code of Companies and Associations) and the articles of association, this report must contain justification of the independence and accounting and auditing competence of at least one member of the Audit Committee. The internal rules of procedure of the Audit Committee require, in this respect, that all members of the Audit Committee

have the sufficient experience and expertise required to exercise the role of the Audit Committee, particularly in terms of accounting, auditing and finance. On the basis of this rule, the professional experience of at least two members of the Audit Committee must be detailed in this report.

The experience of Michel Allé, Chairman of the Audit Committee, and Dominique Offergeld, member of the Audit Committee, is described in detail below.

Michel Allé (independent director of Elia System Operator and Elia Asset since 17 May 2016 and Chairman of the Audit Committee) has degrees in physics civil engineering and economics (both from the Université Libre de Bruxelles (ULB)). Alongside his academic career as a professor of economics and finance (Solvay Brussels School, ULB's École Polytechnique), he worked for many vears as a Chief Financial Officer. In 1979, he began his career in the service of the Prime Minister, as an advisor in the Science Policy Department. He was appointed Director of the National Energy R&D Programme in 1982 and then Director in charge of Innovative Companies. In 1987, he joined the Cobepa group, where he held many positions including Vice President of Mosane from 1992 to 1995. From 1995 to 2000 he was a member of the Cobepa group's Executive Committee. He then served as Chief Financial Officer of BIAC between 2001 and 2005 and Chief Financial Officer of SNCB (Belgian Railways) between 2005 and 2015. He also has extensive experience as a director, including past and present roles at Telenet, Zetes, Eurvest, Mobistar and D'Ieteren. He has served on the Telenet Audit Committee and chaired the Zetes Audit Committee.

Dominique Offergeld (non-independent director of Elia System Operator and Elia Asset) has a degree in economics and social science (specialisation: public economics) from Université Notre Dame de la Paix in Namur. She has taken various extra-academic programmes,

including the General Management Program at Cedep (INSEAD) in Fontainebleau (France). She started her career at Générale de Banque (now BNP Paribas Fortis) in the corporate finance department in 1988, and was subsequently appointed as specialist advisor to the vice-president and minister for economic affairs of the Walloon Region in 1999. In 2001 she became advisor to the Deputy Prime Minister and Minister for Foreign Affairs. Between 2004 and 2005, she was deputy director of the office of the minister for energy, subsequently becoming general advisor to the SNCB holding company in 2005. She was previously director of (among others) Publigas and government commissioner at Fluxys. She was also Chairwoman of the Board of Directors and the Audit Committee of SNCB. Between 2014 and 2016, she was Director of the Minister for Mobility's Strategy Unit, with responsibility for Belgocontrol and the SNCB. She has been CFO of ORES since August 2016, a position she also held between 2008 and 2014.

The Audit Committee may investigate any matter that falls within its remit. For this purpose, it is given the resources it needs to perform this task, has access to all information, with the exception of confidential commercial data concerning grid users, and can call on internal and external experts for advice.

The Audit Committee met eight times in 2019.

The Committee examined the annual accounts for 2018, under both Belgian GAAP and IFRS. It also examined the half-yearly results as at 30 June 2019 and the 2019 quarterly results, in accordance with Belgian GAAP and IFRS rules. Furthermore, the Committee was responsible for the selection procedure that has been organised with regard to the appointment of the new auditors as the term of office of the current auditors comes to an end after the 2020 Ordinary General Meeting of Elia Group and Elia Asset relating to the financial year ending on 31 December 2019.

The Committee follows an action plan for each audit carried out, in order to improve the efficiency, traceability and awareness of the areas audited and thereby reduce the associated risks and provide assurance that the control environment and risk management are appropriate. The Committee followed the various action plans from a number of perspectives (timetable, results, priorities) on the basis, among other things, of an activity report from the internal audit department. The Audit Committee noted the strategic risks and the ad-hoc risk analyses based on the environment in which the group operates. The Audit Committee regularly examined the compliance of the non-audit services with the legal requirements.

Corporate Governance Committee

for:

- proposing candidates to the General Meeting to be appointed as independent directors;
- giving prior approval for the appointment and/or removal (where applicable) of Management Committee members:
- examining, at the request of any independent director, the Chairman of the Management Committee or any competent federal and/or regional regulatory body or bodies for the electricity market, all cases of conflicts of interests between the system operator, on the one hand, and a dominant shareholder, municipal shareholder or company associated with or linked to a dominant

The Committee took note of the internal audits carried out and the recommendations made.

In addition to its usual support role to the Board of Directors, the Corporate Governance Committee was, pursuant to the Act of 29 April 1999 on the organisation of the electricity market and the articles of association, responsible

shareholder, on the other hand. and to report to the Board of Directors on the matter. This responsibility aims to strengthen the directors' independence above and beyond the procedure detailed in Article 524 of the Belgian Companies Code, which the company also applies;

- deciding on cases of incompatibility on the part of members of the Management Committee and personnel:
- ensuring the application within the company of provisions laid down by law, regulations, decrees and other instruments relating to the operation of electricity systems, evaluating their effectiveness in view of the objectives for the independent and impartial operation of those systems, and ensuring compliance with Articles 4.4 and 13.1(2) and (3) of Elia System Operator's articles of association. A report on this subject is submitted every year to the Board of Directors and the federal and/or regional body or bodies responsible for regulating the electricity market;
- · convening, at the request of at least one third of the members, meetings of the Board of Directors in accordance with the formalities for calling meetings as laid down in the articles of association;
- examining, after notification by a director. whether a director's membership of the supervisory board, the board of directors or bodies legally representing an undertaking which exercises control, directly or indirectly, over an electricity producer and/or supplier complies with Article 9.1b), c) and d) of Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity, and reporting on this matter to the Board of Directors. As part of this examination, the Committee takes account of the role and influence that the director concerned has in the undertaking concerned and of the degree of control or influence that the undertaking concerned has over

its subsidiary. The Committee also examines whether, in the exercising of the director's role within the company, there is the potential or motive for favouring certain generation or supply interests as regards access to and investment in the grid, to the detriment of other grid users;

· verifying, prior to any appointment of a director, whether that be the appointment of a new director or the re-election of an existing director. whether the candidate director takes account of the incompatibilities set forth in the company's articles of association. To this end, every candidate director is required to provide the Committee with an overview of (i) any offices he or she holds on the Board of Directors, supervisory board or any other body of other legal entities other than the company and (ii) any other functions or activities, paid or unpaid, which he or she carries out for an undertaking performing any of the following functions: the generation or supply of electricity.

The Corporate Governance Committee met six times in 2019.

In line with its competences under the law and the articles of association and in compliance with confidentiality rules, the Committee dealt in particular with the following matters: application of and compliance with the requirements of laws, regulations and the articles of association concerning the independence of the company's independent directors (article 13 of the Articles of Association of Elia System Operator), the analysis of compliance with requirements in the area of full ownership unbundling as provided for by law and the articles of association (article 14 of the Articles of Association of Elia System Operator) and preparation of the corporate governance statement. The Committee also handled the succession planning.

Strategic Committee

The articles of association stipulate that the role of the Strategic Committee is to issue recommendations to the Board of Directors on matters of strategy.

As such, the Committee is responsible for:

 identifying and examining market trends and contextual factors that could influence Elia Group's strategic direction and associated strategic choices and priorities in the medium and long term;

• preparing and maintaining a dialogue about the key issues and associated options and scenarios that are relevant for Elia Group's strategy in the medium and long term:

· developing and submitting proposals about the core strategic choices and priorities that will shape Elia Group's future in the medium and long term.

The Strategic Committee met two times in 2019. Its discussions focused on value creation through innovation ("digital") and (in)organic growth, working with various assumptions and scenarios.

Management Committee

Pursuant to Article 9(9) of the Act of 29 April 1999 on the organisation of the electricity market and the articles of association, the Management Committee was responsible in particular for:

• the operational management of the electricity grids, including commercial, technical, financial, regulatory and personnel issues related to such operational management:

- day-to-day management of the system operator;
- the exercise of powers given to it under the articles of association:
- the exercise of powers delegated to it by the Board of Directors, in accordance with the general policy rules and principles and the resolutions adopted by the Board of Directors.

The Management Committee has all powers necessary, including the power of representation, and sufficient margin for manoeuvre to exercise the powers that have been delegated to it and to propose and implement a corporate strategy, without prejudice to the powers of the Board of Directors and the obligation on the part of the Board of Directors to observe the legal restrictions in terms of access to commercial data and other confidential data relating to grid users and the processing of such data.

The Management Committee generally meets formally at least once a month. Its members also attend informal weekly meetings. Members who are unable to attend usually grant a proxy to a Management Committee member. A written proxy, conveyed by any means (of which the authenticity of its source can be reasonably determined), can be given to another member of the Management Committee, in accordance with the internal rules of procedure of the Management Committee. However, no member may hold more than two proxies.

In 2019, the Management Committee met on 21 occasions for Elia System Operator and on 21 occasions for Elia Asset.

Each quarter, the Management Committee reports to the Board of Directors on the company's financial situation (in particular on the balance between the budget and the results stated). It also reports on transmission system management at each meeting of the Board of Directors. As part of its reporting on management of the transmission system in 2019, the Management Committee kept the Board informed of strategic issues (particularly the internal reorganisation of the Elia group), developments in legislation applying to the company, the company's financial situation. the situation of its subsidiaries, the main decisions taken by regulators and administrations, as well as the monitoring and development of major investment projects.

Corporate social responsibility (CSR) at Elia System Operator and Elia Asset is the responsibility of the Chief Community Relations Officer.

CHANGES IN THE COMPOSITION OF THE MANAGEMENT COMMITTEE

The composition of the Management Committee did not change in 2019.

gender and complementarity. CODE OF CONDUCT Following the entry into force of European Regulation (EU) No. 596/2014 on market abuse, Elia amended its Code of Conduct that aims to prevent staff and those with leadership responsibilities in the Elia Group from potentially breaking any laws on the use of privileged information and market manipulation. The Code of Conduct lays down a series of regulations and communication obligations for transactions by those individuals in relation to their Elia System Operator (at present: Elia Group) securities, in accordance with the provisions of the Market Abuse Regulation and the Act of 2 August 2002 on monitoring of the financial sector and other financial services. This Code of Conduct is available on the company's website (www.elia.be, under 'Company, 'Corporate Governance', 'Document library').

2019

DIVERSITY WITHIN THE MANAGEMENT COMMITTEE

Number of people on the Board of Directors of Elia System Operator and Elia Asset as

at 31 December 2019		
N/s-m	Aged 35 < 55	4
Men	Aged ≥ 55	1
Wemen	Aged 35 < 55	3
women	Aged ≥ 55	0

In addition, in accordance with the Belgian Companies Code, the Belgian Code of Companies and Associations, the composition of the Management Committee is based on gender diversity and diversity in general, as well as on the complementarity of skills, experience and knowledge.

When searching for and appointing new members of the Management Committee, special attention is paid to diversity parameters in terms of age,

at 31

CORPORATE GOVERNANCE CHARTER AND INTERNAL RULES OF PROCEDURE OF THE BOARD OF DIRECTORS, THE BOARD'S ADVISORY COMMITTEES AND THE MANAGEMENT COMMITTEE

Unit

The Corporate Governance Charter and the internal rules of procedure of the Board of Directors, the Board's advisory committees and the Management Committee can be found on the company's website (www.elia.be. under 'Company', 'Corporate Governance', 'Document library'). The responsibilities of the Board of Directors and of the Management Committee are described in detail in the articles of association of the company and are therefore not reiterated in the internal rules of the Board of Directors and of the Management Committee.

Elia is currently working on new versions of the Corporate Governance Charter and internal rules of procedure in order to comply with the Group's new structure and the changes introduced by the new Belgian Code of Companies and Associations.

TRANSPARENCY RULES -NOTIFICATIONS

Elia System Operator received no notifications in 2019 within the meaning of the Act of 2 May 2007 on disclosure of major shareholdings in issuers whose shares are admitted to trading on a regulated market and laying down miscellaneous provisions, and within the m eaning of the Royal Decree of 14 February 2008 on disclosure of major shareholdings.

In accordance with Article 15 of the Act of 2 May 2007, on 18 January 2019 Elia System Operator gave notice of the capital increase reserved for the staff of Elia System Operator and its Belgian subsidiaries, which was formally recorded before a notary on 20 December 2018 and led to the issuing of 114,039 new

shares in Elia System Operator. See also the press release of 18 January 2019, published on the company's website (www.eliagroup.eu, under 'News', 'Press releases', 'Regulated information').

In addition, in accordance with Article 15 of the Act of 2 May 2007, on 26 March 2019 Elia System Operator gave notice of the capital increase reserved for the staff of Elia System Operator and its Belgian subsidiaries, which was formally recorded before a notary on 22 March 2019 and led to the issuing of 9,776 new shares in Elia System Operator. See also the press release of 26 March 2019, published on the company's website (www.eliagroup. eu, under 'News', 'Press releases', 'Regulated information').

Further, in accordance with Article 15 of the Act of 2 May 2007, on 19 June 2019

Management committee



Chris Peeters Chairman and Chief **Executive Officer**



Catherine Vandenborre Chief Financial Officer







Chief Infrastructure



shares.

