

# 2019

## Sustainability Report





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# About this report

## GRI 102-45, 102-50, 102-52, 102-54

### Goals and content

With our Sustainability Report 2019, we are providing comprehensive information about our economically, environmentally and socially responsible conduct. We are explaining our understanding of sustainability and presenting 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.

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 sub-chapter 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 and the company's sustainability goals.

### External assurance by auditor

Selected content of EEW Energy from Waste GmbH's Sustainability Report 2019 were verified by the independent auditor Ernst & Young in accordance with the International Standard on Assurance Engagements (ISAE) 3000 revised Standard ("limited assurance"). The verified information is indicated accordingly with  in the text of the report as well as in the overview of key figures.

### Use of the GRI reporting standards

This report was prepared in accordance with the GRI Standards (Core option). For reasons of clarity, the references to the GRI disclosures are displayed under the headings and pertain to the text that follows. The information provid-

ed relates to the 2019 financial year (1 January 2019 to 31 December 2019) 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 home page.

# Foreword by the Board of Management

## GRI 102-14

In December 2019, the European Union presented its “Green Deal”, in which it formulated clear sustainability targets: by 2030, the EU wants to reduce CO<sub>2</sub> emissions by at least 50 per cent compared with 1990 levels. The EU then wants to achieve complete climate neutrality as of 2050. The circular economy has already proven that it offers great potential to reduce carbon emissions. This is achieved through more efficient use of resources, which then enables further goals to be reached.

As we work towards increasing climate protection and resource conservation, the waste management sector has an important role to play. Since 1990, the EU-wide sector has already saved more than 100 million tonnes of greenhouse gas emissions, representing a reduction in total emissions of more than 42 per cent compared with baseline 1990. Improved flue gas cleaning and the avoidance of landfill gas emissions were significant contributors to this abatement. Moreover, the waste management sector contributes to climate protection and resource conservation because it replaces consumption of fossil fuels such as coal and recovers valuable raw materials, such as metals, from the bottom ash.

As Germany’s leading producer of electricity and heat from thermal waste recovery, we want to offer sustainable solutions to the global and national challenges related to the protection of our climate and resources – and support the EU’s journey to climate neutrality. Our vision

is to further expand EEW’s position as a leading company in resource conservation and the sustainable supply of energy for industry and households in Europe. As an indispensable part of the circular economy, we want to reduce climate impact and protect our environment as well as human and animal health. This is why we invest time and resources in low-emission technologies to reduce CO<sub>2</sub> emissions.

In 2018 we therefore began strategically embedding the topic of sustainability within our organisation. To serve as a guide for our actions and decisions, we developed an overarching sustainability strategy and implemented it within the company. With this as our foundation, we follow a clear mission: by deploying sustainable and state-of-the-art treatment methods that yield positive effects for the environment, society and our company, and by tapping the opportunities offered by digitalisation to further accelerate this process, we provide climate-friendly energy in the form of process steam, district heating and electricity. We permanently dispose of hazardous pollutants, reduce our own emissions to an efficient minimum and conserve primary energy resources. We recycle the raw materials contained in waste and recover metals and construction materials from the combustion residues. In the sewage sludge mono-incineration plants we are currently constructing, we will also recover the valuable resource phosphorus and return it to circulation.

As we forge ahead into the future, we act in accordance with binding values. As a responsible employer, we live a culture of mutual trust within our company. We foster talented young employees and make occupational health and safety our top priority. As a player in society, we strengthen the ongoing dialogue with our stakeholders and promote knowledge sharing within the industry.

Our sustainability mission statement continues to be based on our three defined areas of action – “strengthening relationships”, “taking on challenges” and “delivering results” – where we make a specific contribution to sustainable development. We are committed to the 17 UN Sustainable Development Goals (SDGs). To enhance alignment with these goals, in a strategy process we identified targets for each area of action and underpinned these with specific measures, which we are now implementing step by step.

In our second Sustainability Report, we want to disclose openly and transparently the steps we launched and implemented in 2019 as part of our continuous improvement process, the progress we have made thus far and the challenges we still face.

We strive to progressively improve our performance in the above-mentioned areas of action and, as the market leader in energy from waste, to take the lead for a sustainable future. With new ideas and innovative approaches, we want

to continue delivering results and improving our performance in 2020. Through regular and transparent sustainability reporting about our goals, measures and progress, we also want to strengthen the trust that our employees, our customers and business partners, policymakers, the media and the public have in our company and our field of business.

We encourage you to see this second EEW Sustainability Report as a starting point for further dialogue. Dear readers, your feedback – including and especially the critical feedback – helps us to move closer to our goals. We hope you will find this report informative, and we look forward to exchanging ideas with you.



**Markus Hauck**  
Chief Financial Officer (CFO)  
Member of the Management Board

**Bernard M. Kemper**  
Chief Executive Officer (CEO)  
Chairman of the Management Board

**Dr Joachim Manns**  
Chief Operating Officer (COO)  
Member of the Management Board<sup>1</sup>

<sup>1</sup> On October 1, 2020, the long-time COO Karl-Heinz Müller was adopted and his successor Dr. Joachim Manns was welcomed to the EEW management.

# Embedding sustainability



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## Company portrait

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

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

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.

We currently operate 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 15.9 per cent (as measured by technical plant capacity), we are the market leader in Germany. As the only operator of an 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. We have a total of 1,134 employees at our headquarters in Helmstedt and across all of 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:

- thermal recovery of 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 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 740,000 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 grate ash) 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 removes pollutants from the flue gas to prevent them from entering the environment. In an environmentally sound recovery process, EEW uses fly ash and filter dust as backfilling material in mines.

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 existing EEW sites in particular, this is resulting in beneficial synergies with present EFW plants.

With our current 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 sites



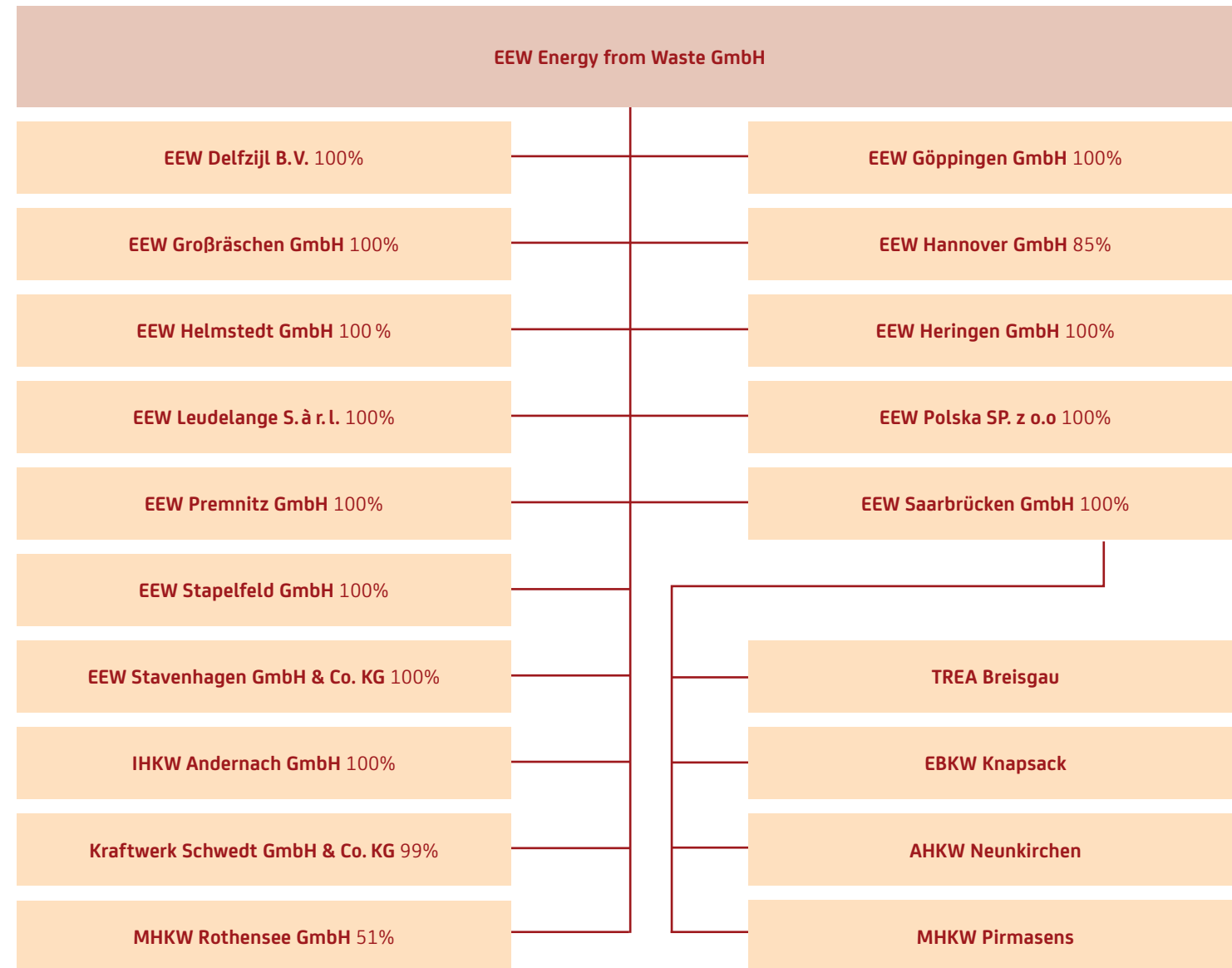
### Our corporate structure

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 the Chinese company Beijing Enterprises Holdings Limited (BEHL).

## Overview of the ownership structure of EEW Energy from Waste GmbH



## 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.

### Our materiality analysis: finding the key topics

A core element of our process to strategically implement sustainability was a comprehensive materiality analysis carried out with the involvement of stakeholders. Identifying the material sustainability topics was the prerequisite for setting the right priorities in our day-to-day work and our reporting.

We started the process in June 2018 with a comprehensive context analysis. From our own perspective, we identified 22 potentially relevant topics relating to the areas of business, environment, employees and society, along with global challenges.

In the first step of the materiality analysis, we asked selected external stakeholders to assess the relevance of these 22 topics. Moreover, we wanted to know how the stakeholders viewed EEW in relation to these topics. To this end, in July and August 2018 we surveyed customers, local suppliers, and representatives from lo-

cal authorities, politics, associations and trade unions. The individuals selected represented a cross-section of EEW's stakeholder universe. Furthermore, they all had a high level of expertise in their respective fields. In telephone interviews, the stakeholders provided a qualitative assessment of the topics. In addition, quantitative results were collected via a digital evaluation form.

Subsequently, an impact assessment from EEW's perspective was carried out as a second step. At in-house workshops, employees from relevant departments assessed from their personal viewpoint how much of an economic, environmental and social impact EEW's actions have in relation to the given topics.

In a third step, the results of the stakeholder survey and the impact assessment were combined in a materiality matrix. A graphic representation of the materiality matrix and an overview of the key topics can be found in the EEW Sustainability Report 2018 on pages 12 and 13.

Based on the results of the materiality analysis, the key themes were grouped according to three specific areas of action related to EEW's expertise: "strengthening relationships", "taking on challenges" and "delivering results". From these, we then derived thematic focus areas, such as "developing partnerships", "efficiently managing resources" and "advancing environmental protection through innovative solutions".



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

Based on the three 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. We set out deadlines for achieving these goals and which measures will be used to reach them. To ensure efficient management, 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. We report on our progress regularly and transparently.

**Our mission statement: the common thread guiding our 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 waste management industry. 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



“We must make full use of all opportunities to live and conduct business sustainably. This requires entrepreneurial engagement, openness to new technologies and willingness to think outside the box. This is something we will also continue to work on in future.”

**Jürgen Rau** Chairman of the Supervisory Board

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 Energy from Waste 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 strength-

en regional infrastructure and promote cooperation with local suppliers.

- We engage in regular open dialogues with all relevant stakeholder groups in order to take into account external expectations, 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 OHSAS 18001 (occupational safety). All management systems are based on the control cycle using the plan-do-check-act (PDCA) principle.



# 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

A steering committee was established in 2019 to coordinate the sustainability activities across all departments. This central body is made up of a representative each from the Chairmanship,

the Finance department, and the Technology department, and representatives from 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.

