



ANNUAL REPORT 2019



Creos Luxembourg S.A. Registered as a société anonyme (public limited company) under Luxembourg law with capital of EUR 198,851,260
Luxembourg Trade and Companies Register B 4513
Legal headquarters: 59-61, rue de Bouillon, L-1248 Luxembourg

Annual General Meeting of 12 May 2020
Reports presented to the annual general meeting of shareholders by the Board of Directors and the independent auditor
Reports and annual accounts for the 2019 financial year

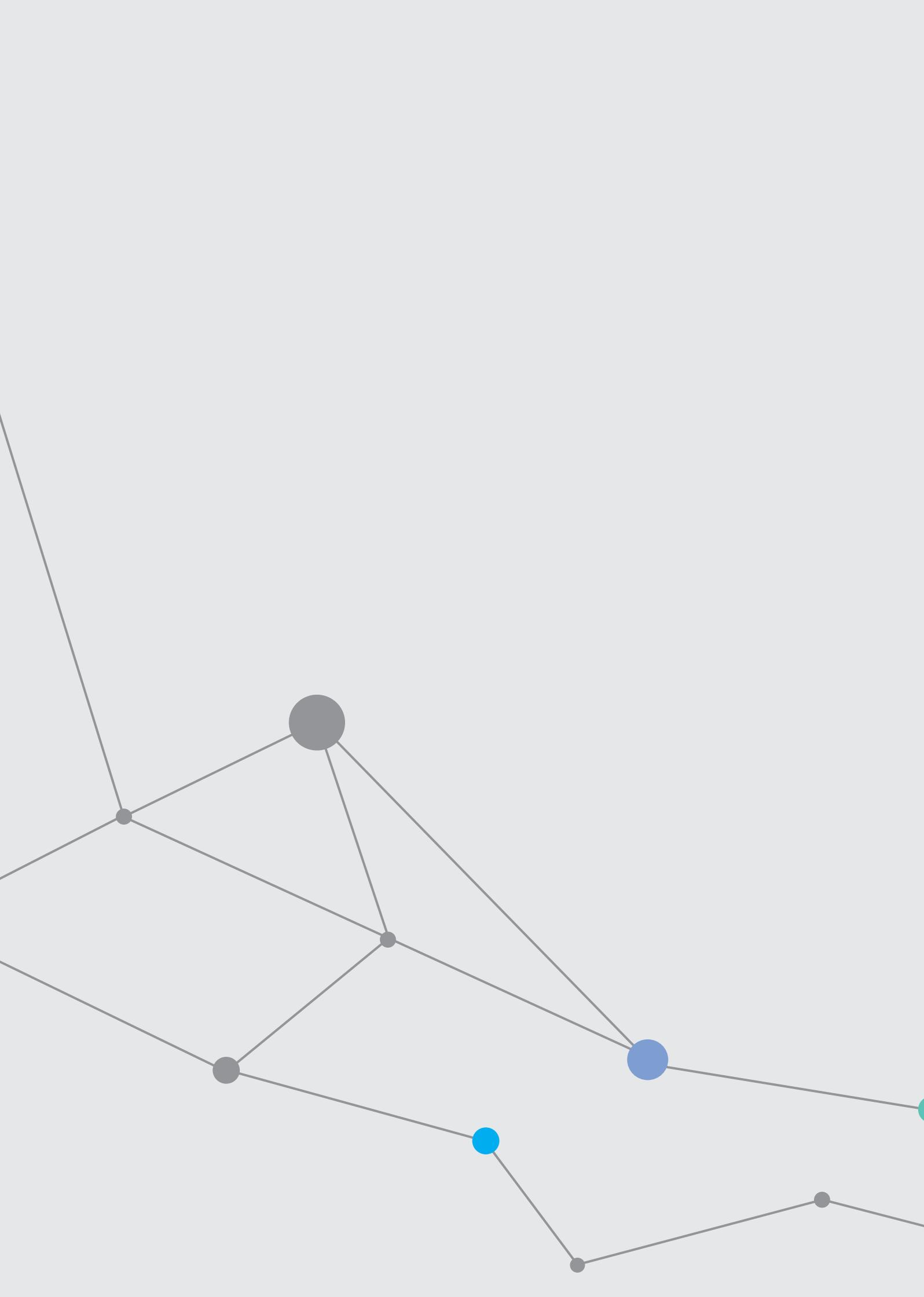


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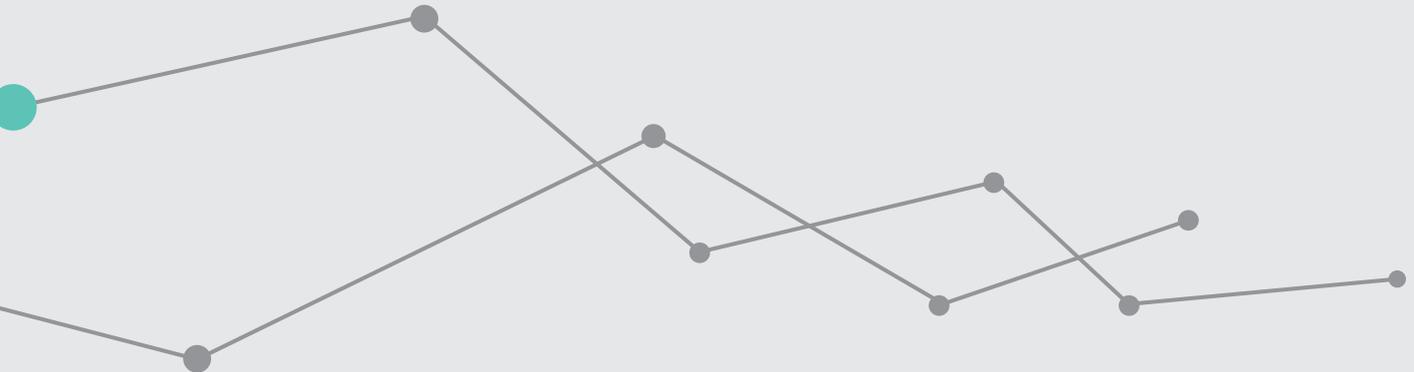
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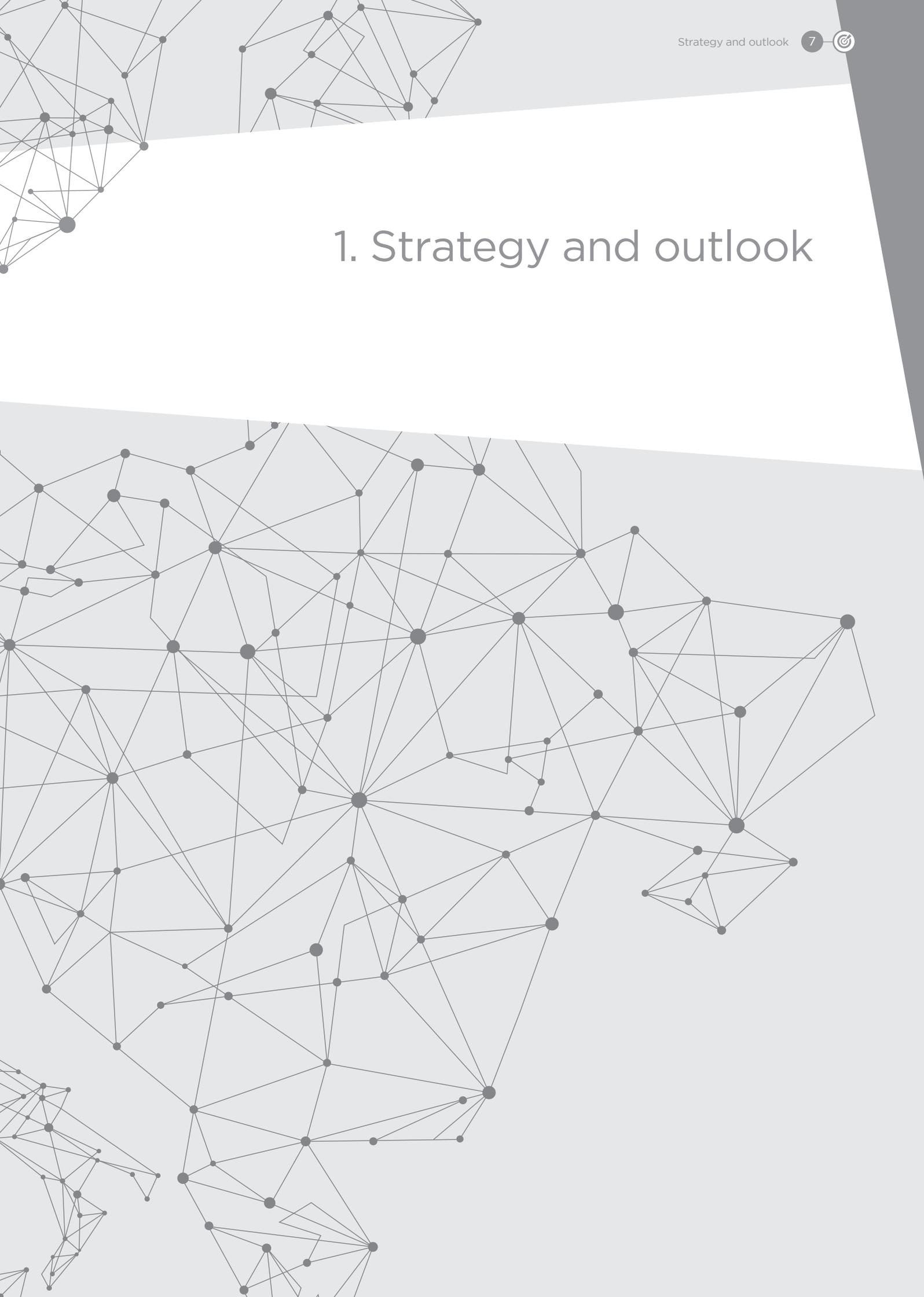
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1. Strategy and outlook



A portrait of Mario Grotz, Chairman, wearing a dark suit, light blue shirt, and blue striped tie. He is wearing glasses and has a slight smile. The background is a blurred office setting with a large 'C' logo on a glass wall. In the bottom left corner, there is a decorative graphic of a network of grey dots connected by thin lines.

“We had yet another record year in terms of investments. This steady increase is mainly due to the digitalisation of the energy sector and Luxembourg’s strong demographic and economic growth.”

Mario Grotz, Chairman



Interview with Mario Grotz, Chairman, and Marc Reiffers, CEO

A key role in meeting energy and mobility challenges

CAPACITY EXPANSION PROJECT TO GERMANY IN RESPONSE TO THE COUNTRY'S GROWING ELECTRICITY DEMAND AND RAPID POPULATION GROWTH, IMPLEMENTATION OF A NATIONAL IT PLATFORM FOR ENERGY DATA AS A PRELUDE TO THE CREATION OF LUXEMBOURG'S DIGITAL TWIN, FURTHER CONSTRUCTION WORK ON THE NEW DISPATCHING SITE IN BETTEMBOURG AND THE NEW HEADQUARTERS AND OPERATION CENTRE IN MERL, PREPARATION FOR THE CHALLENGE OF DECENTRALISED POWER GENERATION WITH THE MAJOR GOAL OF GENERATING 1,000 MEGAWATTS OF PHOTOVOLTAIC ENERGY ANNUALLY BY 2030: NO LACK OF PROJECTS FOR CREOS IN THE YEAR 2019. THIS, ACCORDING TO ITS CEO AND ITS CHAIRMAN, SHOWS THAT THE COMPANY HAS BECOME A MAJOR PLAYER IN SHAPING OUR COUNTRY'S FUTURE.

Which was the most impactful event of the year 2019?

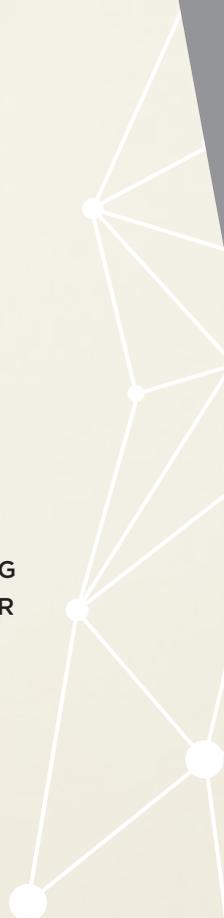
Marc Reiffers: Without a doubt, the Luxembourg government's introduction last February of the draft integrated national energy and climate plan for the period 2021-2030 under its new coalition agreement. The implementation of this climate plan, which aims to promote renewable energy sources, reduce greenhouse gas emissions, promote e-mobility and support decentralised energy generation, will have many direct repercussions on our operations.

In practice, this means that we will have to reinforce our networks in the years to come. Work to upgrade the 220 kV high-voltage power line in the north of the country will begin in 2021. We are also in the process of increasing the power and capacity of our 65 kV high-voltage lines, especially on our "northern loop". Ultimately, these new power lines will facilitate the transmission of the electricity generated by wind turbines, most of which are clustered in

the north, towards the centre and the south of the Grand Duchy where energy consumption is greatest.

To meet the growing demand for electricity and guarantee security of supply, we also plan to install by 2026, in cooperation with the German transmission system operator Amprion, a new transformer station as well as a more efficient extra-high-voltage line with low power losses.

This new construction project will modernize the network, increase capacity and improve the quality of life of the entire population.



E-mobility is another challenge initiated by the Luxembourg government's climate plan. This calls for the installation of fast charging stations on the country's motorways and main road axes in the short term. These new terminals will enable motorists to recharge 80% of their electric car battery in just under 30 minutes.

The government is also planning to promote renewables with a strengthened and diversified set of measures. Particular emphasis will be placed on photovoltaic solar energy with a target installed capacity of 1,000 megawatts by 2030. This is a huge challenge for us as a network operator as it implies that we will have to connect and manage all this power generated in a decentralised way.

Mario Grotz: Last year we carried out a strategic study to ensure that we would be able to take on all the challenges that await us in the next decade. It allowed us to answer fundamental questions such as "What should be the positioning of our company by 2030?", "In which business sectors should we develop our skills?" or "Which milestones do we need to reach to achieve the objectives set by the government's climate plan and new market trends?".

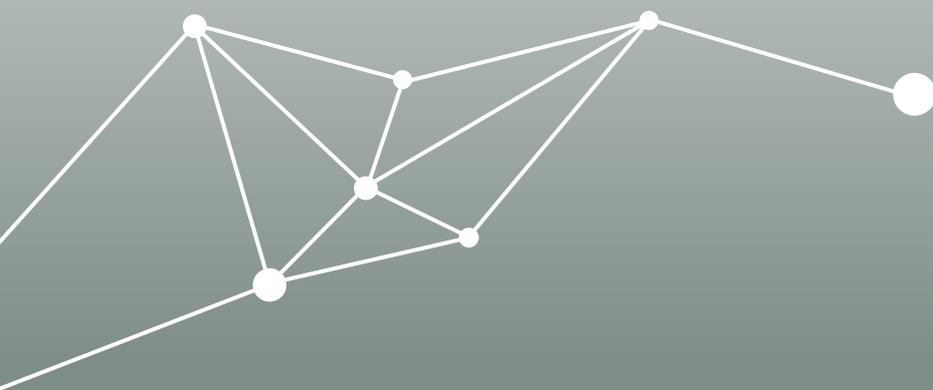
How was the collaboration with China Southern Power Grid International, the new shareholder?

M.G.: We are our Chinese shareholder's first investment in Europe. Even though there are significant cultural differences which require some adjustment time, the collaboration has been constructive on both sides. We can benefit greatly from our new partner because of its extensive expertise and competences. Its large-scale research centre has achieved significant advances in everything related to smart grids and energy storage. All these assets and more can only be of benefit to us!

What were the main investments for Creos in 2019?

M.R.: Aside from strengthening our high voltage power lines, they mainly relate to our two new sites: the headquarters and operation centre in Merl and the dispatching site in Bettembourg. The former will be operational in 2021 and the latter before the summer 2020.

Setting up this new dispatching site had become a must as the Heisdorf facility being no longer adapted to our future needs. It will comprise four separate rooms: high voltage electricity, medium voltage electricity, high pressure gas and Network Operations Center (NOC). We decided to build it in Bettembourg to ensure proximity to our data centre. Since the amount of data is set to increase exponentially and transmission speed will be crucial, it was imperative to have the shortest possible connections.



A portrait of Marc Reiffers, CEO, wearing a dark suit, white shirt, and patterned tie. The background is a blurred office setting with vertical lines. A white network diagram with nodes and connecting lines is overlaid on the right side of the image.

“The implementation of the climate plan introduced in February 2019 by the Luxembourg government will have repercussions on our operations. We will have to strengthen our power lines, prepare for decentralised power generation and support e-mobility.”

Marc Reiffers, CEO



M.G.: We had yet another record year in terms of investments – 147 million euros compared to 132 million in 2018 – and this scenario will repeat itself in 2020. This steady increase is due to several factors, in particular the digitalisation of more and more aspects of the energy sector and Luxembourg's strong demographic and economic growth. These are significant yet necessary investments if we want to prepare for the future. It will take at least 5 years for us to see any return.

Did the tornado (9 August 2019) that ripped through the municipalities of Pétange and Bascharage have an impact on Creos' operations?

M.R.: Strictly speaking, no it did not. The high-voltage power line that was hit is the one connecting to Belgium: the tornado knocked down four pylons. The damaged line is owned by the Société de Transport d'Énergie Électrique du Grand-Duché de Luxembourg (Sotel) and we rent part of it. In theory, the power line should be operational again from May 2020.

Creos has been entrusted with implementing a national energy data platform. What is this platform about and how will it work?

M.R.: A bill amending the amended law of 1 August 2007 relating to the organisation of the electricity market was introduced into legislative procedure in early 2018 and will be passed into law in the summer of 2020. The national energy data IT platform, whose design and installation will be entrusted to Creos as a Transmission System Operator (TSO), is one of the planned measures. The platform will aim to collect all of Luxembourg's gas and electricity usage and generation data. It will be based on the common central smart metering system and metering systems specific to manufacturers and large groups. Its main advantage is that it will provide quality data that will not be disputed in the event of a complaint, whether from a customer or an energy supplier. The platform will be a decisive step in establishing a truly smart network. Initially, the data collected will be from the previous day. Later, it will be real-time data which will eventually also include water and heat usage and production.



The technical specifications of this platform will be defined in 2020 and work should start in 2021.

M.G.: This national platform is also the first step towards the creation of a 'digital twin', in other words a digital copy of Luxembourg resulting from the collection at national level of all relevant data. Thanks to this digital twin, it will be possible to understand various issues linked to energy and mobility, test solutions and then apply them in reality. Not only can this concept be applied to Luxembourg, given the small size of the country, it fits perfectly with the government's policy.

On a more personal note, Mr Reiffers, what would be your takeaway from this first full year as CEO of Creos?

M.R.: First of all, I appreciated the warm welcome extended to me. What surprised me most – and I must admit that I had not given this aspect enough consideration when I started my mandate – was the amount of work, in particular physical work, deployed by our teams in the field.

The number of construction sites that Creos manages is simply astounding! Some departments have a full schedule for the next three years. Organisation is another important aspect. The slightest power outage is immediately tackled and repaired promptly.

However, and even if our company is demonstrating its efficiency day in and day out through its workforce, a great challenge awaits us. The challenge of digitalisation. We will soon have to hire new staff with different know-how to strengthen our teams. Managing this change and reorganisation will not be an easy task, but we have no choice if we are to succeed in our digital conversion.



Shareholder structure

Shareholder structure of Creos Luxembourg S.A. as at 31.12.2019

Encevo S.A.	75.43%
City of Luxembourg	20.00%
State of the Grand Duchy of Luxembourg	2.28%
Fédération du Génie Technique	0.10%
42 Luxembourg municipal authorities	2.13%
Creos Luxembourg S.A. (own shares)	0.05%
Total	100.00%

Key figures

(under Lux GAAP)		2019	2018
Net turnover	(MEUR)	269.6	263.7
EBITDA	(MEUR)	132.5	128.9
EBIT (including income from participating interests)	(MEUR)	38.6	41.9
Profit for the financial year	(MEUR)	31.6	36.2
Investment	(MEUR)	146.9	132.3
Workforce	(number)	780	712
Electricity			
Electricity flow	(GWh)	5,155.1	5,121.9
Electricity network peak	(MW)	829.4	827.6
Network length	(km)	10,023.7	9,925.6
Electric meters	LV-SLP (number)	275,160	270,789
	MV/HV-RLP (number)	10,959	10,681
Chargy charging stations	(number)	337	245
Natural gas			
Gas network capacity	(Nm ³ /h)	319,000	319,000
Gas network peak	(Nm ³ /h)	210,331	220,028
Volume transported	(GWh)	8,839	8,834
Network length	(km)	2,133.2	2,109.6
Natural gas meters	(number)	47,678	47,056

The financial year corresponds to the calendar year.



Mission

Our mission is to viably ensure energy transportation and distribution via electricity and natural gas networks at transparent rates in the Grand Duchy of Luxembourg.

This role is executed equally with respect to all suppliers and by respecting the company's public service and environmental protection obligations.

Aware of the economic, social and environmental issues at stake, Creos has a long-standing commitment to the principles of sustainable development. The Corporate Social Responsibility policy is focused on the company's mission and values, and aims to make an effective contribution to changing the society we live in. The cornerstones of the day-to-day work of the company are respect, team spirit, commitment and excellence.



Corporate governance

Board of Directors of Creos Luxembourg S.A. as at 31.12.2019

Chairman and Managing Director

Mario Grotz

Vice-Chairman of the Board

Li Sun

Members of the Board¹

Gaston Bohnenberger

Doris Engel

Lex Kaufhold

Pierre Kremer

Thierry Kuffer

Daniel Liebermann²

Paul Poon

Claude Reder

Patrick Reder

Marc Reiffers

Patricia Rix

Christiane Schaul

Jean Schiltz

Jingqiang Sun

Laurent Vanetti

Marco Valentiny

Gilbert Zahles

Government Commissioner for Energy

Simeon Hagspiel (since March 2020)

The detailed corporate governance report is available upon request.

¹ Mrs Anne Van Goethem resigned from her position as director with effect from 2 April 2019. This position remained vacant until 31 December 2019.

² Mr Daniel Liebermann was co-opted as a director on 5 December 2019, replacing Mrs Sasha Baillie, who stepped down. His co-option will be subject to ratification by the next ordinary general meeting of shareholders.

Management of Creos Luxembourg S.A.



Marc Reiffers
is the Managing Director
and CEO of
Creos Luxembourg S.A..



Carlo Bartocci
is in charge of the *Grid Operations* department, i.e. the Gas and Electricity dispatchings, the SCADA/Comin service, the Power MV (NOC), the Grid Data Management and the Smart Grids unit.



Daniel Christnach
heads the *Customer Service* department including Customer Care, Contracts and Non-Regulated Activities.



Robert Graglia
is responsible for the *Grid Support* department, which heads the Metering and Reading service and the Back Office.



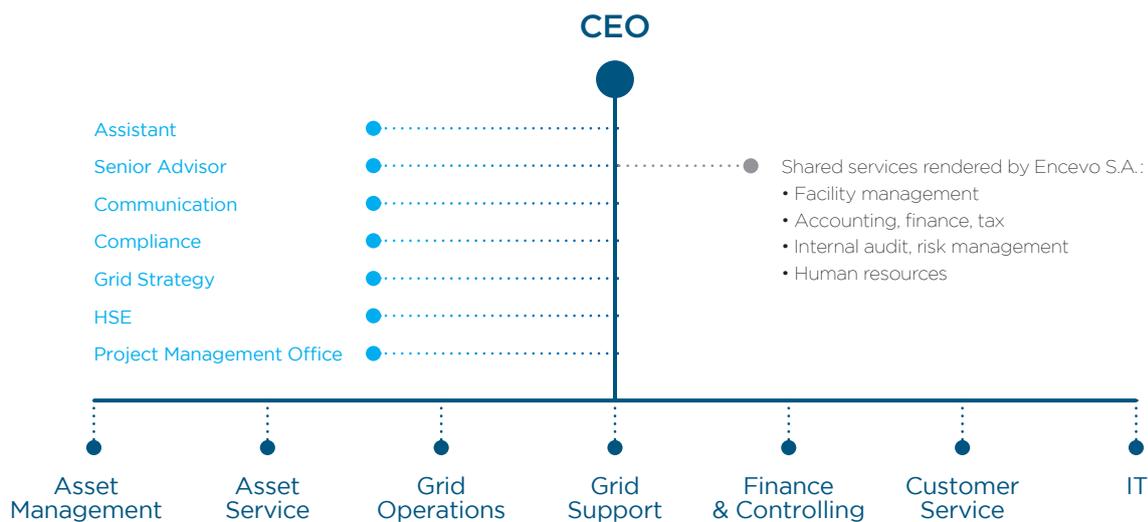
Eric Mauer
is responsible for *Finance & Controlling* as well as the Legal and Purchasing units.

Compliance Programme Officer

In accordance with the amended laws of 1 August 2007 on the organization of the electricity (Art. 32(2)d)) and natural gas markets (Art. 37(2) d)), any grid operator which is part of a vertically integrated structure must establish a compliance programme including measures to guarantee that any discriminatory conduct with regard to actors in the markets in question (producers, suppliers, network clients and users, etc.) is excluded. As such, a compliance programme has been developed and has been published on the Creos Luxembourg S.A. website.

A person has been appointed in this respect to take responsibility for monitoring the implementation of the compliance programme, known as the "Compliance Programme Officer", or more simply "Compliance Officer" (currently Ms Bernadette Coolens). The officer makes a report each year which is submitted to the "Institut Luxembourgeois de Régulation". The report is subsequently published by Creos Luxembourg S.A. on its website.

Organization chart as of 1 January 2020



Marc Meyer heads the *Asset Service* department and is also responsible for the Operation Centres and the Documentation, Project Management, Connections and Fleet Operations.



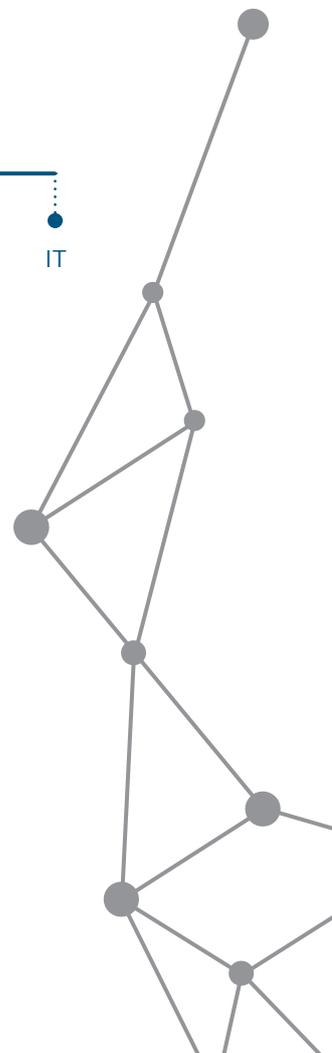
Alex Michels manages the *Asset Management* department including Regulation Management, Expert Group Gas, Expert Group Power, Asset Management Services and Special Projects.



Jean-Marc Verdure is CIO and responsible for information systems.



Jean-Paul Wagner is secretary of the Board of Directors and advises the CEO on strategic issues.



Highlights 2019



CREOS SETS UP ITS OWN IT DEPARTMENT

In order to improve the customer experience and ensure the fast and secure management of increasingly large amounts of data, most of Encevo's IT operations were transferred to Creos on 1 January 2019, resulting in an increase in Creos' staff by around 50 people.

