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# **Sustainability Report 2018**

Generating Change

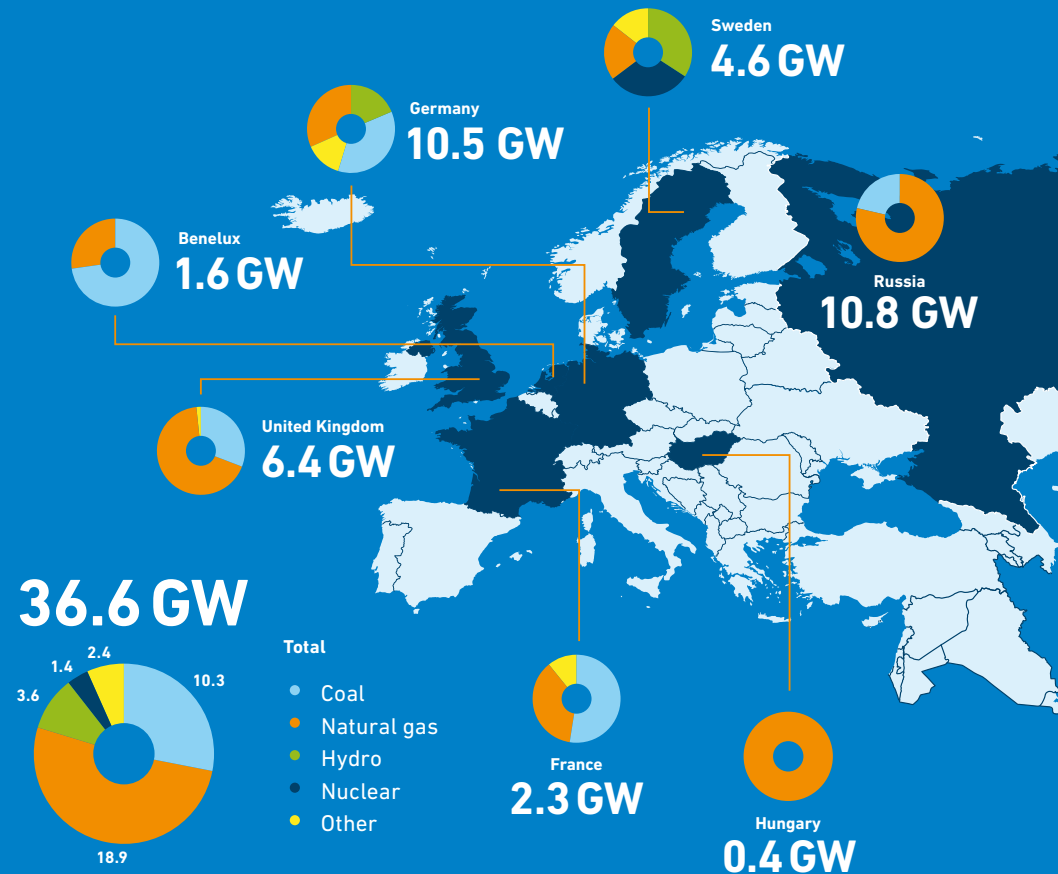
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## About Uniper

We are a global energy company that generates, trades, and markets power on a large scale. We also procure, store, transport, and supply commodities such as natural gas, LNG, and coal as well as energy-related products. We have a broad portfolio of assets and contracts that complement each other perfectly. But what really sets us apart is our energy IQ: our unique combination of industry-leading technical and commercial expertise. This enables us to create value for our customers by designing individually tailored energy solutions for them, solutions that free them from having to worry about the complex energy issues they face. And we do all of this responsibly. We're a team of doers who achieve their goals with energy, passion, and conscientiousness. Uniper: "Tailoring energy solutions. Managing complexity."

## Diversified generation portfolio



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# Foreword

## Dear reader,

We place great emphasis on providing you, our stakeholders, with accurate, transparent information about how we live up to our responsibilities as company. Our 2018 Sustainability Report continues this practice.

2018 was another eventful year. Global energy markets remained highly dynamic, and there were significant changes to the energy policies of several countries where we have our biggest asset positions. Although we had to take far-reaching measures and revise our targets for a number of projects, we continued to work tirelessly to lead Uniper to a successful future.

Despite a challenging business environment, we remained a reliable partner for our customers, employees, business partners, shareholders, and the communities we operate in. We supplied our customers with electricity and gas with our proven reliability. Going forward, we intend to provide this reliability with a

gradually climate-friendlier energy mix. We're starting from a good position: we're already one of the largest operators of hydroelectric plants in Germany and in Sweden, where we also have nuclear power plants. Indeed, 65% of our generating capacity consists of low-carbon hydro, nuclear, and gas. In the future, we intend to focus even more on gas, the cleanest fossil fuel. In short, our business activities will help propel the transition to a lower-carbon future.

This process is already under way. In 2018 we continued to invest in modernizing and upgrading our power plants and to shut down older, less efficient plants. These measures were a big part of why our carbon emissions declined by 19% relative to 2016, the year we became an independent company. Our safety performance was solid as well. Total recordable injury frequency (TRIF), which measures the number of accidents involving our employees and our contractors' employees, was lower than ever and better than the industry average. In addition, we continued

to take steps to improve the environmental, social, and governance performance of our coal suppliers, particularly in partnership with Bettercoal, an international initiative dedicated to making the coal supply chain more sustainable.

These are just some of the things we did to meet our responsibilities in 2018. To ensure that we build on this progress in the years ahead, in February 2019 we adopted a Sustainability Strategic Plan. Guided by the UN Sustainable Development Goals, it consists of a set of long-term commitments that will guide our activities going forward as well as quantitative improvement targets for the period 2019–2022. Implementing the plan and making progress toward our targets will help make our business more sustainable and more resilient. It's all part of our commitment to Generating Change – in our business activities, within our company, and along our value chain.

I hope you find this report useful and informative and that you continue to follow us on our journey into the future.



**Eckhardt Rümmler**  
Chief Operating Officer and Chief  
Sustainability Officer

With best wishes,

A handwritten signature in blue ink, appearing to read 'Eckhardt Rümmler', written in a cursive style.

Eckhardt Rümmler

# Sustainability at Uniper: our commitment to Generating Change

What makes an energy company sustainable? We believe financial stability, a shared clear vision, strong relations with stakeholders, and a commitment to addressing adverse impacts transparently are key. But so is a willingness to adapt and, more importantly, to be a positive force for change. We call this commitment Generating Change – in our business activities, at our company, and along our value chain.

We're aware that our ability to adapt will be crucial for us to continue creating value for those who rely on us. That's why we've geared our corporate strategy toward tomorrow's energy world. We believe this world will offer us opportunities to develop new businesses and innovative solutions that will contribute to sustainable development while adding value to our company.

We generate energy. And we're committed to Generating Change – positive change for our company, employees, customers, and enterprise partners as well as for the communities and countries where we do business.



## Generating Change

# Sustainable Development Goals

<p><b>1</b> NO POVERTY</p>	<p><b>2</b> ZERO HUNGER</p>	<p><b>3</b> GOOD HEALTH AND WELL-BEING</p>	<p><b>4</b> QUALITY EDUCATION</p>	<p><b>5</b> GENDER EQUALITY</p>
<p><b>6</b> CLEAN WATER AND SANITATION</p>	<p><b>7</b> AFFORDABLE AND CLEAN ENERGY</p>	<p><b>8</b> DECENT WORK AND ECONOMIC GROWTH</p>	<p><b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p><b>10</b> REDUCED INEQUALITIES</p>
<p><b>11</b> SUSTAINABLE CITIES AND COMMUNITIES</p>	<p><b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p><b>13</b> CLIMATE ACTION</p>	<p><b>14</b> LIFE BELOW WATER</p>	<p><b>15</b> LIFE ON LAND</p>
<p><b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS</p>	<p><b>17</b> PARTNERSHIPS FOR THE GOALS</p>	<p><b>Uniper supports the 17 UN Sustainable Development Goals.</b> We prioritized nine SDGs that fit with our business activities and sustainability strategy.</p>		



# Sustainability management

## Generating Change: an interview with Frank Plümacher

**Frank Plümacher, Executive Vice President for Sustainability and HSSE, talks about how Uniper's commitment to Generating Change fits with its business portfolio, strategy, and corporate culture.**



### **What does Generating Change mean for Uniper?**

We've set our strategic course: while remaining a mainstay of Europe and Russia's supply security, we intend to build on our proven strengths to enter new markets worldwide and further establish ourselves as a company that designs individually tailored energy solutions and manages complexity for customers. As we implement our corporate strategy, our commitment to Generating Change means being continuously aware that the decisions we make and the actions we take have an impact on people and the environment.

Generating Change also means making sure that we mitigate our negative impacts as much as possible. It means making sustainability a priority and a key facet of our responsibilities and it is an approach to further embedding sustainability into our business processes and decision-making. Not only is it the right thing to do, it is what our stakeholders expect of us.

### **What led Uniper to make this commitment?**

Our commitment to Generating Change is a concerted effort to align our responsibilities with our corporate strategy. It gives us the best chance to succeed in making our

company, the countries where we operate, and our value chain more sustainable. We are confident that Generating Change will make our company more resilient in a rapidly changing world.














### **How will Uniper deliver on this commitment?**

As part of our commitment, in 2018 we designed the Sustainability Strategic Plan. The plan describes how sustainability supports our long-term corporate strategy and sets improvement targets for our environmental, social, and governance performance from 2019 to 2022. It also explains how these targets contribute to the achievement of the nine United Nations Sustainable Development Goals that are most relevant to our business activities. For example, two of these goals are "affordable and clean energy" and "measures to protect the climate." To help achieve them, we set a maximum average carbon intensity threshold of 500 grams per kilowatt hour for 2018 to 2020 and pledged to pursue at least 20 projects that promote decarbonization by 2022. Making progress toward these and our other improvement targets will be a big part of how we will further embed Generating

Change toward sustainability into our daily work, organization, and corporate culture.

### **What does Generating Change mean for Uniper employees?**

We expect all our employees to think and act responsibly and to make Generating Change toward sustainability part of their daily work. We'll continue to reinforce their awareness and to provide them with the tools they need to embrace sustainability. This also applies to their health, well-being, and personal and professional development. That's why we respect our employees' rights, provide them with a safe and supportive work environment, have no tolerance of discrimination, and support equal opportunity and diversity. We've set improvement targets in these areas as well. For example, we intend to maintain a low total recordable incident frequency and to increase the percentage of women in management positions.

SSP impact areas	Material topics	Relevant SDGs	Uniper commitments	Uniper targets
<b>Climate action and security of supply</b>	<ul style="list-style-type: none"> <li>GHG emissions</li> <li>Innovation</li> <li>Secure, affordable, and reliable energy supply</li> </ul>	   	<ul style="list-style-type: none"> <li>Monitor and optimize the carbon intensity of Uniper's generation portfolio.</li> <li>Include decarbonization activities as a focus area for innovation.</li> <li>Promote lower-carbon fuels for energy generation.</li> </ul>	<ul style="list-style-type: none"> <li>Group-wide carbon intensity target of 500 g of CO<sub>2</sub> per kilowatt hour (on average) through 2020.</li> <li>Conduct, by 2022, at least 20 projects whose aims include decarbonization.</li> </ul>
<b>Our people</b>	<ul style="list-style-type: none"> <li>Health and safety</li> <li>Fair and attractive employer</li> <li>Diversity and inclusion</li> </ul>	 	<ul style="list-style-type: none"> <li>Protect labor rights and ensure a safe, healthy, and secure work environment for all employees and contractors; promote the same standards in Uniper's joint ventures and partnerships.</li> <li>Have zero tolerance of discrimination.</li> <li>Ensure equal opportunity and promote inclusion in the entire workforce.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain a 1.75 combined TRIF threshold at group level through 2019.</li> <li>Certify 100% of Uniper's operational assets to ISO 45001 by 2022.</li> <li>Have women account for 25% of Uniper's high-level executives by 2022.</li> <li>Achieve an employee inclusion indicator of over 95% by 2022.</li> </ul>
<b>Environmental protection</b>	<ul style="list-style-type: none"> <li>Environmental protection</li> <li>Air emissions</li> <li>Energy efficiency</li> <li>Biodiversity</li> <li>Waste minimization</li> <li>Water optimization</li> <li>Fuels and by-products</li> </ul>	 	<ul style="list-style-type: none"> <li>Promote waste reduction, land pollution prevention, and environmentally responsible mining.</li> <li>Work with contractors, suppliers, and industrial customers to adopt a life-cycle approach in order to protect the environment, use resources efficiently, and market Uniper's by-products.</li> </ul>	<ul style="list-style-type: none"> <li>Have no severe environmental incidents.</li> <li>Maintain certification of 100% of Uniper's operational assets to ISO 14001.</li> </ul>
<b>Human rights and compliance culture</b>	<ul style="list-style-type: none"> <li>Human rights along the value chain</li> <li>Governance and compliance</li> <li>Data protection</li> </ul>	 	<ul style="list-style-type: none"> <li>Have zero tolerance of forced labor, child labor, modern slavery, and human trafficking.</li> <li>Continue to strengthen Uniper's compliance culture and protect the business from corruption risks.</li> </ul>	<ul style="list-style-type: none"> <li>Assess 100% of new counterparties according to Uniper's social screening system (ESG due diligence) by 2022.</li> <li>Train 100% of new hires on compliance and Uniper's Code of Conduct by 2022.</li> </ul>
<b>Stakeholder engagement</b>	<ul style="list-style-type: none"> <li>Stakeholder engagement</li> </ul>	  	<ul style="list-style-type: none"> <li>Actively engage with stakeholders to ensure transparency and ongoing dialogue regarding Uniper's activities.</li> <li>Foster the development of effective, accountable, and transparent institutions at all levels.</li> <li>Minimize the impact on communities affected by Uniper's operations.</li> </ul>	<ul style="list-style-type: none"> <li>At the corporate level, conduct at least three trust-building dialogues with civil society organizations each year up to 2022.</li> </ul>

## Material topics for Generating Change

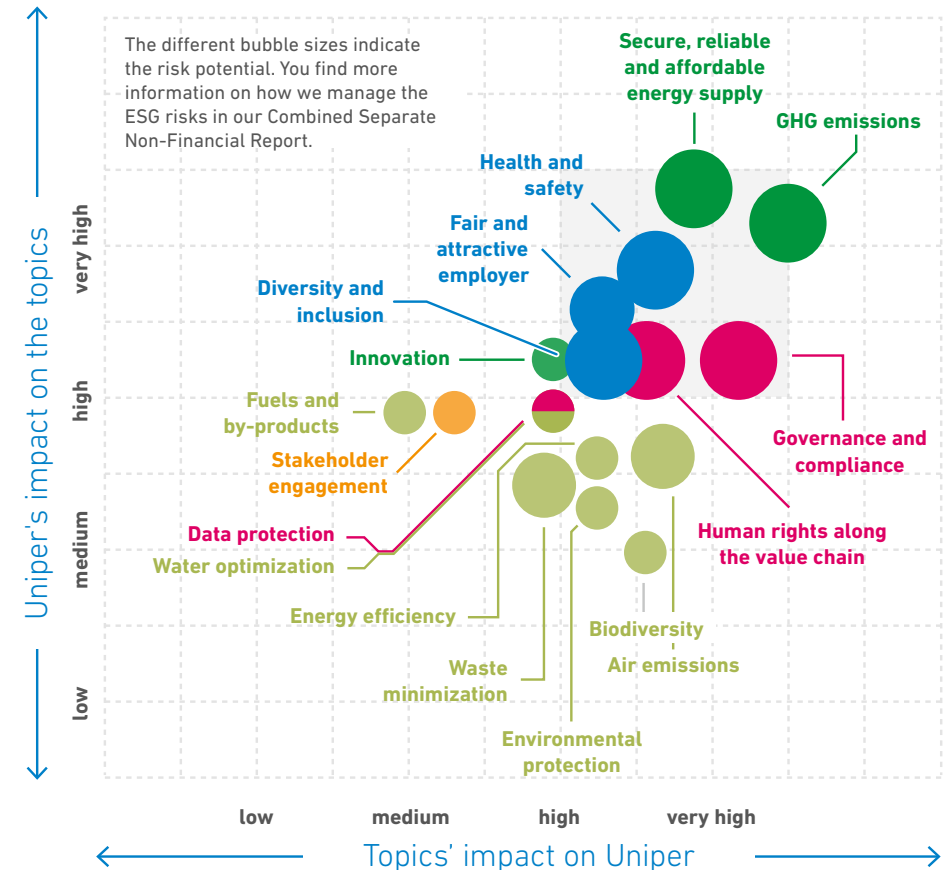
**[GRI 102-47]** As our commitment outlines, our material topics are mapped against the SDGs to define our strategic sustainability commitments. As part of our 2018 materiality assessment, we prioritized nine SDGs that are key to our business activities, their impact, and our strategy for the future.