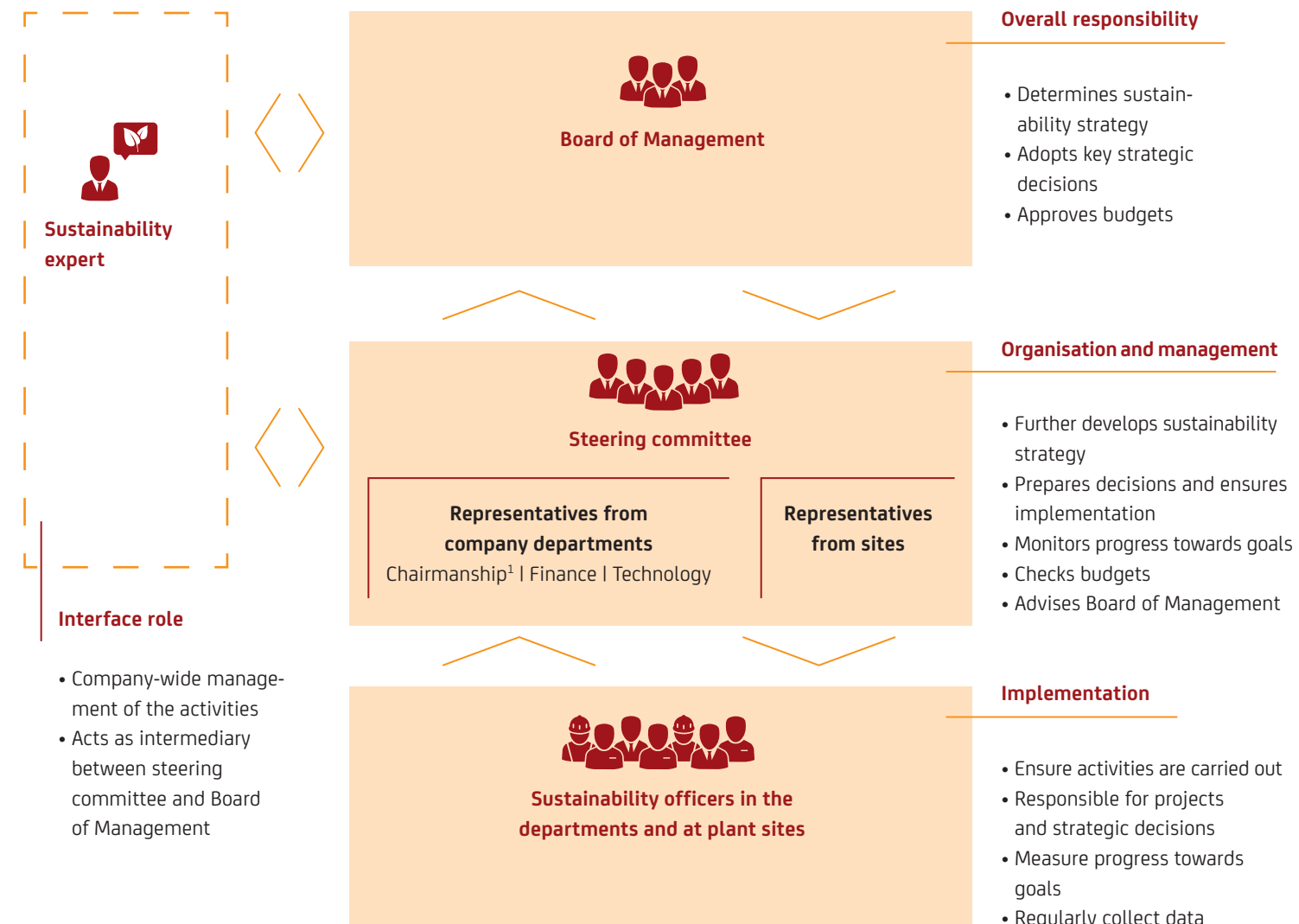
The newly created position of sustainability expert serves as an intermediary between the steering committee and the Board of Management. We advertised this position in 2019 and filled the role in 2020. The sustainability expert is responsible for the company-wide management of sustainability activities 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 plant 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 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



<sup>1</sup> The chairmanship includes the departments of sales, corporate development, sewage sludge, law and communication.

# Strengthening relationships

“EEW is an attractive, forward-looking and reliable employer with a high level of employee satisfaction.”

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Unser Beitrag zu den SDGs:



More Information on p. 24 f.



More information on p. 18

## What guides us

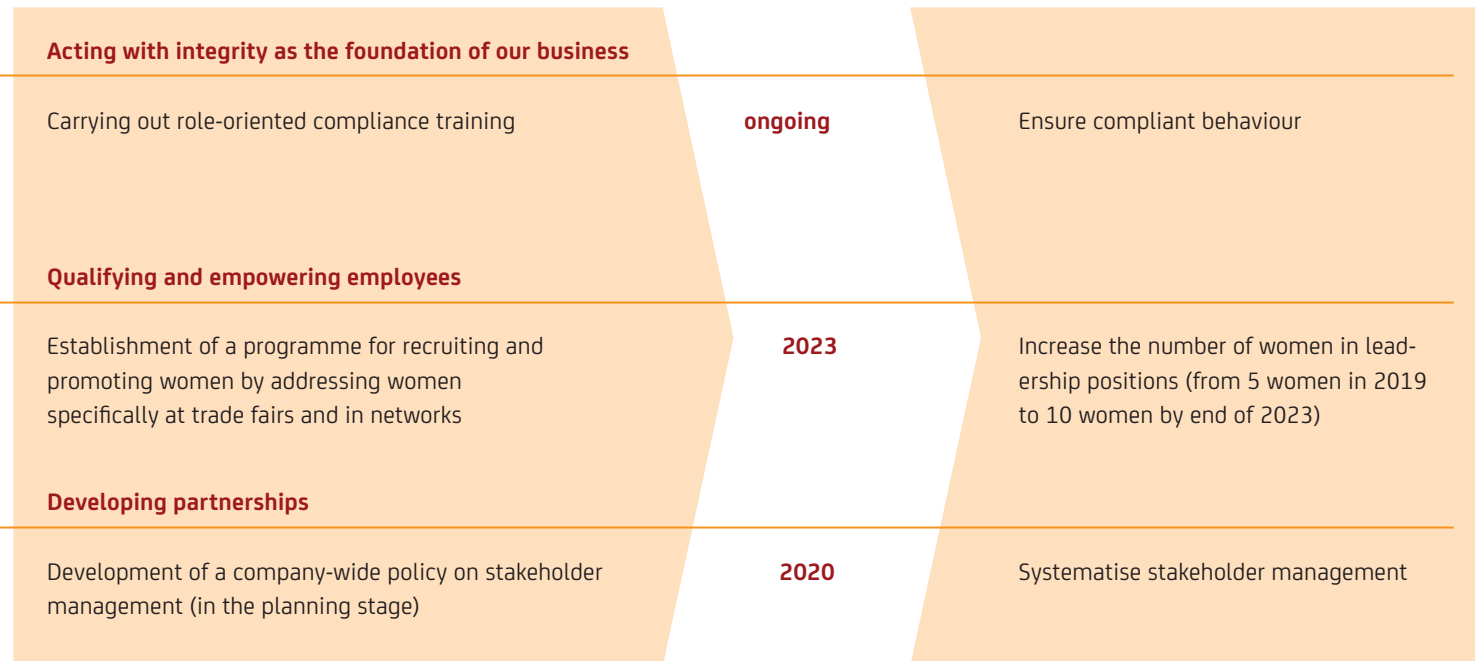
### GRI 103-1, 103-2, 103-3

As a company, we want to take the lead by **strengthening relationships**.

The foundation for successful business operations is acceptance from society, long-lasting customer relationships and qualified employees at our sites. We place a strong emphasis on fair and trusting collaboration based on compliance with existing laws as well as voluntary agreements. We expect this not only of ourselves, but also of our business partners and workforce.

Well-qualified, motivated and skilled employees are a key resource for us and we want to retain them at our company over the long term. Our aim is to be seen as an attractive employer that offers employees long-term job prospects, and will do so in the future, as well as a wide variety of vocational and further training. Furthermore, as a producing company, the topic of occupational health and safety is a top priority. We strive for excellent performance in this area, going beyond the legal minimum standards.

We are on the path to fulfilling this aspiration and strengthening relationships with customers, employees and suppliers for the long term. To do so, we have set ourselves specific goals against which we will measure our future performance.



## Acting with integrity as the foundation of our business ✓

### GRI 102-16, 103-1, 103-2, 103-3, 419-1

#### 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.

#### Acting with integrity, building trust

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.

EEW implements compliance throughout the company and thus in 2019 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, anti-trust 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.

#### Averting risks: our compliance management system

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 com-

pliant behaviour and competition law. In this way, 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 established 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.

EEW is not aware of any compliance infringements in the reporting period. There were no significant fines or non-monetary penalties imposed on EEW in 2019 for non-compliance with existing laws and regulations. A small number of hearings are currently being conducted in relation to possible rule violations in 2019. The compliance-relevant issue is that waste was improperly managed over a longer period of time, which led to measures under employment law in 2020.

An important basic instrument for meeting all the statutory requirements is our internal compliance management system (CMS). It is applied

at all administration and plant sites 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 company and legal regulations. The Board of Management is

specific topics: occupational health and safety; environment, energy and quality policy; internal audits and the integrated HSEQ (health, safety, environment and quality) 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

#### **Ensuring compliance: implemented measures and mechanisms**

As a key element of good corporate management, compliance is a continuous process: not only can laws and framework conditions change; we also want to ensure ongoing 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, which are reviewed regularly. Upon joining the company, all employees are made aware of lawful conduct via their employment contracts. As part of our online learning offerings, we also educate employees with respect to certain aspects of legally compliant conduct. In 2019, for example, more than 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. The training focuses on how to deal with potential risks which apply especially to these departments but can have effects on the entire company.

Infringements of statutory regulations or internal rules can be anonymously reported via the internal whistle-blower 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, the matter is investigated by the head of the unit responsible along with the Legal department. 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 mo-

ment, the projects relevant to us include Germany’s upcoming umbrella ordinance introducing a substitute building materials ordinance, the 17th ordinance implementing the Federal Immission Control Act (17. BImSchV) and the ordinance on facilities for handling substances that are hazardous to water (AwSV). EEW also consistently monitors other 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. These exchanges are very important to EEW and are continually being intensified.



“For EQT, sustainability is an important criterion for investment decisions. The topic of sustainability has become an integral component of our business model and was one of the reasons for our investment in EEW.”

**Matthias Fackler** Partner EQT

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.

EEW’s own Compliance Directive stipulates that compliance with all statutory requirements is mandatory. As the overarching norm of behaviour, it represents the main guidance for the conduct and decision-making of all employees at the company. The Directive is complemented by internal norms of behaviour for the following

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.



# Qualifying and empowering employees

GRI 103-1, 103-2, 103-3

## Employment

EEW recruits and retains skilled employees by offering attractive employment conditions. We ensure a high level of employee satisfaction and thereby keep our staff turnover rate low.

## 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 health and safety

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

## 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).

## Enhancing employer attractiveness, offering long-term employment prospects

Qualified and committed employees are the foundation of our company's long-term success. We 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.

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 the revision of the corporate strategy in 2019, we will use this as a foundation for redefining our human resources strategy as well in 2020. To this end, we aim for a close internal coordination process with 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 revision of the human resources strategy, we will build on previous developments. In 2019 our human resources work 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 systematically set up 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 make sure that they comply with our desired 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.

## 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. As such, EEW is certified according to OHSAS 18001, a management system for occupational health and safety which primarily serves to reduce accidents and minimise lost time. In future, EEW would like to switch from OHSAS 18001 to ISO 45001, a new standard which offers the opportunity to harmonise our strategic alignment with the occupational and health management system. Intensive preparations for this took place in 2019.

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

HSEQ (health, safety, environment and quality) 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 RESHQ (Residual Materials, Environment, Safety, Health & Quality) 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 2020, 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. To this end, we will systematically collect and maintain records of vocational training data and qualifications, internal career paths and history of further training.

In addition to the management instruments, we have identified clear responsibilities. As a central function, the Human Resources Management department reports to the Chairman of the Board of Management. It is made up of the teams Human Resources Business Partner, Personnel Development and Training as well as Personnel 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 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 by the plant sites.

The employees at our plant sites must actively integrate occupational health and safety into their daily work. It is therefore important not only to provide them with information, but also to incorporate their experiences and feedback. At EEW, this takes place at all sites via employer-employee committees. These provide support especially in the monitoring of occupational health as well as safety programmes and offer consultation in these areas. 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 are also represented at the occupational safety committee meetings that take place each quarter at all our

sites. 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 variety 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. Furthermore, there is a working group for vocational and further training, new technologies and digitalisation as well as meetings of the technical directors and plant managers at our sites with the central Technology department as well as meetings of production managers and maintenance managers. In the second quarter of 2019 we conducted an employee survey at our

headquarters in Helmstedt to assess the mood and potential improvements. The overall results of the survey were positive. Nearly 95 per cent of employees said they like working at EEW and the esteem and cooperation in the teams were assessed positively. But, of course, the survey also revealed some points of criticism. One example is that nearly half of employees would like more flexible working. In addition, the cross-divisional dialogue and the communication of the company as a whole vis-à-vis employees were rated as being in need of improvement. Based on the results of the survey, EEW determined where optimisation is required and has already developed the corresponding measures. For example, specific programmes are planned to optimise communication and information as well as further increase employer attractiveness.

In addition to the improvement measures the company devises, we would also like to collect and implement good suggestions from our employees. To this end, 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, or achieve greater customer satisfaction. In this way, everyone contributes to a continuous process of improvement in the company. Ideas management at EEW is regulated by a new central works agreement on ideas management, which entered into force in April 2019.

#### Vocational and further training

We want our employees to be able to pursue continuous personal development and expand their skills. We give them regular feedback on their performance in employee appraisals and we jointly consider in which areas further training measures would make sense. 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 are also currently planning a customised programme at the foreman/shift manager level for our plants. In addition, we have established a special development programme for young engineers in order to fill vacant leadership positions.

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 education landscape and strengthens EEW’s position as an attractive employer.



“Occupational safety is the top priority at EEW because nothing is more important than the health of our employees. With measures such as the campaign promoting hand and finger safety, we put a focus on preventing occupational accidents and on hazards in the workplace.”

Uwe Jolas Technical Managing Director TREA Breisgau

#### Occupational health and safety

At our plant sites, we make a great effort to raise employees’ awareness of occupational health and safety. For example, safety inspections are mandatory and first responders are trained in first-aid courses. Flyers, posters and our instructional film on occupational safety educate employees about potential hazards and show preventive measures. Employees from partner firms are also instructed to learn this information. There is at least one safety specialist at each site. Until now, EEW has provided the safety experts with training and continuing education as required. We are currently preparing specific further training for safety officers, with the aim of maintaining a consistently high level of occupational health and safety.

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 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, based on specific criteria, including the number of workplace accidents and the performance of risk assessments. In 2019 the award went to the TREA Breisgau site in Eschbach. When selecting external and partner firms, we also take into account adherence to occupational safety standards 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 are in fact guaranteed and complied with.