Elia System Operator gave notice of the

million rights offering, which was formally

capital increase as result of its €434.8

recorded before a notary on 18 June

2019 and led to the issuing of 7,628,104

also the press release of 19 June 2019,

published on the company's website

releases', 'Regulated information').

Elia has issued a total of 68,652,938

For more information about the

structure on the closing date'.

2019, see the section 'Shareholder

(www.eliagroup.eu, under 'News', 'Press

shareholder structure as at 31 December

new shares in Elia System Operator. See

Chief Customers, Market & System Officer



llse Tant **Chief Community Relations Officer**



Procedure approved in 2016 to define the remuneration policy and the remuneration of members of the Board of **Directors and the Man**agement Committee

In accordance with Articles 16.1 and 15.1 of the respective articles of association¹ of Elia System Operator² and Elia Asset, a remuneration policy for members of the Board of Directors and the Management Committee³ was drawn up in 2016 by the Remuneration Committee and approved by the Boards of Directors of Elia System Operator and Elia Asset.

The remuneration policy for directors was approved by the General Meeting of Shareholders of Elia System Operator and Elia Asset on 17 May 2016. The remuneration policy for members of the Strategy Committee was approved by the Extraordinary General Meeting of Shareholders of Elia System Operator and Elia Asset on 15 May 2018.

The Remuneration Committee also made recommendations regarding the remuneration policy and the remuneration of directors and Management Committee members. The composition and activities of the Remuneration Committee are covered in greater detail on page [6].

Directors' remuneration consists of a basic remuneration of €25.000 per annum (€12.500 for Elia System Operator and €12,500 for Elia Asset) and an attendance fee of €1,500 (€750 for Elia System Operator and €750 for Elia Asset) per Board meeting, starting with the first Board meeting attended by the director. The basic remuneration and the attendance fee are increased by 100% for the Chairman of the Board of Directors and by 30% for each Vice-Chairman of the Board of Directors.

times

Frédéric Dunon **Chief Assets Officer**



Pascale Fonck **Chief External Relations** Officer

Peter Michiels **Chief Human Resources &** Internal Communication Officer











REMUNERATION OF THE MEMBERS OF THE BOARD OF DIRECTORS AND THE MANAGEMENT COMMITTEE

Remuneration of members of the Board of Directors

Following the decision adopted by the Ordinary General Meeting of Elia System Operator and Elia Asset on 17 May 2016, the rules on the remuneration of directors were amended. The new rules, which have been in force since 1 January 2016, are described below.

The total cost of gross remuneration paid to the 14 directors in 2019 was €861,045.20 (€458,887.10 for Elia System Operator and €402.158,10 for Elia Asset).

The table below lists the individual gross sums paid to each director for Elia System Operator and Elia Asset combined.

These amounts were calculated on the basis of eleven meetings of the Board of Directors of Elia System Operator and six meetings of the Board of Directors of Elia Asset in 2019. In 2019, the Audit Committee met eight tim Corporate Governance Committee six times, the Remuneration Committee of Elia System Operator three times and the Strategy Committee two

For each company, additional basic remuneration for each member of an advisory committee to the Board of Directors (the Audit Committee, the Remuneration Committee and the Corporate Governance Committee is set at €3.000 per annum per committee, and the attendance fee for each member of a committee is €750 per committee meeting (starting with the first meeting attended by the member). Both the basic remuneration and the attendance fee are increased by 30% for each committee chairman. The members of the Strategy Committee are not remunerated, with the exception of the Chairman, who is remunerated in the same way as the Chairs of the Board of Directors' other advisory committees.

The basic annual remuneration and the attendance fees are indexed in January each year on the basis of the consumer price index for January 2016.

The basic annual remuneration and the attendance fees cover all costs, except (a) any costs incurred by a director resident outside Belgium in connection with the exercise of his/her office (such as travel and accommodation costs) providing that the director in question was resident outside Belgium at the time of appointment or, if the director changed his/her place of residence after appointment, providing that the Remuneration Committee gave its approval; (b) any costs incurred by a director in the event that a meeting of the Board of Directors is held outside Belgium (e.g. in Germany); and (c) any costs incurred by a director travelling abroad in connection with the ex-

¹ Please note that the articles of association of Elia System Operator and Elia Asset were amended in connection with the reorganisation of the Elia Group and to bring them into line with the new Belgian Companies and Associations Code (CAC) (see page 148). The new articles of association have been in force since 1 January 2020. Since this remuneration report is for the financial year 2019, it refers to the articles of association that applied in 2019.

² Please note that following the reorganisation of the Elia Group, Elia System Operator's name was changed and has been Elia Group since 1 January 2020 (see page 121). Since this remuneration report is for the financial year 2019, we have used the old name. Elia System Operator Junless indicated otherwisel

³ Please note that Elia Group (the new name of Elia System Operator) has not had a Management Committee since 1 January 2020. Instead, it has a day-to-day

ercise of his/her office upon the request of the Chairman or a Vice-Chairman of the Board of Directors. All remuneration and costs are included in the company's operating costs.

All remuneration is paid on a pro rata basis according to the duration of the director's term of office.

An advance on annual remuneration is paid to the directors at the end of the

first, second and third quarter. A detailed account is prepared during the month of December for the current year.

Directors do not receive any other benefits in kind, stock options, special loans or advances. Neither Elia System Operator nor Elia Asset has issued credit to or on behalf of any member of the Board of Directors.

DIRECTOR	REMUNERATION	BOARD OF DIRECTORS OF ELIA SYSTEM OPERATOR	BOARD OF DIRECTORS OF ELIA ASSET	AUDIT COMMITTEE OF ELIA SYSTEM OPERATOR	AUDIT COMMITTEE OF ELIA ASSET	CORPORATE GOVER- NANCE COMMITTEE OF ELIA SYSTEM OPERATOR	CORPORATE GOVER- NANCE COMMITTEE OF ELIA ASSET	REMUNE- RATION COMMITTEE OF ELIA SYSTEM OPERATOR	REMUNE- RATION COMMITTEE OF ELIA ASSET	STRATEGY COMMITTEE OF ELIA SYSTEM OPERATOR	STRATEGY COMMITTEE OF ELIA ASSET
Michel ALLÉ	65,126.60 €	11/11	6/6	8/8	8/8	-	-	-	-	1/2	1/2
Luc DE TEMMERMAN ¹	69,916.60 €	10/11	6/6	-	-	6/6	6/6	3/3	3/3	-	-
Frank DONCK ²	72,954.00 €	10/11	6/6	8/8	8/8	5/6	5/6	-	-	-	-
Cécile FLANDRE ³	38,605.00 €	10/11	5/6	-	-	-	-	-	-	-	-
Claude GRÉGOIRE ⁴	52,263.90 €	11/11	6/6	-	-	-	-	-	-	2/2	2/2
Bernard GUSTIN⁵	80,406.00€	11/11	6/6	-	-	-	-	-	-	2/2	2/2
Philip HEYLEN	60,969.00€	8/11	5/6	-	-	5/6	5/6	2/3	2/3	-	-
Luc HUJOEL ⁶	58,894.40 €	11/11	6/6	-	-	6/6	6/6	-	-	2/2	2/2
Roberte KESTEMAN ⁷	70,557.00 €	11/11	6/6	8/8	8/8	-	-	3/3	3/3	-	-
Jane MURPHY	56,179.00 €	11/11	6/6	-	-	6/6	6/6	-	-	-	-
Dominique OFFERGELD	69,758.00€	10/11	6/6	8/8	8/8	-	-	3/3	3/3	-	-
Rudy PROVOOST	63,364.80 €	9/11	6/6	5/8	5/8	-	-	-	-	1/2	1/2
Saskia VAN UFFELEN ⁸	49,787.00 €	10/11	5/6	-	-	-	-	3/3	3/3	-	-
Geert VERSNICK ⁹	52,263.90 €	11/11	6/6	-	-	-	-	-	-	1/2	1/2

1 Luc De Temmerman's fees are paid to the company InDeBom Strategies CommV. 2 Frank Donck's fees are paid to the company Ibervest NV.

3 Cécile Flandre's fees are paid to the company Belfius Insurance SA.

4 Claude Grégoire's fees are paid to the company Socofe SA until 31 May 2019.

5 Bernard Gustin's fees are paid to the company Bernard Gustin SRL.

6 Luc Hujoel's fees are paid to the company Interfin [CVBA].

7 Roberte Kesteman's fees are paid to the company Symvouli BV.

8 Saskia Van Uffelen's fees are paid to the company Quadrature SRL

9 Geert Versnick's fees are paid to the company Flemco bvba.

Management Committee remuneration policy

Aspirations :

Our remuneration system is designed to attract, retain and motivate the most talented individuals with a view to achieving our short- and long-term goals within a consistent framework.

The principles governing remuneration of the Group's executives are:

- Focus on safety first and work in the best interests of society by targeting operational performance
- Design a salary scheme that encourages executives to live up to our core values of entrepreneurship, collaboration, accountability and agility
- Attract, retain and nurture the best talent to achieve our strategy and goals in the short and long term
- Ensure that our variable remuneration rewards both team success at company level and individual contributions
- Develop a job classification and staff remuneration system based on an objective and measurable methodology
- Position the remuneration system at the appropriate point of reference in the marketplace to attract the talent we need and to be competitive, using data from multiple providers (including Hay)
- · Do not discriminate between employees on any grounds whatsoever through our remuneration system
- Design our benefit plans to promote retention and provide a secure environment for our employees and their families

The Remuneration Committee evaluates the members of the Management Committee once a year. Any change in the basic remuneration is linked to the position of each member of the Management Committee with respect to the general benchmark salary in the market and the assessment of the member's individual performance. Moreover, the Remunera-

the going market rate. The remuneration of members of the following components: basic salary; short-term variable remuneration; long-term variable remuneration: pension; • other benefits.

In accordance with Article 17.9 of the articles of association of Elia System Operator, an exemption from the provisions of Article 520ter, paragraphs 1 and 2 of the Belgian Companies Code⁴ is provided for members of the Management Committee.

BASIC REMUNERATION:

All the members of the Management Committee of Elia System Operator and Elia Asset have employee status. In 2019, the basic remuneration paid to the Chairman of the Management Committee was €448,812.19. The recurring remuneration paid to the other members of the Management Committee totalled €1,627,858.78 (€1,122,741.95 for management employed by Elia System Operator and €505,116.83 for management employed by Elia Asset, respectively).

Total basic remuneration of €2,076,670.97 was therefore paid to members of the Management Committee in 2019.

tion Committee may, on a case-by-case basis, plan to recommend that the Board of Directors award exceptional bonuses for special services on specific, non-recurring assignments.

Since 2004, the Hay Group methodology has been used to define the weighting for each management position and to ensure that remuneration is in line with

Management Committee consists of the

VARIABLE REMUNERATION:

As regards variable remuneration, the Remuneration Committee evaluates the members of the Management Committee at the end of each year based on a number of qualitative and quantitative targets. Since 2008, variable remuneration has comprised two components: a short-term one and a long-term one.

Short-term variable remuneration

The first component of variable remuneration is based on the attainment of a certain number of targets set by the Remuneration Committee at the start of the year. with 30% of variable remuneration being awarded for the attainment of the individual targets and 70% for the attainment of Elia Group's collective targets ('short-term incentive plan').

In 2019, the short-term variable remuneration earned by the Chairman of the Management Committee was €368.365.39.

The variable remuneration earned by other members of the Management Committee in 2019 was €765.724.53 (€523,229.30 for management employed by Elia System Operator and €242,495.23 for management employed by Elia Asset, respectively).

A total of €1,134,089.92 in variable remuneration was therefore paid to members of the Management Committee in 2019.

The collective targets for 2019 were:

- Net financial result after tax
- OPEX efficiency]
- Safety
- Implementation and monitoring of collective projects and our company transformation
- AIT (grid reliability)

Following the successful implementation of the Topco project and the value creation achieved in 2019, the Board of Directors, acting on the recommendation of the Remuneration Committee. decided to award certain members of

the Management Committee additional remuneration totalling €150,000 for [this additional work]. Of this amount, €100,000 was paid to the Chairman of the Management Committee, while €50,000 was paid to certain other members of the Management Committee (of Elia System Operator). This remuneration, which counts as exceptional remuneration for special services (on certain specific, non-recurring assignments) was paid in addition to the aforementioned short-term variable remuneration earned for 2019.

Long-term variable remuneration

The second component of variable remuneration is based on multi-annual criteria covering a period of four years ('long-term incentive plan'). The variable remuneration earned in 2019 can be estimated at €110,391.38 (maximum amount in the event of full attainment of the multi-annual criteria for the tariff period concerned) for the Chairman of the Management Committee in 2019 and €405,374.74 for the other members of the Management Committee (€279,136.90 for management employed by Elia System Operator and €126,237.83 for management employed by Elia Asset, respectively).

These amounts are reviewed at the end of each year based on the achievement of the multi-annual criteria. The first part of the long-term variable remuneration for the 2016-2019 tariff period was paid in 2018. The balance will be paid in 2020. Remuneration is definitively acquired at the moment of payment.

Clawback

Bonuses paid for the prior period may be clawed back in case of proven fraud or material misstatement.

CONTRIBUTIONS TO THE CORPORATE **PENSION SCHEME:**

Since 2007, all pension plans for Management Committee members have been defined-contribution plans, where the amount paid, excluding tax, is calculated on the basis of annual remuneration.