In our 2018 materiality assessment, we reviewed and, where necessary, adjusted our company-specific sustainability topics. We adopted a two-dimensional approach that considered the economic, environmental, and social impact of our business activities on these topics as well as the topics' impacts on our company. We also considered the expectations of important stakeholders, such as policymakers, competitors, non-governmental organizations (NGOs), and the financial market; we analyzed whether from their perspective our impacts could have a significant influence on our company and third parties and the importance of the impacts for understanding our current and future development.

The assessment also analyzed the business relevance of our company-specific topics, the energy industry's influence on them, and whether they correlate with one or more of the UN Sustainable Development Goals. In the final step of the assessment, experts from relevant departments discussed, validated, and approved the results.

The following materiality matrix provides an overview of the assessment's results. The horizontal axis indicates each topics' impact on our company from the perspective of outside stakeholders; conversely, the vertical axis represents our impact on these topics. The various sections of this sustainability report describe our management approach for these topics, the progress we achieved in the reporting period, and, where relevant, exceptions to our definition of materiality.

## Materiality matrix



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## How we manage our commitment

**[GRI 102-11/18/19/20]** The Uniper Management Board bears overall responsibility for adopting and implementing sustainability measures that encompass the entire company. One of its members, Eckhardt Rümmler, is appointed as Chief Sustainability Officer (CSO) and periodically reports to the Supervisory Board on our strategic sustainability activities. As our highest governance board, the Supervisory Board monitors our company's fulfillment of its sustainability obligations.

The Management Board has assigned to the Health, Safety, Security, and Environment (HSSE) & Sustainability function the responsibility for defining our company-wide targets and key performance indicators and for identifying ESG risks and emerging issues that could affect our company.

We have in place measures to control, minimize, and mitigate our ESG risks. Our ESG risk management encompasses a governance structure, the assignment of duties and responsibilities, and applicable policies and procedures. It also includes assessing the external and

internal environmental and social risks that could arise from our operations, the likelihood of these risks, and their potential severity. ESG risk management is part of our overall enterprise risk management processes.

Our employees' involvement is essential for achieving a robust sustainability culture. We strive to encourage their involvement by continually reinforcing their awareness of the importance of sustainability for our company, for the countries and communities where we operate, and for themselves as individuals.

Our two office buildings, Float and Capricorn, in Düsseldorf.





## Governance and monitoring

### Policies and commitments

**[GRI 103-2, 102-16/20]** The HSSE & Sustainability Policy Statement, signed by the Management Board and the Uniper Group Works Council, articulates our commitment to acting responsibly by supporting the principles of the United Nations Global Compact and other relevant internationally recognized standards for human rights, environmental protection, and good governance along our supply chain.

Uniper's Code of Conduct addresses a wide range of issues, including compliance, anti-corruption, and respect for human rights. The code, which defines our basic principles of conduct, is founded on a commitment to one another, the business, and the communities in which we operate. It's binding for all our employees.

We strive to work, whenever possible, with third parties that have comparable principles. We therefore require our suppliers to sign our Supplier Code of Conduct.

We comply with anti-discrimination laws and regulations in the countries where we operate. To foster diversity and inclusion, in 2018 we introduced a Diversity Improvement Plan.

We are committed to the core conventions of the International Labour Organisation. We also comply fully with the UK Modern Slavery Act in the United Kingdom and similar laws in other countries.

### Ratings and rankings

We continually monitor our sustainability performance. But it's always useful to find out how other experts think we're doing and to learn from their feedback. Our sustainability performance is rated and ranked by a wide range of independent organizations around the world. We realize that these assessments generally rate our performance as average. This provides further impetus for us to strive to improve our performance in the future.

### Uniper's performance in ratings and rankings

	Our score
<b>CDP</b> London-based CDP is a not-for-profit organization that runs a global disclosure system for investors, companies, cities, states, and regions to manage their environmental impacts. Its scores for climate and environmental disclosures range from D- to A. The average score in the European utilities sector is C.	<b>C</b>
<b>Energy Intelligence's Top 100 Green Utilities</b> This ranking of the world's top green power generators from both industrialized and emerging markets is based on the companies' renewable energy portfolios and greenhouse gas emissions.	<b>72nd</b>
<b>MSCI ESG Ratings</b> Based in New York, MSCI is an independent provider of insights and analytics that help investors identify ESG risks and opportunities. Its seven ESG ratings are grouped into three categories: laggard (CCC, B), average (BB, BBB, A), and leader (AA, AAA).	<b>Laggard (B)</b>
<b>ISS-oekom</b> ISS-oekom of Munich rates companies' ESG performance on a scale from D- to A+. The prime threshold for the energy industry is B-. Being at or above the prime threshold indicates that a company is meeting or exceeding the ESG performance standards for its industry.	<b>C</b>
<b>Sustainalytics ESG Risk Ratings</b> Amsterdam-based Sustainalytics rates the industry-specific ESG risks of 9,000 companies worldwide. High score = high performance	<b>63 out of 100 points</b>

# Climate action and security of supply

Climate change is one of the world's biggest challenges and one of our company's most material long-term topics. This applies in particular to the climate impact of the carbon emissions from our coal-fired power stations. Europe's energy transition is under way, and more and more of its energy is renewable. But because the amount of renewable energy available varies with the weather and the time of day, this ongoing growth presents the energy system with significant challenges. For example, operationally flexible conventional plants are still crucial for balancing out the fluctuations in renewables output and thus ensuring an uninterrupted power supply and grid stability. In fact, two thirds of our generating capacity can do precisely this: our lower-emission gas-fired plants and low-emission hydro and nuclear plants respond quickly to fluctuations and therefore play a key role in ensuring supply security while also promoting climate protection.

Direct CO<sub>2</sub> emissions from fuel combustion in million metric tons



Reduced our direct carbon emissions from combustion of fossil fuels for power and heat generation to 59.5 million metric tons.

# 499

Reduced our total carbon intensity to 499 grams of CO<sub>2</sub> per kWh.



## ›Commitments

Monitor and optimize the carbon intensity of Uniper's generation portfolio.

Promote lower carbon fuels for power generation.

Include decarbonization activities as a focus area for innovation.

## ›Targets

Group-wide carbon intensity of 500g of CO<sub>2</sub> per kilowatt hour (on average) through 2020.<sup>1</sup>

Conduct, by 2022, at least 20 projects whose aims include decarbonization.

## ›Contribution to the UN SDGs



<sup>1</sup>We calculate carbon intensity on average from 2018 to 2020 using the financial control approach. This means that our carbon intensity is the ratio between the direct CO<sub>2</sub> emissions from our fully consolidated, stationary fossil-fueled power plants and power-and-heat plants and these plants' power and heat output. It does not include plants that produce heat/steam only.

# Greenhouse gas emissions

**[GRI 103-1/2] Climate change is a major challenge and urgent, concerted action worldwide will be necessary to limit global warming to 1.5 degrees centigrade. It's also a big challenge for an energy company like us. Our industry, which is among the biggest carbon emitters, will be increasingly affected in the years ahead by social, regulatory, and economic developments related to greenhouse gas (GHG) emissions.**

**[GRI 103-2/3]** We support the implementation of the Paris Agreement and are doing our part by helping gradually decarbonize the energy system while simultaneously ensuring a reliable energy supply.

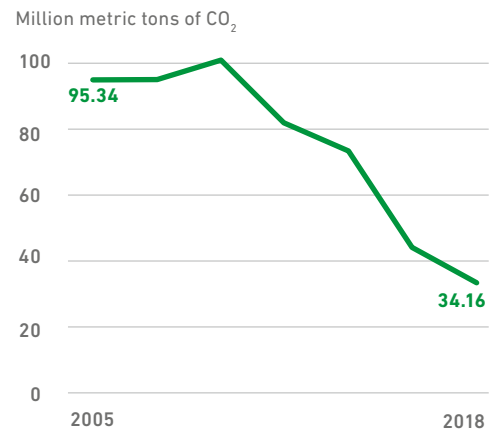
# 19%

**reduction of direct carbon emissions from the combustion of fossil fuels for power from 2016 to 2018**

**[GRI 103-2]** Since the EU Emissions Trading Scheme began in 2005, our generation business in Europe has reduced its annual carbon emissions by just over 60 million metric tons, which is around 64%. In other words, our emissions have declined further than the current EU climate targets to cut emissions in the EU by at least 40% below 1990 levels by 2030. We believe that the EU ETS remains the most cost-effective mechanism for helping Europe meet its emission-reduction targets.

We've achieved this reduction in two ways: by shutting down older, uneconomical power plants and by building gas-fired plants that supply homes and businesses with lower-emission electricity, heat, and steam.

## Uniper's direct carbon emissions in Europe<sup>1</sup>



<sup>1</sup>Carbon emissions of our generation business in Europe calculated using the operational control approach. This means that we counted 100% of the emissions from all generation assets over which we have operational control, even if our ownership stake is less than 100%. These figures do not include the emissions of Unipro, our subsidiary in Russia.







**Direct CO<sub>2</sub> emissions from fuel combustion by country<sup>1</sup> [GRI 305-1]**

Million metric tons	2018	2017	2016
France	2.9	5.1	4.3
Germany	17.2	16.9	19.6
Hungary	0.8	0.8	0.6
Netherlands	5.5	7.9	10.9
Russia	25.3	26.4	29.4
Sweden	<0.01	<0.01	0.2
United Kingdom	7.6	6.2	8.6
<b>Total<sup>2</sup></b>	<b>59.5</b>	<b>63.3</b>	<b>73.6</b>

<sup>1</sup>We calculated our direct carbon emissions using the operational control approach. This means that we counted 100% of the emissions from all generation assets over which we have operational control, even if our ownership stake is less than 100%. We used the rules of the EU Emissions Trading Scheme to calculate the data for all countries except Russia. The totals were adjusted to correct for the effects of rounding.

<sup>2</sup>Possible rounding differences between individual figures and totals.

Uniper employees at our gas storage facility in Etzel, Germany.

**[GRI 305-1]** Our decarbonization strategy focuses primarily on our direct emissions, which account for the largest majority of our total emissions. Our direct carbon emissions from the combustion of fossil fuels for power and heat generation declined from 63.3 million metric tons in 2017 to 59.5 million metric tons in 2018. Although lower output at our conventional power plants in France, the Netherlands, and Russia was the main factor driving this development, technical upgrades and operational improvements contributed as well.

## Indirect CO<sub>2</sub> emissions

[GRI 305-2/3]

### Greenhouse Gas Protocol Scope 2 and 3

Our Scope 2 indirect emissions totaled 0.27 million metric tons of CO<sub>2</sub> (2017: 0.34 million metric tons of CO<sub>2</sub>) and 0.34 million metric tons CO<sub>2</sub> (2017: 0.41 million metric tons of CO<sub>2</sub>) using the location-based method and market-based method, respectively. These emissions therefore declined year on year using both methods.<sup>1</sup>

Our upstream Scope 3 indirect emissions related to extraction and transportation of consumed fuels totaled 10.3 million metric tons of CO<sub>2</sub>.<sup>2</sup>

<sup>1</sup>These figures include emissions from consolidated and nonconsolidated generation assets over which Uniper has operational control.

<sup>2</sup>Raw estimate of upstream Scope 3 emissions associated with the extraction, refining, and transportation of the raw fuel sources to an organization's site (or asset) prior to combustion using well-to-tank (WTT, DEFRA) fuel-conversion factors.

<sup>3</sup>We calculate carbon intensity on average from 2018 to 2020 using the financial control approach. This means that our carbon intensity is the ratio between the direct CO<sub>2</sub> emissions from our fully consolidated, stationary fossil-fueled power plants and power-and-heat plants and these plants' power and heat output. It does not include plants that produce heat/steam only. We initially reported that our carbon intensity was 503 g/kWh in 2017. We subsequently corrected this to 506 g/kWh.

# 0.27

million metric tons indirect CO<sub>2</sub> emissions using the location-based method<sup>1</sup>

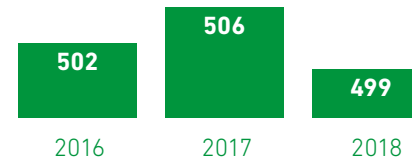
# 0.34

million metric tons indirect CO<sub>2</sub> emissions using the market-based method<sup>1</sup>

## How we're managing our GHG emissions

[GRI 305-4] We're committed to monitoring and optimizing the carbon intensity of our generation portfolio. We set a Group-wide annual average carbon intensity target of 500 grams of CO<sub>2</sub> per kWh for the period 2018 to 2020. Our carbon intensity was 499 grams of CO<sub>2</sub> per kWh in 2018, a reduction from 506 grams of CO<sub>2</sub> per kWh in 2017.<sup>3</sup> This is consistent with our target. Through year-end 2020, we intend to further refine our carbon-monitoring processes and to invest in upgrades and innovations that will reduce our assets' carbon intensity. In addition, we're analyzing climate scenarios, policy and regulatory developments, and the lifetime scenarios of our assets in order to define a carbon intensity target for the period beyond 2020.

### Uniper CO<sub>2</sub> intensity 2016-2018 (grams of CO<sub>2</sub> per kWh)



### Supporting the energy transition

Two factors – the phaseout of coal-fired power generation in some countries and greater use of climate-friendly natural gas – could increase Europe's emission-reduction potential.

Several countries in which we operate have begun to take steps toward ending coal-fired power generation. In July 2017, the French government stated its intention to shut down coal-fired power plants by 2022. In January 2018, the UK government announced a phaseout date of October 1, 2025. In May 2018, the Netherlands' Ministry of Economics published a draft law under which plants that are less than 44% fuel-efficient would be closed by 2025, whereas those above 44% could remain in operation until year-end 2029. Finally, in January 2019 the Coal Commission appointed by the German federal government recommended gradually phasing out coal by 2038. Although none of these countries has yet enacted a phaseout law, the trend is clear.

We support a coal phaseout – but only if rising carbon prices alone don't enable the EU to achieve a rate of emissions reduction

to reach its climate targets. Moreover, we strongly believe that the modalities of any phaseout must be fair to the companies, people, and regions they affect. In addition, decisions about the future of coal-fired power generation must consider the reliability of the energy and heat supply, especially because the feed-in of intermittent renewable energy continues to increase and the expansion of grid capacity is not keeping pace with this growth.

We expect Datteln 4, our technologically advanced 1.1 GW coal-fired power plant in west-central Germany, to enter service in the summer of 2020. We will not invest in any new coal-fired power plants of our own after the commissioning of Datteln 4.

No matter what decisions are made about coal, gas – which has the lowest carbon emissions of any fossil energy source – is the best fuel to support the energy transition. Indeed, ambitious emissions reduction can only be achieved if more gas is used in power generation, heating, transport, and industry. The importance of gas-fired power plants, which can swiftly balance out the volatility of renewables, will increase significantly going forward.

Moreover, the supply of gas will remain abundant well into the future.

#### **Climate-related disclosures**

We carefully monitor developments at the Task Force on Climate-related Financial Disclosures (TCFD), which has issued a consistent framework for companies to make voluntary climate-related financial risk disclosures. We'll continue to evaluate whether the framework can add value to such disclosures. An organization called CDP, formerly known as the Carbon Disclosure Project, runs a global system for companies to report their environmental data, climate risks, and approach to carbon management. CDP then assigns companies' disclosures a score ranging from A (best) to F. In 2018 we responded to CDP's sector-specific climate-change questionnaire for the first time. The questionnaire, which for the first time included questions drawn from TCFD recommendations, was about our climate performance in the 2017 calendar year. CDP subsequently gave us a C, the average score for the energy sector. The questionnaire enabled us to identify potential improvements which we will explore further in 2019.

## Students provide useful insights into climate-related scenario analysis

**In 2018, five students pursuing Master's degrees in Green Management, Energy, and Corporate Social Responsibility at Bocconi University in Milan, Italy, took part in a project in which they analyzed climate-related scenarios and how they can be used in practice to evaluate transition risks for energy companies like us. These include risks arising from the transition to a low-carbon economy which could, for example, lead to the need to reassess the future viability of some assets. The students presented their findings to Eckhardt Rümmler and several of our other senior managers. It was a win-win situation: the students had the opportunity to apply their analytical skills and creativity to an important sustainability issue, and we benefited from interesting insights that will assist us in our ongoing evaluation of climate-related risks.**



## Maximizing efficiency and climate protection

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A key aspect of our growth strategy is to supply by-products of power generation to industrial enterprises located near our power plants. This has two advantages. First, it enables us to earn additional, stable revenue that isn't exposed to commodity prices. Second, it improves our plants' thermal efficiency, because they derive more useful energy from each unit of fuel.

One of these by-products is waste heat, which is needed for a wide range of industrial processes. In 2018, the engineers at Grain 6, one of our combined-cycle gas turbines in the United Kingdom, improved the design of its heat pipe. This enabled it to again begin supplying waste heat to its neighbor, Grain LNG terminal, which uses the heat to regasify LNG.

Cogeneration – producing both electricity and heat – has increased Grain 6's thermal efficiency to more than 81%. In the fourth quarter of 2018 alone cogeneration enabled Grain 6 to displace 25,000 metric tons of CO<sub>2</sub> because no additional fossil fuel had to be consumed to generate the heat.

Generating change is about demonstrating that a secure energy supply and more climate protection can go hand-in-hand. Grain 6 is just one of many examples of how we're making it a reality.

