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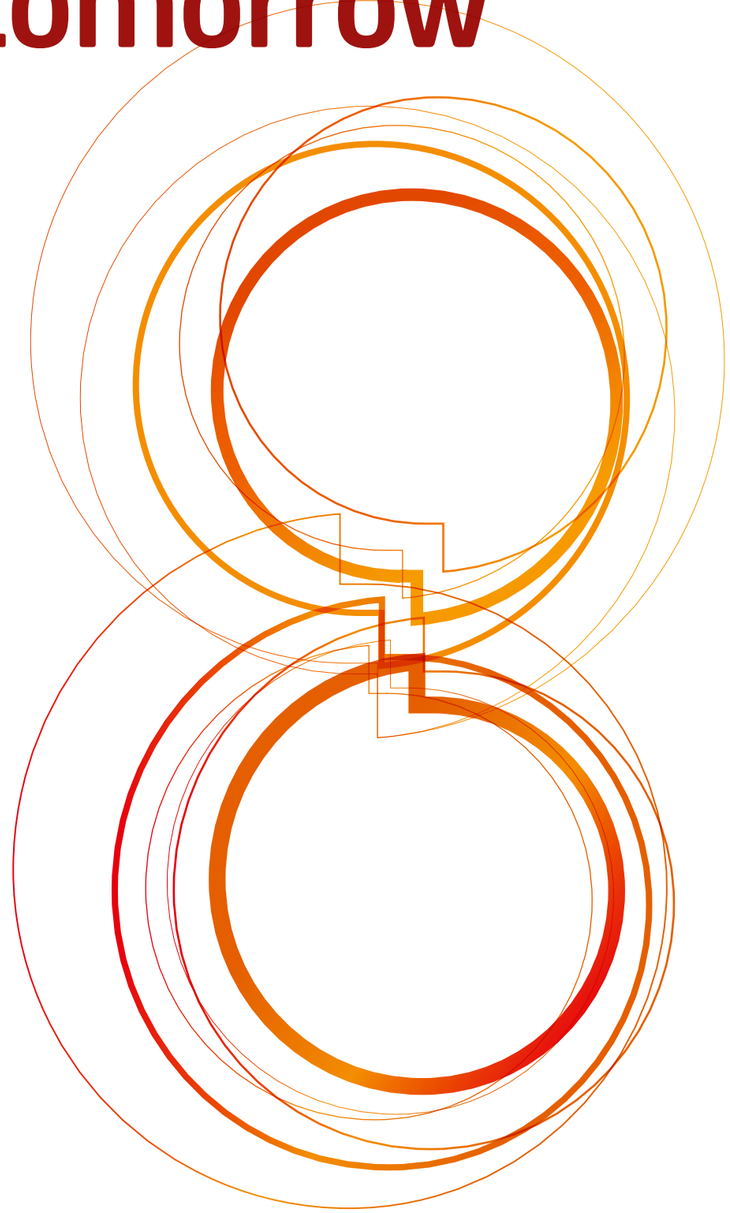
Sustainability Report 2020

Let’s talk about:tomorrow

eew
Energy from Waste

Let’s talk about:tomorrow

Sustainability Report 2020



Sustainable action is not an end in itself

GRI 102-14

As in years past, sustainability was once again a dominant theme in our company and large parts of society in 2020. The issue remained a key topic of discussion even as the coronavirus pandemic revealed the vulnerability of our society and economy in many ways. As a company with a continuous disposal and supply mission, our business was not affected by any coronavirus-related closures, so we were able to live up to our social responsibility even during such a challenging year.

The nation's political discourse, apart from the struggle with the pandemic, focused on the fight against climate change. Especially at the level of the European Union, regulatory dynamics have continued to gain momentum: as part of the European Green Deal to transition the economy to more resource efficiency and competitiveness, the EU has adopted even more ambitious goals for the reduction of greenhouse gas emissions.

The European Green Deal involves the capital market as well: to finance the transition toward a "green" economy, investors are to be given incentives to consider sustainability aspects in their investment decisions. The so-called EU Taxonomy defines for the first time which requirements investment projects must satisfy to be considered sustainable. To qualify as sustainable, projects must contribute to one of six EU environmental goals. These goals include for instance adaptation to climate change or transitioning to a recycling economy.

We pay very close attention to all regulatory developments because it is our declared company goal to do our part toward the sustainability goals at the national and EU level. This is why we have further focused our strategic direction in the area of sustainability and identified topics where we intend to make a concrete contribution in the coming years. These topics all culminate in three main issues:

> "Innovations for the future",
> "strengthening the recycling economy" and
> "dealing with climate change".

In each of these three areas, we will be implementing numerous measures, which we want to introduce in the following chapters. On the one hand, these points of focus are relevant for our company's success. On the other hand, we believe they have enormous potential, as they allow us to make a relevant and positive contribution for the benefit of the environment and society.

To us at EEW, sustainable action is not an end in itself. Sustainable action means taking responsibility, for the company as a whole and for us as the executive board. It is up to us to direct the business activities of EEW in a way that contributes to sustainability. We firmly intend to live up to this responsibility and to promote and safeguard the welfare of human beings and the environment. The coming generations have a right to be left with a healthy and liveable planet. The latest research findings of the Intergovernmental Panel on Climate Change are nothing short of alarming. The enormous efforts required to protect our climate can only be mastered if we all work together and implement climate protection measures quickly. Let's keep talking about this. We hope you will openly tell us about your ideas, questions and expectations and join us in our mission to make EEW more sustainable every day.

Bernard M. Kemper
Chief Executive Officer (CEO)

Markus Hauck
Chief Financial Officer (CFO)

Dr Joachim Manns
Chief Operating Officer (COO)

Creating lasting values through sustainable action

The well-being of humans and social progress are matters that are dear to our hearts. Many leading companies have declared that economic yield is no longer their only driving force, but that ecological and social factors are just as important. How and under what circumstances profits are earned is becoming more and more essential. There is an expectation of not only monetary success, but also of creating social and ecological value. Thus, topics like climate change, resource shortages, biodiversity, integration, gender equality and health are growing more relevant every day. Companies and entire industries need to face these challenges if they want to remain successful in the long term.

We are very concerned with keeping the successful development of our investments in harmony with society and the environment. We do it by integrating sustainability in our corporate strategy. For instance, our waste treatment unit promotes the exchange and mutual learning with EEW Energy from Waste.

We are convinced that the key to a company's long-term success is to integrate economic, ecological and social targets equally into its daily work. This is why we explicitly promote sustainable action and define our corporate success by how attuned we are to the economy, society and the environment.

In all our efforts, the open dialogue with all stakeholders is an essential component of the sustainable development of our company. Only by maintaining a discourse can we bring divergent interests together, provide incentives for change and do our part to ensure that sustainability goals are achieved for the long term.

XIONG Bin
Chief Executive Officer (CEO)
Beijing Enterprises Holdings Limited

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All persons depicted in this publication had tested negative for COVID-19 in addition to the applicable 3G Corona rules at the time the photographs were taken.

Markus Hauck
CFO EEW
People and the environment.
Dr Joachim Manns
COO EEW
Who are the winners of tomorrow?
Bernard Kemper
CEO EEW
And companies like ours.

About this report

GRI 102-45 | 102-50 | 102-52 | 102-54

With our Sustainability Report 2020 we are providing comprehensive information about our economically, environmentally and socially responsible conduct. We make our understanding of sustainability transparent and present our goals and measures. In doing so, we want to reach our internal and external stakeholders as well as interested members of the public. As a key communication medium, our sustainability report is published annually to provide transparent information about our progress in these activities.

Goals and content

In 2018 EEW Energy from Waste completed an extensive process to strategically implement sustainability. The results of that process form the basis for this reporting. The primary focus is on:

> strategically deriving the material sustainability issues and areas of action

> formalising specific sustainability goals in the identified areas of action

> incorporating stakeholders' perspectives by ascertaining their views and expectations of EEW's sustainability management

Structure and orientation

As part of the strategy process, we identified three specific areas of action: "strengthening relationships", "taking on challenges" and "delivering results". Each of these three areas of action corresponds to one main chapter, thus establishing the basic structure of this report. The thematic focus areas that we identified based on the material topics are each presented as a subchapter within the three main chapters. The three main chapters are bookended by the introductory chapter, "Embedding sustainability", and the concluding section of the report, "Facts and figures", which contains the key figures relevant to the report.

External assurance by audit firm

Selected content of EEW Energy from Waste GmbH's Sustainability Report 2020 was verified by the independent audit firm EY in accordance with the International Standard on Assurance Engagements (ISAE) 3000 Revised ("limited assurance"). The verified information is indicated accordingly with ✓ in the text of the report as well as in the overview of key figures.

International standards and frameworks

We incorporate internationally recognised standards and frameworks in our sustainability reporting. Our focus is on the sustainability reporting standards (SRS) of the Global Reporting Initiative (GRI) – referred to as GRI Standards – as well as the United Nations Sustainable Development Goals (SDGs).

GRI sustainability reporting standards

The GRI Standards are designed to enhance the global comparability of non-financial information published by organisations in their corporate reporting. With the help of the GRI Standards, organisations can report on the relevant economic, environmental and social impacts associated with their own business activities. The published information enables various stakeholders to assess the sustainability performance of the reporting organisation and compare the performance of various organisations.

This report was prepared in accordance with the GRI Standards (Core option). For reasons of clarity, the references to the GRI disclosures in this report are displayed under the headings and pertain to the text that follows. *www.eew-energyfromwaste.com/GRI-Index_2020_EN* The information provided relates to the 2020 financial year (1 January 2020 to 31 December 2020) of EEW Energy from Waste GmbH. Events or results outside of this reporting period and information that does not relate to EEW Energy from Waste GmbH are indicated accordingly. This sustainability report is published in German and English and is available in print and as a PDF download on the company's website.

Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) are a key component of the 2030 Agenda for Sustainable Development, which was adopted by the member states of the United Nations in 2015. The SDGs are designed to lead to greater environmental and climate protection, prosperity, social justice, self-determination and peace around the world by 2030.

There are 17 SDGs containing a total of 169 targets. In this report, in each of the three chapters on the three areas of action – "strengthening relationships", "taking on challenges" and "delivering results" – we will indicate how EEW contributes to achieving the SDGs. To this end, we analysed which of the 17 SDGs are particularly relevant for our business activities. Overall, we identified the following seven SDGs:

You can find our GRI content index here.

These 7 SDGs are particularly important for our company's activities:

A dialogue for sustainable action

On the road to more climate and resource protection, waste management plays a major role. Since 1990 it has saved over 100 million tonnes of greenhouse gas emissions EU-wide. In addition, we replace fossil energy sources such as coal and reclaim valuable raw materials like metals from the grate ash. As Germany's leading company in the field of thermal waste treatment, EEW bears special responsibility. Sustainability is firmly rooted in our organisation. We use sustainable and state-of-the-art processes in order to have a positive impact on the environment, society and our company.

We want to keep on developing those processes: we permanently remove hazardous toxins, ensure that thresholds are maintained at all times and preserve primary energy resources. We build the foundations for recycling reusable materials contained in waste, for reclaiming metals and construction materials from combustion residues. The sludge ashes produced in our sludge incineration plants will be used in the future to reclaim the valuable resource phosphorus and return it to the materials cycle. As a responsible employer, we foster a culture of trust and cooperation in our company. We support young talents, and occupational health and safety is one of our top priorities. With our customers, suppliers and partners, we maintain respectful and appreciative relationships.

All these efforts are by no means a one-way street. They require constant dialogue with all stakeholders, from employees to customers, from suppliers to policymakers, economics and science, so we can continuously improve and develop on our journey toward more sustainability. The enormous challenges that lie ahead can only be conquered together. If we are the ones setting the good example – well, that suits us just fine.

Dr Marc-Oliver Pahl
Secretary General of the German Council for Sustainable Development

Sustainability is a social challenge.

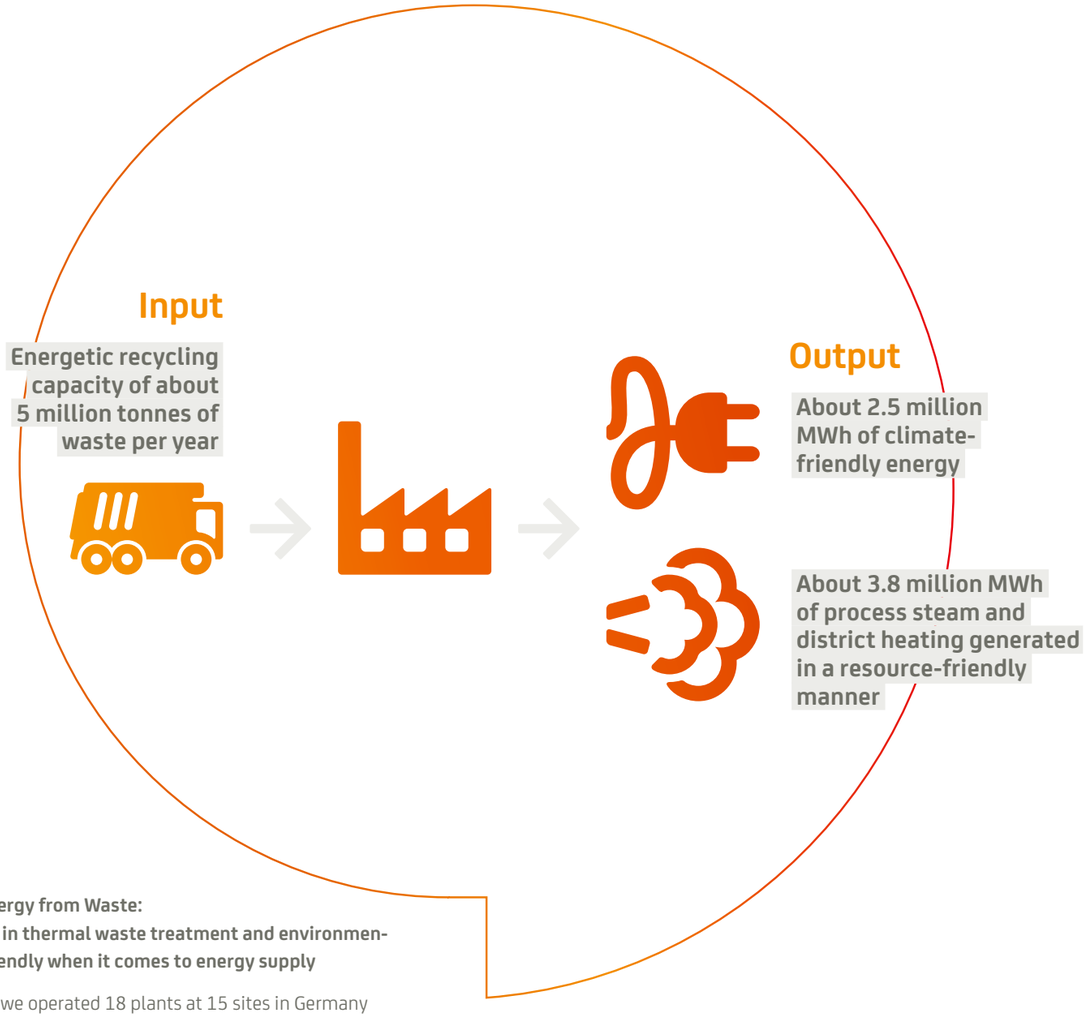
Bernard Kemper
CEO EEW

And a job for management.

Company portrait

GRI 102-1 | 102-2 | 102-3 | 102-4 | 102-5 | 102-6 | 102-7 | 102-9

EEW Energy from Waste (EEW) is one of Europe's leading companies in the thermal recovery of waste and sewage sludge. To sustainably use the energy contained in these resources, the company develops, builds and operates state-of-the-art recovery plants. EEW thus plays a critical role in a closed-loop and sustainable circular economy.



EEW Energy from Waste:
leading in thermal waste treatment and environmentally friendly when it comes to energy supply

In 2020 we operated 18 plants at 15 sites in Germany as well as one site in the Netherlands and one in Luxembourg. With a market share of around 16 per cent (as measured by technical plant capacity), we are the market leader in Germany. As the only operator of an energy-from-waste (EfW) plant in Luxembourg, our market share there is 100 per cent. In the Netherlands, we currently account for seven per cent of the market.

Our company is headquartered in Helmstedt, Germany. In the reporting year, we had a total of 1,159 employees at our headquarters in Helmstedt and at our sites. Every day, our team works to further develop energy from waste as an integrated component of the energy and heat transition.

Our range of services focuses on:

> recovery of energy from waste from local authorities and companies

> production of electricity, heat and steam

> thermal sewage sludge recovery

> recycling of iron and non-ferrous metals

The combined annual recovery capacity at our 18 plants amounts to around five million tonnes of waste. By utilising the energy contained in this waste, EEW generates process steam for industrial plants, district heat for residential areas and eco-friendly electricity. The generated electricity alone is enough to supply 720,000 households for one year. As the waste contains approximately 50 per cent biogenic material on average, we generate energy from renewable sources in accordance with the German

Renewable Energy Sources Act (EEG). At the same time, the energy recovery of waste inputs in EEW's plants leads to a smaller carbon footprint: the energy contained in the waste can be transformed into process steam, electricity and district heating, thereby substituting the use of fossil fuels such as oil or natural gas.

As part of the EfW process, not only does EEW recover energy, it also reclaims raw materials from the residues that remain after waste combustion: the largest proportion consists of bottom ash (also known as clinker) generated by the combustion process, which can be used as a substitute building material in road construction, for example. In addition, metals contained in the bottom ash – such as iron, aluminium and copper – can be reused in numerous ways thanks to their high degree of purity. Other residues are fly ash and filter dust from flue gas cleaning. They arise when state-of-the-art technology captures pollutants from the flue gas and permanently removes them from the biosphere. In an environmentally sound recovery process, EEW uses fly ash and filter dust as backfilling material in mines.

1,159

employees at our headquarters and plants

In connection with the amended German Sewage Sludge Ordinance (AbfKlärV), we are also ready to serve local authorities as a partner for thermal sewage sludge recovery. We develop tailor-made solutions for the resource-efficient recovery of this waste product generated by wastewater treatment. At the current EEW sites, this will result in beneficial synergies with our EfW plants. With our present network of 18 plants at 17 sites in Germany and neighbouring countries, we have created a logistical infrastructure which offers maximum flexibility in acceptance capacity and thus reliable waste management for local authorities and companies in both the short and long term.

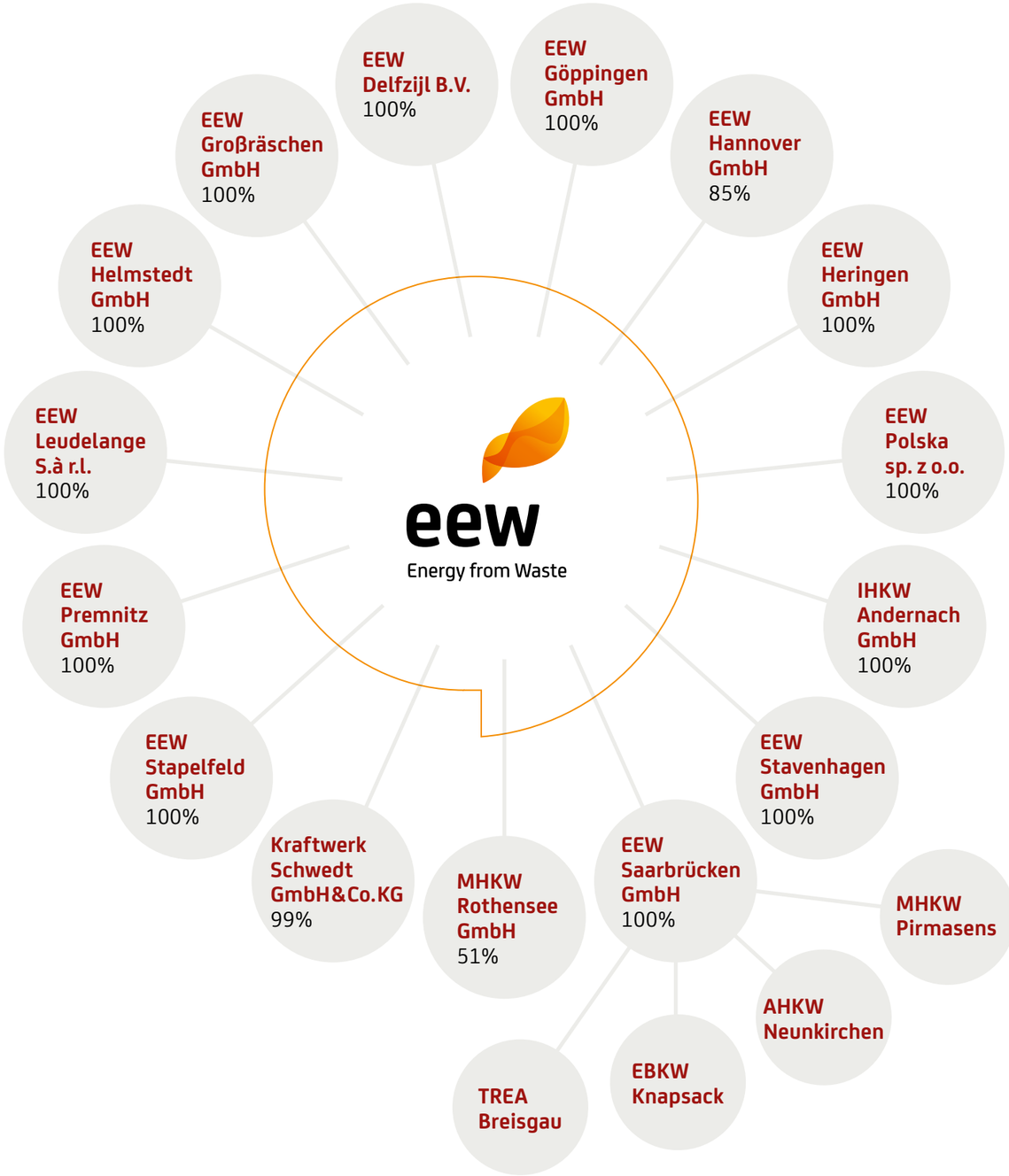
Our corporate structure

The EEW Group is led by the Board of Management of EEW Holding GmbH. EEW Holding GmbH holds more than 99 per cent of the shares in EEW Energy from Waste GmbH, including direct investments. Since 2016 the sole shareholder of the EEW Group has been Beijing Enterprises Holdings Limited (BEHL).