#### 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, 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.

# Developing partnerships

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

## 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 into account the supplier's labour and production conditions.

## Customers

Solid and trusting customer relationships are an important foundation for our economic success. We openly communicate with our customers, maintain personal contacts, 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, providing jobs and through regional environmental protection.

## Partnerships

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

## Engaging stakeholders, safeguarding the company's long-term success

Our plant operations and the associated transformation of the energy contained in waste into heat, power and steam have effects on the environment and touch on 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.

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 accord 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 leader 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 the cooperation with certain suppliers, the Board of Management is involved.

## 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. These are 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 ability to anonymously report 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 can 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. In 2019, we expanded the portal with additional functions, which enable an even more differentiated evaluation, for example by allowing more room for reasons and improving the user guidance. Moreover, we train our employees how to correctly use the evaluation portal. This has further improved the quality of the individual evaluations. By the end of 2019, around 1,800 qualified supplier evaluations were carried out in our 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 efficiency factor, 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 2019 the suppliers contracted for around 26 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 satis-





“EEW’s sustainable business success absolutely depends on trust and how we interact with others. We therefore want to continue investing in our relationships with customers and business partners and foster trusting long-term collaboration.”

**Stefan Visser** Head of Sales

fied and want to continue working with EEW. To ensure this, we quantitatively and qualitatively measure customer satisfaction using customer satisfaction surveys. The most recent survey took place in the fourth quarter of 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. The system is slated to start up in 2020. In the customer portal, customers will be able to access all of their delivery data and contact the sales department online. Other elements, such as an online shop, will follow. Following the launch of the portal, we want to carry out our next customer survey to solicit initial feedback and additional suggestions. Moreover, our sales team receives valuable feedback during customer meetings. On this basis, we had the idea in 2018 to launch partner dialogue events. In 2019 we invited our customers for the first time to four events, in Kassel, Stuttgart, Hanover and Berlin, where we discussed selected topics.

#### Local communities

We are an actor in the economy and society in the host communities of our plants and we contribute to regional development. We engage in dialogue with the local communities and strengthen trust in our business operations. At all plant sites, we regularly invite local residents to an open day. During information events and public hearings, we talk with citizens and explain our planned projects, such as in Stapelfeld. In this way, we involve the local community in the development of the site and increase social acceptance in the area. 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 also offering solutions to implement the new legal framework for sustainable sewage sludge recovery. The company therefore involved Stapelfeld residents at an early stage. At information and discussion events, EEW provided extensive information about the plans and answered ques-

tions about, for example, air pollution control. Furthermore, the company has a website (in German only) to provide up-to-date information ([www.energie-zukunft-stapelfeld.de](http://www.energie-zukunft-stapelfeld.de)). At the Premnitz site, we also invited nearby residents and interested members of the public to two events in 2018 about the planned replacement investment, where we took in their concerns. In Stavenhagen, where we plan to build a sewage sludge incineration plant, we also hosted information events in 2019 where we engaged in dialogue with local policymakers and citizens and also answered critical questions.

#### Partnerships

On a company-wide level, we interact with policymakers, in industry and specialist associations, and through cooperative partnerships with research facilities, such as the Technical University of 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.

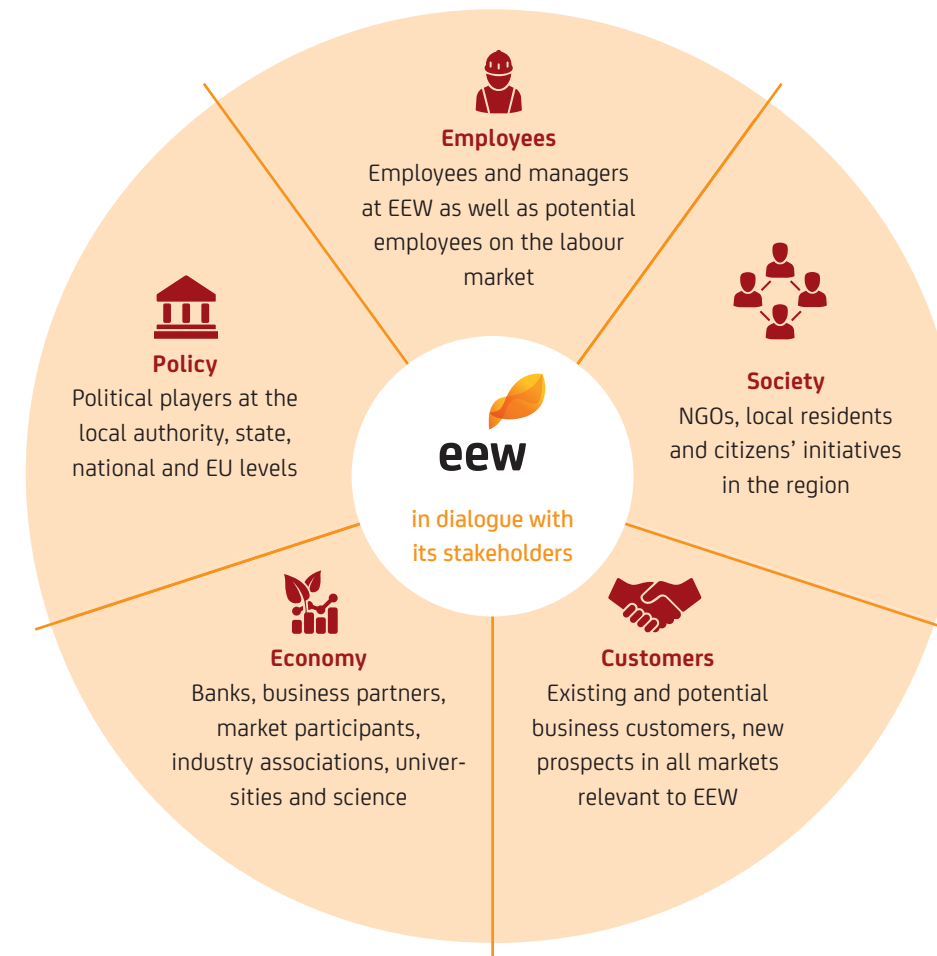
We launched the “Dialogforum.Zukunft” event format in autumn 2018, establishing a platform in Berlin where representatives from politics, science and business can regularly meet for informal discussions of current topics relating to the circular economy. With Dialogforum, we want to contribute to a better understanding of efficient and sustainable intermeshing of the environment, economy and society.

The inaugural “Dialogforum.Zukunft” was dedicated to the circular economy. In 2019 we continued the event series with a discussion in

May about the topic “Reclamation and recovery of carbon dioxide as a potential contributor to climate protection”. The participants in the podium discussion were Dr Barbara Olfe-Kräutlein from the Institute for Advanced Sustainability Studies (IASS Potsdam), Thomas Görden from Covestro AG and David Pappie from the Netherlands Ministry of Economic Affairs.

We hosted a further Dialogforum in September 2019 with “Circular economy in a globalised world: a viable model for the future?” as the topic in focus. Our guest was one of the most well-known researchers in the circular economy field, Dr Patrick Schröder, Senior Research Fellow at Chatham House London.

Together with the German Waste Management Association (DGAW), we organised and put on events in 2019 relating to the topic “regional sewage sludge recovery and phosphorus recovery”. In this way, we helped to provide information about a topic that is especially pertinent to local authorities in light of the revised Sewage Sludge Ordinance.



# Taking on challenges

“EEW uses the best available technologies for its own processes and plants and continuously optimises the use of BAT.”

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Finding answers to global megatrends

Unser Beitrag zu den SDGs:



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More information on p. 33 ff.



More information on p. 42 f.

# What guides us

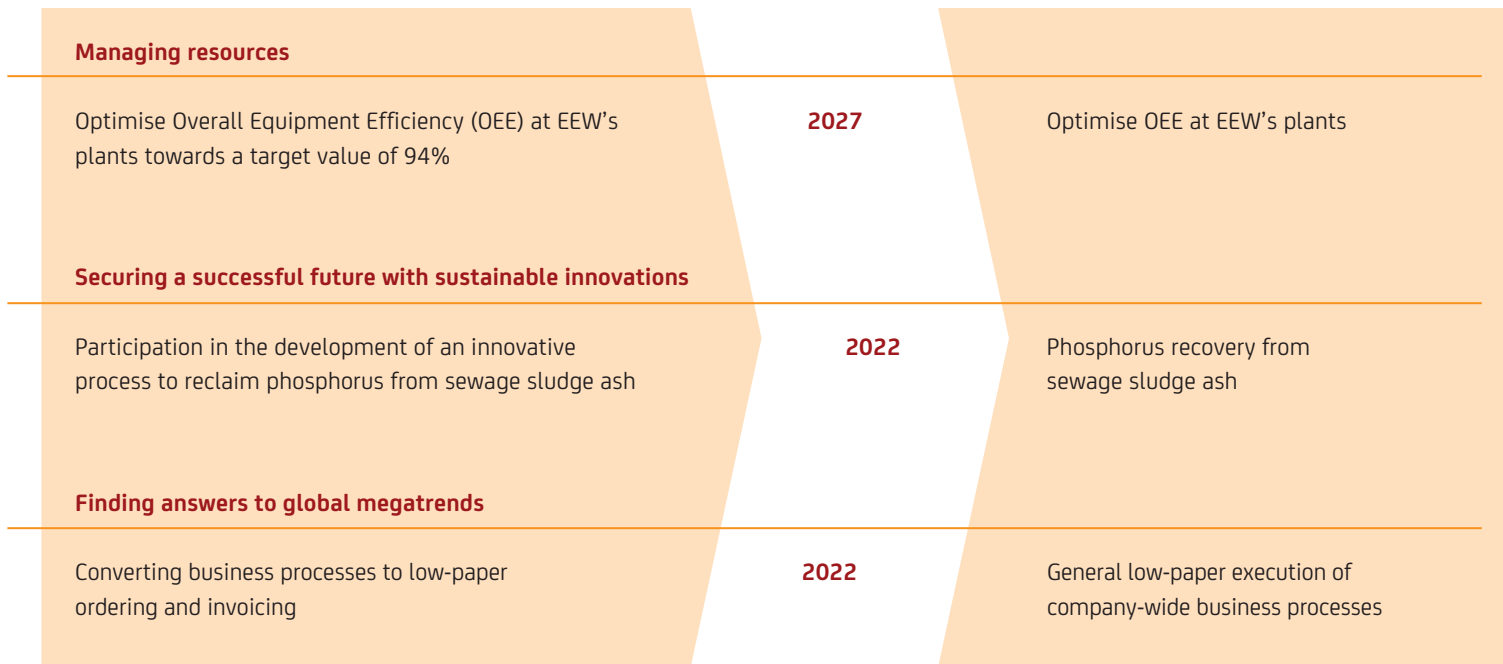
GRI 103-1, 103-2, 103-3

As a company, we want to take the lead by **taking on challenges.**

Our business operations are and will be subject to constantly changing underlying conditions, such as ongoing climate change, the energy transition, the limited availability of resources and the digital transformation. We are addressing the associated challenges and pushing sustainable innovations that create added value for

our company and for society. In doing so, we pay particular attention to the input side of our business operations: we strive to continuously improve energy efficiency and to responsibly use natural resources in our own processes. Moreover, we are reliant on dependable supplies from local suppliers and we therefore foster fair and long-term partnerships in the region.

We are on the path to fulfilling this aspiration and taking on challenges related to efficient resource management and global mega trends. To do so, we have set ourselves specific goals against which we will measure our future performance.



# Efficiently managing resources

GRI 103-1, 103-2, 103-3

### 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.

### Lowering resource consumption, increasing energy efficiency

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 naturally also 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.

### 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 2019, our OEE exceeded the planning value. By 2027 we want to have increased the time availability in defined steps and thus raised 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.

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. Compared with 2018, in 2019 we were able to minimise the consumption of heating oil – one of our benchmark KPIs – both in absolute terms in litres and specifically in litres per tonne of waste. We were able to achieve this because we had even fewer unscheduled plant shutdowns. As a result, the heating oil burner, which is mainly needed for the start-up process, was not used as often. The second benchmark KPI for energy is our own specific demand for electrical power in kWh per throughput. This matched the planning value in 2019.

### 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 our operations. Clear internal structures and management instruments support us in doing this. The basis for this is our environmental management system ISO 14001 and the energy management system ISO 50001, supplemented by EEW's various in-house norms



“EEW is committed to conserving resources and recovering materials from our residues. High-quality recycling and the use of bottom ash and filter dust from our plants as secondary raw materials are therefore an important part of a true circular economy.”

**Michael Larisch**  
Head of RESHQ department

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 reduce operating materials.

When doing so, we measure our progress 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 Technol-

ogy department also presents key figures to the Board of Management. These provide information about the overall equipment effectiveness 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.

The EEW Performance Award has been given annually since 2015. Presented during the corporate executive retreat, it honours the year’s best plants for their innovative achievements. The award takes into account the maintenance and investment costs per tonne of waste throughput, the overall equipment effectiveness (OEE) and the downtime frequency per line at the plants. For each of these three criteria, the plants are ranked between one and 17. A plant’s overall rank is calculated as the mean of these three ranking positions. In 2019, the award was once again presented to the Hanover site.

Moreover, we believe that clearly defined responsibilities are a key prerequisite for achiev-

ing 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.

The biogenic proportion of the fuel input is considered a renewable source of energy. It is determined based on the monthly statistics collected on the various waste types and using the calculation rules established by the German Environment Agency. Accredited environmental verifiers assess and certify the calculation of this proportion each year for all of EEW’s plants in accordance with the German Renewable Energy Sources Act (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 re-starting 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 our administrative offices, 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. For example, we iden-

tified lighting as a cause of power consumption at all sites and we have switched over to LED light sources everywhere. At the Helmstedt plant site, this saved us around 100,000 kWh of electrical energy in 2018. In addition, the IT infrastructure in Helmstedt requires a considerable amount 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. Further measures to reduce energy consumption are being planned. We also want to equip the new building in Stapelfeld with a photovoltaic installation and the permitting process for this is currently underway.

