e-systems Group

ACTING CONSCIOUSLY

Carbon Footprint Report 2024/25

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1. Introduction

The companies within the e-systems Group support their customers in placing non-food products on the market in a legally compliant and safe manner. As national and European legislation continues to evolve, companies face increasing complexity. e-systems helps its customers navigate these requirements efficiently and professionally.

With an international team of around 170 employees, the companies within the e-systems Group serve over 8,500 customers worldwide and, as a group, offer comprehensive solutions in the field of product compliance to ensure the marketability of products (trade-e-bility GmbH) as well as extended producer responsibility (take-e-way GmbH). get-e-right GmbH provides the associated and necessary authorised representative services.

Taking responsibility is not only a fundamental and essential component of e-systems' services, but also a core value that the group actively practises. Environmental awareness is growing not only within the group itself, but also among business partners and society as a whole. For this reason, in 2019 we decided to measure our own carbon footprint, identify approaches to reducing greenhouse gas emissions and implement appropriate measures, so that the impact of e-systems' economic activities on the climate and the environment is minimised as far as possible and our social responsibility is upheld.

In doing so, e-systems always adheres to the agreed climate protection guiding principle:

„Sustainability is an integral part of our corporate philosophy. Through environmentally conscious business practices, we take responsibility and are consistently pursuing our path towards net-zero emissions“

The slogan 'acting consciously' not only highlights e-systems' targeted approach to climate protection, but also emphasises the importance and impact of conscious action. Climate change presents risks for the group of companies on the one hand, but also represents a major opportunity. The future statistical increase in the frequency of extreme weather events, as well as their growing intensity, is regarded as a direct risk. This could, for example, jeopardise the availability of services or the health and safety of employees. Furthermore, it is considered an indirect risk that e-systems' customers could be increasingly affected economically or directly impacted as a result of disruptions to global supply chains. On the other hand, climate-friendly corporate governance is becoming increasingly important. As a compliance partner and consultancy firm, this also presents an opportunity to develop new business areas and support customers in meeting and implementing ever more demanding environmental requirements. Furthermore, climate protection efforts are also seen as an opportunity for existing and future customer and business relationships.

This report focuses primarily on the results of the greenhouse gas emissions accounting for the years 2024 and 2025 and presents the climate protection measures undertaken by the e-systems Group.

1) Hereinafter referred to as GHG

2. Results
of the CO_2 inventory

The calculation of results and the reporting in this report are based on the Greenhouse Gas Protocol [2]. To distinguish between direct and indirect emission sources and to present the results transparently, the GHG Protocol sets out standardised guidelines. In the course of data collection, analysis and reporting, three scopes are defined:

- Scope 1 covers direct greenhouse gas emissions arising directly from the company's activities and sources.
- Scope 2 covers indirect emissions arising, for example, from the purchase of energy.
- Scope 3 covers other indirect emissions resulting from the company's other business activities.

This report covers the results for the years 2024 and 2025. As these – like the results for 2022 and 2023[3] – have been verified by TÜV Rheinland Cert GmbH, the year 2022 serves as the base year. This enables a comparison of the results across four years, making progress and areas requiring further improvement more clearly visible.

In 2024, e-systems generated a total of 89.71 tCO_2e. Of this total, 30.09 tCO_2e (approx. 33 per cent) is attributable to Scope 1, 8.21 tCO_2e (approx. 9 per cent) to Scope 2 and 51.41 tCO_2e (approx. 58 per cent) to Scope 3. Overall, total emissions are therefore around 4 per cent above the baseline year's level.

In 2025, the group's total emissions amounted to 97.69 tCO_2e. The emissions are broken down across the scopes as follows: 24.75 tCO_2e (approx. 25%) in Scope 1, 9.11 tCO_2e (approx. 9%) in Scope 2 and 63.83 tCO_2e (approx. 65%) in Scope 3. This represents an increase in total emissions of around 15% compared with the base year.

Figure 1: Comparison of CO_2 emissions in 2022, 2024 und 2025 in tCO_2e.