"We need companies' commitment to the environment and society in order to be able to achieve the German and global sustainability goals."

Dr Marc-Oliver Pahl
Secretary General of the German Council for Sustainable Development

Overview of the ownership structure of EEW Energy from Waste GmbH



Jürgen Rauen | Chair of the Supervisory Board EEW

Sustainability and profitability must not be a contradiction.

Sarah Endres | Project Manager Business Development EEW

That is why both are integral parts of our corporate strategy.

Our strategy: the umbrella for all sustainability activities

GRI 102-11 | 102-44 | 102-46 | 102-47

In 2018 we launched the strategic implementation of sustainability at EEW Energy from Waste. Our goals were to evaluate specific topics as the foundation for our future sustainability management, to establish sustainability goals to guide our actions, and to present our understanding of responsibility in a sustainability mission statement. We successfully carried out this process with the engagement of our stakeholders.

For many years, we have been pursuing regular and intensive dialogue with our customers as well as local authorities, employees, trade unions, policymakers and other societal actors. Through transparent interaction, we ascertain their views of our company as well as their concerns and potential challenges. Accordingly, we see stakeholder dialogue as essential to EEW's long-term business success. As such, we also included stakeholders in the development of our sustainability strategy and sought out their external assessments.

The outcome of our strategy process is a comprehensive sustainability strategy with goals, a mission statement and governance structures. As part of our corporate strategy, it forms the umbrella for all our sustainability activities. For the mandatory company-wide implementation of the strategy, we developed a road map with measurable sustainability goals for our three areas of action: "strengthening relationships", "taking on challenges" and "delivering results". The road map clearly defines deadlines for reaching these goals. In this way, our strategy becomes more than just a theory; it is credibly and transparently put into practice. As our external environment is in flux and our company is constantly developing, we will continuously review and evaluate our strategy and goals (see also chapter "Effectively managing sustainability in the company"). By doing this, we ensure that the material topics are always the focus of our sustainable conduct.

A detailed description of our 2018 materiality analysis and an overview of the key topics can be found in the EEW Sustainability Report 2018 on pages 12 and 13.

We launched an internal strategy process at the beginning of 2021 for the strategic development of sustainability at EEW. In an online workshop, the material topics from the 2018 strategy process and other current sustainability topics were evaluated based on their strategic relevance for EEW until 2025 and then clustered together. The internal coordination process involved the EEW steering committee for sustainability, higher levels of executive leadership and the Board of Management.

The outcome was the three strategic focus topics for sustainability at EEW: "innovations for the future", "strengthening the circular economy" and "dealing with climate change". These will guide EEW's sustainability management in the coming years. As a first step, relevant measures and projects were assigned to the three topics. As the next step, clear action steps will be defined that will drive EEW's advances in these subject areas in the coming years.

Our vision

EEW will continue to strengthen its role as a leading company in the field of resource protection and sustainable energy supply for industry and homes in Europe. As an indispensable part of the circular economy, we reudce climate impact, protect our environment and preserve human and animal health.

Our mission

We accept the global and national challenges of climate and resource protection. Using sustainable and state-of-the-art processes and the opportunities presented by digitalisation, we

> provide climate-friendly energy in the form of process steam, district heat and power,
> permanently remove hazardous pollutants,
> preserve primary resources and
> reclaim valuable raw materials.

All of our activities reflect our binding values, and we maintain trusting relationships among our employees and with our partners.

In this report, we show in the introduction to each of the two main chapters (“Taking on challenges” and “Delivering results”) how EEW is already contributing to the strategic focus topics as well as which topics our company will focus on until 2025.

Our sustainability goals: applicable company-wide, measurable, with specific deadlines

Based on the three derived areas of action, we developed a road map with defined goals. For each thematic focus area in a particular area of action, we set operationalised goals and linked these with KPIs so that we can measure our progress. Deadlines were set for achieving these goals and which measures will be used to reach them. To ensure efficient steering, we also established responsibilities within the company. We strive to continuously improve our performance in the areas of action on the basis of these goals.

Find the German EEW sustainability mission statement here.

Our mission statement: the common thread of sustainable conduct

In our sustainability mission statement, we have established our understanding of responsibility and linked this with our corporate values. The mission statement therefore serves as a common thread running through all of our company’s sustainability activities and as a guiding framework for our employees. We want to motivate employees to contribute to responsible business operations.

One aspect of our understanding of corporate responsibility is that EEW makes an important contribution to decarbonisation as part of a sustainable circular economy. With our expertise and innovative strength, we develop forward-looking solutions in order to contribute to a climate-friendly energy supply. With environmentally sound energy from waste, we want to offer society and industry long-term supply security.

On this path, we align our actions with binding targets and values:

> We place a strong emphasis on fair and trusting collaboration, based on compliance with existing laws and voluntary agreements that apply to not only the company itself, but also our business partners and employees.

> EEW sees itself as a good employer that offers its employees long-term job prospects, attractive continuing education opportunities and extensive occupational health and safety programmes.

> We continuously work on increasing energy efficiency in our own processes, further reducing emissions and using resources responsibly.

> EEW is an economically strong player embedded in local communities. To foster fair and long-lasting partnerships, we strengthen regional infrastructure and promote cooperation with local suppliers.

> We engage in regular open dialogues with all relevant stakeholder groups in order to take external expectations into account, build trust and provide information about our activities.

Management systems: recognising and preventing risks

Through systematic management of our sustainability activities, we want to ensure that the risks associated with material topics are effectively reduced. EEW has introduced and been certified in important management systems at all its plants and administrative sites. These include ISO 9001 (quality management), ISO 14001 (environmental management), ISO 50001 (energy management) and ISO 45001 (occupational health and safety management). All management systems are based on the control cycle of the plan-do-check-act (PDCA) principle.

“Sustainability is the foundation for long-term business success. In its strategic fields of activity, EEW shows how the company is making a significant contribution to sustainable development.”

Jürgen Rauen
Chair of the Supervisory Board EEW

Angelina Mechow | Trainee EEW
How do we at EEW think about climate protection?
Dr Joachim Manns | COO EEW
In generations.

Effectively managing sustainability in the company

GRI 102-18

In 2018 we successfully completed our process of strategically implementing sustainability at EEW. It is our ongoing goal to make sustainability an integral part of the company by embedding it in our daily operations and thus in our existing organisational structure.

We therefore work continuously on establishing an efficient governance structure for company-wide sustainability management. Sustainability management will be responsible for regularly evaluating the material topics, pursuing the goals and measuring our progress towards reaching the goals. Furthermore, sustainability management will be in charge of the envisaged future implementation and realisation of ongoing stakeholder management as well as the establishment of regular reporting processes.

Overall responsibility

Company-wide responsibility for sustainability lies with the Board of Management of EEW Energy from Waste GmbH. As the senior decision-making body, it determines the strategy, evaluates and adopts key strategic decisions and is responsible for the budget.

Organisation and management

Since 2019 an internal steering committee has coordinated the company's sustainability activities. This central body is made up of one representative from each of the departments Chair, Finance and Technology as well as the technical director of the plant sites. The steering committee further develops the sustainability strategy, prepares decisions to be made by the Board of Management and ensures these decisions are consistently implemented within the company. Furthermore, it monitors whether the sustainability goals are being met and oversees the budgets. In an advisory role, the committee is in close contact with the Board of Management.

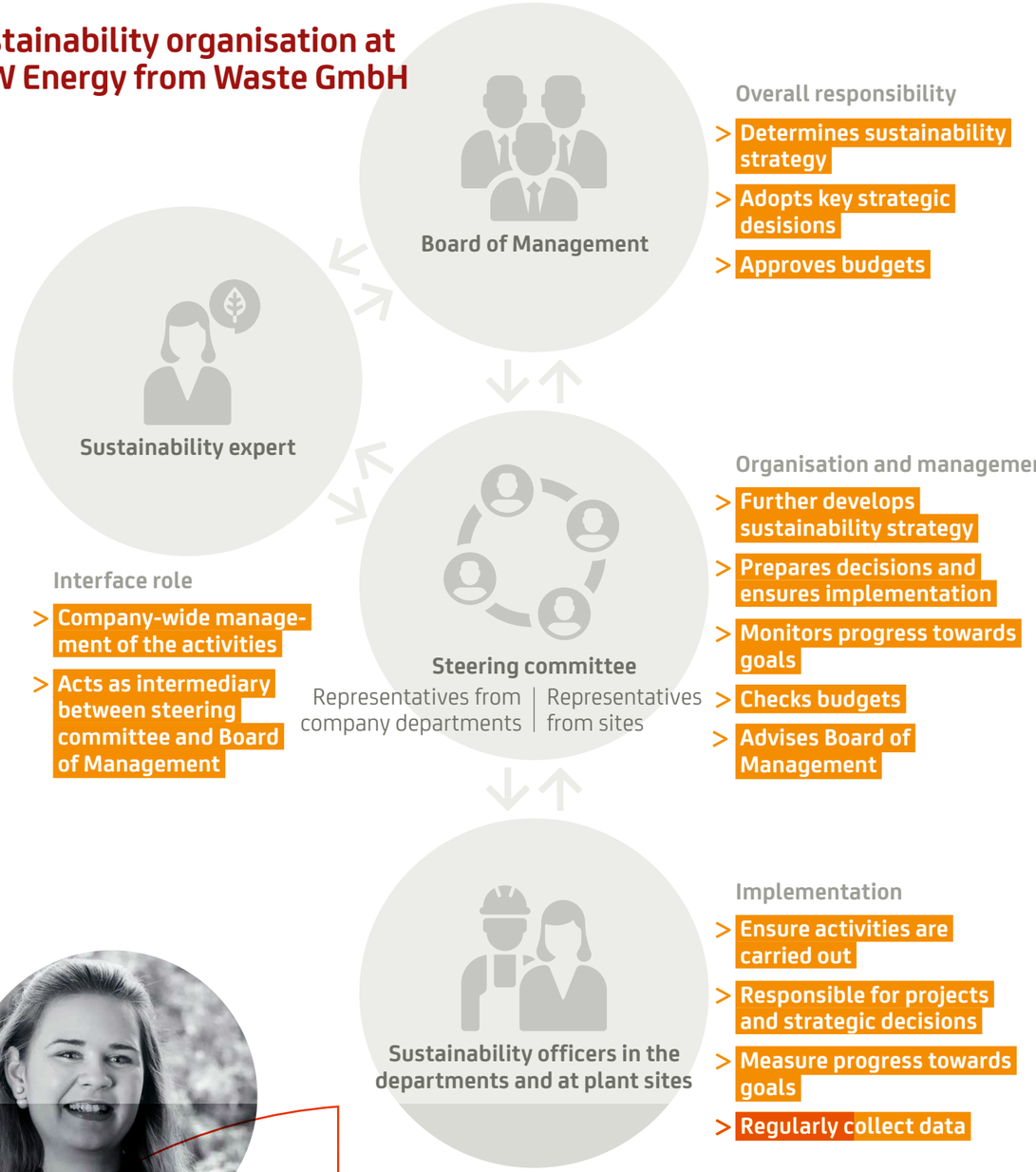
The sustainability expert, a position filled in 2020, serves as an intermediary between the steering committee and the Board of Management. The sustainability expert is responsible for the company-wide management of sustainability activities and acts as a liaison between the steering committee and the Board of Management.

Implementation

To ensure the practical implementation of sustainability activities, sustainability officers are appointed within the departments and at the sites. They serve as points of contact for all projects and strategic decisions relating to their area of responsibility. Furthermore, they regularly collect data which they report to the steering committee in order to measure progress towards the goals.

We also intend in 2021 to introduce process instructions for our internal sustainability management, building on the established certified management systems in the areas of quality, environment, energy, and occupational safety. Such process instructions set out all of the strategic and organisational decisions taken thus far and make them accessible to all employees.

Sustainability organisation at EEW Energy from Waste GmbH



"I expect EEW to clearly commit to sustainability and make decisions that consider my generation and those to come."

Angelina Mechow
Trainee EEW

Area of action: strengthening relationships

Sustainability is a shared responsibility. It cannot be delegated from the top down and certainly not achieved by fiat. It will only be successful if we make a joint effort, interacting and working together in pursuit of our goals. This is why we engage in continual dialogue with our employees, customers, suppliers, partners, public authorities, industry, policymakers and the scientific community.

The foundations for successful operations are acceptance from society, long-lasting customer relationships and qualified employees. We want fair and trusting collaboration based on compliance with existing laws and voluntary agreements. We expect this not only of ourselves, but also of our business partners and our workforce. This is how we want to strengthen the relationships with all our stakeholders over the long term. To do so, we have set ourselves specific goals against which we measure our performance.

Ryan Ptak
Sales Manager EEW

Because
they can.

Matthias Harms
Managing Director Veolia Germany

Why do
your customers
trust you?

Acting with integrity as the foundation of our business

GRI 102-16 | 103-1 | 103-2 | 103-3 | 419-1

It is crucial for the long-term success of our company that we have the trust of customers, business partners and the public. The Group's top priority is therefore to maintain and strengthen EEW's trustworthiness.

The materiality analysis conducted in 2018 showed that this topic is particularly relevant when it comes to preserving integrity and protecting EEW from risks.

Fair operating practices/compliance

At EEW, our values, our corporate directives and the associated rules form the foundation for acting with integrity and compliance. We avert risks through, for example, having established preventive measures to combat corruption and anticompetitive behaviour and through responsible data handling practices. We have an external data protection officer who ensures the applicable data protection regulations are adhered to. Moreover, as a matter of course, we aim to respect human rights in our business operations. We have an internal system of corporate values and compliance rules in place to ensure this. Last but not least, we believe acting responsibly and with integrity also means transparently disclosing the influences that our business operations have on the environment and society.

EEW implements compliance throughout the company and thus in 2020 also created the framework for legally compliant conduct at all levels. All employees are encouraged to act in a responsible and compliant manner with regard to laws, company guidelines and values. This corporate principle is enshrined in our sustainability mission statement and is mandatory throughout the company. Through legally compliant and responsible behaviour at all levels of the company, we aim to obviate negative impacts on our own business activities. Such impacts include, for example, exclusion from participation in public procurement procedures and the associated loss of revenues and earnings, increased expenditures for sales activities, antitrust fines, and even further criminal prosecution. Furthermore, we avoid immediate or direct consequences, such as losing public acceptance or the trust of our stakeholders and especially our business partners. We also protect ourselves from loss of reputation, which would negatively impact the recruitment of skilled employees for our company. Acting with integrity and respect for the law is also crucial for environmental and climate protection, for example, to prevent the risk of violations of permit specifications.

Averting risks:
our compliance management system (CMS)

Our goal is to avert risks through education and prevention and thus avoid damage to the company and its employees. To this end, we provide employees with education about legally compliant behaviour and competition law. This is based on our Code of Conduct, which is binding for all employees. We also sensitise employees to recognise potentially improper conduct and report it via the appropriate channels, for example by using the whistle-blower hotline. Moreover, it is part of our culture that when employees are unsure, for instance about invitations or gifts, they should make specific enquiries to ensure they are acting in accordance with our rules.

Furthermore, we have set mechanisms to identify potentially undesirable developments in good time. In particular, the focus is on sales and procurement activities as well as the service areas energy management, IT and finance since these are exposed to the greatest potential risks. Should any relevant incidents occur, these are promptly dealt with and resolved.

During the reporting period, corrupt behaviour was detected at one site. In response, labour law measures were undertaken and EEW terminated the three employees involved in the violation of the rules. There were no significant fines or non-monetary penalties imposed on EEW in 2020 for non-compliance with existing laws and regulations. Moreover, there were no cases brought through dispute resolution mechanisms or settled via appropriate mechanisms.

An important basic instrument for meeting all national and EU-level statutory requirements is our internal compliance management system (CMS). It is applied across the company and contains responsibilities as well as steering mechanisms. The Board of Management has overall organisational responsibility for ensuring EEW conducts its business activities in compliance with the law. At the division level, the respective department heads or site managers are responsible. They report to the responsible Managing Director about compliance with intracompany and legal regulations. The Board of Management is therefore directly informed about every known infringement of legal regulations and about known incidents of corrupt or anticompetitive behaviour. The Chief Compliance Officer coordinates all of the compliance-relevant processes and tasks in close coordination with the Legal department.

Core elements of our Code of Conduct

- Legal compliance
- Shared responsibility for the reputation
- Equal opportunities and mutual respect
- Dealing with business partners
- Avoidance of conflicts of interest
- Handling of information
- Handling property and company resources
- EEW compliance organisation

EEW's own Compliance Directive and Code of Conduct stipulate that compliance with all statutory requirements is mandatory. The Directive and the Code are the overarching norms of behaviour and thus represent the main guidance for the conduct and decision-making of all employees at the company.

The Code of Conduct applies to all employees at EEW companies. It contains general rules of conduct as well as clear provisions on dealing with business partners, especially with regard to competition law and the prevention of cases of corruption. Moreover, the Code specifies how to deal with information and the company's property and resources. In addition, it contains rules on avoiding conflicts of interest. The implementation of the Code of Conduct at EEW is the responsibility of all employees, especially the managers and ultimately the Board of Management. Any violations are reported to the Chief Compliance Officer, who further investigates and reports to the Board of Management.

93.6 %

of all employees completed e-learning on working hours, maternity, youth and data protection, as well as the German General Act on Equal Treatment in 2020.

Employees who notice a breach of the Code of Conduct are encouraged to inform their managers or the Chief Compliance Officer, either by telephone or in writing, with their name or anonymously. The Chief Compliance Officer investigates, evaluates and researches all tips. Violations of the Code of Conduct result in disciplinary measures, labour law sanctions and, if necessary, further legal steps.

The Directive and the Code of Conduct are complemented by internal norms of behaviour for the following specific topics: occupational health and safety; environment, energy and quality policy; internal audits and the integrated health, safety, environment and quality (HSEQ) management system.

For EEW, respecting human rights is one of the foundations of lawful and responsible conduct, in accordance with Article 1 of the Basic Law for the Federal Republic of Germany. At present, the scope of our activities and our current suppliers and customers are located only within Central Europe. We currently do not plan explicit regulations to safeguard human rights in supply and service relationships because all suppliers are subject to European laws and therefore also to the corresponding standards in the various European jurisdictions. If, however, EEW learns of infringements of human rights by suppliers or customers, we will terminate the contractual relationship or refrain from concluding any new contracts with that supplier or customer.

Ensuring compliance: implemented measures and mechanisms

As a key element of good corporate management, compliance is a permanent task: not only can laws and framework conditions change; we also want to achieve and continually uphold awareness of compliance among all EEW employees.

To support employees in complying with statutory regulations and in dealing with legal risks, EEW has established measures and instruments and reviews these regularly. Upon joining the company, all employees are made aware of lawful conduct via their employment contracts. Contracts with managers additionally contain individual contractual provisions relating to competition law. As part of our online learning offerings, we also educate employees with respect to certain aspects of legally compliant conduct. In 2020, for example, more than 93 per cent (2019: 91 per cent) of all employees attended training on the topics working hours, occupational safety, maternity protection, youth protection, data protection and the German General Act on Equal Treatment (AGG).