In addition, we continuously identify optimisation potential at our plants in order to further reduce our own demand for energy. For example, by lowering the pressurised air level at the Andernach plant in 2019, we were able to re-

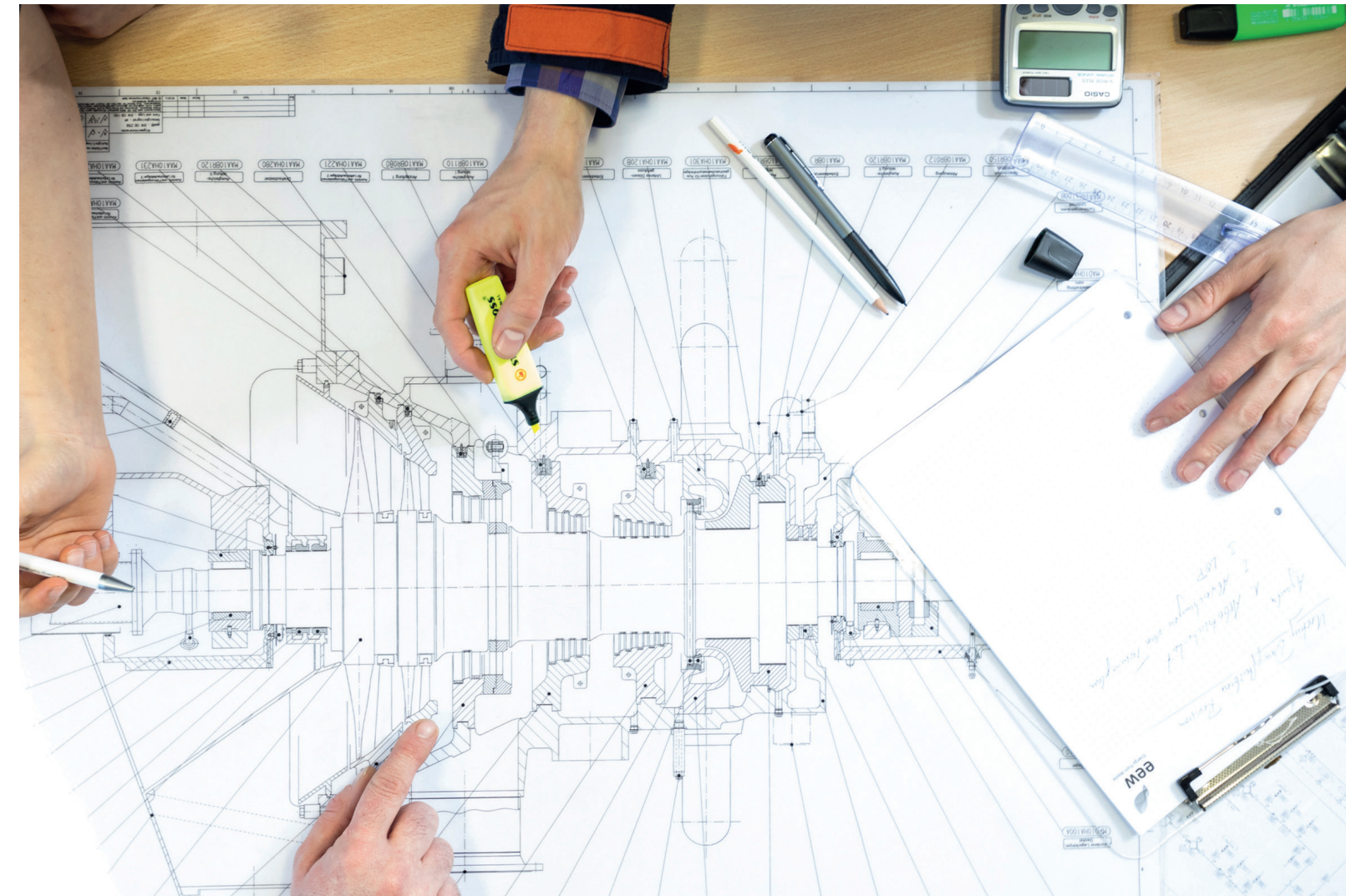


“I see the construction of the first sewage sludge mono-incineration plant in Helmstedt, a site with a long energy tradition, as an important pillar of resource conservation. A plant like this can supply the high-purity mono-incineration ash that is needed for the technically complex process of phosphorus recycling.”

**Guido Lückner** Technical Managing Director TRV Buschhaus

duce our auxiliary consumption of electrical energy used to produce pressurised air by around 50 MWh, which ultimately enabled us to convert more steam into electricity, thus increasing efficiency and revenues. We also realised energy-savings potential at the TREA Breisgau site. We installed an infrasound acoustic cleaning system here to remove soot from the catalyst, which saves around 100,000 cubic metres of compressed air annually at the site and contributes to increasing the efficiency of electricity generation in the long term.

In 2019, in addition to our Hanover site, our Göppingen plant was also connected to a new district heating pipeline, which increased the efficiency level. This project reduced the calculated heat loss and consequently resulted in energy savings.



# Securing a successful future with sustainable innovations

GRI 103-1, 103-2, 103-3

## Innovations

EEW sees sustainable innovations as an important key for the energy transition as well as for resource and environmental protection. We therefore continuously work on optimising our plant operations, and we invest in the development of new products and technologies.

## Developing sustainable innovations, advancing resource protection

EEW has transformed conventional waste incineration 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. With a view to 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 to create added value for the company, society and the environment.

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

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. They see future innovation potential in particular in carbon capture and utilisation (CCU). We will take into account the expectations of our shareholders in our future endeavours and continue to work on new innovation projects, such as electricity storage facilities, entering into the production of hydrogen, and e-fuels. We also aim to develop further products tailored to our customers as well as new production methods. And we want to tap new national markets and utilise and reclaim new resources.

In all projects, we act with foresight and consider the potential future developments relating to climate protection, such as the upcoming phase-out of coal power and political efforts to make non-climate-neutral carbon emissions more expensive. We want to contribute to Germany achieving its goal of a 55 per cent reduction in greenhouse gas emissions by 2030 compared to 1990 levels. Sewage sludge incineration, for example, is an area where we are currently planning 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.

## Managing innovation development: responsibilities and coordination

How much potential do technical and nontechnical innovations offer? How can these contribute to sustainable development? We get answers to these questions by identifying and implementing innovation potential.

Innovation management at EEW is primarily the responsibility of the Business Development department, in close coordination with the Technology department. It has the task of recognising technical and organisational innovation potential, evaluating this potential and initiating projects. 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, project teams are created that include representatives from all relevant departments. The appointed project lead is responsible for managing the project in close coordination with the Board of Management. At periodic project meetings, all of the participants discuss the status quo and the next steps. As part of an information process, the status of innovation development is regularly measured and assessed. Furthermore, depending on the project, the Business Development department regularly coordinates with the Board of Management.



“Thermal waste recovery is the cornerstone of a sustainable circular and resource economy. Without it, there can be no high-value recycling, no pollutant sinks, no hygienisation and no solution for new materials that are not (yet) recyclable. By using the energy released from waste, we contribute to the energy transition.”

Thomas Obermeier Head of Business Development department

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 CIP is to ensure that processes are as stable as possible and optimised for value creation in order to achieve resource-efficient and smooth production flows. At EEW, the focus is on building and expanding competencies which help us have the ability to recognise and implement potential improvements. The company's suggestion management also actively utilises the involvement and ideas of our employees. This system was redesigned from the ground up in 2019, so a nearly paper-free digital manage-

ment platform will be available as of 2020 for the collection, assessment and implementation of ideas.

## Shaping the future: strategies, projects, research

As the market leader, we operate the most energy from waste (EfW) plants in Germany. With state-of-the-art technology, our plants also serve as reference models for EfW facilities in other European countries and in Asia. Our plants have the ability to make the best possible use of the energy potential of waste. 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

air pollution control. 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. For example, in 2019 we started using a carbon dioxide reduction process in existing and new flue gas cleaning facilities and initiated carbon capture from flue gas and its subsequent utilisation (CCU). Moreover, for the new plant in Stapelfeld, the flue gas cleaning process based on sodium hydrogen carbonate was refined.

In 2019 we also started to implement and apply the stricter standards contained in the European Union's Best Available Techniques (BAT) Reference Document for Waste Incineration (BREF WI).

To securely dispose of landfill leachate, EEW developed a patented process that enables water containing hazardous substances to be co-combusted in the waste boiler, thereby destroying the hazardous components. This process was granted approval in 2019. This means we can now input and incinerate landfill leachate as well as ammonia-containing effluent and condensate in the boiler at our Hanover plant. We are currently testing the same process in Helmstedt. We will then decide whether it will be rolled out to other sites.

Eliminating pollutants is also necessary in sewage sludge drying because the drying process results in exhaust vapour – exhaust air which is saturated with water vapour and contains hazardous substances. This is usually condensed for heat utilisation. To treat this condensate

“In order to fully close material loops, we must take an even closer look at the entire life cycle and the entire value chain of products. This is about reshaping the economy, moving from the linear use of resources to a circular economy. Thus, as early as the product development stage, it is necessary to ensure that products are designed in a way that enables the material reuse and recycling of resources to the greatest extent possible. Because it acts as a sink for materials and substances that need to be sequestered, thermal waste recovery is an important component of the circular economy.”



**Michael Wiener** CEO, DSD – Duales System Holding GmbH & Co. KG

from sewage sludge drying, EEW is designing a reference model.

A further step towards plant optimisation is the monitoring of process quality, which we implemented in 2019. It allows better assessment of the soot build-up in the boiler, enabling more ef-

ficient planning of online cleaning processes. It is used at the Hanover site, among others. EEW also continues to work with an industry partner on a process to detect impurities in the waste bunker using specialised sensor technology.

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 (Abf-KlärV) contains extensive provisions on the reclamation of phosphorus from sewage sludge and sewage sludge incineration ash, which are 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 removed by the air pollution control equipment. 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 eventually expand and further develop this innovative sewage sludge recovery at its Stapelfeld, Stavenhagen and Delfzijl sites. 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).

As a company whose business model is based on thermal waste recovery, we are intensively

investigating the pioneering topic of carbon capture and utilisation. After all, CO<sub>2</sub> can be more than a waste product 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<sub>2</sub> contained in the flue gas from waste combustion available as a raw material that can be used by industry. Our current agenda includes feasibility studies for appropriate sites, pre-planning for the establishment of a large-scale pilot plant, the analysis of funding opportunities and, finally, the conclusion of preliminary contracts with selected partners. On this basis, EEW decided in 2019 to start a pilot project at the Delfzijl site. The

specific project plan will be developed in 2020 and commissioning is envisaged for 2023/24. Besides implementing our own projects, we engage in ongoing dialogue with researchers, industry and policymakers about the potential of CO<sub>2</sub> as a raw material as well as about the current state of development of CCU 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. Currently, the main focus areas are further reutilisation of bottom ash (grate ash) as well as alternative recovery options for ash, depollution and the composition of filter dust. For exam-

ple, EEW supports a start-up that is carrying out research in this area in collaboration with a university. In particular, the question of alternative recovery or management options for filter dust is becoming more of a focus for EEW because recovery via backfilling mines is reaching its economic limits and is not unconditionally accepted everywhere in Europe as recovery. 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 reutilising filter dust and bottom ash. To further advance this research, EEW is currently looking for additional cooperation partners.



# Finding answers to global megatrends

GRI 103-1, 103-2, 103-3

## 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 stuffs, paper and chemical industries, and into heat for local district heating networks used by consumers. In this way, we reduce CO<sub>2</sub> emissions in the energy sector, business and industry as well as in private households and we contribute to decarbonisation.

## 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, we are evolving into a more agile and digital corporate culture and strengthening digital channels in our business and customer relationships.

## Addressing global challenges, forging new paths

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.

## 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 50 per cent lower than 1990 levels, energy efficiency should rise by 32.5 per cent and the share of renewable energies in the overall energy mix should be increased to 32 per cent. Germany aims to reduce its greenhouse gas emissions by 55 per cent by the year 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. 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. One way we do so is by using the waste heat given off by waste combustion and transporting it via district heating networks to consumers. Something that would otherwise be a waste product can therefore be used for heating homes and water. This enables savings of other fuels such as oil and gas – and therefore results in lower CO<sub>2</sub> emissions. EEW 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 gener-

ated from the proportion of organic combustibles.

With this decentralised climate-friendly heat supply, we therefore support consumers, cities and regions in transitioning to a sustainable heating supply and preparing for the planned phase-out of coal power. Overall, by generating energy from waste, we are helping to shape the energy transition in Germany. Furthermore, we contribute to reaching the Sustainable Development Goals (SDGs).

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. When looking at global waste arisings, China in particular shows a need for thermal waste recovery facilities. EEW was therefore once again represented at IE expo China in 2019 to share information about sustainable waste treatment methods – and thus support climate protection worldwide. In addition, EEW supports 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 replace 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 materials would enter the environment if the waste were improperly treated. In future, we are planning new product developments in the areas of residues, waste heat and flue gas to further increase the recovery rate and thus the protection of resources.

## 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 instru-

ments 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, as exemplified by the planned introduction of Microsoft 365 in 2020, and upgrading the skills of all our employees. In the coming years we will continue to advance our cultural transformation to a digital company. We are convinced that digitalisation safeguards our future. If we do not sufficiently utilise digital opportunities, they will become risks for our business.