VISIT OF BOVÉ CONSTRUCTION SITE

During a visit to the Bové construction site organised in July, more than 200 colleagues were able to discover for the first time the impressive volumes of the new buildings. From 2021, the site will accommodate all the Strassen and Hollerich employees.



CREOS' 10TH ANNIVERSARY

An internal campaign featuring around 40 employees has been launched in June to celebrate the company's 10th anniversary. This series of 6 films is broadcast exclusively on neo, the Group's new intranet.



NIGHT LIGHT & MORE

Creos is a partner of the NIGHT Light & More festival organised by the Our and Haute-Sûre Nature Parks. The festival tells us what each of us can do in practice to fight against increasing light pollution and thus support the preservation of natural darkness.



ENERGY FORUM

More than 250 electricians and installers have taken part in the traditional Energy Forum at Luxexpo in October. Organised with the support of the 'Fédération du Génie Technique', this trade show brings professionals together to discuss the energy challenges of tomorrow.

A MODERN DIGITAL WORKPLACE

By replacing mobile phones, rolling out new laptops operating with Office 365 and launching neo - our intranet portal developed under SharePoint online -, Creos has adopted a cloud solution and paved the way towards a more modern and collaborative work environment.





CRM PROJECT

Customer orientation being one of the company's seven strategic pillars, Creos decided to set up a Customer Relation Management (CRM) solution which will help to significantly improve customer journeys and experience.

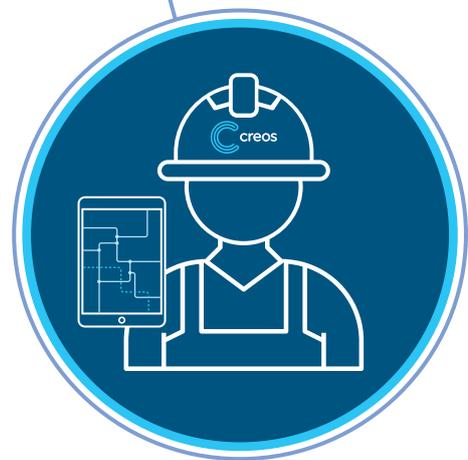


STREET ART KIRCHBERG

Creos has launched a new urban art project called Street Art Kirchberg in collaboration with the artist Stick and the City of Luxembourg. The transformer substation made available to artists on Boulevard Konrad Adenauer in Kirchberg will therefore get many makeovers in the coming months and years.

CREOS MAPS

The Creos Maps application designed to replace conventional marking requests is now online. This service allows you to submit requests for information or markings on our networks and later view the electronic plans directly on your PC or tablet.





TORNADO OF 9 AUGUST 2019

A tornado ripped through the south of Luxembourg on 9 August 2019 and severely damaged the Sotel high-voltage line near Bascharage; the destroyed Creos interconnection with Belgium has yet to be re-established. Creos teams were mobilized to help secure the perimeter.



COMMISSIONING OF THE “PIQUAGE KIRCHBERG” VALVE STATION

As part of the DN300 PN16 Dommeldange-Kirchberg high-pressure gas pipeline project, Creos built a new valve station in Dommeldange to supply natural gas to Luxembourg-City and the Kirchberg Plateau district.



COMPLIANCE PROGRAMME FOR BALANSYS

The European Agency for the Cooperation of Energy Regulators (ACER) approved the compliance programme submitted by the two natural gas transmission system operators, Fluxys (Belgium) and Creos (Luxembourg), with a view to establishing the final operating mode for the first transnational balancing zone in Europe.



BALANSYS



Smart Meters report

Making data a lever for energy transition

THE DEPLOYMENT PHASE OF SMART METERS IS NEARING COMPLETION. WHAT CONCLUSIONS CAN BE DRAWN FROM THIS? WHAT ARE THE ADVANTAGES AND FUNCTIONALITIES OF THESE NEW METERS? HOW SECURE IS THE TRANSMISSION OF CONSUMPTION DATA? HOW AND BY WHOM IS THE COMMON CENTRAL SYSTEM MANAGED? HOW DO SMART METERS HAVE A ROLE TO PLAY IN THE FUTURE ENERGY DATA PLATFORM? DISCUSSION WITH ROBERT GRAGLIA, HEAD OF GRID SUPPORT, YVES RECKINGER, SMART GRIDS MANAGER, PAUL HOFFMANN, CEO OF LUXMETERING, AND ALEX MICHELS, HEAD OF ASSET MANAGEMENT.



"The concept of smart meters derives from a global reflection on the strategy to be adopted to reduce greenhouse gas emissions," explains Robert Graglia. "These meters can monitor the energy consumption of a building, company or household remotely, in detail and in a relatively short period of time, or even in real time – a double advantage. They enable customers to better manage their energy costs and network operators to anticipate consumption peaks more efficiently and optimise their investments."

Smart meters first appeared in the Grand Duchy in mid-2016, following the adoption of European Directive 2012/27/EU into Luxembourg legislation in the form of the laws of 19 June 2015 amending the laws of 7 July 2012 and 1 August 2007. The aim was to replace 95% of all electricity meters by 31 December 2019 and 90% of all gas meters by 31 December 2020 using smart meters.

"We're actually ahead with gas meters - we've reached 86%! "That's not quite the case with electricity meters: here we've reached 92%, or 3% less than expected," concedes Robert Graglia. "This small discrepancy is due to several factors. The first is a particularly tight labour market in our country. Finding enough skilled labour to replace around 300,000 electricity meters and 45,000 gas meters was a considerable effort for us. During the periods of intense activity, that's from mid-2018 to early 2019, we had more than 100 people per day out in the field and the rate of electricity meter replacement exceeded 500 units. Another obstacle was technical. Some meters were more difficult to replace than others. This was especially the case for the few thousand customers who had a dual-rate system."

Multi-function meters

"All the same, we still managed to meet the deadlines we were given to a large extent," says Yves Reckinger. "We brought together all the conditions to find the optimal solution. First, all the network operators joined forces to set up a common project. Then, from 2012 to 2014, we looked for the solution that best suited the country's structure. To do so, we considered several solutions before we chose electricity meters that communicate via the power grid, namely PLC (Powerline Communication) technology and the latest generation communication protocol G3. Thanks to this technology, the electricity meter is bi-directional: it can be used by both consumers and producers, a significant asset in tomorrow's energy world where production will be increasingly decentralised. A single communication network is used: after a connection, either by wire or by radio depending on the facilities available at the customer's premises, the electricity meter acts as a multi-fluid hub that collects data from the other meters – gas, but also water and heating if requested by the respective operators, via the M-Bus protocol."

Once the consumption data are collected, they are sent at regular intervals: every 15 minutes for electricity and every hour for gas, water and heating. *"The data can be consulted the next day by customers, provided they've sent an email asking to see the data to the network operator or*

its energy supplier," says Robert Graglia. "But it's a temporary solution. They will soon be available online using a dedicated app." "Another solution consists of connecting a module, a dongle, to the local communication port of the electricity meter," adds Yves Reckinger. "In this way, the customer can retrieve data in near real time and inject them into a Smart Home-type app on their smartphone or an online platform."

Smart meters have other interesting features. In particular, they record events that are important for grid operation, including overvoltages and undervoltages. They indicate whether there is a mechanical or electronic fault requiring their replacement. They send an alert message if an attempt is made to tamper with or open the cover.

The meters are also equipped with a remotely controllable breaker. This allows the meter to be turned off – and later reset – if a customer has moved to a new home without having signed a supply contract¹ or has not paid their bill. The breaker also offers the possibility of limiting or increasing the meter's power according to the customer's network usage contract. *"Thanks to this feature, customers will in future have a technology that allows them to choose between different tariffs depending on amperage," says Yves Reckinger. "If these tariffs are offered, consumers may, for example, ask for lower power in the event of*

"In the future, it will not only be the production of electricity that will follow consumption but also the opposite."

Alex Michels, Head of Asset Management



¹ "This happens more often than you may think," says Robert Graglia. "Of the 20% of customers who moves each year, that's 60,000 people, many forget to sign a new energy supply contract for the new home with an approved supplier."



“Finding enough skilled labour to replace the electricity and gas meters was a real feat of strength for us.”

Robert Graglia, Head of Grid Support

prolonged absences or in well-defined time slots such as between ten o'clock in the evening and six o'clock in the morning.”

The meters have two sockets for handling loads. *“This functionality can be very useful if you have*

an electric car,” comments Yves Reckinger. *“If, for example, there is a risk of grid instability, it will be technically possible remotely to shift the time of night when the electric car can start charging.”*

Secure end-to-end communication

The privacy and security of data transmission is another major aspect of the smart metering network. All communications from the electricity meters to the central system pass through hubs in the medium-voltage transformer stations in each district. A total of 3,000 hubs each manage the communications of an average of 100 electricity meters.

“The hubs act like routers and communicate with the central national system via fibre optics, a mobile communication solution or any other high-bandwidth medium,” says Yves Reckinger. *“The entire communication chain, from smart meters to the central system and hubs, is secure from end to end, both in terms of IT security and privacy.*

From the outset, we designed security in close collaboration with the SNT, the Interdisciplinary Research Centre for Security, Reliability and Trust of the University of Luxembourg, and the CNPD, the National Commission for Data Protection. Everything is encrypted and protected by a system of key and authentication exchange. Assuming that a hacker manages, despite all the systems in place, to penetrate our PLC communication network, there is absolutely nothing he can do. All he'll see is a succession of bits that have no connection to each other. Another feature of our network is its modularity. We can easily update and adapt it to the latest state-of-the-art data protection technologies.”



“From the outset, we designed the network in close collaboration with the National Commission for Data Protection.”

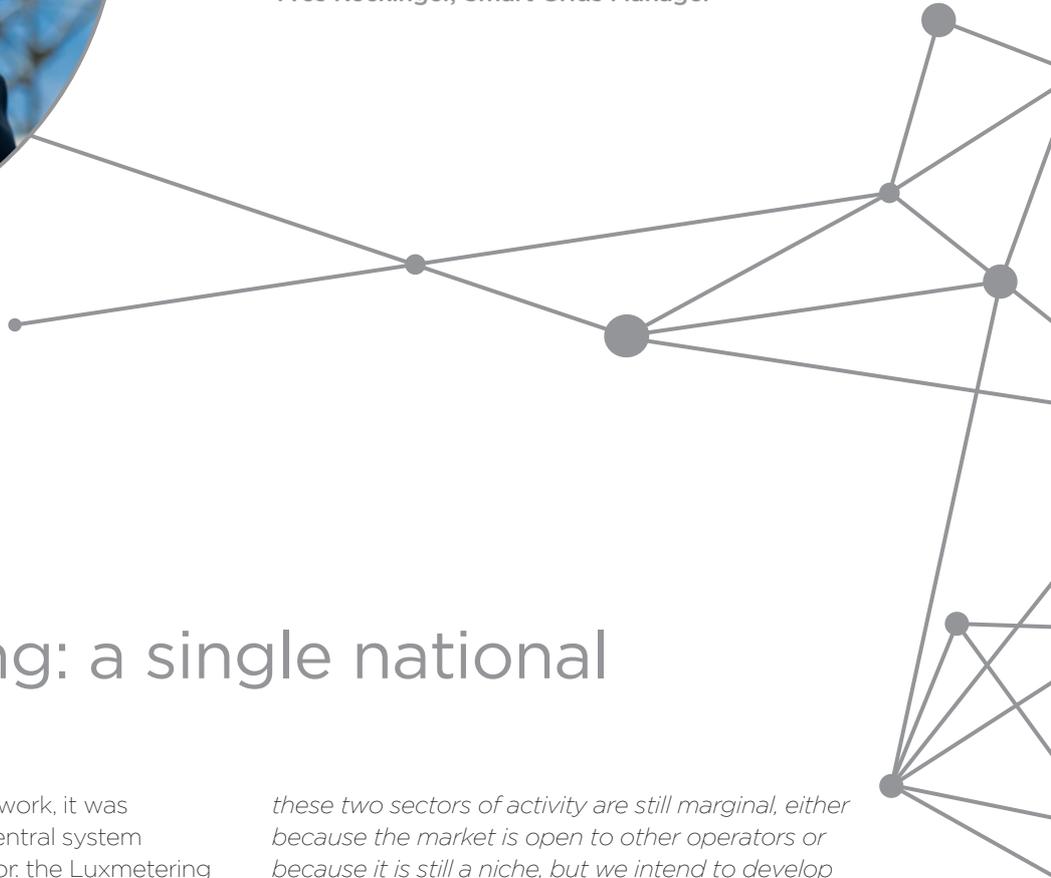
Yves Reckinger, Smart Grids Manager

Luxmetering: a single national operator

To pilot this smart metering network, it was decided to set up a common central system operated by a common operator: the Luxmetering Economic Interest Group (EIG). *“Initially, our activities consisted of defining and setting up the infrastructure,”* explains Paul Hoffmann. *“This in itself was a great challenge for us because we had to choose communication equipment and protocols in a market that was not yet mature and where international standards were non-existent. We then prepared and coordinated the national deployment of electricity and gas meters from mid-2016. Today, we manage the central system daily, provide support to network operators with any problems related to smart metering, and provide them with the various services that allow them to interact directly with the meters. By law, we also intend to extend these services and functionalities to smart water and heating meters. For the moment,*

these two sectors of activity are still marginal, either because the market is open to other operators or because it is still a niche, but we intend to develop them in the future, making us the first operator in the world to manage the four flows at national level.”

Managed by a small team of 5 people, Luxmetering is also distinguished by its exceptional security measures. *“The central system is configured redundantly in two different data centres. This means that if one of the two fails, the system automatically switches to the other within an hour. All communication and data transmissions are encrypted according to the latest security standards, both to the central system and to the network operators.”*





National data platform as a prelude to the smart grid

In the years to come, Luxmetering will play a decisive role in the future national energy data IT platform, whose installation will be entrusted to Creos as a transmission system operator (TSO). "Today, meter data are cascaded: from Luxmetering to grid operators, from grid operators to energy suppliers and from energy suppliers to end customers," says Alex Michels. "In the future, the circuit will be much shorter. Luxmetering will send the data directly to the platform, both for consumption and production (private photovoltaic installations, etc.). The platform will become the single, authoritative reference point for all matters concerning the consumption and production of electricity and gas in the country, and to which all interested parties will have access: network operators, energy suppliers and end customers. Of course, except in the cases provided for by law, customers will retain the right to give or withhold access to data relating to their point of supply and consumption. For other market players, the data will be completely anonymised and aggregated to allow for forecasting and new services."

According to Alex Michels, this national energy data platform will facilitate communication between the various players in the energy market and will be a decisive step towards a truly smart grid. "Soon, energy production will become increasingly decentralised and based on renewable energies. The consumers and end customers will increasingly

become prosumers, consumer-producers, with the result that energy production will become more and more volatile and less constant. The electricity grid will therefore have to adapt to match consumption and production. From now on, it will not only be production that follows consumption as has always been the case until now, but also the opposite."

"In this regard, reliable and quality data can help make the conversion a success. Thanks to the future platform, grid operators will be able to refine their forecasts and formulate, in the context of e-mobility for example, consumption adjustment requests that end customers will be able to respond to via charging service providers. New services with high added value will emerge, such as energy communities where several neighbours will share the same local green energy production and modulate their consumption according to the energy available. New network tariff grids will emerge, where the most advantageous solutions will be granted to end customers who consume more or less green electricity at certain times of the day. In short, a revolution in electricity distribution is in the making."

"To my knowledge, Luxmetering is the only centralised structure in the world that can integrate all flows: electricity, gas, water and heating."

Paul Hoffmann, CEO de Luxmetering



A workforce and careers in constant evolution

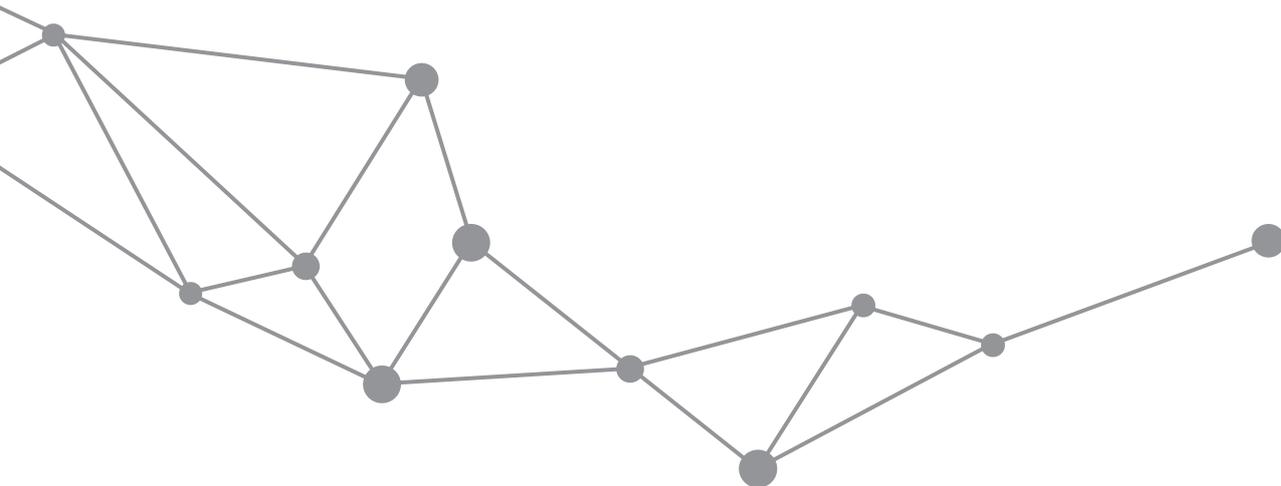
THE GROWTH OF THE GROUP AND THE EMERGENCE OF NEW TECHNOLOGIES HAVE LED TO SIGNIFICANT DIVERSIFICATION OF JOBS AND PROFILES WITHIN CREOS. IN 2019, THE COMPANY RECRUITED 56 NEW EMPLOYEES.

As the traditional area of employment at Creos, most of the company's workforce continue to work in the field of electricity: 60% compared to 18% of the staff working for the gas section. In the coming years, experts in the fields of IT, data and digitalisation will strengthen our teams.

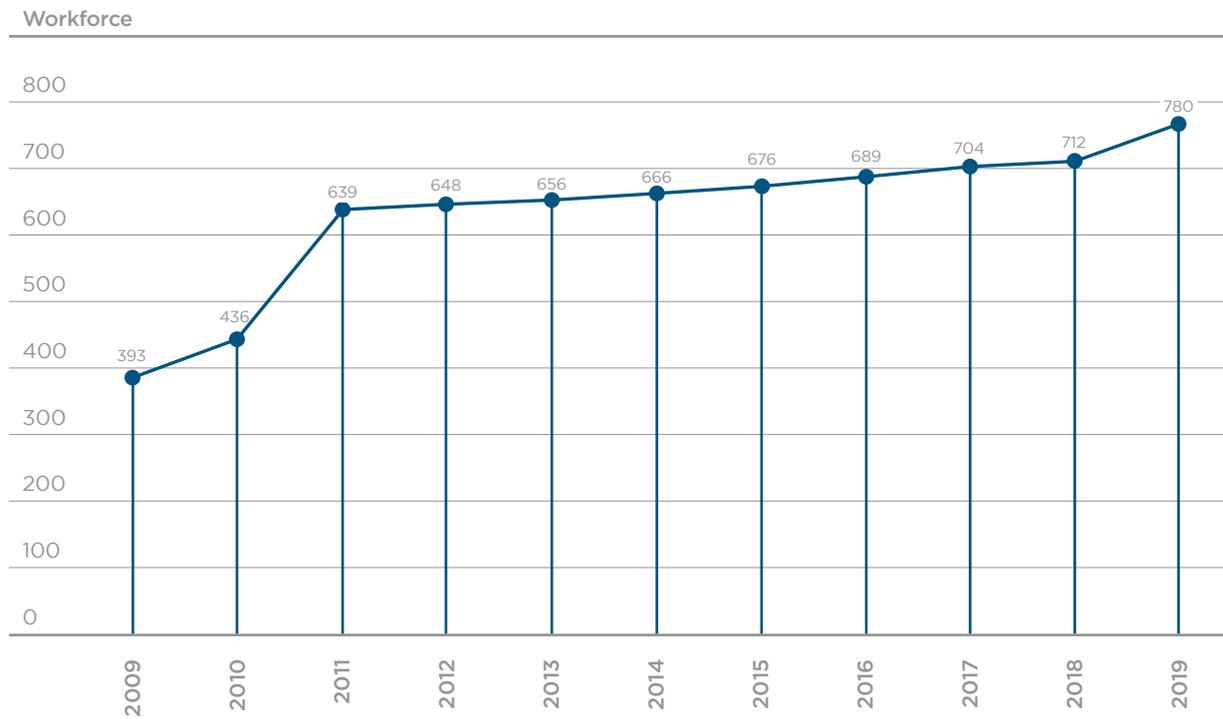
Creos ever since stands out because of the way in which it encourages diversity – whether in terms of nationality, gender or age. This commitment is further underlined by the signing of the Diversity Charter in 2018. Today, 9 different nationalities work within Creos on a daily basis. Although 92% men and 8% women work for Creos, we are committed to further encouraging diversity notwithstanding the scarcity of female profiles throughout the sector.

The average age of 41 remains relatively stable, which is explained by two factors. Firstly, Creos is committed to recruiting and training young graduates every year. Over 18% of the company's workforce as at the end of 2019 were under 30 and of the 56 employees recruited, 23 were young graduates. The company also has a very low staff turnover rate – 1.96% in 2019 – with an average length of service of 14 years.

In terms of training, plans are set out each year to ensure that all Creos employees acquire and/or develop the technical skills required to perform their duties. In 2019, a new platform was also made available to employees, giving them greater transparency as to the training available in order to better support their personal development.

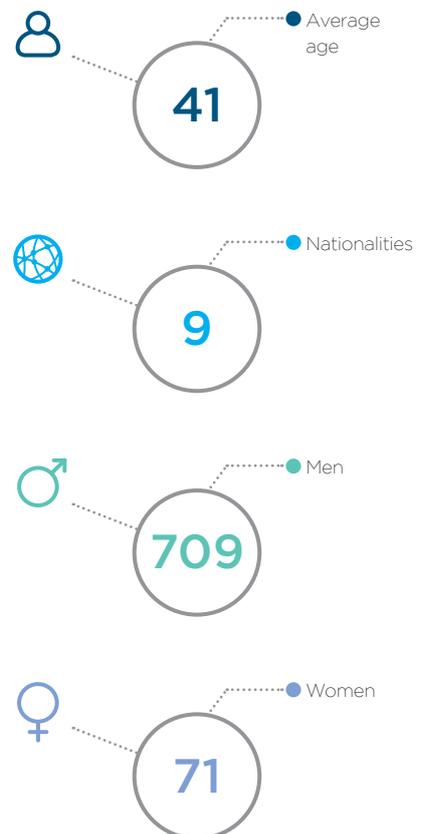
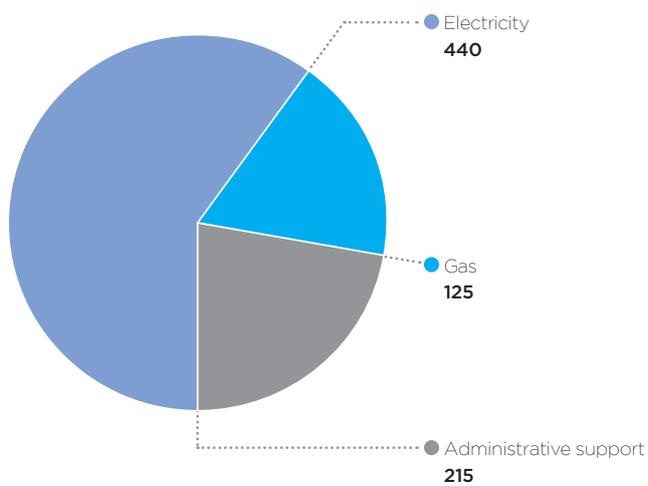


Evolution of the workforce



As from 2013 including parental and maternity leaves. As from 2019, 53 IT employees were transferred from Encevo to Creos.

Workforce by type of activity



Health and safety

Well-trained employees are our capital

THE MISSION OF THE CREOS HSE (HEALTH, SAFETY AND ENVIRONMENT) DEPARTMENT IS TO GUARANTEE SAFETY AND HEALTH AT WORK, NOTABLY THROUGH RISK PREVENTION. COMPLYING WITH AND APPLYING STANDARDS AND DIRECTIVES SERVE TO PROTECT CITIZENS AND THE ENVIRONMENT, BUT ABOVE ALL OUR PRINCIPAL RESOURCE: OUR EMPLOYEES.

Raising health and safety awareness

The occupation as gas fitter and electrician entails certain risks. To raise employee awareness of potential risks and prevent workplace accidents, the Creos HSE department routinely organizes safety conferences and training courses.

The company strives to optimize its working procedures, and readily employs the latest safety technologies to reduce accidents at work.

Two safety conferences are held during the year for personnel in "high-risk jobs". The table on the upper following page shows basic training courses organized in 2018 and the number of certificates issued.

Personal protective equipment

The HSE department carried out the project to replace the safety clothing of each employee. The new personal protective equipment meets the standards in force in the electricity and gas sectors, while ensuring optimal comfort.





Basic training courses*

Domain	Designation	Number
First aid	First aid attendant	68
Tools	Chain saw	8
Gas grid	Gas expert (Sachkundiger)	10
	Electrical certification (Schaltberechtigung)	15
Electricity grid	LV live work	5
	Working at heights	12
Safe machinery operation	Auxiliary crane for loading vehicles	26
Total certificates issued		144

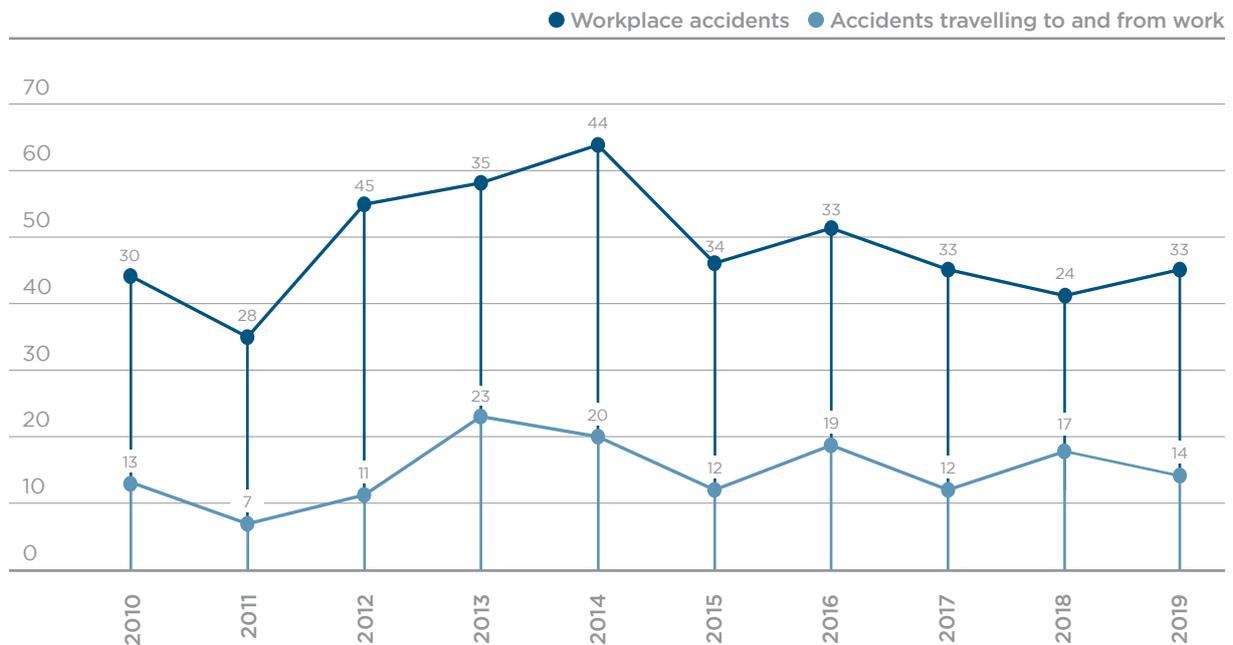
* "Refresher" courses are not included.