In 2019, Elia System Operator paid a total of €115,303.76 for the Chairman of the Management Committee. For the other members of the Management Committee, Elia paid a total of €368,908.96 (€244,416.01 for management employed by Elia System Operator and €124,492.95 for management employed by Elia Asset, respectively).

OTHER BENEFITS:

Other benefits awarded to members of the Management Committee, such as guaranteed income in the event of longterm illness or an accident, healthcare and hospitalisation insurance, invalidity insurance, life insurance, reduced energy prices, other allowances, assistance with public transport costs, provision of a company car, employer-borne costs and other minor benefits, are in line with the regulations applying to all company executives

The cost of these other benefits for 2019 was valued at €38,936.70 for the Chairman of the Management Committee and at €224,077.01 for the other members of the Management Committee (€156,549.78 for management employed by Elia System Operator and €67,527.23 for management employed by Elia Asset, respectively). No stock options were awarded at Elia for the Management Committee in 2019.

Employment contract provisions and severance benefits of members of the Management Committee

Management Committee members' employment contracts concluded after 3 May 2010 were drawn up in accordance with the prevailing legislation on notice and dismissal.

The employment contracts of members of the Management Committee hired before 3 May 2010 contain no specific provisions regarding dismissal.

If the company decides to impose a 12-month non-compete restriction on a Management Committee member, that member is entitled to an additional six months' compensation.

Elia System Operator shares held by members of the Management Committee

The members of the Management Committee held the following number of shares as at 31 December 2019 :

MEMBER OF THE MANAGEMENT COMMITTEE

Chris PEETERS Chief Executive Officer - président du comité de direction

Markus BERGER Chief Infrastructure Officer

Patrick DE LEENER Chief Customers, Market & System Officer

Frédéric DUNON Chief Assets Officer

Pascale FONCK Chief External Relations Officer

Peter MICHIELS Chief Human Resources & Internal Communication Officer

llse TANT Chief Community Relations Officer

Catherine VANDENBORRE Chief Financial Officer

Total annual remuneration

No stock options were awarded at Elia System Operator for the members of the Management Committee in 2019. Members of the Management Committee may purchase shares via capital increases, capital increases reserved for members of staff, or on the stock exchange.

The total annual remuneration of other members of the Management Committee was €3,441,944.01 (€2,376,073.94 for management employed by Elia System Operator and €1,065,870.08 for management employed by Elia Asset, respectively).

as at 31 Dec. 2018	as at 31 Dec. 2019
3,324	3,758
9,156	5,156
3,886	2,652
2,17	2,268
66	661
729	839
2,460	2,460
1.406	1.422

In 2019, the total remuneration paid to the Chairman of the Management Committee was €1,181,809.42.

Total annual remuneration for all members of the Management Committee in 2019 was therefore €4.623.753.43.

Risk management and uncertainties facing the company

1. What for?

Elia group's ambition to deliver the infrastructure of the future and enable a successful energy transition to the benefit of the consumer is formulated in a highly challenging context.

Changing European Energy market, large-scale deployment of renewable-based generation technologies, with intermittent and harder to predict production patterns, steadily increasing energy consumption, ageing infrastructure, resource bottlenecks, to name but a few, increase the complexity of our transmission system operator's mission. There is a need to anticipate (unwanted) events and understand their causes, consequences and likelihood. All this with the aim of making informed decisions. That is exactly what risk management is about: it allows us to manage the effect of uncertainties on the achievement of objectives¹.

As put in a mildly provocative way by James Lam²: "The only alternative to risk management is crisis management and crisis management is much more expensive, time consuming and embarrassing. "

2. How does it work?

Uncertainties may generate desirable events, the opportunities, and unwanted events, the risks. Both are in the scope of risk management.

Different types of objective aspects might be impacted by risks, like health and safety, continuity of supply or profitability. These are called the risk dimensions.

The Risk Management framework of Elia Group is strongly linked to COSO's framework³, which gathers best practices for assessing business risks.

In line with these guidelines, risk management takes place at different levels in the organization (strategic, business/operational, project...) and relies on Elia group's strategy and risk appetite, the levels of risks our organization is prepared to accept in pursuit of its objectives. If the (aggregated) risk is below the

critical level defined by the risk appetite a cost-benefit analysis determines the use of control measures to reduce risks. For a few cases where it facilitates decision-making, the risk appetite has been translated into more operational criteria, which are used by the operational entities.

There are processes in place which aim at identifying key risks, assessing them, defining appropriate responses, communicating them to the board of directors and monitoring the effectiveness of mitigation actions . All information collected by these processes is recorded into risk registers. Regular exchanges between risk managers & risk owners allow these registers to be kept up to date. The most important elements are summarized into risk reporting's, which are presented four times a year to the Board of directors & audit committee.



1 ISO 31000 2 JAMES LAM, Enterprise Risk Management, Wiley Finance

3 COSO: Committee of Sponsoring Organisations

3. Link between main risks, opportunities materiality topics & strategic priorities

CategoryTopicSecure, reliable & efficient gridEnergy transitionCommunity's interesttree transitionStrategic/ RegulatoryChanging/ new regulatory conditionsRegulation misinterpretations, conflicts with envisioned strategy, clean energy package, evolution of TSO rolexxxxxStrategic/ RegulatoryEarly termi- nation of TSO licenceTSO appointment, licence renewal, image, real/perceived failure of governance or com- pliance, "caretaker" governmentxxxxxStrategic/ RegulatorySustainability of incomesMaintain & grow asset base, timely project execution, increase overall efficiency, tariff methodology/parameters which takes into account energy decentralization, supplier's risk (material)xxxxxStrategic/ RegulatoryAnticipate HR needsCulture change to deliver our vision & strat- egy, sufficient technical profiles, succession planning, training & development, new skillsxxxxOperationalBalancingIntegration of RES, harder to predict energy flowsxxxxxOperationalAdequacyEvolution of generation units fleets, CRM (law voted in April 2019 in BE), nuclear phase outxxxxx	end
Strategic/ RegulatoryChanging/ new regulatory conditionsRegulation misinterpretations, conflicts with 	+
Strategic/ RegulatoryEarly termi- nation of TSO licenceTSO appointment, licence renewal, image, real/perceived failure of governance or com- pliance, "caretaker" governmentxxStrategic/ RegulatorySustainability of incomesMaintain & grow asset base, timely project execution, increase overall efficiency, tariff methodology/parameters which takes into account energy decentralization, supplier's risk (material)xxxxStrategic/ RegulatoryAnticipate HR needsCulture change to deliver our vision & strat- egy, sufficient technical profiles, succession planning, training & development, new skillsxxxxOperationalBalancingIntegration of RES, harder to predict energy flowsxxxxxOperationalAdequacyEvolution of generation units fleets, CRM (law voted in April 2019 in BE), nuclear phase outxxxx	+
Strategic/ RegulatorySustainability of incomesMaintain & grow asset base, timely project execution, increase overall efficiency, tariff methodology/parameters which takes into account energy decentralization, supplier's risk (material)xxx <td></td>	
Strategic/ RegulatoryAnticipate HR needsCulture change to deliver our vision & strat- egy, sufficient technical profiles, succession planning, training & development, new skillsxxx	=
OperationalBalancingIntegration of RES, harder to predict energy flowsxxxxxxOperationalAdequacyEvolution of generation units fleets, CRM (law voted in April 2019 in BE), nuclear phase outxxxxxx	=
OperationalAdequacyEvolution of generation units fleets, CRM (law voted in April 2019 in BE), nuclear phasexxxxout	=
	=
Operational Contingency events & Business continuity disruption Cyberattacks (IT/OT), failure of IT systems, supplier's risk (design), unavailability of critical software, malicious attacks, unfavorable to the vents, offshore/new technologies, ageing infrastructure x x x	=
Failure of Information & communication Compliance, GDPR, network codes, data Operational munication communication issues, less performant fault x x x	=
OperationalPermittingChanging European Energy market, Integration of RES, community acceptance of projects, delay in execution of key projec	=
OperationalSupplier's riskLimited number of key suppliers, increasing demand for works & supplies, pressure on supplier's business models, ability to deliver the required capacity on time & with quality, availability of skilled technical profiles, safety on worksxxxxx	=
Operational accidents Health & safety accidents Safety for contractors, error producing conditions x	=
Negative Financial rating, access to debt & capital Financial market, instable interest rates, macro- financial mar- kets x x x	ŕ
Financial Cashflow Cost/revenue forecast/actuals, Levies & green x x x	=
Financial New business developments Capped liabilities, new ring-fencing struc- ture, EGI x x	=
Financial Legal disputes, liabilities Capped liabilities, appropriate provisions x x	=

Opportunities are further discussed in the R&D section.

4. Strategic/regulatory risks & responses provided

Changing/new regulatory conditions

Given the specificities of its activities, the Group is subject to extensive European, federal and regional legislation and regulation. Unplanned and/or inconvenient changes or misinterpretations in regulatory or policy mechanisms in Belgium or Germany could conflict with the Group's existing and envisioned strategy causing severe financial and organizational impacts.

Responses

In order to minimize uncertainties, the two transmission system operators in the Elia Group strive to proactively anticipate European legislation, new directives and regulations being prepared at EU level or awaiting transposition into Belgian and German law, notably as part of the "Clean Energy Package" and the possible evolution of the Transmission System Operator (TSO) role to Regional Operational Center (ROC) one.

Elia and 50Hertz are also founding members of the European Network of Transmission System Operators for Electricity (ENTSO-E). Through participating in this network, the transmission system operators provide advocacy for evolutions in line with their strategy.

Further information

The regulatory and legal framework entails risks with regard to the division of powers between Belgium's federal and regional entities. For instance, contradictions between the various regulations, including the grid codes, could hinder the exercise of the Group's activities. The further development of and changes to these regulations may also impact the Group's liability in the event of a power outage on the grid or - in the context of a reform of the State – the division of powers between federal and regional authorities, potentially including the power to approve transmission tariffs. In order to minimize those risks, Elia also strives to

anticipate proactively evolution brought to national or local legislations.

Risk of early termination of TSO licence

To execute its activities, Elia and 50Hertz have licenses, which can be revoked earlier if Elia or 50Hertz do not have, inter alia, the human, technical and/or financial resources to guarantee the continuous and reliable operation of the grid in accordance with the applicable legislation, as well as the unbundling obligations as described in Article 9 of the EU Electricity Directive. Such a revocation would have an adverse material impact on Elia and/or 50Hertz.

Responses

The Elia group has performed a reorganization by the end of 2019, which enables the ring-fencing of the Belgian regulated activities of Elia from its other activities (German regulated activities or non regulated activities). This in turn limits the risk of cross-subsidy between regulated activities or with non-regulated activities. It thereby provides a suitable framework for the further development of all activities by Elia Group (regulated in Belgium and Germany, as non-regulated activities).

Further information

Elia Transmission Belgium was recently designated as Belgian transmission system operator with effect as from 31 December 2019 by different public entities (the Federal Government including for the Walloon region for a period of 20 years, the Brussel's Government for a period of 20 years, and the Flemish regulator (for a period of 4 years). The risks of early termination of TSO licences are therefore limited in the short term. It is noted, however, that some discussions around interpretation to give to Corporate Governance rules shall be conducted prior to the next renewal of the Flemish licence.

Sustainability of incomes

The remuneration of the Group is almost entirely driven by the regulatory framework applicable to Elia, 50Hertz and Nemo. Changes to the regulatory parameters could impact the profitability of the Group. In addition, the realization of certain parameters defined in the tariff methodologies are subject to specific uncertainties that could affect the Group's financial position.

In particular, the remuneration of the Group depends in part on its ability to realize the needed projects and maintain the realized assets, as the current remuneration in both Belgium and Germany is subject to the Regulatory Asset Base. This depends on its ability to obtain the necessary permits and to manage potential environmental and public health risks and accommodate city planning constraints without incurring significant costs. In case the group would not be able to realize or not timely/economically realize its investment program, this could have a negative impact on the Group's future profits.

Responses

In the context of the Energy transition, the development needs of transmission infrastructure in Belgium and Germany require the implementation of ambitious investment program, which indirectly contributes to increase their regulatory asset base.

The Group also strives to develop tariff methodologies that take into account the changes brought about by the energy transition and the decentralization of energy generation.

Lastly, the Group seeks to act as efficiently as possible in its investment & asset maintenance policies. This allows consumers to benefit from the scale effect of centralized grid management.

Further information

CREG's Management Committee has approved Elia's Tariff proposal for the 2020-2023 regulatory period. Despite inflation and the continuation of Elia's ambitious investment program, electricity transmission tariffs will decrease over the period 2020-2023, ending up 1% lower than the current 2019 tariffs by the end of that period. This effect can be explained mostly by the expected reduction in financial charges and ancillary service costs, as well as by the restitution of the tariff excesses collected in the past.

https://www.elia.be/en/news/pressreleases/2019/11/20191107_elia-pressrelease-creg-approves-tariff-proposition

Anticipate HR needs

The energy transition drives us to a consumer centric model on which our strategy and ambition is based. To enable this consumer centric model the group culture and emerging changes must be fully aligned with the group strategy.

Additionally, with regard to talent management we are aware that specific technical expertise (offshore, digitalization, IP...) will be required in the future to support the achievement of the group strategy.