2) Hereinafter referred to as GHG
3) The figures for 2023 can be found in the 2022/2023 Climate Protection Report at the following link: take-e-way.de/fileadmin/user_upload/TEW/Downloadcenter/klimaschutzbericht/2025_06_e_systems_Klimaschutzbericht-2022_2023_DE.pdf

2. Results
of the CO_2 inventory

When the Group's CO_2 emissions are expressed per employee, the figure for the last two years is significantly lower than that of the base year (Figure 2). In 2024, it stood at 0.59 tCO_2e and in 2025 at 0.61 tCO_2e per employee. For the sake of transparency, it should be noted that this reduction is primarily attributable to consistent operating conditions – the group has occupied the same office space since 2016 – alongside the company's growth.

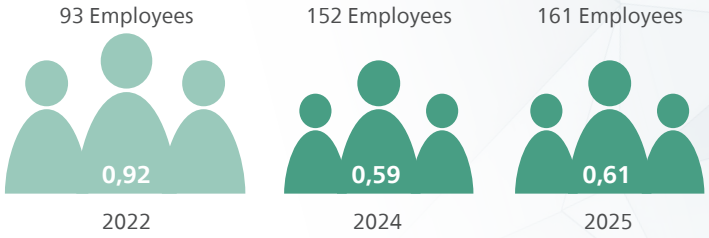

Figure 2: Emissions in 2022, 2024 and 2025 in tCO_2e per employee.

2.1 SCOPE 1

Mobile Equipment/ Vehicle Fleet

Scope 1 emissions are emissions originating from the company's own sources.

As part of its emissions accounting, e-systems includes the 'Mobile equipment/vehicle fleet' category, taking into account not only the GHG guidelines but also emissions from leased vehicles. This decision was made deliberately in order to include the resulting emissions in the mitigation measures and, furthermore, to create an incentive for reduction measures relating to leased vehicles. In addition, the 'Refrigeration and Air-Conditioning Systems' category is taken into account. This involves recording the refrigerants required for the operation of air-conditioning systems and purchased for this purpose. In 2024, emissions from the 'Mobile equipment/vehicle fleet' category amounted to 28.17 tCO_2e. Together with 1.92 tCO_2e from refrigeration and air-conditioning systems, total Scope 1 emissions amounted to 30.09 tCO_2e. In 2025, emissions from the 'Mobile equipment/vehicle fleet' category stood at 24.75 tCO_2e. This means that, for the first time, a figure below the base year of 2022 was achieved in 2025, representing a reduction of around 4 per cent. The electricity consumption of electric vehicles is accounted for under Scope 2.

In the 'Refrigeration and Air-Conditioning Systems' category, e-systems generated emissions of 1.92 tCO_2e in 2024. In 2025, there were no emissions in this category, as no refrigerants were purchased that year.

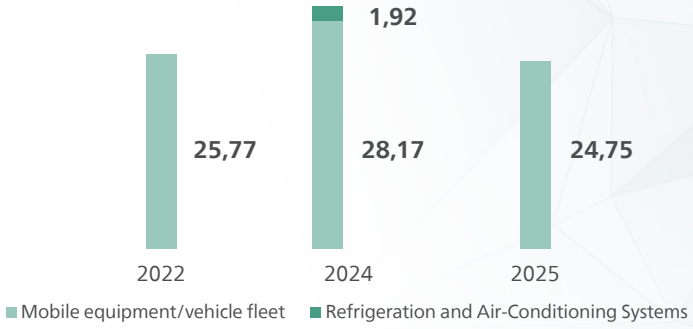

Figure 3: Scope 1 emissions of the e-systems companies in 2022, 2024 und 2025 in tCO_2e.

2.2 SCOPE 2

Electricity/ District Heating

Scope 2 covers indirect greenhouse gas emissions from purchased energy. For e-systems, the procurement of electrical energy (electricity consumption in office buildings and electricity consumption by electric vehicles) and heat are particularly relevant.

Scope 2 emissions are primarily accounted for using the market-based approach in accordance with the GHG Protocol[4 5] . No separate market-based or location-based differentiation is made for district heating, as separate emission factors are not generally available for district heating.

In 2024, the group generated a total of 8.21 tCO_2e. This figure comprises electricity consumption (5.69 tCO_2e) and district heating purchased (2.52 tCO_2e).

In 2025, CO_2 emissions totalled 9.11 tCO_2e. As in the previous year, the emissions resulted from electricity consumption (6.60 tCO_2e) and district heating purchased (2.52 tCO_2e).

Compared with the base year, this represents a sharp increase in both cases and is attributable to the fact that, on each occasion, the group switched to the energy supplier's basic tariff for a short period, resulting in the purchase of electricity with a higher emission factor. Another reason is the exclusive use of hybrid and electric vehicles instead of purely internal combustion engine vehicles as company cars, as well as the increase in business travel, which raises electricity consumption.