Departments that we have identified as particularly “at risk”, such as Sales and Procurement, receive specific training, for instance on competition law and anticorruption. The training focuses on how to deal with potential risks which apply especially to these departments but can have effects on the entire company.

Managers play an especially important role with regard to compliant behaviour. They are to act as role models by strictly adhering to the applicable rules and continuously conveying the importance of compliance to their employees. Moreover, they are instructed to keep an eye on the compliant conduct of their employees.

Infringements of statutory regulations or internal rules can be anonymously reported via the internal whistleblower hotline. In addition, all communication channels within the company are available, such as the intranet or personal conversations with the compliance officers, the equal opportunities officer or the disabilities officer. If a suspected rule violation is reported, various parties look into the matter. The aim is to investigate the issue as thoroughly as possible. If necessary, we also call in third parties for an external investigation of the issue and/or assessment.

The laws applicable to our business operations are constantly evolving. We therefore always keep track of current legislative procedures and continuously evaluate them for EEW. At the moment, the projects relevant to us include Germany’s upcoming umbrella ordinance introducing a substitute building materials ordinance, the 17th Ordinance on the Implementation of the Federal Immission Control Act (17. BImSchV) and the ordinance on facilities for handling substances that are hazardous to water (AwSV). In addition, we are intensively engaged with the EU Industrial Emissions Directive (IED) and its requirements relating to best available techniques (BAT), as we will be obligated to implement these in the coming years. Germany’s Commercial Wastes Ordinance, Circular Economy Act, Fuel Emissions Trading Act and Greenhouse Gas Emissions Trading Act also remain relevant for us. And, of course, we are continuously monitoring potential developments in competition law.

EEW also consistently monitors changes to various legislation in, for example, public procurement law or energy sector regulation, including the relevant jurisprudence. EEW is in continuous dialogue with public authorities, political decision makers, and associations at the national and European level with regard to legislative and approval processes as well as threshold compliance. Dialogue with the permitting authorities is primarily carried out by the sites, while political communication is increasingly being conducted at the overarching company level. We continually engage in these exchanges, which are very important to EEW.

“Acting with integrity and in accordance with the rules in every situation is a matter of course. A comprehensive compliance management system supports both sides.”

Matthias Harms
Managing Director Veolia Germany

Tanja Böhmler
Personnel Development EEW

Who at EEW takes care of sustainability?

Petra Mersmann-Dunkel
Manager of Personnel Development EEW

That’s what our 1,159 employees are for.

Qualifying and empowering employees

GRI 103-1 | 103-2 | 103-3 | 403-1 | 403-2 | 403-3 | 403-4 | 403-5 | 403-6 | 403-7

Qualified and committed employees are the foundation of our company's long-term success. We want to provide an appealing work environment and fair working conditions in order to achieve a high level of employee satisfaction. Our goal is to be an attractive employer in the regions where our plants are located, today and in the future.

In our materiality analysis, we identified four central topics and corresponding goals, which are particularly relevant for EEW as an employer.

Employment

EEW wants to recruit and retain skilled employees by offering attractive employment conditions. We want to keep our staff turnover rate low through a high level of employee satisfaction.

Vocational and further training

With systematic vocational training and employee development, EEW safeguards the quality of its services. We encourage talented employees and utilise modern working methods.

Occupational safety and health

EEW protects employees from hazards in the workplace and promotes health. We do so by raising employees' awareness of occupational safety and behaviour that fulfils safety demands.

Diversity and equal opportunity

EEW has established an open corporate culture characterised by appreciation and respect and that complies with social as well as legal requirements, such as Germany's General Act on Equal Treatment (AGG).

Furthermore, through our stakeholder survey and other efforts, we determined which current challenges are associated with our goals. These include, among other things, digitalisation and demographic change. We address these challenges by exploring them intensively, taking them into account in our human resources strategy and further strengthening our measures accordingly. Following revision of the corporate strategy in 2019 we also used this in 2020 as the foundation for redefining our human resources strategy in close coordination with our employee representative bodies. The objectives of the new human resources strategy are to preserve the high level of employee satisfaction, keep the fluctuation rate at a sustained low level and further minimise illness-related absences as well as overtime. To do so, we plan to define strategic benchmarks we want to reach with the help of operational measures that we will also regularly evaluate.

With the new human resources strategy, we are building on previous developments. In the reporting year, our human resources work thus once again focused on being a competitive employer that implements digitalisation projects and makes its employees fit for the requirements of the digital work environment. Another focus area continues to be promoting health maintenance among our workforce and preventing accidents. In light of demographic trends, we also set up systematic succession planning. Last but not least, we treat each other with respect and have firmly anchored this in our corporate culture.

Not only do our measures increase employee satisfaction and employer attractiveness, they also protect EEW against economic, environmental and social risks. By, for example, ensuring a deep understanding and awareness of occupational safety among our employees and partner firms, we prevent accidents and thus protect their health and physical integrity. This also prevents inefficient downtime at our plants and damage to our company's image. We regularly provide information to increase the safety awareness of our employees so that they can recognise and eliminate hazards. When working together with employees from other companies, we want to make sure that they comply with our demanding high safety standards. At our sites in Germany, the Netherlands and Luxembourg, there are country-specific standards for employee rights, which we comply with as a matter of course.

Our HR strategy

Firmly embedded in the strategy: management, responsibilities, communication

To steer our management approach, we use various instruments within the company. These instruments – in combination with responsibilities and specific measures for employees and managers – also serve to implement our zero-accident strategy. To further strengthen this, we also transitioned in 2020 from the occupational health and safety management standard OHSAS 18001 to ISO 45001 and successfully obtained matrix certification. In conjunction with this, several sites are certified and selected sites will be audited in the following years, which is also known as group certification. This system primarily serves to reduce accidents and minimise lost time.

In addition to external certifications, our day-to-day work is guided by EEW-internal directives that are binding for all employees. These include the guidelines on leadership and cooperation as well as the principles for responsible procurement. Moreover, the principles of health management, which were jointly developed with trade unions and the Central Works Council, apply at EEW. These in turn form the basis for locally adopted agreements regarding, for example, flexible working hours.

What is more, at EEW, further directives and process instructions apply to policy on occupational health and safety; environment and quality policy; the development, introduction and continuous improvement of the integrated health, safety, environment and quality (HSEQ) management system; and for risk assessments, work preparation and implementation, corporate environmental protection, accident management and internal audits. We have also created emergency management handbooks for all plant sites. These contain structured rules and instructions for emergencies and breakdowns in order to protect people, the environment and company assets. If an accident nevertheless occurs at one of the plant sites, this is reported to the specialist department Residual Materials, Environment, Safety, Health & Quality (RESHQ) and to the internal controlling unit Occupational Safety Measures and is included in the monthly reporting. Each accident is extensively evaluated and analysed in order to learn from the experience and prevent similar accidents in the future.

By the end of the third quarter of 2021 EEW wants to introduce a talent management tool as a new instrument for steering succession planning for leadership and key positions. With this tool, we aim to always have an overview of the current status of employees, enhance their skills and develop potential as appropriate.

In addition to the management instruments, we have identified clear responsibilities. As a central function, the Human Resources Management department reports to the Chair of the Board of Management. It is made up of the teams Human Resources (HR) Business Partner, HR Development, Health Management, Training and HR Controlling/Interface Management. The overarching management of all topics relating to occupational safety and environmental protection is the responsibility of the RESHQ department. This department reports to the Managing Director responsible for technology. It advises the respective managers on the implementation of legal and trade association regulations, monitors compliance with these rules and carries out the associated documentation.

Besides the central departments Human Resources Management and RESHQ, the plant sites also have employees who are directly responsible for the implementation of the corporate goals at the operational level. These include trained safety specialists, technical administrators, the environmental protection officer and other officers in the areas of waste, immission control, water protection and hazardous materials. Likewise, complaint management is decentralised and carried out at the plant sites.

The employees at our plant sites must practise occupational health and safety every single day. It is therefore important not only to provide them with information, but also to incorporate their experiences and ideas. At EEW, this takes place at all sites via employer-employee committees. The two most important bodies are the occupational safety committee at the company level and the committee for health, safety, environment and quality at the division level. Each committee represents 100 per cent of employees at that level. Moreover, employee interests at the individual sites are also represented at the occupational safety committee meetings that take place each quarter at all our sites. These committees also take the interests of employees and partner firms into account, but they are not directly involved. These quarterly meetings are attended by company representatives as well as safety officers, company doctors and occupational health physicians.

Pursuing goals: measures at the sites

In all four areas that are particularly relevant for EEW as an employer, we implement measures that contribute towards our overarching goals. Our management approach is evaluated via regular internal and external HR audits and the reporting of the RESHQ department.

Employment

We create an attractive working environment for our employees to ensure a long-lasting commitment to our company. We offer a wide range of company benefits and allow flexible working-time models under plant agreements. At many sites, we also offer a cafeteria, subsidise public-transport tickets and contribute towards day-care costs.

Another priority for us is encouraging dialogue and creating space for new ideas and inspiration. We foster communication within the company at various levels. The head of the Human Resources department regularly engages in discussions with employee representatives. Moreover, there are the committees for vocational and further training and demography for digitalisation and new technologies. In addition, there are meetings between the technical directors and works managers at our plant sites and the central Technology department as well as meetings of production managers and maintenance managers. We also use employee surveys to gauge the current mood and identify potential improvements. From these findings, we derive optimisation measures, such as programmes to further increase employer attractiveness.

To solicit and realise specific recommendations from employees, we are continuing our internal idea management programme. It encourages employees to contribute ideas to, for example, improve the working environment, implement raw material and energy savings, optimise plants, increase occupational safety, and achieve greater customer satisfaction. Idea management at EEW is regulated by a central works agreement on idea management, which entered into force in 2019.

Average number of hours spent on education and training measures in 2020:

Men:	Women:
17 h	18 h

Vocational and further training

We want our employees to be able to pursue continuous personal development and expand their competencies in line with our new competency model. In the third quarter of 2021 we plan to introduce voluntary anonymous self-testing to determine where employees stand in relation to the new EEW competency model. If there is a need for further development, employees can agree on measures with their manager and HR Development. All managers also go through a 270° feedback process aimed at strengthening their competencies. In addition, everyone regularly receives feedback as part of the employee appraisals and there is mutual contemplation about the areas in which further training measures would be appropriate. Our EEW qualification programme includes both subject-specific offerings on, for example, thermal waste recovery, as well as seminars for personal development, such as self-management or communication.

It is particularly important to us to qualify talented employees to take on leadership positions, so that we will always have the ability to rely on our own skilled personnel. To create a pool of high-performing young employees, we have a trainee programme at our headquarters. We encourage talented young employees with our "EEW Leadership Passport" programme, in which we prepare them for future leadership positions. We intend to introduce a customised programme for future leadership positions at the master and shift manager levels. In addition, we have established a special development programme for young engineers in order to fill leadership positions left vacant.

At our EEW centre for vocational and further training in Helmstedt, we also offer vocational and further training for participants from across the company. Our facility is therefore an important anchor in the regional training landscape and strengthens EEW's position as an attractive employer.

Occupational safety and health

An occupational health physician is affiliated with each of our sites. Moreover, we involve the occupational medicine service in the identification and elimination of hazards in the workplace. At our plant sites, it is extremely important to us to raise awareness of occupational safety and health intensively among our own employees as well as employees of partner firms. To do this, we implement a wide variety of measures which are mandatory for both employee groups. For example, we conduct basic training in occupational safety once a year. There are safety inspections and employees are trained in courses to become first-aiders. Flyers and our instructional film on occupational safety educate employees about potential hazards and show preventive measures. In the reporting year, we launched a poster campaign in the plants on the topic of tripping, slipping and falling. There is at least one safety specialist at each site. EEW has provided the safety experts with training and continuing education as required. Due to the COVID-19 pandemic, we had to postpone an in-person round of training for safety officers which had been planned for 2020. We will reschedule as soon as the circumstances allow – and thereby ensure an ongoing high level of occupational health and safety at EEW.

Depending on the risk assessment for the particular workplace, EEW provides employees with personal protective equipment along with information material on how to use it. At all workplaces, we carry out risk assessments with regard to mental stress, in accordance with EEW's central works agreement. These are evaluated by the steering committee at each site. Naturally, we also carry out risk assessments when new jobs are created. Every tip about a possible breach of occupational safety measures is additionally important to prevent accidents. Employees can submit such tips at any time by contacting managers, Human Resources Management or the Works Council.

Since 2013 we have presented our Safety Award as an additional incentive to prevent any form of workplace accident. It is given each year to the plant site with the best occupational safety record. In 2020 the award went to the Premnitz plant. When selecting external and partner firms, we also take adherence to occupational safety standards into account and require these firms to disclose this information. Once the work has been carried out, we evaluate it using a school grading system. If we are considering awarding a subsequent contract, we can thus see immediately whether our standards have been complied with.

Occupational health promotion

The world of work is in the midst of a profound transformation, for example through digitalisation and technologisation. Our employees fulfil high demands every day to address these challenges. A working environment that promotes and maintains health is the foundation for their work, their performance and thus also for our company's success.

Therefore, together with the Central Works Council we have revised and renegotiated the central works agreement on the principles of health management. The offerings established by this agreement include flu vaccinations and colon cancer prevention.

Our goal is to become a signatory to the Luxembourg Declaration of the European Network for Workplace Health Promotion in 2021. To this end, we are currently creating a new concept for workplace health management, from which we will derive various measures.

Diversity and equal opportunity

It is important to us that our working environment is characterised by integration, mutual appreciation and equal opportunities and that no form of discrimination or harassment is tolerated. In accordance with Germany's General Act on Equal Treatment (AGG), we have appointed an equal opportunities officer. If employees feel they are being discriminated against, they can contact the equal opportunities officer at any time to express their concerns.

"With tailor-made qualification and support programmes, EEW assists me with my professional and personal development."

Tanja Böhmler
Personnel Development EEW

Peter Kurth | President Bundesverband der Deutschen Entsorgungs-, Wasser- und Rohstoffwirtschaft e. V. (BDE)

Solid relationships are one of the cornerstones of success.

Ronald Philipp | Press Spokesperson EEW

And transparent information guarantees trust.

Developing partnerships

GRI 102-12 | 102-40 | 102-42 | 102-43 | 102-44 | 103-1 | 103-2 | 103-3

Our plant operations and the associated transformation of the energy contained in waste into heat, power and steam have effects on the environment and concern the interests of our various stakeholders. As a responsible actor in the waste management sector, it is therefore very important to us to maintain an ongoing dialogue with customers, suppliers, local authorities, unions, political decision makers and the public. By interacting with these stakeholders, we want to recognise expectations, understand needs, identify challenges and gather ideas. At the same time, we convey our company's interests and increase the trust in our business activities.

As part of our materiality analysis, we derived four material topics and the associated goals with respect to stakeholder engagement.

Procurement/supply chain

We have implemented sustainable procurement practices at EEW. The selection and evaluation of our suppliers are also based on social and environmental criteria and take the supplier's labour and production conditions into account.

Customers

Solid and trusting customer relationships are an important foundation for our economic success. We openly communicate with our customers, maintain personal contact, transparently share information and take a solution-oriented approach to handling potential conflicts.

Local communities

At its sites, EEW is a strong partner of the regional economy. As part of the local communities, we take on responsibility for the economic, social and environmental development in the area – by awarding contracts to local suppliers and providing jobs and through regional environmental protection.

Partnerships

EEW establishes cooperations with research institutes, is active in various industry associations and engages in the dialogue on the circular economy.

Stakeholders perceive EEW as a reliable and fair partner, as the recent stakeholder survey found. In the view of stakeholders, EEW is an important player for the local economy and, especially in less economically developed regions, contributes to regional structural change. It was also seen positively that EEW maintains long-standing partnerships and provides financial support to social projects in the vicinity of its plant sites. Furthermore, stakeholders accredit us with having a high level of professional expertise and view the company as an important player in various industry associations that addresses the current topics in the waste management sector. With regard to external communication, EEW's personal approach to stakeholders was positively highlighted, but survey respondents would like to see stronger public communication. EEW, as a leading company in the sector, should more actively communicate the advantages of thermal waste recovery for the environment and society.

Strengthening relationships: expanding stakeholder management

With their perspectives, actions and decisions, our stakeholders contribute significantly to our success as a company. We therefore maintain constructive relationships with them and integrate them into the development of our business via regular interactions. For example, in 2018 as part of our materiality analysis, we carried out a stakeholder survey and began establishing systematic stakeholder management, which we want to further develop throughout the company. Stakeholder engagement is currently the responsibility of the Sales and Communications departments. For critical decisions, for example relating to cooperation with certain suppliers, the Board of Management is involved.

Principles of responsible procurement

- Social standards: recognition of human rights and ensuring appropriate working conditions for employees
- Environmental standards: minimising environmental impact
- Governance standards: applying high ethical and moral business standards

All principles of responsible procurement are available here in German.

Suppliers

We work together with our suppliers on the basis of clear norms and guidelines set out in the respective contracts. For the procurement of external services, our general procurement conditions apply for, among other things, construction services, planning or expert opinions. An integral element of tenders and all contracts is the principles of responsible procurement, which are summarised in a supplier code of conduct. All business partners and suppliers are obligated to comply with these criteria and the relevant laws of the countries where they operate. The principles relate to social standards, including the recognition of human rights and the assurance of appropriate working conditions for employees. They also contain environmental standards in order to minimise environmental impacts. The third main emphasis is on governance standards, meaning the application of strong ethical and moral business principles. If a supplier does not adhere to our principles, EEW expects the supplier to take corrective action. We reserve the right to terminate contracts if the suppliers cannot prove that they are complying with the supplier code of conduct. Currently, the rate of recognition by suppliers is 100 per cent.

Through numerous measures, we want to ensure that suppliers in our plants comply with occupational safety and health protection. A precondition for approval as a supplier is a positive self-assessment on the topics of occupational health and safety and environmental protection. When a contract is awarded, only those contractors who have successfully completed an online test on safe working behaviour may receive access to our plants. With the help of an instructional film, we also familiarise suppliers with our occupational safety rules. During audits, we regularly investigate compliance with our standards at the sites.

We evaluate the effectiveness of our management instruments as part of external audits of the integrated management systems. This is based on the ISO standards for quality, environment, energy, and occupational health and safety management as well as for the compliance management system. External parties can lodge complaints with EEW's plant managers, procurement managers and technical managers on-site. Employees can express their concerns to EEW via a whistle-blower report relating to, for example, questions about accounting, internal invoice control, auditing or if they suspect infringements of the code of conduct. Employees have the option of anonymously reporting suspected cases via a form on the intranet. They can also contact in writing or by phone EEW's Chief Compliance Officer, who investigates all suspected cases. Throughout this process, the provisions of the data protection law are complied with at all times.

Entering into dialogue: interactions with our stakeholders

Procurement/supply chain

We work together with our suppliers on the basis of clear norms and guidelines. Once a delivery has been made or a service provided, we can evaluate whether it was carried out smoothly via an internal portal set up in 2018 for this purpose. In this portal, our employees evaluate the suppliers on the basis of quality, occupational safety, and environmental protection. The Technology and Procurement departments use this information for meetings with suppliers and contract award decisions, so that suitable responsible suppliers can be contracted for the projects. Moreover, we train our employees how to correctly use the evaluation portal and thus ensure the quality of the individual evaluations. By the end of 2020 around 2,350 qualified supplier evaluations had been carried out in our system. Owing to the COVID-19 pandemic, as of April 2020 fewer suppliers than before were evaluated in the system.

For new-build projects, a further important selection criterion comes into play, namely the overall cost-effectiveness over the operating lifetime (which averages 25 years for new-build projects). In addition to investment costs, efficiency and consumption costs are decisive, in particular the consumption of operating materials, the energy efficiency and the degree of effectiveness, which we calculate and assess in advance.

In order to minimise the effects of our business activities on the environment, we also consider the local proximity of our suppliers to our sites. As such, in 2020 the suppliers contracted for around 28 per cent of our procurement spending were based less than 50 kilometres from the particular EEW site (with the exception of new-build projects). This local proximity means shorter delivery routes and lower greenhouse gas emissions.

Customers

The capacity utilisation of our EfW plants is largely dependent on waste deliveries from our customers, who are mainly municipal entities and commercial waste management firms. It is important to us that our customers are satisfied and want to continue working with EEW. To ensure this, we quantitatively and qualitatively measure customer satisfaction using surveys. The most recent survey took place in 2017. One of the key findings of this survey was the wish for a digital customer portal. In our view as well, such a tool offers benefits for everyone involved. After a concept development phase, in 2019 we started preparations for the launch of the portal, which was scheduled to take place that year. Due to internal reorganisation measures and the highly complex interfaces and processes, we postponed the start-up of the customer portal until the second quarter of 2021. Following the launch of the portal, we would like to carry out our next customer survey to solicit initial feedback and additional suggestions. Moreover, our sales team receives valuable feedback during customer meetings. This is where we got the idea to launch partner dialogue events and hold these biennially. In 2019 we invited our customers for the first time to four events – in Kassel, Stuttgart, Hanover and Berlin – where we discussed selected topics. Because of the pandemic, we will not be hosting any partner dialogue events in 2021.