Responses

A reinforced focus on talent and culture led to several anticipating actions, like workshops, transparent communication, a group wide roll-out of a culture change project, as well as specific trainings, that are currently ongoing to achieve this alignment.

A succession planning is being implemented with a focus on leadership skills and an upgrade in the mapping of critical functions is also foreseen.

The latter market reforms aim at opening balancing markets to all technologies and all players, irrespective of the voltage level at which these are connected to. As an illustration of the latter measure, in Belgium, in course of 2020, Elia will move from monthly procurement of mFRR (manual frequency restoration reserve) and weekly procurement of aFRR (automatic frequency restoration reserve) to a daily procurement of both reserves. This will greatly lower the entry barrier for the reserve market and allow the effective participation of more technologies.

Balancing

Responses

5. Operational risks & responses provided

The consumption of electrical energy should be equal to the production at any time. The two transmission system operators use balancing energy to balance unplanned fluctuations in the production of electricity or the energy load.

The growth across Europe in the number of renewable energy units connected to distribution systems, the connection of large offshore wind farms, also creates new challenges for operational grid management, particularly through increased volatility of energy flows on our network.

Maintaining security of the grid with respect to balancing at reasonable costs for the society relies on a mix of measures. These involve improving the cooperation for grid control at both national & international levels, enhancing the quality of forecasts (consumption, offshore, etc), ensuring a market design that incentivizes the Balancing Responsible Parties to manage their portfolio balance whilst at the same time offering them the market arrangements allowing them to trade out their imbalances as close as possible to real time (e.g. intraday markets) and implementing market reforms that unlock as much flexibility as possible that can be called upon in real time to keep the grid balanced at least cost.

Adequacy

The federal governments in place have a key role to play in ensuring enough generation capacity is available in their countries to avoid risk of electricity shortage and problems of supply. The transmission system operators of our group, for their part, provide them with useful information. As an example, Elia performs, in accordance with the legal prescriptions in this respect regular assessments of Belgium's security of supply situation in the short and the longer term.

For the adequacy situation in the shortterm, Elia mainly assesses the adequacy between load projections and available generation (incl. Demand Side Response, denoted DSR, load shifting...) in Belgium and the surrounding countries against security of supply criteria defined by law. If the study reveals that the latter criteria may not be met, the Minister in charge of Energy can ask Elia to constitute a Strategic Reserve. A Strategic Reserve is composed of assets sitting out of the market and that can be called upon in the event that the market cannot ensure security of supply.

On 2 December, Elia has published its probabilistic analysis of Belgium's adequacy situation for the winter 2020-21. The results of this study are available here:

https://www.elia.be/en/news/press-releases/2019/12/20191202_strategic-reserve-for-winter-2020-21

Elia also looks at Belgium's adequacy situation on the longer term. These studies assesses the adequacy between load projections and anticipated available generation (incl. DSR, load shifting...) in Belgium and the surrounding countries on the longer term. The anticipated available generation includes politically set objectives in terms of renewable generation as well as an economic viability gap to assess if sufficiently robust signals are

available to trigger investments in the market to close any potential adequacy gap against the legally defined security of supply criteria.

Elia's latest study in this respect "Adequacy & Flexibility study 2020-2030", dates from June 28th, 2019. It is available here:

https://www.elia.be/en/publications/ studies-and-reports

This study concluded that by 2025, as a result of the nuclear phase out, Belgium would face an adequacy gap and that there are insufficient robust investments signals to expect this gap to be filled up by the market without additional intervention.

As a result, and in order to guarantee Belgium's security of supply in the longer term, the Belgian government decided on the introduction of a capacity remuneration mechanism ("CRM"). To this end, a law proposal on this CRM mechanism was debated and adopted on April 4th 2019. Elia is assisting the government in designing and implementing this CRM mechanism.

The aforementioned study also indicated that Belgium might face an adequacy issue already between 2022 and 2025 (period during which some nuclear units will leave the market already). An assessment of the exact scale of the identified deficit as well as the (need for) possible mitigating mechanisms will be conducted in the course of 2020.

Contingency events & Business continuity disruption

The transmission systems operated by the Group are very reliable. Nonetheless, unforeseen events, such as unfavorable weather conditions, may occur and alter the smooth operation of one or more infrastructure components. In most cases, these will lead to a so-called single contingency event, and have no impact on end customers' power supply because the meshed structure of the grids operated by the Group. Indeed, electricity can often reach end customers via a number of different connections in the system. However, in other cases, an incident in the electricity system may lead to a multiple contingencies event. This may lead to a local or widespread electricity outage provoking liability claims and litigation which could negatively impact the financial position of the Group.

There are causes other than unfavorable weather conditions for contingency events & business continuity disruption. Examples include human errors, malicious attacks, terrorism, equipment failures, etc.

The case of offshore equipment has our full attention. in a context where there are less years of track records with these technologies and a higher complexity for curative actions.

The probability of the occurrence of one or more of the above-mentioned events may increase if the competent authorities do not approve the necessary operational procedures, investments or full time equivalent (FTE) resources proposed by Elia & 50Hz.

Response

There are several procedures in place to manage these risks, going from crisis management plans to operational procedures like defense plans and restoration plans. All of them are regularly trained and tested with large-scale exercises and simulator trainings so that our staff

the case may be, are ready to deal with the most unexpected and extreme situations. In the event of an error attributable to Elia or 50Hz, the respective general terms and conditions of its contracts provide for appropriate liability caps for the Group and the relevant affiliate, as the case may be, to a reasonable level. Each relevant insurance policy is designed to limit some of the financial repercussions if these risks were to occur.

and transmission system operators, as

Should unfavorable circumstances occur, the TSO may take any emergency measures it deems appropriate, such as disconnecting some or all electricity exports, requesting electricity-generating companies to increase or decrease their electricity production or requesting from the competent Minister a reduction in the electricity consumption in the relevant area to reduce the event impact.

Also, the design and operation of as well offshore as onshore technologies takes into account constraints related to repair time, monitoring opportunities & grid resilience.

Further information

As a regulated entity, Elia acts in accordance with the "network codes" applicable at European, federal and regional level, while network access contracts are approved by the regulator.

Elia's exposure under the regulatory framework and these contracts is limited to an acceptable amount.

These risks are generally covered by a "liability" insurance contract for appropriate amounts.

In Belgium, due to resource bottlenecks, asset replacements and capital expenditures in general are subject to arbitration, which contributes to the ageing of some asset fleets, complicates the asset management and may eventually affect the availability of some network components & performance of protection devices.

Failure of Information and Communication Technology (ICT) and data security

A failure of the ICT systems and processes used by the Group or a breach of their security measures may result in losses for customers and reduced revenues for the Group and its affiliates.

The Group and its relevant affiliates also collect and store sensitive data, their own business data and that of their suppliers and business partners. The Group and its relevant affiliates are subject to several privacy and data protection rules and regulations, including, as of May 25, 2018, the General Data Protection Regulation (EU Regulation 2016/679 of April 27, 2016) Despite all precautions taken, important system hardware and software failures, failure of compliance processes, computer viruses, malware, cyber-attacks, accidents or security breaches could still occur.

Any such events could impair the ability of the Group and/or the ability of any of the Group's relevant affiliates to provide all or part of their services and generally may result in a breach of its legal and/ or contractual obligations. This could, in turn, result in legal claims or proceedings, contractual liability, liability under any other data protection laws, criminal, civil and/or administrative sanctions, a disruption of the operations of the Group or the operations of the relevant affiliates of the Group, or damage to the reputation of the Group or to the reputation of the relevant affiliates of the Group, and in general could adversely affect the business of the Group & its relevant affiliates.

Response

The Group and each of its relevant affiliates take appropriate measures to revise, update and back up its ICT processes and hardware, software and network protection (for example, failover mechanisms) on an ongoing basis to the maximum extent permitted by technical and financial considerations. The two transmission system operators also continucompliance.

Permitting risk

Responses

In order to manage uncertainties related to permitting, concrete and upfront stakeholder management takes place, as well as transparent communication to the community.

In Belgium, one may mention three projects that are particularly important to facilitate the energy transition, but which also require a great deal of effort to gain community acceptance: Boucle du Hainaut, Ventilus and MOG II.

Supplier's risk

The two TSO's rely on a limited number of key suppliers to provide them with material and realize their investment projects. Given the complexity of the infrastructure works, the increasing demand in the market, and the filling level of the factories' order books, the Group may not be able to find sufficient suppliers or supply capacity for their projects. These key suppliers also face the challenge of having enough skilled HR profiles, so that the design of their products is adequate, their production capacity is suffi-

ously adapt their processes and are putting in place new processes to ensure

The changing European Energy market and largescale deployment of renewable-based generation technologies also requires the further development of the infrastructure of the two transmission system operators. The development of such infrastructure and interconnectors with other neighbouring countries are dependent on securing permits and approvals from local, regional, national and international authorities. The need to obtain such approvals and permits within certain timeframe represents a critical challenge to timely implementation. Moreover, these approvals and permits can be contested in the relevant courts.

Further information

cient, the quality of their supplies is good and their work teams demonstrate a deeply embedded safety culture. Should they fail to have enough skilled profiles, this might adversely impact our business, including the safety of our works. In addition, the Group and the relevant affiliates of the Group are also exposed to the risk of public procurement claims and that their respective suppliers, when facing financial difficulties, may not be able to comply with their contractual obligations. Any cancellation of or delay in the completion of its infrastructure works could have an adverse effect on the business & reputation of the Group & its affiliates.

Responses

In order to minimize supplier's risk, the two TSO's from the group maintain ongoing dialogue with their suppliers and regularly perform predictive capacity analysis at market level. They also develop more resilient purchasing strategies and diversify the supplier portfolio.

Health & safety accidents

Elia & 50Hz operate facilities where accidents. asset failure or external attacks may cause bodily harm to persons. As a result, the Group and its relevant affiliates may be exposed to potential liabilities that may have a material, negative impact on their financial position, require significant financial and managerial resources, or possibly harm their respective reputations.

Response

The safety and welfare of individuals (both the Group's staff, the staff of the relevant affiliates of the Group and third parties) is a key priority and a daily preoccupation for the Group and for the relevant affiliates of the Group. The Group and its relevant affiliates have put in place a health and safety policy, undertake safety analyses and promote a safety culture.

Financial risks & responses provided

Negative changes in financial markets

The ability of the Group to access global sources of financing to cover its financing needs or repayment of its debt could be impacted by the deterioration of financial markets.

Fluctuations of interest rates may negatively influence the financial situation of the Group. Indeed, in order to finance its investments and to achieve its short and long-term strategic goals, the Group and its affiliates need to access to capital markets. In the current bank and capital market environment characterized by a low interest rate environment, the Group has currently no constraints on the availability of funding. However, the Group is partly financed by debt instruments with floating interest rates, and a change in interest rates of financial instruments in the market can have an impact on the financial charges. Regulatory schemes can also be adversely affected by these fluctuations of interest rates when impacting the allowed return on equity.

In order to finance their investments, the Group is dependent on its ability to access debt and capital markets in order to raise funds necessary to repay its existing indebtedness and meet its financial needs under its future investments. This **funding risk** is heavily impacted by macro-economic trends. In 2020, these will be mainly shaped by the outcome of the trade discussion between the US and China, the evolution in the Middle East and the execution of the Brexit. All of these macroeconomic factors are reflected at market level by major volatility, which could have a negative impact on the growth of the Elia Group and on the pursuit of their objectives.

Elia Group, financial instruments issued by Elia Transmission and Eurogrid GmbH are rated by S&P. There is no assurance that the rating will remain the same for

any given period or that the rating will not be lowered by the rating agency if, in its judgment, circumstances in the future so warrant. A decision by a rating agency to downgrade or withdraw the Company's credit rating could reduce the Group's funding options and increase its cost of borrowing.

Responses

The risks the Group faces are identified and analysed in order to establish appropriate limits. The Group controls and monitor risks and compliance with such limits. To this end, the Group has defined responsibilities and procedures specifically for the financial instruments to be used and the operating limits for managing them. These procedures and related systems are revised on a regular basis to reflect any changes in market conditions and the activities of the Group. The financial impact of these risks is limited, as Elia and 50Hertz operate under the Belgian or German regulatory framework.

As part of the Group's efforts to mitigate the funding risk, the Group aims to diversify its financing sources in debt instruments. As a stock quoted company, the Group also has access to the equity market. The refinancing risk is managed through developing strong bank relationships with a group of financial institutions, through maintaining a strong and prudent financial position over time and through diversification of funding sources. The short-term liquidity risk is managed on a daily basis with funding needs being fully covered through the availability of credit lines and commercial paper program.

Further information

In Belgium, the funding costs linked to the financing of the regulated activities are qualified as "Noncontrollable elements" and potential deviations from budgeted figures can be passed on in a subsequent regulatory tariff period (or in the same period in the event of an exceptional change in charges). The regulated tariffs are set pursuant to forecasts of interest rate.

Cashflow

The fluctuation in interest rates of the Group's debt mentioned in the previous section can also have an impact on the actual financial charges by causing a time differential (positive or negative) between the financial costs effectively incurred by the Group and the forecasted financial costs. This could cause transitory effects on the cash position of the Group.

Deviations between actual and budgeted volumes of electricity transmitted and between effectively incurred and budgeted costs/revenues may have a negative short-term effect on the cash position of the Group as well a negative medium-term impact on the tariff setting for the next period.