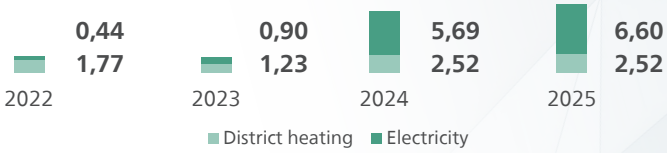

Figure 4: Scope 2 emissions of the e-systems companies in 2022, 2024 und 2025 in tCO_2e.

4) Greenhouse Gas Protocol. (2015). Scope 2 guidance: An amendment to the GHG Protocol corporate standard. World Resources Institute. https://ghgprotocol.org/sites/default/files/2023-03/Scope%202%20Guidance.pdf
5) In addition, a location-based value for electricity is calculated based on the national electricity mix (Germany). This amounts to 10.24 tCO_2e for 2024 and 10.89 tCO_2e for 2025, and serves to ensure comparability within the framework of dual reporting.

2.3 SCOPE 3
Other CO_2 Emissions

To account for further indirect emissions within the value chain, e-systems considers Scope 3 emissions in addition to the previously listed Scopes 1 and 2.

In 2024, the companies within e-systems generated total Scope 3 emissions of 51.41 tCO_2e. This represents a reduction of around 10 per cent compared with the base year.

In 2025, Scope 3 emissions totalled 63.83 tCO_2e. This represents an increase of around 12 per cent compared with the base year.

The individual Scope 3 categories and the changes in their emissions are set out below.

In the **'Purchased Goods and Services'** category, e-systems considers the purchase of coffee and office cleaning services. In 2024, emissions in this category amounted to 4.27 tCO_2e. In 2025, they decreased slightly to 4.13 tCO_2e. The increase compared with the base year in these two years is primarily attributable to the rise in staff numbers, which led to higher utilisation of office space and a corresponding increase in coffee consumption. In addition, the emission factor for office cleaning was taken into account for the first time.

In 2024, the companies affiliated with e-systems emitted 4.95 tCO_2e in the **capital goods** category. In 2025, this figure fell slightly to 3.95 tCO_2e. 2025 thus represents the lowest figure in this category since the base year 2022. The low figures for the two years under review are attributable to the sustainable use of existing, high-quality assets. Accordingly, new purchases were largely limited to essential work equipment such as laptops, office desks, iPhones and iPads, which were required in particular for newly recruited staff. In addition, a massage chair was purchased in 2024 and a dishwasher in 2025. In the **business travel** category, a total of 14.51 tCO_2e was generated in 2024. In 2025, e-systems generated 16.78 tCO_2e as a result of business travel, reaching the highest figure since records began. This confirms the upward trend observed in recent years. This trend stems from the fact that, despite a strict travel policy, the number of business trips is gradually increasing due to rising staff numbers.

In the **'employee commuting'** category, emissions totalling 27.68 tCO_2e were recorded in 2024, rising to 38.96 tCO_2e in the following year, 2025. Overall, no clear trend in total emissions is evident in this category. For transparency, it should be noted that the figures are based on an employee commuting survey. As not all employees participated, the results were extrapolated. The data quality has improved compared with the base year, as a higher percentage of employees took part in the surveys.

2.3 SCOPE 3

Other CO_2 Emissions

Definition of the Scope 3 category
e-systems has defined the boundaries of consideration for the categories outlined above. These are described in more detail below.

Purchased goods and services: The purchase of coffee and office cleaning services is taken into account.

Business travel: All business travel undertaken by employees using company vehicles has already been accounted for in Scope 1 and Scope 2 and is therefore not included here.
Employee commuting: Employees' journeys between their place of residence and the company's workplace were surveyed. Missing results were included as extrapolated figures. Journeys made in company vehicles have already been included in Scope 1 and are therefore not taken into account here.