Local communities

We engage in dialogue with the local communities, provide support to society via donations and sponsorship, and strengthen trust in our business operations through transparent communication. At all plant sites, we regularly invite local residents to open days. Moreover, we offer individual plant tours and glimpses behind the scenes at our plants.

When development projects at our sites are planned, we involve the public as early as possible. The EEW Group is currently pursuing new-build projects at its sites Helmstedt, Stapelfeld, Stavenhagen, Magdeburg-Rothensee and Delfzijl as well as permitting processes relating to immission protection laws at its Großräschen and Heringen sites.

In Stapelfeld, EEW is planning a new facility to replace the existing energy-from-waste (EfW) plant as well as a new sewage sludge mono-incineration plant. These new construction projects aim to secure waste recovery capacity in the region while offering solutions to implementing the new legal framework for sustainable sewage sludge recovery. To this end, the Magdeburg-Rothensee site will be expanded to add an EfW line with integrated sewage sludge mono-incineration. EEW is planning further sewage sludge thermal recovery sites in Stavenhagen (Mecklenburg-Western Pomerania), Helmstedt (Lower Saxony) and Delfzijl (the Netherlands). In Großräschen and Heringen, in the course of the approval procedures with public participation, the plant permitting is being adapted to the new market conditions. In light of the COVID-19 pandemic, EEW debuted the use of online consultation for the project in Heringen and was thus able to enter into dialogue with policymakers, the media and the public regarding its plans. This instrument has since become an established component of the EEW Group's communications toolbox.

For active and transparent public relations, EEW uses this toolbox of instruments which each project team can deploy to customise its approach to the various target groups. For the construction projects, for instance, microsites are available that contain key information about the project and integrate real-time images. Such sites have been created for the projects in Helmstedt and Stapelfeld: www.energie-zukunft-stapelfeld.de and www.energie-zukunft-helmstedt.de (available only in German).

In Premnitz, we are about to complete our replacement investment project. Here, we not only transparently informed citizens about our plans from an early stage, we also involved them in a design decision. Residents were able to vote on which artwork should decorate the exterior walls at the top of the EfW plant's bunker, an area covering more than 2,000 square metres. In May 2020 a Premnitz-based facade artist started work on the largest painting in Brandenburg.

In Stavenhagen, EEW has applied to build and operate a sewage sludge combustion installation. As part of this process, policymakers, the media and the public are being informed extensively. Among other things, EEW's "infomobile" was parked at the market square in Stavenhagen in 2020 to answer questions.

28%

of our contract volume is awarded to local suppliers

Partnerships

Across sites, we interact with policymakers, in industry and specialist associations and through cooperative partnerships with research facilities, such as Technische Universität Braunschweig. We invite policymakers and other stakeholders to parliamentary evenings in Berlin and, furthermore, take part in various political events at the state, national and EU level.

Since autumn 2018 we have been hosting the Dialogforum.Zukunft event series at irregular intervals. We have thus established a platform in Berlin where representatives from politics, science and business can regularly meet for informal discussions of current topics relating to the circular economy. With this dialogue forum, we want to contribute to a better understanding of efficient and sustainable intermeshing of the environment, economy and society. Owing to the COVID-19 pandemic, Dialogforum.Zukunft could not take place in 2020. Once circumstances allow, we will resume this event series.

Exchange/dialogue formats with local associations

- Information and discussion events
- Plant tours
- Open-day events at the plant locations
- Public hearings
- Information websites for specific projects
- Infomobile for citizen education and recruiting
- Regular meetings with neighbours of the plants, local policymakers and citizens' groups
- Regional recruiting events

"Communication and exchange beyond the boundaries of our own industry are important to strengthen society's contribution to waste management."

Peter Kurth
President Bundesverband der Deutschen Entsorgungs-, Wasser- und Rohstoffwirtschaft e.V. (BDE)

Overview of the area of action “strengthening relationships”

Acting with integrity as the foundation of our business

Operational goal	Time frame	Measures	Status 2020
Ensure compliant behaviour	Ongoing	> Periodic role-based compliance training for relevant departments and employees > Introduce e-learning on the topic of compliance for particularly relevant departments and employees	>>>
Inclusion of top 20 suppliers or customers	2022	> Implementation of an internal portal for qualified evaluations of suppliers (completed in 2018) > Regular customer contact through discussions at events, through surveys and through involving key customers in the launch of the customer portal (in pilot phase)	>>>

Technical challenges have delayed the customer portal going live, so we have adjusted the time frame for achieving this operational goal.

Qualifying and empowering employees

Operational goal	Time frame	Measures	Status 2020
Increase the number of women in leadership positions (from five women in 2019 to ten women by the end of 2023) – only applies to EEW Energy from Waste GmbH	2023	> Establishment of a programme for recruiting and promoting women by addressing them specifically at trade fairs and in networks (in implementation phase) > Encourage female employees to acquire additional qualifications (in implementation phase)	>
Promote talented young employees throughout the company and prepare them for future leadership positions	Ongoing	> Encourage participation in the “Leadership Passport” programme (in implementation phase)	>>>

Developing partnerships

Operational goal	Time frame	Measures	Status 2020
Systematise stakeholder management	2021	> Development of a company-wide policy on stakeholder management (in preparation phase)	>

The dialogue with our stakeholders has changed significantly as a result of the COVID-19 pandemic. This also impacts the process of systematising our stakeholder management, so we have adjusted the time frame for achieving this operational goal.

Increase customer satisfaction and loyalty	Ongoing	> Recurring assessment of customer satisfaction via a customer satisfaction survey (next survey planned for 2021) > Launch of a customer portal (in preparation phase) > Regular customer events (next events planned for 2021) > Reduce plant downtimes through AI-based predictions (in preparation phase)	>

> >> partially fulfilled >> > largely fulfilled >>> completely fulfilled

4 QUALITY EDUCATION

The digital transformation, the increasing pace of technologisation and demographic change present challenges for EEW and our workforce. Nevertheless, with high-quality vocational and ongoing training we ensure that our employees are well-equipped to face these challenges.

Projects & measures

> With our EEW centre for vocational and further training in Helmstedt, we provide an important anchor in the regional education landscape.

> To prepare our talented young employees at an early stage for future leadership positions, we launched our “EEW Leadership Passport” programme. Moreover, we offer employment opportunities for apprentices, trainees, student workers and young engineers.

5 GENDER EQUALITY

It is important to us that our working environment is characterised by integration, mutual appreciation and equal opportunities and that no form of discrimination is tolerated. We therefore prioritise the continuous promotion of gender equality within our workforce.

Projects & measures

> By strategically embedding and implementing personnel measures, we have established an open corporate culture that is shaped by mutual appreciation and respect and fosters gender equality.

> With the help of our equal opportunities officers, we ensure that equal opportunities and gender equality are fostered and put into practice within the EEW workforce.

Area of action: taking on challenges

Sustainable conduct requires accepting our responsibility and facing challenges, which are immense in some cases. We do this in dialogue with our employees, customers, suppliers, and representatives from public authorities, industry, politics and the scientific community. We focus on two subject areas:

Innovations for the future | We address the challenges of our times with sustainable innovations. To do so, we continuously work on innovative solutions and optimise our internal processes using digital technologies. Our focus areas until 2025:

> Thermal recovery of municipal sewage sludge
> Treatment of road construction waste containing tar
> Digital maintenance
> Process optimisation through digital applications

Strengthening the circular economy | We are one of the key players in a sustainable circular economy. With our business model, we contribute to high-value recycling and the reclamation of secondary raw materials. Thermal recovery plays an especially important role here as natural resources become scarcer. Because this overarching focus area has numerous interrelationships, we have also included it in our area of action “delivering results”. Our focus areas until 2025:

> Reclamation of sodium hydrogen carbonate
> Transforming residues into valuable raw materials
> Chemical recycling
> Ammonia reduction through effluent combustion

Andreas Dous | Manager Sludge Treatment EEW

We expect the same of them as we expect of ourselves.

Lisa Mielke | Production Manager Seraplant GmbH

How important is resource protection when you choose your business partners?

Efficiently managing resources

GRI 103-1 | 103-2 | 103-3

By transforming waste into energy, EEW Energy from Waste makes an important contribution to climate and resource protection. Thermal recovery reduces waste volumes by 90 per cent while simultaneously producing electricity, steam and heat. To do this, our plants require energy as well as operating and auxiliary materials.

As part of our recent materiality analysis, we therefore identified two material topics and the associated goals.

Use of resources

The waste recovered by EEW contains on average 50 per cent biogenic material. By using this material, we conserve natural resources and produce energy from renewable sources (in accordance with Germany's Renewable Energy Sources Act [EEG]). Furthermore, we adhere to responsible resource management in all of our procurement processes and thereby reduce the use of operating and auxiliary materials.

Energy efficiency in our business activities

We increase energy efficiency in our own processes by reducing energy consumption in our plants and buildings and by increasing the use of alternative sources of energy.

Optimising processes:
efficient and trouble-free plant operations

Trouble-free efficient plant operations are the foundation for environmentally sound and economical waste recovery. This is true along the entire value-adding process – from the delivery of the waste to the conversion into energy. This is also what our stakeholders expect of EEW. On the basis of binding KPIs, we can objectively assess plant performance, compare our plants and identify and implement potential optimisations.

One of the main indicators for process quality is overall equipment effectiveness (OEE). It provides information about the generation availability and time availability of a plant as well as its quality. In 2020 our OEE again exceeded the planning value. Once more, we were able to considerably surpass the already high target level. By 2027 we want to increase the time availability in defined steps and thus further raise the OEE. The volume of operating and auxiliary materials used during combustion also provides information about how optimally a particular plant is running. Therefore, when we measure our environmental performance, we also regularly ascertain the consumption of operating materials, with the aim of further reducing this figure and making our resource consumption even more efficient while ensuring emissions thresholds are not exceeded.

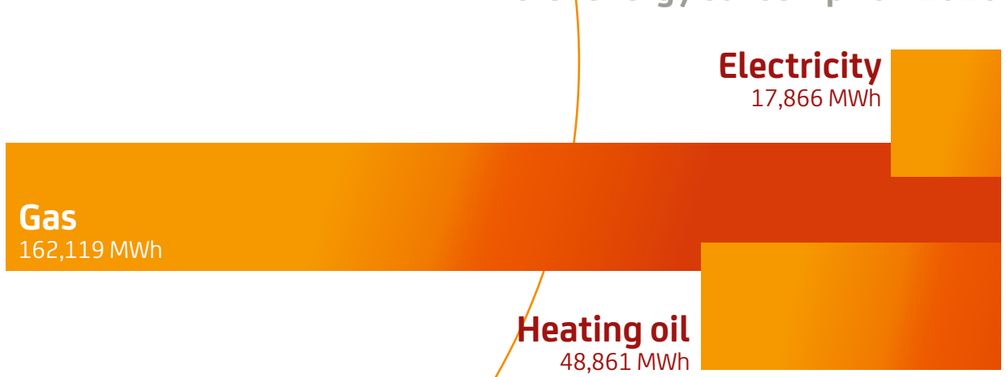
The amount of energy EEW consumes annually during its own business activities depends on the various parameters of daily plant operations. Some of these fluctuate, especially due to external non-plannable factors, such as the characteristics of the waste or changing weather conditions. To measure our energy consumption, we use benchmark KPIs for energy. Our measurements showed that we further reduced our consumption of heating oil, natural gas and electricity in 2020. Compared to our KPIs, the figures for heating oil were lower by 9.8 per cent, for natural gas by 0.4 per cent and for captive electricity use by 5 per cent.

Managing resource and energy consumption:
structures and responsibilities

EEW wants to prevent its business activities from having negative effects on people and the environment. We therefore aim to keep our own consumption of resources as low as possible and to continuously increase the energy efficiency of internal operations. Clear internal structures and management instruments support us in doing this. The basis for this is the environmental management system ISO 14001 and the energy management system ISO 50001, supplemented by EEW's various in-house norms and directives (see also chapter "Advancing environmental protection through innovative solutions").

We carry out energy assessments at all our plant sites every year and analyse the use of operating materials. In flue gas cleaning, the volume of operating materials consumed depends largely on the composition of the waste. Since compliance with emission thresholds is our highest priority and this requires operating materials, continuously reducing their usage is a secondary objective for us. However, where this is a possibility, we work to optimally exploit the reactivity of the operating materials.

Total energy consumption 2020



We measure our progress in this area based on defined target KPIs. These contribute to the ongoing decrease in consumption of operating materials and to more energy-efficient operations of the plants. We regularly review the fulfilment of these KPIs. The combustion parameters are measured and monitored automatically. In monthly technical reports, the Technology department also presents key figures to the Board of Management. These provide information about the OEE as well as the capacity utilisation and efficiency of our plants. They also show malfunctions and their effects and document the consumption of operating and auxiliary materials.

"Together with partners like EEW, we drive the development of better and better solutions for resource protection."

Lisa Mielke
Production Manager Seraplant GmbH

The EEW Performance Award has been given annually since 2015. The award takes into account the maintenance and investment costs per tonne of waste throughput, the OEE and the downtime frequency per line at the plants. For each of these three criteria, the plants are ranked between 1 and 17. A plant's overall rank is calculated as the mean of these three ranking positions. Owing to the COVID-19 pandemic, the award for 2019 was not presented as planned in 2020. The award presentation took place in February 2021 in Hanover. The award for 2020 is slated to be presented during 2021.

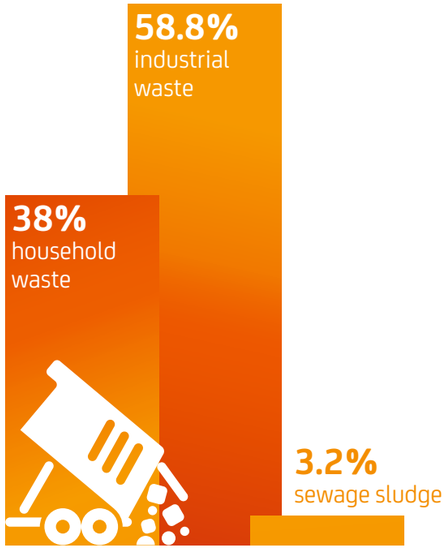
Moreover, we believe that clearly defined responsibilities are a key prerequisite for achieving progress. Accordingly, the departments at company headquarters as well as the directors at each site and their employees are responsible for implementing energy efficiency in their own processes and conserving natural resources in plant operations. At each plant site, we have also appointed an environmental officer, a legally mandated immission protection officer and officers for waste, water protection and hazardous materials. They are in close contact with the employees on-site and the RESHQ department at company headquarters. Moreover, communication between the plant sites is important to share experiences relating to plant performance and optimisation potential as well as to pass on know-how and findings regarding plant operations. In addition to internal reviews, we also regularly subject our management systems to external audits to ensure that we are consistently complying with norm specifications and maintaining our high quality standards.

Identifying where action is needed: measures and progress

Evaluating our processes is a key step in further optimising them. We therefore analyse the results of internal and external audits as well as technical reports and we consider the findings of the analysis and energetic assessments at the plant sites.

Use of resources

As part of our resource management, the deliveries of waste are subject to monitoring. We use random sampling to check whether they contain contractually compliant waste. In this way, we ensure that the European Waste Catalogue (EWC) code numbers cited in the customers' declaration analyses do in fact correspond to the delivered waste and comply with the permit specifications of the particular EEW plant. Since the waste recovery occurs in the nearby region, transport routes can be kept as short as possible.



Average composition of delivered waste

The biogenic proportion of the fuel input is considered a renewable source of energy. It is determined based on the monthly information collected on the various waste types and using the calculation rules established by the German Environment Agency (UBA). Accredited environmental verifiers assess and certify the calculation of this proportion each year for all of EEW's plants listed in the UBA's Register of guarantees of origin (HKNR) for electricity from renewable energy sources in accordance with the German Renewable Energy Sources Act (EEG) and Renewable Energy Sources Ordinance (EEV) (see also chapter "Advancing environmental protection through innovative solutions").

We continuously work on making our plant operations as efficient as possible. By adapting our maintenance strategy, we reduce unplanned downtime and thus also the number of plant start-ups. This enables us to reduce the consumption of operating materials, such as those used in restarting the plant. Moreover, through preventive maintenance we save fossil fuels, which are utilised in the event of plant malfunctions to ensure that our customers' energy supply is not disrupted. In administration, we also pay attention to resource consumption and recycling.

Energy efficiency in our business activities

Each plant site measures and documents the relevant environmental aspects annually in accordance with the process instructions on corporate environmental protection. This also includes the calculation of our energy use in order to answer the following questions: which factors influence energy consumption and to what extent? Which areas offer savings potential and how much do they offer? And what would it cost to realise this? Energy management officers at the plants are responsible for the collection and analysis of energy use data. They are also supported by internal "energy scouts", who look for energy savings potential in the company and implement energy-saving measures.

Based on all our findings, we develop measures in order to operate our plants and sites in an energy-efficient manner. At the corporate headquarters in Helmstedt, the IT infrastructure in particular consumes a lot of electricity. Since 2019 we have been able to generate some of that electricity ourselves thanks to a photovoltaic installation on the roof of our administrative building.

92.7%

availability of EEW plants in 2020

In response to the COVID-19 pandemic, we swiftly enabled remote working in the reporting year, thereby combining health protection with resource conservation. Especially at our administrative site in Helmstedt, many employees took advantage of the opportunity to work from home, which also eliminated their commutes.

In addition, we continuously identify optimisation potential at our sites in order to further reduce our own demand for energy. In 2020, for example, in the plant at the Heringen site, we replaced the 250-kilowatt braking resistor on a crane with a regenerative unit that transforms the braking energy into electricity. In Helmstedt, we replaced the sodium vapour lamps used to illuminate the bunker, which is in continuous operation 365 days per year, with LED high bay lights. This measure saves us 52,560 kilowatt-hours annually.

Moreover, we were able to leverage further savings potential in steam production in Helmstedt: by reducing the system pressure and toggling the uncontrolled bleed points of the turbine, the capacity for electricity generation was increased by up to 12,000 megawatt-hours per year.

We are also working on further measures to reduce energy consumption in flue gas cleaning. At the Knapsack site, for instance, we designed a new geometry for the flue gas cleaning.

In addition, we further increased the energy efficiency of our auxiliary buildings, including replacing the weighing-scale building in Helmstedt with a new state-of-the-art building.

Markus Beumer | Executive Director UniCredit Bank AG

The capital market expects sound business answers for sustainable development.

Markus Hauck | CFO EEW

We build our future with investments in the sustainable development of our company.

Securing a successful future with sustainable innovations

GRI 103-1 | 103-2 | 103-3

EEW has transformed conventional waste combustion into a highly efficient process combining waste recovery with energy conversion. Through innovative solutions, we contribute to environmentally sound waste management and generate energy that is not based exclusively on fossil fuels. In view of the future, EEW acts for the long term and is already addressing the challenges of tomorrow with progress and vision, for example in sewage sludge recovery. This is because, like our stakeholders, we believe innovations are a decisive driver in creating added value for the company, society and the environment.

Accordingly, innovations are among the central topics that we identified in our recent materiality analysis.

Innovations

EEW sees sustainable innovations as an important key for the energy transition as well as for protecting resources, the environment and the climate. Innovations are therefore also an important factor for continually reducing our carbon footprint. Our goal is for EEW Group plant network operations to be climate-neutral by 2030 and climate-positive by 2040. With a view to achieving these goals, we continuously work on optimising our plant operations and invest in the development of new products and technologies.

Our stakeholders not only see innovations as a material topic, they also believe EEW has great potential when it comes to the development of new technologies and processes. We will accordingly take their expectations into account in our future endeavours. Our stakeholders see strong innovation potential especially in carbon capture and utilisation (CCU) and carbon capture and storage (CCS). Particularly in the Netherlands, Norway, the UK and Switzerland, CCS is given high priority, provided it is implemented sustainably. In this case, "sustainably" means that the storage leads to a safe extraction of CO_2 from the biosphere.

EEW is working intensively on carbon capture solutions. These also contribute to a significant reduction in our direct emissions – and thus to achieving our climate neutrality goal from 2030. We are currently planning to construct a carbon capture plant in Delfzijl in the Netherlands and such plants at two or three sites in Germany.

Our other main innovation projects right now are entering into the production of e-fuels from hydrogen and CO_2 and the development of high-temperature heat storage systems. We also aim to utilise and reclaim new resources and tap new national markets. In many countries around the world and in Europe, a considerable amount of untreated waste still ends up in landfills because there is often a substantial shortage of capacity in energy-from-waste (EfW) plants. In 2020 we found industrial partners in Poland. These partners aim, among other things, to use steam in their processes that is generated from substitute fuels rather than fossil fuels. We want to submit the permit application in 2021 for the construction of a thermal waste recovery plant.