## CO<sub>2</sub> Value Europe [G4-DMA]

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Together with around 40 other companies and institutions, at the end of 2017 we founded CO<sub>2</sub> Value Europe, an initiative to promote the development of a scalable carbon capture and usage (CCU) industry. We currently hold the presidency of the initiative. The aim is to use carbon as a valuable resource for alternative production processes, like manufacturing chemicals and fuels. Although a CCU industry doesn't yet exist, it would have applications for a wide variety of other sectors and is potentially feasible along the entire value chain. CCU's potential for reducing net carbon emissions is substantial. In its first year of existence, CO<sub>2</sub> Value Europe achieved significant growth. It formed a number of subsidiaries and is considering forming others, including on other continents.

Alongside our engagement for CO<sub>2</sub> Value Europe, we sit on the Advisory Board of the Global CO<sub>2</sub> Initiative and are a founding member of the German Energy Agency's (dena) Global Alliance Power Fuels.



# Innovations for a low-carbon future

**[GRI 103-1] Innovation is crucial to our ability to generate change. It makes our existing businesses more efficient, more competitive, and more sustainable. Also, it enables us to establish new businesses that support the transition to a low-carbon future. Our innovation strategy**

**reflects the three pivotal trends that are transforming the energy industry: decarbonization, decentralization, and digitalization. We're actively helping shape these trends and, as described below, are developing innovative businesses that fit the energy world the trends are creating.**



# How we manage innovation

**[GRI 103-2/3][G4-DMA]** Innovation plays a key role in our support for the transition to a low-carbon future. Our innovation team has two main objectives: to develop scalable business models that could be viable over the medium term and to serve as our company's innovation radar by tracking technologies and market developments that potentially pose threats or offer opportunities.

We collate knowledge on emerging technologies by gathering information from publications, conferences, our own experts, and other sources. We then use this information to identify potential new business opportunities as well as regulatory or market risks to our existing businesses and devise effective responses.

After careful review, we selected several main innovation areas, of which three are related to decarbonization: new flexibility, carbon recycling, and hydrogen. All three offer potential synergies with our existing businesses, help prepare our company for a low-carbon future and support our commitment to promote lower-carbon fuels. We've also committed to conducting at least 20 projects by 2022 whose aims includes decarbonization.

# 10

**decarbonization projects already underway**

Wall with results from internal innovation workshop.

# Our main innovation areas related to decarbonization

[GRI 103-2][G4-DMA]

## New flexibility

Flexibility supports the transition to a low-carbon energy world in two ways. First, it balances out the fluctuations in renewables output; this capability will help support the integration of large amounts of renewables capacity. Second, the flexibility provided by energy storage or conversion is able to capture more of this output. We're pioneering the development of innovative technologies for new forms of flexibility. For example, we're among the first companies in the world to use a process known as power-to-gas to convert surplus renewable energy into hydrogen and methane and inject them into the gas pipeline system. We also helped develop M5BAT, a utility-scale battery for on-site storage of surplus low-carbon energy production. Moreover, many of our existing power plants – particularly gas, hydro, and nuclear – can adjust their output within minutes and are thus excellent sources of flexibility. Consequently, our objective is to assemble a diverse portfolio of flexibility options encompassing our power plants,



Uniper employees at our power-to-gas unit in Falkenhagen, Germany.

power-to-gas facilities, utility-scale batteries, charging infrastructure for electric vehicles, and demand response (industrial processes that can adjust their consumption in response to the amount of electricity available in the grid).

## Carbon recycling

We see CO<sub>2</sub> not as a waste product but as a valuable resource that can be captured and used in the production of a variety of products, such as building materials, chemicals, and fuels. We have more than a decade of experience in developing and testing equipment to capture CO<sub>2</sub> from our power plants' exhaust stream. Going forward, we intend to build on this experience and continue to expand our knowledge about CO<sub>2</sub> conversion; to name one example among many, we're in the process of identifying industrial enterprises near our power plants that need CO<sub>2</sub> for their production processes. Carbon recycling has the potential to make a significant contribution to decarbonization: by permanently binding CO<sub>2</sub> in building materials and other products or by replacing chemicals and fuels that otherwise would have been produced using fossil fuels, thereby avoiding these emissions. We're actively engaged in creating a global carbon recycling industry. For more information, see the information on CO<sub>2</sub> Value Europe on page 14.

## Hydrogen

We believe low-carbon hydrogen and hydrogen-based fuels can play a key role in decarbonization and offer new business opportunities, particularly in mobility but also in heating, industry, power generation, and other sectors. When electrolysis equipment is powered by renewable energy, it stores this energy in a chemical molecule: hydrogen. This process is viable on an industrial scale and makes it possible to store renewable energy for a long time. Hydrogen can be used as fuel cells to power vehicles as well as buildings and other equipment. Fuel cells only emit water, not CO<sub>2</sub>. Hydrogen can also be combined with CO<sub>2</sub> to produce chemicals and synthetic fuels, such as synthetic diesel, kerosene, and methane. Alongside continuing to refine our existing power-to-gas hydrogen production plants (see p. 17), we'll explore new applications for clean-burning hydrogen.



## Making transport more sustainable with LNG

With the amount of freight hauled by road continuing to increase, liquefied natural gas (LNG) offers a quick and efficient way to make heavy vehicle traffic more sustainable: trucks that run on LNG emit less CO<sub>2</sub>, nitrogen oxides, and particulate matter than diesel-powered trucks and are also much quieter. Moreover, LNG contains 600 times more energy per unit of volume than normal natural gas. In view of these advantages, we're drawing on our expertise in LNG supply to establish a business in LNG truck fueling.

In 2018 our subsidiary LIQVIS opened its first permanent public LNG filling station in Berlin, Germany. This marked an important step in our plan to establish a network of LNG filling stations across Europe. The German Federal Ministry for Transport and Digital Infrastructure has taken steps to accelerate the development of this network by subsidizing the purchase of LNG trucks and by exempting LNG trucks from freeway tolls until year-end 2020.

## Power-to-gas: harnessing more clean energy [G4-DMA]

On particularly windy, sunny days, wind and solar farms sometimes have to curtail and even suspend production because the grid doesn't have enough capacity to transmit their output. That's renewable energy gone to waste. Power-to-gas can help: instead of taking wind turbines or solar arrays offline to prevent grid congestion, their output can be used to run on-site electrolysis equipment that produces hydrogen and methane, which is then injected into the gas pipeline system. In short, power-to-gas can enable us to harness more clean energy.

One of our power-to-gas units is at a wind farm near Falkenhagen in eastern Germany. Through year end 2018, it had produced a total of 8 GWh of hydrogen. In 2018, we added equipment that enables this unit to use CO<sub>2</sub> from a nearby bio-ethanol plant to transform the hydrogen into methane. We believe that green methane has greater promise because it has the same chemical properties as natural gas and can therefore be stored in unlimited quantities in the gas

system. Our work at Falkenhagen and other locations proves that power-to-gas technology responds to rapid fluctuations in renewables output, is market-ready, and promises to become even more efficient and affordable going forward.



### Generating Change



Our power-to-gas activities contribute to SDG 7, 9 and 13.



# Secure, affordable, and reliable energy supply

**[GRI 103-1] A secure and reliable energy supply is essential for societies to function and for their economies to be competitive. That's why it's the centerpiece of our strategy. Consequently, our core business is our main contribution to society. Our generating capacity, our midstream gas business (wholesale supply, underground storage, and stakes in transport pipelines) as well as our**

**technical expertise and energy services help provide Europe and Russia with a secure, affordable, and reliable supply of power, gas, and steam.**

But we also face challenges. First, the growth of renewables is reducing the operating hours of conventional power plants. Second, distributed generation continues to proliferate, lessening the

need for big plants. Third, as mentioned above, several countries where we operate have taken steps to stop coal-fired generation in the not-so-distant future. On the other hand, the gradual exit of coal and Germany's upcoming phaseout of nuclear capacity will tighten the supply side in the mid-2020s, which is likely to create better market environment for our generation portfolio.

## How we manage our generation fleet

**[GRI 103-2/3][G4-EU10]** We own and operate about 37 GW of conventional generating capacity (gas, coal, hydro, nuclear, fuel oil, and biomass) in Europe and Russia. This fleet is highly efficient, flexible, and diversified. More than half (65%) of our capacity is low-emission hydro, nuclear, and gas and thus fully supports the energy transition. Our largest asset positions are in Germany, Russia, the United Kingdom, Sweden, the Netherlands, and France. In addition to producing electricity and providing stability to the grid, many of our plants supply heat, process steam, compressed air, and other products to nearby industrial enterprises and utilize some of these enterprises' waste streams.

Our overall strategy is to continue maintaining and optimizing all our assets, to grow our portfolio in areas where the market or regulatory environment is especially supportive, and to generate more income from by-products like steam and compressed air.

Etzel gas-storage facility in Germany at night.





We periodically upgrade the technology and processes at our assets so that we continue to ensure high rates of availability and efficiency and to prevent unplanned downtime. Some of these upgrades also improve our assets' climate performance.

#### Our generation fleet's reliability

Our key performance indicator for the reliability of our generation business is average asset availability. Our power generation fleets in Europe and Russia had an average asset availability of 79.1% in 2018, lower than in 2017. We investigate each outage carefully to determine the causes so that we can prevent similar problems at other plants and keep our fleet's availability at a high level.

#### Fully consolidated generating capacity by technology and country 2018

MW at year-end 2018	Gas	Coal	Hydro	Nuclear	Other	Total (by country)
Russia <sup>1</sup>	8,479	2,283	-	-	-	10,762
Germany	3,333	3,802	1,991	-	1,418	10,544
United Kingdom	4,375	2,000	-	-	34	6,409
Sweden	947	-	1,579	1,400	662	4,588
France	828	1,190	-	-	244	2,262
Netherlands	526	1,070	-	-	-	1,596
Hungary	428	-	-	-	-	428
<b>Total (by technology)</b>	<b>18,916</b>	<b>10,345</b>	<b>3,570</b>	<b>1,400</b>	<b>2,358</b>	<b>36,589</b>

<sup>1</sup>Includes an asset in the Czech Republic.

**65%** of our generating capacity is low carbon (hydro, gas and nuclear)

# How each of our fuels supports supply security

[GRI 103-2/3]

## Gas

Natural gas, which will help Europe transition toward a more diversified and lower-carbon energy mix, is a big part of our business. We operate a large fleet of gas-fired power plants, procure billions of cubic meters of natural gas and LNG each year, have stakes in several gas transmission pipelines, and operate underground gas storage facilities.

The two advantages of gas-fired power plants are that they have relatively low carbon emissions and also can start up and adjust their output quickly in response to changes in renewables output, helping to ensure an uninterrupted electricity supply. In January 2019, transmission system operator TenneT awarded us a contract that will add to our portfolio of such plants: it selected us to build a 300 MW combined-cycle gas turbine (CCGT) at Irsching power station near Ingolstadt. From 2022 onward, the CCGT will supply power at times of system stress, thereby making the grid in southeast Germany even more reliable. In addition, in 2018 we equipped two of our

CCGTs in the United Kingdom to black start; that is, power up independently of the grid after a widespread outage. This enables them to provide electricity needed to restart other power stations and keep outages as short as possible.

We procure natural gas from a variety of producers in several countries, mainly Russia, the Netherlands, and Germany. To further diversify our gas supply in the years ahead we will also procure up to 1.5 billion cubic meters (bcm) of gas per year from Azerbaijan.

In 2018 we procured 390 TWh of gas under long-term contracts. We also buy and sell gas on a forward and a spot basis at Europe's trading venues. We traded a total of 2019 TWh of gas in 2018. Along with pipeline gas, we purchase LNG. We also have stakes and long-term capacity bookings several LNG in Europe. In addition, in December 2018 Uniper and Mitsui O.S.K. Lines concluded an agreement to build a floating storage and regasification unit in

Wilhelmshaven, Germany, to be operational as early as 2022. This unit could send out 10 bcm of gas per year, thus further diversifying Europe's gas supply.

In addition, we have stakes in gas transmission pipelines (such as OPAL in eastern Germany) and finance projects to build new ones. These assets provide important pathways for the import and transport of gas and therefore play key roles in ensuring supply security.

Finally, we're one of Europe's leading gas storage companies. We own and operate a total of around 8 bcm of underground gas storage capacity in Germany, Austria, and the United Kingdom. We have 6.5 bcm in Germany alone, which makes us its largest operator. Our storage business helps keep the gas supply secure even during demand spikes in cold winter months.

## Hydro

Hydro makes up about 10% of our total generating capacity and 14% of our

capacity in Europe. Our 109 hydro plants in Germany meet the electricity needs of 1.6 million households. Our 76 plants in Sweden make us the country's third largest hydropower producer, and support Sweden's energy transition, which aims at Sweden's energy supply being 100% renewable by 2040. Going forward, we intend to maintain and optimize these vital assets so that they can continue to provide a reliable source of zero-carbon power.

## Nuclear

We're the majority owner and operator of Oskarshamn 3 nuclear power plant (1.4 GW) in Sweden and have minority stakes in two other nuclear plants, Ringhals (1.2 GW attributable to us) and Forsmark (0.3 GW attributable to us). Our focus is on continually enhancing operational excellence and meeting new safety standards. After an extensive modernization and lifetime-extension program, all three plants are in the prime of their operating lives and able to be low-carbon mainstays of Sweden's supply security for the decades ahead.

## Increasing availability, reducing costs

We strive continually to maximize the reliability and availability of our power plants. One way we do this is by maintaining and refurbishing the components of our combined-cycle gas turbines (CCGTs) so that they last longer than the manufacturers originally intended. This enables us to lengthen the intervals between major turbine outages, reduce unavailability, and save a lot of money. It also further deepens our knowledge of CCGTs, knowledge that we can share within our company and market to other operators worldwide through our engineering services business.

The program, which we started about four years ago, is called Parts Life Extension (PLE). We've completed PLE projects at several power stations, typically deferring major outages by around one year. Currently, PLE projects are under way at seven of our power stations across Europe, involving a total of 16 CCGTs. Going forward, we plan to take PLE to seven more of our power stations.

### Power production by primary energy source

TWh	2018	2017	2016
Gas <sup>1</sup>	60.5	61.9	73
Coal	31.8	35.8	40.9
Nuclear	10.7	11.1	13.6
Hydro	10.3	11.8	11
Renewables <sup>2</sup>	0.2	0.2	0.2
Biomass	0.3	0	-
<b>Total<sup>3</sup></b>	<b>113.9</b>	<b>120.8</b>	<b>138.7</b>

<sup>1</sup>Figures include production from oil.

<sup>2</sup>Figures include production from non-material wind and solar assets (aggregated installed capacity 95 MW).

<sup>3</sup>Possible rounding differences between individual figures and totals.

### Coal

Our coal portfolio will shrink due to policy and regulatory changes in Europe. Decisions about the future of coal-fired power generation must consider the reliability of the energy and heat supply, especially because the feed-in of intermittent renewable energy continues to increase and the expansion of grid capacity is not keeping pace with this growth. Phasing out coal shouldn't result in people's lights going out.

Despite this challenging environment, we'll continue to operate our coal assets efficiently during their remaining lifetime and, if economically viable, seize opportunities to improve their commercial position. Whenever possible, we'll work continually to increase these assets' efficiency and therefore reduce their environmental footprint.



# Our people

Our top priority is to work safely, look after our people's health, and protect them from harm. Our commitment to health and safety also extends to the employees of our business partners and to the people who live near and visit our facilities. We aim to provide a supportive work environment in which our people feel confident sharing their ideas and trying new approaches. Their creativity is crucial to our success. We encourage our employees to hone and extend their skills and learn from each other. Furthermore, we strive to prevent any form of discrimination and to promote gender equality and inclusion.

73

nationalities  
working at Uniper

1.47

combined total recordable  
incident frequency (TRIF)  
of 1.47 (2017: 1.53)



## ›Commitments

**Protect labor rights and ensure a safe, healthy, and secure work environment for all employees and contractors; promote the same standards in Uniper's joint ventures and partnerships.**

**Have zero tolerance of discrimination.**

**Ensure equal opportunity and promote inclusion in the entire workforce.**

## ›Targets

**Maintain a 1.75 combined TRIF threshold at the Group level through 2019.<sup>1</sup>**

**Have women account for 25% of Uniper's high-level executives by 2022.**

**Certify 100% of Uniper's operational assets to ISO 45001 by 2022.**

**Achieve an employee inclusion indicator of over 95% by 2022.<sup>2</sup>**

## ›Contribution to the UN SDGs



<sup>1</sup>Total recordable incident frequency (TRIF) measures the number of incidents per million hours of work.

<sup>2</sup>Employee inclusion indicator: annual employee opinion survey demonstrates that 95% of employees feel included.