Work-related accident severity rate in 2019

In 2019, Creos recorded a total of 47 accidents of which 30 were minor and 17 involved more than 3 days of incapacity. The main causes were accidents travelling to and from work, falls, and slips and trips.

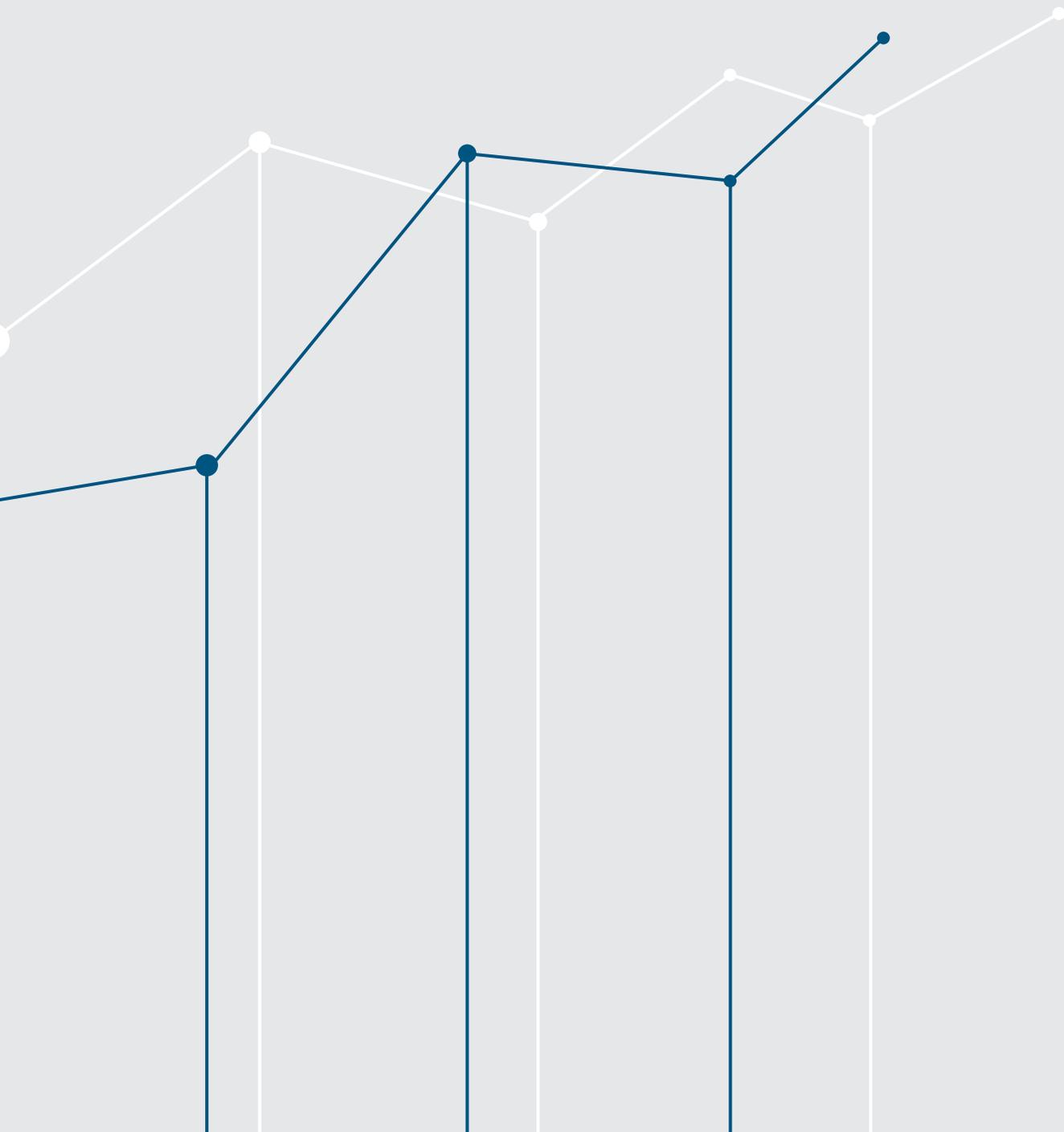
The rate of frequency was 1.978 whereas the rate of serious accidents at Creos rose to 0.47 in 2019 (2018: 0.41). The definition of this rate is the ratio of lost calendar days to the total productive (working) hours multiplied by 1,000.

Number of accidents





2. Activity



Operation Centres

Creos has four regional Centres which deal with construction, operation, maintenance and repair of electricity and natural gas networks. Their locations ensure flexibility and a rapid reaction nationwide, 24/7.

ROOST

The Roost Centre is in charge of the electricity and natural gas networks in the central and northern regions of the Grand Duchy. It covers the high-, medium- and low-voltage electricity services and the medium- and low-pressure natural gas services. The central warehouse and mechanical and electrical workshops are also housed in this ultra-modern complex.

LUXEMBOURG CITY

The Luxembourg City Centre (electricity and natural gas) covers the highly populated areas of the capital and the nearby municipalities of Strassen and Hesperange.

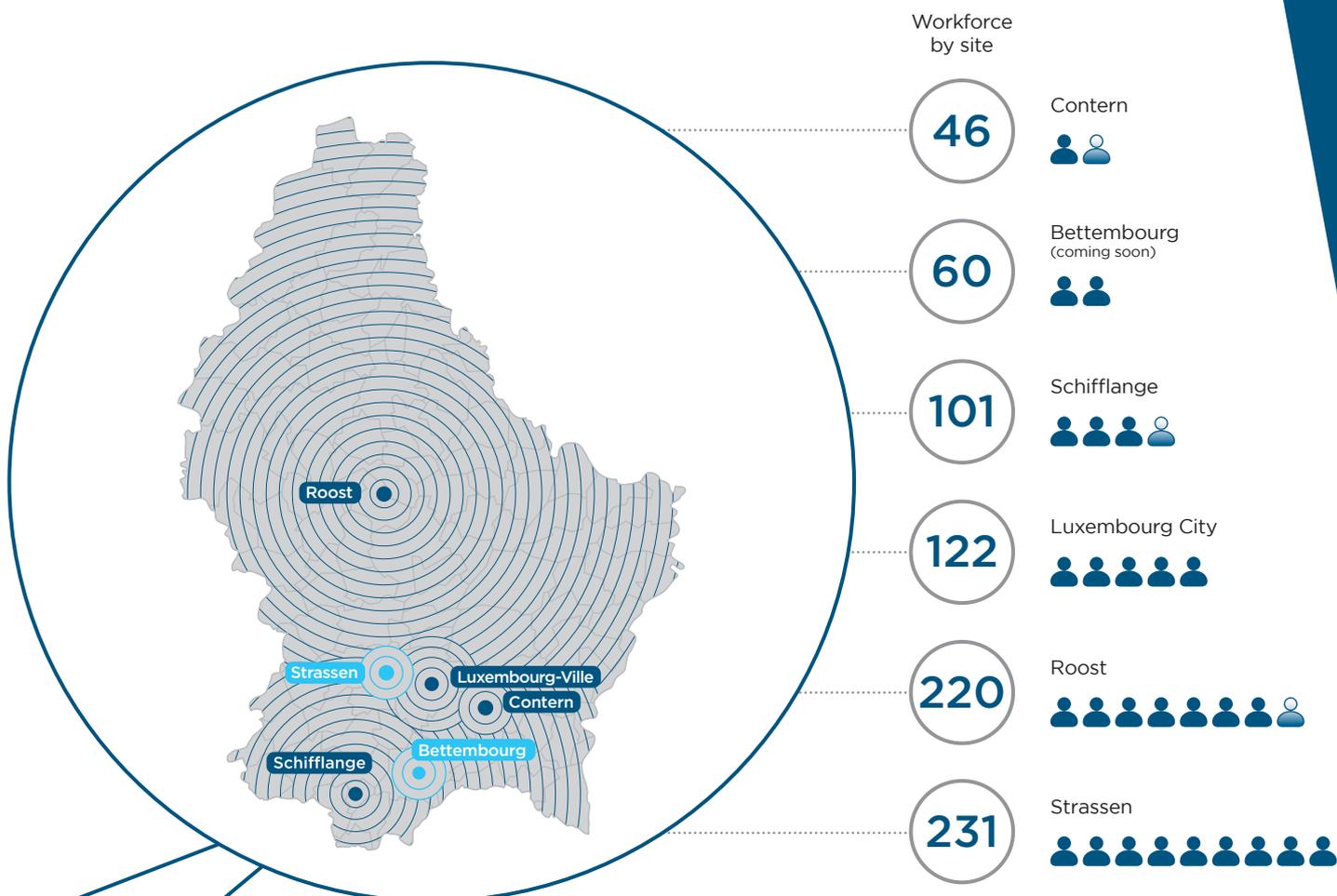
SCHIFFFLANGE

The Schiffflange Centre is responsible for electricity networks and infrastructures in the south of the country as well as the high-pressure natural gas network at national level.

CONTERN

The Creos Metering Services are located in Contern. The gas and electricity metering Centre of expertise is tasked with monitoring and adjusting meters, an area which is changing rapidly with the introduction of smart meters. The Creos laboratory has ISO 17025 accreditation for the calibration of electric meters, gas meters, measuring transformers and volume converters.





BETTEMBOURG

Dispatching for electricity and natural gas together with the monitoring rooms for remote network control and management will have left the facility in Heisdorf and relocate to Bettembourg by mid-2020. Directly adjacent to LuxConnect, the 3,000 m² new building will use the data centre's secure networks (Tier IV) as well as its heating, cooling and energy supply networks.

STRASSEN

The company's headquarters are in Strassen.

BOVÉ PROJECT

The construction of the new headquarters and operation Centre in the City of Luxembourg (Merl) began in the summer of 2017. The buildings meet sustainable development criteria, with the goal of DGNB 'platinum' certification. More than 400 people will work on these new premises starting 2021.

MERSCH

In the context of the migrant crisis, efforts by the Luxembourg government to steadily increase the number of beds in the Grand Duchy have resulted in the creation, in conjunction with the Mersch municipal administration, of a hostel for asylum seekers (DPI) in the Creos buildings in Mersch. The site, managed by the Luxembourg Red Cross, has total capacity of 320 beds.

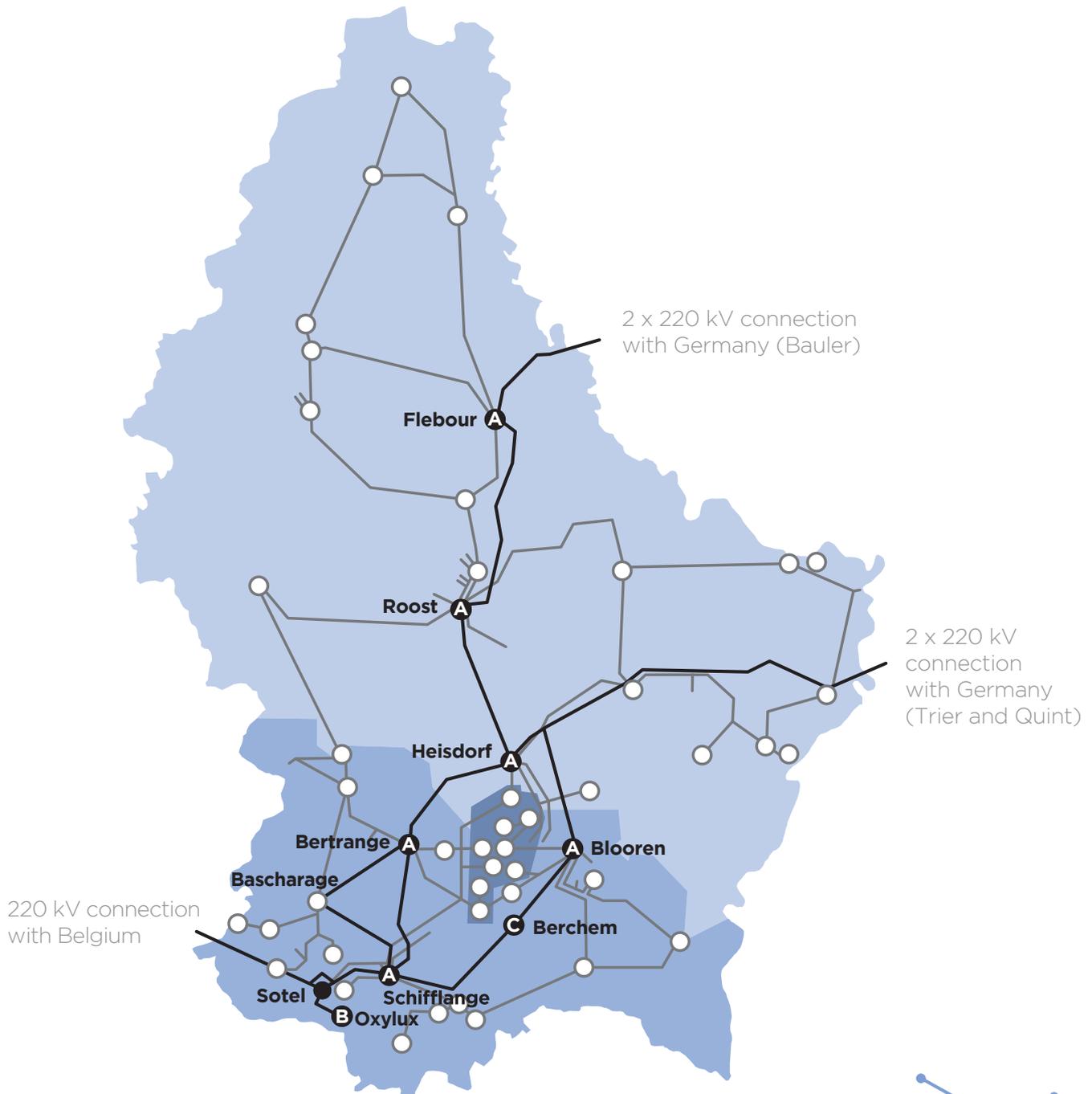




Electricity



The electricity transmission grid



— 220 kV - network

— 65 kV - network

A Substation 220/65/20 kV

B Substation 220/20 kV

C Substation 220 kV



Technical activity

Major works at 220 kV and 110-65 kV levels carried out during 2019

Substations

Construction work on the Bissen 220 kV substation began in early 2019 and should be completed in late 2020. The purpose of this work is to replace with a new substation the existing 220 kV substation at Roost, which is the nerve centre of the Creos network and dates back to the 1970s, this to maintain security of supply for the Creos network.

In the same vein, the 65 kV Echternach/Monsanto substation has been refitted in order to provide safe electricity supply to the Echternach region.

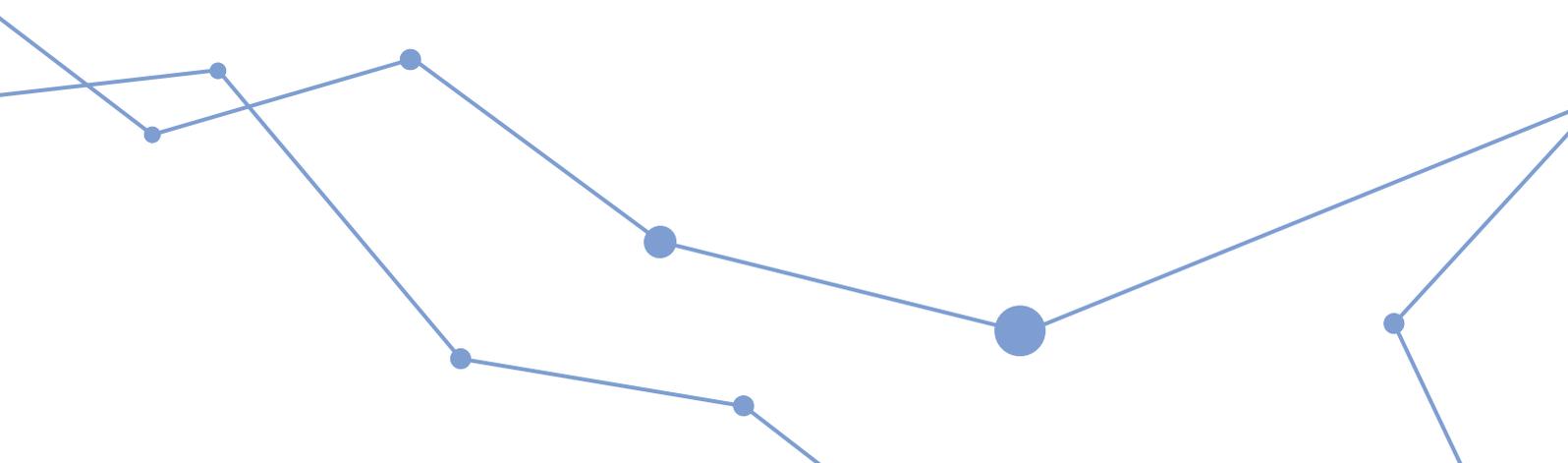
Tornado of 9 August 2019

The south of the Grand Duchy of Luxembourg was hit by a tornado on 9 August 2019. The municipalities of Bascharage and Pétange suffered major damage. With the exception of a damaged pylon on our 65 kV Bascharage-Biff-Lamadelaide line, none of the Creos civil engineering structures sustained any major damage.

However, the 220 kV Esch-Aubange interconnection line, operated by Sotel/Elia and used by Creos for its interconnection with the Belgian network, was partially destroyed. Creos supported Sotel to secure the damaged structures and attended the meetings of the government crisis unit.

110-65 kV infrastructure development programme

The 110-65 kV infrastructure development programme launched several years ago to meet the future energy needs of Luxembourg-City was maintained with the construction of multi-duct networks on different sections on the Kirchberg Plateau, in Merl, in Gasperich, at the Cloche d'Or and towards Leudelange, in collaboration with the services of the City of Luxembourg and the other stakeholders.







Evolution of the electricity grid

			2019	2018
Transformer substations	220 kV Phase shift transformer	(number)	1	1
	220 kV	(number)	1	1
	220/65/20 kV	(number)	6	6
	220/20 kV	(number)	1	1
	65 kV	(number)	3	3
	65/20 kV	(number)	37	37
	65/20/5 kV	(number)	1	1
	65/6.3 kV	(number)	1	1
	65/5 kV	(number)	2	2
	20/0.4 kV	(number)	2,659	2,633
High-voltage lines	220 kV 2 3-phase lines ¹	overhead (km)	137.5	137.5
	220 kV 1 3-phase line	underground (km)	5.6	5.6
	220 kV 2 3-phase lines	underground (km)	10.5	10.5
	Total 220 kV (km)		153.6	153.6
	65 kV 1 3-phase line	overhead (km)	175.0	178.2
		underground (km)	27.5	27.5
	65 kV 2 3-phase lines	overhead (km)	183.2	183.2
		underground (km)	47.8	47.8
	Total 65 kV (km)		433.5	436.7
	Medium-voltage lines	20 kV + 5 kV	overhead (km)	962.0
		underground (km)	2,691.3	2,611.9
Total MV (km)		3,653.3	3,598	
		Underground rate (%)	73.7%	72.6
Low-voltage lines	400/230 V	overhead (km)	289.5	292.2
		underground (km)	5,493.8	5,445.1
	Total LV (km)		5,783.3	5,737.3
		Underground rate (%)	95.0%	94.9
Total (km)		10,023.7	9,925.6	
Chargy charging stations	(number)	337	245	

¹ Including Schiffflange-Bascharage-Bertrange (18.7 km) temporarily operated at 65 kV

Evolution of the national load

The national peak demand in 2019 was 829.4 MW, compared to 827.6 MW in 2018.

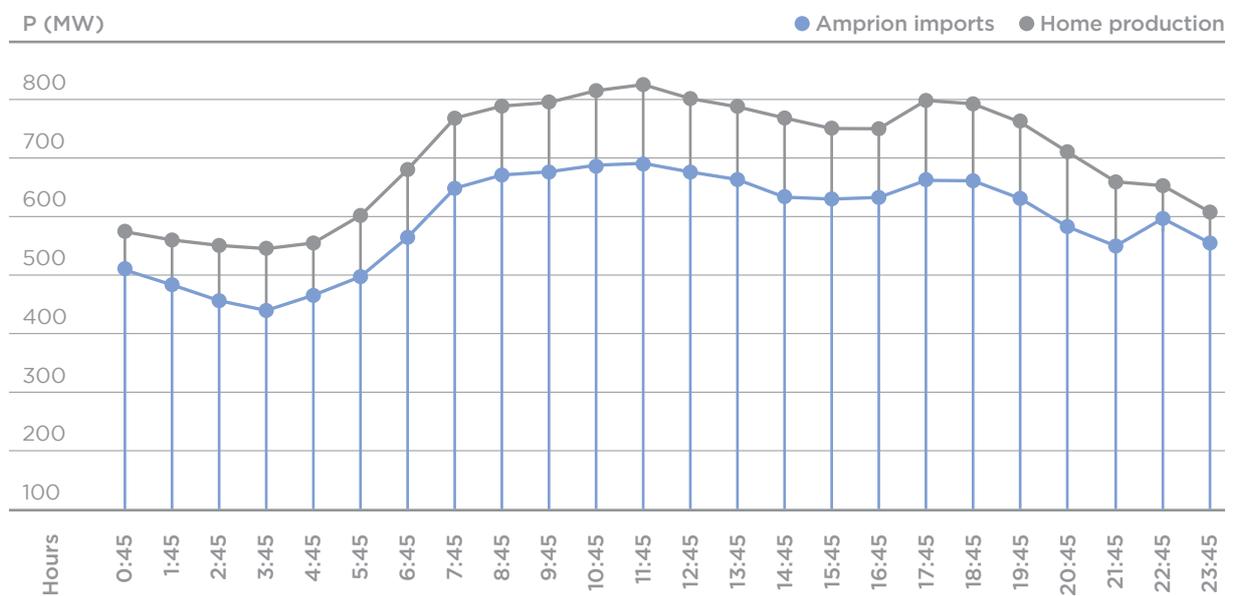
This peak was recorded at 11:45 a.m. on 22 January 2019.

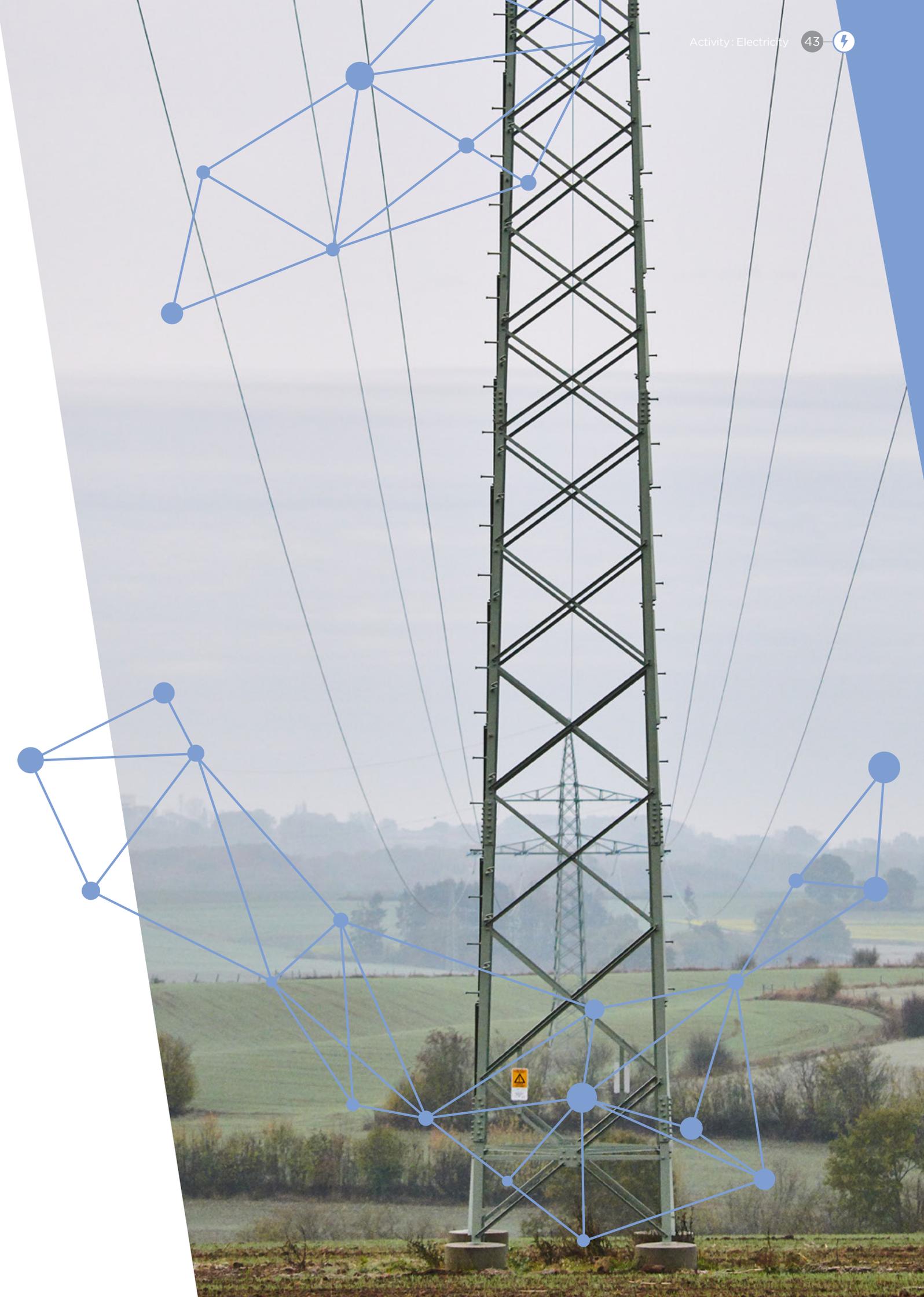
The energy peak in 2019 imported via the Amprion lines was 696.4 MW on 22 January 2019 at 11:30 (compared to 704.6 MW on 2 March 2018).

The usage time of the electricity grid for 2019 amounted to 6,215 hours.

Therefore, the maximum rate of use of the grid was 71%.