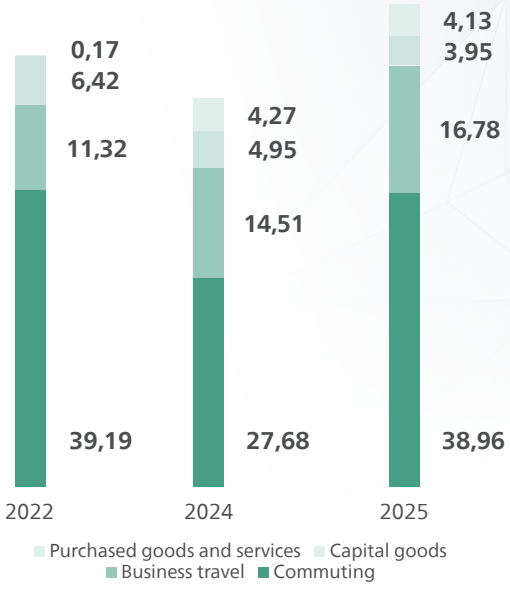

Figure 5: Scope 3 emissions of the e-systems companies in 2022, 2024 und 2025 in tCO_2e.

3. Method of Carbon Footprint Accounting

By compiling an annual CO_2inventory, e-systems documents the greenhouse gas emissions generated by its companies' business activities. The methodology used is based on the guidelines of the Greenhouse Gas Protocol, a standard for the accounting and reporting of greenhouse gas emissions.

3.1 Scope of reporting

In 2024 and 2025, e-systems again decided to set the reporting boundaries for emissions generated for the CO_2inventory at the companies' premises. During these years, take-e-way GmbH, trade-e-bility GmbH, get-e-right GmbH and VERE e.V. were based at the Hamburg-Wandsbek site.

3.2 Emissions taken into account

The Scope 1, Scope 2 and Scope 3 categories listed in Figure 1 were taken into account. Further Scope 1 categories could be excluded in light of e-systems' business activities. When selecting Scope 3 categories, the same categories were used as for previous years, which are no longer considered. These categories continue to be considered as they are highly relevant to the overall emissions inventory and, in some cases, have been identified as having significant potential for reduction measures. The inclusion of further Scope 3 categories will be reviewed again in subsequent years.

Scope 1
Mobile equipment/ vehicle fleet

Scope 2
Electricity/ District heating

Scope 3
Purchased Goods and Services, Capital Goods, Business Travel, Employee Commuting

Figure 6: Categories considered.

3.3 Data quality and uncertainty assessment

Data collection was primarily based on billing and consumption figures. In a few categories, extrapolation and estimates had to be used to obtain a meaningful result. For example, an extrapolation had to be carried out for the Scope 3 category 'employee commuting'.

Furthermore, in the Scope 3 category for capital goods, the number of units was multiplied by the corresponding emission factors to calculate the emission values, thereby enabling emissions to be clearly determined. In the technology sector, an average emission factor was calculated from the emission factors of the electronic devices procured. Manufacturer specifications were used for this purpose.

An uncertainty assessment has been carried out below, based on the individual scopes, by data type and collection method. The categories used here are 'low', 'medium' and 'high', and describe the degree of uncertainty. A low level of uncertainty means that the data quality is high, as it is based on direct measurements (e.g. electricity meters, fuel receipts, invoices, etc.) and/or on specific emission factors published for the years 2024 and 2025. A 'medium' uncertainty rating indicates that the data quality is good, but that in some cases projections or extrapolated data have been used (e.g. in Scope 3 for the commuting survey, or distance extrapolation for business travel) and/or that older emission factors have been used in some instances. A high level of uncertainty is assigned to data that is predominantly based on general assumptions or estimates (for both activity data and emission factors). To quantify the overall assessment, 'high' is assigned a score of 3, 'medium' a score of 2 and 'low' a score of 1.

Based on this assessment, with an average score of 2.3, the overall data quality can be classified as medium to good. While significant improvements have already been made, further progress could be achieved by using more locally specific emission factors and increasing participation in employee surveys.

3. Methode der CO_2-Bilanz

3.4 Verification and validation of the carbon footprint

The methodological approach and the plausibility of the carbon footprint were reviewed and confirmed by TÜV Rheinland Cert GmbH. Furthermore, the greenhouse gas balances for 2024 and 2025 were verified. As part of this process, this report was approved by TÜV Rheinland and also verified with a limited degree of assurance.

In the following cases, where the significance threshold exceeds 5 per cent, a complete recalculation of the base year inventory should be carried out if there is a change in operations and/or in the calculation methodology. This verification supports e-systems in its efforts to improve its accounting and reporting practices, to break down emissions even more precisely, to use up-to-date emission factors, and to continuously advance its climate protection initiatives.