In 2018 we developed a company-wide digitalisation strategy: EEW DIGITAL. In 2019 we also established an independent department, likewise called EEW DIGITAL, to further develop and implement this strategy.

Under the umbrella of EEW DIGITAL, 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. In the first 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 im-



proved – 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 and embedded in the corporate culture, and they 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. 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. Step by step, we are creating a corporate culture where we all bring EEW DIGITAL to life and make it a success.

We started the second phase of our digitalisation strategy in 2019 and established an independent programme organisation. We defined clear roles, assigned responsibilities and prepared budgets. 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: Chairmanship, Finance, Technology and Personnel Management. The agile interdisciplinary team jointly



“EEW’s young, systematically trained engineering team strengthens our ability to operate amidst changing conditions: thanks to feedback from our day-to-day experience of operating 31 units, we are able to continuously increase the technical performance of our plants and conserve valuable resources by monitoring our raw, operating and auxiliary materials. We utilise this know-how in a targeted way for both new-build projects as well as the further development of flue gas cleaning techniques.”

**Harm-Peter Büchner** Head of Technology department

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.

After creating a strong foundation with the programme organisation in 2019, we have already started to successfully implement some projects. One example is the launch of the “e-invoicing” project in 2019. The switch to electronic invoicing should save time and money, improve customer service and meet the requirements of EU Directive 2014/55/EU, which stipulates that as of November 2020 every invoice

sent to a public contracting authority under a public procurement contract must be issued electronically.

In addition, we started the “Intraday Trade” project in October 2019. This enables EEW to do trades on the electricity exchange more quickly – namely, every quarter of an hour – with the help of algorithms. One example of how we are implementing new ways of working is the “Free Space” project. This is the name of a 100-square-metre zone created in our Helmstedt headquarters which offers various seating and co-working spaces for creative and digital

collaboration and can be used flexibly by all employees.

These are just some of our first successfully launched projects. Over the course of 2020, we want EEW DIGITAL to become a firm fixture in the company and established as an independent department in the overall Group.



# Delivering results

“EEW contributes to reducing the global emissions footprint.”



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Unser Beitrag zu den SDGs:



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More information on p. 52 f.



More information on p. 54 f.

## What guides us

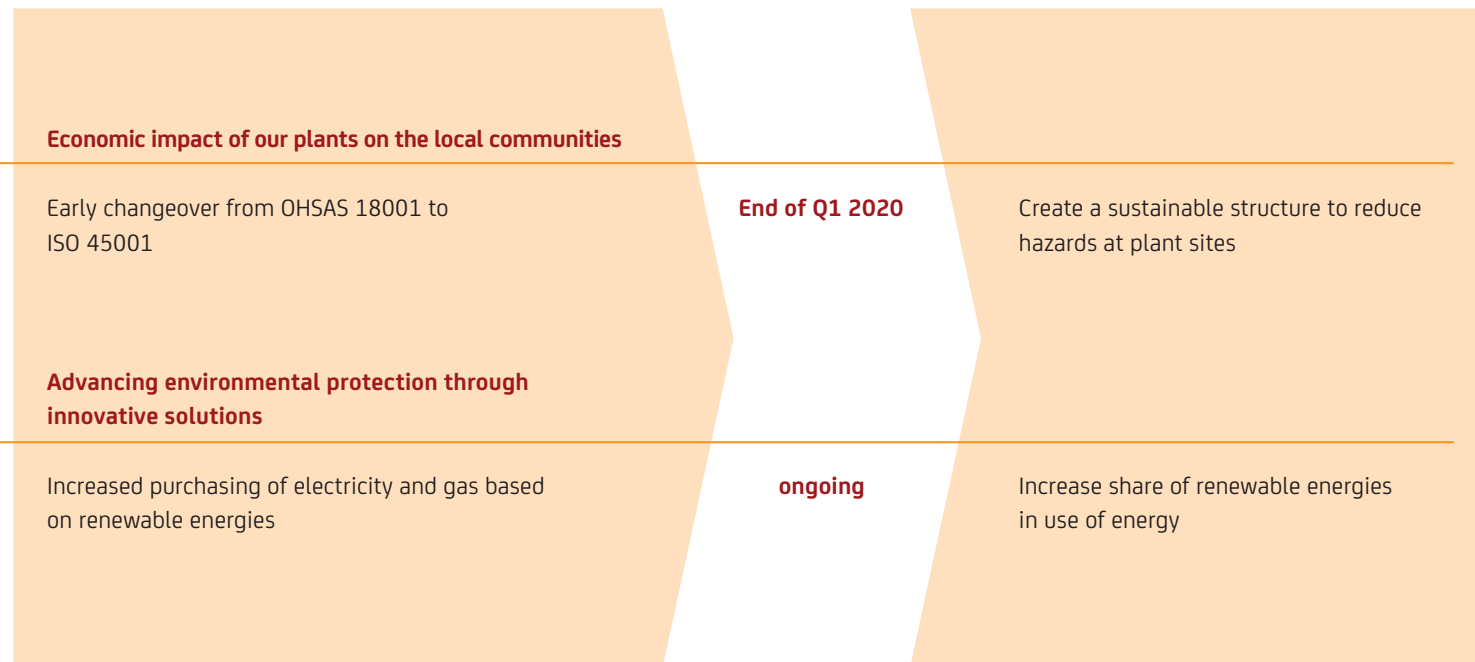
GRI 103-1, 103-2, 103-3

As a company, we want to take the lead by **delivering results.**

We are an economically strong player embedded in local communities. Our business operations contribute to added value for society and strengthen regional infrastructure, also in economically underdeveloped areas. We measure our performance based on concrete results, especially in relation to the pro-

vision of renewable energy and the recovery and recycling of valuable resources such as phosphorus. Moreover, with the help of the latest plant technology, we aim to reduce our own emissions to an efficient minimum level. With our plants, which can serve as baseload facilities, we produce electricity, heat and process steam and thereby also make an important contribution to long-term supply security for industry and society.

We are on the path to fulfilling this aspiration and living up to our responsibility, both as a local player as well as in the area of environmental protection. To do so, we have set ourselves specific goals against which we will measure our future performance.



## Economic impact of our plants on the local communities

GRI 103-1, 103-2, 103-3

### 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 the driving force for our company's success.

### Ensuring reliable waste management and energy supplies, strengthening regional infrastructure

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 following topics relating to the economic impact of our business operations.

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 possible changes in waste streams and intensify its communication of innovative developments at the 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 cost-stable waste management concepts for our customers. By consistently using state-of-the-art technologies, we also ensure a high degree of efficiency, availability and environmen-

tal protection. Short distances to the energy from waste (EfW) plants reduce transport costs and make a positive contribution to the region's environmental footprint.

By using the energy contained in waste, we guarantee a continuous and secure supply of energy for households, local authorities and industrial companies. We offer regional off-takers customised supply contracts that take into account their particular requirements. 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.

Since 2018 we have been involved in a new district heating project in Hanover, where the utility company enercity wants to produce half



“We identify, support and finance companies and organisations that make a positive impact on society. With its forward-looking projects, EEW is taking important steps towards resource recovery and climate protection.”

Christoph Hampl Managing Director UniCredit Bank AG

of the city's district heating from renewable energy sources by the year 2035. The use of heat from EEW's energy from waste plant will make a key contribution to this. In 2018 we signed the corresponding heat supply contract for a term of 20 years. After the end of the construction phase, in December 2019 deliveries of district heating started on a trial basis, and commercial operation is slated to start at the beginning of 2020. At the peak, EEW will provide a quarter of the total annual district heating sales of 1,200 GWh/a.

A further district heating project was agreed in 2019, so we will also be supplying the City of Brandenburg with district heating. The plan is to build a 20-kilometre-long district heating pipe from Premnitz to Brandenburg. This will enable the local utility (Stadtwerke) to replace the fossil natural gas used for heat production with climate-friendly energy supplied from EEW's Premnitz plant. Construction of the district heating pipeline is slated to begin in 2021. It is scheduled to be completed in 2022, and the supply of heat could start in 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: in Delfzijl, Premnitz, Helmstedt and Stapelfeld. In Göppingen and Neunkirchen, we will soon be able to accept more waste than before and more efficiently recover the energy that it contains. In Stapelfeld, for example, with the same throughput we will be able to extract approximately 227 GWhel instead of the previous 90 GWhel and we will also be able to increase our district heating extraction from 250 GWhth to 310 GWhth. As a locally anchored player, it is im-



“For years we have been supplying district heating to the local hospital, and this use of combined heat and power actively contributes to climate protection. Thanks to a newly laid district heating pipeline, the new hospital under construction will also have a supply of climate-friendly energy as of 2024.”

**Kai Störkel** Technical Managing Director Göppingen

portant 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 apply these. We proactively inform local residents at all sites about the planned changes and we transparently answer their questions. In Stapelfeld, we did this by hosting various public information events. These events were also the first time the EEW “infomobile” appeared as a publicly visible point of contact in the community, where we provided information about the new building project and offered a forum for dialogue with local residents.

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 awarding contracts to local suppliers. 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. Today, we already partially recover sewage sludge along with waste in our plants. With the planned construction of sewage sludge mono-incineration plants at existing EEW sites, there will also be environmentally and economically advantageous synergies with our EfW plants. Our investments will sustainably pay off, especially for local authorities that require sound solutions for sewage sludge treatment.

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 carefully observes the markets 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 develop-

ment projects. These include, for example, portfolio measures and growth projects.

The annual strategy development process follows a defined structure and includes four phases over the course of the year. The first phase kicks off with an interdisciplinary meeting of experts from the departments Technology, Sales, Legal and Finance to initiate and discuss developments, for example through workshops. Then, over a period of roughly three to four months, the Business Development department drafts the strategy, which it then presents at a second meeting of experts. After discussions and consultation at this meeting, in the second phase the strategy is adapted and then reviewed by EEW's Board of Management. On this basis, the Business Development department subsequently finalises the strategy and presents it to the Supervisory Board at mid-year. Once this has been done, the next step is the implementation of the strategy as well as the projects and measures resulting from it.

The Communications department is then tasked with communicating internally and externally all the topics arising from the strategy development. This takes place via direct dialogue with key stakeholders as well as through 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.



# Advancing environmental protection through innovative solutions ✓

GRI 103-1, 103-2, 103-3

## 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<sub>2</sub> emissions by using renewable fuels.

## Resource reclamation and recycling

Besides energy, EEW also 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 pioneering solution for phosphorus recycling from future arisings of municipal sewage sludge ash.

## Emissions

At all its plants, EEW uses modern flue gas cleaning technology to optimally filter out organic and inorganic pollutants, avoid air pollution and thus contribute to improving air quality.

## Extracting energy and raw materials, reducing emissions

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 result from the combustion at our plants.

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

Our stakeholders see EEW as having an important role in the topic areas "emissions" and "resource reclamation and recycling". We will therefore work even harder on further reducing our emissions 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 environment management system ISO 14001, the energy management system ISO 50001, the quality management system ISO 9001 as well as the occupational health and safety management standard OHSAS 18001. In future, we aspire to be successfully certified in accordance with ISO 45001 and we prepared intensively for this in 2019. Moreover, various directives and process instructions serve to ensure compliance with external and internal rules 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 (eANV). 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.

We regularly inspect the operations of our 18 energy from waste plants 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. We are committed to transparency when it comes to emissions and share this data with the outside world (external parties/stakeholders). The levels are recorded at the emissions measuring point, sent via a data cable to the responsible permitting authority and made available to the public. In addition, we present the annual reports compiled by the officers for immission protection, waste, water protection and hazardous materials to the respective authorities.

None of the EEW plants directly generates process wastewater, since they all circulate and recover the process water they use. The sanitary wastewater from the plants is piped to sewage treatment plants, just like wastewater from private households is. The concentration of pollutants in other wastewater, such as precipitation collected in rainwater retention basins at the plant sites, is limited by regulatory bodies through the respective permits under water law. These levels are monitored regularly by the competent local authorities.

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 downtimes. The individual plants are supported by EEW's Technology department as well as the environmental protection unit of the RESHQ



“By lowering the system pressure, we require less energy to produce compressed air. As a result, not only can we supply more electricity to the tinsplate factory nearby, we also lower the environmental impact.”

**Peter Eisenblätter** Technical Managing Director IHKW Andernach

department. Among other things, they provide the sites with evaluations and instruments, foster the transfer of know-how, 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 analysis of waste arisings. The individual plant sites take care of the waste transfer documentation.

Of course, above and beyond these responsibilities, all employees are encouraged to rigorously implement the environmental and energy policies that EEW has conveyed to them. The officers for immission protection, waste, water protection and hazardous goods also 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 avoid greenhouse gas emissions.

EEW produces environmentally friendly electricity for the equivalent of around 740,000 households per year, assuming that each household consumes on average 3,450 kWh 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 million MWh 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 with a view to the volatility of electricity prices, we want to further expand the production and sales of heat and process steam and invest in 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 4.73 million tonnes generates around 1.46 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, the 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



**“There is a significant overlap between sustainability and digitalisation. As a supplier of business solutions based on IT and telecommunications, we offer our customers a broad range of technology products, solutions and services that help them to use resources more efficiently and thus protect the climate as much as possible.”**

**Rupert Lehner** Head of Central & Eastern Europe Fujitsu

contracts with our partner firms that recover the bottom ash.

Other residues include boiler ash 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 waste requiring particular monitoring. EEW ensures that the boiler ash and filter dust are securely stored underground and thus permanently removed from the environmental cycle. This kind of ash and dust 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 who have specialised in safe backfilling. EEW anticipates that sufficient cavities are available for the coming years. In 2019, EEW commissioned a study in order to get an

in-depth outlook for the waste management of dust via backfilling over the next 20 years. The study compares the current and expected volumes of residues produced by EEW's plants to the waste management capacities in Germany. In the longer term, EEW would like to utilise alternative recovery options for boiler ash and filter dust, and we are therefore currently looking for a suitable cooperation partner to conduct research in this area.