In the framework of their respective competences, national & regional governments have taken measures to support the further development of renewable energy by introducing different support mechanisms. The two TSO's of the Group are entitled several of these public service obligations mechanisms. This may have an indirect impact on the Group's cashflow. Deviations from the expected number of sales of green certificates at a guaranteed minimum price or deviations from the expected volumes of sales of renewable energy at a fixed price could generate short-term significant cash expenses. TSO Public Service Obligations costs are covered by tariffs to be approved on regular base by regulators.

Responses

The short-term liquidity risk is managed on a daily basis with funding needs being fully covered through the availability of credit lines and a commercial paper program.

Other risk mitigation measures include involvement in the design of public service obligation mechanisms aiming to support the development of renewable energy. Once these mechanisms are in place, performing good forecasts, as well as reporting and communicating issues to governments and regulators contribute to keep a sound balance.

Further information

With the advent of Belgian laws and regulations governing decentralised or renewable energy generation, notably via photovoltaic solar panels and wind turbines, the Federal and Regional governments organized the issuance of so-called 'green certificates' (GC), which are used as a financial support mechanism for renewable energy.

On the federal level in Belgium, last vears, offshore wind turbines have been installed in the North Sea and their number will continue to grow, generating green certificates which are sold to Elia. This offshore green certificate public service obligation generates an increasing large cash out flow, compensated by an equivalent cash in flow resulting from an increasing tariff to be approved on an annual basis in the coming years by the government.

In terms of the regional public service obligations, the imbalance on the green certificates market in Wallonia will continue the first next coming years, with high levels of sales of green certificates at the guaranteed minimum price to Elia. The high tariff for public service obligations for financing the support measures for renewable energy in Wallonia, which is established to cover the cost of selling green certificates to Elia, was com-

Any negative results from new business developments are entirely born by the Group and represent an additional financial risk.

Responses

The new ring-fencing structure explained in the "Risk of early termination of TSO licence" section is one of the responses provided.

For what concerns the group affiliate EGI, the services provided so far are mainly owner's engineering ones, characterized by lower risks of claim and liahilities

pleted in late 2017 by a new green certificate temporisation mechanism. In this context, the Walloon Region is entitled to buy to Elia appropriate quantities of GC and to resell these GC to the market in a few years. A new decree of May 2, 2019 amending the decree of April 12, 2001 relating to the organization of the regional electricity market should provide an additional structural and lasting solution as from 2020 to the imbalance on the GC market in Wallonia and organize the establishment of a mobilization mechanism of some GCs bought by the Local TSO. Unlike the mechanisms already in place, the mobilization mechanism will make it possible to avoid deferring Walloon debt over time by cancelling the excess GCs on the market. The mobilization mechanism is based on a Special Purpose Vehicle (SPV) which is not consolidated with the Local TSO and is financed by the issue of bond loans. The income of the SPV is generated by a new charge collected on the final Walloon consumers.

At the stage of writing, the compliance of this decree with the current European state-aid regulation still needs to be confirmed. The operationalisation of the mechanism is still in progress and is expected to be ready for mid-2020.

New business developments

Legal disputes & liabilities

The outcome of legal disputes and lawsuits may negatively affect the business operations and/or the financial results.

Response

The Group and the relevant affiliates of the Group carry out their activities in such a way as to reduce (as much as possible) the risk of legal disputes and, if necessary, the appropriate provisions are identified and implemented on a guarterly basis.
6.R&D activities

In line with our strategic priority to facilitate the energy transition, the group explores, with partners, ideas that could help reshape the future of energy & lead the way into a group of digital TSO's.

Our R&D activities relate to three domains: asset. market & system operation.

The first one provides a valuable contribution to manage the continuity of supply & health & safety risks topics through using advanced analytics to increase the efficiency of maintenance activities, connecting assets so as to improve their monitoring and maximize their use, increasing automation of asset inspection and developing devices which alert workers in case some specific risks are detected. It also explores some options to reduce the environmental impact of assets

In the market domain, activities aim at providing a digital test bed to put consumer centricity into practice and to understand the potential of advanced technologies for existing processes & new ways of market facilitation. These activities are a valuable contribution to manage the balancing and changing/ new regulatory condition's risks.

With the third domain, system operation, the transmission system operators of our group start getting ready to operate the increasingly complex system reliability, by studying challenges related to the changed context and by learning to anticipate and act on grid state, in order to automate tasks and free up human resources. These activities are a valuable contribution to manage the continuity of supply risks and HR needs risks.

7. Contextual factors

Caretaker government

In Belgium, the presence of a "caretaker government" may lead to increased delays in some decision-making processes.

Preparing the energy transition

As outlined in the risk description, in a context of nuclear phase out, preparing the energy transition requires additional generation units to be available, in order to ensure both the network balancing and adequacy. This in turns requires a framework in which investors will feel confident enough to invest in those generation units. This framework is not yet available.

Also, preparing for the energy transition has a cost. Finding ways to finance them in a manner that is responsible toward future generations and in a context of indebtedness is a challenge in itself.

Energy demand & energy efficiency

While global energy demand has steadily increased over the past decades, energy efficiency is also one of the key measures outlined by the EU in respect of Unionwide CO2 footprint reduction. Significant energy efficiency measures in Belgium and Germany can potentially affect power consumption and thus reduce the volumes of electricity transmitted via the Group's networks. The same applies for a slowing down of the economic activities of industrial clients and reduction of their consumption.

Macroeconomic context

2019 was characterized by a rather uncertainty macro-economic climate, in particular due to high indebtedness and the perspective of a no-deal Brexit.

Also, interest rates remained very low, following the ECB's highly accommodative monetary policy stance, but this situation may change in the future.

Evolutions in long-term interest rates may affect the expected return for transmission system operators.

Features of the internal control and risk management systems

The reference framework for internal control and risk management, established by the Management Committee and approved by the Elia Board of Directors, is based on the COSO II framework. The framework has five closely linked basic components, providing an integrated procedure for internal control and risk management systems: control environment, risk management, control activities, information and communication, and monitoring. The use and inclusion of these concepts in Elia's various procedures and activities enables the company to control its activities, improve the effectiveness of its operations, optimally deploy its resources, and ultimately achieve its objectives. The implementation of COSO II at Elia is described below.

1. Control environment

ORGANISATION OF INTERNAL CONTROL

Pursuant to the Elia articles of association, the Board of Directors has established various committees to help it fulfil its duties: the Management Committee, the Audit Committee, the Strategic Committee, the Remuneration Committee and the Corporate Governance Committee. The Board has charged the Audit Committee with the task of monitoring: (i) the financial reporting procedure; (ii) the effectiveness of internal control and corporate risk management systems; (iii) the internal audit and its effectiveness; (iv) the statutory audit of annual and consolidated accounts, including the follow-up of any issues raised or recommendations made by external auditors; (v) the independence of external auditors, (vi) examining accounts and controlling budgets.

The Audit Committee generally meets quarterly to discuss the above points.

The Finance Department helps the Management Committee by providing, in a timely manner, correct and reliable financial information to aid not only decision-making with a view to monitoring the profitability of activities, but also effective management of corpo-

Elia's integrity and ethics are a crucial aspect of its 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 privileged information or market manipulation and suspicious activities. Management consistently ensures that employees comply with internal values and procedures and - where applicable - take any actions

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rate financial services. External financial reporting - one of Elia's duties - includes (i) statutory financial and tax reporting; (ii) consolidated financial reporting; (iii) specific reporting obligations applicable to public companies; (iv) reporting obligations under the regulatory framework. The structured approach developed by Elia helps to ensure that financial data is both exhaustive and precise, taking into account the deadlines for activity reviews and the actions of key players so as to ensure adequate control and accounting.

INTEGRITY AND ETHICS

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 Purchasing Code of Ethics and all associated regulations. Elia's Purchasing Code of Ethics is published internally and externally and is based on four pillars: confidentiality, non-discriminatory treatment of suppliers, transparency, and avoidance of con-

flicts 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.

Elia offers its employees the opportunity to express their concern about an (alleged) breach of the ethical code without fear of sanctions and/or unfair treatment. In addition to the existing reporting channels, an external system for reporting breaches of professional integrity has been implemented. Internal employees can report via this platform their suspicions about possible breaches of the Elia Code of Ethics which may harm Elia's reputation and/or interests in a protected manner.

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 in2019.

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. In2019, no relevant findings

relating to financial fraud were reported in the audits making up the annual audit plan of 2019.

ROLES AND RESPONSIBILITIES

Elia's internal control system relies on clearly defined roles and responsibilities at all levels of the organisation. The roles and responsibilities of the various committees established within Elia are primarily identified in the legal framework applicable to Elia, the articles of association and the Corporate Governance Charter. Under the supervision of the Chief Financial Officer, the Accounting Department is responsible for statutory financial and tax reporting and the consolidation of the Elia Group's various subsidiaries. The Controlling Department monitors analytical accounting and reporting and assumes responsibility for all financial reporting in a regulatory context. The Investor Relations Department is responsible for specific reporting applicable to companies listed on the stock exchange.

As regards the financial reporting process, the tasks and responsibilities of all employees in the Accounting Department have been clearly defined with a view to producing financial results that accurately and honestly reflect Elia's financial transactions. A detailed framework of tasks and responsibilities has been drawn up to identify the main control duties and the frequency with which tasks and control duties are performed.

An IFRS Accounting Manual is used by all entities within the scope of consolidation as a reference for accounting principles and procedures, thus ensuring consistency, comparability and accurate accounting and reporting within the Group.

The Finance Department has the appropriate means (including IT tools) to perform its tasks: all entities within the

scope of consolidation use the same ERP software, which has a range of integrated controls and supports task separation as appropriate. Elia also clarifies the roles and responsibilities of all its employees by providing a description of each job in line with the Business Process Excellence methodology.

COMPETENCIES

With a view to ensuring its various activities are performed reliably and effectively, Elia clearly spells out the vital importance of its employees' competencies and expertise in its recruitment, training and retention procedures. The Human Resources Department has drawn up the appropriate policies and defined all jobs in order to identify the relevant roles and responsibilities as well as the qualifications needed to fulfil them.

Elia has drawn up a policy for the management of generic and specific competencies in line with the company's values, and promotes training so as to enable all its employees to effectively perform the tasks allocated to them. Requirements with regard to competency levels are continually analysed by means of formal and informal self-assessments at various stages of an employee's career.

Training programmes on financial reporting are offered to all employees involved directly or indirectly with that task. The training emphasises the existing regulatory framework, accounting obligations and actual activities, with a high level of understanding enabling participants to address the appropriate issues.

2. Risk management

Risk management is another internal control system that is crucial in helping Elia to achieve its strategic objectives as defined in its mission. The Board of Directors and the Risk Manager jointly and regularly identify, analyse and assess key strategic and tactical risks. The risks are assessed qualitatively and/or quantitatively depending on their nature and potential effect. The Risk Manager then makes recommendations on how best to manage each risk considering the close interaction of Elia's entire risk universe. Based on this assessment, preventive, remedial and/or corrective actions are implemented, including the strengthening of existing internal control activities where applicable.

As part of its responsibilities, Elia's management establishes an effective internal control system to ensure, among other objectives, accurate financial reporting. It emphasises the importance of risk management in financial reporting by taking into account, with the Audit Committee, a whole range of associated activities and risks. It ensures that risks are truly reflected in financial results and reports. In addition, Risk Management goes beyond those risks known to Elia and tries to anticipate the nature and characteristics of emerging risks, which may impact Elia's objectives. Financial risk assessments primarily involve the identification of:

- 1. significant financial reporting data and its purpose;
- 2. major risks involved in the attainment of objectives;
- 3. risk control mechanisms, where possible.

Financial reporting objectives include (i) ensuring financial statements comply with widely accepted accounting principles; (ii) ensuring that the information presented in financial results is

CONTINUOUS ASSESSMENT

Employing a simultaneously top-down and bottom-up approach enables Elia to identify and, where possible, anticipate forthcoming events and react to any incidents occurring inside or outside the organisation which might affect the attainment of objectives.

TOP-DOWN APPROACH BASED ON STRATEGIC RISKS

Elia's strategic risk assessments are reviewed on a quarterly basis in the Audit Committee. Action plans or specific, theme-based risk assessments are carried out whenever there is a perception of potential threats or opportunities.

BOTTOM-UP APPROACH WITH **REGARD TO BUSINESS**

With a view to identifying new risks or evaluating changes in existing risks, the Risk Manager and management remain in contact and look out for any changes that may call for the relevant risk assessment and associated action plans to be amended. Various criteria are used to determine the need to re-evaluate financial reporting procedures and associated

both transparent and accurate; (iii) using accounting principles appropriate to the sector and the company's transactions; (iv) ensuring the accuracy and reliability of financial results. The activities undertaken by Elia, as an electricity transmission system operator in relation to its physical installations, contribute significantly to its financial results.

Therefore, appropriate procedures and control systems have been established to ensure an exhaustive and realistic inventory of physical installations. Risk management is a company-wide activity, actively supported by the delegation of relevant responsibilities to all employees as part of their specific activities, as defined in the Policy.

risks. Emphasis is put on risks associated with changes in the financial and regulatory context, industrial practices, accounting standards and corporate developments such as mergers and acquisitions.