Evolution of the national load during the day of 22.01.2019





Electricity consumption

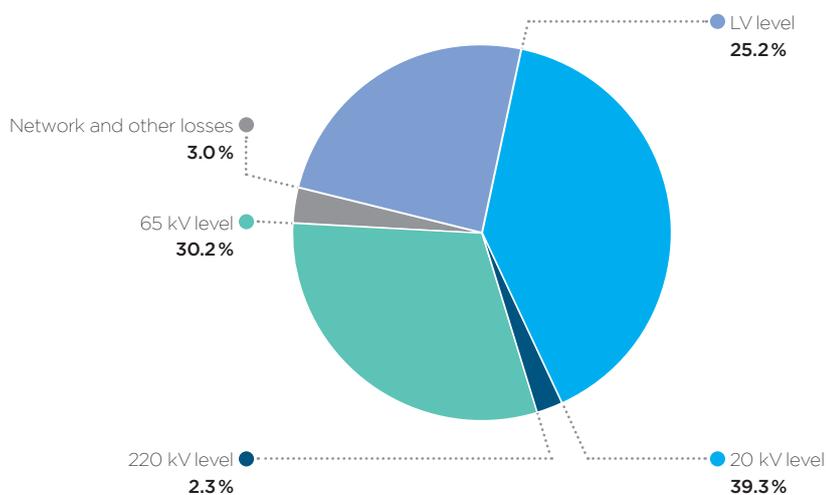
The total volume of electricity fed into the grid at national level via

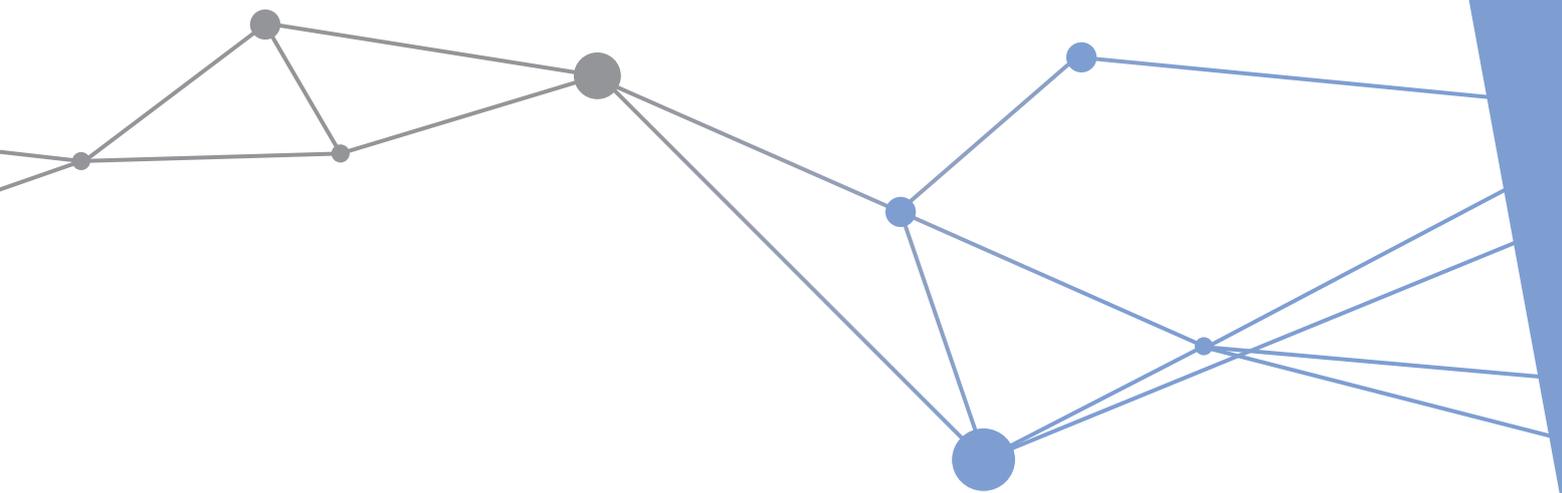
- 220 kV interconnection lines,
- self-generated electricity (with metering on customer sites) or,
- local generation sources connected to Creos networks or to those of the four municipal or private distributors,

amounted to 5,155.1 GWh in 2019 (5,121.9 GWh in 2018), corresponding to an increase of 0.64% in national consumption. The flows coming from the PST (Phase Shifting Transformer) have not been taken into account for this statistics.

Consumption by voltage level

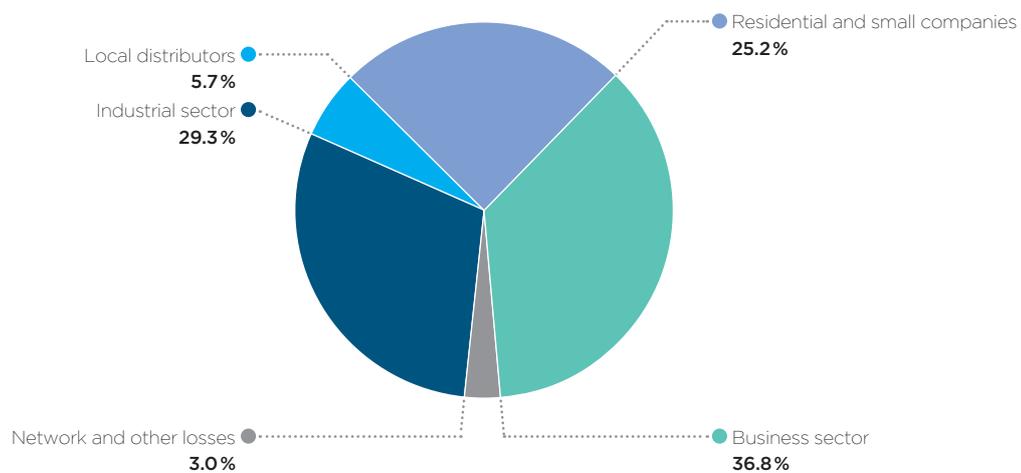
		2019	2018	Variation
Consumption				
220 kV level	(GWh)	118.8	112.6	+5.5%
65 kV level	(GWh)	1,556.5	1,566.6	-0.7%
20 kV level	(GWh)	2,026.0	2,023.7	+0.1%
LV level	(GWh)	1,297.9	1,263.7	+2.7%
Network and other losses	(GWh)	155.9	155.3	+0.4%
Total	(GWh)	5,155.1	5,121.9	+0.7%





Consumption by sector

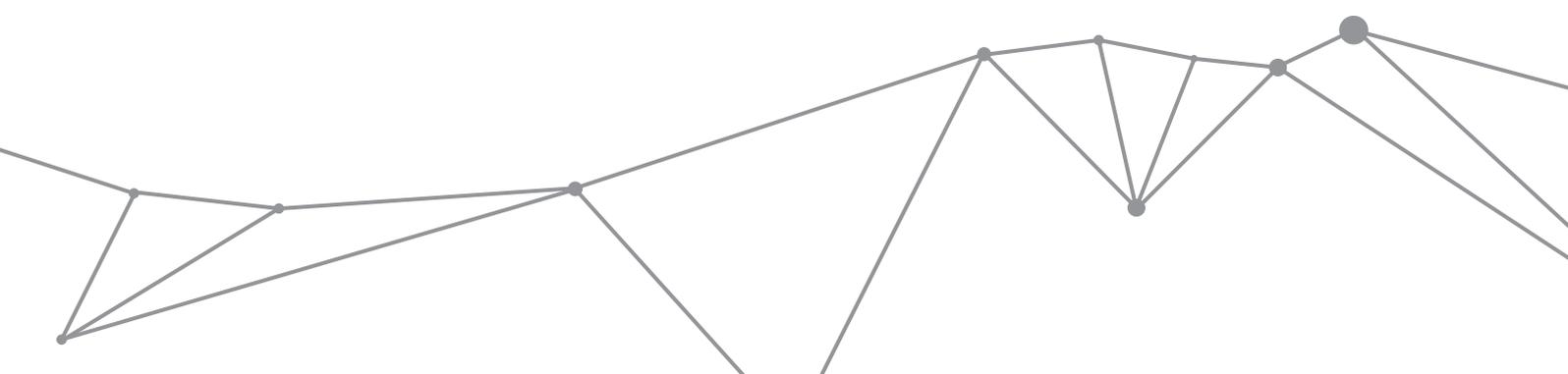
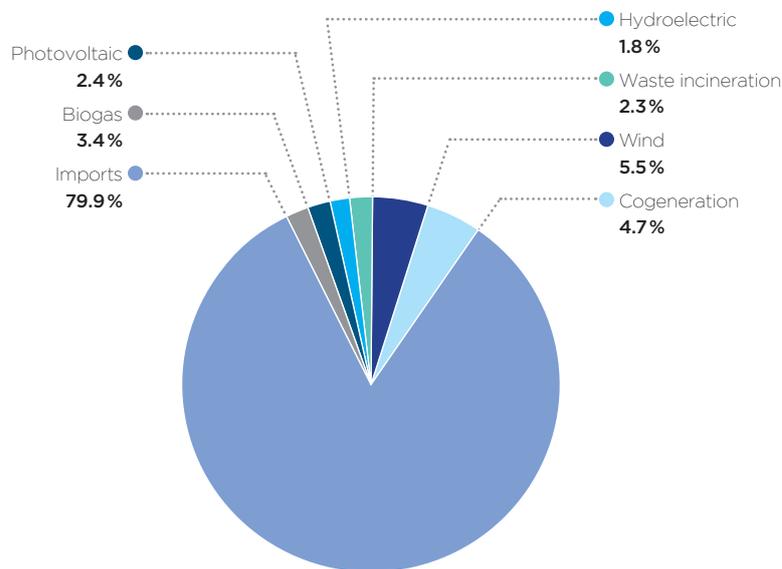
		2019	2018	Variation
End customers				
Industrial sector	(GWh)	1,510.7	1,510.1	0.0%
Business sector	(GWh)	1,896.6	1,895.2	+0.1%
Residential and small companies	(GWh)	1,297.9	1,263.7	+2.7%
Local distributors				
	(GWh)	294.0	297.5	-1.2%
Network and other losses				
	(GWh)	155.9	155.3	+0.4%
Total	(GWh)	5,155.1	5,121.9	+0.7%



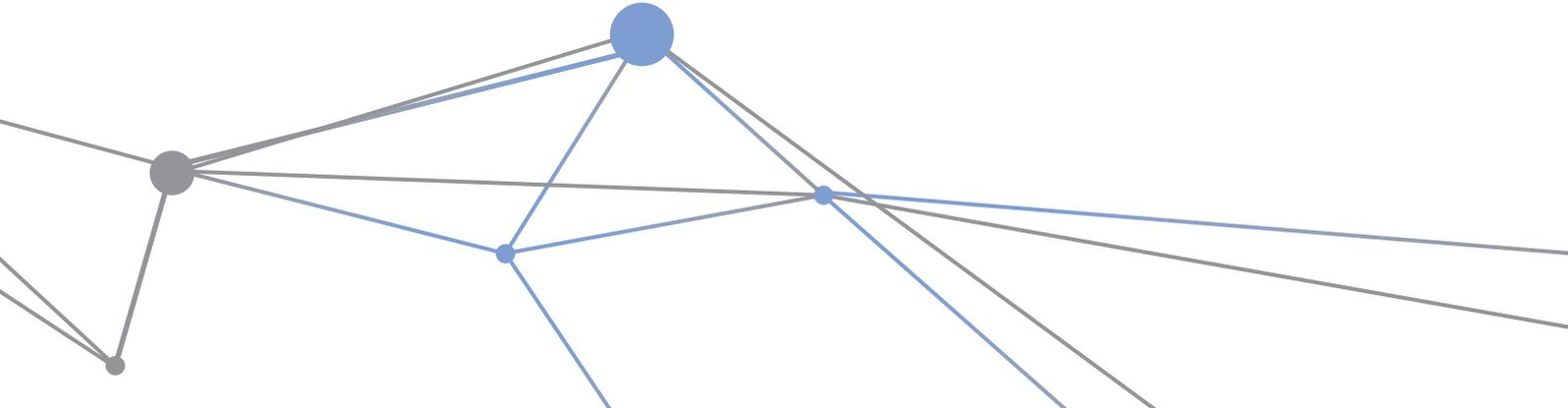
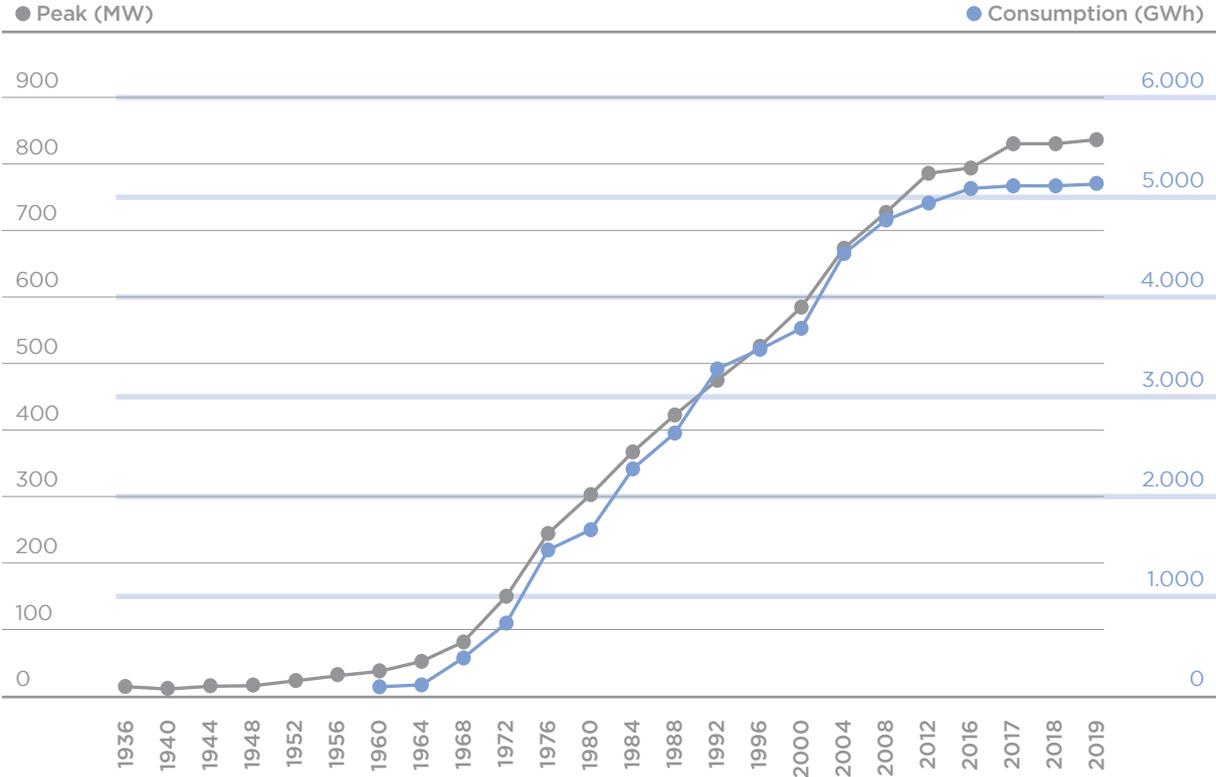
Injections into the electricity network

		2019	2018	Variation
Cross-border exchanges				
Imports	(GWh)	4,121.0	4,214.4	-2.2%
Home production				
Cogeneration	(GWh)	241.9	232.9	+3.9%
Hydroelectric*	(GWh)	93.9	79.6	+18.0%
Wind*	(GWh)	281.8	254.3	+10.8%
Waste incineration*	(GWh)	114.6	104.4	+9.8%
Biogas*	(GWh)	176.5	118.2	+49.3%
Photovoltaic*	(GWh)	125.4	118.1	+6.2%
Total	(GWh)	5,155.1	5,121.9	+0.7%

* renewables



Evolution of the peak and network demand



Network reliability

An economic base which is diversifying and developing and a rapidly growing population obligate Creos to strengthen and expand its networks in order to maintain a high quality infrastructure and guarantee the security of supply at all times. This continues to be the absolute priority for Creos, which is responding to this challenge with a large programme of investment. Creos, in cooperation with Amprion, the German transmission system operator, is therefore planning the construction of a extra-high-voltage 380 kV line from Aach (Germany) to Bertrange (Luxembourg), as well as a 380/220/110-65 kV transformer station near Bofferdange.

The challenges of the future are to integrate renewable energies and consumers who are also becoming producers. Flows on the grid will become bidirectional, and the network operator will have the responsibility of managing them through the development of a smart grid.

Efforts over the course of many years to bury as many lines as possible are bearing fruit today. Underground lines are naturally less exposed to weather conditions, and are less vulnerable as a result. Creos now has 95% of its low-voltage power lines and 73.7% of its medium-voltage lines underground, representing over 8,250 km or 83% of the entire network, a level of performance which exceeds European standards.

Creos has always been concerned that its facilities should be integrated effectively with the environment. Today, for example, new high-voltage transformer stations are all gas-insulated substations. At the leading edge of technology, these are discreet and compact, with a footprint of only one-fifth of the traditional outdoor substations, and are landscaped to blend in with the scenery. Low- and medium-voltage substations within the boundaries of local communities are today constructed exclusively as shielded substations with stone walls, or prefabricated concrete or steel structures, or are directly integrated into a building.

Creos substations comply with all safety regulations to ensure optimal protection in the event of fire, unauthorized access or bad weather. Accordingly, sites housing transformers are soundproofed and have a leak proof tank to recover the oil in the event of a leak. The substations have surveillance cameras directly connected to the Dispatching.

Creos strives to reduce to a strict minimum incidents on the grid and the interruptions in supply which can result.

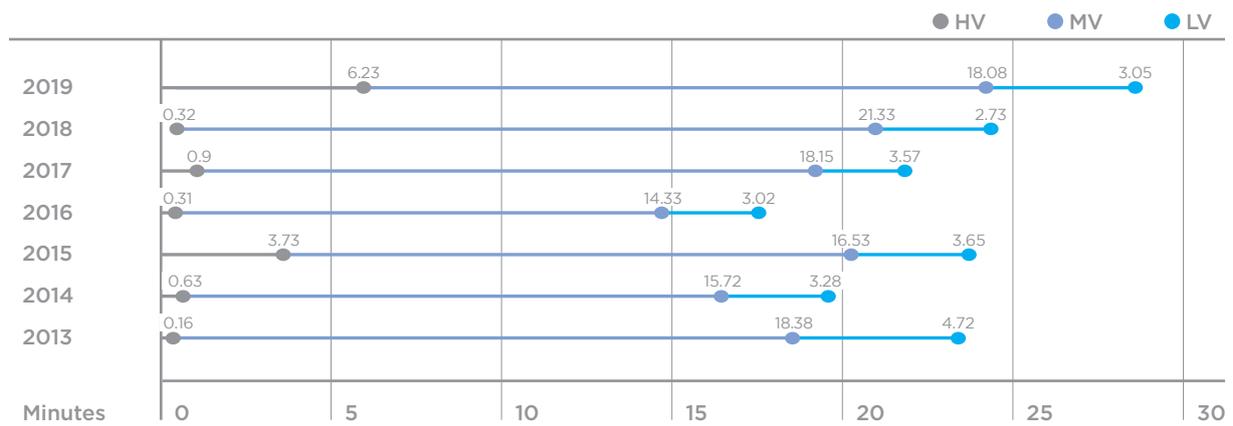
Live working (*Arbeiten unter Spannung* - AuS in German) has become an essential approach for meeting the needs of industry, SMEs and individuals as fully as possible, providing a means of optimizing network operation and avoiding inconvenient outages for clients. Today, this technique is used for numerous interventions on electrical installations.

Total length of overhead lines

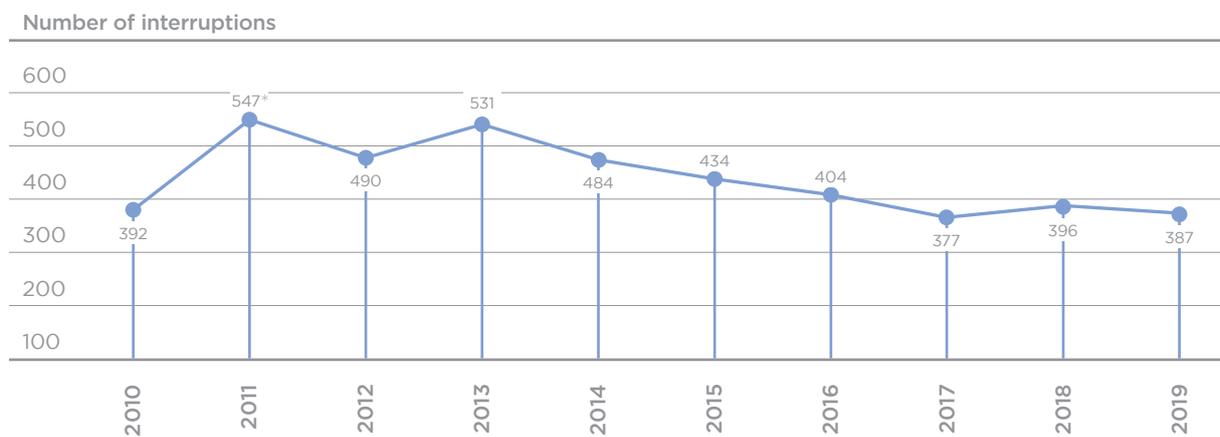




Average annual power outage time within the Creos network (SAIDI)

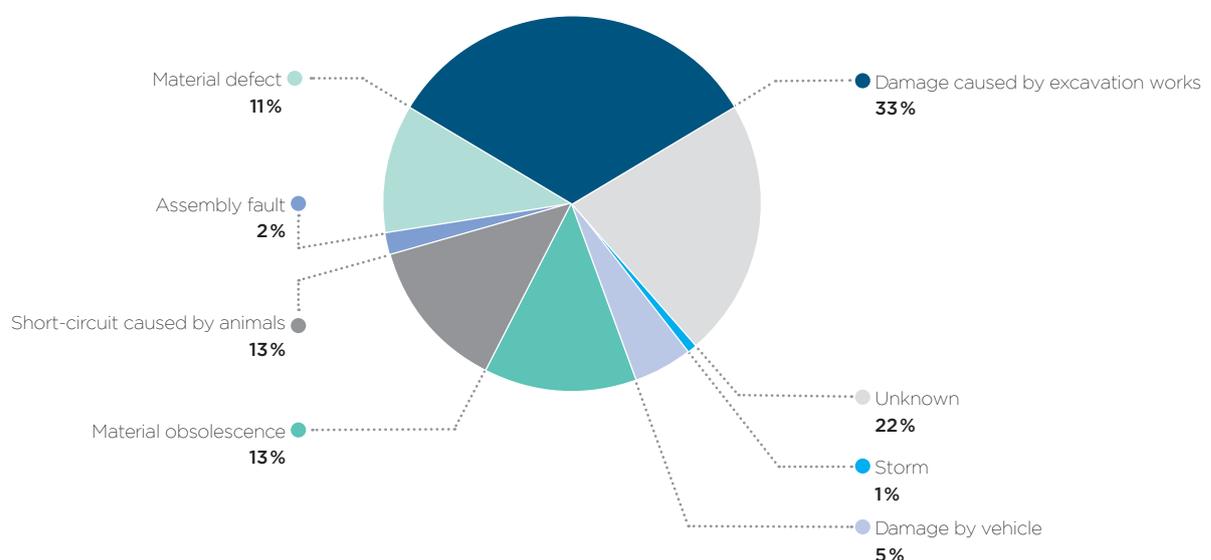


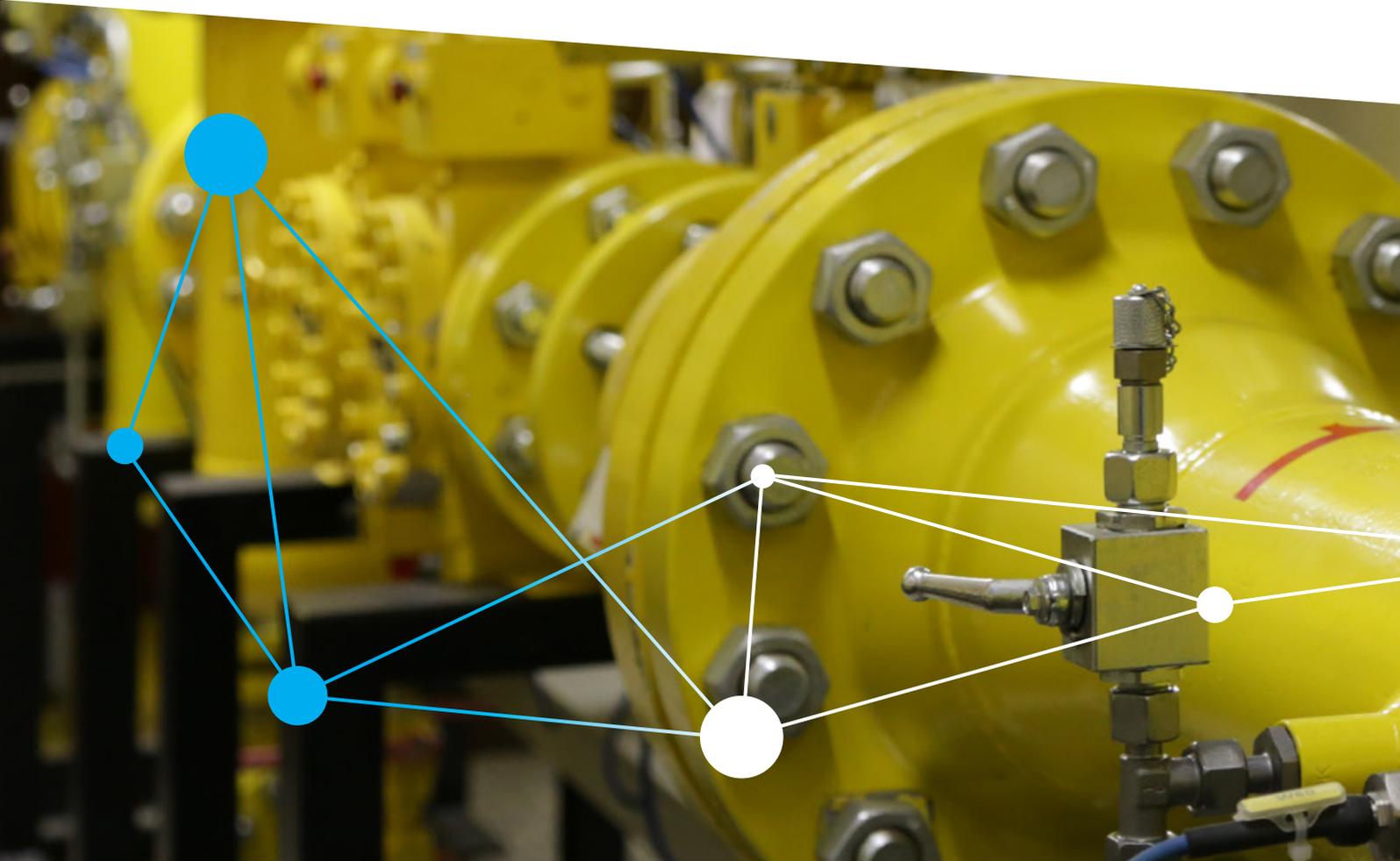
Perceptible LV-interruptions (>3 min) 2010-2019



*Integration of the electricity network of the City of Luxembourg (as at 01.01.2011)