In our projects, we act with foresight and consider the potential future developments relating to climate protection, such as those regarding the upcoming phase-out of coal power and political efforts to make non-climate-neutral CO_2 emissions more expensive. By achieving climate-neutral operations, we want to contribute to Germany reaching its goal of a 65 per cent reduction in greenhouse gas emissions by 2030 (compared to 1990). Sewage sludge combustion, for example, is an area where we are currently planning and building new plants. It is nearly climate-neutral because the fuel is purely of biogenic origin. Moreover, by constructing sewage sludge mono-incineration plants today, we are already putting ourselves in a position to implement the recovery obligation for phosphorus that applies from 2029 with recovery rates of more than 80 per cent. We thus make an important contribution to the circular economy and resource conservation. Carbon capture and CO_2-neutral hydrogen production are also important steps on the path to climate neutrality.

Managing innovation development: responsibilities and coordination

Innovation management at EEW is primarily the responsibility of the Business Development department, in close collaboration with the Technology department. These departments have the task of recognising technical and organisational innovation potential, evaluating this potential and initiating projects. In 2020 we additionally established a sales and marketing unit for sewagen-sludge recocery, since this topic has become increasingly important in our business development. Moreover, we established the "Innovations" unit within the Technology department in April 2021.

In the reporting year, we also revised our Technology road map (TR). Using the scrum method from agile project management, we introduced a new process. This will ensure that EEW's technology R&D projects will be regularly reviewed and pushed forward. Our road map contained 18 projects in 2020.

When deciding whether a new project will be initiated or implemented, sustainability is an important criterion which must be met based on various parameters. For each innovation project, the Board of Management allocates personnel and financial resources for the project's development and implementation. Based on this, we create project teams with project leads, which include the employees responsible from all relevant departments. The heads of the Technology and Business Development departments are responsible for steering the project teams. At periodic meetings of the steering committee, the status quo and next steps are discussed and decided upon.

For the ongoing targeted and sustainable enhancement of competitiveness – including in day-to-day operations – operational improvements at EEW rest on two pillars: the continuous improvement process (CIP) and the company's suggestion system. These two approaches to sustainable improvement are based on the knowledge and involvement of our employees and are coordinated by a central department. The aim of the CIP is to ensure that processes are as stable as possible and optimised for value creation in order to achieve a resource-efficient and smooth production flow. At EEW, the focus is on building and expanding competencies that should help us to recognise potential improvements. We plan to utilise these to achieve our sustainability goals.

Shaping the future: strategy, projects, research

As the market leader, we operate the most enegy-from-waste (EfW) plants in Germany. At the state of the art, we have developed reference models for EfW facilities and sewage sludge mono-incineration plants. They describe our technical design principles for new construction projects in other European countries and in Asia. Our plants enable the full energy potential of waste to be tapped in the best way possible. To do this, we develop innovative plant solutions: from plant layouts that take into account efficient operations and the future development of the site and market to functional architecture and the use of leading technologies for, among other things, combustion and flue gas cleaning. In order to continuously further optimise our plants – especially with regard to the best possible environmental protection – we work on new technologies and patent applications. We also develop new processes, also in collaboration with partners from the scientific community, to reclaim valuable resources such as phosphorus or sodium hydrogen carbonate.

Sodium hydrogen carbonate ($NaHCO_3$), also known as baking soda, has become an important adsorbent for flue gas cleaning. It is highly reactive, efficient and procedurally simple to handle. We are therefore equipping partly our existing plants and all our new plants with this technology. Moreover, we are the first company worldwide planning a large-scale pilot plant by 2025 to recover chemically bound sodium hydrogen carbonate from flue gas cleaning residues using an innovative salt metathesis process. This will reduce our dependency on the tight global market for hydrogen carbonate while eliminating the need to see to the final disposal of flue gas cleaning residues. What is more, the process requires CO_2 as an operating material to enable the recovery of the sodium hydrogen carbonate. We can thus use captured CO_2 and further reduce our CO_2 emissions.

In 2020 we also started to apply the stricter standards contained in the European Union's Best Available Techniques (BAT) Reference Document for Waste Incineration (BREF WI) at our sites. The implementation will be completed by the end of 2023. To securely dispose of landfill leachate, EEW has filed to patent a process that enables water containing hazardous substances to be co-combusted in the waste boiler, thereby substituting an industrially manufactured operating material. This process safely destroys the hazardous substances and eliminates the need for long-distance transport for wastewater disposal.

Eliminating pollutants is also an issue in sewage sludge drying. This is because the drying process produces exhaust air which is saturated with water vapour and contains hazardous substances. This is usually condensed for heat utilisation. EEW wants to design a reference model for treating this condensate from sewage sludge drying.

A further step towards plant optimisation is the monitoring of process quality, which we continued in 2020 with the standardisation of production reports. It allows better assessment of the dirt build-up in the boiler, enabling more efficient planning of online cleaning. It is used at the Hanover site, among others. EEW also continues to work with the Fraunhofer-Gesellschaft on a process to detect impurities in the waste bunker using specialised sensor technology.

In addition, we are working on improved regulation of the selective non-catalytic reduction (SNCR) plants for denitrification of flue gases in the boiler furnaces. The aim is to hereby reduce excess ammonia and ensure compliance with threshold values in the stack. This goal is to be achieved with the help of algorithms in the form of artificial intelligence (AI).

In addition to the ongoing optimisation of our plant operations, we also focus on new technologies for the future. One important area is sewage sludge recovery. The 2017 revision of the German Sewage Sludge Ordinance (AbfKlärV) contains extensive provisions on the reclamation of phosphorus from sewage sludge and sewage sludge combustion ash, which will be mandatory as of 2029. EEW is already thinking far into the future: at various plant sites, we are investing in the construction of sewage sludge mono-incineration plants and we are already planning to recycle phosphorus as soon as possible from the resulting sewage sludge ash. With thermal recovery, it is possible to reliably destroy the harmful organic substances contained in sewage sludge as well as any possible pathogens. Simultaneously, the inorganic pollutants present in the flue gas, such as heavy metals, sulphur dioxide and hydrochloric acid, can be effectively captured by the flue gas cleaning system. The use of sludge mono-incineration enables a phosphorus recovery rate of over 80 per cent in subsequent processes. This should ensure that the statutory requirements are reliably fulfilled (see also chapter "Advancing environmental protection through innovative solutions"). In Helmstedt, we started construction of a sewage sludge mono-incineration plant in 2019. EEW is also planning to expand and further develop this innovative sewage sludge recovery at its Stapelfeld, Stavenhagen and Delfzijl sites. In doing so, we are consistently implementing the technology from our reference model and deploying standardised and proven process technology. Since sewage sludge recovery and phosphorus recovery are highly important to EEW, we are also active in key industry and specialist associations (BDE, DWA, DPP).

We are also expanding our field of business in Magdeburg, where we are planning an EfW plant that will produce energy from high-calorific fractions and shredder light fractions. We are thus reacting to market demand and creating possibilities for the utilisation of wastes which are subject to strict requirements when it comes to thermal recovery. Moreover, we also want to combine this plant with a special process for the pyrolysis of municipal sewage sludge in order to recover phosphorus.

As a company whose business model is based on thermal waste recovery, we are intensively investigating the two pioneering topics of carbon capture and utilisation (CCU) and carbon capture and storage (CCS). After all, CO_2 can be more than a gas that harms the climate: based on innovative technologies, it can become a valuable raw material. Accordingly, we launched an initiative in 2018 that aims to develop projects that make the CO_2 contained in the flue gas from waste combustion available as a raw material that can be used by industry. It can be used, for example, to produce basic chemicals such as sodium hydrogen carbonate, methanol or methane. In 2020, after thorough technical testing, we started planning carbon capture based on amine scrubbing in Delfzijl and Helmstedt. If our permit application is successful, the capture plant in Delfzijl is slated to start up in 2023. We plan to capture 200,000 tonnes of CO_2 per annum there until 2025 and then 400,000 tonnes per annum until 2030. We will supply the captured CO_2 to an industrial company for further utilisation.

At our Helmstedt site, starting at the end of 2025 we want to combine carbon capture with the production of biomethanol for e-fuels. Together with the energy supply company Avacon, we want to operate an electrolysis plant powered by “green” electricity, which can produce up to 3,000 tonnes of hydrogen per year. This will then be synthesised with CO_2 captured from the flue gases from sewage sludge mono-incineration to produce biomethanol. According to our plan, in the first expansion stage the carbon capture plant will provide 25,000 tonnes of CO_2 per annum from 2025 for methanol production. We therefore expect our Helmstedt site will be able to deliver 15,000 tonnes of biomethanol for e-fuels from 2025. Subsequently, we will aim to continuously increase this volume and thereby reduce our CO_2 emissions at the same time.

Besides implementing our own projects, we engage in ongoing dialogue with researchers, industry and policymakers about the potential of CO_2 as a raw material as well as about the current state of development of CCU and CCS technologies.

With its practical expertise, EEW also directly engages in research to support the development of new technologies and to apply the research findings to its own business activities. In 2020 we promoted two circular-economy topics in particular. Together with RWTH Aachen University, we conducted research on recycling tar. As part of this project, we aim to establish a pyrolysis plant to recycle crushed road construction waste. In our project Winston at the Premnitz site, we are working with Carbon-Clean Technologies GmbH on the development of a high-temperature heat storage system. This can be used, for example, to store excess electricity generated from renewable sources for times of higher energy demand. Currently, other focus topics include further reutilisation of bottom ash (also known as clinker) as well as alternative recovery options for dusts, depollution and filter dust compositions. Together with partners from industry and the university in Braunschweig, we have already carried out laboratory experiments and test series, which aim to find other possibilities for reprocessing filter dusts and bottom ash.

Reclamation of phosphorus from sewage sludge

Further information on phosphorus recycling from sewage sludge is available in the chapter “Advancing environmental protection through innovative solutions” (p.88)

“Companies must demonstrate to the capital market how they are making a concrete contribution to sustainable development.”

Markus Beumer
Executive Director UniCredit Bank AG

Dr Wolfgang Ortlepp | Chair of the Rothenseer Bürger e. V. special interest group

What are you doing for environmental protection?

Rolf Oesterhoff | Commercial Director MHKW Rothensee

We rely on technology that allows us to reuse waste as a resource as safely and efficiently as possible.

Finding answers to global megatrends

GRI 103-1 | 103-2 | 103-3

Protecting the climate and resources is one of the greatest global challenges of our time. It is up to policymakers, business and society to conserve natural resources for future generations. At the same time, the digital transformation is proceeding rapidly and changing the way we communicate, work and live. Digitalisation also creates new opportunities that EEW wants to systematically leverage in future.

As part of our materiality analysis, together with our stakeholders we assessed these global challenges as relevant for EEW. Our stakeholders believe our company plays an important role in the search for workable answers to the major questions of the future.

Dealing with climate change

EEW uses up to around 50 per cent renewable fuels for energy conversion. Moreover, we transform the heat given off by the combustion of waste into steam for industrial customers, such as the food, paper and chemical industries, and into heat for local district heating networks used by consumers. In this way, we reduce CO_2 emissions in the energy sector, business and industry as well as in private households and we contribute to decarbonisation. Over the next ten years we want to go a step further: we want to make our plant network operations climate-neutral by 2030 and climate-positive by 2040. Carbon capture and storage (CCS) and utilisation (CCU) will play an important role in lowering our direct emissions (see chapter “Securing a successful future with sustainable innovations”). Moreover, we want to increase the amount of renewable energy we generate at our own properties.

Dealing with scarce resources

By producing energy from waste, EEW reduces the consumption of fossil raw materials. We reclaim resources and close material loops.

Dealing with the digital transformation

EEW takes advantage of the opportunities that digitalisation offers for the waste management sector. We are installing digital infrastructure in our plants. In addition, our corporate culture is evolving into a more agile and digital one and we are strengthening digital channels in our business and customer relationships.

Finding answers: dealing with climate change

To limit the negative effects of climate change, the European Union has established clear targets: by 2030 greenhouse gas emissions should be at least 55 per cent lower than 1990 levels, energy efficiency should rise by 32.5 per cent and the share of renewable energies in the overall mix should be increased to 32 per cent. Germany aims to reduce its greenhouse gas emissions by 65 per cent by 2030 (compared to 1990).

To meet these German and European climate goals, there will have to be incremental decarbonisation in all sectors – from the energy sector to transportation and buildings. EEW already supports climate protection with its business model and contributes to the decarbonisation of the economy. With our goal of making our EEW plant network climate-neutral by 2030 we will be further intensifying the reduction of CO_2 emissions in the waste and energy sectors. To reach our own climate goals, we act in accordance with the same management systems and EEW-internal norms that apply for environmental protection (see also chapter “Advancing environmental protection through innovative solutions”).

Particularly in the area of heat production, which accounts for around 56 per cent of energy demand in Germany, we contribute to reducing fossil fuels. We do this by using the heat given off by waste combustion and transporting it via district heating networks, which provide heat and hot water for consumers. This enables savings of other fuels such as oil and gas – and therefore results in lower CO_2 emissions. EEW therefore also enables consumers to meet the requirements of the German Renewable Energies Heat Act (EEWärmeG). This law obligates owners of new buildings to use renewable energy for a portion of their heating needs and allows district heating from combined heat and power plants to count as a substitute measure. The heat extraction from our plants meets the requirements of the EEWärmeG because roughly half of the heat obtained through the efficient combined heat and power technology is generated from the proportion of organic combustibles.

A glance at a European map shows that some countries – especially in south-eastern Europe – are a long way from reaching the EU’s climate targets. The continued high rate of landfilling indicates, among other things, that there is a need there for thermal waste recovery. Against this backdrop, EEW plans to focus on developing new markets in Europe. We see this as an opportunity to contribute to a functioning circular economy in other countries as well. In addition, EEW supports its shareholder BEHL in the design and optimisation of thermal waste treatment sites in China.

Closing loops: dealing with scarce resources

As natural resources become scarcer, waste becomes increasingly important as a valuable resource. Along with the direct recycling of raw materials, thermal waste recovery constitutes a crucial component of the eco-friendly circular economy. Although mechanical recycling is generally the most sustainable method, to ensure high-value recycling for certain material streams (e.g. paper and plastics), thermal recovery is also necessary after a few cycles of material recycling. In addition to utilising the released energy, EEW is able to reclaim other raw materials that substitute for natural resources. For instance, metals that we reclaim from the bottom ash are returned to the materials loop, our bottom ash replaces natural building materials and we plan to reclaim phosphorus from sewage sludge. Moreover, we permanently remove the pollutants contained in waste, such as heavy metals, from the biosphere. Such substances would enter the environment if the waste were improperly treated. In future, we are planning new product developments in the areas of residues, heat and flue gas to further increase the recovery rate and thus the protection of resources. For example, we are planning a research cooperation with TU Bergakademie Freiberg in 2021 to explore how we can in future recover aggregates for the cement and concrete industry from flue gas cleaning residues (see also chapter “Advancing environmental protection through innovative solutions”).

Shaping the digital transformation: EEW DIGITAL

Digitalisation is spreading to all sectors and business fields. For EEW as well, it is playing an increasingly important role. Ultimately, the digital transformation is changing the competitive environment and customer expectations, creating new key technologies and enabling more efficient processes. For EEW, this is about more than simplifying day-to-day processes. We are in the midst of a transformation to an increasingly digital corporate culture. Our goal is to use digital solutions to further improve the entire business, including plant operations and interactions with customers.

Digital instruments and the possibilities they offer are also becoming more important for communication, collaboration within the company and the development of each of our employees. We are therefore also stepping up efforts to incorporate new working methods. At the beginning of 2020 we introduced Microsoft 365, thus creating the foundation for digitally supported, flexible and location-independent teamwork. Particularly during the COVID-19 pandemic, the collaboration tools have simplified our work and facilitated interaction at a distance. In order to further develop the digital skills of all employees, we also expanded our internal training offerings. These now include, for example, practical training in Microsoft 365 and seminars on design thinking and agile project management.

It is our goal to continue advancing our cultural transformation to a digital company in the coming years. To this end, we laid important groundwork in 2020 by revising our existing competency model. The digital EEW Group of tomorrow will need competencies such as courage, willingness to change, an error culture and an above-average team spirit which ensures the transfer of knowledge. We have therefore added these competencies to our new competency model. It will be put into practice in 2021 and human resources development and recruiting will increasingly focus on these new competencies.

"We expect the energy-from-waste plant to operate safely within the legal thresholds, in order to protect the environment surrounding the plant in the long term."

Dr Wolfgang Ortlepp
Chair of the Rothenseer Bürger e. V. special interest group

In 2018 we created our company-wide digitalisation strategy, EEW DIGITAL. As part of this strategy, we want to introduce a set of harmonised measures in the coming years. In doing so, we will take a holistic approach, which we see as a lever to improve the operating business and as an important foundation for sustainable growth. Our digitalisation strategy will be implemented in the company in four phases. The implementation and further development of this strategy will be steered by a department established specifically for this purpose, which is likewise called EEW DIGITAL.

In the first implementation phase in 2018 we developed a target vision as a foundation for the future management approach. In it, we set out the following goals:

> Established digital platforms have expanded the business model while creating added value and strengthened EEW's customer ties.

> EEW's core processes are simplified and digitalised and are being continuously improved – clear end-to-end responsibilities are fulfilled.

> Digital technologies have further enhanced the technical excellence of the plants.

> A unit for digital transformation coordinates and continuously optimises the digital improvement process.

> Digital skills and agile working methods have been conveyed to employees and managers, are embedded in the corporate culture and are actively applied in the organisation.

We will only be able to achieve these goals if we get all managers and employees on board. To accomplish this, it is important that we empower our entire organisation to help shape the digital transformation at EEW. We are communicating the strategy internally, engaging in dialogue with each other and fostering agile working methods. We established the DIGITAL CREEW in 2019. In this team, employees from all hierarchy levels and various sites work together on EEW's digital transformation. In 2020 we further facilitated cooperation and exchange with the DIGITAL CREEW and thus intensively strengthened the internal network, knowledge transfer and innovative capacity within the EEW Group. Through further training and the transfer of know-how, we want to give all employees the ability to undertake digitalisation measures. Furthermore, we are recruiting new talent and developing the digital skills of our existing talent.

Two employees are currently working exclusively on further developing EEW as a digital high-performing organisation. They are being supported by four employees from the four corporate departments: Chair, Finance, Technology and Human Resources Management. The agile interdisciplinary team jointly develops measures and projects to equip employees with digital know-how and introduce agile working methods and digital processes. Further objectives are to simplify processes and optimise customer service.

In particular, we consider networking and the associated interaction and knowledge sharing within EEW to be a decisive success factor. In addition to the introduction of Microsoft 365, we also started an employee app project in 2020. This will be launched during 2021 to expand and further improve internal communications. The app will be complemented by the establishment of digital noticeboards and dashboards that visualise plant data. Moreover, the digital shift book will enable work in our plants to become more efficient. We carried out pilot tests at our Hanover and Helmstedt sites in 2020.

Our customer relationship management has also been digitalised further. In 2020 we started developing our customer portal, which is slated to go online in 2021. In this way, we will further optimise invoice management and communication between our sales back office and our customers. With our Truck Tracking project, we also want to minimise idle time to enable our partners to make deliveries more efficiently. In both projects, we are using already existing data.

Going forward, we want to increase the utilisation of data we already possess in order to advance our digital evolution and, by doing so, strengthen our customer relationships and our leading position in the market. In 2020 we also launched a preparatory study to facilitate transitioning from our current SAP system to S4/HANA in the longer term. We will continue to develop this project in the coming years all the way to implementation. With S4/HANA we want to optimise and combine processes and thus make our business operations more effective.

Overview of the area of action “taking on challenges”

Efficiently managing resources

Operational goal	Time frame	Measures	Status 2020
Optimise overall equipment efficiency (OEE) at EEW's plants towards a target value of 94 per cent	2027	Increasing time availability in defined steps to increase OEE = product of work availability and time availability) > Time availability in 2017: 91.5 per cent > Time availability in 2018: 91.8 per cent > Time availability in 2019: 92.2 per cent > Time availability in 2020: 92.7 per cent	>>>
Reduce the total number of kilometres driven annually in the EEW fleet	Ongoing	> Greater use of digital methods > Use of online/video meetings and teleconferences, 100% of employees with administrative responsibilities have laptop computers, remote access to company network is possible > Optimisation of meeting management (e.g. holding meetings at central locations with good infrastructure, grouping meetings together) > Making use of rail travel more attractive	>>>

Securing a successful future with sustainable innovations

Operational goal	Time frame	Measures	Status 2020
Phosphorus recovery from sewage sludge ash	2022	> Create the conditions to enable phosphorus recovery from sewage sludge ash via an innovative process (in implementation phase) > Support the establishment of a plant of this type in Helmstedt or Stavenhagen (in preparation phase) > Construction of sewage sludge combustion plants at existing plant sites (in implementation phase)	>>>
Industrial recovery of CO_2: CCU and CCS	2024	> Implementation of a pilot project at Delfzijl site (start-up planned for 2024) > Carbon capture for methanol synthesis (pilot project in Helmstedt in preparation phase)	>>>

CCS was added to this operational goal. In future, we will also explore the potential of CCS for achieving the goal of CO_2 neutrality by 2030. In doing so, we will monitor the current political and social discussions and work on developing a climate strategy.