Emissions sources (Scopes 1, 2, 3)	Data type	Accuracy of activity data (High / Medium / Low)	Accuracy of emission factors (High / Medium / Low)	Overall rating	Reasoning &[HP1.1] Cause
Scope 1 – Mobile plant and vehicle fleet	Primary (calculation)	High	High	High	Precise consumption figures available; emission factors available directly from the UBA
Scope 1 – Refrigerants	Primary (calculation)	High	Medium	Medium	Exact consumption figures available; only older R410A refrigerant emission factors
Scope 2 – Electricity consumption (buildings + vehicle fleet)	Primary (invoice)	High	High	High	Exact consumption figures available; emission factors available directly from the UBA / BMZ
Scope 2 – Heat procurement (2024)	Primary (invoice)	High	High	High	Exact consumption figures available; emission factor sourced directly from Hamburg Energie (locally based)
Scope 2 – Heat procurement (2025)	Primary (invoice)	Medium	High	Medium	[HP1.1]Estimated consumption; although emission factors from Hamburg Energie are available, this figure is only an approximation
Scope 3 – Coffee consumption	Primary (invoice)	High	Low	Medium	Exact purchase figures available; only general emission factors available
Scope 3 – Office cleaning	Primary (invoice)	High	Medium	Medium	Exact calculation; only a general emission factor is available that reflects the number of days and labour input
Scope 3 – Capital goods	Primary (calculation)	High	Medium	Medium	Invoices provide exact purchase values; exact emission factors are available from the manufacturer Dell; for desks, massage chairs and dishwashers, only general values are available -> laptops predominate
Scope 3 – Business travel	Secondary (km estimates and average hotel stays)	Medium	Medium	Medium	Estimates of distance values and average emission factors
Scope 3 – Commuting	Secondary (analysis includes extrapolations)	Medium	Medium	Medium	Projection based on non-participating employees; in some cases, average values are used for emission factors (passenger cars)

Figure 7: Uncertainty Analysis

4. Offsetting
and reduction measures

The CO_2balances form the basis for identifying and implementing offset and reduction measures and serve to offset emissions generated by e-systems.

4.1 Offsetting measures

The offsetting measures are carried out by one of e-systems' shareholders, Buhck Umweltservices GmbH & Co. KG. As part of this, CO_2certificates are purchased annually through AQ Green TeC GmbH to ensure full offsetting. Carbonbay GmbH & Co. KG uses the revenue from the CO_2certificates to finance the maintenance and operation of wind turbines in Costa Rica. This project has been awarded the Gold Standard[6] and offsets emissions for the reporting years 2024 and 2025. In the last climate protection report, a residual quota was still available and was utilised to achieve full offsetting. This project supported the development of small hydropower plants in Guacayama, Honduras. As recertification under the Gold Standard did not take place, Buhck Umweltservices GmbH & Co. KG has opted for a new project.

4.2 Promoting regional climate protection

Climate protection should be supported not only globally in other regions of the planet through offsetting measures, but also at a regional level. To date, Buhck Umweltservices GmbH & Co. KG has participated in the restoration of the Herrenmoor in Schleswig-Holstein.[7] As this project came to an end, there was no funding for regional climate protection in 2024 and 2025. During this period, a new project in northern Germany was sought, with the result that, from May 2026, the restoration and promotion of nature conservation in the Schönwolder Moor[8] will begin. This project is not intended as a compensation scheme, but rather as a project with long-term benefits for the region, designed to promote regional climate protection. The benefits of this project include the protection of plant species typical of moors, the conservation and improvement of the habitat of native animal species, and the promotion of peat growth through the stabilisation of the water balance, which contributes to an improvement in the microclimate.

6) The Gold Standard certifies climate protection initiatives that, amongst other things, contribute to the reduction of greenhouse gases. According to the Federal Environment Agency, this standard is an important quality benchmark for climate protection projects
7) The project is run by the Schleswig-Holstein Nature Conservation Foundation (Stiftung Naturschutz Schleswig-Holstein e.V.)
8) This project is supported by EcoTree as the provider and is being developed, approved and monitored by the local nature conservation authority.

4. Offsetting
and reduction measures

4.3 Mitigation measures

Even in the seventh year of data collection and with some experience under its belt, e-systems remains at the beginning of its climate protection journey, although measures have once again been implemented, continued or put on hold for further consideration.