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# Health and safety

**[GRI 103-1] Maintaining high health and safety standards is a core value for us because we care about our people. Safety is also important for the operation of our facilities and enables us to avoid the additional cost of work stoppages and lost time that result from accidents. Our commitment to health and safety also extends to people who live near our facilities and to visitors.**

# 100%

**OHSAS 18001 coverage for  
operative sites**



**[GRI 103-2/3, 403-1/2/8]** We view health and safety as a key leadership task that requires a culture of continual improvement. We have in place company-wide programs and policies that are adapted to differences in the safety practices of the countries where we operate. They are designed to provide a safe and healthy workplace (both for our employees and contractors), to enable us to learn from accidents, and to achieve the health and safety targets and improvement measures we define annually.

Safety is particularly important for high-risk activities, such as our plant decommissioning and dismantling projects under way in Germany, Sweden, the Netherlands and the United Kingdom. Onboarding agreements with contractors include clauses obliging them to comply with our safety standards.



### Comprehensive HSSE management

The HSSE & Sustainability function at Group Management supports our organization and employees in integrating health and safety standards into their strategic and operational planning, business decisions,



“It’s important that we learn from previous incidents so that we can avoid them in the future. This year we want to further improve our reporting. The transparency regarding incidents at our company is already high. What we need now is for the information to be sufficiently meaningful and for it to be made available in a timely fashion. That makes it more relevant for day-to-day operations so that we can better protect each other from accidents.”

Frank Plümacher, Executive Vice President of HSSE & Sustainability.

and daily activities. It issues guidelines and policies, conducts workshops, and coordinates the sharing of best practices. Based on our company-wide HSSE & Improvement Plan, our operating entities design their own annual improvement plans, which include health and safety targets and improvement measures. Progress toward the targets is monitored periodically.

The health and safety management systems of all our operating entities are certified to OHSAS 18001, the internationally recognized standard for health and safety management, and are regularly reviewed and certified by independent experts. In 2018 ISO published ISO45001, a new and improved standard for health and safety management systems. Our target is to certify 100% of our operational assets to ISO45001 by 2022.

We systematically document and analyze incidents and near misses and strive to prevent their recurrence through effective communications and corrective measures.

In 2018 we introduced a comprehensive, software-based incident management system that enables us to analyze and report incident data more effectively. We also conducted a thorough review of our existing processes for reporting, documenting, and analyzing incidents. We’re currently implementing improvement measures. This applies in particular to communications processes. These processes ensure that information about, and lessons learned from, incidents at and outside our company reach everyone at Uniper who needs them. Onboarding agreements with contractors include clauses obliging them to share this information with their employees who work for us.

We benchmark our safety performance against our HSSE targets in monthly and quarterly reviews, which are presented to the Management Board and other senior managers. The degree to which we meet our HSSE targets for improvement and stay below the incident thresholds is factored into the variable compensation of Uniper senior managers.

## How we strive to improve health and safety

[GRI 103-2, 403-4/5/7/9] Our main safety metric for management purposes is total recordable incident frequency (TRIF), which measures the number of incidents per million hours of work. We're committed to maintaining a combined TRIF at or below 1.75 through 2019 by fostering continual learning, providing training, and further improving our management systems. We had no fatal accidents in 2018.

**0.90**  
employee TRIF

### **Combined TRIF: 1.47**

Combined TRIF, which includes the safety performance of contractor employees who work for us, was 1.47 in 2018 (2017: 1.53), significantly below the threshold of 1.9 set in 2018. The improvement was mainly due to a significant reduction in accidents involving our own employees. However, there was an increase in accidents involving contractor employees, particularly at our hydroelectric plants. On balance, therefore, combined TRIF only improved slightly. At the end of 2018 we began a project specifically for the contractors working at our hydroelectric plants to find solutions for reducing accidents.

### **Employee TRIF: 0.90**

TRIF for our own employees was 0.90 in 2018 (2017: 1.41). The 2018 figure includes Unipro, our subsidiary in Russia for the first time. Unipro's reporting culture has evolved well in recent years, and its employee TRIF in 2018 was lower than that of some of our other units, resulting in a significant reduction in our overall TRIF compared with

previous years. In early 2018, Kirchmöser power plant in eastern Germany marked 6,000 workdays without an accident.

### **Contractor TRIF: 2.18**

Contractor TRIF moved in the opposite direction, increasing to 2.18 (2017: 1.68). To reverse this trend, our HSSE Improvement Plan for 2018 included a contractor management and engagement project, which sets clear standards and supports our operational business in implementing these standards. Going forward, we'll continue working to further improve our contractors' safety performance and their adherence to our standards.

We also report lost-time injury frequency (LTIF), which measures the number of lost-time accidents per million hours of work.

### **Combined LTIF: 0.96**

### **Employee LTIF: 0.57**

### **Contractor LTIF: 1.44**

Contractor LTIF increased from 1.2 in 2017 to 1.44 in 2018. The reasons are the same as for the increase in contractor TRIF.

### **Raising awareness**

In 2018 we conducted interactive HSSE training courses for senior managers. The purpose was to broaden their skills and reinforce the importance of considering HSSE in their decisions and making it visible to their employees through workshops



In 2018 we further reduced our accident rate and improved our safety performance with the lowest TRIF in company history. We won the German Corporate Health Award in the category Energy Industry for our health management.



## Prioritizing safety while getting Berezovskaya 3 back online

and safety walks. We also ran a health and safety awareness campaign on our intranet. It consisted of articles and video messages from top executives that underscored the importance of our HSSE identity.

### Focus on a healthy Uniper

**[GRI 403-3/6]** Health management continued to make progress in 2018. We are now implementing specific measures to improve health protection and promotion in various departments that were the results of a series of workshops initiated in 2017.

In 2018 Uniper won the renowned German Corporate Health Award in the category Energy Industry, in particular for its integrated approach to occupational health management. In addition, Uniper received a special award in the Employee Consulting category for its program enabling employees to receive counseling from outside experts at any time, free of charge, and, if they prefer, anonymously, if they are experiencing stress or a crisis in their personal or professional lives.

Berezovskaya GRES is among Siberia's biggest power stations and the only one in Russia with three 800 coal-fired MW generating units. Unit 3, which was commissioned in 2015, incorporates advanced emission-abatement technology that reduces its climate impact and enables it to comply with strict Russian environmental standards.

On February 1, 2016, a fire in unit 3's boiler room severely damaged the main building's steel structures and caused the boiler's position to shift. Thankfully, no one was hurt. After carefully assessing the damage, we quickly set out to repair unit 3 and get it back online as soon as possible. The severity of the damage makes the repair project unique for the complexity of the engineering challenges it faces. More than 1,000 specialists work at the site every day. They include engineers, electricians, assemblers, welders, industrial alpinists, and insulation workers. Safety is the repair team's top priority, and so far we've had no serious accidents in more than 6 million work hours.

"During my safety walk at Berezovskaya I was impressed by the team's high safety awareness," said Holger Kreetz, our COO Asset Management and a member of the repair project's steering committee. "Workers consistently use their protective equipment, including safety harnesses for those doing tasks high in the air. The project is doing a good job of addressing all aspects of safety."

Repair work is on schedule. After comprehensive testing, unit 3 is scheduled to return to service in the fourth quarter of 2019.



"Berezovskaya plays a special role in power generation in Siberia, both because of its size and its state-of-the-art environmental technology. I'm really proud of the team, which has overcome all the technical challenges they've encountered and worked very hard in extremely challenging conditions. Moreover, they've kept the project on schedule and maintained an impressive safety record."

Maxim Shirokov, CEO of Unipro, our subsidiary in Russia.

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# Fair and attractive employer

**[GRI 103-1] We place a significant emphasis on an open and trusting corporate culture, which we call the Uniper Way. It has three core elements and three corresponding guiding statements: leadership (grow and empower people), teamwork (become one and simplify), and individual contribution (act as it is your own company). The Uniper Way is brought to life by being integrated into our management structures, internal**

**mechanisms, and day-to-day interactions. Its core elements are embedded in the main components of our HR cycle: our capability-based approach, guidelines for job interviews, and systematic feedback on employees' performance, which fosters continuous self-reflection and improvement. Supported by digitization, these elements help create an agile and flexible organization with more cost-efficient processes.**

# 218

apprentices at year-end 2018

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# How we manage our attractiveness as an employer

**[GRI 103-2/3] Our corporate strategy aims to make Uniper more streamlined, more competitive, and more resilient. Our HR activities support this strategy by focusing mainly on capability management. We identified the capabilities we need to achieve our strategic objectives and anticipate changes in our competitive environment. We maintain and nurture them through a capability-based approach to hiring and developing people. In 2018 we communicated our new employee-development approach and the associated mechanisms and initiatives across our organization and made them available to the majority of our employees. We also took other steps to support this approach, such as conducting strategic succession planning for critical roles across all functions.**

Uniper employees at our office in Düsseldorf, Germany.







## Uniper Trainee Program [GRI 103-2]

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**Successful program to attract highly-qualified future employees.**

Our 18-month trainee program for high-potential university graduates is one of the ways we ensure we have an ample pipeline of talent. The program, which rotates trainees through several departments at our company, is tailored to their individual interests and career plans. In October 2018, 18 new trainees joined the program. After their initial placement, trainees have additional placements of their choice that can be in a different country or a different function. The program also consists of a variety of workshops, training modules, and an assignment at one of our power plants. Our aim is to retain every trainee who wants to continue their professional journey with us.

“Uniper gives young people the opportunity to speak their minds and to make their own ideas reality. Thinking outside the box is really appreciated here.”

Martin Neychev,  
former Uniper graduate now working in  
Uniper Global Commodities.



“Starting my career at a big company with a broad portfolio is a great opportunity. Uniper’s transitional phase has been really empowering and has fostered a work culture almost like that of a startup. That in itself has been very special to me.”

Tejaswini Purohit,  
former Uniper graduate  
now working in Asset Risk.



## How we reward and manage our workforce

[GRI 103-1/2]

[GRI 401-2] Competitive compensation and benefits are essential for attracting and retaining talented people. A portion of employees' compensation is variable and reflects both Uniper's performance (including occupational health and safety) and employees' individual performance. We provide our employees with other valuable benefits, such as disability insurance and family coverage. In several countries we provide attractive retirement planning as well. This helps our people lay the foundation for their future financial security and

their dependents, while at the same time fostering employee retention.

We offer flexible work schedules. In Germany, for example, our works agreement states that we strive to make family and career compatible and therefore support part-time work, if operational needs permit. Flexible work arrangements, job-sharing, mobile work, and help with child, home, and elder care are some of the ways we make it easier for employees to have a healthy work-life balance.



**"I am committed to creating a more open, inclusive, and creative corporate culture."**

Ulrich Köster, Executive Vice President Human Resources

Uniper health campaign participants.



# 1,081

**new hires from the external market in 2018**

**New hires from external market<sup>1</sup> by age range**

Age range	2018	2017
< 21	122	121
21 – 30	466	426
31 – 40	232	215
41 – 50	156	128
51 – 60	83	74
> 60	22	27
<b>Total</b>	<b>1,081</b>	<b>991</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

**[GRI 401-1]** In 2018 we hired 1,081 new employees from outside our company, 545 of them with a temporary contract. The majority were recruited in Germany (45%) and Russia (30%).

At year-end 2018, 4.4% of our employees were working part-time. This is lower than in 2017 (5.6%).

### Training

We offer vocational training for a wide variety of commercial and technical occupations as well as internships to prepare them for an apprenticeship. We had 218 apprentices and 125 work-study students and interns in Germany at year-end 2018. Along with our Graduate Trainee scheme, these programs help us meet the challenges of demographic change and a shortage of qualified personnel.

Training is tailored to an employee's individual needs and, increasingly, combines face-to-face with online learning. We also

conduct training mandated by law and for practical reasons to ensure the long-term resilience of our business operations.

### Workforce restructuring

In 2018 we completed a major restructuring program we initiated in 2016 to ensure our lasting competitiveness. Together with employee representatives,

we implemented the measures in a socially responsible manner by providing comprehensive social-support mechanisms. Under an agreement we concluded with the works councils, employees make a contribution toward enhancing our earnings strength in return for a reliable long-term social plan and participation in our positive business performance.

### Fluctuation rate<sup>2</sup>

	2018	2017
<b>Total</b>	<b>4.6</b>	<b>5</b>

<sup>2</sup>Fluctuation rate = voluntary leavers/average headcount.

# Diversity and inclusion

**[GRI 103-1] An open, inclusive, and creative corporate culture can unlock hidden value for our business, enable our people to realize their full potential, and foster innovation and resilience. Promoting diversity and inclusion, treating them as an opportunity, and combating discrimination are all guided by the Uniper Way. An individual's capabilities and commitment are what counts.**

Society is becoming more individualized, and we need to respond by offering a corporate culture that embraces difference and in which everyone feels included in their team. Moreover, a diverse workforce is better able to meet the needs of diverse stakeholders and customers and to support our strategy for international growth.

## How we manage diversity and inclusion

**[GRI 103-2/3]** Uniper's Management Board is fully committed to promoting inclusion and diversity in the six dimensions defined by the German Diversity Charter: gender, nationality or ethnic background, religion or worldview, disability, age or generations, and sexual orientation and identity. Uniper signed the Charter in 2016.

Diversity is a long-term corporate objective that we intend to achieve through the commitment of senior management and employees alike:

- **We want to create a work atmosphere in which all employees feel respected and comfortable.**
- **We believe that respecting employees for their uniqueness enables them to deliver their best performance.**
- **Diversity encourages new perspectives, creativity, reflection, and innovation, all of which are crucial for our success.**

Fostering an open corporate culture will enable us to reflect societal change and help us prevent a future shortage of skilled workers. As part of this effort, we offer employee e-Learning modules on diversity, inclusion, and preventing unconscious bias. We also provide managers with training in inclusive leadership.

### **Diversity Improvement Plan**

In 2018 a team of senior managers, six diversity ambassadors from different units, and staff from HR and Communications designed a Diversity Improvement Plan for 2018-2020. The Management Board, which approved the plan in 2018, believes it will enhance our company's potential for innovation and growth. The plan, which sets targets for increasing employee engagement in teams and combating discrimination, focuses on three areas:

- **leadership and culture**
- **communication**
- **infrastructure and compliance**

The plan will be implemented by our senior managers, who will actively raise their team's awareness of diversity and inclusion. This will be supplemented by company-wide communications on these issues.

The diversity ambassadors, who are the main point of contact for employees, conducted communications on a regular basis in 2018 about various aspects of diversity.

We are currently shifting to a project-oriented approach in which executives one level below the Management Board will take the lead in implementing diversity projects in their area of responsibility. The focus for 2019 is on further reinforcing all employees' awareness of diversity and on reviewing our HR processes.

### **Anti-discrimination management**

Uniper is committed to not tolerating discrimination or harassment in any form. It complies with anti-discrimination laws and regulations in the countries where it operates, such as the German General



Uniper employee working at one of our power stations in Sweden.



Anti-Discrimination Act. Compliance is supported by clear company policies.

In consultation with works councils, we designed a process to deal with potential violations quickly and fairly. If employees feel that they or a colleague are being harassed, they're encouraged to contact their HR department, their unit's Compliance Officer, the Works Council, or, if they wish to remain anonymous, an internal or external whistleblower hotline. We take violations very seriously and do everything we can to rectify the situation, including taking disciplinary action.

## Recognizing outstanding women in Sweden's energy industry

**In October 2018 representatives of the Swedish energy industry gathered in Stockholm to promote gender equality in the energy industry and honor this year's Power Woman. The award is conferred annually to a woman who actively addresses gender issues and strives to attract more women to the industry. Uniper's Country Chairman for Sweden, Johan Svenningsson was on this year's jury: "I was proud to be part of this important event, which shines a spotlight on the many outstanding women in a male-dominated industry, woman who are catalysts for change and who remind us of our obligation to do more to foster gender equality."**

**Although Uniper had five nominees, the most of any single company, the 2018 Power Woman Award went to a manager at Sweco, a Stockholm-based engineering consultancy active in smart city design and other infrastructure projects.**

**"Diversity is a focus area at Uniper," Svenningsson continued. "We work continually to create change: to foster a diverse and inclusive workplace and to increase the proportion of women in senior positions. For example, our Swedish Country Council already has an equal number of men and women. We also participate in leadership development programs to increase the proportion of female managers in the energy industry."**

# The main ways we promote diversity and inclusion

[GRI 103-2, 405-1]

## Preventing discrimination and harassment

We provide training to our managers and executives to help them recognize and prevent even the most subtle forms of discrimination, harassment, and bias. In 2018 this included a workshop on dealing with cases of harassment in the workplace and an e-Learning course on inclusive

leadership for 160 managers. In addition, our HR staff received training to familiarize them with anti-discrimination laws.

In response to feedback from our 2018 employee survey, HR, the Diversity Ambassador for Gender, and a working group from the General Works Council developed new guidelines for dealing with workplace harassment.

We actively seek to hire minorities and people with special needs, develop and enhance the skills they need to succeed, and promote them. In addition, in 2018 we redesigned our office building in Düsseldorf to better accommodate people with special needs.

## Diversity Day

In June 2018, our CEO inaugurated our first Diversity Day to create an opportunity for managers and employees to discuss various aspects of diversity. Senior managers were also encouraged to develop a diversity and inclusion plan for their area of responsibility and include it in their 2018 performance targets. Managers at all levels took action to enhance their team's diversity and address inclusion issues. We

also conducted a pilot reverse-mentoring project in which junior colleagues mentored senior managers. In addition, we took steps to promote diversity in recruitment and selection processes.