Finding answers to global megatrends

Operational goal	Time frame	Measures	Status 2020
Nearly paperless execution of company-wide business processes	2022	Converting business processes to low-paper ordering and invoicing: > Majority of orders are in electronic form > Project to introduce e-invoicing (implementation presumably until end of 2021) Reduction of paper consumption in internal business processes: > Projects to digitalise signatures and shift books (in implementation phase) and for paperless travel expense accounting (in planning phase)	>>>

>>> partially fulfilled >>> largely fulfilled >>> completely fulfilled

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

We see sustainable innovations as an important driver to create added value for the company, society and the environment. With innovative solutions, we contribute to environmentally sound waste management and supply climate-friendly energy.

Projects & measures

> Together with our partners, we foster innovations in CCU and CCS. We are currently planning to build plants to capture CO_2.

> With our project Winston at the Premnitz site, we are working on developing high-temperature heat storage systems that enable excess electricity from renewable sources to be stored until times of higher energy demand.

11 SUSTAINABLE CITIES AND COMMUNITIES

We offer local authorities and industrial plants reliable waste management services with our flexible acceptance capacities and our dependable infrastructure. By using state-of-the-art plant technology, we also meet the highest standards for availability and environmental protection in the region.

Projects & measures

> By constructing sewage sludge mono-incineration plants at our sites, we are already putting ourselves in a position to implement the recovery obligation for phosphorus that applies from 2029. In 2022 we plan to start operations at our first sewage sludge mono- incineration plant, located in Helmstedt.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

As natural resources become scarcer, waste becomes increasingly important as a valuable resource. With thermal waste recovery, we play a crucial role in the eco-friendly circular economy.

Projects & measures

> By utilising thermal waste recovery, we facilitate the reclamation of recyclable materials and resources from our residues. High-quality recycling as well as the use of bottom ash and filter dust from our plants as secondary raw materials contribute to a circular economy.

13 CLIMATE ACTION

We want to achieve climate-neutral operations by 2030 and climate-positive plant operations by 2040. By transforming waste into energy, we already make an important contribution to environmental and climate protection.

Projects & measures

> We strive for energy-efficient operations at our plants and we conduct annual energy evaluations and analyses of our operating materials.

Area of action: Delivering results

Sustainable conduct requires exceptional performance. We measure our performance based on concrete results. To achieve these, we are in an ongoing dialogue with our employees, customers, suppliers, and representatives from public authorities, industry, politics and the scientific community. The primary focus is on these subject areas:

Dealing with climate change | We make a crucial contribution to decarbonisation and we continuously reduce the climate impact. By increasing the energy efficiency of our plants and researching new technologies, we help to reach national and international climate targets. Our focus areas until 2025:

> Environmentally neutral plant operations
> Carbon neutrality in Group-wide plant operations
> Increasing energy efficiency

Strengthening the circular economy | We are one of the key players in a sustainable circular economy. With our business model, we contribute to high-value recycling and the reclamation of secondary raw materials. Thermal recovery plays an especially important role here as natural resources become scarcer. Because this overarching subject area has numerous interrelationships, we have also included it in our area of action “taking on challenges”. Our focus areas until 2025:

> Reclamation of sodium hydrogen carbonate
> Transforming residues into valuable raw materials
> Chemical recycling
> Ammonia reduction through effluent combustion

Fred Gronde
1st Chair of TC Schöningen von 1898 e. V.
What are you doing for the local community?
Sascha Kobert
Maintenance Manager TRV Buschhaus
Giving our best every day.

Economic impact of our plants on the local communities

GRI 103-1 | 103-2 | 103-3

Waste is a part of everyday life – whether in commercial enterprises or private households. Safe waste management and recovery is one of the basic requirements of a society. With its business operations, EEW not only provides sustainable management of non-recyclable waste, it also recovers this waste in a useful way. By using waste as a resource for regional energy generation, we combine long-term reliable waste management and energy supplies with environmental compatibility and economic efficiency.

In this context, our materiality analysis identified the topics described in the following relating to the economic impact of our business operations.

Economic performance/
indirect economic effects

EEW ensures a high level of waste management and energy supply security via sustainable, reliable and high-quality infrastructure. As a locally anchored player, we stand for economic stability and contribute to added value in the regions where we operate our plants. We see innovation as a driving force for our company's success.

Our stakeholders encourage us to continue on this path: with expertise, innovative strength, vision and transparency. They believe it is important that EEW make technical preparations for the expected changes in waste streams and intensify its communication of innovative developments at the sites.

The Business Development department is responsible for the sustainable further development of our company and therefore also for the management of our economic performance. It observes the markets intensively in order to recognise trends and developments at an early stage. Based on this work, the department creates growth strategies, plans the development of new markets and initiates internal development projects. These include, for example, portfolio measures and growth projects.

Various departments (including Technology, Sales, Legal and Finance) as well as all sites (excluding Leudelange in Luxembourg) are involved in the process of continual strategy development. This process is steered by the Business Development department. It amalgamates the collaboratively developed results and coordinates the strategy with the Board of Management. Once the strategy has been reviewed, the Business Development department finalises it and presents it to the Supervisory Board. The next step is the implementation of the projects and measures resulting from the strategy.

The Communications department is then tasked with communicating all the topics arising from the strategy development, both internally as well as externally through various channels, including direct dialogue with key stakeholders and communication measures aimed at the wider public. By intensifying these measures, we are also fulfilling the desire of our stakeholders to see a more proactive approach to communicating innovative developments at our plant sites.

Local anchoring:
short distances, long-term solutions

EEW offers local authorities and commercial enterprises reliable waste management in the short and long term thanks to maximum flexibility in acceptance capacity and our dependable infrastructure. We develop customised waste management concepts with stable costs for our customers. By consistently using state-of-the-art technologies, we also meet the highest requirements for availability and environmental protection. In most cases, short distances to the energy-from-waste (EfW) plants reduce transport costs and make a positive contribution to the region's environmental footprint. Especially during the coronavirus pandemic, it has also become clear how important the original objective of thermal waste recovery – namely the prevention and containment of epidemics – remains to this day. Thermal waste treatment plays an important role for hygiene and health in society because the plants safely dispose of waste from a wide variety of sources, including from hospitals and vaccination centres.

By using the energy contained in waste, we guarantee a continuous and secure supply of energy for households, local authorities and industrial companies. In the mix of alternative energy sources, thermal waste treatment thus serves as a stabilising element. We offer regional off-takers customised supply contracts that take their particular requirements into account. As a result, our customers get energy supplies tailored to their needs. For example, we supply process steam to industrial firms in the vicinity of our plants as well as district heating and electricity to residential neighbourhoods. With our investments in high-temperature heat accumulators, we further strengthen our ability to provide a continuous and secure supply of energy (see also chapter "Securing a successful future with sustainable innovations").

Hanover district heating project

Early 2020: transition of EEW district heating supply to commercial operation

Increase of the energetic utilisation factor of the plant from 22% to 40%: at peak times, EEW supplies one quarter of the total district heating of 1,200 GWh/year.

By 2035 enercity intends to produce half of Hanover's district heating from renewable energy sources

District heating replaces the use of coal power, which translates into CO_2 savings of up to 45,000 tonnes per year.

Since 2018 we have been involved in a new district heating project in Hanover, where the utility company enercity wants to produce half of the city's district heating from renewable energy sources by 2035. The use of heat from EEW's energy-from-waste plant will make a key contribution to this. Following the trial operations, the supply of district heating commenced commercial operations at the start of 2020. At the peak, EEW provides a quarter of the total annual district heating sales of 1,200 gigawatt-hours per year. As a result, the efficiency of the plant has nearly doubled: from 22 per cent to 40 per cent.

A further district heating project was agreed in 2019 so we will also be supplying the town of Brandenburg with district heating. With planned construction of a 20-kilometre-long district heating pipeline from Premnitz to Brandenburg, the municipal utilities will be able to replace the fossil natural gas used for heat production with climate-friendly energy supplied from EEW's Premnitz plant. Commissioning is planned for 2023.

Owing to the increased demand for waste management capacity and energy supplies, we expanded our plants at several sites in 2018 with extensions or new construction. This was the case in Delfzijl, Premnitz, Helmstedt, Stavenhagen, Magdeburg and Stapelfeld.

As a locally anchored player, it is important to us to engage residents and other local stakeholders in such expansion projects. We take their expectations and requests on board and subsequently analyse and consider these. We proactively inform local residents wherever there are sites about the planned changes and we transparently answer their questions. In Magdeburg, for example, we presented our plans for the construction of a third combustion block with integrated sewage sludge combustion to the public at an early stage. We held talks with local interest groups and then invited all interested citizens to an information event. Following these events, we submitted our permit application in summer 2020.

Providing decentralised energy supplies to industrial companies and residential areas is not the only way that EEW contributes to added value in the region. We also support the regional economy by prioritising the awarding of contracts to local suppliers. In 2020 we awarded 28 per cent of our procurement budget (excluding newbuild projects) to suppliers based within a 50-kilometre radius of our plant sites.

"I expect attractive jobs to be retained and the energy supply and waste disposal to be guaranteed at all times."

Fred Gronde
1st Chair of TC Schöningen von 1898 e. V.

Furthermore, our environmental protection measures at the plants contribute to the climate and environmental protection targets in each particular region. At all our sites, we see ourselves as a partner of local authorities – a partner who takes a long-term view and operates proactively, also with regard to resource-conserving sewage sludge recovery. In some cases, we already recover sewage sludge along with waste in our plants. The planned construction of sewage sludge mono-incineration plants at existing EEW sites will also create environmentally and economically advantageous synergies with our EfW plants.

Henriette Garmatter
Scientific Employee Leibniz University Hannover

How does EEW regularly ensure innovation?

Harm-Peter Büchner
Innovation Manager EEW

By conceiving our new plants for the requirements of the future.

Advancing environmental protection through innovative solutions

GRI 103-1 | 103-2 | 103-3

Thermal waste recovery and the associated energy production have direct impacts on the environment. On the one hand, EEW's waste treatment reduces the volume of waste, sanitises it and lowers the climate-damaging methane emissions that would otherwise occur in landfills. At the same time, we utilise the energy contained in the waste, approximately 50 per cent of which is of biogenic origin, to produce electricity, heat and steam. In doing so, we make an important contribution to climate-friendly energy supplies. On the other hand, despite everything, emissions and residues arise from the combustion at our plants.

In this context, as part of the recent materiality analysis, we identified three important subject areas relating to environmental protection where EEW advances innovative solutions.

Energy generation and supply

EEW efficiently uses the energy contained in waste and produces electricity for households, process steam for industrial plants, and district heating for residential neighbourhoods. As such, we promote decentralised energy infrastructure. Simultaneously, we reduce CO_2 emissions by using renewable sources of energy.

Resource reclamation and recycling

Besides energy, EEW recovers valuable raw materials such as metals from thermal waste treatment and thus closes material loops. For example, bottom ash is used in road construction and replaces the natural resources gravel, stones and sand. Other residues, such as fly ash, can be recovered in a responsible way. Furthermore, we are working on a future-proof solution for phosphorus recycling from future arisings of municipal sewage sludge. In 2021 we are starting trial operations at our first sewage sludge combustion plant in Helmstedt.

Emissions

At all our plants, EEW uses state-of-the-art flue gas cleaning technologies. With these, we can minimise a portion of the organic and inorganic pollutants at the point of generation, chemically transform another portion into harmless or separable compounds and filter out a further part. By doing so, we prevent air pollution and contribute to preserving air quality.

Our stakeholders see EEW as having an important role in the topic areas "emissions" and "resource reclamation and recycling". EEW's goal is to safely comply with the binding statutory thresholds or those specified by permits. In addition, we are continuously working on further reducing our emissions in an environmentally advantageous manner and increasing resource reclamation as part of our business operations.

Environmentally sound conduct: management and responsibilities

For the practical implementation of environmental protection in our business activities, we have put in place management instruments and assigned responsibilities. Our conduct is based on a comprehensive integrated management system comprising the following components: the environmental management system ISO 14001, the energy management system ISO 50001 and the quality management system ISO 9001. In 2020 we also transitioned from the occupational health and safety management standard OHSAS 18001 to ISO 45001 and obtained certification for this. Moreover, various directives and process instructions serve to ensure compliance with external and internal specifications on environmental protection and to drive improvements. These include the directives on occupational health and safety, environment, energy and quality policy as well as the process instructions on health and safety at work, corporate environmental protection, energy management, internal audits and continuous improvements. The overall organisation of residue management and recovery is regulated by the process instructions on residues. At all of our plant sites, we register and keep track of hazardous waste via an electronic waste records procedure. Our principles for the responsible procurement of operating materials also contain statutory environmental standards as well as EEW's own environmental standards, which go even further. Our suppliers are required to fully adhere to these standards. Complaint procedures in the environmental area are processed centrally by the RESHQ department.

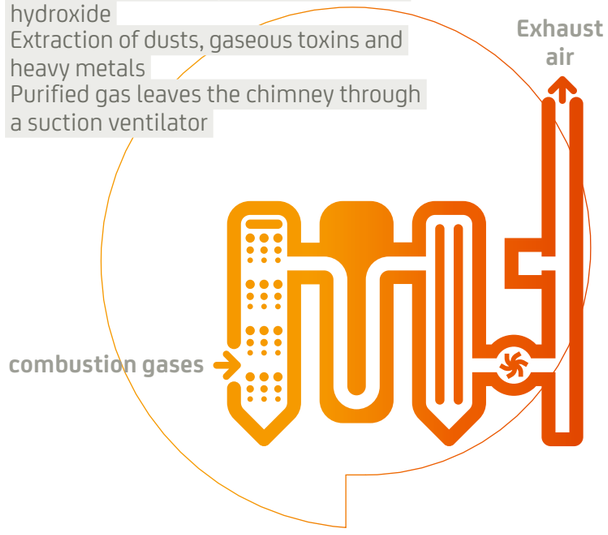
We continually monitor and inspect the operations of our 18 energy-from-waste plants. So, we want to ensure that all plants are running in as eco-friendly a manner as possible. For a precise analysis, we use daily, weekly and monthly reports, measurements, and comparisons of planned/actual data, which immediately show deviations from normal operations. Once a year, we publish the annual mean values in accordance with Section 23 of the Federal Immission Control Act (BImSchG).

We also require water for our processes. We source it from the public water supply or use surface water and groundwater. As a rule, water from the public water supply runs through a closed-circuit system, so only the technically unavoidable losses need to be replenished. We require surface water and groundwater for the cooling and condensation of steam and flue gas as well as for the production of calcium hydroxide solution to separate pollutants from combustion gases. Normally, no effluent is produced because the process wastewater is reused internally at the plant sites. The sanitary wastewater from the plants is partly used after cleaning in our flue gas cleaning or is piped to sewage treatment plants, just like wastewater from private households is. In rare instances, heavy rainfall can cause an excess of storm water in the detention basins. If such a situation occurs, an emergency release into surface water takes place in accordance with the water permit. Controls of the pollutant concentration in these discharges are carried out based on the local permit.

Each plant site is responsible for the operations of its plant and thus for on-site environmental protection. This includes compliance with the emission thresholds, the implementation of all other environmental standards and guidelines, and the prevention of unplanned downtime. The individual plants are supported by EEW's Technology department as well as the environmental protection unit of the RESHQ department. Among other things, they provide the sites with evaluations and instruments, foster the transfer of know-how and advise and work on the environmentally friendly further development of the plants. The infrastructure team based in the department is also responsible for technical controlling. The residue management unit has the overarching responsibility for carrying out the management of residues. It is also responsible for auditing carriers and waste management firms as well as for evaluating the analytics of waste arisings. The individual plant sites take care of the waste management documentation.

Multi-level flue gas cleaning in our plants:

1. Flue gases flow from the boiler to the flue gas cleaning plant
2. Cleaning of flue gases with electronic and mesh filters
3. Addition of lime milk, activated carbon, furnace coke, lime hydrate and sodium hydroxide
4. Extraction of dusts, gaseous toxins and heavy metals
5. Purified gas leaves the chimney through a suction ventilator



Of course, above and beyond these responsibilities, all employees are called on to rigorously implement the environmental and energy policies that EEW has conveyed to them. Moreover, the officers for immission protection, waste, water protection, hazardous goods and fire prevention as well as the person responsible in accordance with the Ordinance on Specialised Waste Management Companies (EfbV) regularly participate in certified training measures. Each year, internal audits are carried out by qualified EEW employees. In addition, four to five audits are conducted annually by an independent certification organisation for EEW to obtain or renew its certificates. Our management approach is evaluated as part of these internal and external audits.

Taking on responsibility: environmental protection in operating processes

EEW is systematically working to reduce the effects of its business activities on the environment and to contribute to climate and environmental protection with specific measures.

Energy generation and supply

EEW uses the energy released by the combustion of waste to supply electricity, heat and process steam for industry and households. In this way, we replace fossil fuels, such as coal and oil, and save greenhouse gas emissions.

EEW produces environmentally friendly electricity for the equivalent of around 720,000 households per year, assuming that each household consumes on average 3,500 kilowatt-hours annually. We supply district heating for residential neighbourhoods and process steam for industrial plants located close to our sites – representing a combined total of around 3.8 million megawatt-hours per year. By generating climate-friendly power and heat, roughly half of which is considered renewable energy, EEW makes an important contribution to decarbonising the economy. Especially in view of the volatility of electricity prices, we want to further expand the production and sales of heat and process steam and invest in a local energy infrastructure.

Resource reclamation and recycling

Following the thermal recovery of waste, the non-combustible components of waste are left behind as residues, amounting to approximately 31 per cent on average. That means that a waste throughput of 4.76 million tonnes generates around 1.5 million tonnes of residues. The largest share of residues is made up of the combustion output bottom ash, which has a high potential for recovery. In accordance with the rules established by Germany's Federation/Federal States Working Party on Waste (LAGA), our partner firms process the bottom ash in such a way that it can be used, for instance, as a building material in road construction: examples include as a base layer under concrete, asphalt or paving, as a substructure for a road embankment or in noise barriers with a mineral surface cover. The use of bottom ash thus conserves natural resources such as gravel and sand and helps to reduce the area of countryside used for open-pit mining of these materials. Moreover, bottom ash is so unreactive that there is little risk of leachate or gases being produced when it is used properly. The metal remaining in the bottom ash is separated and recycled. This metal removal is stipulated in the contracts with our partner firms that recover the bottom ash.

Other residues include boiler dust and filter dust, which arise from the combustion of waste and are captured by the flue gas cleaning process. Filter dust is often classified as hazardous waste. EEW ensures that the boiler dust and filter dust are securely stored underground and thus permanently removed from the environmental cycle. They can be used, for example, to fill in and shore up cavities in mines, especially in old salt domes, as they form a solid geological barrier. In this area, EEW works only with certified recycling operators. In future, in addition to waste management in mining cavities, EEW would like to utilise alternative recovery options for boiler dust and filter dust. To this end, a research project is planned with TU Bergakademie Freiberg.

Electricity produced for the equivalent of

720,000

households

The revised German Sewage Sludge Ordinance has turned our attention to another raw material: phosphorus. With the construction of sewage sludge mono-incineration plants, we are laying the necessary groundwork for the recovery of phosphorus from sewage sludge ash. Phosphorus is crucial to plant health and development and is thus an indispensable mineral in agricultural fertilisers. Yet phosphorus cannot be synthesised and the world's limited natural reserves are unevenly distributed. The European Commission has declared phosphorus a critical raw material since May 2014. By building sewage sludge mono-incineration plants with downstream phosphorus recycling, we want to make a contribution to conserving this vital resource. In 2019 we started construction on our first sewage sludge mono-incineration plant in Helmstedt and trial operations are scheduled to begin in autumn 2021. Full-scale standard operations are planned as of January 2022. Our stated goal is to subject the combustion ash arising in the plant to a phosphorus recycling process. To this end, we are collaborating with several partners to develop an innovative and sustainable solution to recover phosphorus from the combustion ash in a patented and waste-free process. Long before phosphorus recovery becomes legally mandatory as of 2029 we are therefore treading the path from sewage sludge to fertiliser and making a valuable contribution from an early stage to environmental and resource conservation in Germany. The permitting processes for the construction of other plants are underway.