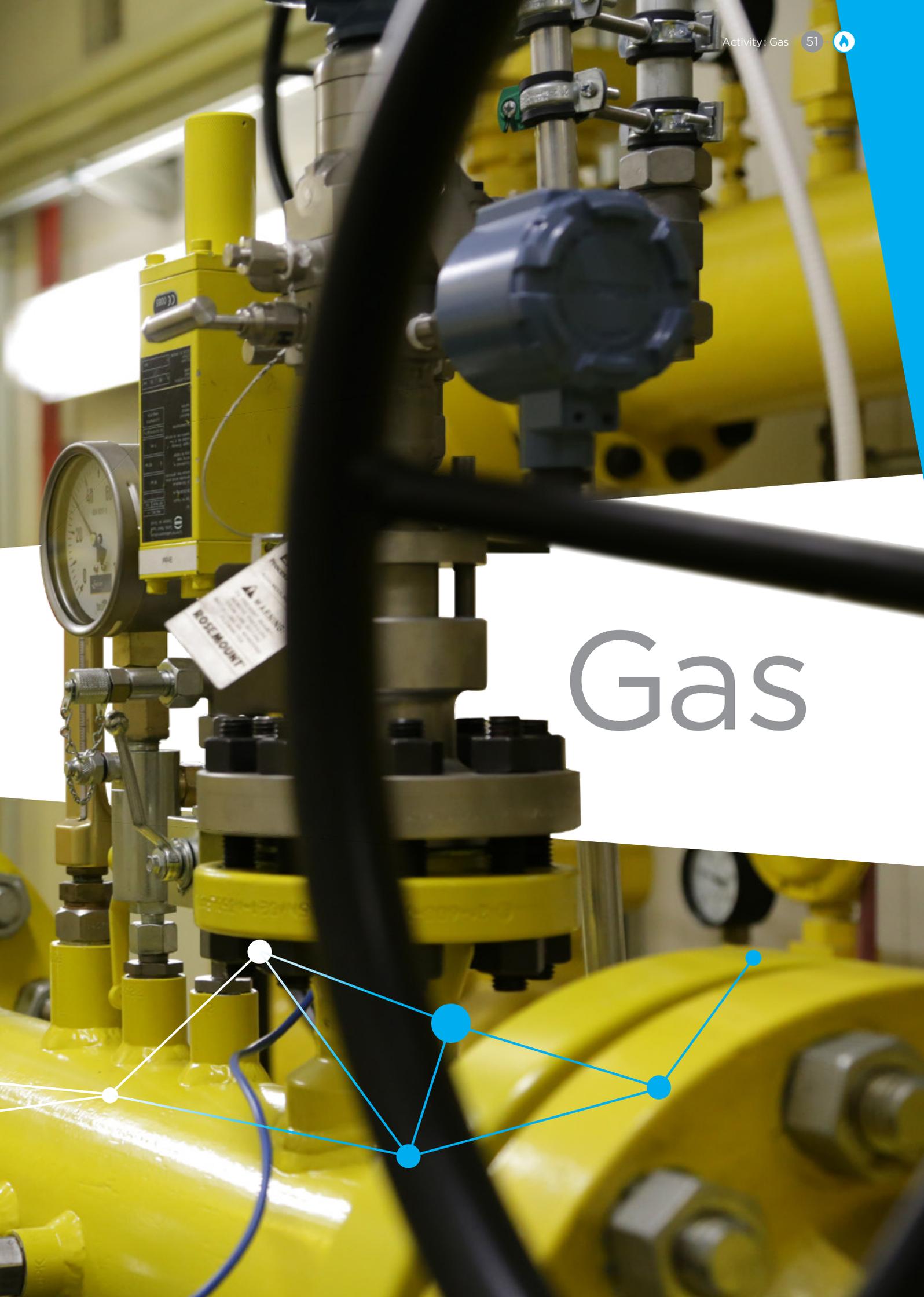
Causes of LV-interruptions



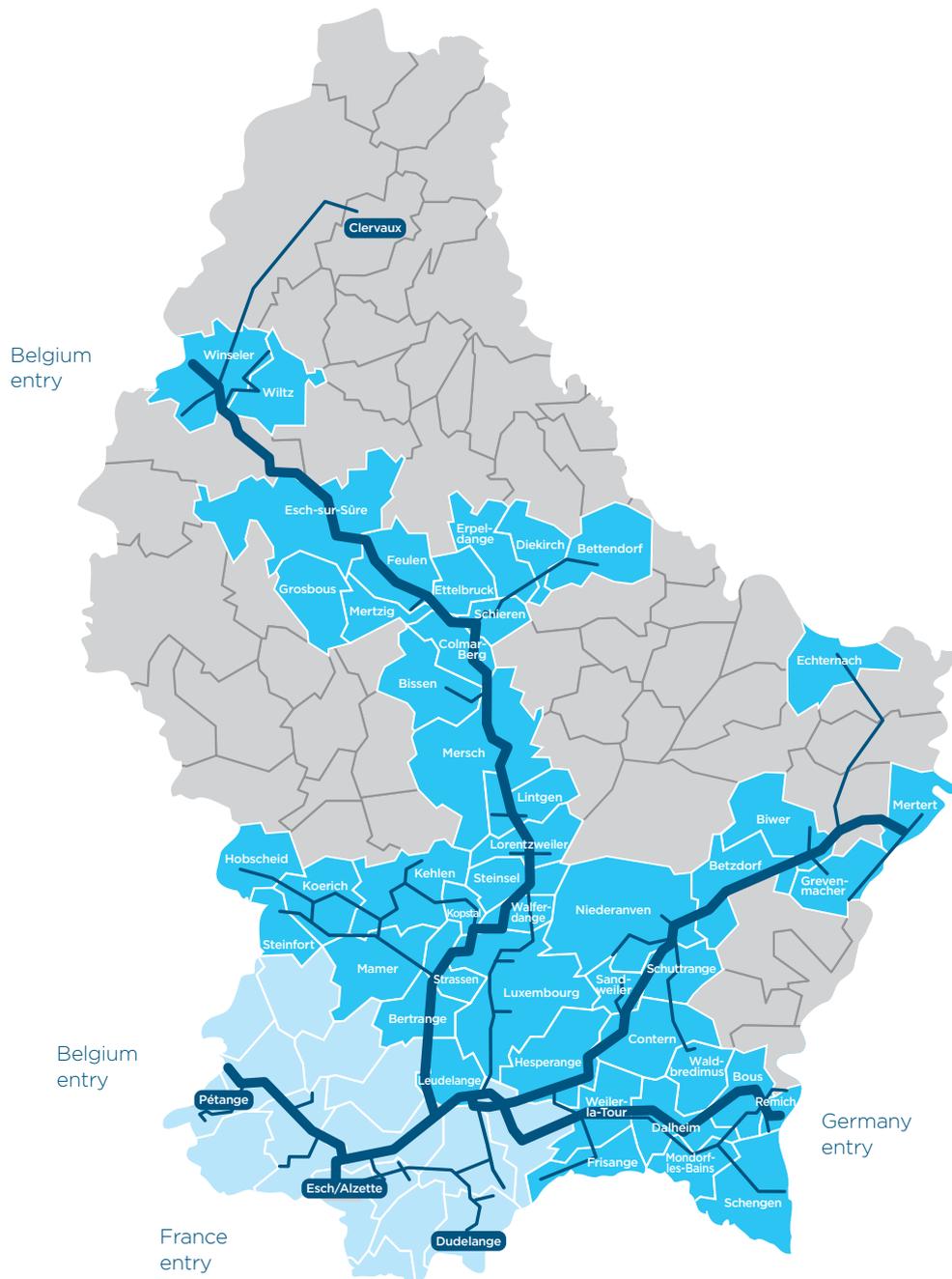




Gas



The natural gas transmission grid



— Creos transmission grid

● Sudgaz, city of Dudelange

● Municipalities supplied with natural gas by Creos

● Municipalities not supplied with natural gas



Technical activity

Transmission system

Schifflange Centre

Dommeldange-Kirchberg network

In the context of the efforts to improve supply to the Kirchberg district, Creos completed a new valve station on the HP gas pipeline in Dommeldange.

Decommissioning of Esch2 and AEB substations / Adaptation of ENF substation

The commissioning of the new Ehlerange pressure-reducing station in 2018 resulted in the permanent shutdown of the ENF and AEB facilities. The decommissioning work was carried out in the autumn of 2019 together with the necessary adjustments at the ENF post.

Kronospan pressure-reducing station

Following the commissioning by Sudgaz grid operator of a new distribution network in the Gadderscheier industrial park in Sanem, Creos upgraded the pipeline outlets from the Kronospan pressure-reducing station.

Distribution network

Roost Centre

A medium-pressure PE pipeline between the Bertrange pressure-reducing station and the town of Windhof was commissioned during the 2019 financial year. This new section (11 km) now offers redundant supply for the neighbouring municipalities and plays a major role in securing the supply of this rapidly growing region.

Luxembourg City Centre

Within the territory of Luxembourg City, relentless efforts made it possible to keep upgrading the distribution network (16.1 km of MP/LP) and replace 661 connections.

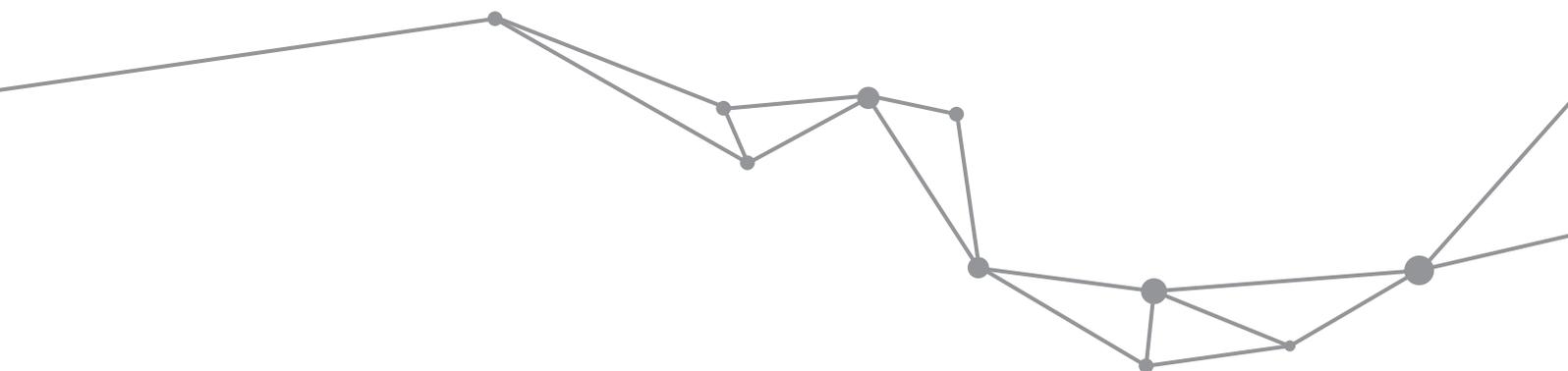
In general, work relating to the completion and strengthening of the 6.13 km medium-pressure network (Hollerich: 2.31 km / Roost: 3.82 km) continued during the 2019 financial year. The expansion of the low-pressure distribution network through the municipalities continued with the same workload as in the previous year (Hollerich: 2.5 km / Roost: 15 km).

A total of 23.64 km of new distribution pipelines were laid in the 2019 financial year.

Evolution of the natural gas grid

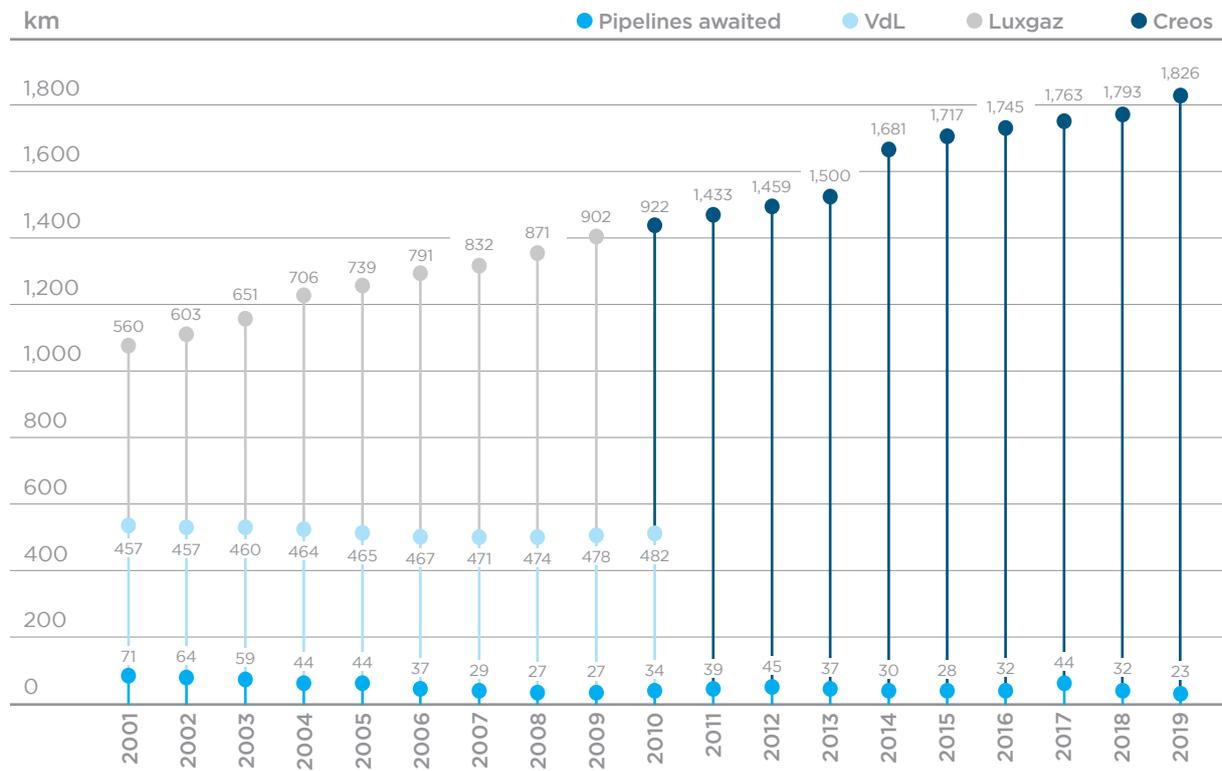
		2019	2018
Length of the grid by activity			
TSO (transmission)	(km)	283.3	283.3
DSO (distribution)*	(km)	1,849.9	1,826.3
Total	(km)	2,133.2	2,109.6
Length of the grid by PN (nominal pressure)			
PN 80/67.5	(km)	216.5	216.5
PN 40	(km)	39.4	39.4
PN 25	(km)	2.1	2.1
PN 16	(km)	22.8	22.8
PN 4	(km)	2.5	2.5
Total	(km)	283.3	283.3
Pressure-reduction substations on the transmission grid			
Border substations	(number)	4	4
Active stations (with teletransmission capability)	(number)	58	60
Total	(number)	62	64

*grid in service and awaited

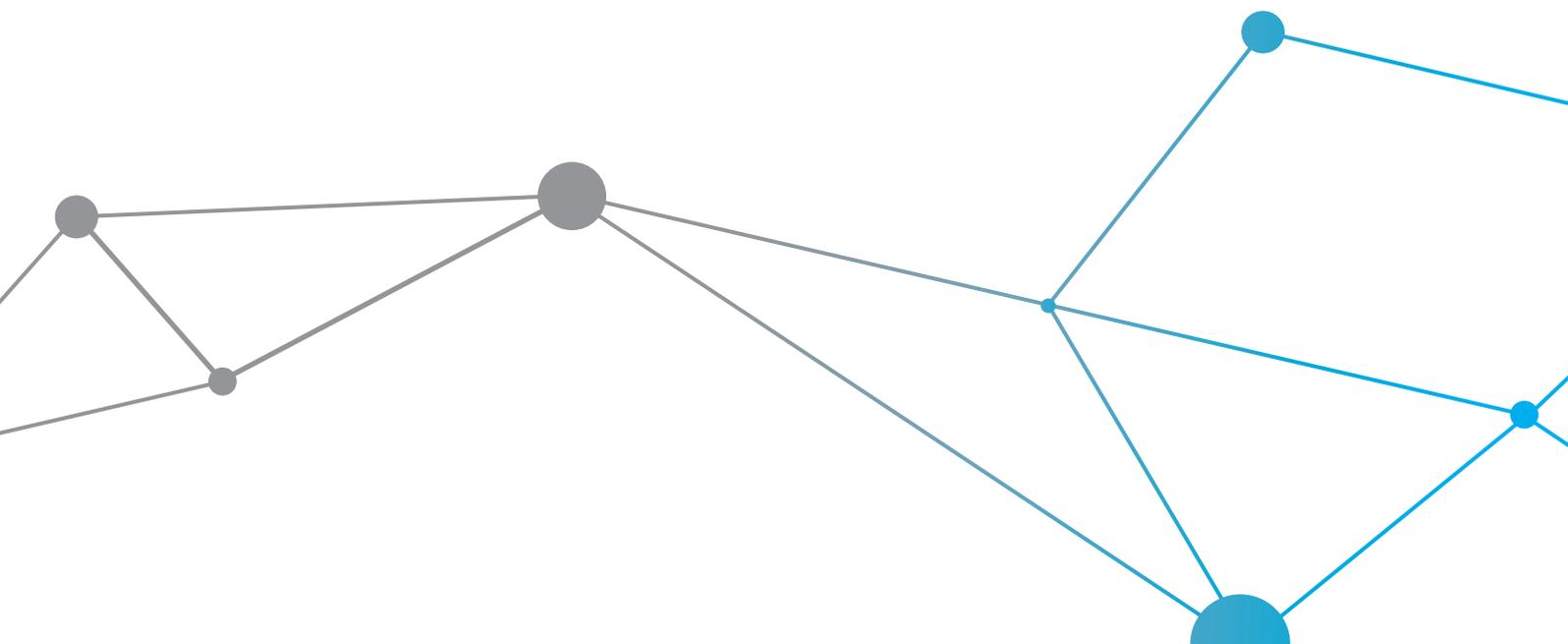




Natural gas distribution grid: length of pipelines in service



At 31 December 2019, the Creos distribution network consisted of 1,849.9 km of laid pipelines, of which 1,826.6 km were in service and 23.3 km pressurised with air, pending implementation.



Volume transported

In 2019, the volume carried on the transmission network amounted to a total of 8,839 GWh, +0.06% compared to 2018.

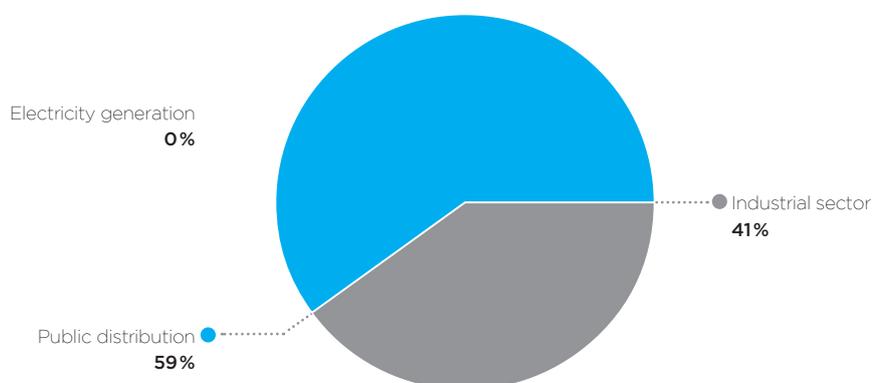
		2019	2018	Variation
Total capacity reserved for transmission	(Nm ³ /h)	319,000	319,000	0%
Gas grid peak	(Nm ³ /h)	210,331	220,028	-4.4%
Total volume carried	(GWh)	8,839	8,834	+0.06%

Demand on the Luxemburgish market

Total demand by sector

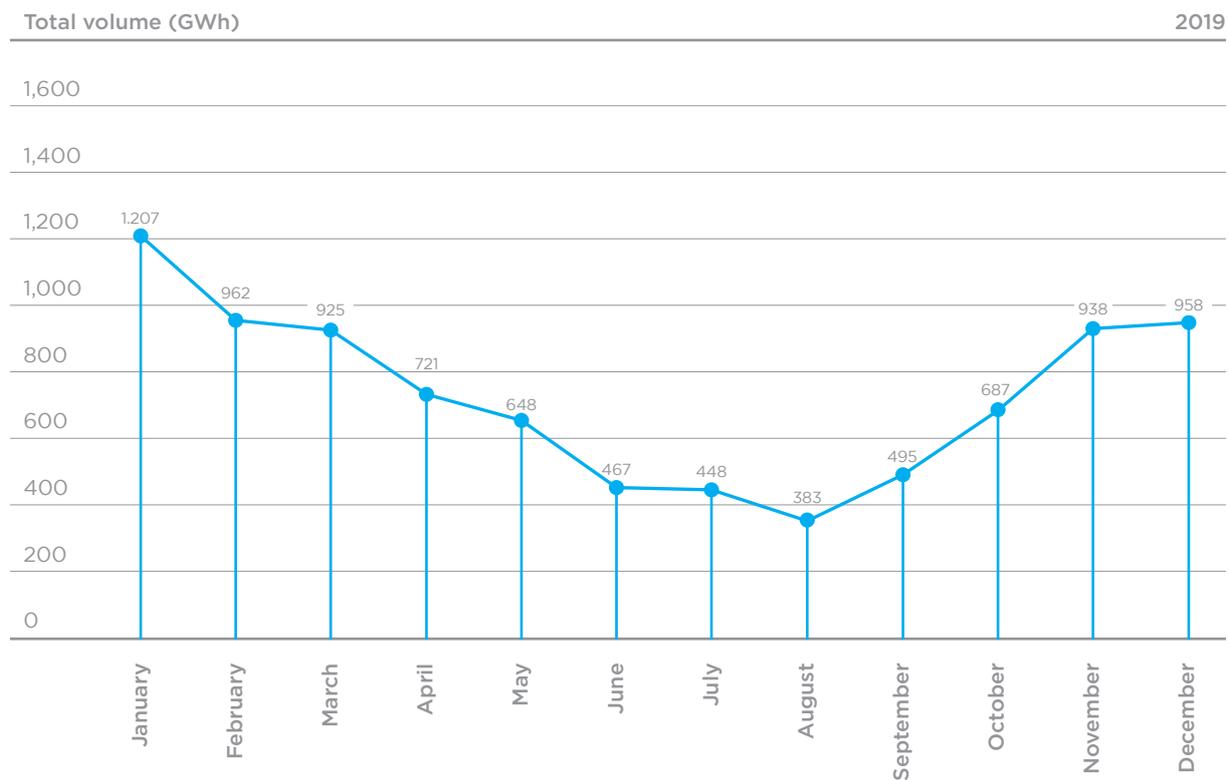
		2019	2018	Variation
Industrial sector	(GWh)	3,616	3,753	-3.09%
Public distribution	(GWh)	5,197	5,081	+2.29%
of which Creos	(GWh)	3,316	3,224	+2.85%
Total	(GWh)	8,839	8,834	+0.06%

The 2019 financial year was characterised by a slight decline in the industrial sector. This negative effect was offset by natural gas demand from residential customers during the winter months.



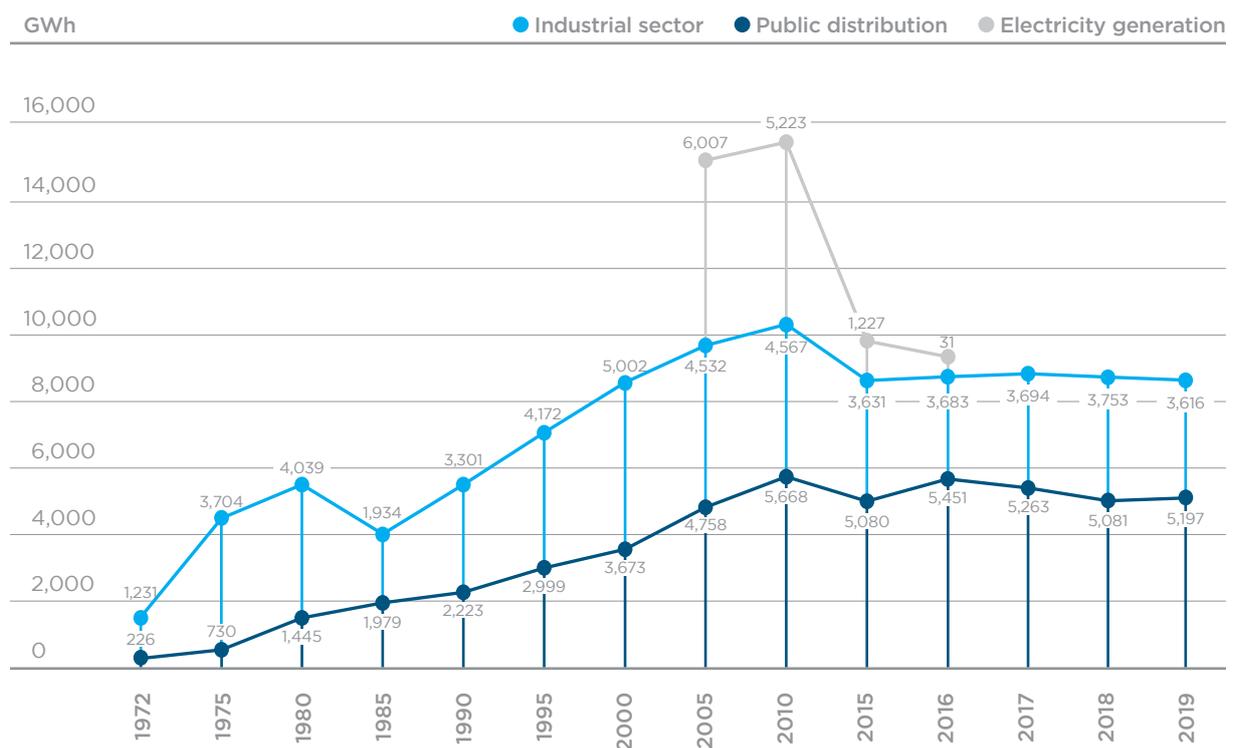


Total demand per month

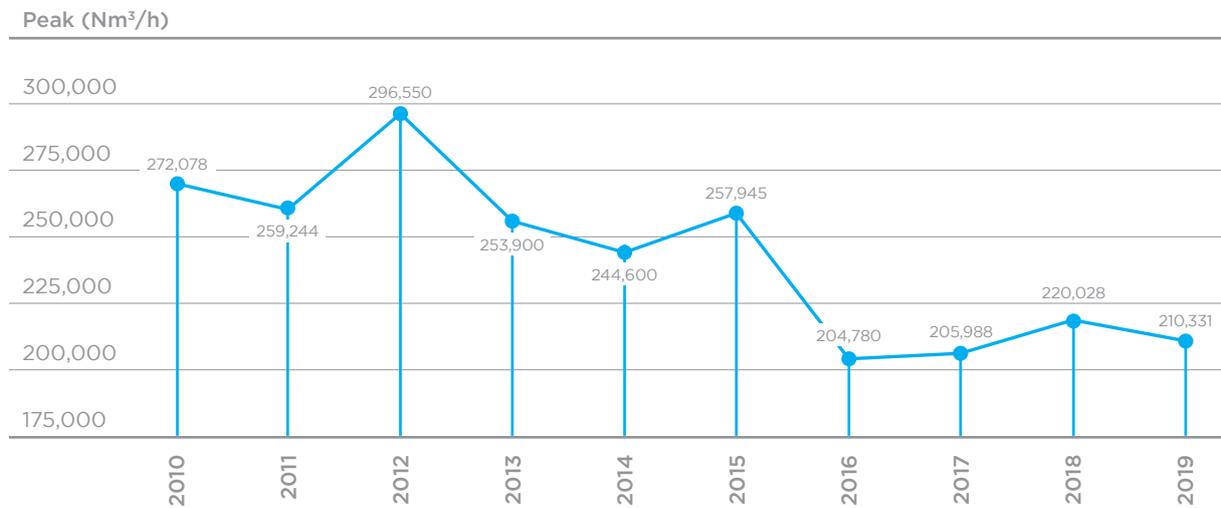


Total demand includes the large-scale industrial and electricity production sector.