Operational management assesses the relevant risks and puts forward action plans. Any significant changes to assessment rules must be approved by the Board of Directors. Risk Management is instrumental for Elia to maintain its value for stakeholders and the community, works with all departments with a view to optimising Elia's ability to achieve its strategic objectives, and advises the company regarding the nature and potential effects of future risks.

3. Control activities

MAIN CONTROL ACTIVITIES

Elia has established internal control mechanisms at its various structural levels so as to ensure compliance with standards and internal procedures geared to the proper management of identified risks. These include:

- (i) clear task separation as part of procedures, preventing the same person from initiating, authorising and recording a transaction – policies have been drawn up regarding access to information systems and the delegation of powers;
- (ii) integrated audit approach as part of internal procedures so as to link end results with the transactions supporting them;
- (iii) data security and integrity through the appropriate allocation of rights;
- (iv) appropriate documentation of procedures through the use of the Business Process Excellence Intranet, which centralises policies and procedures. Departmental managers are responsible for establishing activities to control the risks inherent to their department.

FINANCIAL REPORTING PROCEDURE

For all significant financial reporting risks, Elia sets out appropriate control mechanisms to minimise the probability of error. Roles and responsibilities have been defined in connection with the closing procedure for financial results. Measures have been established for the continuous follow-up of each stage, with a detailed agenda of all activities undertaken by Group subsidiaries; control activities are performed to ensure quality and compliance with internal and external requirements and recommendations. During the financial closing period, a specific test is performed to ensure control over significantly unusual transactions, accounting checks and adjustments at the end of the relevant financial period, company transactions and critical estimates. The combination of all these controls ensures the reliability of financial results. Regular internal and external audits also contribute to financial reporting quality.

In identifying those risks that may affect the achievement of financial reporting objectives, the management takes into account the possibility of misreporting associated with fraud and takes appropriate action where internal control needs to be strengthened. Internal Audit performs specific audits based on the risk assessment for potential fraud, with a view to avoiding and preventing any instances of fraud.

4. Information and communication

Elia communicates relevant information to its employees to enable them to fulfil their responsibilities and achieve their objectives. Financial information is needed for budgeting, forecasts and ensuring compliance with the regulatory framework. Operational information is also vital for the production of various reports, essential for the well-functioning of the company. As such, Elia records recent and historical data needed for corporate risk assessments. Multiple communication channels are used: manuals, memos, emails, bulletin boards and intranet applications. Financial results are reported internally and validated at different levels. The management responsible for financial reporting regularly meets other internal departments (operational and control departments) to identify financial reporting data. It validates and documents the critical assumptions underpinning booked reserves and the company's accounts.

At Group level, consolidated results are broken down into segments and validated by means of a comparison with historical figures and a comparative analysis between forecasts and actual data. This financial information is reported monthly to the Management Committee and is discussed quarterly with the Audit Committee. The Chairman of the Audit

Committee then reports to the Board of Directors.

5. Monitoring

Elia continually re-evaluates the adequacy of its risk management approach. Monitoring procedures include a combination of monitoring activities carried out as part of normal business operations, in addition to specific ad hoc assessments on selected topics. Monitoring activities include (i) monthly reporting of strategic indicators to the Management Committee and the management; (ii) follow-up on key operational indicators at departmental level; (iii) a monthly financial report including an assessment of variations as compared with the budget, comparisons with preceding periods and events liable to affect cost controlling. Consideration is also given to third-party feedback from a range of sources, such as (i) stock market indices and reports by ratings agencies; (ii) share value; (iii) reports by federal and regional regulators on compliance with the legal and regulatory framework; (iv) reports by security and insurance companies. Comparing information from external sources with internally generated data and ensuing analyses allows Elia to keep on making improvements.

Internal Audit also plays a key role in monitoring activities by conducting independent reviews of key financial and operational procedures in view of the various regulations applicable to Elia. The findings of those reviews are reported to the Audit Committee to help it monitor internal control and risk management systems and corporate financial reporting procedures.

The Group's legal entities are also subject to external audits, which generally entail an evaluation of internal control and remarks on (annual and guarterly) statutory and consolidated financial results. External auditors make recommendations for improving internal control systems. In entities that have an Audit Committee, the recommendations, action plans and their implementation are reported annually to that Committee, which in turn reports to the Board of Directors on the independence of the auditor or statutory audit firm and drafts a motion for a resolution on the appointment of external auditors.

Investor Relations



INTERVIEW WITH CATHERINE VANDENBORRE, CHIEF FINANCIAL OFFICER ELIA

Legal Structure

Elia Group acts as a holding company owning Elia Transmission Belgium (Belgian TSO), Eurogrid International (comprising the activities of 50Hertz, the German TSO) and Elia Grid International (the Group's international consultancy branch). Its main shareholder is the municipal holding Publi-T. Elia Group (formerly Elia System Operator SA/NV) has been listed on the regulated market of Euronext Brussels, since June 2005.



Elia Transmission Belgium (ETB) fully owned. ETB is the Belgian transmission system operator for high-voltage electricity (30,000-380,000 volts). Its main activities include managing grid infrastructure (maintaining and developing high-voltage installations) and electrical system (monitoring flows, maintaining the balance between electricity consumption and generation 24/7, importing and exporting to and from neighbouring countries) as well as facilitating the market (developing services and mechanisms with a view to developing the electricity market at national and European level).

Eurogrid GmbH (80% stake) and comprising the activities of 50Hertz,

the German TSO. The remaining 20% being held by the German state-owned Bank Kreditanstalt für Wiederaufbau (« KfW»). KfW is one of the world's leading promotional banks. With its decades of experience, KfW is committed to improving economic, social and ecological living conditions across the globe on behalf of the Federal Republic of Germany and the federal states. KfW does not have any branches and does not hold customer deposits. It refinances its promotional business almost entirely through the international capital markets. In Germany, the KfW Group is represented in Frankfurt, Berlin, Bonn and Cologne. Its network includes 80 offices and representations around the world.

Elia Grid International (EGI), a 50/50 joint venture with 50Hertz Transmission GmbH. EGI offers supporting services and advice to government bodies, utilities and other key players around the world seeking support for the design and implementation of future projects in the power sector. It provides advisory services in the following domains: Asset Management, System Operations, Grid Development and RES integration. Its activities are considered to be nonregulated.

Re.Alto: To become the main European digital energy marketplace/platform for data and digital services to accelerate the innovation and digital transition towards energy as a service.

2019, an ambitious year for our growth strategy

Looking at Elia Group's ambitious CAPEX programme, it seems like it might be very challenging to get all the projects financed.

Catherine: "There is ample liquidity on the financial markets and interest in a company like Elia remains high. The primary challenge still lies in delivering critical infrastructure in a timely manner, despite the length of time required to secure permits."

Catherine: "This accolade recognises the hard work put in by Elia's entire financial team. We've managed a number of significant transactions in recent years and have thus made a substantial contribution to the company's value. Moreover, Elia has been performing increasingly well for some years now. The jury was looking to honour a financial team that excelled on both the transactional and strategic sides of finance."



You received the CFO of the Year Award 2019 in recognition of Elia Group's excellent financial performance. What do you think swayed the jury?

The Elia share performed particularly well in 2019. Why do you think that is?

Catherine: "First of all, our peers' share prices followed a similar trend: Elia is not the only utility company to have seen strong share price performance in 2019. However, I also believe that the increase is partly driven by Elia's track record of following through in recent years: we have implemented the investments we announced, and these have translated into strong RAB growth."

We've managed a number of significant transactions in recent vears and have this made a substantial contribution to the company's value.

Catherine Vandenborre

Elia on the stock exchange

Strong performance of the Elia share, hitting a new record high in 2019. €435 million rights offer fully subscribed.



I'm delighted that the financial markets subscribed to such a huge extent and once more demonstrated their confidence in the company's strategy.

> Catherine Vandenborre, Chief Financial Officer Elia

EVOLUTION IN PRICE AND TRADED VOLUMES



EVOLUTION OF THE ELIA SHARE AGAINST THE BEL20 INDEX



Elia Group (Eli) Bel 20

51.90%

CONTRIBUTION OF GERMANY TO THE NET PROFIT ATTRIBUTABLE TO THE ELIA GROUP



GROSS DIVIDEND PER SHARE

Following the completion by the Elia group of its internal reorganisation on 31st of December 2019, the listed company Elia System Operator SA/NV was renamed Elia Group SA/NV.

The Elia group delivered strong financial results over the year supported by the first full year of control and consolidation of 50Hertz, the comissionning of Nemo Link and the realisation of investments in the grid in the interest of society.

2019 was marked by fully susbcribed rights issue of €435 million, marking one of the largest rights issue over the last years on Euronext Brussels. The subscription price for this 1-for-8 rights issue was set at €57.00 per new share, which implied a discount to TERP of 8.03%. The take-up of existing shareholders during the subscription period stood at 92%, highlighting shareholders' confidence in the group.

The Elia share price, closed the year at a price of €79.10. up 35.7% from €58.30 at the end of 2018. On the 23rd of April 2019 the share price hit a low of €57.77 and recorded a high of €82.40 on 20th of december 2019. The yearly return including the dividend is 40.21% and hereby largely outperforming peers and the BEL 20 Index.

Liquidity of the Elia share increased together with its value from an average of 27.793 shares traded per day in 2018 to 39.559 in 2019.

With 68,652,938 shares outstanding, the company's market capitalisation stood at €5,430,447,396 at the end of December. In 2019, 10,048,162 Elia shares were traded on the Euronext Brussels market.

Appointment of three liquidity providers for the elia share

Elia concluded liquidity provider contracts with KBC Securities, Bank Degroof and Belfius Bank. These three financial institutions have been continually present in the order book for the Elia share and are involved in both sales and purchases.

Dividend

On 5 March 2020, the Elia Group Board of Directors decided to propose a nominal dividend of €116.0 million. or €1.69 per share (gross) to the general meeting of

EVOLUTION OF THE ELIA SHARE AGAINST ITS EUROPEAN COUNTERPARTS



_ Elia Group (ELI) _ National Grid _ Terna _ Red Electrica

SHAREHOLDER STRUCTURE



shareholders of 19 May 2020, in accordance with the dividend policy and subject to approval of the profit appropriation by the annual general meeting of shareholders. This represents an increase in dividend for the fifth consecutive year and an increase of 1.81% compared to 2018.This gives a net dividend of €1.183 per share.

The following paying agents will pay out dividends to shareholders: BNP Paribas Fortis, ING Belgium, KBC and Belfius, Dividend pay-outs for shares held in a stock account will be settled automatically by the bank or stockbroker. Elia Group will pay out dividends on registered shares directly to shareholders.





Dividend policy

On March 21, 2019 the Board of Directors formally approved the policy it intends to apply when proposing dividends to the General Shareholder's Meeting. Under this policy, the full-year dividend growth is intended not to be lower than the increase of the Consumer Price Index ("inflation") in Belgium. The completed reorganisation of the group has no impact on this dividend policy. The policy supports the group's long-term ambition to offer a secure dividend in real terms to the shareholders while at the same time enabling the group to sustain a strong balance sheet that is needed to fund the group's investment program.

Nevertheless, future dividends will remain dependent upon the results of the group (which are affected by a number of factors, outside the Company's control) as well as the Company's financial situation, financing needs (in particular, capital expenditures and investment plan) and business perspectives.

The proposed dividend represents a payout ratio of 45.6% of the IFRS reported profit attributable to owners of ordinary shares.

FINANCIAL CALENDAR

13 April 2020	Publication Annual Report 2019
19 May 2020	General meeting of shareholders
20 May 2020	Interim statement for Q1 2019
01 June 2020	Payment of 2018 dividend
29 July 2020	Publication of half-yearly results for 2019
25 November 2020	Interim statement for Q3 2019

INVESTORS

For any questions regarding Elia and its shares, please contact:

Elia

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Information about the Group (press releases, annual reports, share prices, disclosures, etc.) can be found on the Elia Group website www.eliagroup.eu.

Key figures

(in million EUR)	2019	2018	2017(1)	2016	2015
Consolidated results					
Total revenue and other operating income	2,319	1,931.8	867.1	868.1	851.4
EBITDA ^(*)	930.2	750.5	455.4	425.0	442.8
Results from operating activities (EBIT) (")	569.7	502.6	324.6	295.0	336.4
Net finance costs	(139.6)	(93.2)	(76.5)	(82.9)	(92.8)
Income tax	(121.0)	(102.2)	(39.6)	(32.0)	(32.9)
Adjusted net result (*)	306.8	280.8	203.4	168.0	175.8
Reported net result	309.1	307.1	208.5	179.9	210.6
Non-controlling interest	35.5	25.7	0.0	0.0	0.0
Hybrid securities	19.3	6.2	0.0	0.0	0.0
Profit attributable to owners of ordinary shares	254.3	275.2	208.5	179.9	210.6
(in million EUR)	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015
Consolidated balance					
Total assets	13,893.4	13,754.3	6,582.3	6,241.5	6.435,6
Equity attributable to owners of the company	4,022.3	3,447.5	2,563.3	2,511.4	2.413,6
Equity attributable to ordinary shares	3,320.9	2,741.3	2,563.3	2,511.4	2.413,6
Hybrid securities	701.4	706.2	0.0	0.0	0.0
Net financial debt	5,523.1	4,605.6	2,689.1	2,557.3	2.583,4
	31.12.2019	31.12.2018	31.12.2017	31.12.2016	31.12.2015
Other key figures					
Regulatory Asset Base (RAB) (bn EUR) ⁽²⁾	8.9	9.2	7.4	7.1	6.7
Dividend per share (EUR)	1.69	1.66	1.62	1.58	1.55
Return on Equity (%)	6.80%	8.16%	8.14%	7.16%	8.73%
Return on Equity (adj.) (*)	7.66%	10.04%	8.14%	7.16%	8.73%
Earnings per share (adj.) (EUR) (")	3.91	4.52	3.42	2.95	3.47
Equity per share (EUR)	48.4	44.9	42.1	41.2	39.7
Number of shares (period-end)	68,652,938	61,015,058	60,901,019	60,753,714	60,750,239

(*) See the Elia Group Financial Report 2019 for a detailed glossary of definitions.