Firstly, measures relating to Scope 1 in the category are presented at under 'Mobile assets/vehicle fleet'. Employees who are entitled to a company car still have the option of choosing between a hybrid or an electric vehicle. In order to further expand the vehicle fleet towards e-mobility, e-systems is continuously assessing the possibility of installing a charging infrastructure in the company's on-site car parks. Due to reliance on third parties, the replacement of vehicles takes place on an ongoing basis. Furthermore, employees have the option of using public transport in combination with taxi journeys and hotel bookings for client visits and business activities. Should this combination not be possible, short-term hire of an electric car is an option. These measures are intended to reduce Scope 1 CO_2 emissions in the long term.

In Scope 2, under the category of electricity procurement and district heating, the use of green electricity at the Wandsbek site was already reported in the first climate protection report. Although there were no savings in this scope compared with the last climate protection report, potential for savings is still being actively pursued. This includes the continued implementation of awareness- as well as the SMART Home system – currently under review – featuring digital thermostats and smart sockets, which was proposed by staff. Furthermore, there is an ongoing trainee project aimed at identifying potential savings, offering helpful tips on resource-efficient practices. These are presented at irregular intervals. This initiative is designed to achieve savings.

Further measures to reduce emissions have also been implemented within the Scope 3 categories. The option to work remotely is still being made extensive use of, which has enabled a further reduction in commuting per employee despite the company's growth and the associated increase in staff numbers. Furthermore, print jobs are subject to continuous evaluation.

Apart from the scopes listed above, promotional materials have been switched to eco-friendly alternatives, and a 'take-and-give' box has been introduced to enable the exchange of personal items, thereby helping to reduce waste. Since 2025, the company has also been supporting an animal shelter in Hamburg that cares for wildlife, amongst other things, thereby expanding its commitment to other areas as well. Furthermore, e-systems' existing environmental management system was successfully re-certified to ISO 14001 during the first half of 2025. This certification represents an important step and milestone in the efforts to systematically consolidate climate protection, as well as environmental and sustainability issues, at e-systems through a certified management system.

Outlook

e-systems is committed to fulfilling its corporate responsibility and thereby upholding its core values of sustainability. For this reason, the slogan 'acting consciously' was established with the first climate protection report. In line with this slogan, the three e-systems companies are actively and continuously pursuing their climate protection strategy, whilst keeping a close eye on the impact of their actions on the climate. At 1.6 °C above pre-industrial levels, 2024 was the warmest year since weather records began in 1881, followed by 2023 and 2025. These extreme figures follow a rising and likely long-term trend in the context of climate change. This reinforces once again the conviction within the group of companies that the commitment to climate protection is playing an increasingly significant role in the business world too, as the consequences of climate change are already becoming ever more visible today.

The fourth climate protection report represents a further important step, alongside the measures already implemented and planned, as well as the ISO 14001 certification obtained in the past, which requires a continuous process. Based on CO_2 accounting and the climate protection reports, e-systems has continued to develop and is making quantitative progress. As already forecast in the 2020/2021 reports, e-systems' CO_2emissions rose slightly again after 2022/2023, and the reduction successes achieved in previous reporting periods did not continue. This is due, on the one hand, to the resumption and steady increase in business travel, but also to the continued growth of the group of companies. As in previous years, e-systems aims to implement at least three different measures per year. However, as a service provider, the scope for action is limited, and the identification of measures and the sustainability strategy must be continuously reassessed. Given the nature of the business, opportunities for further improvements are seen particularly in Scope 3; however, the potential for improvement in this area is also limited, which is why sustainable initiatives – involving the workforce – are being expanded beyond the scopes. With this in mind, and taking into account the potential identified in day-to-day operations, specific measures are to be implemented: the travel policy will be amended to rule out domestic flights within Germany as a matter of principle, in order to make greater use of lower-emission modes of transport such as rail. Furthermore, an assessment will be carried out to determine to what extent e-systems' biannual workshops can be organised in a more sustainable manner. The company is also assessing the use of motion detectors in the office corridors and exploring a smart lighting concept for the open-plan offices, so that it is no longer necessary to keep all the lights on in the rooms [HP18.1] . Furthermore, service innovations are being pursued which aim to support e-systems' customers in their environmental protection efforts and to minimise the associated increasing legal complexity as far as possible.

Responsible for this report:
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On behalf of Sustainability Management

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