Evolution of the total demand per year

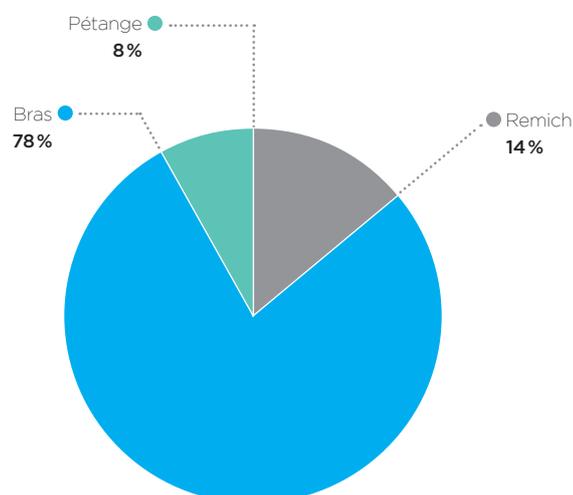


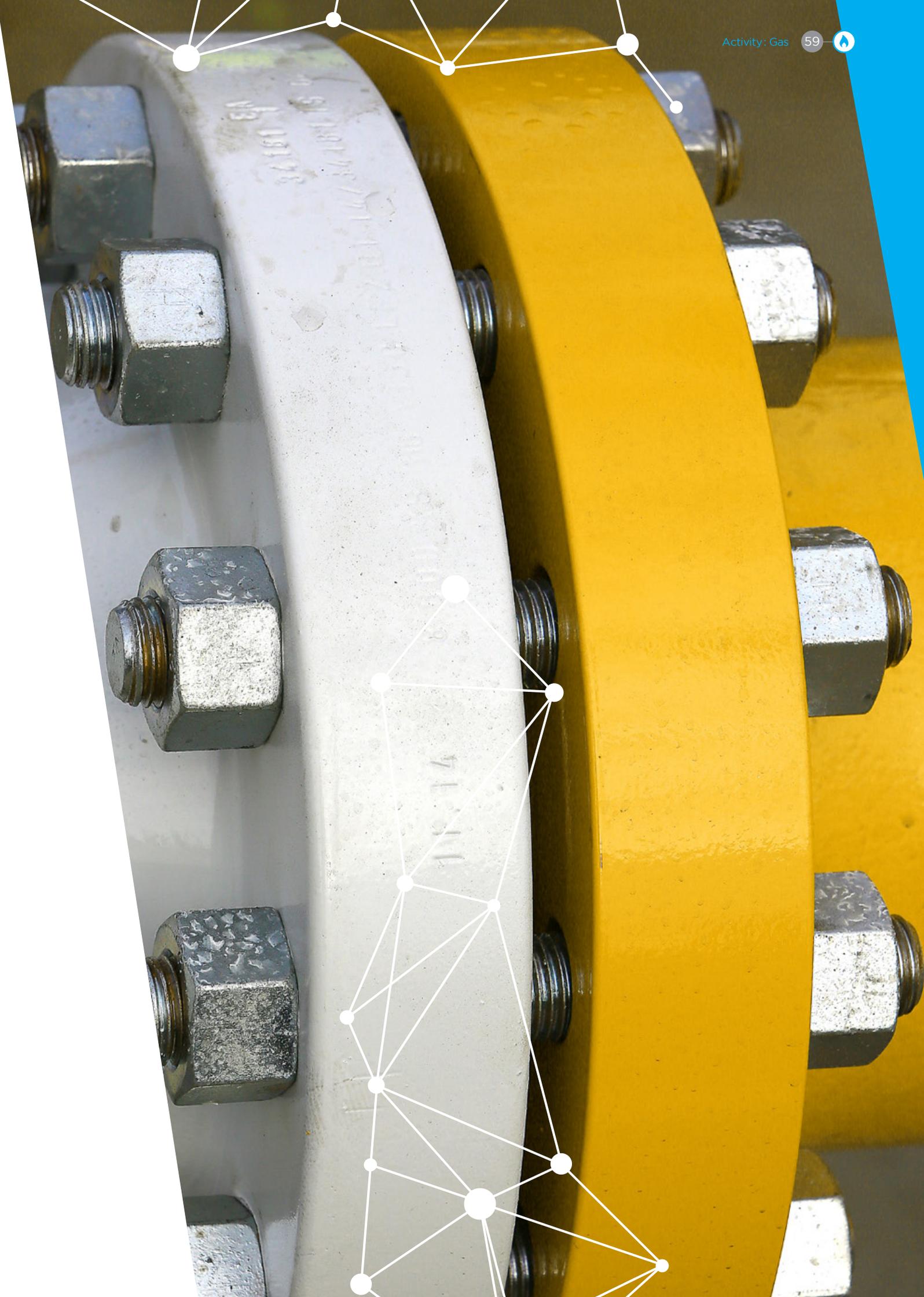
Evolution of the network peak



Breakdown of flows per point of interconnection

			2019	2018	Variation
Remich	German network	(GWh)	1,207	2,854	-58%
Bras	Belgian network	(GWh)	6,895	5,272	+31%
Pétange	Belgian network	(GWh)	737	708	+4.1%
Total		(GWh)	8,839	8,834	+0.06%

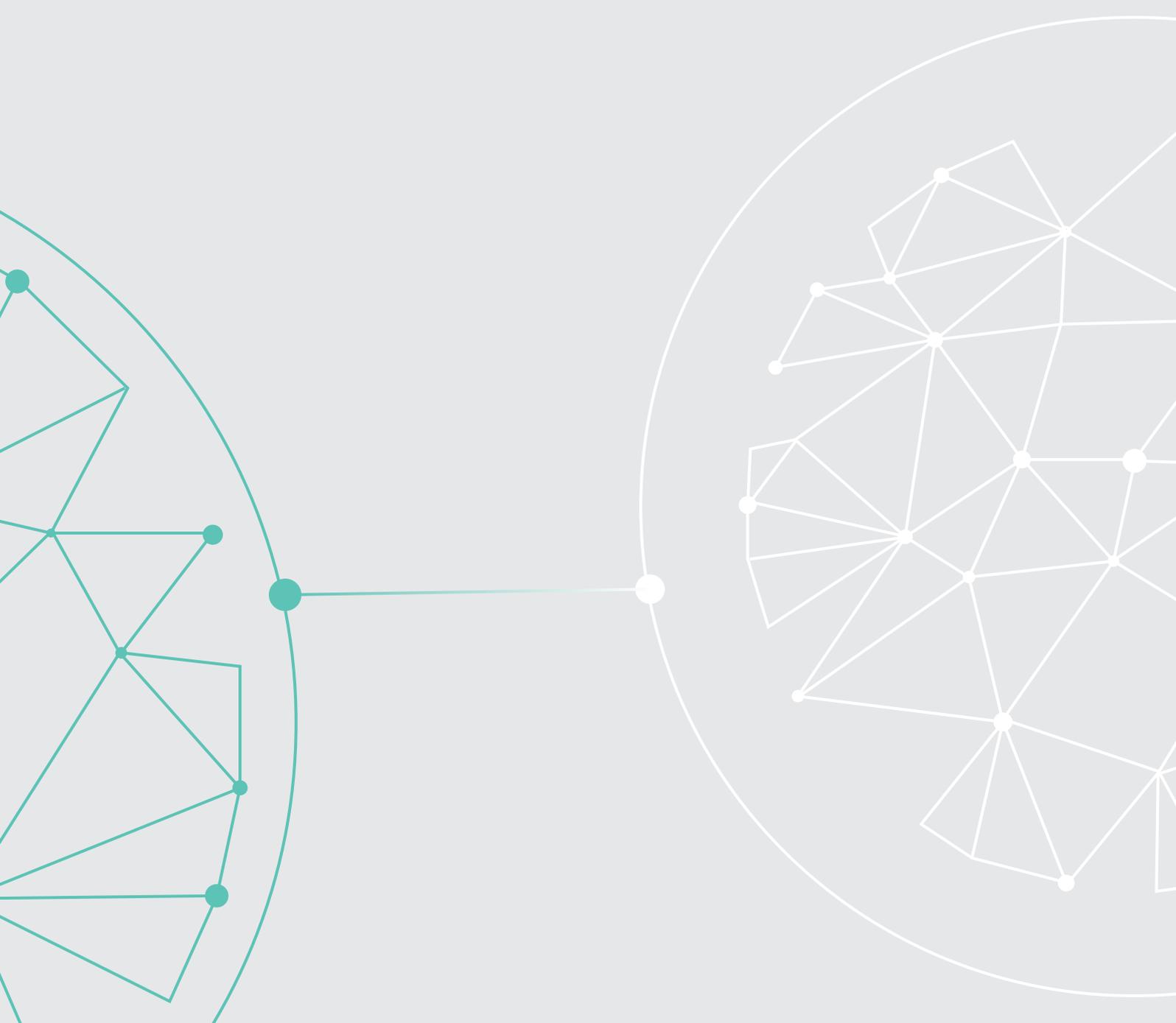








Subsidiaries, equity interests and partnerships of Creos Luxembourg



Interview with Jens Apelt, Managing Director of Creos Deutschland Group

What are the trends of the gas and electricity market in Germany?

Jens Apelt: The last nuclear power plant in Germany will be shut down in 2022, the phase-out of coal has been decided and, at the same time, the expansion of wind power is stagnating. Natural gas will be an important transition technology until approx. 2040. At European level, the so-called Green Deal has been agreed, i.e. by 2050 almost all sectors will be largely climate-neutral. The gas infrastructure will thereby be gradually converted to green and blue gases. In this respect, molecules and electrons will still be flowing in 2050. All sectors (transport, industry, household and agriculture) will be connected and coupled via an energy system. Digitisation and artificial intelligence will make a decisive contribution to making the networking of the sectors meaningful and smart. The future business models for grid operators will be:

- the provision of the energy infrastructure
- services around this infrastructure.

Creos Deutschland GmbH has merged with Creos Deutschland Stromnetz GmbH. Can you tell us more about this merger? Why this merger?

J.A.: With the purchase of the electricity grid, we will expand our core competence of gas to the core competencies of gas and electricity. Synergies are to be leveraged between the areas of all cross-sectional functions.

Furthermore, as an electricity and gas network operator, we are well prepared for future projects in the areas of sector coupling (electricity, heat, industry, transport), power to gas, etc.

Creos Deutschland has a new Chairman of the board since last year. Who is it and what is his background?

J.A.: Marco Hoffmann has been the new Chairman of the Supervisory Board since 4 December. He succeeds the outgoing Chairman of the Supervisory Board, Tom Eischen. Marco Hoffmann is a consultant at the Luxembourg Ministry of Energy and Spatial Development (Conseiller de direction première classe). He is also Chairman of the Board of Directors of the group holding company Encevo in Luxembourg.



**Jens Apelt,
Managing Director**



Except these two events mentioned above, what are the highlights of the year 2019 for Creos Deutschland?

J.A.: At the beginning of the year, we took over the Control and Communication Technology department from Steag. This completes our team in the electricity sector.

In the electricity and gas sector, several new connections were implemented or commissioned. These are larger industrial settlements and gas-fired power plants. In September our information security management system was successfully re-certified and in July we decided to continue our digitisation project net4energy as an independent GmbH.

What are the future challenges in your business and how are you prepared to meet them?

J.A.: The gas infrastructure must be able in future to transport green and synthetic gases as well as hydrogen. The key question is how these future requirements can already be taken into account in investments today. There is still a lot of research work to be done here.

For the planning of the power infrastructure, the respective degree of autonomy of the consumers will be of great importance. The medium to long-term planning of a future-proof and efficient infrastructure is therefore becoming increasingly complex and dynamic.

In order to manage this complexity, we need to think in an interdisciplinary and customer-oriented way. Reliable political boundary conditions are just as important as a highly motivated team.

In 2019 we established an interdisciplinary team that deals with the above-mentioned future topics and is also active in various working groups of the relevant organisations and associations (BDEW, DVGW).

In order to get the "best minds", we will be establishing a recruiting program in 2020 that will aim to motivate young people so that they will want to work in a state-of-the-art and future-oriented company.

Creos Deutschland Holding GmbH is a 96.88%-owned subsidiary of Creos Luxembourg S.A. and the sole shareholder in Creos Deutschland GmbH, Creos Deutschland Services GmbH and net4energy in the course of formation. Creos Deutschland Group operates a medium and high voltage electricity grid with 450 km and carries natural gas on a high-pressure grid with 1,650 km in length in Germany's Saarland and Rhineland-Palatinate regions, supplying natural gas to numerous industrial clients, power station operators and municipal utilities (Stadtwerke), and 2 million individuals.

Key figures*

		2019	2018
Volume transported natural gas	(GWh)	30,795	31,389
Electricity flow	(GWh)	641.8	742.5
Net turnover	(MEUR)	127.2	123.5
EBITDA	(MEUR)	33.1	28.4
EBIT	(MEUR)	22.9	18.7
Profit for the financial year	(MEUR)	9.9	8.4
Investment	(MEUR)	29.9	20.4
Workforce	(number)	166	145

* Pro-forma consolidation of the German Creos companies

Equity interests

Luxmetering

Luxmetering is an economic interest group (EIG) created in 2012 by Luxembourg's seven electricity and gas network administrators: Creos Luxembourg, Ville d'Ettelbruck, Ville de Diekirch, Hoffmann Frères (Electricis), Ville de Dudelange, Sudstrom and Sudgaz. Luxmetering focuses on commissioning and operating a new IT platform that manages the metering data of the smart meters.

Balansys

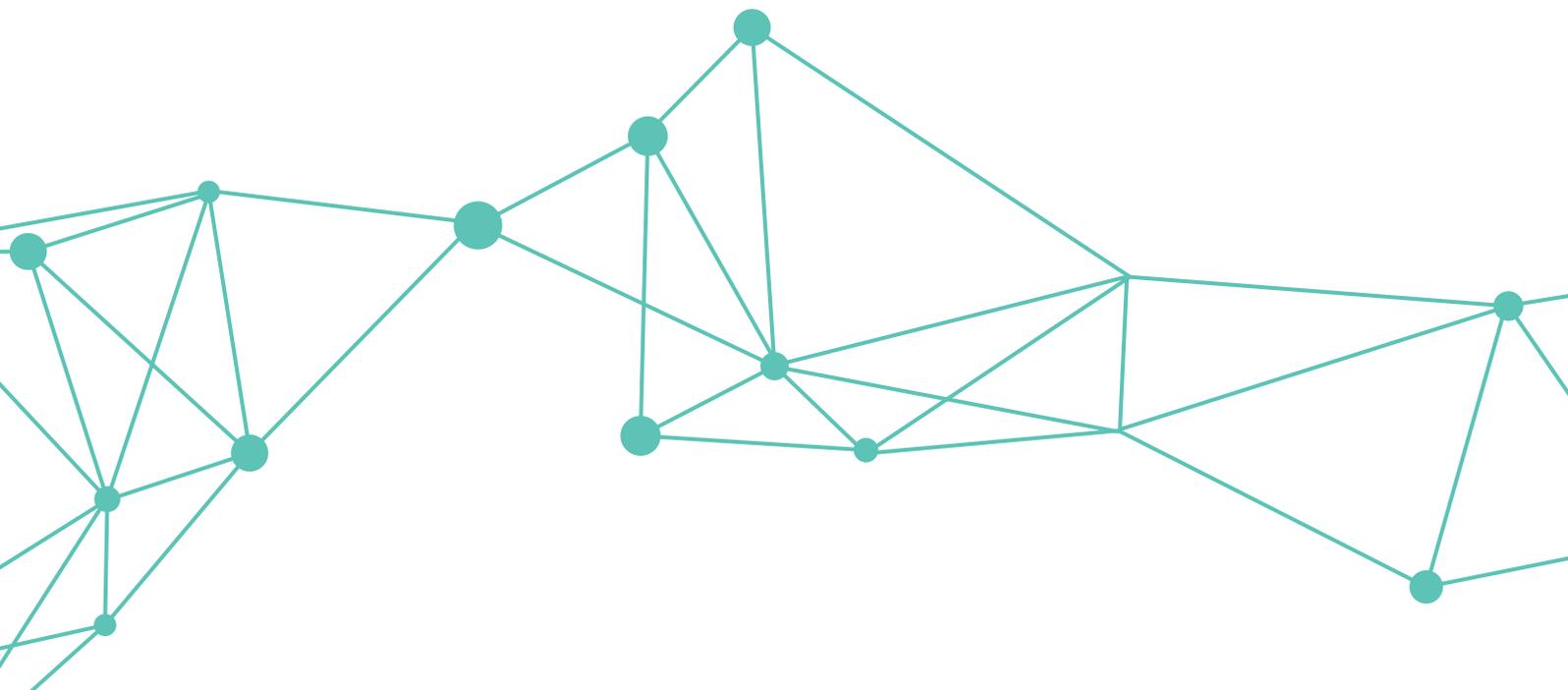
Balansys S.A. was formed in 2015 for the integration of the Luxembourg gas market and the Belgian gas market. The two network administrators, Creos Luxembourg S.A. and Fluxys Belgium, hold equal shares in Balansys, which is responsible for applying the rules and balancing tariffs in the integrated Belgium-Luxembourg zone.

Ampacimon

Ampacimon S.A. is a company formed in 2010 by researchers from the University of Liège. Its activity is to develop and market Dynamic Line Rating (DLR), an innovative system of stand-alone sensors which makes it possible to forecast the true capacity of high-voltage transmission lines.

NEXXTLAB

NEXXTLAB aims to develop innovative solutions in the field of EM2 (energy management in relation to the mass introduction of electric mobility). Founded by Creos Luxembourg S.A. and Powerdale S.A. in 2018, NEXXTLAB is an open entity that focuses on collaboration with research centres, universities and partner companies.





Partnerships

Forum pour l'emploi

With the installation of new smart meters, Creos is also internalizing the circular economy. Creos has decided to support the non-profit organization Forum pour l'Emploi to dismantle old electric meters, facilitating resale and reuse of materials such as copper, brass, aluminium, iron and plastic. This partnership meets two main objectives, one social, as it provides work for people currently unemployed, the other environmental, by facilitating the recycling of raw materials.

Skoda Tour de Luxembourg

Creos pursues a policy of social responsibility by encouraging projects for talented young people at various levels. Thus, it sponsors the jersey of the "best young rider" in the Skoda Tour de Luxembourg, a national cycling race held in stages.

natur&ëmwelt / Hëllef fir d'Natur foundation

The natur&ëmwelt association aims to preserve biodiversity in a varied natural and cultural landscape by raising awareness, providing advice and through practical, scientific and political activities at local, national and international level. As a long-term partner, Creos funds the publication of a pocket guide each year.

FEDIL

Creos is partner of the traditional New Year's reception of FEDIL members, positioning itself in the field of corporate events. This symbolic reception has brought together executives from the corporate and industrial FEDIL member companies and political decision-makers since 1999.

Da Vinci non-profit association – Wëssensatelier

Since 2015, Creos has supported the Wëssensatelier's activities of the Da Vinci association, bringing together engineers, architects, scientists and business representatives. The Wëssensatelier aims to inspire young people aged 8 to 12 to take an interest in technology through creative, fun and innovative activities and to encourage them to consider education in the field of science.



Luxembourg Science Center

Creos is a partner of the Luxembourg Science Center and has funded the construction of a Helmholtz-type electromagnet which will become one of the main experimental facilities at this new temple of science and technology which has twin goals – enabling the general public to discover scientific phenomena and encouraging young people to pursue careers in the fields of maths, chemistry, physics, biology and astronomy.

Luxembourg Foundation of Engineering, Architecture and Industry (FLIAI)

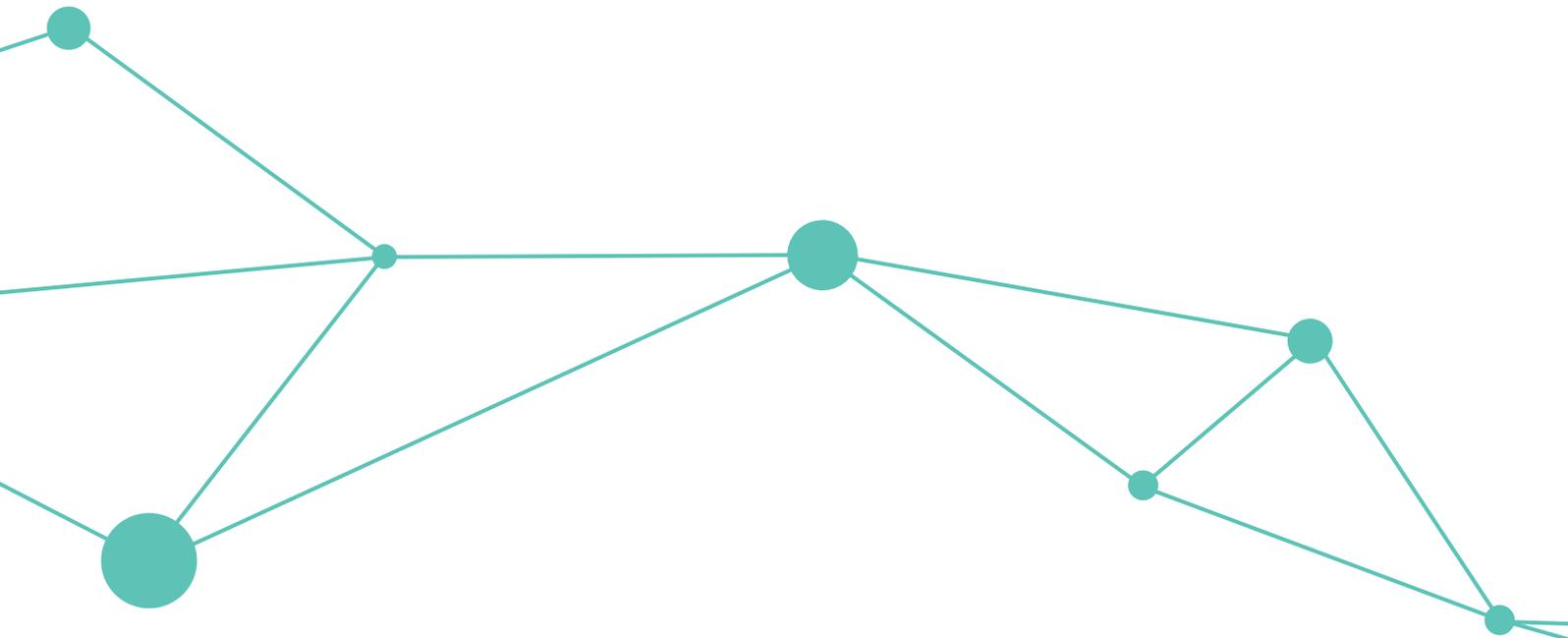
Creos supports FLIAI to promote the sciences, applied sciences and industrial values.

Student associations

Creos actively supports student associations in Luxembourg in the field of science and engineering. In this way, Creos helps to promote industrial careers amongst students in Luxembourg and also aims to position itself as an attractive employer for young graduates in the sector. In 2019, REEL (Réunion Européenne des Etudiants Luxembourgeois) and ANEIL (Association Nationale des Etudiants Ingénieurs Luxembourgeois) received financial support from Creos.

Donations

For a number of years, Creos has been making donations to charitable and public-interest organizations instead of providing traditional gifts at the end of the year. In 2019, the foundation Maison de la Porte Ouverte received a cheque in the amount of €10,000.





Corporate social responsibility (CSR)

We look at sustainability through immediate, near-term and long-term lenses. This means periodically updating our strategy through a structured process that includes stakeholder feedback; identification of priority topics, objectives and key performance indicators (KPIs); and proactively tracking current and emerging trends. During our "Entreprise Socialement Responsable" (ESR) re-certification in November 2018, we identified 4 priority topics, which we successfully addressed during 2019:

- Definition and implementation of supplier code of conduct
- Concept for advanced diversity & inclusion
- Ban of plastic bottles in all our meeting rooms
- Replacement of IT material and achievement of important energy savings in our day-to-day office operations.

Our sustainable development strategy complies with the priorities of stakeholders. In 2019, we updated our materiality matrix following a consultation with our representatives from the Board of Directors (questionnaire) and from the Employee Delegation (workshop). We will as of 2019 report and disclose our progress against our objectives and adjust where necessary by reviewing instructions or processes.

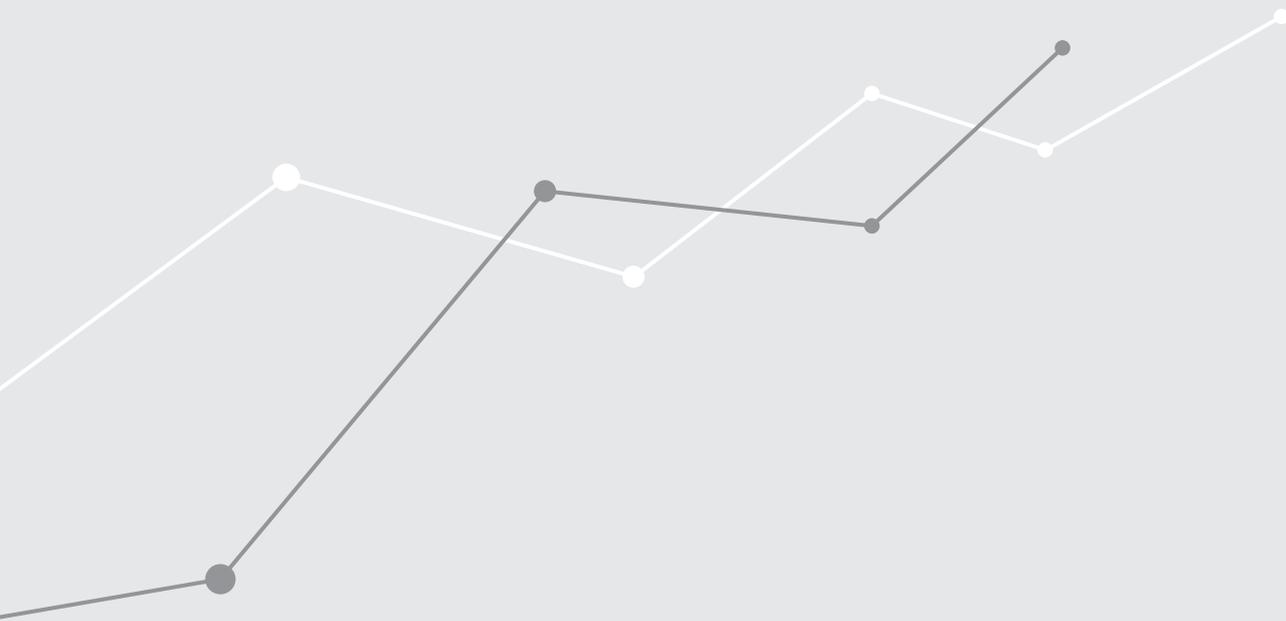
Due to its responsible behaviour, Creos creates value for its employees, its Group and the community in Luxembourg and the Greater Region. It thus supports the United Nations sustainable development goals. Our core value creation model (pls. refer to Encevo annual report 2019) illustrates an impact especially on goals 7, 8, 9, 12 and 13:



Our verification is done through the 3-year cycle of ESR certification and the annual report verification by external CSR & GRI (Global Reporting Initiative) reporting experts. It is also the first time that we will report in accordance to GRI CORE option. For more details related to CSR management approach but also on detailed reporting on material topics and KPIs, pls. refer to Encevo annual report 2019.