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. Construction of the sewage sludge mono-incineration in Helmstedt started in 2019. The

permitting processes for other plants are underway. In collaboration with several partners, we are developing an innovative and sustainable solution for phosphorus recycling. Phosphorus plays an active role in metabolic processes in the human body. As a component of DNA, it is essential for the growth of organisms. It is also an important element for the formation of teeth and bones. In addition, 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, EEW and several contract partners laid the foundation for phosphorus recovery from sewage sludge ash.

#### Emissions

During thermal waste recovery, emissions occur which contain carbon dioxide, sulphur dioxide, dust and soot, as well as nitrogen oxides, heavy metal vapours and unburnt hydrocarbons. Our goal is to continuously further reduce these emissions and thus contribute to improving air quality. We want to achieve this through modern technology and optimal plant operations. In accordance with the 17th Ordinance implementing the Federal Immission Control Act (17. BImSchV), our plants must comply with strict emission limits. As such, the hazardous constituents arising from the combustion of waste are filtered out of the exhaust gas stream in a multistage purification process, thus removing

the bulk of the environmentally harmful substances contained in the flue gas. To do this, we use similar technology in all of our plants. Via continuous measurements and regular self-monitoring, we check whether the emissions from the flue gas cleaning plants conform with the law. To do this, we use a measuring technology certified by the German Technical Inspection Association (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 not only comply with the statutory requirements, it is also below the emission thresholds. We conduct special training to raise our employees' awareness for further emission reductions. Moreover, we are working on the use of new technologies and processes to further reduce the CO<sub>2</sub> emissions that are not classified as climate-neutral.



# Facts and figures

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## Overview of key figures

GRI indicators	Economic key figures	Unit	2017	2018	2019
<b>Direct economic value generated and distributed<sup>1</sup></b>					
201-1	Direct economic value generated (revenues)	EUR k	545,777	552,831	593,078
	Economic value distributed <sup>2</sup>	EUR k	456,788	464,120	496,731
<b>Percentage of spending on local suppliers</b>					
204-1	Percentage of procurement spending at significant sites <sup>1</sup> that is spent on suppliers based in the local region of the sites	%	22.0	18.0	14.0
301-1	Total weight of the waste volumes used	t	4,513,114	4,783,000	4,716,603

<sup>1</sup> 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 from the plant sites.

GRI indicators	Economic key figures	Unit	2017	2018	2019
<b>Energy consumption within the organisation</b>					
302-1	Total electricity consumption <sup>1</sup>	MWh	23,449	13,422 <sup>2</sup>	11,775 <sup>2</sup> ✓
	Total heating oil consumption	MWh	54,134	56,507	45,778 ✓
	Total gas consumption	MWh	121,460	138,300 <sup>2</sup>	131,768 <sup>2</sup> ✓
	Total electricity sold <sup>3</sup>	MWh	1,645,458	1,699,186	1,772,868 ✓
	Total heat sold <sup>3</sup>	MWh	775,778	775,058	790,598
	Total steam sold <sup>3</sup>	MWh	1,902,987	1,875,172	2,176,201

<sup>1</sup> Total amount of electricity obtained from the power grid.

<sup>2</sup> At the beginning of 2018 a combined heat and power (CHP) plant started operations at the Heringen site to meet the site's demand for electricity and heat. This resulted in an increase in gas consumption compared with 2017. By contrast, purchases of electricity from the grid declined.

<sup>3</sup> Figures excluding the company headquarters (EEW GmbH).



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<sub>2</sub> equivalent (CO<sub>2</sub>e) over the years 2017 to 2019. Due to the adaptation of the calculation methodology and the expansion of the reporting to include other indirect GHG emissions (Scope 3), the figures are not comparable with those in the previous report. The values for previous years were adjusted in accordance with the new calculation method for this report. GHG emissions avoided through the energy recovery of waste and the reclamation of metallic secondary raw materials are not presented as off-setting credits but are instead reported additionally as emissions avoided through substitution.

GRI indicators	Environmental key figures	Unit	2017	2018	2019
<b>GHG emissions of the organisation</b>					
305-1	Total volume of the direct GHG emissions (Scope 1) <sup>1</sup>	t CO <sub>2</sub>	2,050,018	2,060,141	2,111,404 ✓
305-2	Total volume of the indirect GHG emissions (Scope 2) <sup>2</sup>	t CO <sub>2</sub>	9,403	5,382	4,722 ✓
305-3	Other indirect GHG emissions (Scope 3) <sup>3</sup>	t CO <sub>2</sub>	5,725	5,776	6,005 ✓
305-4	Intensity of GHG emissions per tonne of waste inputs	t CO <sub>2</sub>	0.458	0.455	0.449
Avoidance through substitutions <sup>1</sup>		t CO <sub>2</sub>	2,444,029	2,477,486	2,359,392

<sup>1</sup> The GHG emissions in Scope 1 comprise all direct emissions resulting from the combustion of 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<sub>2</sub>e/t waste in 2019 and 0.425 t CO<sub>2</sub>e/t in 2018 and 0.428 t CO<sub>2</sub>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<sub>2</sub>/TJ was used as the emission factor (from: "CO<sub>2</sub>-Emissionsfaktoren für fossile Brennstoffe" ["CO<sub>2</sub> Emission Factors for Fossil Fuels"], German Federal Environment Agency, 9/2017, page 35).

To calculate the emissions from the consumption of operating materials used in flue gas cleaning, a weighted average of 0.892 kg CO<sub>2</sub>/kWh (from: ecoinvent database) was used as the emission factor.

<sup>2</sup> 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<sub>2</sub>/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 1990-2019"], German Federal Environment Agency, 13/2020, page 9).

<sup>3</sup> 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). 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<sub>2</sub>e/t bottom ash (from: ecoinvent database) was used as the emission factor.

<sup>1</sup> 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 Federal 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 Hoechst was used as a source. The substitution of GHG emissions through metals recovery was determined with the factor 2.6 t CO<sub>2</sub>e/t metal (source: ITAD).

GRI indicators	Environmental key figures	Unit	2017	2018	2019
<b>Nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>) and other significant air emissions<sup>1</sup></b>					
305-7	Total dust <sup>2</sup>	mg/Nm <sup>3</sup>	0.46	0.55	0.47
	Total carbon <sup>3</sup>	mg/Nm <sup>3</sup>	0.36	0.23	0.29
	Hydrogen chloride <sup>4</sup>	mg/Nm <sup>3</sup>	4.37	4.44	3.87
	Sulphur dioxide <sup>5</sup>	mg/Nm <sup>3</sup>	10.87	11.31	9.33
	Nitrogen dioxide <sup>6</sup>	mg/Nm <sup>3</sup>	139.60	134.99	113.18
	Mercury <sup>7</sup>	µg/Nm <sup>3</sup>	1.71	1.65	1.25
	Carbon monoxide <sup>8</sup>	mg/Nm <sup>3</sup>	10.72	8.83	11.3
	Ammonia <sup>9</sup>	mg/Nm <sup>3</sup>	1.42	1.33	1.96

<sup>1</sup> 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.

<sup>2</sup> Limit value in accordance with 17. BImSchV (daily average) 2017, 2018 and 2019: 5.

<sup>3</sup> Limit value in accordance with 17. BImSchV (daily average) 2017, 2018 and 2019: 10.

<sup>4</sup> Limit value in accordance with 17. BImSchV (daily average) 2017, 2018 and 2019: 10.

<sup>5</sup> Limit value in accordance with 17. BImSchV (daily average) 2017, 2018 and 2019: 50.

<sup>6</sup> Limit value in accordance with 17. BImSchV (daily average) 2017 and 2018: 200; 2019: 150.

<sup>7</sup> Limit value in accordance with 17. BImSchV (daily average) 2017, 2018 and 2019: 30.

<sup>8</sup> Limit value in accordance with 17. BImSchV (daily average) 2017, 2018 and 2019: 50.

<sup>9</sup> Limit value in accordance with 17. BImSchV (daily average) 2017, 2018 and 2019: 10.

<b>Waste by type and disposal method</b>					
306-2	<b>Total weight of hazardous waste<sup>1</sup>, of which</b>	<b>t</b>	<b>278,186</b>	<b>267,011</b>	<b>273,641</b>
	recovered via backfilling of mines	t	278,186	267,011	273,641
	<b>Total weight of non-hazardous waste, of which</b>	<b>t</b>	<b>1,241,380</b>	<b>1,146,262</b>	<b>1,185,767</b>
	recycled and reclaimed metals and metal compounds	t	112,853	114,626	113,309
	recovered as landfill construction material or sent to landfill	t	1,015,674	1,031,636	1,072,458

<sup>1</sup> Includes, amongst other things, mercury, cadmium and lead.

GRI indicators	Social and compliance key figures	Unit	2017	2018	2019
<b>Information on employees and other workers</b>					
102-8	<b>Total number of all employees</b>	<b>Number</b>	<b>1,069</b>	<b>1,090</b>	<b>1,134</b>
	Female	Number	186	187	200
	Male	Number	883	903	934
	<b>Temporary employees</b>	<b>Number</b>	<b>63</b>	<b>68</b>	<b>66</b>
	of whom female	Number	10	16	31
	of whom male	Number	53	52	35
	<b>Employees in Germany</b>	<b>Number</b>	<b>954</b>	<b>976</b>	<b>1,021</b>
	of whom female	Number	170	176	181
	of whom male	Number	784	800	840
	<b>Temporary employees in Germany</b>	<b>Number</b>	<b>56</b>	<b>63</b>	<b>53</b>
	of whom female	Number	10	16	21
	of whom male	Number	46	47	32
	<b>Employees in the Netherlands</b>	<b>Number</b>	<b>65</b>	<b>65</b>	<b>67</b>
	of whom female	Number	6	5	7
	of whom male	Number	59	60	60
	<b>Temporary employees in the Netherlands</b>	<b>Number</b>	<b>6</b>	<b>4</b>	<b>3</b>
	of whom female	Number	0	0	1
	of whom male	Number	6	4	2
	<b>Employees in Luxembourg</b>	<b>Number</b>	<b>50</b>	<b>49</b>	<b>46</b>
	of whom female	Number	10	6	6
	of whom male	Number	40	43	40

GRI indicators	Social and compliance key figures	Unit	2017	2018	2019
	<b>Temporary employees in Luxembourg</b>	<b>Number</b>	<b>1</b>	<b>1</b>	<b>0</b>
	of whom female	Number	0	0	0
	of whom male	Number	1	1	0
	<b>Full-time employees<sup>1</sup></b>	<b>Number</b>	<b>832</b>	<b>843</b>	<b>889</b>
	of whom female	Number	115	116	156
	of whom male	Number	717	727	733
	<b>Part-time employees<sup>1</sup></b>	<b>Number</b>	<b>36</b>	<b>45</b>	<b>41</b>
	of whom female	Number	25	31	34
	of whom male	Number	11	14	7
<sup>1</sup> 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.					
<b>Collective bargaining agreements<sup>1</sup></b>					
102-41	Employees covered by collective bargaining agreements	%	85.1	85.2	86.1

<sup>1</sup> 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	Social and compliance key figures	Unit	2017	2018	2019
<b>New employee hires and employee turnover<sup>1</sup></b>					
401-1	<b>New employees</b>				
	Total	Number (%)	66 (6.6)	62 (6.1)	48 (4.5)
	Age				
	Less than 30 years old	Number (%)	17 (1.7)	19 (1.9)	13 (1.2)
	30–50 years old	Number (%)	37 (3.7)	33 (3.2)	34 (3.2)
	More than 50 years old	Number (%)	12 (1.2)	10 (1.0)	1 (0.1)
	Gender				
	Female	Number (%)	10 (1.0)	14 (1.4)	6 (0.6)
	Male	Number (%)	56 (5.6)	48 (4.7)	42 (3.9)
	Region				
	Germany	Number (%)	56 (5.6)	52 (5.1)	48 (4.5)
	Netherlands	Number (%)	8 (0.8)	6 (0.4)	0 (0.0)
	Luxembourg	Number (%)	2 (0.2)	4 (0.6)	0 (0.0)

<sup>1</sup> The information refers to the permanent workforce at the EEW Group. Temporary employment relationships are not taken into account.

GRI indicators	Social and compliance key figures	Unit	2017	2018	2019
<b>Employee turnover<sup>2</sup></b>					
	Total	Number (%)	44 (4.3)	42 (4.2)	40 (3.8)
	Age				
	Less than 30 years old	Number (%)	2 (0.2)	4 (0.4)	5 (0.5)
	30–50 years old	Number (%)	22 (2.2)	15 (1.6)	20 (1.9)
	More than 50 years old	Number (%)	20 (1.9)	23 (2.2)	15 (1.4)
	Gender				
	Female	Number (%)	6 (0.6)	7 (0.7)	8 (0.8)
	Male	Number (%)	38 (3.7)	35 (3.5)	32 (3.0)
	Region				
	Germany	Number (%)	41 (4.0)	35 (3.5)	36 (3.6)
	Netherlands	Number (%)	1 (0.1)	2 (0.2)	1 (0.1)
	Luxembourg	Number (%)	2 (0.2)	5 (0.5)	3 (0.1)

<sup>2</sup> The employee turnover figures refer exclusively to permanent employment relationships.