(1) The Group applies IFRS 15 under the full retrospective method under which comparative figures for financial year 2017 have been restated (2) The Regulatory Asset Base includes 60% of the RAB of 50Hertz until 2017 and 80% of the RAB as from 2018.

Management report and analysis of the 2019 results

Elia Group realised its ambitious investment program, achieved strong operational and financial results and is ready to realise the next phase of the energy transition bringing maximum welfare to society.

- Grid investments of €723.5 million in Belgium and €488.6 million in Germany to ensure a reliable and sustainable energy system leading to an asset growth of 9.0%
- · Good progress in the increase of interconnections capacities with commissioning of Nemo Link

Elia group

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Key figures (in € million)	2019	2018	Difference (%)
Revenue, other income and net income (expense) from settlement mechanism	2,319.0	1,931.8	20.0%
Equity accounted investees	8.3	65.6	(87.3%)
EBITDA	930.2	750.5	23.9%
EBIT	569.7	502.6	13.4%
Adjusted items	6.0	28.1	n.r.
Adjusted EBIT	563.7	474.5	18.8%
Net finance costs	(139.6)	(93.2)	49.8%
Adjusted net profit	306.2	280.8	9.0%
Net profit	309.1	307.1	0.7%
Non-controlling interests	35.5	25.7	n.r.
Net profit attributable to the Group	273.6	281.4	(2.8%)
Hybrid securities	19.3	6.2	n.r.
Net profit attributable to owners of ordinary shares	254.3	275.2	(7.6%)
Total assets	13,893.4	13,754.3	1.0%
Equity attributable to the owners of the company	4,022.3	3,447.5	16.7%
Net financial debt	5,523.1	4,605.6	19.9%
Key figures per share	2019	2018	Difference (%)
Reported earnings per share (EUR) (Elia share)	3.91	4.52	(13.5%)
Return on Equity (adj.) (%) (Elia share)	7.66	10.04	(23.7%)
Equity attributable to owners of the company per share (EUR)	48.4	44.9	7.8%

- Adjusted net profit up 9.0% to €306.2 million driven by the timely realisation of investments and solid operational performance
- · Implementation of a Group functional organisation to leverage synergies and improve services to the benefit of consumers
- Realisation of a new corporate structure to increase regulatory transparency and pursue our growth strategy
- A dividend of €1.69 per share will be proposed at the General Meeting on 19 May 2020

1 Reported net profit Elia Group amended with adjusted items linked to the corporate reorganisation and regulatory compensation linked to prior year

Results

The comparison of the 2019 and 2018 financial statements is still substantially affected by the Group's acquisition of an additional 20% stake in Eurogrid on 26 April 2018. After that transaction, the consolidation of Eurogrid and its affiliates switched from the equity method, which applied for the first four months of the 2018 financial year, to a full consolidation from the date of the acquisition. Consequently, the 2019 financial statements present a full consolidation of Eurogrid and its affiliates, whereas the 2018 financial statements present four months of figures according to the equity method and eight months using the full consolidation method.

In addition, Nemo Link, a joint venture with National Grid that was commissioned in January 2019 is treated as an equity-accounted investee.

Elia Group's adjusted net profit rose by 9.0% to €306.2 million. This increase was the result of the aforementioned acquisition (and its impact on consolidation), a higher result for Elia Transmission and the contribution by Nemo Link and the lower result in Germany.

Looking at the various segments, we remark an increase of the adjusted net profit in **Belgium** increasing by €7.4 million to €122.3 million and mainly driven by the realisation on the mark-up investments, higher incentives and efficiency and higher capitalised borrowing costs due to the growing asset base. This was offset to a certain extent by a lower equity remuneration due to a decreasing OLO, higher IAS 19 and tax provisions. The tariff compensation for the financial costs linked to the capital increase contributes positively to the result (€6.1 million).

In Germany, the adjusted net profit drops by €38.8 million to €177.5 million. This effect is almost entirely attributable to the release of the legal claim easements that occurred in 2018 (down €46.4 million Y-O-Y). The effect from the lower regulatory return with the start of the new regulatory period is almost entirely offset by higher base year revenues and higher capex remuneration. The commission of CWA 1 end 2018. lead to higher depreciation and financial cost.

With Nemo starting operations since end of January, it contributed €6.5 million to the Group result in 2019. Additionally the Group's result benefited from a stronger performance of EGI, partially offset by higher non-regulated financial costs.

Elia Group's reported net profit rose

less sharply (by 0.7%) to €309.1 million. Adjusted items totalling €2.9 million were recognised, being mainly related to costs linked to the Group's corporate reorganisation (-€2.2 million), regulatory compensation linked to the acquisition made the previous year (\in 5.1 million).

Elia Group's net profit attributable to

owners of ordinary shares (after deducting the €35.5 million in non-controlling interests and €19.3 million attributable to hybrid securities holders) was down 7.6% to €254.3 million as prior year benefited from the release of the major bulk of the easement provision (making a net contribution of €30.9 million in 2018), offset to a certain extent by the timely realisation of investments and a solid operational performance by Elia Group in 2019.

COMPONENTS OF ELIA GROUP'S ADJUSTED NET PROFIT



Capital expenditures

By expanding international connections and integrating ever-increasing amounts of renewable energy generation, the Elia Group promotes both the integration of the European energy market and the decarbonisation of our society.

In 2019, the Elia Group invested €723.5 million in Belgium and €488.6 million in Germany to ensure a reliable and sustainable energy system leading to a growth of the Regulatory Asset Base (RAB) of 9.0%.

Infrastructure work for great interconnectivity

Work on the ALEGrO project is making good progress. The first interconnector between Belgium and Germany is being implemented in partnership with the German system operator Amprion and is scheduled for commissioning in 2020. On the Belgian side, work on the cable for the underground HVDC connection and the construction of the converter station in Lixhe, have been completed.

After a 10-year development and construction phase, transmission capacity on **Nemo Link**, the subsea interconnector between Great Britain and Belgium, has been available for purchase by implicit day-ahead auction since 30 January 2019. The cable has a capacity of 1,000 MW and is Elia's first subsea interconnector in Belgium. It is also the country's first high-voltage direct current (HVDC) project.

In the second phase of the Brabo project, Elia built the tallest electricity pylons (192 m) in the Benelux countries to span the River Scheldt in the Port of Antwerp. Designed to strengthen the high-voltage grid from 150 kV to 380 kV in and around ing into France. In May 2019, work to replace the first section of the 380 kV overhead line from Perleberg to Wolmirstedt began. Several construction companies are working simultaneously along the route to ensure rapid progress with its construction and minimise the project's impact on local residents and nature.

In addition, Elia Group is investing in the optimisation of existing assets by integrating new technologies and more advanced system operation concepts.



ELIA GROUP INVESTMENTS IN 2019 TOTALS €1,212 M

the Port of Antwerp, the Brabo project is being implemented in three phases between 2016 and 2023.

In August 2019, Elia finalised the Mercator-Horta project between Zomergem and Kruibeke. Over the past few years, pylons, foundations and conductors have been replaced to increase the transmission capacity to 380 kV. The Mercator-Horta project is part of the bigger Mercator-Avelin interconnection project that is 110 km long and passes through 25 municipalities before extendWe are focusing on replacing overhead lines by introducing a new type of conductor that can support higher flows, increasing grid capacity in cold and windy weather (Dynamic Line Rating) where appropriate, and finding better ways to control electricity flows via devices such as Phase Shifting Transformers (PST) and High Voltage Direct Current (HVDC) lines.



Infrastructure work to integrate offshore wind

The **MOG** is Elia's first power hub in the Belgian North Sea, 40 km off the coast. In September 2019, it was inaugurated in the presence of His Majesty King Philippe of the Belgians. The MOG is a critical link in transmitting the renewable energy generated by offshore wind farms safely and efficiently to the mainland. Bringing together the cables from four wind farms (Rentel, Seastar, Mermaid and Northwester 2) saves 40 km of cable compared to point-to-point connections.

After three years of construction and a total investment volume of ca 1.3 billion euros, the **Ostwind 1** project in the Baltic Sea was finalised. Ostwind 1 connects two offshore wind farms (Arkona and Wikinger) via three 90 km long submarine cables to the Lubmin substation. For the first time, 50Hertz is using 220 kV three-phase AC cables (instead of 125 kV AC). This enables a higher transmission capacity. In April 2019, German Chancellor Angela Merkel attended the inauguration of the Arkona wind farm (E.ON & Equinor).

Meanwhile, 50Hertz is progressing according to schedule on **Ostwind 2**. This project will connect two additional wind farms to the Lubmin substation: Arcadis Ost (Parkwind) and Baltic Eagle (Iberdrola). Both are located 20 to 30 km northeast of the island of Rügen. In October 2019, 50Hertz and Parkwind signed a Memorandum of Understanding (MoU) including specific arrangements for the development, pro-

curement, construction and operation of a joint offshore platform. The corridor for the submarine cables has been explored and contaminated sites cleaned up.

With the Combined Grid Solution project, 50Hertz and the Danish grid operator Energinet are realising a worlds' first; connecting the electricity grids of two countries via offshore wind farms. In 2019, submarine cables were installed between the offshore substation of the wind farms Baltic 2 and Kriegers Flak (see illustration 3). The electrical installations at sea are now ready for operation. The renewable energy generated by the wind turbines will always have priority. Free capacity from the connecting line can be used for electricity trading between both countries.

NET DEBT & CREDIT METRICS

(in € million)	2018	2019
Net debt	4,605.6	5,523.1
Leverage (D/E) (incl. NCI & hybrid))	1.71x	1.5x
Net debt / EBITDA	6.1	5.9
EBITDA / Gross interest	6.5	6.4
Average cost of debt	2.30%	2.13%
% fixed of gross debt	94.39%	96.8%

Net financial debt increased to €5,523.1 million (up 19.9%), driven by the Group's investment programme totalling €1.2 billion in 2019. In Belgium, net debt rose by €188.3 million with organic growth financed by the cash flow from operating activities and proceeds from the capital increase. For Germany, the financing of the investment programme and EEG's lower cash position (down €429.0 million) led to a rise in net debt (up €835.1 million).





2019 NET DEBT EVOLUTION



Besides a €434.8 million capital increase, Elia Group also accessed the debt capital market in 2019. Early 2019, Elia Transmission benefited from favourable market conditions to manage its liquidity position and lower its average cost of debt (dropped by 17bps), successfully refinancing a €500 million Eurobond at a significantly lower coupon, to the benefit of society. Eurogrid issued no external

Elia Group's rating by S&P remained unchanged at BBB+ with stable outlook. Eurogrid GmbH also carries a BBB+ rating with stable outlook, while the bonds of Elia Transmission Belgium are rated BBB+ aswell.

Elia Transmission in Belgium

Elia Transmission key figures (in € million)	2019	2018	Difference (%)
Revenues, other income and net income (expense) from settlement mechanism	948.8	959.4	(1.1%)
Revenues	914.2	908.1	0.7%
Other income	60.7	57.2	6.1%
Net income (expense) from settlement mechanism	(26.1)	(5.9)	n.r.
Equity accounted investees	1.8	1.8	n.r.
EBITDA	394.8	369.1	7.0%
EBIT	243.9	228.9	6.6%
Adjusted items	4.7	0.0	n.r.
Adjusted EBIT	239.2	228.9	4.5%
Net finance costs	(64.4)	(65.4)	(1.5%)
Income tax expenses	(54.4)	(48.6)	11.9%
Net profit	125.0	114.9	8.8%
Adjusted items	2.7	0.0	n.r.
Adjusted net profit	122.3	114.9	6.4%
Total assets	6,452.1	5,909.2	9.1%
Total equity	2,157.5	1,757.1	22.8%
Net financial debt	3,013.4	2,825.1	6.7%
Free cash flow	(444.9)	(263.3)	68.9%

Elia Transmission's total revenues

decreased to €948.8 million. 1.1% down on the previous year. Revenues were impacted by higher depreciations, higher financial costs linked to the capital increase and the bond consent process for the corporate reorganization and higher taxes however are fully offset by lower costs for ancillary services and lower regulated net profit, which are all passed through into revenue to the benefit of consumers.

EBITDA (up 7.0%) and **EBIT** (up 6.6%) were mainly affected by higher depreciations attributable to the growing asset base, higher financing costs and higher current taxes to be passed on in tariffs. These increases were partly offset by a slightly lower regulated net profit. The contribution of equity-accounted investments (HGRT, Ampacimon and Coreso) remained flat at €1.8 million.