3. Management report of the Board and annual accounts



Management report of the Board

A new general framework for the organization of the energy markets has been defined by the “Clean energy for all Europeans package”, a set of 4 EU-Regulations and 4 EU-Directives that entered into force in 2018 and 2019. This global new political and legal framework covers subjects of market design, renewable energy, energy efficiency, risk preparedness as well as institutional governance. The national legislation and regulation are defined by the laws on electricity and gas markets dated 7 August 2012, as amended.

The main principle is a strict separation between the energy grid infrastructure management and other activities such as the production, sale, purchase and trading of energy. Within Encevo Group, Creos Luxembourg S.A. (hereinafter referred to as “Creos”) owns the energy grids and is in charge of all the related activities, i.e. planning, building, operating and maintaining gas and power networks. Alongside these regulated activities, the company also delivers some non-regulated services to third parties, and provides IT services and infrastructure capacities to several companies of Encevo based on intra-Group service level agreements.

Regulation and non-discrimination

Network access is organized and supervised by a regulator, the Luxembourg Institute of Regulation (ILR). The regulator’s primary task is to ensure the non-discriminatory access and use of energy grid infrastructure, as well as effective competition and the efficient operation of the markets.

In particular, the regulator approves the tariffs proposed annually by the grid operators which all users of the energy networks have to pay. The six main activities of Creos (which account for most of its turnover) are all regulated activities and are invoiced in grid tariffs: transport of electricity (TSO power), transport of gas (TSO gas), distribution of electricity (DSO power), distribution of gas (DSO gas), as well as metering for both electricity and gas.

As required by law, Creos has established a programme encompassing the appropriate measures to rule out any discriminatory practices in the treatment of different network users. The programme and its annual monitoring are outlined on the website www.creos.net.

Since 1 January 2017, the second regulation period, which runs for four years up to and including 2020, is in force. According to the ILR regulations E/16/12 (electricity), E/16/13 (gas) dated 13 April 2016 and E16/14 (smart metering) dated 14 April 2016, the capital remuneration rate applied to investments has been reduced to 6.12% (vs 7.60% in the first regulation period applicable until 2016). A limited number of “non-controllable costs” (i.e. upstream grid costs, formation expenses...) are included in grid tariffs on a case by case basis. All other costs are considered controllable and are included in the grid tariffs based on the “photo year” (2015 for years 2017-2020 ; 2019 for the third regulation period running from 2021 to 2024) taken as a reference and by applying a regulatory formula taking into account the annual grid evolution and an efficiency factor.

The growing complexity of digitization of all business aspects creates a growing challenge for the Company to continue delivering high standards in terms of quality of service and puts pressure on its profitability.

Detailed information on the applicable regulation as well as the tariffs approved for Creos is available at www.ilr.lu.

Highlights of 2019

A safe and reliable energy transport and distribution infrastructure is a key element in guaranteeing the well-being of citizens and the sustainable development of a country’s economy. That is why security of supply remains the top priority for Creos and why Creos continues to invest heavily in its power and gas networks in order to meet future energy demand requirements, to accommodate the development of renewable energies and to prepare for innovative consumer trends such as electromobility, distributed storage and power-only buildings.



In 2019 Creos invested a record amount of EUR 146.9 million. This large investment programme was mainly driven by the power sector (EUR 88.9 million), by continuous efforts in the digitalization of the various work-streams of the organization as well as the deployment of smart meters and e-charging infrastructure. In the gas sector, the replacement activity of grid components remained high whereas the network areas were not further developed. EUR 16.9 million were invested in the construction of the new network operating centre in Bettembourg (expected to be delivered in Q2 2020) and in the premises of the new corporate headquarters together with the new technical centre for Luxembourg City (expected to be delivered in Q2 2021). To be mentioned in particular is the start of a global CRM project (new integrated software package to improve the customer relationship management) that should provide a better “customer journey” in the course of 2020, as well as a strategic study on the digital vision for Creos up to 2030 that will guide the planning of a coherent transformation of the company into the market design of the future.

In January 2019, Creos integrated the IT department formerly affected to Encevo S.A.. Some 50 employees thus moved to the Strassen headquarters of Creos in order to be closer to the business management and the core IT users of the Company. Creos IT continues to provide services to the various operational departments of Encevo S.A. as finance & accounting, human resources, facility management etc., as well as to other group entities. On the technical IT infrastructure side, Creos IT replaced and extended its central datacentre network backbone, became internet operator and renewed its internet connectivity to support future growth and improve security and availability. Creos further replaced the workstations, smartphones and printers and moved the office applications and email services to the cloud. Creos successfully finalised a 3 years IT security remediation plan and further developed its compliance in respect of the General Data Protection Regulation.

Power

The number of active electric meters in the Creos grid increased to 286,119. In total, 5,155 GWh were transported through the network, which runs to 10.023,7 km.

Besides reinforcing its own national grid, Creos has remained highly active at the European level by working together with the adjacent transmission system operators (TSOs) in order to drive forward regional market integration and to create new connections between adjacent markets. In order to reinforce the capacity of its high voltage interconnectors to Germany, Creos initiated two important projects in 2019: 1) the northern 220 kV line (“Bauler”) will be equipped in 2020/2021 with HTLS (high temperature cables) including the upgrade of the pylons and the replacement of the conductors, and 2) studies and authorization process started to reconstruct and upgrade until 2026-2028 the southern line (Trier/Quint) from the 220 kV standard to 380 kV. Preliminary studies of both major projects have started in 2019 including the authorization process in Luxembourg, in Germany and in the context of ENTSO-E’s TYNDP (ten-years-network-development-plan). On 9 August 2019, Creos’ interconnection to Belgium has been affected by a tornado severely damaging several pylons of the infrastructure owned by SOTEL industrial grid operator, due to some difficulties in the authorization processes, the operation capacity of this line will probably not be recovered before summer 2020. An unfortunate series of external and internal incidents caused a larger HV grid failure in May 2019 including the discharge of a transformer at Blooren site that has been replaced by December 2019. In respect of its midterm investment program as well as of extensive corrective measures taken on short notice, Creos insured, and will continue to develop, its HV operational capacity and high level of security of supply.

The various provisions of the EU package “Clean Energy for all Europeans” continued to guide Creos management’s endeavours to prepare the company for the future market design. It is expected that highly increased decentralized renewable energy generation and a strong push into e-mobility demand, both announced in the Government’s National Energy and Climate Plan presented in December 2019, will strongly change the patterns of consumption in the LV and MV grid by 2030, and that new commercial actors (energy communities and aggregators) will appear on the market. In 2019, Creos started diverse initiatives to respond to these challenges by the digital equipment of strategic nodal spots of its distribution network and by implementing tests of intelligent energy network management. As well, in respect to the project of an update of the electricity law, Creos initiated a study to implement, in its capacity of power TSO, a national energy data platform.

Natural gas

With more than 600 additional gas connections in 2019, the number of active natural gas meters in the Creos grid reached 47,678. In total, 8,839 GWh were transported through the grid, which runs to 2,133 km.

The ordinary activities of the gas departments registered no particular peak in demand and no operational incident to be reported. The investment to replace existing networks and household connexions, in particular in the medium and low-pressure grid in the City of Luxembourg, remained at former levels, and the distribution grid was slightly extended in some districts.

In close collaboration with Luxembourg’s regulatory authority (ILR) and Belgium’s Regulatory Commission for Electricity and Gas (CREG), Creos and Fluxys Belgium finalized the Belgian-Luxembourg gas market integration. On 16 October 2019, the European regulatory agency ACER approved the compliance program submitted by the jointly owned (50/50) company Balansys. This decision opens the final door for the transfer of the BE-Lux balancing activity to Balansys expected to be operational by 1 June 2020. Accordingly, Creos and Fluxys will transfer and reinforce their proactive collaboration inside Balansys.

Electromobility

In 2016, Creos, together with the other DSOs, started a joint e-mobility project branded “Chargy” to deploy 800 charging stations (741 for Creos) for electric cars. Beyond the mission to build, operate and maintain the charging stations, the DSOs are also responsible for the installation, operation and maintenance of a shared system to provide all the necessary information and services to electric car customers and provide widespread availability of non-discriminatory supplier access. By the end of 2019, a total of 337 charging stations (674 charging points) were installed and operational in the national system. The DSOs will not be able to respond to the expected goal in time as a large number of projected Chargy sites, in particular public Park & Ride premises, are late in authorization or construction.

In the domain of public transport, Creos continued and further enlarged its technical partnership with the Luxembourg City tram project, providing power connection as well as maintenance support for the electrification system. Furthermore, Creos entered into projects with the national railway company to respond to its forecasted HV supply demand and launched with a larger private bus operator a smart energy management project to allow extended capacity allocation to its fast charging devices in times of lower district demand.

Metering

In the context of the legally prescribed installation of smart meters, 2019 saw Creos roll out of 105,000 smart power meters and 17,400 smart gas meters, as well as nearly 2,000 devices to ensure communication between the meters and headquarters for the monitoring and read-out procedures. With a total of 254,728 installed power meters and 39,471 installed gas meters, Creos nearly accomplished the legal objectives in power metering and early exceeded the objectives set for gas meters for end of 2020. The entire chain of metering data communication will be completed in 2020 when the systems will be ready to transmit all meter data to the suppliers which will then be the contact point for the end consumer. It is furthermore expected that smart metering will be accomplished during 2020 for all energy producers, in particular privately-owned photovoltaic installations.

New functionalities were implemented in relation to electronic market communication (“MaCo”) between the DSOs and the suppliers. The MaCo processes for power consumers have been actively entered into operations in 2019, while the MaCo for producers and gas customers are expected to be finalized during 2020.



Various

The construction of its new national control (Dispatching) centre in Bettembourg has well progressed in 2019 so that its delivery is expected in Q2 2020. The centre will meet the latest technology standards and comprise separated dispatching premises for HV power, MV power and HP/MP gas as well as a 24/7 network operation centre.

In 2019, Creos reorganized its front-end processes to improve its customer experience and service standards from general information to connection processes, meter data reading and grid incident communication as well as advisory services (decentralized generation etc.). The emphasis was accompanied by appropriate KPI monitoring and dedicated training programs. To reach state-of-the-art levels of service and an expected level of productivity, fundamental workstream analysis entered into a tender document to deliver a customer relationship management ("CRM") software package and a Customer Self-Service Portal, both expected to become operational in the course of 2020.

In autumn 2019, Creos launched a very broad visual campaign to foster the principle #safetyfirst. In this domain, the company provided its employees with a large number of security training sessions (in total: 43 sessions for 548 participants) as well as personal security equipment of any kind (370 workforce members re-equipped to the latest standards). As a consequence, the number, frequency and gravity of accidents at work could be kept at acceptable levels and should further decrease.

It is also to be mentioned that several transversal activities contributed extensively to the Company's 2019 operational and financial results: legal, finance & controlling, regulatory management, communication, project management and other supporting departments.

Personnel

The number of employees increased to 780 at the year-end 2019, representing 748.3 full-time-equivalent jobs. It is to be mentioned that the scope of employment changed since Creos took partly over, in January 2019, the IT department formerly attached to Encevo S.A. with 53 employees.

The Board of Directors and the management of Creos Luxembourg S.A. would like to thank all employees for carrying out their duties, their contribution throughout the year and their full support in ensuring the reliability and strength of the Company's core activities.

Financial results of Creos Luxembourg S.A.

Summary of the annual accounts (according to Lux GAAP standards)

Profit and loss account

Net turnover reached EUR 269,625,454 in 2019 (EUR 263,730,891 in 2018). The increase in net turnover (see Note 16) was mainly due to the rise in grid revenues resulting from high investment in the grids.

Operating profit (EBITDA) totalled EUR 132,565,397 in 2019 (EUR 128,854,297 in 2018) thanks to increased revenues and capitalization of costs, partially offset by an increase in operating expenses.

Net profit for the financial year ran to EUR 31,654,460 (EUR 36,239,336 in 2018). This figure includes a dividend received from Creos Deutschland Holding GmbH of EUR 5,812,524 (EUR 6,006,275 in 2018), as well as an increase in value adjustments of tangible fixed assets compared to previous year due to the strong investment activity.

Balance sheet

There has been no change in the Company's subscribed capital since the extraordinary meeting of shareholders held on 6 January 2011, which approved the incorporation of the gas and electricity networks of the City of Luxembourg into Creos Luxembourg S.A. via the issue of new shares. The subscribed capital amounts to EUR 198,851,260 and the share premium to EUR 189,562,253.

Pursuant to a merger of municipalities and in accordance with the Company's articles of association and a resolution of the General Assembly dated 8 May 2012, Creos Luxembourg S.A. bought back 5,045 of its own shares from Schengen municipality for an amount of EUR 469,595. The shares have been recorded as current assets (see Note 10). A blocked reserve for the same amount has been designated pursuant to the law on commercial companies.

The Board of Directors approved an additional loan of EUR 50,000,000 provided as of 16 December 2019 by Encevo S.A. to Creos Luxembourg (see Note 14).

Proposed appropriation of net profit

The profit available for appropriation of EUR 35,460,072 includes the net profit for the year of EUR 31,654,460 and the profit brought forward of EUR 3,805,612. Following the change in the allocation regime of the blocked reserve (wealth tax) in 2015, no blocked reserve is available for reversal this year.

The Board of Directors proposes the following appropriation of net profit to the annual shareholder's meeting, which is scheduled for 12 May 2020:

Net result (profit) of the year	31,654,460
Reversal on blocked reserve (wealth tax)	0
Profit brought forward	3,805,612
Total profit available	35,460,072
Dividend of EUR 2 per share*	19,875,036
Allocation to the blocked reserve (wealth tax)	12,750,000
Amount carried forward	2,835,036
Total	35,460,072

* Number of shares 9,937,518 (total shares issued of 9,942,563 minus 5,045 own shares)

Compliance and risk management

There were no compliance incidents to be reported in 2019.

The main operational risks the company has to manage are accidents involving people (in-house and third parties) and network damage due to certain climatic events.

The number of accidents, either on travel or on work, remained on average of the last 5 years, as well as the indicators of frequency and severity. No outstanding event needed to be reported and the high level of security equipment and training was confirmed to be continued.

In the domain of network grid supply, there is one major power outage to be reported affecting parts of the City of Luxembourg without causing larger damage, partly as the event occurred during the night. In general, the number of grid incidents remained equivalent to the previous years which means that Creos remains one of the best performing grid operators in Europe.

Creos continuously implements active risk management processes supported by a reporting tool to assess, record, review and monitor mitigations for identified operational, financial, legal or strategic risks. The Creos Management Committee reviews



risk reporting bi-annually. Major risks that reveal difficult to assess are those in relation to the energy transition process that requires additional innovative digital technologies as well as those relating to political guidelines (i.a. speed of decarbonization and electrification of the economy and the civil society) and administrative decisions (i.a. construction authorizations of new grid infrastructure).

Outlook

In 2020 and the forthcoming years, Creos plans to make record investments into its grid infrastructure, buildings and IT, further increasing its regulated asset base. With yearly investments of more than EUR 100 million on average in the power sector, the Company increases its efforts to successfully realize its transition towards an intelligent, flexible and progressively decentralized power grid system that will respond to the country's future energy market design. The investments in the gas sector will exceed EUR 20 million in 2020 and decrease within a 5-year period to approximately EUR 13 million. Due to the global trend of decarbonization, the gas grid infrastructure will only marginally increase, and the focus will be on replacement projects to maintain secured gas supply at its highest levels. The Company's investments in IT infrastructure and applications, including smart metering, smart grid and the development of a National Energy Data Platform at TSO-level, are expected to grow further.

Creos investment plan in buildings will reach a peak in 2020 when the new dispatching centre will be operational in Bettembourg while the new headquarter premises and operating centre in Luxembourg City are expected to be delivered in Q2 2021. No further significant building investment is foreseen in the following years.

In the domain of operational excellence, Creos initiated a vision of becoming a digital company by 2030 in order to respond to the country's future

Challenges linked to a general electrification of the economy (i.a. e-mobility, energy efficiency in industry, heating and transport, distributed renewable energy generation) over the next decade, aligned to the National Energy and Climate Plan of the Government, are continuously addressed by the company's Asset Management team and inserted in the mid-term investment plan based on detailed project studies.

energy market design and to insure high levels of productivity in all fields of operations.

In light of the latest developments in the context of the Corona pandemic, Management is currently evaluating the potential impact on its operations in 2020 and beyond of the measures taken by the Luxembourgish Government to contain the spreading of the virus. Such measures could negatively affect the Company's ability to achieve its investment targets set by the regulator or to keep up its level of operational business in regards to maintenance and asset service programs due to unavailability of employees or to the restriction to perform these activities as a consequence of such governmental decisions. Given the overall uncertainty on the evolution of the situation in the near future, it is not possible yet at this point to give a precise indication on the magnitude of such impacts. Following the state of emergency declared for the whole country on March 17th, Creos Luxembourg S.A. has activated its business continuity plan in order to continue to ensure the security of supply throughout the country.

Other than that, the Company does not foresee any technical or financial events that are likely to impact its economic or financial situation. For the third regulation period starting 2021, the capital remuneration rate will be fixed by the regulator following a market consultation process launched in January 2020.

Other information

No research and development activities have been performed during the year.

The Company holds 5,045 own shares for an amount of EUR 469,595.

The Company does not operate any branches.

Changes in 2019 in the Board of Directors of Creos Luxembourg S.A.

The ordinary general meeting of shareholders, held on 14 May 2019, resolved to confirm, all unanimously, the co-optations decided by the Board of Directors since the 2018 ordinary general meeting of shareholders.

The Board of Directors co-opted as of 5 December 2019, Mr Daniel Liebermann as director of

the company for the outstanding term of his predecessor's mandate to end in 2020 with the ordinary general meeting of shareholders to approve the annual report of the financial year 2019.

There were no further changes in the Board of Directors during the year 2019.

Auditor

It is reminded that the ordinary general meeting of shareholders, held on 8 May 2018, appointed Ernst & Young as the company's external independent statutory auditor for the financial years 2018, 2019 and 2020.

Annual accounts

Balance sheet as at 31 December 2019

ASSETS	Notes	2019	2018
		EUR	EUR
Fixed assets		986,487,003	919,743,478
Intangible assets	Note 4		
Concessions, patents, licences, trade marks and similar rights and assets, if they were			
a) acquired for valuable consideration		8,396,083	12,453,588
Payments on account and intangible fixed assets under development		1,878,633	732,518
Tangible assets	Note 5		
Land and buildings		116,784,720	117,138,261
Plant and machinery		646,663,546	630,121,862
Other fixtures and fittings, tools and equipment		17,609,861	17,685,615
Payments on account and tangible assets in the course of construction		130,249,308	96,706,783
Financial assets	Note 6		
Shares in affiliated undertakings		42,000,000	42,000,000
Participating interests		2,484,851	2,484,851
Loans to undertakings with which the undertaking is linked by virtue of participating interests		420,000	420,000
Current assets		119,248,170	94,403,767
Stocks			
Raw materials and consumables		11,888,356	11,273,426
Work in progress		11,980,626	12,047,769
Payments on account		258,533	757,095
Debtors			
Trade debtors	Note 7		
a) becoming due and payable within one year		10,257,124	15,553,435
Amounts owed by affiliated undertakings			
a) becoming due and payable within one year	Note 8	27,415,821	16,242,161
Amounts owed by undertakings with which the undertaking is linked by virtue of participating interests			
a) becoming due and payable within one year		219,078	129,989
Other debtors			
a) becoming due and payable within one year	Note 9	56,445,686	36,832,485
Investments			
Own shares	Note 10	469,595	469,595
Cash at bank and in hand		313,351	1,097,812
Prepayments	Note 11	7,910,671	9,288,729
TOTAL ASSETS		1,093,645,843	1,023,435,974

The accompanying notes form an integral part of the annual accounts

CAPITAL, RESERVES AND LIABILITIES	Notes	2019	2018
		EUR	EUR
Capital and reserves	Note 12	681,830,746	679,988,840
Subscribed capital		198,851,260	198,851,260
Share premium account		189,562,253	189,562,253
Reserves			
Legal reserve		19,885,126	19,885,126
Reserve for own shares		469,595	469,595
Other reserves, including the fair value reserve			
a) other available reserves		169,805,486	164,805,486
b) other non available reserves		67,796,954	66,036,954
Profit or loss brought forward		3,805,612	4,138,830
Profit or loss for the financial year		31,654,460	36,239,336
Provisions		45,924,508	42,924,509
Provisions for pensions and similar obligations	Note 13.1.	34,598,793	31,220,776
Other provisions	Note 13.2.	11,325,715	11,703,733
Creditors		339,929,643	267,281,154
Amounts owed to credit institutions			
a) becoming due and payable within one year		53	129,086
Payments received on account of orders as far as they are shown separately as deductions from stocks			
a) becoming due and payable within one year		13,271,699	11,098,111
Trade creditors			
a) becoming due and payable within one year		43,917,329	36,931,309
Amounts owed to affiliated undertakings			
a) becoming due and payable within one year	Note 14	19,300,653	4,846,753
b) becoming due and payable after more than one year	Note 14	252,000,000	202,000,000
Amounts owed to undertakings with which the undertaking is linked by virtue of participating interests			
a) becoming due and payable within one year		1,177,016	516,817
Other creditors			
a) Tax authorities	Note 15.1.	5,029,828	7,233,305
b) Social security authorities		2,922,513	2,853,595
c) Other creditors			
i) becoming due and payable within one year	Note 15.2.	2,310,551	1,672,178
Deferred income	Note 11	25,960,946	33,241,471
TOTAL CAPITAL, RESERVES AND LIABILITIES		1,093,645,843	1,023,435,974

Profit and loss account for the year ended 31 December 2019

	Notes	2019	2018
		EUR	EUR
1. Net turnover	Note 16	269,625,454	263,730,891
3. Work performed by the undertaking for its own purpose and capitalised	Note 17	40,459,676	36,074,701
4. Other operating income		973,422	1,411,523
5. Raw materials and consumables and other external expenses			
a) Raw materials and consumables		(45,514,562)	(53,236,531)
b) Other external expenses		(53,777,588)	(52,151,198)
6. Staff costs	Note 18		
a) Wages and salaries		(66,890,031)	(59,045,038)
b) Social security costs			
i) relating to pensions		(4,557,050)	(4,056,187)
ii) other social security costs		(2,759,916)	(2,721,312)
c) Other staff costs		(4,998,964)	(1,018,006)
7. Value adjustments			
a) in respect of formation expenses and of tangible and intangible fixed assets	Notes 4, 5	(99,785,075)	(93,002,041)
b) in respect of current assets		4,956	(134,547)
9. Income from participating interests	Note 19		
a) derived from affiliated undertakings		5,812,524	6,006,275
11. Other interest receivable and similar income			
b) other interests and similar income		117,293	35,961
13. Value adjustments in respect of financial assets and of investments held as current assets	Note 6	0	313
14. Interest payable and similar expenses			
a) concerning affiliated undertakings		(4,639,868)	(3,177,917)
b) other interest and similar expenses		(15,481)	(13,178)
15. Tax on profit or loss	Note 15.1	(2,389,180)	(2,432,273)
16. Profit or loss after taxation		31,665,610	36,271,436
17. Other taxes not shown under items 1 to 16		(11,150)	(32,100)
18. Profit or loss for the financial year		31,654,460	36,239,336

The accompanying notes form an integral part of the annual accounts



Notes to the annual accounts

Note 1 – General information

Creos Luxembourg S.A. (“the Company”) was incorporated in Luxembourg under the name of Cegedel S.A. on 27 March 1928. The Company is registered under RCS nr. B4513 as a “société anonyme” for an unlimited period. In the context of the below described operations, the Company has been renamed Creos Luxembourg S.A. in 2009.

Following a business combination in 2009 of the grid activities of Cegedel S.A. and Soteg S.A., the integration of the grid activities of Luxgaz Distribution S.A. in 2010 and the integration of the grid activities of the City of Luxembourg in 2011, the main activities of Creos Luxembourg S.A. are to operate in Luxembourg electricity and gas transport and distribution networks. Creos Luxembourg S.A. holds a 96.88% participation in Creos Deutschland Holding GmbH, which owns a 100% participation in Creos Deutschland GmbH, a result of the merger in 2009 of Saar Ferngas Transport GmbH in Germany with the network activities of Saar Ferngas AG, as well as a 100% participation in Creos Deutschland Netz GmbH, formerly Steag Netz GmbH, acquired in 2017.

The registered office of the Company is established in Luxembourg.

The regulated activities are under the supervision of a Regulator, namely the “Institut Luxembourgeois de Régulation” (“ILR”).

Annual accounts

The Company’s financial year runs from 1 January to 31 December each year. The company’s annual accounts are consolidated into the annual accounts of its main shareholder Encevo S.A., forming at once the largest and the smallest body of undertaking of which the Company forms a part as a subsidiary undertaking. Encevo S.A. is established in 2, Domaine du Schlassgoard, L-4327 Esch-sur-Alzette, Luxembourg, RCS nr. B11723. The consolidated accounts are available at this address.

Note 2 – Authorisations

Following the two European directives 2009/72 and 73 of 13 July 2009 concerning common rules for the internal markets in electricity and natural gas, and the laws that transposed these directives into national laws, namely the amended laws of 1 August 2007 regarding the organization of the electricity and natural gas markets, transport and distribution grid management activities have been legally separated from the other activities of generation and sale of electricity and gas.

Note 3 – Summary of significant accounting policies

Basis of preparation

The annual accounts have been prepared in accordance with Luxembourg legal and regulatory requirements under the historical cost convention. Accounting policies and valuation rules are, besides the ones laid down, by the Commercial Law dated 10 August 1915 as amended and the amended Law of 19 December 2002 determined and applied by the Board of Directors.

The preparation of annual accounts requires the use of certain important accounting estimates. It also requires the Board of Directors to exercise its judgment in the process of applying the accounting policies. Changes in assumptions may have a significant impact on the annual accounts in the period in which the assumptions changed. The Board of Directors believes that the underlying assumptions are appropriate and that the annual accounts therefore present the financial position and results fairly.

The Company makes estimates and assumptions that affect the reported amounts of assets and liabilities in the next financial year. Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Note 3 – Summary of significant accounting policies (cont.)

Significant accounting policies

The main valuation rules applied by the Company are the following:

Foreign currency translation

The Company maintains its books and records in EUR (€). Transactions expressed in currencies other than EUR are translated into EUR at the exchange rate effective at the time of the transaction. Formation expenses and long-term assets expressed in currencies other than EUR are translated into EUR at the exchange rate effective at the time of the transaction. At the balance sheet date, these assets remain translated at historical exchange rates.

Cash at bank is translated at the exchange rate effective at the balance sheet date, exchange losses and gains are recorded in the profit and loss account of the year.

Other assets and liabilities are translated separately respectively at the lower or at the higher of the value converted at the historical exchange rate or the value determined on the basis of the exchange rates effective at the balance sheet date. The realised and unrealised exchange losses are recorded in the profit and loss account. The exchange gains are recorded in the profit and loss account at the moment of their realisation.