## Promoting gender equality

Our target in the Uniper-Group is for women to account for 25% of our high-level executives by June 2022. In 2018, 17.5% of these positions were held by women. We intend to reach our target for 2022 through more diverse selection and recruitment procedures, mentoring, flexible work arrangements for all employees, and similar measures. Women made up 24.2% of our workforce in total in 2018, almost unchanged from the prior-year figure of 23.9%.

In March 2018, we conducted interviews with female senior managers as part of Female Leader Portraits in Uniper. We commemorated International Women's Day 2018 by enhancing our communication on Uniper's Diversity Improvement Plan. We've planned several activities to foster the promotion and integration of women in Uniper and to enable us to meet our targets.



Uniper employee at Karlshamnsverket power station, Sweden.



In 2018 we set a target for women to account for 25% of our high-level executives by June

2022. We launched a new Diversity Improvement Plan that sets specific targets for increasing employee engagement in teams and minimizing discrimination.

# Diversity Improvement Plan

- Develop and carry out an integrated leadership workshop to train Inclusive Leader Champions.
- Offer a comprehensive inclusion learning program for middle managers.
- Celebrate International Diversity Day and International Women's Day in several locations.
- Make e-Learning modules on preventing unconscious bias available to all employees.
- Review our recruiting processes to ensure that we reach the broadest possible spectrum of talented individuals.
- Develop an employee diversity and inclusion guide.
- Review our main five HR processes through the lens of diversity with the aim of eliminating bias.

## Total number of employees<sup>1</sup> by country of employment and gender

Country of employment	Male	Female	Total
Azerbaijan	1	-	1
Belgium	5	6	11
Czech Republic	2	1	3
France	403	124	527
Germany	3,737	1,193	4,930
Hungary	25	3	28
Latvia	1	-	1
Netherlands	316	28	344
Russian Fed.	3,099	1,172	4,271
Singapore	1	-	1
South Africa	3	1	4
Sweden	774	220	994
United Kingdom	799	162	961
USA	48	12	60
United Arab Emirates	11	3	14
<b>Total</b>	<b>9,225</b>	<b>2,925</b>	<b>12,150</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.



# Environmental protection

We're committed to minimizing pollution and protecting the environment. We actively manage our operations so that they have the least possible negative environmental and social impacts. Using natural resources efficiently and responsibly is also very important to us.

**100%**

of our fully consolidated industrial facilities certified to ISO 14001

**93%**

of ash and gypsum from our power stations recovered and sold as by-products

**4.3**

water consumption reduction to 4.3 billion cubic meters



## ›Commitments

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**Promote waste reduction, land pollution prevention, and environmentally responsible mining.**

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**Work with contractors, suppliers, and industrial customers to adopt a life-cycle approach to protect the environment, use resources efficiently, and market Uniper's by-products.**

## ›Targets

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**Have no severe environmental incidents.<sup>1</sup>**

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**Maintain certification of 100% of Uniper's operational assets to ISO 14001.**

## ›Contribution to the UN SDGs

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<sup>1</sup>Definition: the release of a substance into the soil, water, and/or air that has a major environmental impact causing long-term or irreversible change to the biological or physical environment or resulting in an extensive loss of habitat and/or species.



# Environmental protection

**[GRI 103-1] The environmental performance of our assets significantly affects our operating efficiency, market position, and reputation. We're committed to complying with all applicable laws and other binding obligations to prevent uncontrolled emissions into the air, water, and soil. Efforts that go beyond compliance are evaluated on a cost-benefit basis and coordinated centrally with the aim of having a low exposure to reputational and legal risks.**

0

**severe environmental incidents**

## Continually improving our environmental performance

**[GRI 103-2/3]** To minimize environmental risks, we have in place management systems certified to ISO 14001, the internationally recognized standard for environmental management.

At year-end 2018, 100% of our industrial facilities in Germany were certified to ISO 14001, an increase from 88% in the previous year. All our industrial facilities in other countries (France, the Netherlands, Hungary, Russia, Sweden, and the United Kingdom) retained their ISO 14001 certifications. In addition, all our fossil-fueled power plants and our energy storage facilities in Germany are certified to ISO 50001, another standard for energy management systems. All these disclosures refer to the assets of our fully consolidated subsidiaries.

We believe that having our industrial facilities certified to ISO 14001 enhances our ability to prevent incidents that could have adverse impacts on the environment. We're therefore committed to maintaining 100% ISO 14001 certification for these facilities.

We carefully investigate all incidents and all significant environmental near-hits and take appropriate steps to prevent them from recurring. We also systematically share knowledge about previous incidents – at our company and across the industry – so that they are not repeated. In 2018 we had no severe environmental incidents, which we define as “the release of a substance to the soil, water, or air that would result in a long-term or irreversible change in the biological or physical environment or an extensive loss of habitats or species.”





### Environmental compliance

**[GRI 307-1]** In March 2018, we notified the Environment Agency, the environmental regulator for England, about historic under-reporting of CO<sub>2</sub> emissions from one of our power stations in the United Kingdom in 2015 and 2016. We conducted an extensive investigation and took corrective action. We received the agency's response in February 2019. The agency accepted that the error was isolated and unintentional, that we had self-reported the error, cooperated fully, and corrected the error. It therefore issued one of the lowest possible civil penalties for a large organization.

In October 2018, media reports questioned the legality of co-firing oil pellets at Scholven, a power plant we operate in west-central Germany. The reports led to public complaints. We investigated the situation and concluded that Scholven has complied and will continue to comply with all regulations. In February 2019 the North Rhine-Westphalian state legislature discussed the issue and tasked the state's Ministry for the Environment, Agriculture, and Consumer Protection to examine the legal situation. The ministry's report confirmed that Scholven's co-firing of oil pellets is completely legal.

### Datteln and Provence legal disputes

In 2017 we reported on legal disputes concerning Datteln 4, a coal-fired power plant in west-central Germany, and Provence 4, a biomass-fired plant in France. These disputes are still pending.

We're moving forward with the construction of Datteln 4, which we currently expect to enter service in the summer of 2020. The emissions control permit we obtained from the district government of Münster allows us to build and operate the plant. However, several lawsuits have been filed against this permit. It's unclear whether these lawsuits will come to trial in 2019.

The local Administrative Court revoked Provence 4's environmental permit in June 2017, citing insufficient due diligence disclosure on our biomass supply chain in France and internationally. We obtained an interim environmental permit which allowed us to move forward with commissioning the unit. We still operate under this interim environmental permit. In parallel, we continue to maintain the dialog with local stakeholders and to ensure that we procure fuel responsibly. For example, Provence 4's fuel will initially be imported or consist of



Uniper employees at Datteln power station, Germany.

waste wood collected from tree trimmings, gardens, parks, and other ecologically sound sources.

# Air emissions

**[GRI 103-1-3, 305-7] Air emissions are an important topic for local stakeholders. We define significant air emissions as regulated under international conventions and/or national laws or regulations. In 2018 we further reduced our sulphur dioxide (SO<sub>2</sub>), nitrous oxides (NOx), and dust emissions mainly because our power plants in the Netherlands and France operated less often.**

# 5.3%

**reduction of NOx from 2017 to 2018**

## 18.4 kilotons of SO<sub>2</sub> emissions

SO<sub>2</sub> results primarily from the combustion of sulphurous coal. Flue-gas desulfurization equipment captures about 90% of our SO<sub>2</sub> emissions and prevents them from entering the atmosphere. We emitted 18.4 kilotons of SO<sub>2</sub> in 2018, just under 2.2 kilotons less than in 2017.

## 57.4 kilotons of NOx emissions

Most NOx emissions are produced from the reaction between nitrogen and oxygen during combustion at high temperatures. Our gas- and coal-fired power stations emit NOx, the majority coming from our power stations in Russia. In 2018 these emissions declined by 3.2 kilotons year on year to 57.4 kilotons.

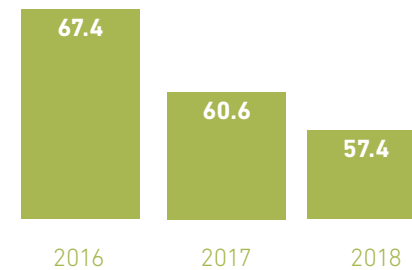
## 1.6 kilotons of dust emissions

Despite being equipped with extensive filters, coal-fired power stations emit dust, which is defined as particles with a diameter of at most 10 microns. Our dust (or particulate) emissions were 0.2 kilotons lower than in 2017.

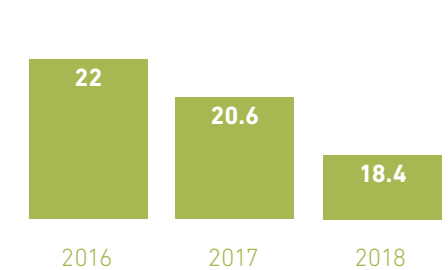


Uniper employees at Maasvlakte power station, Netherlands.

## NOx emissions 2016 - 2018 (kilotons)



## SO<sub>2</sub> emissions 2016 - 2018 (kilotons)



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## BREF: reducing the emissions of fossil-fueled power plants

We monitor legislative processes that could result in changes to environmental laws and regulations where we operate. As required by the EU Industrial Emissions Directive, in 2018 regulatory agencies in a number of countries asked us to tell them how we intend to comply with the updated Best Available Techniques Reference (BREF) document. BREF sets stricter emission standards that conventional power plants must meet by 2021 unless they obtain a formal derogation. We provided the information, which the national authorities are currently evaluating. In Germany this process has been delayed. We expect to receive a similar query from Germany's regulator later in 2019.

A growing number of European countries have, or plan to, set a timetable for phasing out coal-fired power generation. These policies could affect companies' decisions about their compliance with BREF.

A cross-departmental project team made up of experts from different departments is managing our compliance with BREF. We will make decisions on an asset-by-asset basis, factoring in the policy and regulatory environment of the country where the asset is located. The sum of these individual decisions will determine BREF's aggregate impact on our generation portfolio.

Uniper employee at Grain power station, United Kingdom.



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## Mercury control technology

Emissions standards are getting stricter all the time. Schkopau, a lignite-fired power station we operate in the state of Saxony-Anhalt in eastern Germany, required the installation of an additional mercury control technology, to comply with the new Industrial Emissions Directive (IED) annual emission limit value of  $10 \mu\text{g}/\text{m}^3$  in 2019. After carefully considering several solutions, we selected activated carbon injection (ACI) and retrofitted this equipment to Schkopau units A and B in 2018. Activated carbon absorbs mercury from the exhaust stream and is trapped by the power station's filtering equipment, preventing the mercury from entering the atmosphere. ACI is a cost-effective solution that improved the mercury capture rate from 20% to 75%, enabling Schkopau to comply with the IED.



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# Energy efficiency

[GRI 103-2/3][G4-EU11, G4-EU30]

**Improving energy efficiency enables us to conserve energy, primarily in two areas. First, by making technical upgrades, improving our production processes, and pursuing operational excellence we can raise the efficiency of our power plants. This enables us to generate more power and heat without consuming more fuel and thus to reduce our plants' climate impact. Second, by reducing the energy consumed at our facilities and office buildings (through the installation of LED lighting, energy-smart office equipment, and so forth) we can make our entire organization more energy efficient.**

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## Russia's major modernization programs

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We own and operate more than 11 GW of highly efficient gas- and coal-fired generating capacity in the Russian Federation. Located in key industrial regions (Central Russia, Ural, and Western Siberia), our power stations provide 5% of Russia's electricity, making us one of the country's biggest electricity producers.

Russia's electricity market, which is the world's fourth largest, has a capacity mechanism in which generators receive payments to ensure the availability of their power plants. This mechanism enhances supply security and grid stability. It also provides generators like us with stable returns. In addition, since 2008 Russia has added over 30 GW of new, technologically advanced, and environmentally friendlier capacity through a program that gives generators long-term capacity supply agreements (CSAs) for the new assets they build. Costing more than €50 billion,

it is one of the biggest investment programs in Russian history.

Despite this program's success, over 60% of Russia's generating capacity is past its useful operating lifetime. In March 2018 the government therefore adopted a massive modernization program for about 40 GW of older capacity. This program will also be based on CSAs. In the first CSA auction, held in April 2019, two of our older units were selected for modernization.

Beyond this program, we're continually taking steps to enhance the efficiency of our Russian portfolio. One example is the new boiler house under construction at Smolenskaya, a 630 MW heat power plant in western Russia. The upgrade, which will be completed by end of 2019, will improve the plant's economics, fuel efficiency, and reliability.

## The main ways we enhance energy efficiency

[GRI 103-2, 302-5]

### Flexible and efficient power plants

In recent years, we've invested in power-plant upgrades and increased plant efficiency, flexibility, and availability. Going forward, we intend to achieve further improvements.

The energy management systems of our coal- and gas-fired power plants in Germany are certified to ISO 50001, an internationally recognized standard for such systems. When components at our plants are due for replacement, we aim to replace them with more energy-efficient technology.

### Fuel efficiency

We aim to get as much energy as possible from every unit of fuel. This reduces our environmental footprint and costs and makes us less exposed to potential supply-chain risks, such as the possibility of human rights violations along our supply chain.

Asset management and modernization help us use resources efficiently. For example, almost twice as much energy can be derived from hard coal today than in 1950. And more improvements are possible. We also consume less coal because some of

our plants operate below their full capacity and because others have been sold or have been decommissioned after reaching the end of their useful operating life.

Our coal-fired power stations consumed 15 million metric tons of coal and lignite in 2018, about 3.3 million tons less than in 2017, mainly because they generated less power in Russia and units 1 and 2 at Maasvlakte power station in the Netherlands were closed in July 2017.

# 18%

**our coal fleet used 18% less coal in 2018 than in 2017, continuing a trend that emerged in 2015**

Environmental protection

## Waste minimization, fuels, and by-products

**[GRI 103-1] We're committed to minimizing waste, using fuels and other natural resources efficiently and responsibly, and marketing the by-products of power generation so that they don't end up in a landfill and so that no additional energy is consumed to make them. Our ability to deliver on this commitment affects not only our operating efficiency, margins, market position, and the public's perception of us but also the communities near our assets.**

**[GRI 103-2/3, 306-2]** One way we shrink our environmental footprint is by avoiding waste or reusing it. Waste results from our operations and our projects to dismantle assets. We always try to reuse and recycle as much waste as possible. But our primary objective is not to produce any waste in the first place.

We produced 0.217 million metric tons of operational waste in 2018, a slight reduction from 2017 (2017: 0.219 million metric tons).



### Generating Change



**We sell by-products like gypsum that is used to make building materials. Using this by-product displaces CO<sub>2</sub> emissions and virgin-mined gypsum, supporting a more sustainable raw material supply chain.**

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## Managing radioactive waste in Sweden

We operate or have stakes in nuclear power plants (NPPs) in Sweden which produce low-, intermediate-, and high-level radioactive waste. This waste totaled 1,195 metric tons in 2018, which can be split up into 210 metric tons of high-level radioactive waste (2017: 165 metric tons) and 985 metric tons of low-, and intermediate-level radioactive waste (2017: 678 metric tons).

The increase results from the segmentation of components as part of the dismantling of units 1 and 2 at Oskarshamn NPP.

We have a serious responsibility to ensure that this waste is handled, stored, and disposed of properly. That's why safety as well as radiation and environmental protection are high priorities for us.

Nuclear waste is managed in accordance with Swedish law. Nuclear power companies in Sweden established the Swedish Nuclear Fuel and Waste Management Company (SKB) in the 1970s. SKB's mission is to manage and dispose of all

radioactive waste from Swedish NPPs in a way that ensures maximum safety for people and the environment.

We and the minority shareholders have designed a long-term, joint strategy for dismantling Barsebäck NPP's two units and units 1 and 2 at Oskarshamn. Decommissioning is under way at all four units. This will generally lead to an increase in all levels of radioactive waste in the years ahead.

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## Maximizing the reuse of power-plant by-products

Increasingly, we aim for a life-cycle approach for our operations. We market a number of by-products from our fossil-fueled power plants. These plants are equipped with flue-gas cleaning systems that absorb sulphur compounds and other environmentally harmful materials in pulverized fly ash, furnace bottom ash, and gypsum.

Our customers use these by-products to build roadbeds and to manufacture drywall and other building materials. This displaces the carbon dioxide that would otherwise be emitted to manufacture these materials, thereby making the raw material supply chain more sustainable. It also prevents ash and gypsum from ending up in landfills.

We produced 1.6 million metric tons of pulverized fly ash and furnace bottom ash in 2018 (2017: 1.9 million metric tons) and sold or recovered 91.3% of it.

Gypsum is a by-product of the desulfurization process in coal-fired power stations.

In 2018 we produced 0.4 million metric tons of it (2017: 0.9 million metric tons). We recovered and sold 99.4% of it as by-products. Our by-product gypsum displaces virgin-mined gypsum and is mainly used for the manufacture of drywall and other gypsum-based building materials.