GRI indicators	Social and compliance key figures	Unit	2017	2018	2019
<b>Diversity of governance bodies and employees</b>					
405-1	<b>Individuals within the governance bodies</b>				
	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	44.0	33.0
	More than 50 years old	%	56.0	56.0	67.0
	<b>Employees covered by collective bargaining agreements</b>				
	Gender				
	Female	%	18.6	19.5	19.3
	Male	%	81.4	80.5	80.7
	Age				
	Less than 30 years old	%	17.4	15.7	14.4
	30–50 years old	%	43.5	45.8	45.0
	More than 50 years old	%	39.1	38.5	40.6

GRI indicators	Social and compliance key figures	Unit	2017	2018	2019
	<b>Trainees</b>				
	Gender				
	Female	%	26.7	22.5	17.9
	Male	%	73.3	77.5	82.1
	Age				
	Less than 30 years old	%	96.7	96.7	95.5
	30–50 years old	%	3.3	3.3	4.5
	More than 50 years old	%	0.0	0.0	0.0
	<b>Employees not covered by collective bargaining agreements</b>				
	Gender				
	Female	%	8.2	9.0	11.1
	Male	%	91.8	91.9	88.9
	Age				
	Less than 30 years old	%	0.0	0.0	0.0
	30–50 years old	%	43.3	38.0	38.1
	More than 50 years old	%	56.7	62.0	61.1
	<b>Senior managers</b>				
	Gender				
	Female	%	3.4	3.6	3.3
	Male	%	96.6	96.4	96.7
	Age				
	Less than 30 years old	%	0.0	0.0	0.0
	30–50 years old	%	27.6	17.9	16.7
	More than 50 years old	%	72.4	82.1	83.3

GRI indicators	Social and compliance key figures	Unit	2017	2018	2019
<b>Incidents of discrimination and corrective actions taken</b>					
406-1	Total number during the reporting period	Number	0	0	0
<b>Average hours of training per year</b>					
404-1	Average number of hours, by				
	Gender				
	Female	Number (h)	12.5	14.0	16.0
	Male	Number (h)	15.0	16.0	17.0
<b>Employees receiving regular performance reviews</b>					
404-3	Percentage of all employees, by				
	Gender <sup>1</sup>				
	Female	%	83.3	83.2	83.1
	Male	%	83.3	83.2	83.1
	Senior managers	%	100.0	100.0	100.0
	Employees not covered by collective bargaining agreements	%	100.0	100.0	100.0
	Trainees	%	100.0	100.0	100.0

<sup>1</sup> The Großbräschen, Stapelfeld, Stavenhagen and Premnitz sites do not have regular reviews for employees covered by collective bargaining agreements.

GRI indicators	Social and compliance key figures	Unit	2017	2018	2019
<b>Types and rates of injury, occupational diseases, lost days, rate of illness and number of work-related fatalities<sup>1</sup></b>					
403-2	Occupational disease rate	%	0.0	0.0	0.0
	Lost day rate <sup>2</sup>	LTI	2.3	2.3	1.7 ✓
	Rate of illness <sup>2</sup>	%	5.5	5.5	5.6 ✓
<b>Types of injury</b>					
Employees of EEW					
	Fractures	Number	2	3	0
	Crushing injuries	Number	1	0	0
	Cuts	Number	1	0	1
	Eye injuries	Number	0	1	0
	Torn ligaments	Number	0	1	1
	Loss of a body part	Number	1	0	0
	Work-related fatalities	Number	0	0	0
Employees of partner firms					
	Fractures	Number	2	2	1
	Cuts	Number	2	2	1
	Burns	Number	0	1	0
	Scalding	Number	1	0	0
	Crushing injuries	Number	0	1	1
	Work-related fatalities	Number	0	1	0
<b>Injury rate</b>					
	Employees of EEW <sup>3</sup>	TRI	2.9	2.8	2.2 ✓
	Employees of partner firms	TRI	4.9	6.7	3.8

<sup>1</sup> This information relates to the EEW Group and employees of partner firms.





<sup>2</sup> This information relates to employees of the EEW Group.

<sup>3</sup> Does not include first-aid incidents (recorded in first-aid register).




GRI indicators	Social and compliance key figures	Unit	2017	2018	2019
<b>Sites assessed for risks related to corruption</b>					
205-1	<b>Total number during the reporting period</b>	<b>Number (%)</b>	<b>0 (0.0)</b>	<b>0 (0.0)</b>	<b>0 (0.0)</b>
<b>Confirmed incidents of corruption and actions taken</b>					
205-3	Total number of confirmed incidents of corruption during the reporting period	Number	0	0	0
	Total number of confirmed incidents in which employees were dismissed or disciplined for corruption	Number	0	0	0
	Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption	Number	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	Number	0	0	0
<b>Legal actions for anticompetitive behaviour, antitrust and monopoly practices</b>					
206-1	<b>Total number of legal actions during the reporting period</b>	<b>Number</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Non-compliance with environmental laws and regulations</b>					
307-1	Total monetary value of significant fines for non-compliance with environmental laws and/or regulations	EUR	0	0	0
	Non-monetary sanctions for non-compliance with environmental laws and/or regulations	Number	0	0	0

GRI indicators	Social and compliance key figures	Unit	2017	2018	2019
<b>Sites with local community engagement, impact assessments and development programmes</b>					
413-1	<b>Percentage of sites (administrative and plant sites) with implemented local community engagement, impact assessments, and/or development programmes, including the use of</b>				
	Environmental impact assessments and ongoing monitoring	%	100.0	100.0	100.0
	Public disclosure of results of environmental impact assessments	%	100.0	100.0	100.0
	Works councils, occupational health and safety committees and other worker representation bodies to deal with impacts	%	100.0	100.0	100.0
<b>Political contributions</b>					
415-1	<b>Total monetary value of political contributions</b>	<b>EUR</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Complaints concerning customer data</b>					
418-1	<b>Substantiated complaints received concerning breaches of customer privacy</b>	<b>Number</b>	<b>0</b>	<b>0</b>	<b>0</b>
	Received from outside parties and substantiated by the organisation	Number	0	0	0
	From regulatory bodies	Number	0	0	0
	<b>Identified leaks, thefts or losses of customer data</b>	<b>Number</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Fines and non-monetary sanctions</b>					
419-1	<b>Disclosure of significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area, including:</b>				
	Total monetary value of significant fines	EUR	0	0	0
	Total number of non-monetary sanctions	Number	0	0	0

## Sustainability goals

Operational goal	Time frame	Status	Measures
<b>Area of action “strengthening relationships”</b>			
<b>Acting with integrity as the foundation of our business</b>			
Ensure compliant behaviour	Ongoing		<ul style="list-style-type: none"> <li>Periodic compliance training for relevant departments and employees</li> <li>Implementation of an e-learning approach for training (in preparation)</li> </ul>
Inclusion of top 20 suppliers or customers	End of 2019		<ul style="list-style-type: none"> <li>Implementation of an internal portal for qualified evaluations of suppliers (completed in 2018)</li> <li>Regular customer contact through discussions at events, through surveys and through involving selected key customers in the launch of the customer portal</li> </ul>
<b>Qualifying and empowering employees</b>			
Increase the number of women in leadership positions (from five women in 2019 to ten women by end of 2023) <sup>1</sup>	2023		<ul style="list-style-type: none"> <li>Establishment of a programme for recruiting and promoting women by addressing women specifically at trade fairs and in networks</li> </ul>
Promote young talent throughout the company and prepare them for future leadership positions	Ongoing		<ul style="list-style-type: none"> <li>Encouraging participation in the “Leadership Passport” program</li> </ul>




<sup>1</sup> This operational goal was adjusted. As a rule, we aim to increase the share of female employees within the EEW Group. However, the technical environment in our industry means that there only a small number of suitable female applicants for vacancies, especially in our plants. In future, we will therefore focus on increasing the proportion of women in leadership positions, such as team and department heads as well as technical and commercial managing directors. Our goal is to double the number of women in leadership positions in the next five years.

Operational goal	Time frame	Status	Measures
<b>Developing partnerships</b>			
Systematise stakeholder management	2020		<ul style="list-style-type: none"> <li>Development of a company-wide policy on stakeholder management (in the planning stage)</li> </ul>
Increase customer satisfaction and loyalty	Ongoing		<ul style="list-style-type: none"> <li>Regularly determining customer satisfaction via a customer satisfaction survey               <ul style="list-style-type: none"> <li>Most recent survey in 2018</li> <li>Next survey planned for Q4 2020 (following launch of customer portal)</li> </ul> </li> <li>2019: Hosting four regional customer events</li> </ul>
Strengthen interfaces in the sales area with the aim of creating synergies and identifying or eliminating any problems of understanding	Ongoing		<ul style="list-style-type: none"> <li>Establishing up to six “exchange days” on which employees from material flow management and sales management each spend a day in the other unit as well as in the units imports and Commercial and Municipal Sales</li> </ul>



Operational goal	Time frame	Status	Measures
<b>Area of action "taking on challenges"</b>			
<b>Efficiently managing resources</b>			
Optimise overall equipment effectiveness (OEE) at EEW's plants towards a target value of 94%	2027		<ul style="list-style-type: none"> <li>Increasing time availability in defined steps to increase OEE (= work availability * time availability [TA])               <ul style="list-style-type: none"> <li>TA 2017: 91.5 per cent</li> <li>TA 2018: 91.8 per cent</li> <li>TA 2019: 92.2 per cent</li> </ul> </li> </ul>
Reduce the total number of kilometres driven annually in the EEW fleet	Ongoing		<ul style="list-style-type: none"> <li>Greater use of digital methods, such as:               <ul style="list-style-type: none"> <li>Online/video meetings and teleconferences, 100% of employees with administrative responsibilities have laptop computers, remote access to company network is possible</li> </ul> </li> <li>Optimisation of meeting management (e.g. holding meetings at central locations with good infrastructure, grouping meetings on one day)</li> <li>Making use of rail travel more attractive</li> </ul>
<b>Securing a successful future with sustainable innovations</b>			
Phosphorus recovery from sewage sludge ash	2022		<ul style="list-style-type: none"> <li>Participate in the development of an innovative process to reclaim phosphorus from sewage sludge ash</li> <li>Support the establishment of a plant of this type in Helmstedt</li> </ul>

Operational goal	Time frame	Status	Measures
Industrial recovery of carbon dioxide (carbon capture and utilisation [CCU])	2024		<ul style="list-style-type: none"> <li>Implementation of a pilot project at Delfzijl site, start-up planned for 2024</li> </ul>
<b>Finding answers to global megatrends</b>			
Nearly paperless execution of company-wide business processes	2022		<ul style="list-style-type: none"> <li>Converting business processes to low-paper ordering and invoicing:               <ul style="list-style-type: none"> <li>Majority of orders are in electronic form.</li> <li>Project to introduce e-invoicing (implementation from 11/2019 presumably until end of 2020)</li> </ul> </li> <li>Reduction of paper consumption in internal business processes:               <ul style="list-style-type: none"> <li>"Power BI" project to automate preparation of controlling-relevant reports in a Microsoft intelligence tool (2019)</li> </ul> </li> </ul>



Operational goal	Time frame	Status	Measures
<b>Area of action “delivering results”</b>			
<b>Economic impact of our plants on the local communities</b>			
Increase the energy efficiency by leveraging renewable energies (RE) at the plant sites <sup>1</sup>	Ongoing	n/a	<ul style="list-style-type: none"> <li>Expand district heating network for local supply               <ul style="list-style-type: none"> <li>Hanover: Completion and trial operations of district heating supply to enercity, commercial operations as of 2020</li> <li>Premnitz: 2019 decision to build district heating pipeline from Premnitz to Brandenburg, construction planned to start in 2021</li> </ul> </li> </ul>
Promote e-mobility within the Group	Ongoing		<ul style="list-style-type: none"> <li>Acquisition of two electric vehicles for the EEW vehicle pool</li> <li>Installation of four EV charging stations at the Helmstedt site</li> <li>Installation of further EV charging stations at EEW sites (in preparation)</li> </ul>
Reduce accident figures by 30 per cent (baseline year 2018: 12)	End of 2021		<ul style="list-style-type: none"> <li>Further development of partner firms with regard to occupational safety (supplier evaluation)</li> <li>Carrying out focal campaigns at plant sites to reduce own hazards and accidents</li> <li>Central works agreement on the wearing of personal protective equipment</li> </ul>
Create a sustainable structure to reduce hazards at plant sites	End of Q1 2020		<ul style="list-style-type: none"> <li>Changeover from OHSAS 18001 to ISO 45001</li> </ul>

<sup>1</sup> This operational goal was adjusted. A feasibility study found that only a very small number of existing sites were suitable for the installation of a PV system. Operation at a break-even level would not be realisable. Nevertheless, we are committed to RE and would like to introduce new measures to continuously contribute to increasing the energy efficiency of our plants.

Operational goal	Time frame	Status	Measures
<b>Advancing environmental protection through innovative solutions</b>			
Increase share of renewable energies in use of energy	Ongoing		<ul style="list-style-type: none"> <li>Increased purchasing of electricity and gas based on renewable energies:               <ul style="list-style-type: none"> <li>Green gas supplied to headquarters in 2019</li> <li>Renewable energies as firm criterion with high priority in calls for tender</li> </ul> </li> <li>Promotion of captive-use from photovoltaics (in connection with expansion or new construction):               <ul style="list-style-type: none"> <li>PV installation for new-build project in Stapelfeld (in planning phase)</li> </ul> </li> </ul>
Reduce backfilling in mines by three per cent (baseline: relative filter dust share in 2019)	End of 2023		<ul style="list-style-type: none"> <li>Use of new recycling processes for filter dust management:               <ul style="list-style-type: none"> <li>Conduct a study of backfilling in mines (completed)</li> <li>Search for suitable cooperation partners for research (ongoing)</li> </ul> </li> </ul>

# GRI Content Index

## GRI 102-55

This report was prepared in accordance with the GRI Standards: Core option. For the Materiality Disclosures Service, GRI Services reviewed that the GRI Content Index is clearly presented and the references for disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. This service was performed on the German version of the report.