Emissions

During thermal waste recovery, emissions occur which contain carbon monoxide, sulphur dioxide, hydrogen chloride, nitrogen oxides, ammonia, heavy metals, mercury and unburnt hydrocarbons. Our goal is to always comply safely with the statutory thresholds. Accordingly, we completed a technical inspection in 2020 and have thus prepared for the revision of the 17th Ordinance on the Implementation of the Federal Immission Control Act (17. BImSchV) planned for 2023. The revision foresees even stricter thresholds, so we will further significantly reduce the emissions from our plants.

As such, the organic pollutant content is removed during the combustion of waste. Other pollutants (such as some heavy metals) are also transferred to the flue gas so that they and the rest of the organic matter are adsorbed. Other pollutants such as (HCl) or (SOx) and their compounds are bound by adding reagents and then filtered out. NOx is removed from the exhaust gases by adding ammonia or ammonium compounds. The released ammonia reacts with the (NOx) in the exhaust gas to form environmentally neutral components (nitrogen and water). In doing so, we use effective measuring technology in all of our plants. Via continuous measurements and permanent self-monitoring, we check whether the combustion emissions conform with the law. To do this, we use a measuring technology certified by the German Technical Inspection Agency (TÜV) and the German Environment Agency, which is inspected and calibrated by external experts at predetermined intervals. By closely monitoring the flue gas cleaning and the observed levels, EEW is able to safely comply with the statutory requirements. We conduct special training to raise our employees' awareness of safe compliance with thresholds.

About

1.5

million tonnes of residual materials, such as

- flue gas purification residues
- flue and boiler ash
- slag
- coke
- sodium chloride and composite minerals
- filter dust
- revision and cleaning residue
- sands

"State-of-the-art plant technology is a prerequisite for environmental protection. To develop that technology, knowledge transfer and cooperation between research and business are essential."

Henriette Garmatter
Scientific Employee Leibniz University Hannover

Overview of the area of action “delivering results”

Economic impact of our plants on the local communities

Operational goal	Time frame	Measures	Status 2020
Increase energy efficiency by leveraging renewable energies (RE) at the plant sites	Ongoing	Expand district heating network for local supply > Hanover: commercial operations of district heating supply to enercity from 2020 (implemented) > Premnitz: 2019 decision to build district heating pipeline from Premnitz to Brandenburg (construction planned to start in 2021)	>>>
Promote e-mobility within the Group	Ongoing	> Acquisition of two electric vehicles for the EEW vehicle pool (completed) > Installation of four EV charging stations at the Helmstedt site (completed) > Installation of further EV charging stations at EEW sites (in implementation phase)	>>>
Reduce accident figures by 30 per cent (baseline year 2018: 12)	End of 2021	> Further development of partner firms with regard to occupational safety via supplier evaluations (in implementation phase) > Carrying out of focal campaigns at plant sites to reduce own hazards and accidents (in implementation phase) > Central works agreement on the wearing of personal protective equipment (implemented)	>>>
Create a sustainable structure to reduce hazards at plant sites	End of Q1 2020	> Accelerated changeover from OHSAS 18001 to ISO 45001 (completed)	>>>

Advancing environmental protection through innovative solutions

Operational goal	Time frame	Measures	Status 2020
Increase share of renewable energies in use of energy	Ongoing	> Increased purchasing of electricity and gas based on renewable energies (in implementation phase) > Promotion of captive-use generation from photovoltaics in connection with expansion or new construction (in preparation phase)	>>>
Reduce backfilling by three per cent (baseline: relative filter dust share in 2019)	End of 2023	Use of new recycling processes for filter dust management: > Conduct a study of backfilling (completed) > Research alternative recovery options for flue gas cleaning residues with TU Bergakademie Freiberg (in implementation phase)	>>>

>>> partially fulfilled >>> largely fulfilled >>> completely fulfilled

7 AFFORDABLE AND CLEAN ENERGY

We use the energy released by the combustion of waste to supply electricity, heat and process steam for industry and households. In this way, we replace fossil fuels, such as coal and oil, and avoid greenhouse gas emissions.

Projects & measures

> Each year, we transform around 4.76 million tonnes of waste into environmentally friendly electricity for the equivalent of around 720,000 households (assuming average annual household consumption of 3,500 kWh).

> We supply district heating for residential neighbourhoods as well as process steam for industrial plants located close to our sites – representing a combined total of around 3.8 million MWh per year.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

We see sustainable innovations as an important driver to create added value for the company, society and the environment. With innovative solutions, we contribute to an environmentally friendly circular economy and supply climate-friendly energy.

Projects & measures

> By using the energy contained in waste, we guarantee a continuous and secure supply of energy for households, local authorities and industrial companies. With our investments in high-temperature heat storage systems, we further strengthen our ability to provide a continuous and secure supply of energy.

> As part of our district heating project with the utility company enercity in Hanover, together with partners we want to produce half of the city’s district heating from renewable energy sources by the year 2035.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

As natural resources become scarcer, waste becomes increasingly important as a valuable resource. With thermal waste recovery, we play a crucial role in the eco-friendly circular economy.

Projects & measures

> The annual waste throughput of 4.76 million tonnes generates around 1.5 million tonnes of residues, such as bottom ash, which are used in road construction, amongst other things.

> By constructing sewage sludge mono-incineration plants at our sites, we are already putting ourselves in a position to implement the recovery obligation for phosphorus that aplies from 2029.

eew art: seeing waste in a new light

Culture and the arts are important parts of our lives. Art can capture the present, provide glimpses of the future and give rise to creativity and identity. But most of all, art can start a dialogue, inspire and open our eyes to the new.

With our programme “eew art” we offer artists an opportunity to engage with our company and its environment in creative ways. We are particularly concerned with the issue of sustainability. Each year, we plan to commission a photographic work focussing on a different element, to sharpen the perception of our work and address social topics.

The first photographer to apply her artistic talents to our work was Friederike von Rauch. Fascinated with the size and monumental character of the waste and ash bunker, the Berlin-based photographer was drawn to our TRV Buschhaus waste incineration plant. Eight results created in this series are accessible to all interested parties at our company headquarters in Helmstedt.

More information about the project in German

Friederike von Rauch | Photographer

Waste is what you make of it.

Bernard Kemper | CEO EEW

And sometimes it can even be a work of art.

Friederike von Rauch transforms rooms into stages

Whether in museums, palaces, abbeys or industrial buildings, the photographer Friederike von Rauch sets out to find the essence of spaces. Calm, often minimalist photographs reveal unusual views of extraordinary places. Light, mist, smoke and water obscure the observer's direct view of the architecture and atmosphere of the moment. Industrial architecture turns into contemplative spaces of light and shade. The results are images of timeless rooms with the air of a brightly lit stage.

The Berlin-based art historian and art consultant Julia Rosenbaum is assisting EEW in its commitment to the arts. In an interview with her, Friederike von Rauch (photographer) and Bernard M. Kemper (Chair of the EEW executive board) explain the goals and experiences of the joint project.

Rosenbaum | What leads a large industrial company to delve into the realm of contemporary art?

Kemper | Part of the creativity of a company is to broaden its horizons. There are different ways to do that – the arts, for example. In this case, connecting sustainability with contemporary art is ideal, and our plants provide us with enough material to do just that. We handle these materials every day without giving them a second thought, and yet they may just be the perfect combination for the art project.

Rosenbaum | Sustainability is one of the top priorities at EEW. How does this concern fit your commitment to the arts?

Kemper | One cannot think about sustainability without making a direct connection with the media that we work with. First among them is, of course, waste, but they also include energy, water and air. There are many areas that all ultimately focus on the same thing, as they have sustainability at their core. Showing this in a different way can take a bit of convincing, but it gives us the freedom to look beyond our boundaries at the big picture.

Rosenbaum | At first glance, waste management is not exactly sexy. Why did you feel compelled to approach the subject?

von Rauch | Visually, I have never seen anything like it. The Buschhaus incineration plant in Helmstedt gave me the unique opportunity of being able to shoot straight into the waste bunker. I have started calling it the waste cathedral because the room is unbelievably tall and has an exceptional, almost sacred light.

Rosenbaum | You are the first photographer to produce a series of works as part of the "eew art" project. What exactly drew you to its heart – the waste bunker?

von Rauch | I work in an area of photography that deals with space and stillness – something this place does not offer at all. TRV Buschhaus is a lively and moving space, where waste trucks arrive by the minute to dump their loads for cranes to pick up. These processes are intriguing and monumental, not least because everything is happening on such a huge scale. For one, the space is beautiful in its own way, an enormous concrete cube filled with waste. For another, I feel that we should know and see where the waste goes that we produce. Added to all that was the fact that I had incredible light. When light falls on the dust cloud stirred up by the falling waste, it produces an almost poetic view of this underworld of rubbish.

Rosenbaum | There are no people in the photos. Are you not interested in them?

von Rauch | There are no people in the images because I am so dedicated to the spaces. So it is because of my attention, which I direct entirely at the room itself, not because of a lack of interest in people.

Rosenbaum | Culture and the economy can learn from one another. What is EEW's goal for the programme?

Kemper | I have to be open-minded towards my customers and develop new ideas to keep on taking the company forward. If you live and work under a bell jar, you can't do that. But if you lift that bell jar, you allow impulses for lots of other ideas into the company.

Rosenbaum | You view the annual commitment as an investment in your own company and in the arts, so as an evolution of both?

Kemper | Exactly, the evolution of both. Perhaps some of our colleagues are initially confused, but then become fascinated. Others ask questions, perhaps scrutinise the narrative. Start to approach a familiar topic at a new level. And suddenly you have new perspectives emerging. If that happens, I think we'll have achieved a lot because that attitude will spread to other areas of our company or our daily work. Our consciousness will change; it will evolve. This is more important today than ever. We are not anxious to have everyone produce as much waste as possible. We only want to use whatever waste cannot be recycled for anything else and produce something useful with it, like energy. We are a permanent part of a cycle, and you can illustrate that in lots of different ways.

Rosenbaum | Sustainability is becoming more and more important, even in the arts. EEW decided to initiate this project at a time when the topic is presented with more and more urgency in exhibitions and works of art. Is the issue of sustainability important to you personally?

von Rauch | Of course it is. A waste incineration plant of this size is not exactly a common subject for artistic contemplation, and the topic did not impose itself on my work. That makes this unexpected moment of confrontation with our daily waste seem all the more valuable to me. It has made a profound impression on me.

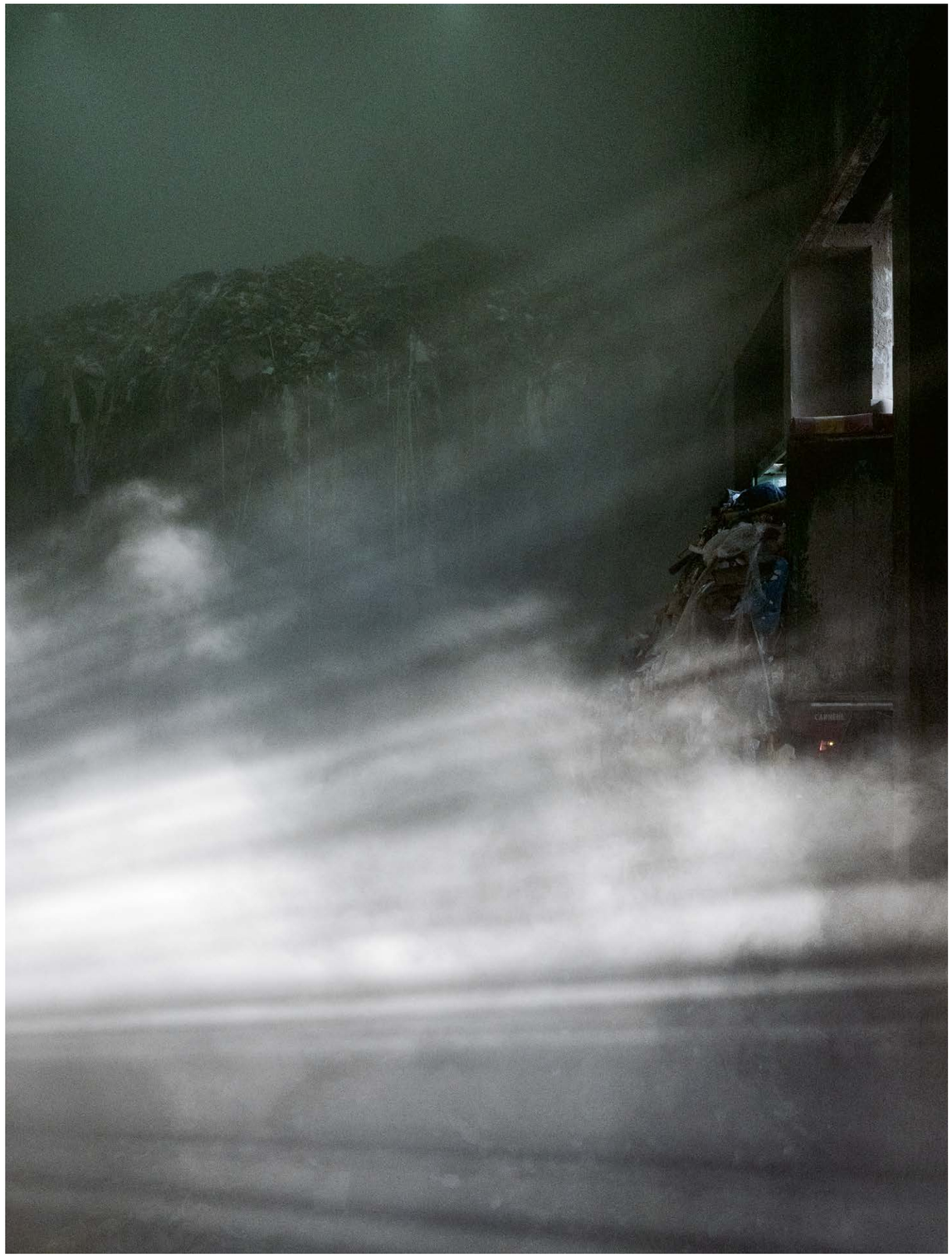
Rosenbaum | You work with resource preservation in mind and are not one of those artists who produce 100 photographs to end up with one work of art. You produce all of the photos you take.

von Rauch | That method evolved during my studies, when every analogue click was costly. I forced myself to really focus so I would waste nothing. It has become part of me.

Friederike von Rauch

Friederike von Rauch was born in Freiburg in 1967 and grew up in Berlin. She was trained as a silversmith before studying design at Berlin University of the Arts. After having worked as a location scout for international film productions, she began to focus exclusively on her artistic endeavours in the early 2000s. Her works have since been shown in numerous solo and group exhibitions in Germany and abroad and are found in private as well as public collections. Friederike von Rauch lives and works in Berlin.

EEW 1



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Overview of key figures

EEW measures and reports on the direct and indirect greenhouse gas (GHG) emissions resulting from its business activities in accordance with the requirements of the GRI Standards and guided by the GHG Protocol Corporate Standard (explained in detail in the footnotes to the tables). The data tables show the development of greenhouse gas emissions in tonnes of CO_2 equivalent (CO_2e) over the years 2018–20.

GHG emissions avoided through the energy recovery of waste and the reclamation of metallic secondary raw materials are not presented as offsetting credits but are instead reported additionally as emissions avoided through substitution.

GRI indicators	Description	2018	2019	2020
ECONOMIC KEY FIGURES				
Direct economic value generated (revenues)[1]				
201-1	Direct economic value generated (revenues)	€552,831,000	€593,078,000	€629,292,000
	Economic value distributed[2]	€464,120,000	€496,731,000	€531,449,000

[1] Data taken from the 2020 annual financial statements of the EEW Group.
[2] The economic value distributed comprises cost of materials, personnel expenses, other operating expenses, income taxes and net income.

Percentage of spending on local suppliers				
204-1	Percentage of procurement spending at significant sites (including new-build projects) that is spent on suppliers based in the local region of the sites[3]	18%	14%	19%
	Percentage of procurement spending at significant sites (excluding new-build projects) that is spent on suppliers based in the local region of the sites[3]	21%	26%	28%
Percentage of spending on local suppliers				
301-1	Total weight of the waste volumes used	4,783,000 t	4,716,603 t	4,811,000 t
ENVIRONMENTAL KEY FIGURES				
Energy consumption within the organisation				
302-1	Total electricity consumption[4]	13,422 MWh	11,775 MWh	✓ 17,866 MWh
	Total heating oil consumption	56,507 MWh	45,778 MWh	✓ 46,861 MWh
	Total gas consumption	138,300 MWh	131,768 MWh	✓ 162,119 MWh
	Total electricity sold[5]	1,699,186 MWh	1,772,868 MWh	✓ 1,817,979 MWh
	Total heat sold[5]	775,058 MWh	790,598 MWh	887,759 MWh
	Total steam sold[5]	1,875,172 MWh	2,176,201 MWh	2,095,743 MWh

[3] The term "significant sites" refers to all of the EEW Group's plant sites. The term "local" applies to a radius of less than 50 km to the plant sites.
[4] Total amount of electricity obtained from the power grid
[5] Figures excluding the company headquarters (EEW Energy from Waste GmbH)

Waste by type and disposal method				
306-2	**Total weight of hazardous waste[6], of which**	267,011 t	273,641 t	275,517 t
	recovered via backfilling of mines	267,011 t	273,641 t	275,517 t
	Total weight of non-hazardous waste, of which	1,146,262 t	1,185,767 t	1,229,770 t
	recycled and reclaimed metals and metal compounds	114,626 t	113,309 t	118,043 t
	recovered as landfill construction material or sent to landfill	1,031,636 t	1,072,458 t	1,111,727 t

[6] Includes, amongst other things, mercury, cadmium and lead

GRI indicators	Description	2018	2019	2020
ENVIRONMENTAL KEY FIGURES				
GHG emissions of the organisation				
305-1	Total volume of direct CO_2 emissions (Scope 1)[1]	2,060,141 t CO_2	2,111,404 t CO_2	✓ 2,113,842 t CO_2
305-2	Total volume of indirect CO_2 emissions (Scope 2)[2]	5,382 t CO_2	4,722 t CO_2	✓ 5,896 t CO_2
305-3	Other indirect GHG emissions (Scope 3)[3]	5,776 t CO_2	6,005 t CO_2	✓ 6,256 t CO_2
305-4	Intensity of GHG emissions per tonne of waste input	0,455 t CO_2	0,449 t CO_2	0,446 t CO_2
	Avoidance through substitutions[4]	2,477,486 t CO_2	2,359,392 t CO_2	2,121,677 t CO_2

[1] The GHG emissions in Scope 1 comprise all direct emissions resulting from the combustion of the fossil fraction of the waste, the consumption of heating oil and natural gas in the production facilities (in the waste-fired boilers; from operations of the steam superheater) and for heating buildings, as well as the operating materials for flue gas cleaning. The figures presented to date do not reflect the GHG emissions of the organisation's vehicle fleet, which will be added once data collection has been established. To calculate the emissions from waste combustion, the total volume of combusted waste was allocated to the categories household waste, commercial and industrial (C&I) waste and sewage sludge. The categories were then weighted and the waste in each category was assigned the appropriate emission factors (household waste: 0.315; C&I: 0.5; sewage sludge: 0.07). The resulting average emission factors to be used in further calculations were 0.420 t CO_2 e/t waste in 2019 and 0.425 t CO_2 e/t in 2018 and 0.428 t CO_2 e/t waste in 2017. To calculate the emissions from heating oil consumption, the values for the medium density of 0.85 kg/l and the calorific value of 40 MJ/kg (from: ecoinvent database) were used. A figure of 74 t CO_2/TJ was used as the emission factor (from: "CO_2-Emissionsfaktoren für fossile Brennstoffe" ["CO_2 Emission Factors for Fossil Fuels"], German Environment Agency, 9/2017, page 35). To calculate the emissions from natural gas consumption, first the gas consumption was converted into kWh (density of 0.8 kg/m³ and calorific value for high calorific natural gas of 10.5 kWh/kg from: ecoinvent database). A value of 0.201 kg CO_2/kWh (from: ecoinvent database) was used as the emission factor. To calculate the emissions from the consumption of operating materials used in flue gas cleaning, a weighted average of 0.892 kg CO_2/kWh (from: ecoinvent database) was used as the emission factor.

[2] The Scope 2 GHG emissions comprise the emissions resulting from electricity purchases at EEW's 18 plant sites and company headquarters in Helmstedt. To calculate the emissions from purchased electricity, the consumption figure was multiplied by an emission factor of 401 g CO_2/kWh (from: "Entwicklung der spezifischen Kohlendioxid-Emissionen des deutschen Strommix in den Jahren 1990-2019" ["Development of the specific carbon dioxide emissions in the German electricity mix from 1990 to 2019"], German Environment Agency, 13/2020, page 9).