# 99.4%

of gypsum was recovered and sold as by-products



# Promoting biodiversity

**[GRI 103-1] We recognize that our operations have the potential to impact biodiversity, directly and indirectly. We strive to minimize any risks our operations pose to biodiversity by complying with applicable laws and regulations and by managing our assets carefully. We also work with relevant government agencies (forestry, agriculture, fish, and wildlife) and with nature conservancy organizations to promote biodiversity at and around our assets.**

**[GRI 103-2/3]** As part of obtaining permission to build and operate a power plant or other industrial asset, we compile biodiversity data about the site and surrounding areas, assess the asset's potential impacts, and put in place, often in consultation with conservation agencies, management controls to minimize these impacts. Throughout an asset's operating life, we monitor the controls' effectiveness. In addition, we protect and, if possible, enhance the ecological

value of the land around our assets and educate our staff and contractors on the importance of protecting and enhancing biodiversity.

## **A passing lane for fish**

**[GRI 103-2, 304-1/2/3]**

In 2017 we received a permit to build three fish passes on the upper Faxälven River in northern Sweden. They enable fish swim upstream past our hydro plants during migration. Two of the three passes are now in place. When the third is finished, they will open more than 150 kilometers of the river to fish migration. The passes will significantly enhance biodiversity but will not hamper our operations.

## **FIThydro: making hydropower plants fish-friendly**

Founded in 2016, FIThydro is a consortium of 13 energy companies and 13 research institutes in a total of 10 countries dedicated to supporting decision-making processes for the commissioning and operation of hydropower plants. FIThydro

focuses on strategies to prevent harm to fish and to promote the growth of fish populations. Altheim, a roughly 18 MW hydropower plant we operate on the Isar River in southeast Germany, is one of FIThydro's test case studies. The river around the plant is a habitat for 43 different fish species. The plant has a fish pass to enable fish to migrate around it. The case study will evaluate the pass's effectiveness and how fish use existing habitats around the plant. If necessary, the fish pass will be modified to improve its effectiveness.

## **Hydropower Environmental Fund**

In 2018 we and the other seven big hydropower companies in Sweden formed a joint voluntary initiative and invested €1 billion in the Hydropower Environmental Fund to improve the aquatic environment over a period of 20 years. This will enable hydropower to continue to be a mainstay of Sweden's supply security as the country moves toward its goals of 100% renewable energy by 2040 and net zero carbon emissions by 2045.



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# Water optimization

**[GRI 103-1] Water is crucial to our business. Our hydroelectric stations are situated on numerous large and small bodies of water in Germany and Sweden. To produce power, they need sufficient water flow in rivers or sufficient water levels in reservoirs. In addition, our thermal power stations draw cooling water from estuaries, rivers, and the sea. And we must be particularly vigilant as we develop our business in parts of the world where water scarcity is a more urgent issue.**

**[GRI 103-2/3]** We're committed to using water responsibly. We do this by complying with all applicable laws, regulations, and permit conditions, by managing our assets carefully, and by utilizing internal controls designed to minimize water-related risks.

In the decades ahead, climate change is likely to change weather patterns, which would affect the hydrological cycle in the regions where we operate hydropower plants. For example, long droughts would alter river flow and reduce the volume of water available for these plants. Water scarcity is also likely to affect the amount of cooling water available for our thermal power plants. Our challenge is to find sustainable water sources and treatment methods to ensure our plants' future availability.

Uniper hydropower plant, Sweden.



# The main steps we take to improve our water use

[GRI 103-2, 303-1, 304-1/3]

## Dialoging with stakeholders

We operate 109 hydropower plants along more than 1,000 kilometers of the Lech, Isar, Danube, and Main rivers in southeast Germany and one on Lake Eder. We operate 76 in Sweden, from Lycksele in the North to Kristianstad in the South and are the country's third-largest hydropower producer. Together, these plants have about 3.8 GW of installed capacity and meet the energy needs of over 1 million households.

We have a responsibility to operate our hydroelectric stations safely, economically, and in a way that minimizes their impact on

the environment, water levels, the landscape, and biodiversity. We work closely with a variety of stakeholders, including political leaders, nature conservation associations, and other non-governmental organizations (NGOs). Among other measures, we've established fish migration pathways at 34 of our hydro plants.

## Water Framework Directive

The EU enacted the Water Framework Directive (WFD) in 2000. It obliges member states to achieve good status for all bodies of water within their jurisdiction. We fully support the WFD. The projects described below, as well as many others, have contributed and are contributing to its realization.

## Total water withdrawal and discharge

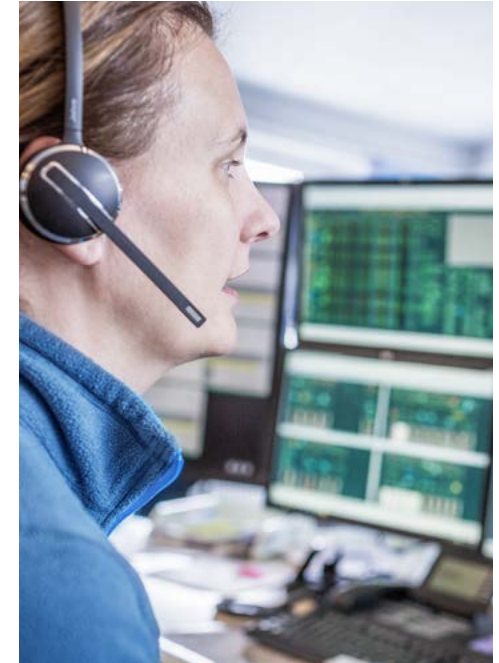
[GRI 303-1/3, 303-4] In 2018 we withdrew 4.3 billion cubic meters (bcm) of water for our cooling operations (mainly seawater), a year-on-year reduction of around 0.7 bcm (2017: 5 bcm). The main reason was that some of our plants in the Netherlands, Germany, and Sweden operated less frequently. We discharge back to source a large proportion – 99.2% in 2018 – of the water we withdraw.

## Using less potable water at Scholven

We're currently working on reducing the amount of potable water consumed by Scholven, a coal-fired power plant we operate in west-central Germany. The project, which involves treating and reusing wastewater, is expected to save €4 million in water fees per year. We expect to complete it by the end of 2019.

## Online tool to improve water management

In 2017 participants from our graduate program developed an online tool and a set of detailed guidelines for water-management best practices. The tool and guidelines were adopted by our fleet of combined-cycle gas turbines (CCGTs) in 2018 as part of a three-year resource-efficiency program and are being used to achieve improvements in water management. After evaluating the tool's value for our CCGT fleet, we will explore whether to adopt it for our coal-fired and nuclear plants.



Uniper employee at one of our hydropower plants in Sweden.

# 34

fish migration pathways at 34 of our hydro plants



# Human rights and compliance culture

We always comply with the law. But if we want to be trusted and respected, we need to do more. We need to operate with the highest ethical standards and put them into practice every day, in everything we do and everywhere we do business. Our sourcing and trading of coal and gas may have an indirect impact on human rights issues and potentially expose us to risks. We also face potential compliance and social risks when we provide engineering and energy services in areas where institutions are insufficiently transparent and robust. In today's digital world, protecting the data of our employees, contractors, and customers has become a crucial task and an essential part of our compliance culture.



Took all steps necessary to comply with the General Data Protection Regulation.

# 2nd

Conducted our second compliance risk assessment (CRA) of all business functions across our company.



Bettercoal Colombia and Russia working groups formed.

## ›Commitments

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**Have zero tolerance of forced labor, child labor, modern slavery, and human trafficking.**

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**Continue to strengthen Uniper's compliance culture and protect the business from corruption risks.**

## ›Targets

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**Assess 100% of new counterparties according to Uniper's social screening system (ESG due diligence) by 2022.**

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**Train 100% of new hires on compliance and Uniper's Code of Conduct by 2022.**

## ›Contribution to the UN SDGs

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# Governance and compliance

**[GRI 103-1] Doing the right thing. It sounds simple but presents many companies with challenges. Not doing the right thing can cause considerable damage to stakeholders and the company itself. That's why it's important to systematically prevent and sanction violations of the law or regulations. It's the only way to credibly convey that our company is being managed responsibly and is committed to creating sustainable value. Governance and compliance are therefore essential parts of our corporate culture.**

The cornerstone of compliance is good corporate governance, which is of the highest priority for us. It is founded on close and efficient collaboration between the Management Board and the Supervisory Board. It guides all our decision-making and aims to ensure that we achieve success responsibly and sustainably. The Management Board and Supervisory Board endorse the goals of the German Corporate Governance Code, which seeks to promote responsible, transparent corporate governance and controls aimed at enhancing enterprise value in the long term.



Compliance is particularly important for Uniper as a company operating worldwide. The integrity of each staff member is indispensable if we want to retain the trust of our stakeholders.

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# Compliance Management System

**[GRI 103-2/3, 419-1]** We define compliance risks as risks of major legal proceedings, monetary fines, and damage to our reputation that are faced by our entire company and its officers and directors due to misconduct and violations of laws and regulations. These could arise from the actions of our staff or of third parties acting on our behalf. In order to mitigate risks, we have had a Group-wide Compliance Management System (CMS) in place since January 1, 2016.

**The following activities and legal areas are relevant for our company; we therefore refer to them as compliance topics:**

- Anti-corruption
- Anti-money-laundering
- Economic sanctions
- Trading compliance
- Competition law

The CMS sets uniform standards for compliance topics that reflect our specific compliance risks. We consider the CMS

appropriate and effective if it is capable of detecting compliance risks as well as preventing compliance breaches with an adequate degree of certainty. The CMS also incorporates the reporting of any compliance violations that have already occurred, so that the necessary responses and improvements to the CMS may be implemented. The CMS includes quarterly compliance reports to the Management Board. The purpose is to provide the Management Board with the information it needs to monitor the CMS's performance.

The Management Board has appointed a Chief Compliance Officer, who reports to the CEO, the Management Board, and the Supervisory Board's Audit Committee. The Chief Compliance Officer is responsible for the CMS and is supported by the Senior Vice President for Compliance. In addition, the Management Board has underscored the importance of compliance in the Management Board's Compliance Commitment, which is available online.



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## Code of Conduct

**[GRI 103-2,102-16, 102-17, 419-1]** Our biggest commitment to a culture of compliance is our Code of Conduct (Code). The Code, which was endorsed by the Management Board, defines the basic principles of conduct that everyone our company must abide by. The Code reflects our commitment to one another, to our business, and to our communities. It serves as a compass to guide our decisions and, in particular, to help us do the right thing in difficult situations.

The Code addresses a wide range of issues, including compliance, anti-corruption, and respect for human rights. It also describes in detail the consequences of improper conduct toward business partners, third parties, and government institutions as well as the procedures to be followed in such cases. This applies, in particular, to violations of laws combating corruption, money laundering, anti-competitive practices, and the financing of terrorism. The Code also addresses issues such as compliance with international sanctions, the granting and acceptance of gifts and hospitality, the involvement of intermediaries, and the

selection of suppliers and service providers. Other issues it covers include the avoidance of conflicts of interest and the handling of company information, property, and resources.

Our compliance policies and procedures ensure that the investigation, evaluation, and cessation of reported violations are carried out appropriately by the respective Compliance Officers and our Chief Compliance Officer. Suspected violations of the Code can be reported anonymously (for example, by means of a whistleblower report). Violations can lead to disciplinary action and termination of employment.

We have set a target of training 100% of our new hires on compliance and the Code by 2022 by making this training mandatory.

Although third parties are not subject to the Code, we strive to work, whenever possible, with third parties that have comparable principles. We also require our suppliers to observe the Uniper Supplier Code of Conduct.

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## Anti-corruption

**[GRI 205-1/3]** We have zero tolerance of bribery and corruption. Engaging in any type of corruption, whether with public officials or in the private sector, is considered a breach of our Code of Conduct and leads to termination of the employment contract.

In May 2018 we conducted our second compliance risk assessment (CRA) of all business functions across our company. One of the risks assessed was corruption. The findings will be communicated to the business functions, and, in areas where the CRA indicated room for improvement, appropriate corrective measures will be taken.

In a rapidly changing global business environment, we need to be aware of external restrictions on our business activities. We're committed to complying with all applicable economic sanctions and other forms of international restrictions. The steps we took in 2018 including introducing a Know Your Counterparty eLearning module, putting in place an SAP-based

sanctions tool, conducting workshops on economic sanctions at the most relevant business functions, and adopting a Business Policy on Economic Sanctions.

High-profile compliance violations that have occurred at other companies show that business relations with intermediaries (including any type of agent, advisor, representative, and so forth) pose a higher risk of corruption and bribery. We only use intermediaries in accordance with our Business Policy Intermediary Agreements, ensuring that the intermediary's fee or commission won't be used to make illegal payments on our behalf.

Six new instances of alleged corruption were reported internally at Uniper in 2018. After investigation, all of the cases were closed due to a lack of evidence. The three open cases of alleged corruption pending at year-end 2017 were closed.

# Ensuring respect for human rights

**[GRI 103-1] We are committed to the prevention and cessation of modern-day slavery, human trafficking, and all other humanitarian crimes. We therefore do not tolerate slavery or human trafficking in any part of our own business or anywhere along our supply chains.**

We recognize the ten principles of the UN Global Compact and actively support them, particularly with regard to human rights, labor standards, environmental standards, and ethical business practices. Our relationships with suppliers are based, in particular, on the United Nations' Guiding Principles on Business and Human Rights and Germany's National Action Plan for implementing them.



# How we manage our ESG risks

[GRI 103-2, 102-9/11/29/30/31, 408-1, 409-1, 412-1, 414-1/2]

To manage our exposure to risk, we conduct an annual global assessment, which is based on a combination of economic and social indexes, to map country-specific issues that may directly affect our company if we pursue new business opportunities. These issues include working conditions, the violation of political rights and civil liberties, as well as security threats. In response to the assessment's findings, we modified our due diligence requirements and instituted mitigation measures, such as the inclusion of specific deal-break or performance-suspension clauses. This is particularly important when we negotiate with new counterparties operating in high-risk countries for which there is insufficient assurance that they manage environmental, social and governance (ESG) issues adequately.

We apply special scrutiny to commercial counterparties or projects in high-risk countries with a corruption perception index (CPI) score below 30, indicating a high level of perceived corruption. This is a con-

ventional threshold reflecting the systemic weakness of a country's institutions. We place such countries on a watch list that we update annually. If the geopolitical and ESG risks warrant it, we may also place countries with a CPI score above 30 on the watch list.

In accordance with the OECD Guidelines for Multinational Enterprises, our HSSE and Sustainability ESG Due Diligence Business Directive establishes a company-wide screening process for identifying and reporting the main environmental, social, and governance risks of all new potential counterparties, intermediaries, and business partners. Its purpose is to define the right prevention and mitigation measures for each of them and to advise the Uniper Management Board, before business deals are finalized, not to do business with counterparties causing or contributing to ongoing severe adverse environmental, social, and/or human rights impacts. We've committed to assessing 100% of our new counterparties according to our social

screening system (ESG Due Diligence) by 2022. We prioritize which counterparties we assess first as we work toward this target. Consequently, we currently only assess new counterparties for fuel procurement. Since the third quarter of 2018 we've been harmonizing processes so that we can steadily extend ESG Due Diligence to counterparties from whom we procure services and to those to whom we sell energy and services.

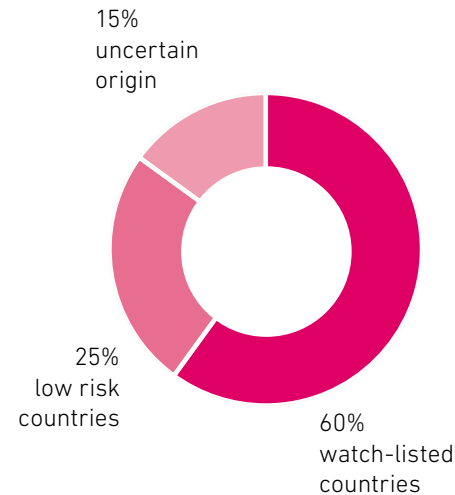
The severe negative impacts we need to monitor include modern slavery, unlawful community displacement, and child labor. These are more likely happen in countries with a history of insufficient standards for the protection of human rights. Furthermore, instances of violence and inhumane and degrading treatment can occur in high-risk countries and in more stable countries that have weak institutions.

Energy services, fuel procurement, and commodity trading are our businesses most exposed to these kinds of country-specific issues. For example, the nature of computer-based global coal trading, which frequently involves a single shipment of coal changing hands numerous times, reduces the traceability of the coal's origin. This makes monitoring ESG performance and enforcing policies along the coal supply chain particularly challenging.

# 46%

**we purchased 46% of our total coal from suppliers that have signed up to the Bettercoal code of conduct**

### Coal supply chain monitoring<sup>1</sup>



<sup>1</sup>Percentages based on gross signed quantities in 2018. Volumes from trading counterparties known for sourcing coal mainly from a specific country are considered as originated from that area only. The table does not include Russian domestic coal and lignite purchased by our business Unipro.