GRI Standard	Disclosure	Reference	Comment
<b>GRI 101: Foundation 2016</b>			
<b>GRI 102: General Disclosures 2016</b>			
<b>Organisational profile</b>			
GRI 102: General disclosures 2016	102-1	Name of the organisation	Company portrait (pp. 8–10)
	102-2	Activities, brands, products and services	Company portrait (pp. 8–10)
	102-3	Location of headquarters	Company portrait (pp. 8–10)
	102-4	Location of operations	Company portrait (pp. 8–10)
	102-5	Ownership and legal form	Company portrait (pp. 8–10)
	102-6	Markets served	Company portrait (pp. 8–10)
	102-7	Scale of the organisation	Company portrait (pp. 8–10)
	102-8	Information on employees and other workers	Table of key figures (pp. 62)
	102-9	Supply chain	Company portrait (pp. 8–10)
	102-10	Significant changes to the organisation and its supply chain	In the reporting period there were no significant changes within our organisation or our supply chain as compared to the previous year.

GRI Standard	Disclosure	Reference	Comment
	102-11	Precautionary principle or approach	Our strategy: the umbrella for all sustainability activities (pp. 11–13)
	102-12	External initiatives	Developing partnerships (pp. 26–29)
	102-13	Membership of associations	Membership of associations (pp. 92–93)
<b>Strategy</b>			
GRI 102: General disclosures 2016	102-14	Statement from senior decision maker	Foreword by the Board of Management (pp. 4–5)
<b>Character and integrity</b>			
GRI 102: General disclosures 2016	102-16	Values, principles, standards and norms of behaviour	Acting with integrity as the foundation of our business (pp. 19–21) Further information at: <a href="https://www.eew-energyfromwaste.com/en/about-us/our-values.html">https://www.eew-energyfromwaste.com/en/about-us/our-values.html</a>
<b>Governance</b>			
GRI 102: General disclosures 2016	102-18	Governance structure	Effectively managing sustainability in the company (pp. 14–15) Further information at: <a href="https://www.eew-energyfromwaste.com/en/about-us/management.html">https://www.eew-energyfromwaste.com/en/about-us/management.html</a>

GRI Standard	Disclosure	Reference	Comment
<b>Stakeholder engagement</b>			
GRI 102: General disclosures 2016	102-40	List of stakeholder groups	Developing partnerships (pp. 26–29)
	102-41	Collective bargaining agreements	Table of key figures (p. 63)
	102-42	Identifying and selecting stakeholders	Developing partnerships (pp. 26–29)
	102-43	Approach to stakeholder engagement	Developing partnerships (pp. 26–29)
	102-44	Key topics and concerns raised	Our strategy: the umbrella for all sustainability activities (pp. 11–13)  Developing partnerships (pp. 26–29)
<b>Reporting practice</b>			
GRI 102: General disclosures 2016	102-45	Entities included in the consolidated financial statements	About this report (p. 2)
	102-46	Defining report content and topic boundaries	Our strategy: the umbrella for all sustainability activities (pp. 11–13)
	102-47	List of material topics	Our strategy: the umbrella for all sustainability activities (pp. 11–13)

GRI Standard	Disclosure	Reference	Comment
	102-48	Restatements of information	In this Sustainability Report 2019 a new method of calculation was applied to determine the CO <sub>2</sub> emissions of the organisation. Based on the new methodology, the emission values for disclosures GRI 305-1 and GRI 305-2 were recalculated for the reporting periods 2017 and 2018. The disclosures GRI 305-3 and GRI 305-4 are additionally being incorporated into the reporting. Further information about this is available in the Overview of key figures on page 60.

GRI Standard	Disclosure	Reference	Comment
102-49	Changes in reporting		This report is an update of the previous year's report. There were no significant changes in the reporting.
102-50	Reporting period	About this report (p. 2)	
102-51	Date of most recent report		The most recent report was published in December 2019.
102-52	Reporting cycle	About this report (p. 2)	
102-53	Contact point for questions regarding the report	Publication details (p. 96)	
102-54	Claims of reporting in accordance with the GRI Standards	About this report (p. 2)	
102-55	GRI Content Index	GRI Content Index (pp. 78–90)	
102-56	External assurance	Independent Auditor's Limited Assurance Report (pp. 94–95)	

GRI Standard	Disclosure	Reference	Comment
<b>GRI 200: Economic topics</b>			
<b>Economic performance</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 48)
	103-2	The management approach and its components	Economic impact of our plants on the local communities (pp. 49–51)
	103-3	Evaluation of the management approach	
GRI 201: Economic performance 2016	201-1	Direct economic value generated and distributed	Table of key figures (p. 58)
<b>Procurement practices</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Developing partnerships (pp. 26–29)
	103-3	Evaluation of the management approach	
GRI 204: Procurement practices 2016	204-1	Proportion of spending on local suppliers	Table of key figures (p. 58)

GRI Standard	Disclosure	Reference	Comment
<b>Anticorruption</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Acting with integrity as the foundation of our business (pp. 19–21)
	103-3	Evaluation of the management approach	
GRI 205: Anticorruption 2016	205-1	Sites assessed for risks related to corruption	Table of key figures (p. 70)
	205-3	Confirmed incidents of corruption and actions taken	Table of key figures (p. 70)
<b>Anticompetitive behaviour</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Acting with integrity as the foundation of our business (pp. 19–21)
	103-3	Evaluation of the management approach	
GRI 206: Anticompetitive behaviour 2016	206-1	Legal actions for anticompetitive behaviour, antitrust and monopoly practices	Table of key figures (p. 70)

GRI Standard	Disclosure	Reference	Comment
<b>GRI 300: Environmental topics</b>			
<b>Materials</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 32)
	103-2	The management approach and its components	Efficiently managing resources (pp. 33–37)
	103-3	Evaluation of the management approach	What guides us (p. 48)  Advancing environmental protection through innovative solutions (pp. 52–55)
GRI 301: Materials 2016	301-1	Total weight of the waste volumes used	Table of key figures (p. 58)
<b>Energy</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 32)
	103-2	The management approach and its components	Efficiently managing resources (pp. 33–37)
	103-3	Evaluation of the management approach	What guides us (p. 48)  Advancing environmental protection through innovative solutions (pp. 52–55)
GRI 302: Energy 2016	302-1	Energy consumption within the organisation	Table of key figures (p. 59)

GRI Standard	Disclosure	Reference	Comment
<b>Emissions</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 48)
	103-2	The management approach and its components	Advancing environmental protection through innovative solutions (pp. 52–55)
	103-3	Evaluation of the management approach	
GRI 305: Emissions 2016	305-1	Total volume of the direct GHG emissions (Scope 1)	Table of key figures (p. 60)
	305-2	Total volume of the indirect GHG emissions (Scope 2)	Table of key figures (p. 60)
	305-3	Other indirect (Scope 3) GHG emissions	Table of key figures (p. 60)
	305-4	GHG emissions intensity	Table of key figures (p. 60)
	305-7	Nitrogen oxides (NO <sub>x</sub> ), sulphur oxides (SO <sub>x</sub> ) and other significant air emissions	Table of key figures (p. 61)
<b>Effluents and waste</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 32)
	103-2	The management approach and its components	Efficiently managing resources (pp. 33–37)
	103-3	Evaluation of the management approach	Securing a successful future with sustainable innovations (pp. 38–41)  Finding answers to global megatrends (pp. 42–45)
GRI 306: Effluents and waste 2016	306-2	Waste by type and disposal method	Table of key figures (p. 61)

GRI Standard	Disclosure	Reference	Comment
<b>Environmental compliance</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 48)
	103-2	The management approach and its components	Advancing environmental protection through innovative solutions (pp. 52–55)
	103-3	Evaluation of the management approach	
GRI 307: Environmental compliance 2016	307-1	Non-compliance with environmental laws and regulations	Table of key figures (p. 70)
<b>GRI 400: Social topics</b>			
<b>Employment</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Qualifying and empowering employees (pp. 22–25)
	103-3	Evaluation of the management approach	
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	Table of key figures (p. 64 f.)

GRI Standard	Disclosure	Reference	Comment
<b>Occupational health and safety</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Qualifying and empowering employees (pp. 22–25)
	103-3	Evaluation of the management approach	
GRI 403: Occupational health and safety 2016	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Table of key figures (p. 69)
<b>Training and education</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Qualifying and empowering employees (pp. 22–25)
	103-3	Evaluation of the management approach	
GRI 404: Training and education 2016	404-1	Average hours of training per year per employee	Table of key figures (p. 68)
	404-3	Percentage of employees receiving regular performance reviews	Table of key figures (p. 68)

GRI Standard	Disclosure	Reference	Comment
<b>Diversity and equal opportunity</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Qualifying and empowering employees (pp. 22–25)
	103-3	Evaluation of the management approach	
GRI 405: Diversity and equal opportunity 2016	405-1	Diversity of governance bodies and employees	Table of key figures (p. 66 f.)
<b>Non-discrimination</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Qualifying and empowering employees (pp. 22–25)
	103-3	Evaluation of the management approach	
GRI 406: Non-discrimin- ation 2016	406-1	Incidents of discrimination and corrective actions taken	Table of key figures (p. 68)

GRI Standard	Disclosure	Reference	Comment
<b>Local communities</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Developing partnerships (pp. 26–29)
	103-3	Evaluation of the management approach	
GRI 413: Local communities 2016	413-1	Sites with local community engagement, impact assessments and development programmes	Table of key figures (p. 71)
<b>Political influence</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Acting with integrity as the foundation of our business (pp. 19–21)
	103-3	Evaluation of the management approach	Developing partnerships (pp. 26–29)
GRI 415: Political influence 2016	415-1	Political contributions	Table of key figures (p. 71)

GRI Standard	Disclosure	Reference	Comment
<b>Customer privacy</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Acting with integrity as the foundation of our business (pp. 19–21)
	103-3	Evaluation of the management approach	
GRI 418: Customer privacy 2016	418-1	Complaints concerning customer data	Table of key figures (p. 71)
<b>Socioeconomic compliance</b>			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	What guides us (p. 18)
	103-2	The management approach and its components	Acting with integrity as the foundation of our business (pp. 19–21)
	103-3	Evaluation of the management approach	
GRI 419: Socioeconomic compliance 2016	419-1	Fines and non-monetary sanctions	Table of key figures (p. 71) Acting with integrity as the foundation of our business (pp. 19–21)



## Membership of associations

### GRI 102-13

EEW Energy from Waste 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:** The German Association of Energy and Water Industries (BDEW) 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. BDEW is based in Berlin and has an office in Brussels which represents the interests and goals of the association at the European and international levels.

**BDEW:** Der Bundesverband der Energie- und Wasserwirtschaft e.V. (BDEW) vertritt die Anliegen seiner 1.800 kommunalen und privaten Mitgliedsunternehmen der Energie- und Wasserwirtschaft gegenüber Politik, Fachwelt, Medien und Öffentlichkeit und unterstützt die Mitgliedsunternehmen in allen wichtigen politischen, rechtlichen, wirtschaftlich-technischen und kommunikativen Fragen. Der BDEW hat seinen Hauptsitz in Berlin sowie eine Vertretung in Brüssel, die die Interessen und Ziele des Verbands auf europäischer und internationaler Ebene bündelt.

**VKU:** The German Association of Local Utilities (VKU) represents the interests of municipally owned utility and waste management entities in Germany. The 1,458 member companies in VKU are mainly active in the energy supply, water, wastewater, waste management and urban-cleaning segments. Since 1912 the Waste Management and City Cleaning (VKS) association had represented the interests of its members. In 2003 it merged with VKU.

**ITAD:** The Interest Group for Thermal Waste Treatment Plants in Germany (ITAD) pursues a host of different activities and objectives. It advocates on behalf of thermal waste treatment plant owners and operators in their relations with the public, policymakers, public authorities and other interest groups. ITAD supports research projects aimed at optimising thermal waste treatment and intensively engages in public relations in order to represent the advantages of thermal waste treatment as compared to other methods of waste disposal.

**DGAW:** The German Waste Management Association (DGAW) is made up of representatives of private and municipal waste management companies; politics; administration; science; plant and mechanical engineers, production engineers and operating companies; and citizens' initiatives. Beyond that, there is close collaboration with or mutual membership of all important organisations in the raw-materials industry. DGAW 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 (DWA) brings together various players from the worlds of business, research and local politics who are closely involved with water and waste. The nationally and internationally active technical and economic professional organisation has provided a wide variety of services for these industries since 1948. It offers a network for specialists and managers, 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 (DPP) 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.

**KRAFTWERKSSCHULE E. V. (KWS POWERTECH TRAINING CENTRE):** 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, individually tailored and training measures as well as measures to reintegrate people into the workforce.

# Independent Auditor's Limited Assurance Report

The assurance engagement performed by Ernst & Young (EY) relates exclusively to the German PDF version of the Sustainability Report 2019 of EEW Energy from Waste GmbH. The following text is a translation of the original German Independent 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 2019 to 31 December 2019 (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 <https://www.eew-energyfromwaste.com/en/service/information-material.html>.

### 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.

### 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)].

### 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 August and November 2020, 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 ✓.

### 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 2019 have not been prepared, in all material respects, in accordance with the relevant GRI criteria.

### 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.

### 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](http://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 is-

sued unless required to do so by law. It is the sole responsibility of anyone taking note of the result of our assurance engagement summarised 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, 9 November 2020

Ernst & Young GmbH  
Wirtschaftsprüfungsgesellschaft

Nicole Richter, Wirtschaftsprüferin  
(German public auditor)

Hans-Georg Welz, Wirtschaftsprüfer  
(German public auditor)

# Publication details

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