Net finance costs dropped by €1.0 million (down 1.5%) compared to the previous year. Early in 2019, Elia took advantage of supportive market conditions to manage its liquidity position by refinancing a €500 million bond that matured in May 2019, and thereby significantly

million.

Elia Group Activity Report 2019 159

reduced its average cost of debt, to consumers' benefit. This was partially offset by a full year of interest charges linked to a €100 million EIB loan drawn in the last guarter of 2018 and lower interest income on cash advances provided to Nemo Link during the construction phase, because Nemo Link interconnector was commissioned at the beginning of 2019. The push-down of regulated debt from Elia System Operator to Elia Transmission Belgium as part the Group's corporate reorganisation (Adjusted item), generated financial charges totalling €4.7 million. As the bank and consent fees are spread over the maturity of the various bonds under IFRS, the net financial costs recognised for regulated debt in 2019 totals to €0.9

Elia Transmission achieved strong results, with an **adjusted net profit** of €122.3 million (up €7.4 million) driven mainly by the realisation of mark-up investments since the start of the tariff period in 2016 (up €6.2 million), the strong operational performance on incentives (up €4.9 million) and higher capitalised borrowing cost linked to

the growing asset base (up €2.2 million). These impacts were offset to some extent by the lower average OLO compared to 2018, impacting equity remuneration (down €5.5 million), higher IAS 19 and tax provisions (down €4.1 million) and slightly more damages to electrical installations (down €1.4 million). The result also benefitted from a one-off tariff compensation for the financial costs linked to the capital increase (up €6.1 million) and accounted through equity under IFRS.

Net profit increased by a more pronounced 8.8% to €125.0 million due to tariff compensations for the financial costs linked to the push-down of regulated debt to ETB as part of the corporate reorganisation and amortised under IFRS.

Total assets increased by €542.9 million to €6,452.1 million, mainly as a result of the investment programme.

50Hertz Transmission in Germany

50Hertz Transmission key figures (in € million)	2019	2018	Difference (%)
Total revenue and other income	1,360.1	1,364.9	(0.4%)
Revenue	1,323.6	1,403.6	(5.7%)
Other income	84.1	67.4	24.8%
Net income from settlement mechanism	(47.6)	(106.1)	(55.1%)
EBITDA	530.5	475.0	11.7%
EBIT	321.3	385.4	(16.6%)
Adjusted items	0.0	30.6	n.r.
Adjusted EBIT	321.3	354.8	(9.4%)
Net finance costs	(65.3)	(45.6)	43.2%
Income tax expenses	(78.6)	(101.9)	(22.9%)
Net profit	177.5	237.9	(25.4%)
Of which attributable to Elia Group	142.0	169.2	(16.1%)
Adjusted items	0.0	21.6	n.r.
Adjusted net profit	177.5	216.3	(17.9%)
Total assets	6,279.6	6,752.1	(7.0%)
Total equity	1,546.5	1,491.8	3.7%
Net financial debt	2,108.1	1,272.9	65.6%
Free cash flow	(656.8)	278.7	(335.7%)

50Hertz Transmission's total reve-

nues and other income are stable compared to last year (down 0.4%). With the start of a new regulatory period in 2019, the regulatory return on equity dropped from 9.05% to 6.91% before tax. but this decrease was mainly offset by asset growth. Furthermore, the offshore remuneration scheme changed and is now remunerated via a separate offshore surcharge. Although the asset growth and updated Opex revenue base positively impacted the remuneration the turnover dipped due to the lower regulatory return on equity. Moreover the new offshore surcharge leads to decreased passthrough third-party revenues for the offshore business.

Although the new regulatory period is marked by a lower regulatory return on equity, the **EBITDA** increased by €55.5 million (up 11.7%). With the start of the new regulatory period, the completed onshore investments measure projects have rolled over to being remunerated via the Base Year Mechanism. Together with the decrease of the regulatory return on equity from 9.05% to 6.91%, the remuneration for investment measures dropped (down €64.7 million). However this decrease was more than offset by higher revenues from the Base Year mechanism (up €100.4 million) as firstly completed onshore investment projects are now remunerated via the Base Year and secondly the OPEX revenue base was updated at the beginning of the new regulatory period. Despite the drop in regulatory return on equity, the offshore investment remuneration increased

€1.5 million).

million).

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driven by the asset growth and the successful commissioning of Ostwind 1 last year (up €15.7 million). Personnel costs increased compared to the same period last year, following continuous business growth (down €8.2 million) leading as well to higher own work capitalised (up €2.6 million). Finally, EBITDA was also impacted by the treatment of leasing costs with the adoption of IFRS 16 (up €7.6 million) and higher other revenues, e.g. from damage claim payments (up

EBIT dipped by €64.1 million (down 16.6%) due to the release of a large portion of the easement claim provision in 2018 (€72.1 million) following a re-assessment after a tax audit. A further portion was released in 2019. amounting to €5.9 million pre-tax (down €66.2 million). Depreciations increased (down €53.7 million), mainly as a result of commissioning the first cables and platform of Ostwind 1 in December 2018 (€36.5 million) and due to the depreciation component of leasing as per IFRS 16 (€6.9

Excluding the impact of the major release of the easement provision in 2018, the EBIT would have increased (up 13.7%), attesting to the strong operational performance of 50Hertz despite the drop in regulatory return on equity with the start of the third regulatory period.

50Hertz Transmission (Germany) (on a 100% basis) recorded an adjusted net profit of €177.5 million. The lower result (down €38.8 million) is almost fully

attributable to the release of the legal claim easement provision that occurred in 2018 (down €46.4 million). Moreover the regulatory return on equity (RoE) decreased (from 9.05% to 6.91% pre-tax) when the new regulatory period began. though this drop was partly compensated by asset growth and an updated revenue base for that period. In combination with the roll-over of completed onshore projects to the base year, the Base Year revenues increased (up €70.7 million) while the onshore investment remuneration for investment measures decreased (down €45.5 million). The offshore investment remuneration increased (up €34.5 million) following the commissioning of Ostwind 1 in late 2018. Finally, the result was also impacted by higher depreciations (down €37.8 million) linked to the ongoing investment programme and higher financial costs (down €13.9 million).

Total assets were €472.5 million down on the year-end total in 2018, mainly due to a reduction in EEG cash (down €429.0 million). In 2019 there was also a negative **free cash flow** of €656.8 million, including €429.0 million associated with the EEG mechanism. No new debts were issued in 2019. Net financial debt rose by €835.1 million mainly due to the financing of the ongoing investment programme and the high EEG cash-out. The EEG cash position as at December totalled to €430.5 million.

Non-regulated activities & Nemo Link

Non-regulated activities & Nemo Link key figures (in € million)	2019	2018	Difference (%)
Total revenue and other income	20.7	13.9	48.9%
Equity accounted investees	6.5	0.3	n.r.
EBITDA	4.8	(7.9)	(160.8%)
EBIT	4.5	(8.9)	(150.6%)
Adjusted items	1.3	(3.3)	n.r.
Adjusted EBIT	3.2	(5.6)	(157.0%)
Net finance income	(9.9)	1.3	(861.5%)
Net profit	6.6	(3.5)	(288.6%)
Of which attributable to Elia Group	6.5	(2.8)	(332.1%)
Adjusted items	0.2	4.3	(94.9%)
Adjusted net profit	6.4	(7.8)	(182.0%)
Total assets	1,733.5	1,677.9	3.3%
Total equity	1,207.5	1,052.7	14.7%
Net financial debt	401.6	507.6	(20.9%)

Non-regulated revenue increased by 48.9% compared to 2018. EGI's revenue rose by €3.0 million to €12.5 million on the back of stronger owner's engineering services and the expansion of international consulting activities. In addition. one-off regulatory compensation linked to the prior year acquisition totalling €3.8 million was recognised.

As an equity-accounted investment, Nemo Link contributed €6.5 million to the Group's result in its first year of operation. The interconnection was commissioned in late January 2019. Since then, 5.6 TWh of commercial flows have been exchanged between Belgium and the UK. The interconnector's overall availability was 95.8%, but since Q4 2019, it has been 100%. Despite this high availability, Nemo Link's performance throughout the year was impacted by low spreads of the electricity commodity price. driven by higher CO2 prices in continental Europe and low gas prices in the UK. Higher-than-planned curtailments also affected revenues from Nemo Link during the first half of 2019. Throughout the lifetime of the project, Nemo Link will be exposed to volatility in the market spread of the electricity commodity price.

Adjusted EBIT increased to €3.2 million. The €8.8 million increase in adjusted EBIT compared to last year is mainly due

Net finance costs increased to €9.9 million, primarily as a result of a full year of interest charges linked to the €300 million non-regulated senior bond contracted during the second half of 2018 to finance the acquisition of an additional stake in Eurogrid (€4.7 million). The corporate reorganisation of the Group resulted in a one-off consent fee (€4.3 million) paid to noteholders for the aforementioned non-regulated bond and generated other financial costs amounting to €0.2 million. The financing of Nemo Link incurred a net financial cost of €0.5 million due to higher financial costs linked to the €210 million take out financing concluded at the end of 2018 and partly offset by interest income on cash advances to Nemo Link during the construction phase. Following the rights issue at the end of June, these cash advances were reimbursed and Nemo Link became financed in a manner similar to the current regulatory framework in Belgium (33% equity / 66% debt). Finally, the previous year's finanElia Group Activity Report 2019 163

to the contribution of Nemo Link (€6.5 million), a higher operational result for EGI (up €0.6 million) and lower non-regulated costs. Taking into account onetime costs linked to the reorganisation of the corporate structure (down €2.5 million) and a regulatory compensation (up €3.8 million), EBIT totals €4.5 million.

cial result benefited from adjusted items linked to the aforementioned acquisition, being a one-off financial gain (€9.2 million) linked to the remeasurement to fair value of the Group's initial 60% shareholding in Eurogrid and offset to some extent by costs for the unwinding of the hedge linked to the hybrid bond (€3.2 million).

The non-regulated and Nemo Link segment, posted an adjusted net profit of €6.4 million, driven by the commissioning of Nemo Link in 2019 (€6.5 million) and a positive contribution from EGI (€0.1 million). Furthermore, the deductibility of the interest charges linked to the hybrid security generated a tax credit (€5.9 million), which was partly offset by interest costs on the senior bond (€3.2 million) and other non-regulated costs (€2.8 million).

Total assets increased by €55.6 million to €1,733.5 million driven by the capital increase of which €107.8 million was allocated to the non-regulated segment to finance Nemo Link and was offset by the contribution of non-regulated activities in the 2018 dividend payment. Consequently, **net financial debt** decreased by €105.9 million to €401.6 million.

Adjusting items - reconciliation table

(in € million) - Period ended 31 Dec. 2019	Elia Transmission	50Hertz Transmission (100%)	Non-regulated & Nemo Link (100%)	Consolidation entries	Elia Group
Adjusted items					
Regulatory compensation for acquisition	0.0	0.0	3.8	0.0	3.8
Corporate reorganisation	4.7	0.0	(2.5)	0.0	2.2
Adjusted items EBIT	4.7	0.0	1.3	0.0	6.0
Corporate reorganisation fin. cost	(0.9)	0.0	(4.5)	0.0	(5.4)
Adjusted items before tax	3.8	0.0	(3.2)	0.0	0.6
Tax impact	(1.1)	0.0	3.4	0.0	2.3
Net profit – Adjusted items	2.7	0.0	0.2	0.0	2.9

(in € million) - Period ended 31 Dec. 2018	Elia Transmission	50Hertz Transmission (100%)	Non-regulated & Nemo Link (100% ⁾	Consolidation entries	Elia Group
Adjusted items					
Regulatory settlements prior year	0.0	(2.8)	0.0	1.4	(1.4)
Equity consolidation 50Hertz (60% net profit)	0.0	0.0	0.0	(0.6)	(0.6)
Offshore commissioning	0.0	33.3	0.0	0.0	33.3
Energy bonuses	0.0	0.1	0.0	0.0	0.1
Eurogrid acquisition costs	0.0	0.0	(3.3)	0.0	(3.3)
Adjusted items EBIT	0.0	30.6	(3.3)	0.8	28.1
Financial acquisition cost	0.0	0.0	(3.8)	0.0	(3.8)
Revaluation participation Eurogrid	0.0	0.0	9.2	0.0	9.2
Adjusted items before tax	0.0	30.6	2.1	0.8	33.5
Impact tax reform on deferred tax	0.0	0.0	0.0	0.0	0.0
Tax impact	0.0	(9.0)	2.2	(0.4)	(7.3)
Net profit – Adjusted items	0.0	21.6	4.3	0.4	26.3

Adjusted items totalling €2.9 million were recognised in 2019, being mainly related to costs linked to the Group's corporate reorganisation (-€2.2 million) and regulatory compensation linked to the acquisition made the previous year (€5.1 million).

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
The registered office of 50Hertz GmbH is established at Heidestraße 2 D-10557 Berlin, Germany
The registered office of Eurogrid International is located at Rue Joseph Stevens, 7 1000 Brussels, Belgium
The registered office of Elia Grid International is located at Rue Joseph Stevens, 7 1000 Brussels, Belgium
Reporting period This annual report covers the period from 1 January 2019 to 31 December 2019.
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We would like to thank everyone who contributed to this annual report.

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