### Our Bettercoal engagement

[GRI 103-2, 102-12, 102-43, 414-12] In order to establish adequate measures to prevent, monitor, and mitigate these risks in the coal supply chain, we participate in Bettercoal, a not-for-profit initiative established by a group of major European utilities committed to a more responsible coal supply chain.

Bettercoal's assurance system is centered around the supplier assessment process: Bettercoal independently assesses the performance of coal mining operations against the ten principles of the Bettercoal Code. We use this information in our ESG due diligence process and in monitoring our supply chain.

Bettercoal's strategy is to prioritize its engagement and to work with mining companies in the countries that export the most coal to Europe to promote the joint remediation of actual impacts. Consequently, the focus of Bettercoal members, including us, has recently been on addressing supplier-specific and regional systemic issues in Colombia and Russia.



In line with the aforementioned country prioritization strategy, in the third quarter of 2018 we and other members proposed the creation of voluntary country-specific working groups. Two groups were established in 2018. We chair the working group for Colombia and participate in the one for Russia. Their purpose is described below in detail in the case study about the Colombia working group.

In 2018, we purchased 46% of our total coal from suppliers that have signed up to the Bettercoal code of conduct. We are working to increase this amount through our continued engagement with Bettercoal.

In January 2019 we participated as an observer in Bettercoal site assessments of two major Colombian coal suppliers conducted by independent auditors.

In 2018 Bettercoal established partnerships with the World Coal Association, which aims to support the UN Sustainable Development Goals, and with U.S.-based certification company Equitable Origin, to assess industrial facilities and monitor social impact in extractive industries.

All four of Colombia's major coal mining companies accepted an invitation from the Dutch Coal Covenant to meet with the Commission for the Clarification of Truth, Co-existence, and Non-Repetition in March 2019 in Bogota, Colombia. The commission was created as a mechanism for meeting victims' rights under Colombia's peace agreement. We actively encouraged the companies to participate in the meeting.

In April 2019 Frank Plümacher, our Executive Vice President for HSSE and Sustainability, was elected to serve as Chairman of Bettercoal's Board of Directors for the next three years.

## Monitoring continuous improvement in Colombian coal mines

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**The Colombia working group was formed in late 2018. Its primary aim is to develop a coordinated approach for monitoring continuous improvement plans (CIPs). The group will work with auditors and coal suppliers to support the implementation of the CIPs and discuss the challenges suppliers face in complying with some requirements of the Bettercoal code. The group expects to acquire more detailed knowledge and understanding of the situation in Colombia, particularly in Cesar and La Guajira, and develop an action plan to tackle issues that go beyond the Bettercoal Code/Scope. It will also work to broaden the members' stakeholder network and engage with new contacts. For example, it will invite guests to its meetings, including coal suppliers and other stakeholders, and encourage them and all other contacts to suggest issues or topics for the group to address.**

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## Safeguarding personal data

**[GRI 103-1/2] The protection and secure handling of employee and customer data have a high priority for us. We are a multi-national company that operates in numerous countries. Consequently, compliance with the EU General Data Protection Regulation (GDPR) and other similar regulations is crucial for our success. We therefore take numerous precautions and work continually with outside experts to further improve our security architecture.**

Our data protection organization is set up in accordance with our Functional Policy for Data Protection. The Data Protection team is responsible for coordinating and monitoring the data protection activities for all fully consolidated Uniper companies. In addition, a Data Protection Council consisting of senior managers of relevant departments meets on a quarterly basis. Its purpose is to strengthen and support our data protection organization. In mid-2018 we also launched a data protection improvement project in response to the findings of audits, which identified potential for improvement.

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## Complying with GDPR

**[GRI 103-2/3, 418-1]** GDPR took effect in the EU and the EEA on May 25, 2018. We must comply with it because we handle employees and customers' personal data. Consequently, we put in place appropriate technical and organizational measures to ensure data security when we process, store, and transmit personal data. Third parties we hire to process personal data must also comply with GDPR.

In taking steps to comply with GDPR, we focused on the risk of Information leaks and the management of personal data to avoid any breaches of data privacy. In accordance with best practices, we analyzed and documented how data are stored and accessed. We also introduced additional security measures to avoid the misuse of business-relevant data or unauthorized access from the outside. Misuse or the inadvertent dissemination of confidential information by an employee could lead to the disclosure of commercial secrets or violate data privacy laws. In addition, we provided employees in relevant roles with special training about GDPR and conducted a GDPR awareness campaign for our employees in the EU.



Due to constant changes in the area of cyber threats, we continually invest in data privacy and further improve our protection measures. We're committed to staying up to date on applicable processes and technologies.

# Stakeholder engagement

Being an international energy company makes it essential for us to earn and retain the trust of our stakeholders, from the people who live near our assets to representatives of the international community. A relationship founded on trust is a prerequisite for positive action. That's why we've committed to pursuing new cooperative efforts with civil society organizations, particularly those directly involved in issues related to our material sustainability topics. We believe this will be the most effective way to tackle the challenges we face and, ultimately, prevent negative impacts.



Deepened our Bettercoal involvement by participating in a stakeholder engagement campaign in Bogota and in the Cesar and La Guajira region in Colombia.

# 4

Hosted four international dialogues with non-governmental organizations on coal and climate-change issues.



## ›Commitments

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**Actively engage with stakeholders to ensure transparency and ongoing dialog regarding Uniper's activities.**

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**Foster the development of effective, accountable, and transparent institutions at all levels.**

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**Minimize the impact on communities affected by Uniper's operations.**

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## ›Contribution to the UN SDGs

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## ›Targets

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**At the corporate level, conduct at least three trust-building dialogs with civil society organizations each year up to 2022.**



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# Stakeholder engagement

**[GRI 103-1, 102-43] Engaging with our various stakeholder groups helps us understand their needs and their expectations of our company. We know their trust is crucial for our lasting success. We also work with our stakeholders to minimize adverse impacts of our business activities.**

We communicate with stakeholders through a variety of channels, including our annual materiality survey, discussions with our investors, feedback from our customers, and open houses and forums that give school children and members of the community the chance to visit our power plants.

We monitor the policy debate in the countries where we operate and the EU and have increased our dialog with policymakers and other stakeholders. In addition, our membership in national and international trade organizations helps deepen our understanding of sustainability issues and their interplay with our business.

**[GRI 103-2/3, 102-42, 102-43]** Our Stakeholder Management Policy stipulates how we interact with stakeholders. It defines our objectives for internal and external communications and assigns roles and responsibilities. The dialog formats vary, ranging from information stands at trade fairs and public forums for people who live near our assets to discussions with community representatives and local interest groups. The purpose of these forums is to promote open discussions with our neighbors and to enable us to learn more about local stakeholders' views and concerns.

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## Engaging in ongoing dialog

[GRI 103-2, 102-21/43/44, 413-1]

### **Actively engaging with NGOs**

We've established a Sustainability Roundtable, a forum for representatives of relevant Uniper departments to meet with NGOs on a regular basis. In 2018 we held discussions with several international NGOs on ESG topics, especially climate change and human rights issues along the coal supply chain. One of the four meetings we hosted addressed health and social issues faced by communities in coal-producing regions of Russia. Another focused on our role in the European coal phaseout and our efforts to reduce our carbon emissions. In 2019 we committed to conducting, at the corporate level, at least three new trust-building dialogs with civil society organizations each year through 2022.

### **Attracting apprentices**

We provide young people in our communities with vocational training for a wide variety of commercial and technical occupations. The training prepares them for a career in an exciting industry and enables us to reduce the shortage of qualified personnel. We have about 220 apprentices in Germany alone. To help ensure that we continue to attract school-leavers to a technical career at our company, for a week in October 2018 our training center in Gelsenkirchen opened its doors to secondary school pupils interested in learning more about our apprenticeships. Around 200 pupils from seven schools in the Ruhr area took advantage of the opportunity to see up close what the training is like, to ask questions of our instructors and apprentices, and to receive tips on preparing their application materials. After the visit, several pupils said they intended to apply.



### Showcasing Uniper Engineering Academy

Located near Ratcliffe power station in the UK, the Uniper Engineering Academy is an internationally recognized training center for engineers and apprentices. It offers five types of apprenticeships: mechanical, electrical, control and instrumentation, wind technician, and power-plant operator. It trains apprentices for our company and for others. In February 2019 the academy held its first-ever open house, which was attended by about 20 representatives of nine energy and manufacturing companies. The day consisted of presentations about the academy and its mission, a tour of the workshops and classrooms, and live demonstrations by apprentices. The purpose was to show how we ensure that apprentices achieve their potential and how they provide a return on the investment that companies make into their training.

### Underscoring the importance of gas storage

We're one of Europe's leading gas storage companies. We have 6.5 billion cubic meters (bcm) of storage capacity in Germany alone. This capacity plays a key role in ensuring that consumers have a reliable supply of natural gas, particularly during winter cold snaps, when storage facilities meet up to 65% of Germany's gas needs. It's important for our stakeholders, including policymakers, to understand how essential this infrastructure is for Germany's energy security. This is especially true in today's market environment, in which storage prices are low, making it difficult to operate storage facilities economically. That's why in July 2018 we invited Federal Health Minister Jens Spahn to visit Epe, a storage facility with 2 bcm of capacity located about 50 kilometers northwest of Münster. During the visit, Uniper discussed with Minister Spahn the need to continue the policymaking dialog about the parameters of the storage business so that that this crucial infrastructure can continue to ensure that gas customers have a reliable supply.



## Promoting a responsible coal supply chain in Colombia

We pledged to several non-governmental organizations (NGOs) that are highly critical of us that we would take a closer look at the situation in coal mining regions of Colombia. Consequently, in 2018 we and Bettercoal conducted a stakeholder engagement campaign in Bogota and in the Cesar and La Guajira region. Our Chief Sustainability Officer Eckhardt Rümmler was part of the delegation, which met with local stakeholders, NGOs, government representatives, local authorities, European ambassadors, trade unions, civil society organizations, and coal suppliers to promote a responsible coal supply chain.



Our stakeholder engagement activities contribute to SDG 16 and 17.





Employees at Uniper Technology in Gelsenkirchen, Germany.

### Ensuring transparent advocacy

Energy supply is a heavily regulated business and is the subject of ongoing policy debate, particularly with regard to climate protection. Europe's commitment to climate protection is fundamentally altering its energy supply system. To meet these challenges, we need a policy and regulatory environment that enables us to take action that makes business and environmental sense. Advocacy of our business interests is essential for the successful operation of our assets and for our strategic prospects. However, we're committed to keeping our

participation in advocacy groups transparent at all times. This is the only way to avoid the suspicion of undue influence on policymaking and to prevent damage to our reputation.

We dialog extensively with a variety of external stakeholders, such as government entities, regulatory agencies, and trade associations. This dialog is crucial for us to communicate openly and transparently with representatives of institutions to explain our positions.

## Memberships

[GRI 102-13]

We are a member in key associations and initiatives that are directly or indirectly related to our material sustainability topics. The composition of these associations and initiatives can be highly diverse but the initiatives and associations supported are fundamentally relevant to our sustainability effort and are in the field of gas, coal, technology and climate protection. In 2018, for example, we became member of Econsense, a German network of internationally operating companies aiming to "actively shape the change to a more sustainable economy and society".

Uniper is listed in the European Union Transparency Register for organizations and self-employed individuals engaged in influencing the making and implementation of EU policy. Our number in the register is 285977820662-03.

We also participate in the policymaking process through our membership in trade associations and other organizations. For example, we're a member of the European Federation of Energy Traders. Our employees must notify the Uniper Corporate Office about their membership in trade associations and comparable organizations as well as their contributions and donations to them.

# Key figures

[GRI 102-8, 303-3, 305-1/2/3/4/7]

<sup>1</sup>Headcount as of Dec. 31, 2018. Figures do not include board members, managing directors, apprentices, and interns.

<sup>2</sup>Total recordable incidents per million hours of work (TRIF) for Uniper and contractor employees. TRIF takes account of all relevant reports, including those from Uniper companies that are not fully consolidated but in which Uniper SE has operational control.

<sup>3</sup>BNetzA, report on the determination of the reserve demand for the winter of 2017/2018.

<sup>4</sup>Figure includes domestic lignite consumed by Unipro plants. 2017 figures corrected.

<sup>5</sup>These figures encompass all consolidated Uniper entities as well as nonconsolidated entities over which we have operational control.

<sup>6</sup>We calculate carbon intensity using the financial control approach. This means that our carbon intensity is the ratio between the direct CO<sub>2</sub> emissions from our fully consolidated, stationary fossil-fueled power plants and power-and-heat plants and these plants' power and heat output. It does not include plants that produce heat/steam only. We initially reported that our carbon intensity was 503 g/kWh in 2017. We subsequently corrected this to 506 g/kWh.

<sup>7</sup>Severe impact beyond site which is reversible within years or irreversible.

		2018	2017
Uniper employees <sup>1</sup>		11,780	12,180
Proportion of female employees	%	24.2	23.9
Combined TRIF (including Russia) <sup>2</sup>		1.47	1.53
Uniper generating capacity <sup>3</sup>	GW	36.6	36.4
Average asset availability of our conventional generation fleet	%	79.1	82.2
Unplanned unavailability of our conventional generation fleet	%	11.1	7.9
Coal consumption <sup>4</sup>	m metric tons	15.0	18.3
Gas sold	TWh	2,019.3	1,944.8
Direct scope 1 emissions <sup>5</sup>	m metric tons of CO <sub>2</sub>	59.5	63.3
Indirect scope 2 emissions (location-based method) <sup>5</sup>	m metric tons of CO <sub>2</sub>	0.27	0.34
Indirect scope 2 emissions (market-based method) <sup>5</sup>	m metric tons of CO <sub>2</sub>	0.34	0.41
Total carbon intensity <sup>6</sup>	g/kWh	499	506
PFA and FBA produced	m metric tons	1.6	1.9
Gypsum produced	m metric tons	0.4	0.9
Facilities certified to ISO 14001 <sup>5</sup>	%	100	88
Facilities certified to OHSAS18001 <sup>5</sup>	%	100	100
Cooling water withdrawal	bn m <sup>3</sup>	4.3	5
SO <sub>2</sub> emissions	kt	18.4	20.6
NO <sub>x</sub> emissions	kt	57.4	60.6
Dust emissions	kt	1.6	1.9
Severe environmental incidents <sup>7</sup>		0	0

# Climate action and security of supply

## Power production

### By primary energy source

TWh	2018	2017	2016
Gas <sup>1</sup>	60.5	61.9	73
Coal	31.8	35.8	40.9
Nuclear	10.7	11.1	13.6
Hydro	10.3	11.8	11
Renewables <sup>2</sup>	0.2	0.2	0.2
Biomass	0.3	0	-
<b>Total<sup>3</sup></b>	<b>113.9</b>	<b>120.8</b>	<b>138.7</b>

<sup>1</sup>Figures include production from oil.

<sup>2</sup>Figures include production from non-material wind and solar assets (aggregated installed capacity 95 MW).

<sup>3</sup>Possible rounding differences between individual figures and totals.

## Fully consolidated generating capacity

### By technology

MW	2018	2017	2016
Gas	18,916	18,917	19,139
Coal	10,345	10,325	11,414
Hydro	3,570	3,567	3,564
Nuclear	1,400	1,400	1,873
Other	2,358	2,229	2,208
<b>Total</b>	<b>36,589</b>	<b>36,438</b>	<b>38,198</b>

## Average asset availability

%	2018	2017	2016
Average asset availability in Europe and Russia	79.1	82.2	82.8



## Natural gas consumption GRI 302-1

### By country

bn m <sup>3</sup>	2018	2017	2016
Germany	0.3	0.4	0.3
Hungary	0.4	1.6	0.3
Netherlands	0.6	0.5	0.3
Russia	10.3	10.5	11.9
Sweden	0.0	0.1	0.1
United Kingdom	1.8	0.4	2.1
<b>Total</b>	<b>13.5</b>	<b>13.5</b>	<b>15.0</b>

## Direct CO<sub>2</sub> emissions from fuel combustion<sup>1</sup> GRI 305-1

### By country

m metric t CO <sub>2</sub>	2018	2017	2016
France	2.9	5.1	4.3
Germany	17.2	16.9	19.6
Hungary	0.8	0.8	0.6
Netherlands	5.5	7.9	10.9
Russia	25.3	26.4	29.4
Sweden	<0.01	<0.01	0.2
United Kingdom	7.6	6.2	8.6
<b>Total</b>	<b>59.3</b>	<b>63.3</b>	<b>73.6</b>

<sup>1</sup>We calculated our direct carbon emissions using the operational control approach. This means that we counted 100% of the emissions from all generation assets over which we have operational control, even if our ownership stake is less than 100%. We used the rules of the EU Emissions Trading Scheme to calculate the data for all countries except Russia. The totals were adjusted to correct for the effects of rounding.