[3] The GHG emissions presented under Scope 3 include other indirect emissions that result from the landfilling of residual materials (bottom ash, flue gas cleaning residues). These emissions do not contain any biogenic components. The assumptions were 50 per cent landfilling of bottom ash and 100 per cent recovery of flue gas cleaning residues. A figure of 10.6 kg CO_2 e/t bottom ash (from: ecoinvent database) was used as the emission factor.

[4] The avoided emissions result from the energy recovery of waste and the recycling of metals into secondary raw materials. In the generation of electrical energy, district heating and process steam, waste substitutes the use of fossil resources. The substitution was calculated based on the current emission factors for the district heating and electricity mix in Germany (source: German Environment Agency), which take into account the yearly status of the transition to renewable energies. For the emission factor for process steam, the 2010 climate report by Infraserv Höchst was used as a source. The substitution of GHG emissions through metals recovery was determined with the factor 2.6 t CO_2e/t metal (source: ITAD).

Nitrogen oxides (NO_X), sulphur oxides (SO_X) and other significant air emissions[5]				
305-7	Total dust[6]	0.55 mg/Nm³	0.47 mg/Nm³	0.44 mg/Nm³
	Total carbon[7]	0.23 mg/Nm³	0.29 mg/Nm³	0.31 mg/Nm³
	Hydrogen chloride[7]	4.44 mg/Nm³	3.87 mg/Nm³	3.67 mg/Nm³
	Sulphur dioxide[8]	11.31 mg/Nm³	9.33 mg/Nm³	10.89 mg/Nm³
	Nitrogen dioxide[9]	134.99 mg/Nm³	113.18 mg/Nm³	110.76 mg/Nm³
	Mercury[10]	1.65 µg/Nm³	1.25 µg/Nm³	1.39 µg/Nm³
	Carbon monoxide[8]	8.83 mg/Nm³	11.30 mg/Nm³	12.02 mg/Nm³
	Ammonia[7]	1.33 mg/Nm³	1.96 mg/Nm³	1.89 mg/Nm³

[5] The emission values presented in the table are the weighted averages of the respective emission values of all the EEW Energy from Waste GmbH plant sites.
[6] Limit value in accordance with 17. BImSchv (daily average) 2018, 2019 and 2020: 5
[7] Limit value in accordance with 17. BImSchv (daily average) 2018,2019 and 2020: 10
[8] Limit value in accordance with 17. BImSchv (daily average) 2018, 2019 and 2020: 50
[9] Limit value in accordance with 17. BImSchv (daily average) 2018, 2019 and 2020: 150
[10] Limit value in accordance with 17. BImSchv (daily average) 2018, 2019 and 2020: 30

GRI indicators	Description		2018	2019	2020
SOCIAL AND COMPLIANCE KEY FIGURES					
Information on employees and other workers					
102-8	**Total number of all employees**		1,090	1,134	1,159
	Gender	Female	187	200	203
		Male	903	934	956
	Temporary employees		68	66	60
	Gender	Female	16	31	23
		Male	52	35	37
	Employees in Germany		976	1,021	1,038
	Gender	Female	176	181	195
		Male	800	840	843
	Temporary employees in Germany		63	53	63
	Gender	Female	16	21	21
		Male	47	32	42
	Employees in the Netherlands		65	67	75
	Gender	Female	5	7	8
		Male	60	60	67
	Temporary employees in the Netherlands		4	3	7
	Gender	Female	0	1	3
		Male	4	2	4
	Employees in Luxembourg		49	46	49
	Gender	Female	6	6	7
		Male	43	40	42
	Temporary employees in Luxembourg		1	0	1
	Gender	Female	0	0	0
		Male	1	0	1
	Full-time employees[1]		843	889	916
	Gender	Female	116	156	146
		Male	727	733	770
	Part-time employees[1]		45	41	60
	Gender	Female	31	34	42
		Male	14	7	18

[1]) The information refers to the permanent workforce at the EEW Group, excluding the Delfzijl, Leudelange and Rothensee sites, which do not use SAP as a reporting tool.

GRI indicators	Description		2018	2019	2020
SOCIAL AND COMPLIANCE KEY FIGURES					
Collective bargaining agreements[1]					
102-41	Employees covered by collective bargaining agreements		85.2%	86.1%	85.8%
New employee hires and employee turnover[2]					
401-1	**Total new employees**		62 (6.1%)	48 (4.5%)	52 (4.5%)
	Gender	Female	14 (1.4%)	6 (0.6%)	8 (0.7%)
		Male	48 (4.7%)	42 (3.9%)	44 (3.8%)
	Age	Less than 30 years old	19 (1.9%)	13 (1.2%)	12 (1.0%)
		30–50 years old	33 (3.2%)	34 (3.2%)	28 (2.4%)
		More than 50 years old	10 (1.0%)	1 (0.1%)	12 (1.0%)
	Region	Germany	52 (5.1%)	48 (4.5%)	45 (3.9%)
		Netherlands	6 (0.4%)	0 (0.0%)	4 (0.3%)
		Luxembourg	4 (0.6%)	0 (0.0%)	3 (0.3%)
	Total employee turnover[3]		42 (4.2%)	40 (3.8%)	46 (4.0%)
	Gender	Female	7 (0.7%)	8 (0.8%)	8 (0.7%)
		Male	35 (3.5%)	32 (3.0%)	38 (3.3%)
	Age	Less than 30 years old	4 (0.4%)	5 (0.5%)	5 (0.4%)
		30–50 years old	15 (1.6%)	20 (1.9%)	20 (1.7%)
		More than 50 years old	23 (2.2%)	15 (1.4%)	21 (1.8%)
	Region	Germany	35 (3.5%)	36 (3.6%)	43 (3.7%)
		Netherlands	2 (0.2%)	1 (0.1%)	1 (0.1%)
		Luxembourg	5 (0.5%)	3 (0.1%)	2 (0.2%)

[1]) The information refers to the permanent workforce at the EEW Group, excluding the Delfzijl, Leudelange and Rothensee sites, which do not use SAP as a reporting tool.
[2]) The information refers to the permanent workforce at the EEW Group. Temporary employment relationships are not taken into account.
[3]) The employee turnover figures refer exclusively to permanent employment relationships.

SOCIAL AND COMPLIANCE KEY FIGURES

GRI indicators	Description		2018	2019	2020
Diversity of governance bodies and employees					
405-1	**Individuals within the governance bodies**				
	Gender	Female	11.0%	11.0%	11.0%
		Male	89.0%	89.0%	89.0%
	Age	Less than 30 years old	0.0%	0.0%	0.0%
		30–50 years old	44.0%	33.0%	33.0%
		More than 50 years old	56.0%	67.0%	67.0%
	Employees covered				
	Gender	Female	19.5%	19.3%	18.8%
		Male	80.5%	80.7%	81.2%
	Age	Less than 30 years old	15.7%	14.4%	16.8%
		30–50 years old	45.8%	45.0%	43.7%
		More than 50 years old	38.5%	40.6%	39.5%
	Trainees				
	Gender	Female	22.5%	17.9%	14.5%
		Male	77.5%	82.1%	85.5%
	Age	Less than 30 years old	96.7%	95.5%	95.7%
		30–50 years old	3.3%	4.5%	4.3%
		More than 50 years old	0.0%	0.0%	0.0%
	Employees not covered				
	Gender	Female	9.0%	11.1%	10.8%
		Male	91.0%	88.9%	89.2%
	Age	Less than 30 years old	0.0%	0.0%	0.0%
		30–50 years old	38.0%	38.9%	38.7%
		More than 50 years old	62.0%	61.1%	61.3%
	Senior managers				
	Gender	Female	3.6%	3.3%	0.0%
		Male	96.4%	96.7%	100.0%
	Age	Less than 30 years old	0.0%	0.0%	0.0%
		30–50 years old	17.9%	16.7%	23.3%
		More than 50 years old	82.1%	83.3%	76.7%
Incidents of discrimination and corrective actions taken					
406-1	Total number during the reporting period		0	0	0
Average hours of training per year					
404-1	Gender	Female	14 h	16 h	18 h
		Male	16 h	17 h	17 h

GRI indicators	Description		2018	2019	2020
Percentage of employees receiving regular performance reviews					
404-3	Gender	Female[1]	83.2%	83.1%	79.4%
		Male[1]	83.2%	83.1%	79.4%
	Senior managers[2]		100.0%	100.0%	100.0%
	Employees not covered by collective bargaining agreements[2]		100.0%	100.0%	100.0%
	Trainees[2]		100.0%	100.0%	100.0%

[1] The Großräschen, Stapelfeld, Stavenhagen and Premnitz sites do not have regular reviews for employees covered by collective bargaining agreements.
[2] The exclusion of certain plants (see note 1) applies only to employees covered by collective bargaining agreements and does not apply to senior managers, employees not covered by collective bargaining agreements or trainees.

GRI indicators	Description		2018	2019	2020
Work-related injuries					
	Rate of illness[3]		5.5%	5.6%	✓ 5.4%
403-9	**All employees[4]**				
	Number and rate of fatalities as a result of work-related injury		0 (0.0)	0 (0.0)	0 (0.0)
	Number and rate of high-consequence work-related injuries (excluding fatalities)[5]		4 (2.3 LTI)	3 (1.7 LTI)	✓ 1 (0.5 LTI)
	Number and rate of recordable work-related injuries[6]		5 (2.8 TRIF)	4 (2.2 TRIF)	✓ 2 (1.1TRIF)
	Number of hours worked[7]				1,827,085 h
	All workers who are not employees but whose work and/or workplace is controlled by the organisation[4, 8]				
	Number and rate of fatalities as a result of work-related injury		1 (1.0)	0 (0.0)	0 (0.0)
	Number and rate of high-consequence work-related injuries (excluding fatalities)[9]				3 (3.1)
	Number and rate of recordable work-related injuries[10]		7 (6.7 TRIF)	4 (3.8 TRIF)	5 (5.5 TRIF)
	Number of hours worked[7]				971,834 h

[3] This information relates to employees of the EEW Group.
[4] The following work-related hazards, which were identified via risk assessments, pose the risk of high-consequence injuries: falling, working with power-driven or non-power-driven equipment, climbing down / twisting an ankle, hazardous materials, tripping / stumbling, electrical accident, transport and load handling, burns / scalding. A safety alert is created for each TRI- and LTI-relevant accident, which documents the hazards as well as any remedial measures. These are discussed in conference calls with the EEW Group's plant managers and safety specialists in order to avoid similar hazards at other sites. In addition, there is a teleconference about the accident. A management summary is prepared weekly and the data are documented monthly in reports and / or statistics. In accordance with the applicable hierarchy of controls, we adopted and implemented technical as well as organisational and personal protective measures. The rates are calculated based on 1,000,000 hours worked. No employees are excluded from this indicator.
[5] One high-consequence accident occurred in the reporting year: a sprained foot ligament caused by twisting an ankle while climbing down.
[6] Two work-related recordable injuries occurred in the reporting year: a sprained foot ligament and a deep cut on an index finger.
[7] Following the revision of GRI 403, there is a new classification and basis of calculation, which we apply as of 2020. This figure was not reported in previous years.
[8] The following work-related hazards, which were identified via risk assessments, pose the risk of high-consequence injuries: falling, working with power-driven or non-power-driven equipment, climbing down / twisting an ankle, hazardous materials, tripping / stumbling, electrical accident, transport and load handling, burns / scalding. A safety alert is created for each TRI- and LTI-relevant accident, which describes the hazards as well as any remedial measures. These are discussed in conference calls with the EEW Group's plant managers and safety specialists in order to avoid similar hazards at other sites. In addition, there is a teleconference about the accident. A management summary is prepared weekly and the data are documented monthly in reports and/or statistics. In accordance with the applicable hierarchy of controls, we adopted and implemented technical as well as organisational and personal protective measures. The rates are calculated based on 1,000,000 hours worked. No employees are excluded from this indicator. As of 2020 the data for contract workers will be reported along with those for employees of partner firms in one figure.
[9] Three high-consequence accidents occurred in the reporting year: a crushing injury on a middle fingertip, a sprained foot ligament and a collarbone fracture with bruising and abrasion. These accidents occurred as a result of transport and load handling, twisting of an ankle, and a fall. With the change to GRI 403, there is a new classification and basis of calculation, which we apply as of 2020. This figure was not reported in previous years.
[10] Five recordable high-consequence accidents occurred in the reporting year: a crushing injury on a middle fingertip, a sprained foot ligament, a collarbone fracture with bruising and abrasion, a torn foot ligament and a finger laceration.

GRI indicators	Description	2018	2019	2020
SOCIAL AND COMPLIANCE KEY FIGURES				
Sites assessed for risks related to corruption				
205-1	Total number during the reporting period	0 (0.0%)	0 (0.0%)	0 (0.0%)
Confirmed incidents of corruption and actions taken				
205-3	Total number during the reporting period	0	0	1
	Total number of confirmed incidents in which employees were dismissed or disciplined for corruption	0	0	1
	Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption	0	0	0
	Public legal cases regarding corruption brought against the organisation or its employees during the reporting period and the outcomes of such cases	0	0	0
Legal actions for anticompetitive behaviour, antitrust and monopoly practices				
206-1	Total number of legal actions during the reporting period	0	0	0
Non-compliance with environmental laws and regulations				
307-1	Total monetary value of significant fines for non-compliance with environmental laws and/or regulations	€0	€0	€0
	Non-monetary sanctions for non-compliance with environmental laws and/or regulations	0	0	0
Sites with local community engagement, impact assessments and development programmes				
413-1	**Percentage of sites (administrative and plant sites) with implemented local community engagement, impact assessments, and/or development programmes, including the use of**			
	Environmental impact assessments and ongoing monitoring	100%	100%	100%
	Public disclosure of results of environmental impact assessments	100%	100%	100%
	Works councils, occupational health and safety committees and other worker representation bodies to deal with impacts	100%	100%	100%
Political contributions				
415-1	Total monetary value of political contributions	€0	€0	€0
Complaints concerning customer data				
418-1	Substantiated complaints received concerning breaches of customer privacy	0	0	0
	Received from outside parties and substantiated by the organisation	0	0	0
	From regulatory bodies	0	0	0
	Identified leaks, thefts or losses of customer data	0	0	0
Fines and non-monetary sanctions				
419-1	**Disclosure of significant fines and non-monetary sanctions for non-compliance with laws and/ or regulations in the social and economic area, including:**			
	Total monetary value of significant fines	€0	€0	€0
	Total number of non-monetary sanctions	0	0	0

Membership of associations

GRI 102-13

EEW is a member of various associations. Their bodies are platforms for the representation of interests at the political level and for various research areas.

BDE | With 750 member companies of all sizes, the Federation of the German Waste, Water and Raw Materials Management Industry is the strongest interest group representing the private waste management, water and raw-materials management sectors in Germany and Europe and is committed to ensuring reliable framework conditions.

BDEW | The German Association of Energy and Water Industries represents the interests of its 1,800 municipally and privately owned member companies in the energy and water sector vis-à-vis policymakers, the expert community, the media and the public. It supports its member companies in all important political, legal, economic, technical and communication issues.

VKU | The German Association of Local Utilities represents the interests of municipally owned utility and waste management entities in Germany. The more than 1,500 member companies are mainly active in the energy supply, water, wastewater, waste management and urban-cleaning segments.

ITAD | The Interest Group for Thermal Waste Treatment Plants in Germany advocates on behalf of thermal waste treatment plant owners and operators in their relations with the public, policymakers, public authorities and other interest groups and supports research projects aimed at optimising thermal waste treatment.

DGAW | The German Waste Management Association is made up of representatives of private and municipal waste management companies, politics, administration, science, plant and mechanical engineers, production engineers, operating companies and citizens' initiatives. A close collaboration with all important organisations in the raw-materials industry offers its members independent and informative exchange of knowledge and know-how on the industry's various topics.

DWA | The German Association for Water, Wastewater and Waste brings together various players from the worlds of business, research and local politics who are closely involved with water and waste. It offers a network for specialists and managers of business, research and local politics who are closely involved with water and waste, supports scientific research, compiles relevant information in magazines, books and publications, contributes to standardisation work, acts as a political, economic and scientific advisor and promotes vocational and further training in the water and waste sectors.

DPP | The German Phosphorus Platform consolidates the knowledge and experience of players from the relevant industries, from public and private organisations and from research and development facilities with the aim of establishing sustainable use of the valuable vital element phosphorus.

VIK | The roughly 300 members of the German Association of Industrial Energy Consumers (VIK) are industrial and commercial operations that share a common interest: energy. The member companies account for around 80% of industrial energy consumption and approximately 90% of industrial captive-use power generation in Germany.

KWS Energy Knowledge eG | With its vocational and further training offerings, KWS offers its member firms and other energy companies the opportunity to provide, adapt and expand the occupational qualifications of their plant employees. The offerings include certificate courses, officially recognised training programmes and individually tailored and training measures as well as measures to reintegrate people into the workforce.

Independent Auditor's Limited Assurance Report

GRI 102-56

To EEW Energy from Waste GmbH, Helmstedt

We have performed a limited assurance engagement on the disclosures marked with the symbol "✓" in the Sustainability Report of EEW Energy from Waste GmbH for the reporting period from 1 January 2020 to 31 December 2020 (hereafter "report").

Our engagement exclusively relates to the information marked with the symbol "✓" in the German PDF version of the report. Our engagement did not include any prospective disclosures or disclosures for prior years. The report is published as a PDF version at www.eew-energyfromwaste.com/en/service/informationmaterial.html.

A. Management's responsibility

The legal representatives of EEW Energy from Waste GmbH are responsible for the preparation of the report in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (hereafter "GRI criteria") and for the selection of the information to be assessed.

This responsibility includes the selection and application of appropriate methods to prepare the report as well as making assumptions and estimates related to individual disclosures, which are reasonable in the circumstances. Furthermore, the legal representatives are responsible for such internal controls that they have considered necessary to enable the preparation of a report that is free from material misstatement, whether due to fraud or error.

B. Auditor's declaration relating to independence and quality control

We are independent from the Company in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other professional responsibilities in accordance with these requirements.

Our audit firm applies the national statutory regulations and professional pronouncements for quality control, in particular the by-laws regulating the rights and duties of Wirtschaftsprüfer and vereidigte Buchprüfer in the exercise of their profession [Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer] as well as the IDW Standard on Quality Control 1: Requirements for Quality Control in audit firms [IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis (IDW QS 1)].

C. Auditor's responsibility

Our responsibility is to express a limited assurance conclusion on the disclosures marked with the symbol "✓" in the report based on the assurance engagement we have performed.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board (IAASB). This Standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether the disclosures marked with the symbol "✓" in the report of the Company have been prepared, in all material respects, in accordance with the GRI criteria. This does not mean that a separate conclusion is expressed on each disclosure marked. In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the auditor's professional judgment.

Within the scope of our assurance engagement, which has been conducted between June and August 2021, we performed amongst others the following assurance and other procedures:

- Inquiries of employees concerning the sustainability strategy, sustainability principles and sustainability management of EEW Energy from Waste GmbH,
- Inquiries of employees responsible for the preparation of information marked with the symbol "✓" in the report in order to assess the sustainability reporting system, the data capture and compilation methods as well as internal controls to the extent relevant for the limited assurance engagement,
- Identification of likely risks of material misstatement in the report,
- Inspection of the relevant documentation of the systems and processes for compiling, aggregating and validating sustainability data in the reporting period and testing such documentation on a sample of basis,
- Analytical measures at group level and on the level of selected sites regarding the quality of the reported data,
- Critical review of the draft report to assess plausibility and consistency with the information marked with the symbol "✓".

D. Assurance conclusion

Based on our assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the disclosures marked with the symbol "✓" in the report of the Company for the period from 1 January to 31 December 2020 have not been prepared, in all material respects, in accordance with the relevant GRI criteria.

E. Intended use of the assurance report

We issue this report on the basis of the engagement agreed with EEW Energy from Waste GmbH. The assurance engagement has been performed for the purposes of the Company and the report is solely intended to inform the Company as to the results of the assurance engagement and must not be used for purposes other than those intended. The report is not intended to provide third parties with support in making (financial) decisions.

F. Engagement terms and liability

The "General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]" dated 1 January 2017 are applicable to this engagement and also govern our relations with third parties in the context of this engagement (www.de.ey.com/general-engagement-terms). In addition, please refer to the liability provisions contained there in no. 9 and to the exclusion of liability towards third parties. We assume no responsibility, liability or other obligations towards third parties unless we have concluded a written agreement to the contrary with the respective third party or liability cannot effectively be precluded.

We make express reference to the fact that we do not update the assurance report to reflect events or circumstances arising after it was issued unless required to do so by law. It is the sole responsibility of anyone taking note of the result of our assurance engagement summarized in this assurance report to decide whether and in what way this result is useful or suitable for their purposes and to supplement, verify or update it by means of their own review procedures.

Munich, 16 September 2021

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

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