Where there is an economic link between an asset and a liability, these are valued in total according to the method described above and the net unrealised losses are recorded in the profit and loss account and the net unrealised exchange gains are not recognised.

Presentation of the comparative financial data

In order to further improve the presentation of the annual accounts, some reclassification between the financial statement line items "Amounts owed by affiliated undertakings" and "Amounts owed to affiliated undertakings" have been recorded for an amount of EUR 2,342,922. The comparative figures for 2018 have been reclassified accordingly for an amount of EUR 1,824,225.

Intangible assets

Intangible assets are valued at purchase price including the expenses incidental thereto or at production cost, less accumulated amortisation and value adjustments. Where the Company considers that an intangible asset has suffered a durable depreciation in value, an additional write-down is recorded to reflect this loss. These value adjustments are not continued if the reasons for which the value adjustments were made have ceased to apply. The amortisation method is straight-line and the duration three years.

Intangible assets under development are valued at cost, based on the direct costs of the Company, and are reviewed annually for impairment.

Tangible assets

Tangible assets are recorded at purchase price including the expenses incidental thereto or at production costs. Tangible assets are depreciated over their estimated useful economic lives.

Value adjustments for electricity assets are made in accordance with the following principles:

- Plant and equipment that are part of the grid: depreciation using the declining-balance method based on coefficients equal to double those laid down in Article 30 of the Concession Agreement of 11 November 1927 and in the Agreement of 8 September 1998 for investments completed before 1990, and to triple for investments completed thereafter.
- Buildings: straight-line depreciation over 50 years for structural work and 3 to 10 years for internal and external equipment.
- Other equipment, machines and furniture: straight-line depreciation over 3 years in general.
- Fixed assets contributed by the City of Luxembourg or purchased from Echternach: straight-line depreciation, duration from 4 to 40 years.



Value adjustments for gas assets are made in accordance with the following principles:

- Buildings, plant and equipment contributed by Luxgaz Distribution S.A. and by the City of Luxembourg: straight-line depreciation, duration from 4 to 25 years. The historical structural assets of the buildings had a duration from 33 to 50 years.
- The tangible assets bought since 2010 by Creos Luxembourg S.A. are depreciated using the declining-balance method, based on coefficients equal to triple to linear and a duration from 3 to 25 years.

When a part of grid assets has to be replaced and cannot be separately identified, no disposal of assets is accounted for and the replaced assets continue to be depreciated with normal rates. This accounting principle has been agreed with the Regulator for the determination of grid tariffs.

Where the Company considers that a tangible asset has suffered a durable depreciation in value, an additional write-down is recorded to reflect this loss. These value adjustments are not continued if the reasons for which the value adjustments were made have ceased to apply.

Tangible assets under development are valued at cost, based on the direct costs of the Company, and are reviewed annually for impairment.

Work performed by the undertaking for its own purposes and capitalized

The costs incurred on fixed assets under development created by the Company itself are recorded in the profit and loss account. As of year-end, the amount of own work capitalized is transferred to the respective balance sheet line items and disclosed in the profit and loss account under financial statement line item "Work performed by the undertaking for its own purposes and capitalized".

Financial assets

Shares in affiliated undertakings and participating interests are recorded in the balance sheet at their acquisition cost including the expenses incidental thereto. Loans to affiliated undertakings and loans to undertakings with which the undertaking is linked by virtue of participating interests are included at their nominal value. In the case of an impairment that the Board of Directors considers as permanent in nature, value adjustments are made in respect to these long-term investments to apply the lower value to be assigned to them at the balance sheet date. These value adjustments are not maintained when the reasons for making them have ceased to exist.

Raw materials and consumables

Raw materials and consumables are valued at the lower of purchase price calculated on the basis of weighted average cost or market value. Value adjustments are recorded when the estimated realisable value of stocks is lower than the weighted average cost. These value adjustments are not maintained if the reasons for recording them have ceased to exist.

Finished goods and goods for resale

Finished goods and goods for resale are valued at the lower of purchase price including the expenses incidental thereto and the realizable value. A value adjustment is recorded where the market value is below the purchase price. These value adjustments are not continued if the reasons for which the value adjustments were made have ceased to apply.

Debtors

Debtors are recorded at their nominal value. Value adjustments are recorded when there is a risk that all or part of the amounts concerned may not be recovered. These value adjustments are not maintained if the reasons for recording them have ceased to exist.

Note 3 – Summary of significant accounting policies (cont.)

Investments

Investments are valued at their purchase price, including expenses incidental thereto, expressed in the currency in which the annual accounts are prepared. A value adjustment is recorded where the market value is lower than the purchase price. These value adjustments are not continued if the reasons for which the value adjustments were made have ceased to apply.

The market value corresponds to the latest available quote on the valuation day for investments listed on a stock exchange or traded on another regulated market.

Prepayments

This asset item includes expenditures incurred during the financial year but relating to a subsequent financial year.

Temporarily tax exempted capital gains

Temporarily tax exempted capital gains include gains for which the taxation is deferred by virtue of Article 54 LIR (Income tax law). Such gains, which are rolled over, are recorded at their initial value. Reinvested gains are written off using the same method and over the same period as the assets to which they relate. This financial statement line item is disclosed under "Other non available reserves" on the balance sheet.

Provisions

The aim of provisions is to cover clearly defined charges and liabilities which, on the balance sheet date, are either probable or certain but for which the amount or date of occurrence cannot be determined with certainty. A review is carried out at year-end to determine the provisions to be recorded for the Company's liabilities and charges. Provisions recorded in previous years are reviewed annually and those no longer needed are released.

Provisions may also be created to cover charges which originate in the financial year under review or in a previous financial year, the nature of which is clearly defined and which at the date of the balance sheet, are either likely to be incurred or certain to be incurred but uncertain as to their amount or the date on which they will arise.

Provisions for pensions and similar obligations

The Company offers its employees a defined benefit plan and a defined contribution plan.

Defined benefit plan

A defined benefit plan defines an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date. The defined benefit obligation is measured using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future payments by reference to the historical evolution of long term interest rates.

Actuarial gains and losses are charged or credited in the profit and loss in the period in which they arise.

Past-service costs are recognized immediately in the profit and loss account.

Defined contribution plan

A defined contribution plan is a pension plan under which the Company pays fixed contributions to a separate entity and has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. Contributions paid are directly recorded in the profit and loss during the year they are paid. The commitment of the Company is limited to the contributions that the Company agreed to pay into the fund on behalf of its employees.



Creditors

Creditors are recorded at their reimbursement value. Where the amount repayable on account is greater than the amount received, the difference is shown as an asset and is written off over the period of the debt based on a linear method. All fixed costs related to setting up the facilities are depreciated over the duration of the loan.

Deferred income

This item includes income received during the financial year or preceding years but relating to a subsequent financial year.

Net turnover

Net turnover relates to transportation and distribution of electricity and gas provided as well as related activities as part of the Company's ordinary activities, net of discounts, value-added tax and other taxes directly linked to sales.

Other operating income

Other operating income comprises all income only indirectly linked to normal business activities.

Income from participating interests

Dividend income is recorded when dividends are paid.

Note 4 – Intangible assets

Intangible assets comprise IT software licences and IT projects. Movements for the year were as follows:

	Concessions, patents, licences, trade marks and similar rights and assets	Payments on account and intangible assets under development	TOTAL 2019	TOTAL 2018
	EUR	EUR	EUR	EUR
Gross book value - opening balance	44,035,180	732,518	44,767,698	41,483,330
Additions for the year	39,144	4,669,087	4,708,231	3,284,368
Disposals for the year				
Transfers for the year	3,261,358	(3,522,971)	(261,613)	
Gross book value - closing balance	47,335,682	1,878,634	49,214,316	44,767,698
Accumulated value adjustments - opening balance	(31,581,592)		(31,581,592)	(24,976,139)
Allocations for the year	(7,358,008)		(7,358,008)	(6,605,453)
Reversals for the year				
Accumulated value adjustments - closing balance	(38,939,600)		(38,939,600)	(31,581,592)
Net book value - closing balance	8,396,082	1,878,634	10,274,716	13,186,106

The transfers for the year of EUR 3,261,358 relate mainly to software investments required for the implementation of a standardised electronic market communication and smart meter systems.

Note 5 – Tangible assets

Movements for the year were as follows:

	Land and buildings	Plant and machinery	Other fixtures and fittings, tools and equipment	Payments on account and tangible assets in the course of construction	TOTAL 2019	TOTAL 2018
	EUR	EUR	EUR	EUR	EUR	EUR
Gross book value - opening balance	154,928,405	1,719,082,574	72,628,400	96,706,783	2,043,346,162	1,918,592,286
Additions for the year	(165,968)	1,805,147	1,057,854	139,509,645	142,206,678	129,005,138
Disposals for the year	(50)	(103,464)		(354,029)	(457,543)	(4,251,262)
Transfers for the year	3,756,694	99,112,593	3,005,418	(105,613,091)	261,614	
Gross book value - closing balance	158,519,081	1,819,896,850	76,691,672	130,249,308	2,185,356,911	2,043,346,162
Accumulated value adjustments - opening balance	(37,790,144)	(1,088,960,712)	(54,942,785)		(1,181,693,641)	(1,098,858,065)
Allocations for the year	(3,944,217)	(84,343,824)	(4,139,026)		(92,427,067)	(86,396,588)
Reversals for the year		71,232			71,232	3,561,012
Transfers for the year						
Accumulated value adjustments - closing balance	(41,734,361)	(1,173,233,304)	(59,081,811)		(1,274,049,476)	(1,181,693,641)
Net book value - closing balance	116,784,720	646,663,546	17,609,861	130,249,308	911,307,435	861,652,521

The additions of EUR 139,509,645 include mainly investments during the year in the electricity grid of EUR 108,119,477 and the gas grid of EUR 21,475,181.

As of 31 December 2019, investment projects of EUR 105,613,091 have been definitively closed and transferred to their respective asset class.



Note 6 – Financial assets

Movements for the year were as follows:

	Shares in affiliated undertakings	Participating interests	Loans to undertakings with which the undertaking is linked by virtue of participating interests	TOTAL 2019	TOTAL 2018
	EUR	EUR	EUR	EUR	EUR
Gross book value - opening balance	42,000,000	2,484,851	420,000	44,904,851	44,434,851
Additions for the year	0	0	0	0	570,000
Disposals for the year	0	0	0	0	(100,000)
Gross book value - closing balance	42,000,000	2,484,851	420,000	44,904,851	44,904,851
Accumulated value adjustments - opening balance	0	0	0	0	(100,000)
Allocations for the year	0	0	0	0	
Reversals for the year	0	0	0	0	100,000
Accumulated value adjustments - closing balance	0	0	0	0	0
Net book value - closing balance	42,000,000	2,484,851	420,000	44,904,851	44,904,851

During the year, the Company completed no additional transactions.

The Company holds at least 20% of the capital in the following undertakings:

Company name	Headquarters	Proportion of capital held	Last available annual accounts	Shareholders' equity at year-end	Of which result for the year	Participation net book value 31/12/2019	Participation net book value 31/12/2018
		%		EUR	EUR	EUR	EUR
Creos Deutschland Holding GmbH	Homburg (Germany)	96.88	31/12/2019	58,234,807	9,937,221	42,000,000	42,000,000
Balansys S.A.	Luxembourg (Luxembourg)	50.00	31/12/2019	31,000	0	15,500	15,500
Ampacimon S.A.*	Grâce-Hollogne (Belgium)	22.43	31/12/2019	2,647,349	(431,394)	1,759,542	1,759,542
Nexxtlab S.A.**	Luxembourg (Luxembourg)	50.00	31/12/2018	875,267	(125,733)	500,000	500,000
TOTAL						44,275,042	44,275,042

* Unaudited figures - ** Last available figures

The Board of Directors is of the opinion that no additional value adjustments on these investments are necessary.

Note 7 – Trade debtors

Trade debtors relate mainly to revenues from transportation and distribution of electricity and gas.

Note 8 – Amounts owed by affiliated undertakings

As of 31 December 2019, the Company has a receivable of EUR 27,415,821 from affiliated undertakings (2018: EUR 16,242,161) mainly relating to commercial activities with affiliated undertaking.

Note 9 – Other debtors

As of 31 December 2019, this financial statement line item mainly comprises a receivable of EUR 25,723,953 (2018: EUR 15,595,864) in the context of the mechanism of compensation, income tax recoverable of EUR 27,193,740 (2018: EUR 19,333,905), and VAT receivable of EUR 3,513,761 (2018: EUR 1,900,518).

Note 10 – Own shares

Pursuant to a merger of municipalities and in accordance with the Company's by-laws and a resolution of the General Assembly dated 8 May 2012, Creos Luxembourg S.A. bought back 5,045 own shares from Schengen municipality for an amount of EUR 469,595 which has been recorded as current assets. A blocked reserve for the same amount has been provided for according to the law on commercial companies (see also Note 12).

The Board of Directors is of the opinion that no additional value adjustments on this investment is necessary.

Note 11 – Prepayments and deferred income

According to the regulation scheme, the amount of revenues (grid tariffs) deriving from regulated activities is authorised on an annual basis by the Regulator ILR. The difference between actual and authorised revenues is assessed each year by the Regulator. This difference is considered in the determination of the electricity and gas grid tariffs for subsequent years. In case actual revenues are over (respectively under) revenues as accepted by the ILR, tariffs for subsequent years will be reduced (respectively increased) and consequently such difference is provided for.

According to the regulation scheme, a cumulated difference (2019 and prior years) is calculated individually for each regulated activity (electricity, gas transport, gas distribution, metering electricity, metering gas) and is provided for, when positive, in the financial statement line item "Prepayments" for an amount of EUR 3,906,348 (2018: EUR 5,714,587) and when negative, in the financial statement line item "Deferred income" for an amount of EUR 25,960,946 (2018: EUR 33,241,471).

Furthermore, Creos Luxembourg S.A. participated early 2013 together with the other grid operators in Luxembourg in the "Luxmetering GIE" to develop an IT platform dedicated to the smart metering system. The GIE has no capital and the financial stake of Creos Luxembourg S.A. in the GIE corresponds to the ratio number of meters owned by Creos Luxembourg S.A. / number of meters owned by all GIE members and is around 80%. Cash advances of EUR 2,786,187 paid to Luxmetering G.I.E. are posted under the financial statement line item "Prepayments" (2018: EUR 2,820,869).

The same financial statement line item also comprises prepaid expenses related to not delivered hardware for an amount of EUR 263,767 and to gas grid usage for an amount of EUR 344,727 (2018: EUR 409,174) relating to a subsequent financial year. In 2018, the financial statement line item comprised prepaid expenses related to rental charges for an amount of EUR 296,919.



Note 12 – Capital and reserves

As at 31 December 2019, the Company's subscribed capital was EUR 198,851,260. The capital is fully paid-up and represented by 9,942,563 shares without designation of a nominal value.

The Company is required to allocate a minimum of 5% of its annual net income to a legal reserve, until this reserve equals 10% of the subscribed share capital. This reserve may not be distributed. The reserve is already fully allocated.

The movements for the year are as follows:

	31/12/2018	Distribution of dividends	Allocation of previous year's profit	Profit or loss of the financial year	Other movements		31/12/2019
	EUR	EUR	EUR	EUR	Increase	Decrease	EUR
Subscribed capital	198,851,260						198,851,260
Share premium account	189,562,253						189,562,253
Legal reserve	19,885,126						19,885,126
Reserve for own shares	469,595						469,595
Other reserves	230,842,440		18,110,000			(11,350,000)	237,602,440
Other available reserves	164,805,486		5,000,000 ¹⁾				169,805,486
Other non available reserves	66,036,954		13,110,000 ¹⁾			(11,350,000) ¹⁾	67,796,954
Profit brought forward	4,138,830		(11,683,218) ¹⁾		11,350,000 ¹⁾		3,805,612
Profit or loss for the financial year	36,239,336	(29,812,554) ¹⁾	(6,426,782) ¹⁾	31,654,460			31,654,460
Total	679,988,840	(29,812,554)	0	31,654,460	11,350,000	(11,350,000)	681,830,746

1) Decision of the ordinary general meeting of shareholders of 14 May 2019.

The amount allocated to the blocked reserve is equal to five times the amount of the wealth tax credit. The total reserve amounts to EUR 66,295,000 for 2014 to 2018. The amount allocated for 2013, EUR 11,350,000, was released to retained earnings as at 31 December 2019 (Note 15.1). This reserve is non distributable for a period of five years from the year following that during which the Net Wealth Tax was reduced.

According to Art. 54 of the Tax law, a capital gain amount of EUR 1,501,954 has been transferred to a blocked reserve in 2018.

Note 13 – Provisions

13.1. Provisions for pensions and similar obligations

Under a supplementary pension scheme, Creos Luxembourg S.A. has contracted a defined benefit scheme for staff members who started their employment with the Company before 1 January 2001. The Company is committed to pay a lump sum at the retirement of each employee. The amount reported in the balance sheet is estimated based on the following assumptions:

- retirement age taken into account for financing: 60 years
- yearly discount rate of 3.29%
- estimated wage at time of retirement
- turnover rate of employees of 2%

Actuarial profits and losses are immediately recognised in the profit and loss account based on a calculation done by an external actuary.

In addition, for a defined contribution pension scheme for staff members who joined the Company after 1 January 2001, the Company pays a contribution to an insurance company that is recorded under expenses for the year. For 2019, expenses for the pension scheme amount to EUR 1,210,406 (2018: EUR 983,210).

13.2. Other provisions

The financial statement line item "Other provisions" comprises provisions to cover untaken holidays for employees of EUR 5,951,356 (2018: EUR 5,303,733).

Additionally, a provision for other risks for an amount of EUR 5,374,359 (2018: EUR 6,400,000) has been accounted for to consider the risks related to defective assets (HV transformers for EUR 4,000,000) and other sundry risks (defective works for EUR 1,000,000).

Note 14 – Amounts owed to affiliated undertakings

Creos Luxembourg S.A. has entered into a cash pooling agreement with Encevo S.A. which, as of 31 December 2019, is owed a cash amount of EUR 9,381,691 by the Company (2018: EUR 1,302,706). The Company paid an interest rate based on Euribor plus a margin for loans (respectively is paid an interest based on Euribor minus a margin for deposits).

Included under the same financial statement line item are EUR 12,261,884 owed to affiliated undertakings becoming due and payable within 1 year (2018: EUR 3,544,047), corresponding mainly to the invoicing by Enovos Luxembourg S.A. of the amount due in relation with the "Mechanism of compensation" scheme.

On 26 June 2013, Encevo S.A. issued a German Certificate of Indebtedness (Schuldschein) of EUR 102,000,000 with a tenor of 7, 10, 12 and 15 years, of which EUR 65,000,000 were lent to the Company at back-to-back conditions. In order to comply with the back-to-back conditions of the "Schuldschein" of Encevo S.A., Creos Luxembourg S.A. early reimbursed the variable 7 year tranche amounting to EUR 22,304,000 in October 2018 – as a consequence of the early reimbursement of the variable 7 years "Schuldschein" tranche by Encevo S.A. in June 2018. The interest rate charged reflects the costs incurred by Encevo S.A. to raise the funds in the financial markets. The remaining tranches bear fix interest rates of 2.81%, 3.22% and 3.5% for the 10, 12 and 15 years tenor respectively which are paid in June and December every year. The interests are appropriately provisioned in the accounts. The accrued interest payable as at 31 December 2019 amounts to EUR 1,431,913 (2018: EUR 1,391,855).

On 21 November 2014, Encevo S.A. issued an additional German Certificate of Indebtedness ("Schuldschein") of EUR 80,000,000, of which EUR 25,000,000 were lent to Creos Luxembourg S.A. at back-to-back conditions. The interest rate charged reflects the costs incurred by Encevo S.A. to raise the funds in the financial markets. The Schuldschein bears a fixed interest rate for the 7 years of 1.547%, 2.004% for the 10 years and 2.297% for 12 years. The interests on the fixed tenors are paid in November every year.

On 11 October 2016, Encevo S.A. granted another long term loan to the Company, amounting to EUR 42,000,000. This financing is split into two tranches, each of EUR 21,000,000, one due after 11 years and one due after 12 years, with a floating interest rate of Euribor 6 months plus 1%.

In December 2017, Creos Luxembourg S.A. signed a two-year loan agreement with Encevo S.A. for an amount of EUR 30,000,000 which has been drawn in January 2018.

In July 2018, Encevo S.A. issued an additional German Certificate of Indebtedness ("Green Schuldschein") of EUR 250,000,000, of which EUR 134,304,000 were lent as of 1st October 2018 to Creos Luxembourg S.A. at back-to-back conditions in order to finance the Company's sustainable capital expenditures. The fixed interest rate charged reflects the average all-in costs incurred by Encevo S.A. to raise the funds in the financial markets and is fixed at 1.8915% per year to be paid every year on 1st October. This EUR 134,304,000 loan has 4 tranches with tenors of 7, 10, 12 and 15 years – corresponding to maturities in the new "Schuldschein" of Encevo S.A..

On 16 December 2019, an additional shareholder loan of Encevo of EUR 50,000,000 were lent to Creos Luxembourg S.A. at back-to-back conditions in order to finance the Company's sustainable capital expenditures. The fixed interest rate charged reflects the average all-in costs incurred by Encevo S.A. to raise the funds in the financial markets and is fixed at 1.8915% per year to be paid every year on 15 December. This EUR 50,000,000 loan has 4 tranches with tenors of 7, 10, 12 and 15 years – corresponding to maturities in the new "Schuldschein" of Encevo S.A..

Note 15 – Other creditors

15.1. Tax authorities

Creos Luxembourg S.A. is subject to all taxes applicable to Luxembourg companies and the tax provisions have been provided in accordance with the relevant laws. In accordance with paragraph 8a of the Law dated 16 October 1934 as amended, Creos Luxembourg S.A. will opt for the reduction of the net wealth tax due for the year 2019 by setting up a special reserve equal to five times the amount of the net wealth tax reduced (see Note 12).

Income tax debts are recorded under the financial statement line item "Tax authorities". As of 31 December 2019, income tax debts cover principally the year 2015. For the years 2014, 2016, 2017, 2018 and 2019, the Company has a receivable, as advance payments were higher than provisions for the year. This receivable is recorded under the financial statement line item "Other debtors" (see also Note 9).

Debts to the tax authorities also include other tax debts, such as taxes on electricity and gas, taxes on salaries and pensions. As of 31 December 2019, these other tax debts amount to EUR 5,029,828 (2018: EUR 4,490,505).

15.2. Other creditors

This financial statement line item mainly includes salaries to be paid.

Note 16 – Net turnover

Net turnover is generated from activities realised in Luxembourg. For the year 2019, it breaks down as follows:

	2019	2018
	EUR	EUR
Sales grid power	164,106,038	161,749,141
Sales grid gas	57,038,358	54,288,135
Metering revenues	24,322,151	24,142,544
Energy sales power (equilibrium)	(1,117,651)	1,841,156
Other revenues	25,276,558	21,709,915
Total	269,625,454	263,730,891

Energy sales power (Equilibrium) are the differences between nominations made by suppliers and their actual purchases. This difference, which can be a cost (or a revenue) for the Company, is re-invoiced (or credited) to the suppliers.

Note 17 – Work performed by the undertaking for its own purposes and capitalised

This financial statement line item accounts for capitalised transport costs, overheads and hours worked by employees on projects activated by the Company.

Note 18 – Staff costs

Staff costs include salaries, social security costs as well as costs for the pension plans. In 2019, the Company had on average 760 employees (2018: 701). The figure in 2019 includes the staff of the City of Luxembourg made available to Creos Luxembourg S.A. (69 employees), the costs of which are shown under wages and salaries for EUR 7,453,184 (2018: EUR 8,239,462). The number of employees increased from 686 FTE at year end 2018 to 748 FTE at year end 2019.

Note 19 – Income from participating interests

This financial statement line item includes the dividends paid by Creos Deutschland Holding GmbH for an amount of EUR 5,812,524 (2018: EUR 6,006,275).

Note 20 – Remuneration paid to members of the administration and supervisory bodies

Remuneration paid to members of the administration and supervisory bodies totalled EUR 689,651 (2018: EUR 715,500). No advance or loan was granted to members of the administration and supervisory bodies, nor was any commitment given on their behalf in respect of any form of guarantee.

Note 21 – Related parties transactions

During the financial year, the Company did not conclude any significant transactions with related parties which were not done at market conditions.

Note 22 – Off balance sheet commitments

The Company has issued bank guarantees in the context of its regular business for a total amount of EUR 1,000,992 (2018: EUR 1,000,992).

Note 23 – Subsequent events

In light of the latest developments in the context of the Corona pandemic, Management is currently evaluating the potential impact on its operations in 2020 and beyond of the measures taken by the Luxembourgish Government to contain the spreading of the virus. Such measures could negatively affect the Company's ability to achieve its investment targets set by the regulator or to keep up its level of operational business in regards to maintenance and asset service programs due to unavailability of employees or to the restriction to perform these activities as a consequence of such governmental decisions. Given the overall uncertainty on the evolution of the situation in the near future, it is not possible yet at this point to give a precise indication on the magnitude of such impacts. Following the state of emergency declared for the whole country on March 17th, Creos Luxembourg S.A. has activated its business continuity plan in order to continue to ensure the security of supply throughout the country.



Independent auditor's report

To the Shareholders of Creos Luxembourg S.A.

Report on the audit of the financial statements

Opinion

We have audited the financial statements of Creos Luxembourg S.A. (the "Company"), which comprise the balance sheet as at 31 December 2019, and the profit and loss account for the year then ended, and the notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Company as at 31 December 2019, and of the results of its operations for the year then ended in accordance with Luxembourg legal and regulatory requirements relating to the preparation and presentation of the financial statements.

Basis for Opinion

We conducted our audit in accordance with the Law of 23 July 2016 on the audit profession (the "Law of 23 July 2016") and with International Standards on Auditing ("ISAs") as adopted for Luxembourg by the "Commission de Surveillance du Secteur Financier" ("CSSF"). Our responsibilities under the Law of 23 July 2016 and ISAs are further described in the "responsibilities of the "réviseur d'entreprises agréé" for the audit of the financial statements" section of our report. We are also independent of the Company in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants ("IESBA Code") as adopted for Luxembourg by the CSSF together with the ethical requirements that are relevant to our audit of the financial statements, and have fulfilled our other ethical responsibilities under those ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other information

The Board of Directors is responsible for the other information. The other information comprises the information included in the management report but does not include the financial statements and our report of the "réviseur d'entreprises agréé" thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report this fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors and those charged with governance for the financial statements

The Board of Directors is responsible for the preparation and fair presentation of these financial statements in accordance with Luxembourg legal and regulatory requirements relating to the preparation and presentation of the financial statements, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Responsibilities of the "réviseur d'entreprises agréé" for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a report of the "réviseur d'entreprises agréé" that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Law of 23 July 2016 and with ISAs as adopted for Luxembourg by the CSSF will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with the Law of 23 July 2016 and with ISAs as adopted for Luxembourg by the CSSF, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors.
- Conclude on the appropriateness of Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our report of the "réviseur d'entreprises agréé" to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our report of the "réviseur d'entreprises agréé". However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on other legal and regulatory requirements

The management report is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

Ernst & Young, Société anonyme
Cabinet de révision agréé
Luxembourg, 19 March 2020
Represented by Jeannot Weyer

Creos Luxembourg's annual report is published in both English and French. Only the English version may be considered the original.

We would like to thank all those involved in the preparation and publication of this annual report.

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