## Indirect CO<sub>2</sub> emissions<sup>1</sup> GRI 305-2

### Greenhouse Gas Protocol Scope 2

Location-based method	metric t CO <sub>2</sub>	2018	2017	2016
Indirect emissions from purchased electricity		173,467	252,894	208,342
Indirect emissions from heat and cooling		92,501	89,547	79,654
<b>Total</b>		<b>265,968</b>	<b>342,441</b>	<b>287,996</b>
Market-based method				
Indirect emissions from purchased electricity		247,369	321,308	277,089
Indirect emissions from heat and cooling		92,501	89,547	79,654
<b>Total</b>		<b>339,870</b>	<b>410,855</b>	<b>356,743</b>

<sup>1</sup>These figures include emissions from consolidated and nonconsolidated generation assets over which Uniper has operational control.

## Indirect CO<sub>2</sub> emissions<sup>1</sup> GRI 305-3

### Greenhouse Gas Protocol Scope 3

m metric t CO <sub>2</sub>	2018
Upstream indirect Scope 3 CO <sub>2</sub> emissions	10.3

<sup>1</sup>Raw estimate of upstream Scope 3 emissions associated with the extraction, refining, and transportation of the raw fuel sources to an organization's site (or asset) prior to combustion using well-to-tank (WTT, DEFRA) fuel-conversion factors.

## Uniper CO<sub>2</sub> intensity<sup>1</sup> GRI 305-4

g/kWh	2018	2017	2016
CO <sub>2</sub> intensity	499	506	502

<sup>1</sup>We calculate carbon intensity on average from 2018 to 2020 using the financial control approach. This means that our carbon intensity is the ratio between the direct CO<sub>2</sub> emissions from our fully consolidated, stationary fossil-fueled power plants and power-and-heat plants and these plants' power and heat output. It does not include plants that produce heat/steam only.

We initially reported that our carbon intensity was 503 g/kWh in 2017. We subsequently corrected this to 506 g/kWh.

# Our people

## Health and safety GRI 403-1

### Total recordable incident frequency (TRIF)

	2018	2017	2016
Combined TRIF <sup>1</sup>	1.47	1.53	1.72
Employee TRIF	0.90	1.41	1.24
Contractor TRIF	2.18	1.68	2.29
Combined LTIF	0.96	1.09	1.21
Employee LTIF	0.57	1.01	0.84
Contractor LTIF	1.44	1.2	1.65
OHSAS 18001 coverage	100%	100%	100%

<sup>1</sup>Total recordable incidents per million hours of work (TRIF) for Uniper and contractor employees. TRIF takes account of all relevant reports, including those from Uniper companies that are not fully consolidated but in which Uniper SE has operational control.

## Total number of employees<sup>1</sup> GRI 102-8

### By employment contract and gender

Employee structure	Male		Female		Total	
	2018	2017	2018	2017	2018	2017
Managing directors/board members	24	28	3	4	27	32
Staff	8,934	9,268	2,846	2,912	11,780	12,180
Interns/work-study students	78	82	47	42	125	124
Apprentices	189	210	29	26	218	236
<b>Total</b>	<b>9,225</b>	<b>9,588</b>	<b>2,925</b>	<b>2,984</b>	<b>12,150</b>	<b>12,572</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

## Permanent staff

### By type of employment and gender

Employee structure	Male		Female		Total	
	2018	2017	2018	2017	2018	2017
Part-time	113	208	369	449	482	657
Full-time	8,413	8,703	2,193	2,236	10,606	10,939
<b>Total</b>	<b>8,526</b>	<b>8,911</b>	<b>2,562</b>	<b>2,685</b>	<b>11,088</b>	<b>11,596</b>



## Employees covered by collective bargaining agreements<sup>1</sup> GRI 102-41

%	2018	2017
Share pay scale employees	68.8	69.6

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

## New hires from external market<sup>1</sup> GRI 401-1

### By age range and gender

Employee structure	Male				Female				Total	
	2018		2017		2018		2017		2018	2017
Age range	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share
< 21	98	80.3	100	82.6	24	19.7	21	17.4	122	121
21 – 30	307	65.9	289	67.8	159	34.1	137	32.2	466	426
31 – 40	142	61.2	139	64.7	90	38.8	76	35.3	232	215
41 – 50	107	68.6	73	57	49	31.4	55	43	156	128
51 – 60	57	68.7	51	68.9	26	31.3	23	31.1	83	74
> 60	18	81.8	21	77.8	4	18.2	6	22.2	22	27
<b>Total</b>	<b>729</b>	<b>67.4</b>	<b>673</b>	<b>67.9</b>	<b>352</b>	<b>32.6</b>	<b>318</b>	<b>32.1</b>	<b>1,081</b>	<b>991</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

## Share of new hires from external market<sup>1</sup> GRI 401-1

### By county of employment

Country of employment	Share (%)	
	2018	2017
Belgium	0.4	0.1
Czech Republic	-	0.4
France	7.9	5.3
Germany	44.9	33.4
Hungary	0.2	0.3
Netherlands	3.1	4.3
Russian Fed.	30.5	45.8
Singapore	0.1	0.1
South Africa	-	0.1
Sweden	3.2	3.9
United Kingdom	6.9	4.5
United Arab Emirates	0.2	0.1
USA	2.6	1.5

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

## Voluntary leavers<sup>1</sup> GRI 401-1

### By country of employment and gender

Country of employment	Male		Female		Total	
	2018	2017	2018	2017	2018	2017
Belgium	-	2	-	1	-	3
Czech Republic	-	2	-	1	-	3
France	8	2	4	2	12	4
Germany	163	117	72	63	235	240
Hungary	3	2	1	0	4	2
Netherlands	10	20	4	4	14	24
Russian Fed.	144	166	51	71	195	237
Singapore	-	1	-	0	-	1
Sweden	33	71	10	22	43	93
United Kingdom	43	50	10	19	53	69
USA	7	2	2	0	9	2
<b>Total</b>	<b>411</b>	<b>495</b>	<b>154</b>	<b>183</b>	<b>565</b>	<b>678</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

## Voluntary leavers<sup>1</sup> GRI 401-1

### By age range and gender

Age range	Male		Female		Total	
	2018	2017	2018	2017	2018	2017
< 21	4	12	2	1	6	13
21 – 30	110	134	37	40	147	174
31 – 40	114	134	51	48	165	182
41 – 50	81	89	21	28	102	117
51 – 60	84	102	39	60	123	162
> 60	18	24	4	6	22	30
<b>Total</b>	<b>411</b>	<b>495</b>	<b>154</b>	<b>183</b>	<b>565</b>	<b>678</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

## Fluctuation rate<sup>1,2</sup>

### By age range

Age range	Fluctuation (%)	
	2018	2017
< 21	3.2	5.8
21 – 30	9.7	9.4
31 – 40	5.6	5.6
41 – 50	2.9	3
51 – 60	3.5	4.4
> 60	4.8	6.4
<b>Total</b>	<b>4.6</b>	<b>5</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

<sup>2</sup>Fluctuation rate = voluntary leavers/average headcount.

## Fluctuation rate<sup>1,2</sup>

### By gender

Gender	Fluctuation (%)	
	2018	2017
Male	4.4	4.9
Female	5.3	5.3
<b>Total</b>	<b>4.6</b>	<b>5</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

<sup>2</sup>Fluctuation rate = voluntary leavers/average headcount.



## Voluntary and non-voluntary leavers<sup>1,2</sup> GRI 401-1

### By age range and length of tenure

Age range	Leavers		Average duration of employment (years)	
	2018	2017	2018	2017
< 21	8	13	1.3	2
21 – 30	163	186	3.6	3.8
31 – 40	273	226	6.6	7.1
41 – 50	202	184	12.2	11.9
51 – 60	213	205	19.2	19.6
> 60	44	37	22.6	21.4
<b>Total</b>	<b>903</b>	<b>851</b>	<b>11.0</b>	<b>10.1</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

<sup>2</sup>Numbers reflect voluntary (termination of contract by employee) and non-voluntary leavers (termination of contract by employer); retirement as well as transfers within the group are not reflected.

## Voluntary and non-voluntary leavers<sup>1,2</sup> GRI 401-1

### By gender and length of tenure

Gender	Leavers		Average duration of employment (years)	
	2018	2017	2018	2017
Male	597	618	10.9	10
Female	306	233	11.3	10.2
<b>Total</b>	<b>903</b>	<b>851</b>	<b>11.0</b>	<b>10.1</b>

<sup>1</sup>Permanents + temporary staff + managing directors/board members + interns/working students + apprentices.

<sup>2</sup>Numbers reflect voluntary (termination of contract by employee) and non-voluntary leavers (termination of contract by employer); retirement as well as transfers within the group are not reflected.

## Indirect CO<sub>2</sub> emissions<sup>1</sup> GRI 305-2

### Greenhouse Gas Protocol Scope 2

Location-based method	metric t CO <sub>2</sub>	2018	2017	2016
Indirect emissions from purchased electricity		173,467	252,894	208,342
Indirect emissions from heat and cooling		92,501	89,547	79,654
<b>Total</b>		<b>265,968</b>	<b>342,441</b>	<b>287,996</b>
Market-based method				
Indirect emissions from purchased electricity		247,369	321,308	277,089
Indirect emissions from heat and cooling		92,501	89,547	79,654
<b>Total</b>		<b>339,870</b>	<b>410,855</b>	<b>356,743</b>

<sup>1</sup>These figures include emissions from consolidated and nonconsolidated generation assets over which Uniper has operational control.

## Indirect CO<sub>2</sub> emissions<sup>1</sup> GRI 305-3

### Greenhouse Gas Protocol Scope 3

m metric t CO <sub>2</sub>	2018
Upstream indirect Scope 3 CO <sub>2</sub> emissions	10.3

<sup>1</sup>Raw estimate of upstream Scope 3 emissions associated with the extraction, refining, and transportation of the raw fuel sources to an organization's site (or asset) prior to combustion using well-to-tank (WTT, DEFRA) fuel-conversion factors.

## Uniper CO<sub>2</sub> intensity<sup>1</sup> GRI 305-4

g/kWh	2018	2017	2016
CO <sub>2</sub> intensity	499	506	502

<sup>1</sup>We calculate carbon intensity on average from 2018 to 2020 using the financial control approach. This means that our carbon intensity is the ratio between the direct CO<sub>2</sub> emissions from our fully consolidated, stationary fossil-fueled power plants and power-and-heat plants and these plants' power and heat output. It does not include plants that produce heat/steam only.

We initially reported that our carbon intensity was 503 g/kWh in 2017. We subsequently corrected this to 506 g/kWh.

## NOx emissions GRI 305-7

kt	2018	2017	2016
Germany	9.9	10.2	11.6
France	1.7	2.9	2.7
United Kingdom	6.9	5.5	6.4
Netherlands	1.2	2.2	3.1
Russia	37.4	39.6	43.5
Sweden	<0.1	<0.1	<0.1
Hungary	0.2	0.2	0.1
<b>Total</b>	<b>57.4</b>	<b>60.6</b>	<b>67.4</b>

## SO<sub>2</sub> emissions GRI 305-7

kt	2018	2017	2016
Germany	7.2	7.2	7.3
France	0.8	1.9	1.7
United Kingdom	3.2	2.4	2.1
Netherlands	0.5	1.5	2.5
Russia	6.6	7.6	8.3
Sweden	<0.1	<0.1	<0.1
Hungary <sup>1</sup>	-	-	-
<b>Total</b>	<b>18.4</b>	<b>20.6</b>	<b>22</b>

<sup>1</sup>Our only consolidated power plant in Hungary is gas-fired; its SO<sub>2</sub> emissions are not material and are therefore not included.

## Dust emissions GRI 305-7

t	2018	2017	2016
Germany	184	232	203
France	106	108	95
United Kingdom	102	61	80
Netherlands	32	76	66
Russia	1,145	1,419	1,559
Sweden	0,5	0	1
Hungary <sup>1</sup>	-	-	-
<b>Total</b>	<b>1,571</b>	<b>1,896</b>	<b>2,004</b>

<sup>1</sup>Our only consolidated power plant in Hungary is gas-fired; its particulate emissions are not material and are therefore not included.



## European Hazardous and non-hazardous operational waste<sup>1,2</sup> GRI 306-2

### Total hazardous and non-hazardous waste, differentiating between disposal and recovery

t	2018	2017	2016
Hazardous operational waste disposed	1,748	1,955	7,242
Hazardous operational waste recovered	4,433	18,444	1,793
Non-hazardous operational waste disposed	44,067	17,395	5,311
Non-hazardous operational waste recovered	30,402	38,614	21,575
<b>Total</b>	<b>80,650</b>	<b>76,407</b>	<b>35,921</b>

<sup>1</sup>Russian operational waste was excluded due to different waste classifications. Total Russian operational waste in 2018 was 137,014t (2017: 143,317t, 2016: 150,796t).

<sup>2</sup>Figures only include operational waste (no project-related waste).

## Pulverized fly ash (PFA), furnace bottom ash (FBA), and gypsum<sup>1</sup> GRI 306-2

### Differentiating between disposal, recovery, and by-products

m metric tons	2018	2017	2016
Disposed	0.1	0.1	0.2
Recovered and sold	1.9	3.1	2.9
<b>Total</b>	<b>2.0</b>	<b>3.3</b>	<b>3.0</b>

<sup>1</sup>Figures only include fully consolidated thermal power stations.

## Total water withdrawal for cooling<sup>1</sup> GRI 303-3

### Fresh groundwater, municipal water, fresh surface water, rainwater, and seawater

m <sup>3</sup>	2018	2017	2016
Fresh groundwater	159,680	120,051	97,105
Municipal water	7,593,852	10,323,347	11,499,059
Fresh surface water	732,083,403	896,893,725	980,392,735
Rainwater	415,086	570,781	37,700
Seawater	3,567,161,801	4,075,136,638	5,444,427,203
<b>Total</b>	<b>4,307,413,822</b>	<b>4,983,044,544</b>	<b>6,436,453,802</b>

<sup>1</sup>Figures only include fully consolidated thermal power stations and nuclear power stations. The table does not include figures from France. Our power station there (Emile Huchet) has a special cooling system for which water is not classified as cooling water. Nevertheless, we report our total water withdrawal from France because we consider it relevant from a country perspective (2018: 17,212,983 m<sup>3</sup>).

## Total cooling water discharge<sup>1</sup> GRI 303-4

### Fresh surface water and seawater

m <sup>3</sup>	2018	2017	2016
Fresh surface water	705,763,956	871,632,930	952,424,438
Seawater	3,566,003,343	4,083,631,312	5,473,025,465
<b>Total</b>	<b>4,271,767,299</b>	<b>4,953,264,242</b>	<b>6,425,449,904</b>

<sup>1</sup>Figures only include fully consolidated thermal power stations and nuclear power stations. The table does not include figures from France. Our power station there (Emile Huchet) has a special cooling system for which water is not classified as cooling water. Nevertheless, we report our total water discharge from France because we consider it relevant from a country perspective (2018: 6.442.147 m<sup>3</sup>).

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# Human rights and compliance culture

## Origins of coal supplied<sup>1</sup>

%	2018
From watch-listed countries	60
From low-risk countries	25
From uncertain origin	15

<sup>1</sup>Percentages based on gross signed quantities in 2018. Volumes from trading counterparties known for sourcing coal mainly from a specific country are considered as originated from that area only. The table does not include Russian domestic coal and lignite purchased by our business Unipro.



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## About this report

**[102-45, 102-50]** Uniper has published an annual sustainability report for each year since 2016, the year we became an independent company. This is therefore our third sustainability report. It is available in English and German. It presents information about our most material sustainability topics, how we manage them, and what we achieved in the reporting period. The reporting period is the 2018 calendar year; however, the report also includes information about noteworthy subsequent events through April 2019. Unless otherwise indicated, the scope of the report is the Uniper Group's fully consolidated assets as of December 31, 2018. The scope of consolidation is the same as in our 2018 Annual Report. This report contains information about our reporting principles as well as all significant changes in Uniper's size, scope, ownership structure, and supply chain. Uniper's ownership structure changed significantly in 2018. Fortum, an energy company based in Finland, acquired a 47.37% stake in Uniper, making it our largest shareholder. According to Fortum the company currently holds 49.99% of Uniper shares.

**[GRI 102-54]** The report's description of our materiality assessment and management approach reflect the standards of the Global Reporting Initiative (GRI). The report uses GRI indicators to disclose information on selected topics; their use is referenced in each instance. We are working toward reporting in accordance with the GRI Standards: Core Option to provide our stakeholders with a more comprehensive overview.

**[GRI 102-49]** Changes in reporting: we no longer publish our sustainability report online but rather in print and pdf versions; the latter can be downloaded from our website. The structure of our 2018 report reflects the sustainability strategy defined in our Sustainability Strategic Plan, which, too, can be downloaded from our website.

**[GRI 102-51, 102-52]** This report succeeds the Uniper Sustainability Report 2017. The next sustainability report will be available in 2020.



[cr.uniper.energy](https://cr.uniper.energy)

You find additional information and updates on our sustainability website.

## Disclaimer

This document may contain forward-looking statements based on current assumptions and forecasts made by Uniper SE management and other information currently available to Uniper. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development, or performance of the company and the estimates given here. Uniper SE does not intend, and does not assume any liability whatsoever, to update these forward-looking statements or to adapt them to future events or developments.

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